


GenePix® SL50 Slide Loader

User Guide

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VERIFICATION

This slide loader is extensively tested and thoroughly calibrated before leaving the factory. Nevertheless, researchers should independently verify the basic accuracy of the slide loader using suitable test samples.

WARNING

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

DISCLAIMER

This equipment is not intended to be used, and should not be used, in human experimentation or applied to humans in any way.

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Foreword

Who this manual is for

This manual is written for microarray service personnel and core lab personnel using the GenePix® SL50 Slide Loader. It contains the information required to load and operate the slide loader and perform routine maintenance procedures.

Conventions

Within the scope of this manual, the following typographical conventions are used:



WARNING! Indicates an operation that may cause personal injury if precautions are not followed.

CAUTION! Indicates an operation that may cause damage to the instrument, device, or data, if the precautions are not followed.



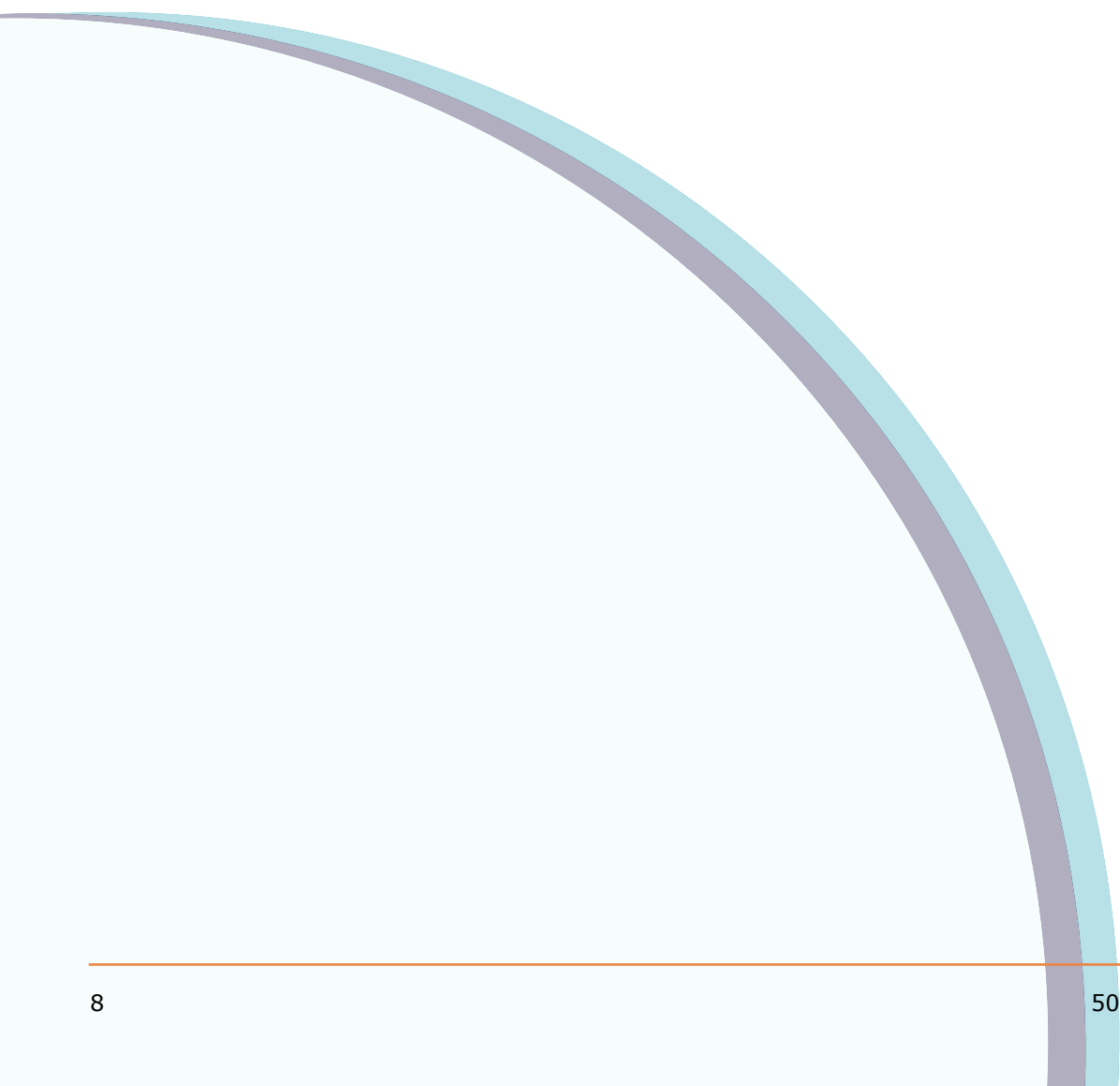
Tip! Provides useful information that helps apply the techniques and procedures in the text to your specific needs, and provides shortcuts, but is not essential to the completion of a procedure.



Note: Provides essential information for the completion of a procedure.

