Job Aid

BD FACSMelody™ Cell Sorter Performing a Long-Term Shutdown and Extended Fluidics Startup

This job aid contains instructions for performing a long-term shutdown and extended fluidics startup (page 2) using BD FACSChorus™ Software. Perform these procedures when you are shutting down the system for more than 2 days and after you resume use.

Before you begin a long-term shutdown

You will need the following items:

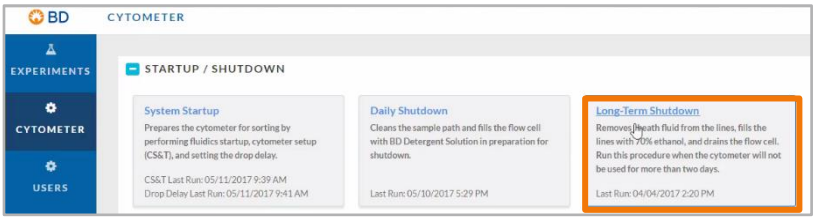
- 3 mL of deionized (DI) water
- At least 2.5 L of 70% ethanol
- A fluid filter dedicated for use with ethanol only
- Enough 1X phosphate buffered saline (PBS) to fill the sheath tank to the weld line

Prepare the tanks

1. Empty both the sheath and waste tank.

2. Add at least 2.5 L of 70% ethanol to the sheath tank (or to an extra BD FACSMelody System-specific tank, if purchased).

   Note: Do not use tanks from a different cytometer model.



Long-term shutdown

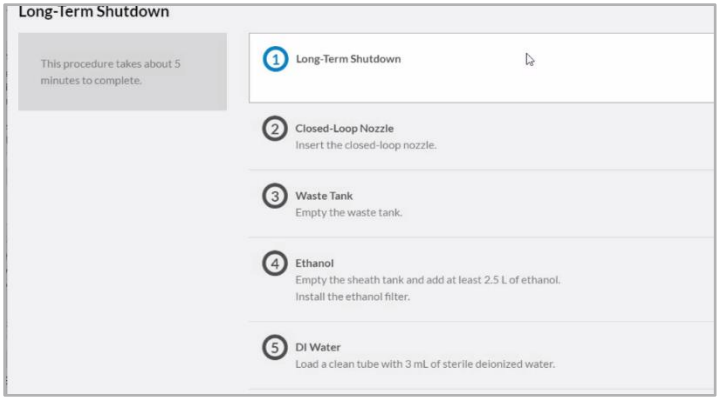
1. On the Cytometer page, select Long-Term Shutdown.

2. Complete the steps in the wizard. This takes approximately 5 minutes to complete.

3. Power off the system and computer.

4. Wipe the sort block area with DI water and a lint-free tissue to avoid any salt buildup during storage.

   Note: Be sure to perform the extended fluidics startup on the next page when you resume using the system.



Extended fluidics startup

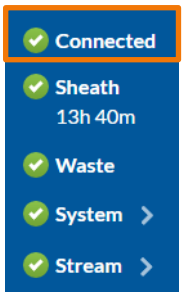
Before you begin

Ensure that the air supply or compressor is turned on and between 80 and 90 psi.

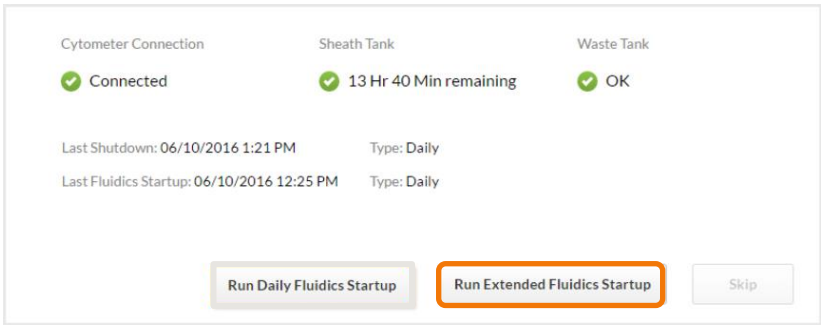
You will need the following items:

