

BD Rhapsody™ HT Xpress
System
Installation and Maintenance Guide

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Regulatory information

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

History

Revision	Date	Change made
23-24392(01)	2023-03	Initial release.

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1. Introduction

About this guide

This guide provides instructions on installing and maintaining the BD Rhapsody™ HT Xpress System.

Single-Cell Multiomics technical publications are available for download from the BD® Single-Cell Multiomics Resource Library at scmix.bd.com/hc/en-us/categories/360000838932-Resource-Library.

Intended use

The BD Rhapsody™ HT Xpress System is intended for the preparation of single-cell mRNA sequencing libraries. Proprietary BD® Molecular Indexing technology is used to count individual mRNA and protein molecules.

The system is intended for use by professional scientific users, such as technicians and laboratory personnel, who are trained in the operation of the BD Rhapsody™ HT Xpress System.


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For intended use of the BD Rhapsody™ HT Single-Cell Analysis System, see the *BD Rhapsody™ HT Single-Cell Analysis System Instrument User Guide*.

For detailed site requirements and technical specifications, see the *BD Rhapsody™ HT Single-Cell Analysis System Site Preparation Guide*.

Safety symbols

The following table lists the safety symbols used in this guide to alert you to potential hazards.

Symbol	Meaning
	Lifting hazard. Single person lift could cause injury. Use assistance when moving or lifting heavy objects.

Safety data sheets

Before handling chemicals, read and understand the safety data sheets (SDSs). To obtain SDSs for chemicals ordered from BD Biosciences, go to regdocs.bd.com/regdocs/sdsSearch to download the Safety Data Sheet.

Instrument technical support

If technical assistance is required, contact your local BD Biosciences representative, or fill out the contact form available on the BD Biosciences website.

Before contacting BD Biosciences, have the following information available:

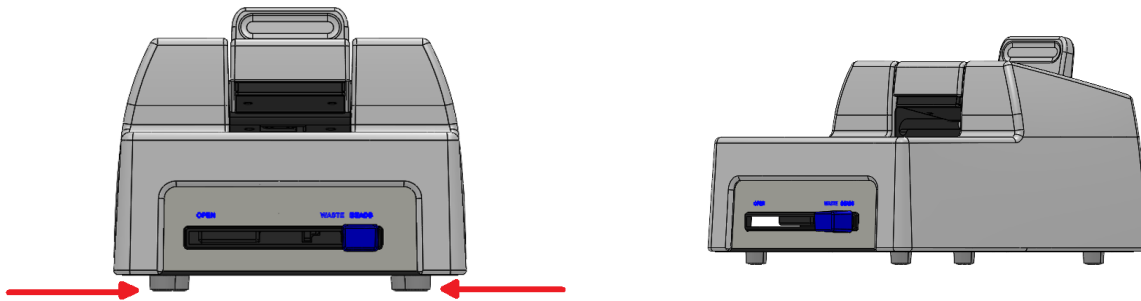
- Product name, model number, and serial number on the rear of the instrument.
- Details of recent system performance.

2. Installation

Installing BD Rhapsody™ HT Xpress System

Lifting BD Rhapsody™ HT Xpress System

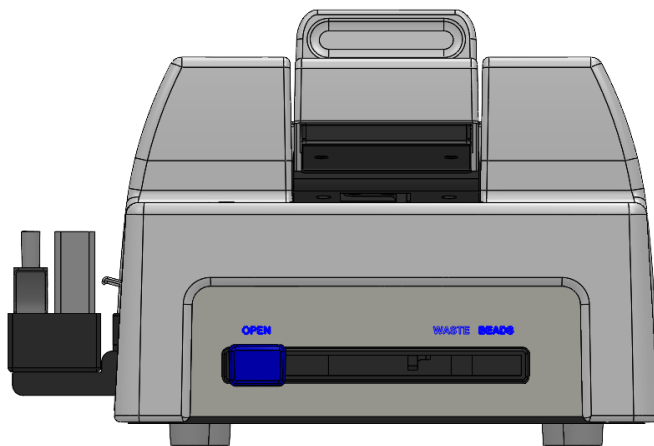
Lift the BD Rhapsody™ HT Xpress System by firmly grasping the bottom on each side of the instrument, represented by the red arrows.



