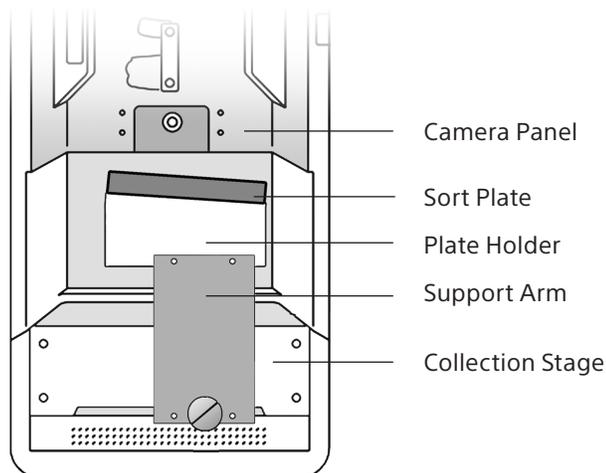# MA900 Plate Sort Guide

- Follow the *MA900 Tube Sort Guide* to create a new experiment and gate on sort populations.
- For single-cell sorting, gate to exclude doublets and use Single-cell sort mode.
- If needed, pre-chill any plate holders/adaptors prior to use, and turn on sample chamber cooling.
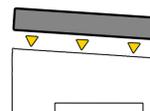
Hardware Setup

Camera Panel

Sort Plate

Plate Holder
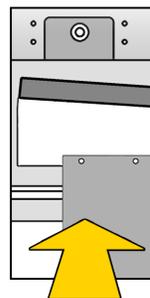
Support Arm

Collection Stage

Best practice: Ensure the plate is completely seated in the Holder. Wipe the plate lid with 70% ETOH. If the plate lid is loose, set it in the same position for every plate alignment test.

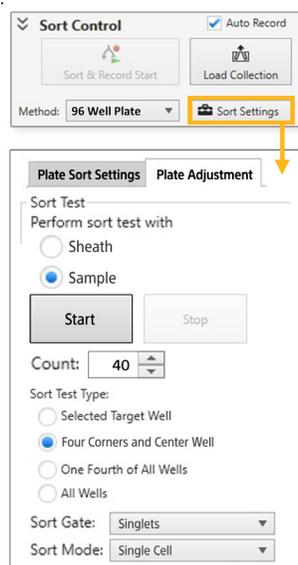1. Mount the Support Arm onto the Collection Stage.

2. Mount the Sort Plate (with lid) onto the Plate Holder.
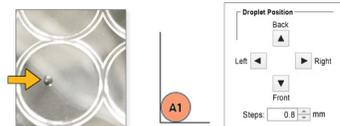3. Mount the Plate Holder onto the Support Arm.

4. Gently push the Collection Stage inward to check the clearance under the Camera Panel.
5. Close the door.

Plate Alignment

1. Load and preview your sample, then click **Pause** and create plots and gates.
2. In the **Sort Control** panel, set Method to a plate format and open the **Sort Settings** toolbox.
3. In the **Plate Adjustment** tab, select the desired test settings.
4. Click **Start** to do the sort test.
5. Once test sort completes, **Pause** the sample and **Unload**.
6. Remove the Plate Holder from the chamber to visually inspect the puddles on the lid.
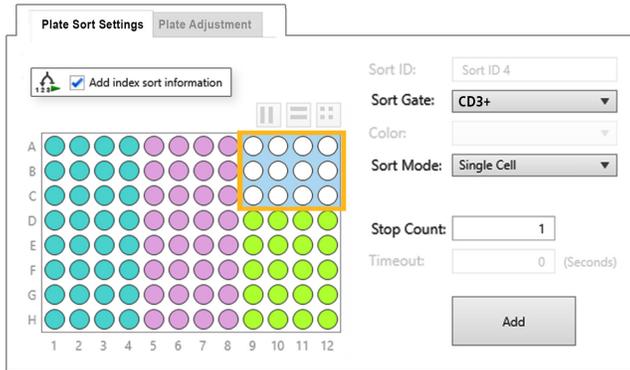

7. Click each corner's Target Well and adjust the droplet puddle position to the well's center.
8. Wipe away the puddles and repeat the sort test.

Best practice: See the SH800 and MA900 Sorting Modes Guide to select the mode for your application. Adjust and set plate coordinates using the sort sample and the sort mode that will be used for the sorting experiment. For rare targets, align with a similar sample or a higher % gate. For 384-well plates, align from the Plate Sort Settings tab with 4 wells per each corner.
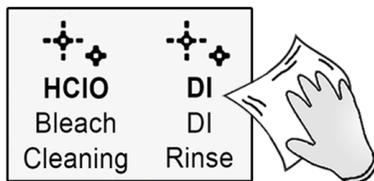
SONY

Sony Biotechnology Inc.

MA900 Plate Sort Guide
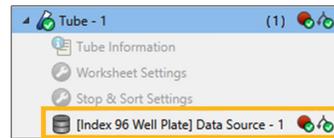
MA900 Plate Sort Guide

Plate Sorting

1. Remove the plate lid and close the door.
2. For each sort population: highlight the desired wells, select the **Sort Gate** and **Sort Mode** used for alignment, and enter the **Stop Count** (cells/well).

   Best practice: Sort the most frequent population first. If needed, select the Index Data Saving checkbox.
3. Click **Add**. When ready, click **Close**.
4. **Resume** and **Restart** the sample to check gating and droplet breakoff.

   Best practice: Unless the target is rare, adjust the event rate to <500 eps to preserve sample.
5. Click **Index Sort & Record Start**. Once complete, click **Finish** to end sample sorting, or click **Continue** to do another plate.

Finish

Clean for the next user, or shut down the MA900.

Index Analysis (optional)

1. Double-click the data source.
2. Click **Analyze Index Data**, or export plate data as a CSV file.

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The MA900 cell sorter is classified as a Class 1 laser product.
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