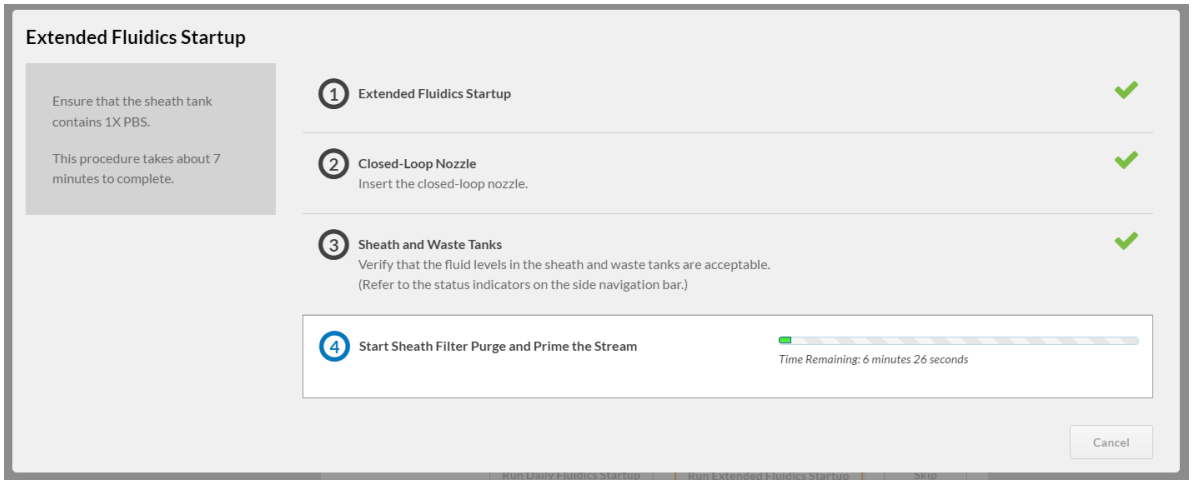
- A filter dedicated for use with sheath fluid only. For more information, see Preparing new fluid filters in the *BD FACSMelody User's Guide* or the video Changing the Fluidic filter.
- Enough 1X PBS to fill the sheath tank to the weld line
- At least 15 mL of sterile DI water for rinsing
- A sonicator to clean the nozzle

1. Empty the sheath tank of any remaining ethanol and rinse thoroughly. Fill the sheath tank with 1X PBS to the weld line and reconnect the dedicated sheath filter to the sheath tank.
2. Turn on the sorter, then the computer. Start BD FACSChorus Software and log in. Wait for the connection status to display green.



3. In the opening screen, select Run Extended Fluidics Startup and complete the steps in the wizard.
Note: Ensure that the sheath filter is designated for sheath fluid only.





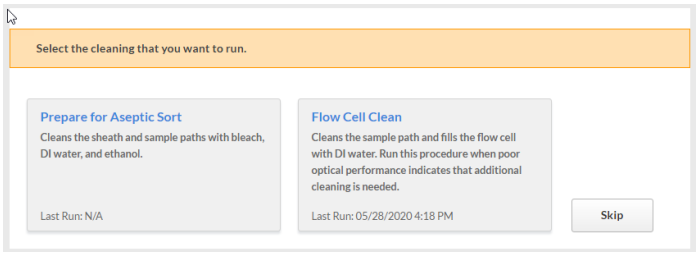
4. When all the tasks are complete, click Close and then Continue to view the cleaning options.

