

QPix[™] Colony Picking System Stackers

User Guide

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Contents

Legal Notices	2
Safety Information	5
Warnings, Cautions, Notes, and Tips	5
Symbols on Instrument Labels	6
Before Operating the Instrument	6
Electrical Safety	7
Ultraviolet (UV) Light Safety	8
External or Implanted Medical Device Safety	8
Heat and Burn Safety	8
Chemical and Biological Safety	
Moving Parts Safety	10
Cleaning and Maintenance Safety	11
Chapter 1: Stackers Overview	13
Chapter 2: Setting Up Stacker Cassettes	17
Loading the Source Stacker Cassette	17
Installing the Destination Stacker Cassette	21
X3533 Stacking and Unstacking Tool	23
Chapter 3: Finishing Stacker Cassette Usage	29
Unloading the Destination Stacker Cassette	29
Unloading the Destination Stacker Cassette Using the X3533 Tool	
Chapter 4: Maintenance and Troubleshooting	35
Testing the Stackers	
Troubleshooting	
Obtaining Support	

QPix Stacker User Guide

Safety Information

The safety information section provides information on the safe use of the instrument, including the use of user-attention statements in this guide, a key to understanding the safety labels on the instrument, precautions to follow before operating the instrument, and precautions to follow while operating the instrument.

Please read and observe all warnings, cautions, and instructions. Remember, the most important key to safety is to operate the instrument with care.



WARNING! If the instrument is used in a manner not specified by Molecular Devices, the protection provided by the equipment might be impaired.

Warnings, Cautions, Notes, and Tips

All warning symbols in the user guide are framed within a yellow triangle. An exclamation mark is used for most warnings. Other symbols can warn of other types of hazards such as biohazard, electrical, or laser safety warnings as are described in the text of the warning.

When warnings and cautions are displayed in this guide, be careful to follow the specific safety information related to them.

The following user-attention statements can be displayed in the text of Molecular Devices user documentation. Each statement implies a particular level of observation or recommended procedure as described:



WARNING! A warning indicates a situation or operation that could cause personal injury if precautions are not followed.

CAUTION! A caution indicates a situation or operation that could cause damage to the instrument or loss of data if correct procedures are not followed.



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Note: A note calls attention to significant information.

Tip: A tip provides useful information or a shortcut, but is not essential to the completion of a procedure.

Symbols on Instrument Labels

Each safety label located on the instrument contains an alert symbol that indicates the type of potential safety hazard related to the label. The following table lists the alert symbols that can be found on Molecular Devices instruments.

Table S-1: Instrument Label Alert Symbols

Symbol	Indication
	This warning symbol indicates that the product documentation needs to be consulted.
	This symbol indicates a potential electrical-shock hazard from a high-voltage source, and that all safety instructions should be read and understood before proceeding with the installation, maintenance, and servicing of all modules. Always turn the power switch off and disconnect the power cord from the main power source before performing a maintenance procedure that requires removal of a panel or cover or disassembly of an interior instrument component.
	This symbol indicates a potential heat hazard.
⊕	This symbol indicates the location of the Protective Earth Ground Terminal.
X	This symbol on the product is required in accordance with the Waste Electrical and Electronic Equipment (WEEE) Directive of the European Union. It indicates that you must not discard this electrical or electronic product or its components in domestic household waste or in the municipal waste collection system.
	For products under the requirement of the WEEE directive, please contact your dealer or local Molecular Devices office for the procedures to facilitate the proper collection, treatment, recovery, recycling, and safe disposal of the device.

Before Operating the Instrument

Make sure that everyone involved with the operation of the instrument has:

- Received instruction in general safety practices for laboratories.
- Received instruction in specific safety practices for the instrument.
- Read and understood all Safety Data Sheets (SDS) for all materials being used.

Electrical Safety

To prevent electrically related injuries and property damage, properly inspect all electrical equipment before use and immediately report all electrical deficiencies. Contact Molecular Devices technical support for servicing of equipment that requires the removal of covers or panels.

