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General note

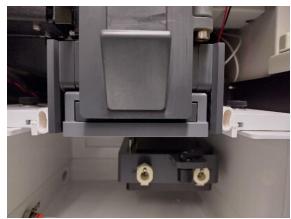
Plate sorts are not part of the basic sorter training curriculum. If you are running plate sorts for the first time, please do not hesitate to contact facility staff for advice.

Prepare the sorter for a plate sort.

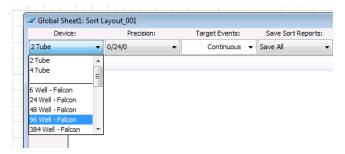
It is recommended to set up the instrument for the plate sorts after the drop-delay calibration.

Remove the collection tube holder and insert the ACDU adapter. Ensure that the droplet hole is on the left side of the adapter, as shown in the pictures.

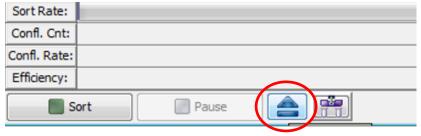




> Select the correct well plate format in the Sort Layout.



> The ACDU can be ejected/loaded by the blue arrow within the Sort Layout.

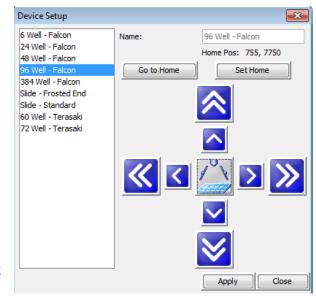


Move the ACDU in the loading position and place your plate with the lid on top and the A1 well in the upfront-left position. This will later enable plate calibration and verification of the sorting accuracy. Ensure the plate is not tilted and secured by the spring-loaded lever.

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Aim the side stream on the well center.

- ➤ Select "Sort" → "Home Device" in the menu.
- Click on the well format you have loaded and double check that the same format is chosen as in the Sort Layout.
- ➤ Press "Go to Home". The ACDU will move the plate in the sort-position for the first well (A1).
- Move the outer left side stream to the inner left position as labeled on the side stream card.
- > Turn on the deflection plate voltage. The button in the center of the arrow keys will switch from greyscale to color indicating its activation.
- Clicking the activated button will release droplets until the button is clicked for a second time. A quick double-click is sufficient for the aiming purpose.

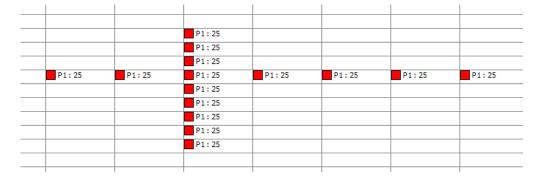


- Check if the drop is positioned in the center of the A1 well. If not, adjust the aiming using the arrow buttons.
- ➤ Once the drop is well positioned, press "Set Home" and "Apply". The current position is now saved as the new "Home" position.

Run a test sort.

For 384-well plates, it is advisable to check the accuracy with a test sort on the lid.

- > Place the plate on the ACDU. Often those plates do not have a lid, but you can put a piece of parafilm instead.
- ➤ Load FACS-Clean and draw a sorting gate for the detected events. It is not necessary to check for every well but rather use a pattern that covers the complete dimension of the plate and can be quickly executed. (for example, see Sort Layout below). A sorting of 25 events per well results in a small drop that can be well examined.
- ➤ Check the accuracy of the droplets on the plate. If the drop position is not satisfying repeat the aiming procedure from above.



Temperature control of the ACDU.

The ACDU can be connected to the sorters water bath like for the regular collection devices.