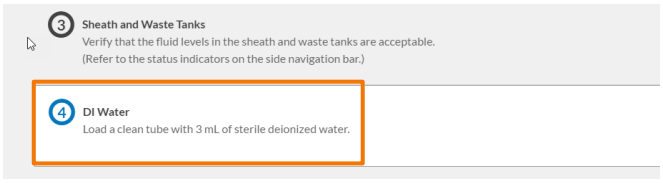
Extended fluidics startup (continued)

5. Click Flow Cell Clean.

   - Follow steps 1–3 and then stop.
   - Since the sorter has been idle for an extended time, at step #4, use 3 mL of BD® 1.5% Detergent in place of DI water to scrub the flow cell.
   - Repeat Flow Cell Clean with an empty tube. This will create bubbles that scrub the inside of the sample path and flow cell.
   - Repeat Flow Cell Clean three additional times with sterile DI water to rinse the detergent thoroughly from the flow cell.

   See Cleaning with BD Detergent Solution in the *BD FACSMelody User's Guide* or view the Cleaning the Flow Cell video for more information.

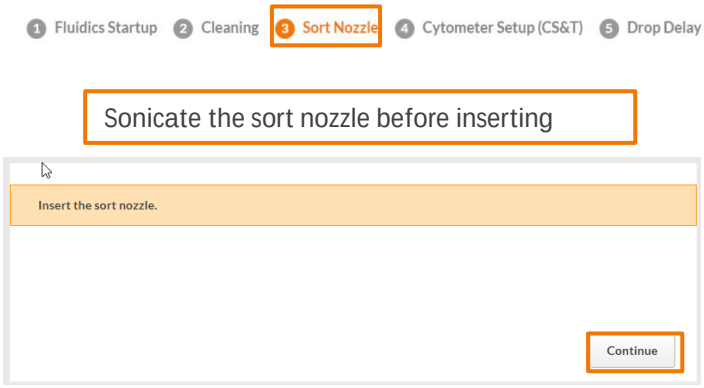




6. Sonicate the sort nozzle before inserting.
   See the Maintenance chapter in the *BD FACSMelody User's Guide* or view Cleaning the Nozzles video for more information.

7. Once sonication is complete, and the sort nozzle is dry, resume with reinserting the nozzle into the flow cell and click Continue.

8. Complete Cytometer Setup (CS&T) and Drop Delay.



Troubleshooting

See the table below for common problems encountered when restarting your system after long-term storage. This is not an exhaustive list. See the Troubleshooting chapter in the *BD FACSMelody User's Guide* for a complete list.

Observation	Possible cause	Recommended solutions
Error starting the stream	• Residual ethanol in fluidic lines	Repeat extended fluidics startup.
	• Dirty flow cell • Ethanol or other cleaning solution in the flow cell	Repeat scrubbing the flow cell, (page 3, step 5). For more information, see Cleaning the flow cell in the user's guide or view the video.
	• Clogged nozzle	Repeat sonicating the nozzle. See Cleaning the sort nozzle in the *BD FACSMelody User's Guide* or view the video for more information. Change the nozzle. See the Maintenance chapter in the *BD FACSMelody User's Guide.*
	• Salt buildup in the nozzle location and sort block • Buildup on deflection plates	Clean the area with DI water and a lint-free tissue. Clean the deflection plates. See Cleaning the deflection plates in the user's guide or view the video.
	• Dry sheath filter • Old sheath filter	Purge the sheath filter. See Purging the sheath filter in the user's guide. Replace the sheath filter. See Changing the fluid filter in the user's guide or view the video.
No events in plots or events don't update in plots	• Sample line clogged	Repeat scrubbing the flow cell, (page 3, step 5). For more information, see Cleaning the flow cell in the user's guide or view the video. If the fluid level in the sample tube is not decreasing, massage the sample line. See Clearing a sample line blockage in the user's guide. Backflush the sample line.
Problems with Cytometer Setup function	• Baseline or performance check failed or stopped before completing • Beads not on scale • Low or zero event rate	See Startup troubleshooting section in the user's guide for a list of recommended solutions.
Problems with Drop Delay function	• Sort block door is not closed • Flow cell access door is open • Even rate is too low or too high • Debris on lower camera or Accudrop window	See the Startup troubleshooting section in the user's guide for a list of recommended solutions.

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