

BD FACS Canto II Flow Cytometer

Quick User Guide v.1.1.0

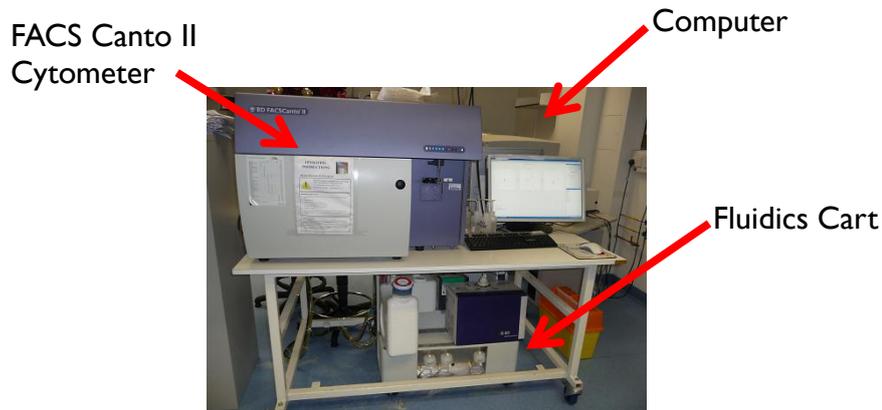
Blizard Institute Flow Cytometry Core Facility

**PLEASE REFER TO THIS GUIDE FOR
ANY OUT OF HOURS PROBLEMS**

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I.1 FACS Canto II Start Up Procedure



1. Turn on the Canto II at the Power Button (red circle and right in detail).



2. Turn on the computer which is slightly behind the LCD screen to the right of the instrument.
3. On prompt, type “**BDIS**” into password section (NB Case sensitive) and press “**Return**”.
4. After allowing the computer to boot up, double click the BD FACSDiva Software icon.



5. You will then see a log in option. Find your centre in the User Name box and again type “**BDIS**” in upper case to log in.

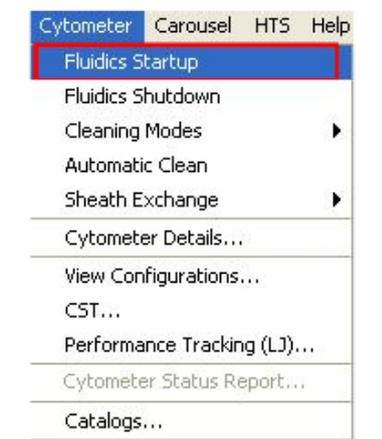


6. Wait while the machine connects with the computer. You should see this message when the cytometer is connected:



7. Check that the FACSFlow Cubitainer has sufficient sheath fluid in it and that the Waste Container is not full on the Fluidics Cart (see **Section 1.3. Infrequently Encountered Problems**).

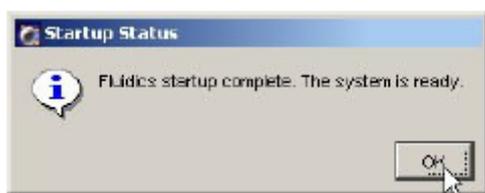
8. From the drop down menu under **CYTOMETER**, select the “**Fluidics Startup**” option.



9. When prompted, press “**OK**”.



10. The Fluidics Startup takes 5-7 minutes. Press “**OK**” when prompted at the end.



11. It is advisable to run a series of 3 cleans of 5 minutes each before starting. The tubes are in the rack at the side of the FACS Canto and run them in the order of Bleach, FACS Rinse and Deionised water. Top up the tubes from the wash bottles if required.

12. Allow the cytometer lasers to get up to power. It is recommended that you allow 30 minutes for this. Cancel any warning notices regarding laser low power. If they persist then reboot the system (see **Section 1.3. Infrequently Encountered Problems**).

13. When you are finished and if you are not the last booked user for the day, log out of your centre folder by selecting **File > Log Out**. The screen should look like this ready for the next user.