WARNING! HIGH VOLTAGE. Within the instrument is the potential of an electrical shock hazard existing from a high voltage source. All safety instructions should be read and understood before proceeding with the installation, maintenance, and servicing of all modules.

Do not remove the instrument covers. To prevent electrical shock, use the supplied power cords only and connect to a properly grounded wall outlet.

The instrument must be connected to a properly grounded power outlet to protect from the risk of electric shock. The main chassis of the instrument is grounded together with all related electrical components.

Do not remove the fixed covers, as there are no user serviceable parts inside. All electrical work should be referred to Molecular Devices approved service personnel.

In the event of a liquid spillage into the main cavity of the instrument, disconnect the mains power supply before trying to clean up.

If the external covers on the instrument are removed, the power supply does not automatically stop.



WARNING! HIGH VOLTAGE Always turn the power switch off and disconnect the power cord from the main power source before performing a maintenance procedure that requires removal of a panel or cover or disassembly of an interior instrument component.

Do not try to use the instrument until all covers are replaced.

To provide access for disconnecting power from the instrument, maintain a 66 cm (26 in.) minimum clearance area on the right side of the instrument.

To provide access for disconnecting power from the compressor, maintain a 66 cm (26 in.) minimum clearance area at the rear of the instrument table.

To protect against fire hazard, replace the fuses only with the same type and rating as the original factory-installed fuses.

Ultraviolet (UV) Light Safety

The door is made from acrylic, and so prevents UV light from passing through during operation.

As a safety measure, if the door is open, an electromagnetic switch prevents the instrument from running. This switch should never be tampered with, as it serves two purposes:

- It prevents the motors from running to reduce the potential of physical damage.
- It disables the UV light to prevent the risk of damage from UV radiation.

External or Implanted Medical Device Safety

Motors and their related drives and cabling are sources of electromagnetic fields.

Persons with external or implanted medical devices need to evaluate the risks related to these devices before entering an area where the instrument is in use. Keep magnetic storage devices or strips, such as hard drives and credit cards, away from the instrument.



WARNING! Due to the presence of electromagnetic fields, if you wear an external or implanted medical device, keep 300 mm away from the drive magnets.

Heat and Burn Safety

The instrument is fitted with a high-temperature halogen dryer. The casing can become hot during the drying cycle.

Chemical and Biological Safety

Normal operation of the instrument can involve the use of materials that are toxic, flammable, or otherwise biologically harmful. When using such materials, observe the following precautions:

- Handle infectious samples based on good laboratory procedures and methods to prevent the spread of disease.
- Observe all cautionary information printed on the original containers of solutions before their use.
- Dispose of all waste solutions based on the waste disposal procedures of your facility.
- Operate the instrument in accordance with the instructions outlined in this guide, and take all the necessary precautions when using pathological, toxic, or radioactive materials.
- Splashing of liquids can occur. Therefore, take applicable safety precautions, such as using safety glasses and wearing protective clothing, when working with potentially hazardous liquids.
- Use a correctly contained environment when using hazardous materials.
- Observe the applicable cautionary procedures as defined by your safety officer when using flammable solvents in or near a powered-up instrument.
- Observe the applicable cautionary procedures as defined by your safety officer when using toxic, pathological, or radioactive materials.



WARNING! BIOHAZARD. If a biohazard is used with the instrument during operation, the area needs to be clearly marked with an applicable biohazard sign.

WARNING! Never do operations on the instrument in an environment where potentially damaging liquids or gases are present.

Moving Parts Safety

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To prevent injury due to moving parts, observe the following:

- Never try to exchange labware, reagents, or tools while the instrument is operating.
- Never try to physically restrict the moving components of the instrument.
- Keep the interior of the instrument clear to prevent obstruction of the movement.

The motors use high-powered magnets. The linear drive units and encoders are delicate, so be very careful with them. To prevent serious damage to the instrument or its auxiliary parts, follow the preparation instructions in this guide before every process.

