

# **LISST-200X**

# **Full Path Flow**

# **Through Chamber**

**User's Manual**

**Version 1.0**

(May 2017)



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## **Table of Contents**

1. Overview of LISST-200X Full Path Flow Through Chamber.....	2
2. Installing the Full Path Flow Through Chamber .....	2
3. Removing the Full Path Flow Through Chamber .....	4
4. Maintaining the LISST-200X Path Reduction Module .....	5

### **Technical assistance**

For technical assistance please contact your local Distributor or Sequoia.

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Full Path Flow Through Chamber for LISST-200X

# 1. Overview of LISST-200X Full Path Flow Through Chamber

The LISST-200X has been designed to make measurements of particle size and concentration while submerged into the water. However, it is often desirable to be able to use the same submersible instrument in the laboratory or as part of a continuous flow-through system on a ship. We developed the Full Path Flow Through Chamber for the LISST-200X to allow the submersible instrument to be used in a flow through system.



The Full Path Flow Through Chamber seals on the optics end of the LISST-200X and allow water to be pumped through the chamber while particle size and concentration measurements are made.


The following sections include detailed instructions for installing, uninstalling and maintaining the Full Path Flow Through Chamber for the LISST-200X.

# 2. Installing the Full Path Flow Through Chamber

The step-by-step instructions below will show how to install the Full Path Flow Through Chamber.

STEP	ACTION	RESULT
1	<ul style="list-style-type: none"><li>• Locate all the components of the LISST-200X Full Path Flow Through Chamber as shown below.</li><li>• The parts include two clear acrylic Flow Through Caps, two black Flow Through Inlets with 1/2" NPT barbed fittings for 1/2" ID tubing, and 4 thumb screws. The 2-126 O-rings for the Flow Through Cap and the 2-119 O-rings for the Flow Through Inlets may already be installed.</li></ul> 	Flow Through Chamber ready to be installed.

2	<ul style="list-style-type: none"> <li>• Install the O-rings onto the all parts and lightly grease the O-rings.</li> <li>• Only a very small amount of grease is needed.</li> </ul>	
3	<ul style="list-style-type: none"> <li>• Install the Flow Thru Caps.</li> <li>• Use caution when installing the Caps to prevent the O-ring from popping out of the groove.</li> <li>• It is beneficial to insert them at an angle with the long side inserted first and pivoting the part into place.</li> </ul> 	Both Flow Through Caps installed.
4	<ul style="list-style-type: none"> <li>• Install the Flow Through Inlets.</li> <li>• As with the Caps, install the Inlets at an angle to prevent the O-rings from popping out of the O-ring grooves.</li> </ul> 	Both Flow Through Inlets installed.

5	<ul style="list-style-type: none"> <li>• Screw on the four 6-32 x 5/8 captive screws. Finger tight is all that is required.</li> <li>• Connect a ½” tube from the source one of the barb fittings. Orient this barb fitting on the bottom.</li> <li>• Connect a ½” tube from the top barb fitting to a drain.</li> </ul> 	Flow Through Chamber is fully installed and ready for use.
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### 3. Removing the Full Path Flow Through Chamber

The procedures shown below describes the recommend method for removing and maintaining the Full Path Flow Through Chamber for the LISST-200X.

STEP	ACTION	RESULT
1	<ul style="list-style-type: none"> <li>• Remove four screws.</li> <li>• Pull out Flow Through Inlets using the outside edge. Do not pull on the fitting or tubing.</li> </ul>	Flow Through Inlets removed.
2	<ul style="list-style-type: none"> <li>• Remove the Flow Through Caps</li> <li>• If needed push from the inside through the square openings where the Inlets were.</li> <li>• Do not use tools to pry the Caps out</li> </ul>	Flow Through Caps removed.
3	<ul style="list-style-type: none"> <li>• After removing the Chamber parts, clean and reassemble them into one piece for storage.</li> <li>• Clean LISST-200X windows and optics end as needed before storage</li> </ul>	Flow Through Chamber ready for storage

## **4. Maintaining the Full Path Flow Through Chamber**

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Usually a simple cleaning of the Full Path Flow Through Chamber is all that is necessary to maintain it in optimum working condition. Cleaning should be done with mild dish soap. Do not use solvents such as Acetone that could damage the plastic parts.

It may be necessary to replace the O-rings or screws if they are lost or damaged. Below is some technical information that may be useful. Spare O-rings are provided with the chamber. If desired alternate tube fittings may be used.

O-ring size for Flow Through Inlets: 2-119

O-ring size for Flow Through Caps: 2-126

Thread for barb fittings: ½" NPT

Screws: #6-32 by 5/8" long