

Riverboat SP-C



Assembly Instructions

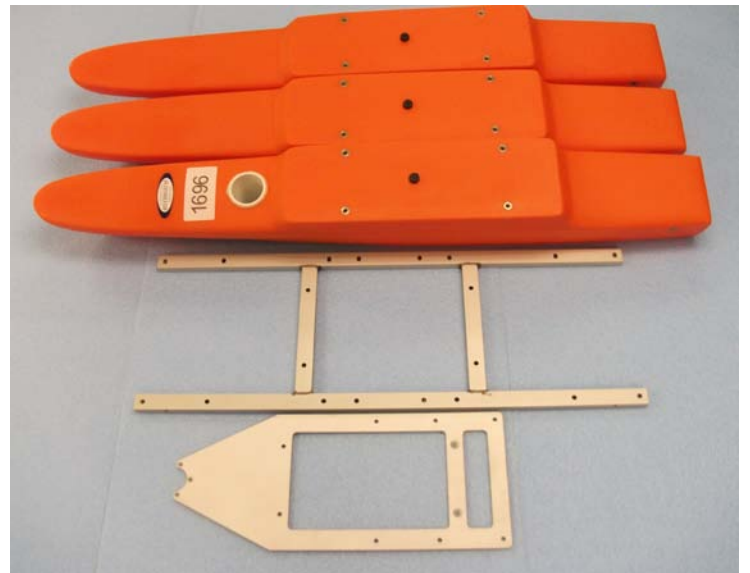
The Riverboat SP-C

The Riverboat SP-C is a rugged corrosion-resistant boat for easy measurement of discharge with acoustic Doppler profilers. Designed especially for the TRDI Streampro with compass, the Riverboat SP-C is light, stable and capable of operation in very high flows.

Getting Started

Please identify the following components before beginning the assembly process.

- (1) Main hull with instrument well
- (2) Outrigger hulls
- (1) Crossbar
- (1) Instrument mounting plate
- (2) Large drag fins
- (1) Wire rope bridle hardware bag
- (1) Riverboat SP assembly hardware bag
- (1) Fin assembly hardware bag
- (1) SP-C instrument clamp hardware bag
- (1) Strap handle hardware bag
- (1) Electronics case hardware bag



1. Transducer Assembly

Required Components:

- (1) Main hull with instrument well
- (1) Crossbar
- (1) Instrument plate
- (1) SP-C instrument clamp hardware bag