The door is made from acrylic, and so prevents UV light from passing through during operation.

As a safety measure, if the door is open, an electromagnetic switch prevents the instrument from running. This switch should never be tampered with, as it serves two purposes:

- It prevents the motors from running to reduce the potential of physical damage.
- It disables the UV light to prevent the risk of damage from UV radiation.

In an emergency, press the **Emergency Stop** button on the front of the instrument to immediately stop all motion and turn off the instrument. Before you can restart the instrument, you must pull out the **Emergency Stop** button and then press the **Start** button.

WARNING! Do not obstruct or otherwise prevent access to the Emergency Stop button.

Motors and their related drives and cabling are sources of electromagnetic fields. Keep magnetic storage devices or strips, such as hard drives and credit cards, away from the instrument covers.

Note: Observe all warnings and cautions listed for all external devices attached to or in use during the operation of the instrument. See the applicable user guide for the operating and safety procedures of that device.

Cleaning and Maintenance Safety

Observe the cleaning procedures outlined in this user guide for the instrument.

Note: Molecular Devices recommends that you always use ethanol for cleaning, because autoclaving is not compatible with anodized parts.

Do the following before cleaning equipment that has been exposed to hazardous material:

- Contact the applicable Chemical and Biological Safety personnel.
- Review the Chemical and Biological Safety information contained in this user guide.

Do only the maintenance described in this guide. Maintenance procedures other than those specified in this guide can be done only by Molecular Devices service engineers. See Obtaining Support on page 38.



WARNING! BIOHAZARD. It is your responsibility to decontaminate components of the instrument before requesting service by a service engineer or returning parts to Molecular Devices for repair. Molecular Devices will not accept items that have not been decontaminated where it is applicable to do so. If parts are returned, they must be enclosed in a sealed plastic bag stating that the contents are safe to handle and are not contaminated.

For approved cleaning and maintenance procedures, see Maintenance and Troubleshooting.

QPix Stacker User Guide

Chapter 1: Stackers Overview

A stacker lane and cassettes enable the QPix 450 or 460 Instrument to run processes with multiple microplates. Up to three stacker lanes can be built into the system. The stacker can be used in every process.

The stacker cassettes are tall metal cases designed to hold multiple microplates and lid pairs. The source stacker cassette and destination stacker cassette must always be used together in a lane when processing microplates and lid pairs. The cassettes are used for automating the loading of the microplates onto the lane so that they can be automatically moved into the instrument for colony inoculation, as well as automatically collected from the instrument after colony inoculation.





ltem	Description
1	Destination cassette holds the microplates that are unloaded from the instrument after receiving the picked colonies
2	Source cassette holds the microplates to be loaded into the instrument to receive the picked colonies
3	Blue-bottomed cassette for deep-well microplates in deep lane

Item	Description
4	Silver-bottomed cassette for standard and shallow microplates in standard lanes
5	Destination cassette locking knob
6	Source cassette locking knob
7	Red reset button light

Table 1-1: External View of Two Stacker Lanes with Stacker Lane Cassettes (continued)

Two types of stacker cassettes are available:

- **Standard Cassettes**—identified by a silver base, used for standard and shallow microplates in standard lanes.
- **Deep Cassettes**—identified by a blue base, used for deep-well microplates in deep lanes.

The stacker lanes are specifically configured for either standard or deep microplates and lid pairs. A label at the end of each stacker lane should inform users which specific microplates are compatible with each stacker cassette.



Table 1-2: Internal View of Two Stacker Lanes with Microplate and Lid in the Standard Lane

Item	Description
1	Standard lane for standard and shallow microplates
2	Deep lane for deep-well microplates
3	Process deck

Note: To identify the stacker lane configuration from inside the instrument, look at whether a lane is above or below the main process deck. If the stacker lane is above or level with the process deck, it is a standard lane. If the stacker lane is below the process deck, it is a deep lane.