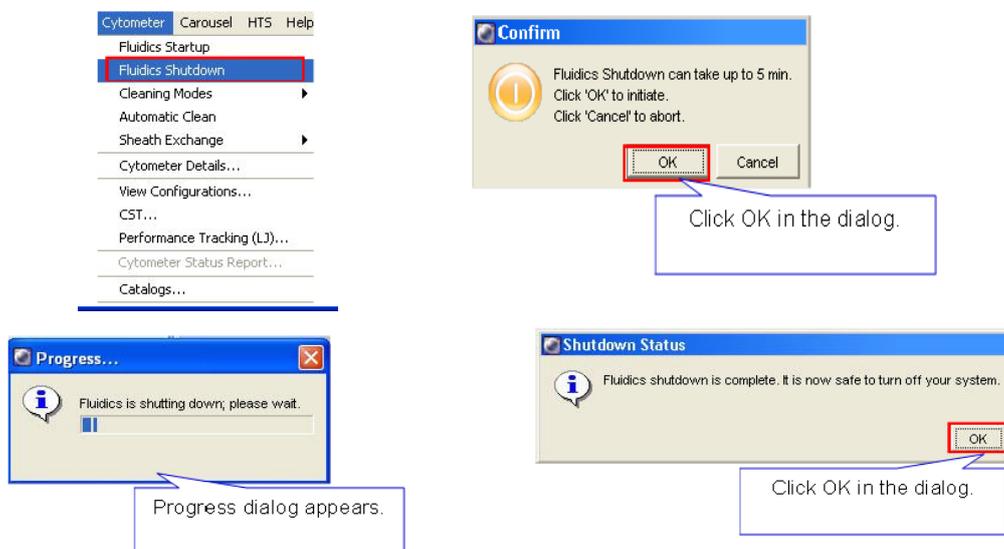


NB PLEASE DO NOT QUIT THE FACS DIVA SOFTWARE AS THIS MAY CAUSE CONNECTIVITY PROBLEMS FOR THE NEXT USER.

14. If you are the last user for the day, please perform the machine shut down procedure as laid out in section 1.2.

I.2 FACS Canto II Shut Down Procedure

1. From the drop down menu under **CYTOMETER**, select the “**Fluidics Shutdown**” option. Press “**OK**” when prompted. This should take about 5 minutes.



PLEASE DO NOT WALK OFF AND LEAVE THE INSTRUMENT ON.

2. When finished PRESS “**OK**” when prompted, quit the FACSDiva software and turn off the instrument. Shut down the computer.

1.3 Infrequently Encountered Problems

Problem: Machine does not connect on switching on and booting up.

OR Persistent laser low power warnings.

Solution: Reboot the system.

1. Exit FACSDiva software and shut down the computer.

2. Turn off instrument.

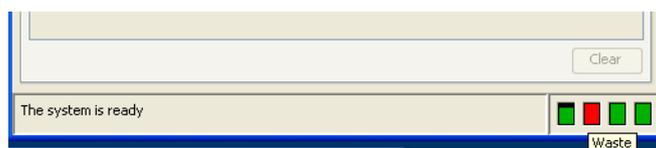
3. Restart the instrument and reboot the computer.

4. Repeat Start Up procedure.

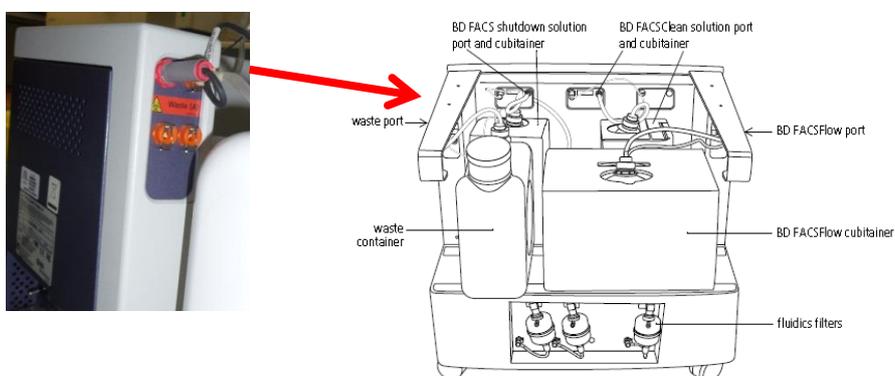
Problem: Waste container is full.

Solution: Replace waste container.

1. Replace the waste container if indicator is on (see below).



2. Disconnect the 'quick connect' tube and **orange** coaxial sensor cable from the Waste Port on the left hand of the Fluidics Cart (see below). Place the full container beside the fluidics cart.