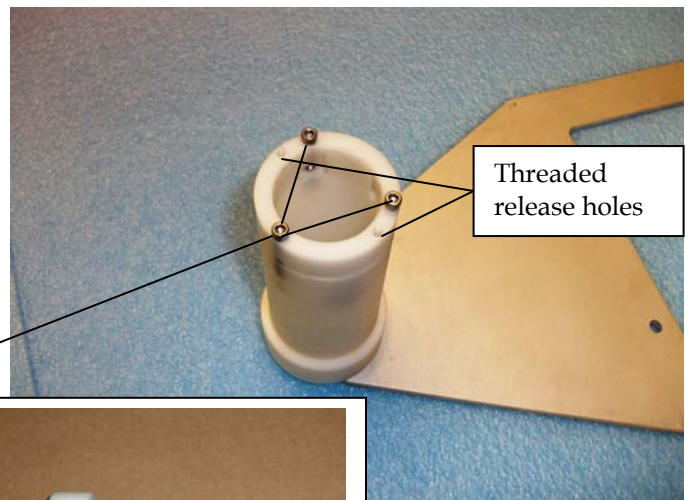
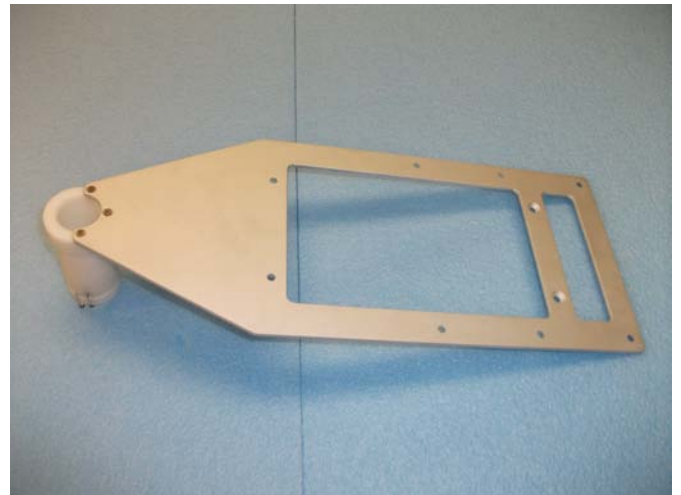
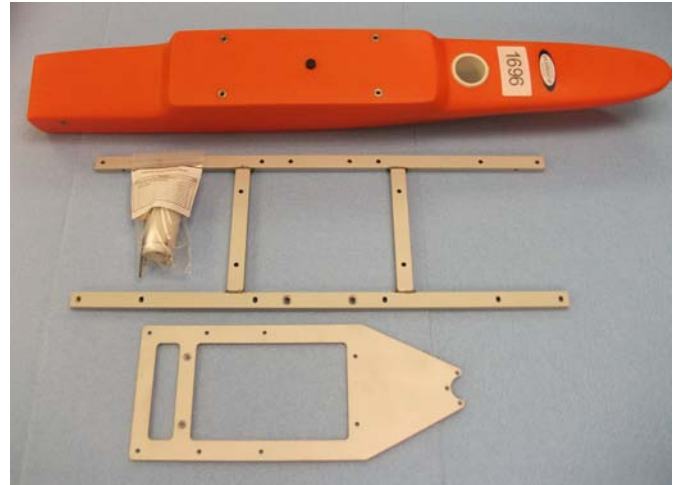
Step 1

Begin by attaching the SP-C instrument clamp assembly to the instrument plate using three 8-32 x 1/2-in. flat head screws provided in the SP-C instrument clamp hardware bag.

Step 2

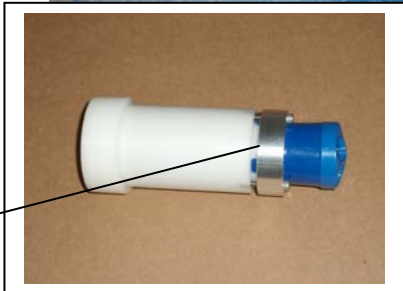
Loosen the three tensioning screws on the instrument clamp assembly using the 7/64-in. hex driver (provided), allowing the transducer to slide in easily.

IMPORTANT: do not over tighten!
This ring needs to be tightened gently by hand until hand snug.



Tensioning screws

Gap is expected



Step 3

Attach the crossbar and instrument plate to the main hull using the $\frac{1}{4}$ -20 x 1-in. button head screws and flat washers in the front two holes and the $\frac{1}{4}$ -20 x 1-in. flat head screws in rear.