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To prevent jamming a stacker lane:

- Only load the cassettes with microplate and lid pairs for the type of stacker lane configuration and definition for your instrument when your instrument was ordered and installed.
- Avoid mixing the microplate and lid types even if they are all defined compatible types of microplates and lids.
- **Note:** Not all brands and types of microplates and lid pairs are compatible with the stacker even if they generally conform to the lane type. Contact Molecular Devices Technical Support for compatibility details if you need to change your configuration.

QPix Stacker User Guide

Chapter 2: Setting Up Stacker Cassettes

There are two removable stacking cassettes per stacker lane, one for the unprocessed stack of source microplate and lid pairs, and one destination to collect the processed microplate and lid pair stack. See Stackers Overview on page 13 for more details.

Before starting a process, both stacker lane cassettes must always be installed on their bases. The source cassette must be manually filled with a stack of defined and prepared microplate and lid pairs off of the instrument. See Loading the Source Stacker Cassette on page 17.



CAUTION!: Each stacker lane is initially set up and configured to use specific microplate and lid pair type definitions. Using undefined plate and lid pair types can cause stacker lane failures.

Typically the destination cassette starts empty. See Installing the Destination Stacker Cassette on page 21. When the chosen process finishes, the destination cassette is filled with the stack of processed microplates and lid pairs and must be carefully unloaded off of the instrument.

After loading and installing the stacker cassettes as needed, you can run the **Restacker** utility to make sure you set up the stacker correctly. See Testing the Stackers on page 36.

When the instrument is not being used, keep the cassettes on their stacker bases rather than elsewhere off of the instrument.

Loading the Source Stacker Cassette

Before starting a process, the source stacker cassette must be manually filled off of the instrument with prepared microplate and lid pairs.



CAUTION!: Each stacker lane is initially set up and configured to use specific microplate and lid pair type definitions. Using undefined plate and lid pair types can cause stacker lane failures.

Note: The X3533 Stacking and Unstacking Tool is available as an optional accessory. See Loading the Source Stacker Cassette Using the X3533 Tool on page 24.

To load the source stacker cassette:

- 1. Make sure that all lids and microplates are compatible with each other and match the lane configuration of your instrument. A label at the end of each stacker should state which microplates and lid pairs are compatible with the stacker lane.
- 2. Unlock the source stacker cassette from the base by turning counterclockwise the silver cassette locking knob on the source stacker base.



Figure 2-1: Source Cassette Locked and Unlocked

Item	Description
1	Source cassette locking knob
2	Source cassette unlocked
3	Source cassette locked

- 3. Lift the stacker cassette up and off the source cassette base, and set it on a secure surface low enough to allow you to load it with a stack of prepared microplates and lid pairs.
- 4. Load the microplate and lid pairs into the cassette from either the top or bottom of the cassette all facing the same direction and make sure the bottom microplate sits raised on the four black clips at the bottom of the cassette.



Figure 2-2: Stacker Cassette Bottom with Black Microplate Holding Clips



Figure 2-3: Stacker Cassette Loaded

5. Verify, and adjust as needed, the proper stack alignment in your cassette by running your fingers up the front and the back of the stack. The stack should feel smooth and should appear level.



Figure 2-4: Check Stack Alignment

6. Make sure that the red reset button light on the back of the stacker lane is turned off.

If the red light is on, it means there is a system error. Look for possible obstructions in the stacker and lane and remove them, then press the reset button and wait for the reset process to end. The red light turns off.

7. Look into the source stacker base and make sure that the four lifting rods in the corners are up.



Figure 2-5: Lifting Rods up in the Corners of the Source Stacker Base

If the rods are down, it is also likely that the red reset light is on and a reset is needed.



CAUTION! Do not continue to the next step and install the source cassette with the lifting rods down, because your stack of microplates will fall to the bottom of the base and likely spill the contents.

- 8. Carefully install the loaded source cassette into the source stacker base in the proper orientation with the A1-well positioned in the front right corner, and make sure the cassette slides all the way to the bottom of the base slot. The stack of microplates in the cassette sits on top of the lifting rods.
- 9. Lock the source stacker cassette onto the base by turning clockwise the silver cassette locking knob on the source stackerbase.