3. Swap over the waste level sensor from the full container with the rear lid of the empty one. Likewise swap over the filter lids.



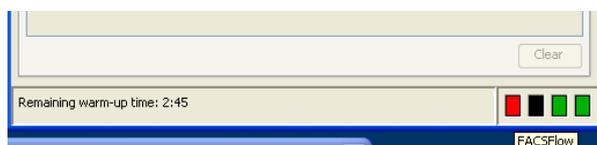
4. Place empty waste container on the Fluidics Cart and reconnect the 'quick connect' tube and **orange** coaxial cable to the Waste Port.
5. Leave the full waste container for disposal by the Core Facility staff.
6. Ensure the Waste Indicator is now blank before proceeding.

NB Clear any warning messages from the status window.

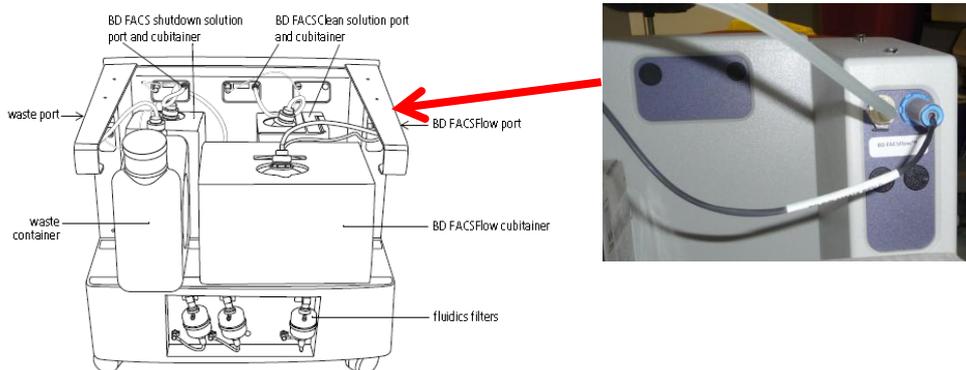
Problem: FACSFlow container is empty

Solution: Replace FACSFlow Cubitainer.

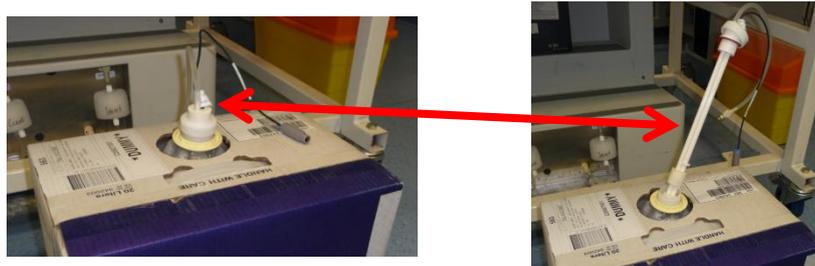
1. Replace the FACSFlow cubitainer with a full one when the FACSFlow indicator shows empty as below:



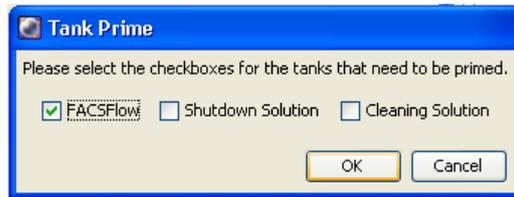
2. Disconnect the 'quick connect' and **blue** coaxial sensor cable (see right) from the BD FACSFlow Port on the right hand of the Fluidics Cart (see below).



3. Move a new full sheath box (Cubitainer) from under the FlowJo computer bench to the Fluidics Cart – **take care when lifting full Cubitainers as they are heavy - approximately 20 kg.**
4. Remove the sealed screw top from the new sheath box and **CAREFULLY** unscrew and remove the level sensor and screw it into the new full Cubitainer (below).



5. **CAREFULLY** lift the full Cubitainer back onto the Fluidics Cart and reconnect the 'quick connect' and **blue** coaxial sensor cable.
6. Select **Cytometer > Cleaning Modes > Prime after Tank Refill**.
7. Check that the FACSFlow indicator is showing green, Click OK.



NB Clear any warning messages from Status Window.