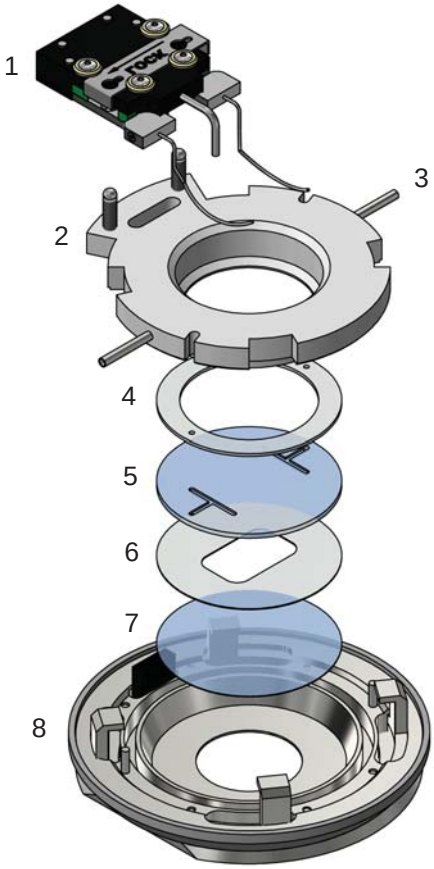
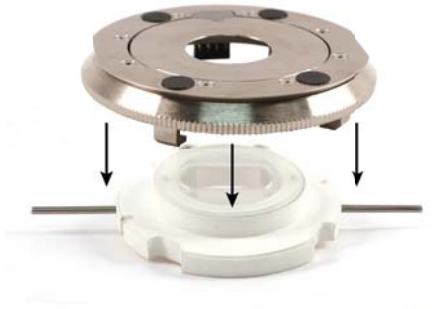
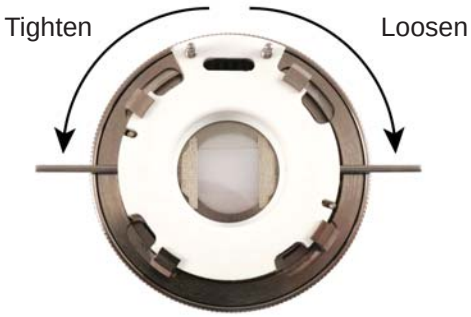
FCS2 Chamber Assembly Instructions



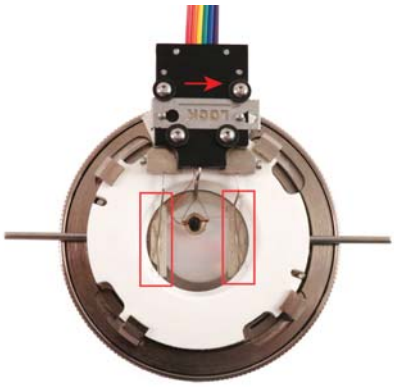
Top Upside Down,
Stack Optical Components



Lower Base onto Stack



Hold Top Firmly Against Base,
Rotate Knurled Ring



Attach Electrical Connector
Check Contacts on Bus Bars

Loading the Chamber

1. Attach perfusion tubing to the inlet and outlet ports of the white top (#3). Bioptechs recommends 1/16” ID Tygon or Pharmed tubing.
2. Turn the white top of the chamber upside down. Place the upper gasket (.75mm thick with holes) (#3) into the recess while aligning the perfusion clearance holes with the perfusion tubes.
3. Place the microaqueduct slide (#5) on the upper gasket so that it is aligned with perfusion tubes with grooves face up.
4. Place the lower gasket (#6) onto the microaqueduct slide and press around the perimeter to create a seal.
5. Perfuse some media through the perfusion port producing a bead on the surface of the slide to displace air trapped in the line.
6. Lower the coverslip (#7) with cells face down onto the bead until the coverslip is resting on the gasket.
7. Place the FCS2 Base (#8) on top of this stack while aligning the black electrical connector with the oval slot on the chambers white top. Maintain a gentle pressure while turning the chamber over so that it is right side up so you can watch the four paws engage around the white top perimeter. Turn the knurled ring counter clockwise until tight.
8. Place the black electrical connector (#1) over top of the posts on the white top (#2). Slide the lock mechanism to engage the electrical connector to the base and white top.
9. Check that the microaqueduct silver electrical contact pads are touching the electrical wires of the connector, and the temperature sensors is flat onto the microaqueduct slide to provide feedback to the controller.
10. Plug the 6 pin mini-din into the FCS2/3 controller.
11. If air bubbles are present in the chamber, hold waste side of chamber at 45 degree angle up in the air and purge air from chamber.
12. The chamber can now be mounted into the stage adapter to be mounted onto the microscope for observation.

Cleaning:

Laboratory soap and water can be used for general cleaning of the white top, microaqueduct slides, gaskets and coverslips. For sterility the white top, microaqueduct slide, gaskets and coverslips can be autoclaved on a short cycle (15 minutes @ 121 C). Suggested to flush clean the white top tubes before autoclaving. The chamber base is chrome and contains grease on the threads, submersion into liquids or autoclaving should be avoided. If spilliage occurs inside chamber base fully disassemble to clean and reassemble. The base can be sterilized by an alcohol wipe, UV or Ethylene Oxide sterilization. Alcohol or other harsh chemical contact to the silicone gaskets should be avoided as degredation will occur.

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