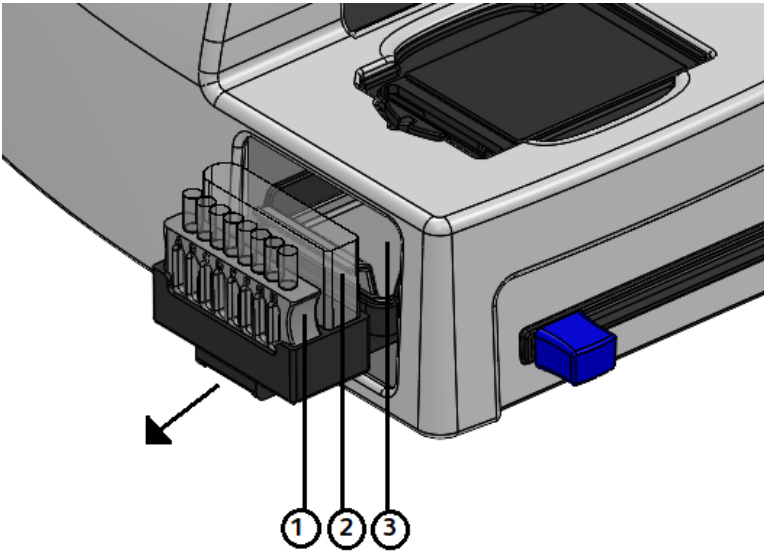
Lifting hazard. Single person lift could cause injury. Use assistance when moving or lifting heavy objects.

Installing drip tray and splash shield

1. Move the front slider to **OPEN**:

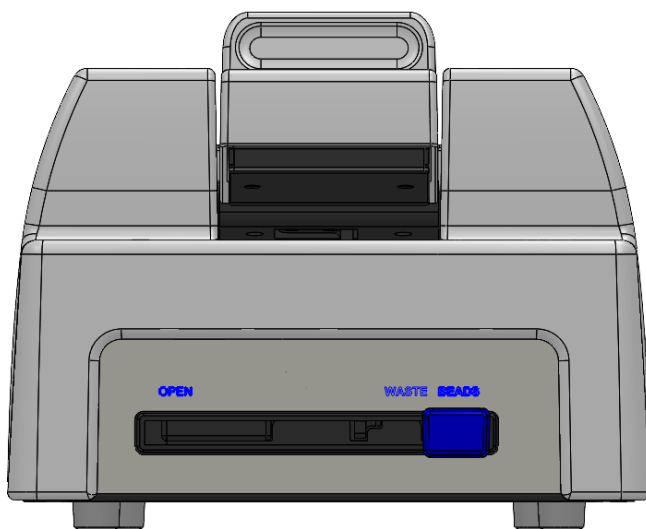


2. Review the location of parts:



No.	Part description
1	Tubes and vial tube holder
2	Waste collection container
3	Drip tray

3. Remove the tubes and holder, and the waste collection container, to access the drip tray.
4. Insert the drip tray as shown.
5. Orient the drip tray so that its larger compartment faces upwards and is positioned toward the interior of the instrument. The compartments of the drip tray correspond to the tube sizes above it.
6. Insert the drip tray fully until it stops.
7. Move front slider to **BEADS**:



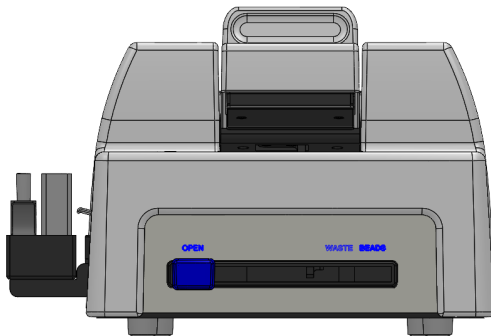
3. Maintenance

Maintaining BD Rhapsody™ HT Xpress System

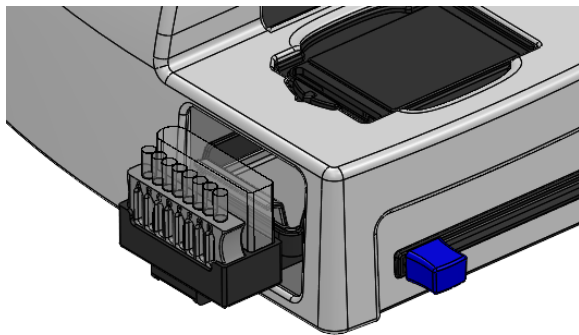
Use 10% (v/v) bleach, 70% (v/v) ethyl alcohol, or 70% (v/v) isopropyl alcohol to clean the BD Rhapsody™ HT Xpress System.

Cleaning drip tray and tube receptacles

1. During cleaning, wear suitable protective clothing, eyewear, and gloves.
2. After each use, move the front slider to **OPEN**:

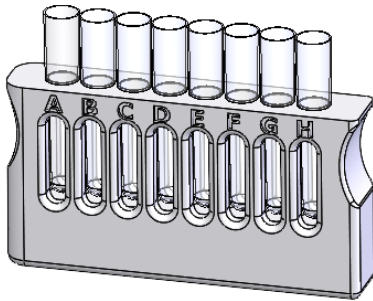


3. Remove the tubes and holder.
4. Remove the waste collection container and discard.
5. Remove the drip tray by lifting it slightly and pulling it out.