Note: If you have more than one stacker lane, the single silver source locking knob locks all the source cassettes simultaneously.

- 10. Verify that the source cassette is locked by trying to lift the cassette up out of the base.
- 11. Make sure that the destination cassette behind the source cassette is in place and locked. The locking knob for the destination cassette is the black knob on the back of the lane. The lock position for the destination cassette locking knob is pushed in.



Figure 2-6: Locked Position for the Destination Stacker Cassette

- 12. Verify that the destination cassette is locked by trying to lift the cassette up out of the base.
- 13. After installing the stacker cassettes, you can run the **Restacker** utility to make sure that your set up is correct. See Testing the Stackers on page 36. Otherwise, continue your processes.

Installing the Destination Stacker Cassette

The destination cassette installs into the destination cassette stacker base behind the source cassette stacker base. See Stackers Overview on page 13 for more details. The destination cassette must be installed along with the source cassette every time the stacker is used in a process.

To install the destination stacker cassette:

 Make sure the black destination cassette locking knob is in the unlocked position. To unlock, pull out and twist the black locking knob at the back of the lane.



Figure 2-7: Destination Cassette Locking Knob in the Unlocked Position While Installing Destination Cassette

- 2. Install the empty destination cassette into the destination cassette base and make sure the cassette slides all the way to the bottom of the base slot.
- 3. Lock the destination cassette.

To lock, pull out, twist, and push in the black locking knob at the back of the lane.



Figure 2-8: Destination Cassette Locking Knob in the Locked Position After Installing Destination Cassette

4. Verify that the destination cassette is locked by trying to lift the cassette up out of the base.

X3533 Stacking and Unstacking Tool

The X3533 Stacking and Unstacking Tool is an optional, but recommended jig, for safely loading and unloading microplates into and out of stacker cassettes because it is a stable platform of reasonable height for supporting microplate stacks.



Table 2-1: Front and Side View of the X3533 Microplate Stacker Cassette Loading andUnloading Jig Tool

Item	Description
1	Microplate stacking platform with recessed stability edges
2	7 support pin holes to hold the cassette at different filling heights.
3	Support pin with hairpin cotter

See Loading the Source Stacker Cassette Using the X3533 Tool on page 24 and Unloading the Destination Stacker Cassette Using the X3533 Tool on page 31.

Tip: When not in use, keep the support pins with hairpin cotters in the jig holes so they won't get lost.

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Loading the Source Stacker Cassette Using the X3533 Tool

The X3533 tool is a recommended jig for safely loading microplates into a stacker cassette because it is a stable platform for supporting a microplate stack at a practical height. To load microplates into a source stacker cassette using the X3533 tool:

1. Set up the X3533 on the floor and place the cassette over the top of the jig.



Figure 2-9: Cassette Fitting Over the X3533 Jig

2. Place a short stack of about five prepared microplates and lid pairs, oriented the same direction, on the top jig platform making sure the bottom plate fits securely on the recessed platform edges.



Figure 2-10: X3533 Platform with Recessed Edges



Figure 2-11: Short Stack of Microplate and Lid Pairs on the X3533 Platform

- 3. Remove one of the support pins from the jig.
- 4. With one hand securing the top of the stack, slide the cassette up to the nearest support pin hole that enables the cassette to enclose the stack without going too far over, put the pin in the hole, and let the cassette rest on the pin.



Figure 2-12: Moving the Cassette and Support Pin

5. Add another short stack oriented the same direction on to the existing stack base.



Figure 2-13: Adding to the Stack

- 6. Repeat steps 4 and 5 until you have loaded your cassette.
- 7. Using two hands, carefully lift the loaded cassette off of the X3533 jig and place it on a stable, level surface.



Figure 2-14: Lifting the Cassette off of the Jig

8. Verify, and adjust as needed, the proper stack alignment in your cassette by running your fingers on both hands up the front and the back of the stack. The stack should feel smooth and should appear level.