Step 4

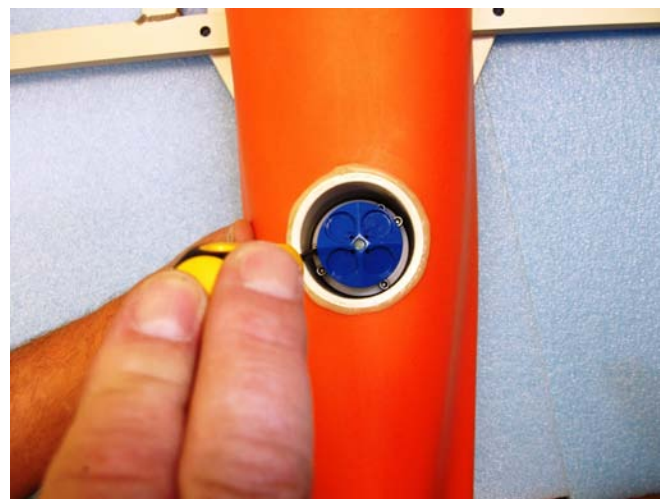
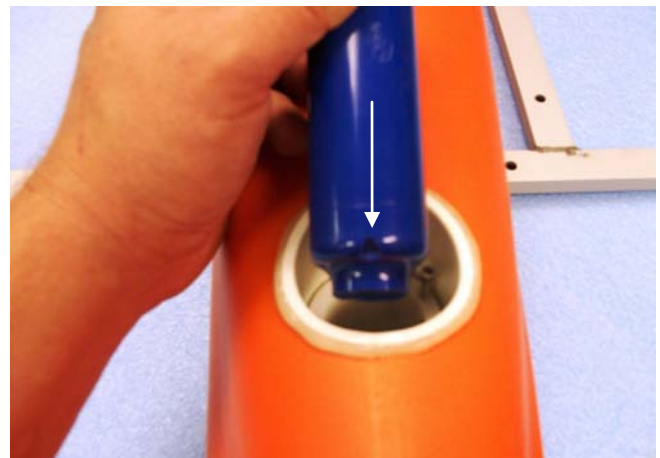
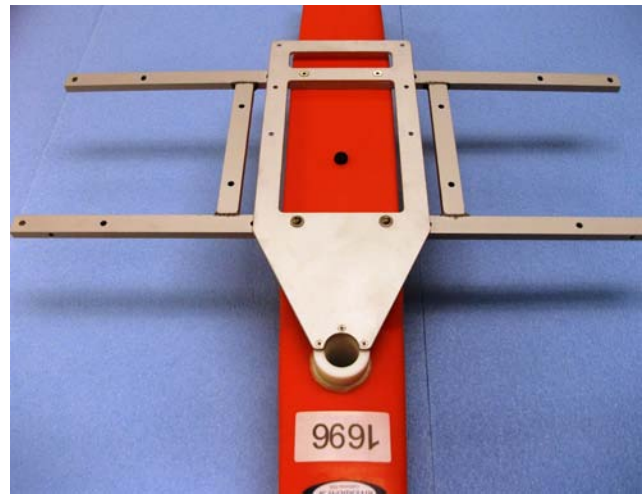
Turn the main hull assembly upside down. Align the arrow on the transducer facing toward the bow of the Riverboat. Then slide the transducer into the instrument clamp assembly. Be sure to align the groove on the transducer with the key inside the instrument clamp.

Step 5

Adjust the transducer to the desired height and tighten the three tensioning screws. The transducer is now locked in position.

Step 6

To remove the transducer, loosen the three tensioning screws, then thread the extra 6-32 x 1-in. screws into the threaded release holes, tightening them evenly until the clamp releases the transducer.



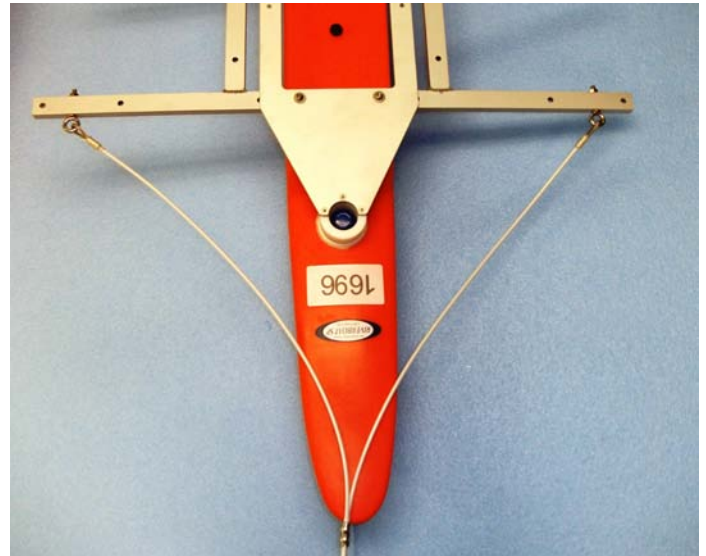
2. Wire Rope Bridle, Outrigger, and Strap Handle Assembly