6. If necessary, appropriately dispose of the liquids in the drip tray.
7. Use pre-moistened cleaning wipes with 10% bleach or 70% ethyl alcohol to wipe the sides, top, and bottom of the drip tray.
8. Use pre-moistened cleaning wipes with 10% bleach or 70% ethyl alcohol to wipe the tube receptacles and the tray that holds the tubes and holder and waste collection container for bead retrieval (**BEADS**).
9. Use a dry lint-free wipe to dry the components.

10. Orient the tube holder so that its larger compartment faces upwards and is positioned toward the interior of the instrument, and then reinsert the tube holder fully until it stops.



11. Insert a waste collection container.
12. Move the front slider with the correct collection tubes to the appropriate position to **BEADS** or **WASTE**.
13. Dispose of the used cleaning materials in the biohazard containers.

Cleaning cartridge tray

1. Remove the BD Rhapsody™ 8-Lane Cartridge, if present.
2. Use a lint-free wipe moistened with 10% bleach or 70% ethyl alcohol to clean the tray.
3. Use a dry lint-free wipe to dry the cartridge tray.
4. Dispose of the used cleaning materials in biohazard containers.

Maintaining BD Rhapsody™ P8xP1200µL Pipette

To maintain and decontaminate the BD Rhapsody™ P8xP1200µL pipette:

- Wipe the pipette with pre-moistened cleaning wipes containing 70% (v/v) ethyl alcohol or 70% (v/v) isopropyl alcohol.
- Charge the pipette between experiments.

Requesting service support for BD Rhapsody™ HT Xpress System

1. Before sending the BD Rhapsody™ HT Xpress System to BD Biosciences, follow the cleaning protocol. See [Maintaining BD Rhapsody™ HT Xpress System on page 8](#).
2. Contact your local BD Biosciences instrument support team for assistance in initiating a service request.
3. Complete the decontamination label provided by BD Biosciences.
4. Ship the BD Rhapsody™ HT Xpress System instrument to BD Biosciences according to shipping instructions on the label.

Returning BD Rhapsody™ P8xP1200µL Pipette for service

Calibrate and service the BD Rhapsody™ P8xP1200µL Pipette every 12 months to ensure accurate sample volume transfer at each step.

1. Before shipping the pipettes for calibration, follow the cleaning protocol. See [Maintaining BD Rhapsody™ P8xP1200µL Pipette on page 9](#).
2. Reach out to Gilson Customer Service to request repair or calibration on the Pipettes.
3. Obtain the purchase order number required to pay for calibration by the Gilson Service Center. In the purchase order, for either pipette, include one of these part numbers:
 - LVL3SBD: Non-ISO 17025 calibration
 - LVL3SISOBD: ISO 17025 calibration

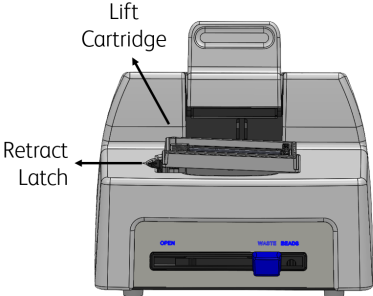
Note: Each purchase order number is automatically recognized by the service center as a service part number that is unique to BD-customized pipettes.

4. Ship the pipettes to the appropriate Gilson Service Center as suggested by Gilson.

4. Troubleshooting

Troubleshooting BD Rhapsody™ HT Xpress System

Troubleshooting describes possible problems and recommended solutions for installing and maintaining the BD Rhapsody™ HT Xpress System.

Problem	Possible causes	Recommended solutions
<p>Difficulty removing the cartridge from the BD Rhapsody™ HT Xpress System.</p> 	<p>Cartridge remains clipped at the side of the tray.</p>	<p>Push the cartridge on the tray toward the side of the BD Rhapsody™ HT Xpress System and compress the retract latch, then lift the cartridge to remove it.</p> <p>If the cartridge does not detach from the instrument, contact BD Biosciences technical support at scomix@bdscomix.bd.com.</p>

Appendix A. Safety

General safety and limitations

For complete safety information, see the *BD Rhapsody™ HT Xpress System Instrument Safety and Limitations Guide* and the *BD Rhapsody™ HT Single-Cell Analysis System Instrument User Guide*.

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Chemical safety

Dispose of waste using proper precautions and in accordance with local regulations.

Waste disposal

Contact your local BD Biosciences instrument support team before disposing of the BD Rhapsody™ HT Xpress System. For more information, see [Instrument technical support on page 4](#).

Glossary

B

BD Rhapsody™ HT Xpress System

Mechanical instrument used for loading the BD Rhapsody™ Enhanced Cell Capture Beads and cells into the BD Rhapsody™ 8-Lane Cartridge.

BD Rhapsody™ HT Single-Cell Analysis System

The system includes:

- BD Rhapsody™ HT Xpress
- BD Rhapsody™ Scanner

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