SpectraDrop Micro-Volume Microplate Quick Start Guide

Introduction

The SpectraDrop Microplate (formerly µMax) uses sample slides that can be reused or replaced to enable micro-volume measurements in compatible Molecular Devices® microplate readers.

The contents of the SpectraDrop Microplate kit depend on kit type.

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SpectraDrop Starter Kit</td>
<td>Contains one microplate adapter, two 24-well micro-volume bottom slides, and one of each cover slide (2µL and 4µL)</td>
</tr>
<tr>
<td>SpectraDrop High Throughput Screening (HTS) Kit</td>
<td>Contains one microplate adapter, five 24-well micro-volume bottom slides, five 64-well micro-volume bottom slides, and five of each cover slide (2µL and 4µL)</td>
</tr>
</tbody>
</table>

This guide gives basic procedures to help you prepare and use the SpectraDrop Microplate.

Preparing a SpectraDrop Microplate for a Measurement

For any measurement, the SpectraDrop Microplate uses the microplate adapter, a micro-volume slide, and a cover slide (Figure 1-1).

![Figure 1-1 Required SpectraDrop Microplate parts](image)

Cover slide

Micro-volume sample slide

SpectraDrop microplate adapter
To prepare a SpectraDrop Microplate for a measurement:

1. Insert a clean micro-volume slide into the slide seat of the plate adapter, matching the chamfered corners of the slide and the A1 corner of the plate adapter (Figure 1-2).

   ![Chamfered corners](Image)

   **Note:** The micro-volume slide sits flat in the adapter when inserted properly.

2. Pipette your sample solution onto the micro-volume slide in the marked well positions. The pipette volume corresponds to the cover slide.
   - Use 2 µl solution volume with the clear colored 0.5 mm path length cover slide.
   - Use 4 µl solution volume with the blue colored 1.0 mm path length cover slide.

3. Place a cover slide on top of the micro-volume slide with the path length strips facing down (0.5 mm or 1.0 mm path length).

4. Place the plate adapter into the open microplate drawer of your microplate reader with the chamfered corner in the A1 position.

5. Close the microplate drawer of the microplate reader, and run an experiment.
Running a Micro-Volume Experiment

The following section describes how to run a micro-volume experiment using SoftMax® Pro Software and a compatible microplate reader. For specific procedures, refer to the documentation for your microplate reader and SoftMax Pro Software.

To perform a micro-volume experiment:
1. Select a SpectraDrop, or MicroMax in older software, protocol, from the Protocol Library or Protocol home page.
2. Edit and save the protocol as required for your experiment.
3. Run your experiment.

If you have to manually align a micro-volume slide, refer to the following details (Figure 1-3 and Figure 1-4):

Approved Sample Slide Cleaning Methods

Molecular Devices recommends cleaning the sample slides and the cover slides using the following methods in order of preference:
1. Dry wipe clean using a lab wipe tissue.
2. Wet wipe clean using a lab wipe tissue and water or organic solvent such as acetone, methanol, or ethanol. Avoid using strong acids or alkali solvents because they will damage the slide mask.
3. Autoclave.
## Ordering Information

Contact your Molecular Devices Sales Representative to order the following replacement parts.

<table>
<thead>
<tr>
<th>Part Number</th>
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<th>Details</th>
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<tbody>
<tr>
<td>0200-6262</td>
<td>SpectraDrop Starter Kit</td>
<td>Contains one microplate adapter, two 24-well micro-volume bottom slide, and one of each cover slide (2µL and 4µL)</td>
</tr>
<tr>
<td>0200-6267</td>
<td>SpectraDrop High Throughput Screening (HTS) Kit</td>
<td>Contains one microplate adapter, five 24-well micro-volume bottom slides, five 64-well micro-volume bottom slides, and five of each cover slide (2µL and 4µL)</td>
</tr>
<tr>
<td>0200-6263</td>
<td>SpectraDrop Micro-Volume Refills, 24-Well Bottom Slides</td>
<td>Three micro-volume 24-well bottom slides</td>
</tr>
<tr>
<td>0200-6264</td>
<td>SpectraDrop Micro-Volume Refills, 64-Well Bottom Slides</td>
<td>Three micro-volume 64-well bottom slides</td>
</tr>
<tr>
<td>0200-6265</td>
<td>SpectraDrop Micro-Volume Refills, 2µL Cover Slides</td>
<td>Three 2µL top slides (0.5 mm clear path length)</td>
</tr>
<tr>
<td>0200-6266</td>
<td>SpectraDrop Micro-Volume Refills, 4µL Cover Slides</td>
<td>Three 4µL top slides (1.0 mm blue path length)</td>
</tr>
</tbody>
</table>

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