Required Components:

- (2) Outrigger hulls
- (1) Wire rope bridle hardware bag
- (1) Riverboat SP hardware Bag
- (1) Strap handle bag

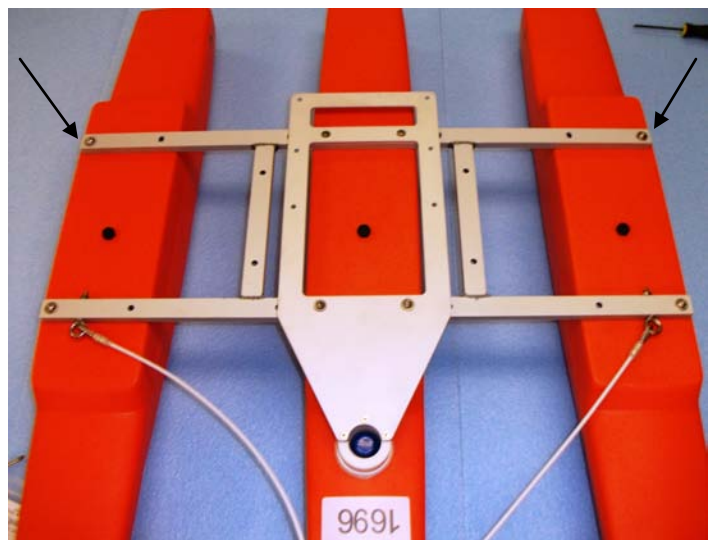
Step 1

Install the wire rope bridle as shown being sure to align the eye nuts horizontally.



Step 2

Install the outriggers by attaching the crossbar at the four outermost threaded inserts using the 1/4-20 x 1-in. button head screws and flat washers provided in the Riverboat SP hardware bag.



Step 3

Place a fender washer (Strap Handle Bag) over the inside Outrigger mounting holes.



Step 4

Place the strap handles over the fender washers and attach them with the 1 1/4 -in. x 1/4-20 button head screws and flat washers provided in the strap handle hardware bag.



3.

Drag Fin Assembly

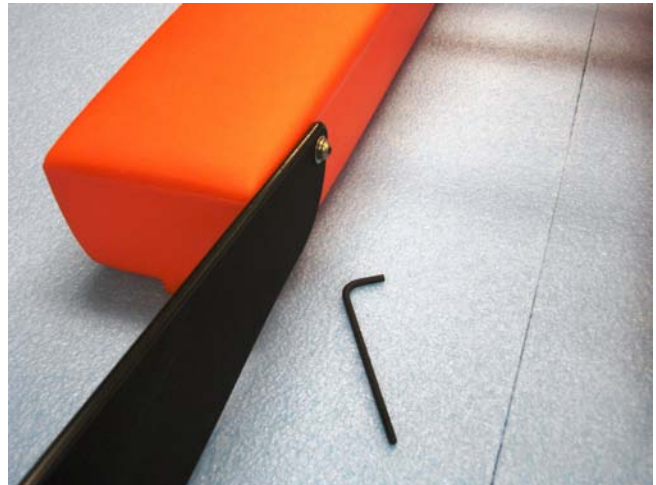
Required Components:

- (2) Drag Fins
- (1) Fin assembly hardware bag



Step 1

Attach the drag fins to the outriggers at the inner threaded inserts using the $\frac{1}{4}$ -20 x $\frac{3}{4}$ - in. patch screws, flat, and lock washers. The fins can rotate from storage to deployment position. Ensure the patch screws are snug before deploying the boat.



Instrument Electronics Case

Install the electronics case as far aft as possible on the instrument mounting plate using the hardware provided in the electronics case hardware bag.

Note: Please ensure all hardware is tightened properly before deployment.