Figure 2-15: Check Stack Alignment

CAUTION! Stack misalignment can cause stacker errors during procedures.

9. Using two hands, lift the filled cassette and install it onto the source stacker cassette base on the instrument. See Loading the Source Stacker Cassette on page 17.

QPix Stacker User Guide

Chapter 3: Finishing Stacker Cassette Usage

At the end of a process, the destination stacker cassette must be manually unloaded off of the instrument. See Unloading the Destination Stacker Cassette on page 29.

When the instrument is not being used, keep the cassettes on the stacker bases rather than elsewhere off of the instrument.

Unloading the Destination Stacker Cassette

Manually unload cassettes off of the instrument.

Note: The X3533 jig is available as an optional accessory for unloading stacker cassettes. See Unloading the Destination Stacker Cassette Using the X3533 Tool on page 31.

To unload the destination stacker cassette:

 Make sure the black destination cassette locking knob is in the unlocked position. To unlock, pull out and twist until the black locking knob stays pulled out at the back of the lane.



Figure 3-1: Destination Cassette Locking Knob in the Unlocked Position

2. Carefully lift the filled destination cassette off of the destination cassette base and place it on a stable surface.



Figure 3-2: Destination Cassette Ready for Unloading

3. Using two hands, carefully lift a short stack of microplate and lid pairs out of the top of the cassette and set them carefully aside.

To complete the removal, you may need to support and reorient the stack on the top of the cassette while you reposition your hands.



Figure 3-3: Carefully Unloading a Stacker Cassette

- 4. Repeat step 3 until the cassette is empty.
- 5. Place the destination cassette back into the destination stacker cassette base on the instrument.

Unloading the Destination Stacker Cassette Using the X3533 Tool

The X3533 tool is a recommended jig for safely unloading microplates from a stacker cassette because it is a stable platform for supporting a microplate stack at a practical height. To unload the destination stacker cassette using the X3533 tool:

 Make sure the black destination cassette locking knob is in the unlocked position. To unlock, pull out and twist until the black locking knob stays pulled out at the back of the lane.



Figure 3-4: Destination Cassette Locking Knob in the Unlocked Position

- 2. Set up the X3533 on the floor with a support pin in one of the holes in the middle of the jig and located near a surface on which your processed microplate and lid pairs can be safely unloaded.
- 3. Carefully lift the filled destination cassette off of the destination cassette base and place it over the X3533 jig, making sure the bottom microplate fits securely on the recessed platform edges and the cassette rests on the support pin.



Figure 3-5: Filled Destination Cassette Going onto the X3533 Jig

4. If any of the microplate stack is out beyond the cassette enclosure, carefully lift them off the stack and set them aside.



Figure 3-6: Unload Unenclosed Microplate and Lid Pairs

5. Hold the cassette and remove the support pin.



Figure 3-7: Hold Cassette and Move Support Pin

6. Slide the cassette down the jig to the next hole exposing a short stack.



Figure 3-8: Unload Unenclosed Microplate and Lid Pairs

- 7. Remove and set aside the stack beyond the cassette enclosure.
- 8. Repeat steps 5 through 7 until the cassette is empty.
- 9. Take the cassette off of the X3533 jig and place it back onto the destination stacker cassette base on the instrument.

QPix Stacker User Guide

Chapter 4: Maintenance and Troubleshooting

Do only the maintenance described in this guide. Maintenance procedures other than those specified in this guide can be done only by Molecular Devices service engineers. See Obtaining Support on page 38.

Before operating the instrument or performing maintenance operations, make sure that you are familiar with the safety information in this guide. See Safety Information on page 5.

Maintenance and troubleshooting procedures that can be done by users to ensure optimum operation of the instrument are described as follows.

- Testing the Stackers on page 36
- Troubleshooting on page 37

WARNING! Service or maintenance procedures other than those specified in this guide can be done only by trained service engineers. When service is required, contact a Molecular Devices service engineer.

Testing the Stackers

The **Restacker** process tests that microplates successfully travel along the lanes from their source cassette and are restacked in their destination cassettes.

- 1. From the **Navigation** window under **Utility Processes**, double-click the **Instrument Utilities** icon.
- 2. In the Instrument Utilities window, double-click the Restacker icon.
- 3. In the **Restacker** window, select the lane you are testing from the **Stacker** list.
- 4. Click **Get Plate** to move a microplate from the source cassette to the end of the lane inside the instrument.

Observe that the microplate leaves the source cassette, travels along its lane free from obstruction, and the receptacle lid is successfully removed at the ramp inside the instrument.

5. Click **Return Plate** to move a microplate from the end of the lane inside the instrument to the destination cassette.

Observe that the microplate travels along its lane free from obstruction, the receptacle lid is successfully replaced, and the microplate successfully returns to the destination cassette.

6. Click **Restack** to move the microplates one at a time from the source cassette to the end of the lane inside the instrument and then back to the destination cassette.

Observe that the microplate travels from the source cassette along the lane free from obstruction, the receptacle lid is removed and replaced, and the microplate successfully returns to the destination cassette.

- 7. Wait for all microplates to be transferred from one cassette to the other, or click **Stop** when you are satisfied that restacking is working as expected.
- 8. After you have finished testing the stackers, click Next.
- 9. In the Instrument Utilities window, click Next.

Troubleshooting

This section describes some common problems that can occur and possible solutions. Typically, crash recovery involves some form of the following procedure:

- 1. An error is identified in the software or the instrument stops.
- 2. If the error condition is caused by a receptacle or other item, then remove the item from the instrument.
- 3. Press the red reset button on the end of the stacker lane with the error.
- 4. Reactivate the software , usually by clicking Next.

Recovering from a Stacker Failure

Recovering from a stacker failure depends on the cause and requires some manual intervention. Stacker failures can happen in different sections of the stacker lane and cause the red reset button at the end of the lane to light signifying a failure.

CAUTION! The software will not display an error message when there is a stacker failure. Only the prompt to load a plate when one is not detected is displayed.

Possible stacker failure triggers include:

- Plates misaligned in the stack and stuck in the source cassette.
- Lids not detected on the lid lifter ramps.
- Plates not detected at the plate-out position when the plate enters the instrument.

When the reset button on the lane lights red and the lane has to be reset, before pressing the reset button on the failed stacker lane, do the following:

- Look to see if there is any debris in the lane and remove it.
- If a lid or a microplate is stuck in the gripper section of the source stacker, you must let the stuck lid or microplate get discarded by the reset process rather than reach into the grippers to try to remove it.

WARNING!Never reach under a stacker with your fingers.The lifting rods and grippers are pneumatically operated and present a severe pinching hazard.

Note: After pressing the reset button, the process cannot be interrupted.

Depending on the failure, after the stacker lane resets, before continuing your process, you may have to remove:

- Unprocessed microplates and lids from the source and destination cassettes
- Broken microplates and lids from the source cassette

If the stacker failure continues after resetting the lane, contact Molecular Devices Technical Support. Assuming the correct, undamaged, microplate and lid pairs are properly aligned and used correctly in the correct cassettes, your stacker lane may need sensor replacements or other adjustments that require a service technician.

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest possible level of technical service.

Our support web site, www.moleculardevices.com/support.html , has a link to the Knowledge Base with technical notes, software upgrades, safety data sheets, and other resources. If you do not find the answers you are seeking, follow the links to the Technical Support Service Request Form to send an email message to a pool of technical support representatives.

You can contact your local representative or contact Molecular Devices Technical Support by telephone at 800-635-5577 (U.S. only) or +1 408-747-1700. In Europe call +44 (0) 118 944 8000.

Please have the system ID number, system serial number, software version number, and the system owner's name available when you call.

For more information about QPix[™] instruments and accessories visit: www.moleculardevices.com/qpix-sw2.0



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