Related documentation

The customer documentation for the GenePix SL50 Slide Loader includes the *GenePix® 4300A/4400A User Guide*, the *GenePix® Pro 7 Software User Guide*, and the GenePix® Pro online Help.



Introduction

The GenePix® SL50 Slide Loader is a robotic slide loader system that automates high-throughput operation of the GenePix 4300A and 4400A Microarray Scanners.

The software user interface for the GenePix SL50 Slide Loader is GenePix Pro 7.2 (and later) Software.

Features of the GenePix SL50 Slide Loader

The GenePix SL50 Slide Loader includes a wide range of features:

- Storage of up to 50 microarray slides
- A light-tight slide storage enclosure
- Removable slide cassettes
- Slide mapping
- Slide cassette detection
- Manual single-slide scanning capability, independent of the automated mechanism
- 3-axis robotic slide assembly, for moving slides from slide storage to the scanner and back
- Support for Auto PMT on all scan areas for individual slides
- Accommodation of standard 1 inch by 3 inch (25 mm by 75 mm) microscope slides
- Audible noise of less than 70 dB during operation
- Direct communication with the controlling PC using a USB connection
- Diagnostics for calibration and for field support of robotics
- Full compatibility with GenePix 4300A and 4400A Microarray Scanners
- Full integration with GenePix Pro 7.2 (and later) Software

Applications of the GenePix SL50 Slide Loader

The GenePix SL50 Slide Loader can be used for numerous applications related to the individual and batch processing of microarray slides, including, but not limited to:

- Gene expression arrays
- Protein arrays
- Arrayed comparative genomic hybridization (aCGH) arrays
- Chromatin immunoprecipitation (ChIP) arrays
- DNA methylation arrays
- SNP genotyping arrays
- RNA interference (RNAi) arrays
- MicroRNA (miRNA) arrays

Specifications of the GenePix SL50 Slide Loader and GenePix 4300A/4400A Microarray Scanner

Figure 1-1 GenePix SL50 Slide Loader and GenePix 4300A/4400A Microarray Scanner Specifications

Specification	Measurement
Weight (GenePix SL50 Slide Loader)	41 kg
Weight (GenePix 4300A/4400A scanner)	45 kg
Combined Weight	86 kg
Combined Height	620 mm
Combined Width	807 mm
Combined Depth	870 mm
Mains Power Input	100V - 240 VAC, 125W
Mains Voltage Fluctuations	Not to exceed 10% of nominal supply voltage
Equipment Class	1
Pollution Degree	2
Installation Category	2
Operating Environment	Indoor Use Only
Altitude	Not to exceed 2000 m
Operating Temperature	5 - 40 degrees C
Humidity	< 80% RH at 40 degrees C

Safety and Regulatory Warnings and Markings

Note the warnings and markings below as part of the preventative maintenance of your slide loader.



WARNING! Biohazardous Material. It is your responsibility to decontaminate the slide loader, as well as any accessories, before requesting service from technical support or before returning the slide loader or any components to Molecular Devices.



WARNING! Biohazardous Material. Never perform any maintenance procedures on the slide loader in an environment where potentially damaging gases or liquids are present.



WARNING! Shock Hazard. Do not remove the protective enclosure or any covers marked with the high-voltage warning symbol.



WARNING! Shock Hazard. Always turn the power switch off and disconnect the main power cable before performing any maintenance procedures.



WARNING! Shock Hazard. The GenePix SL50 Slide Loader is an Equipment Class 1 product that relies on protective earth grounding for safe operation. To avoid potential injury, do not interrupt the protective earth ground conductor (inside or outside the instrument) or disconnect the protective earth ground terminal.



WARNING! Pinching hazard. To avoid potential injury, use caution when working near a potential pinch hazard location.



WARNING! Lifting hazard. The slide loader weighs approximately 90 pounds (41 kg) and is precisely aligned to the scanner. To avoid potential injury and potential damage to the alignment and equipment, contact Molecular Devices if you need to move the slide loader.

CAUTION! Do not touch or loosen any screws or parts other than those specifically described in the maintenance procedures. Doing so may cause misalignment and void the slide loader warranty.

CAUTION! Do not use the GenePix SL50 Slide Loader in a manner not specified by Molecular Devices. Doing so may impair the protection provided by the equipment and void the slide loader warranty.



This symbol indicates that you must not discard this electrical or electronic product in domestic household waste.



This symbol indicates the location of the Protective Earth Ground Terminal.

Electromagnetic Compatibility (EMC)

Regulatory Information for Canada (ICES/NMB-001:2006)

This ISM device complies with Canadian ICES-001.

Cet appareil ISM est conforme a la norme NMB-001 du Canada.

ISM Equipment Classification (Group 1, Class A)

This equipment is designated as scientific equipment for laboratory use that intentionally generates or uses conductively coupled radio-frequency energy for internal functioning, and is suitable for use in all establishments, with the exception of domestic establishments and those establishments directly connected to a low-voltage power supply network which supplies buildings used for domestic purposes.

Information to the User (FCC Notice)

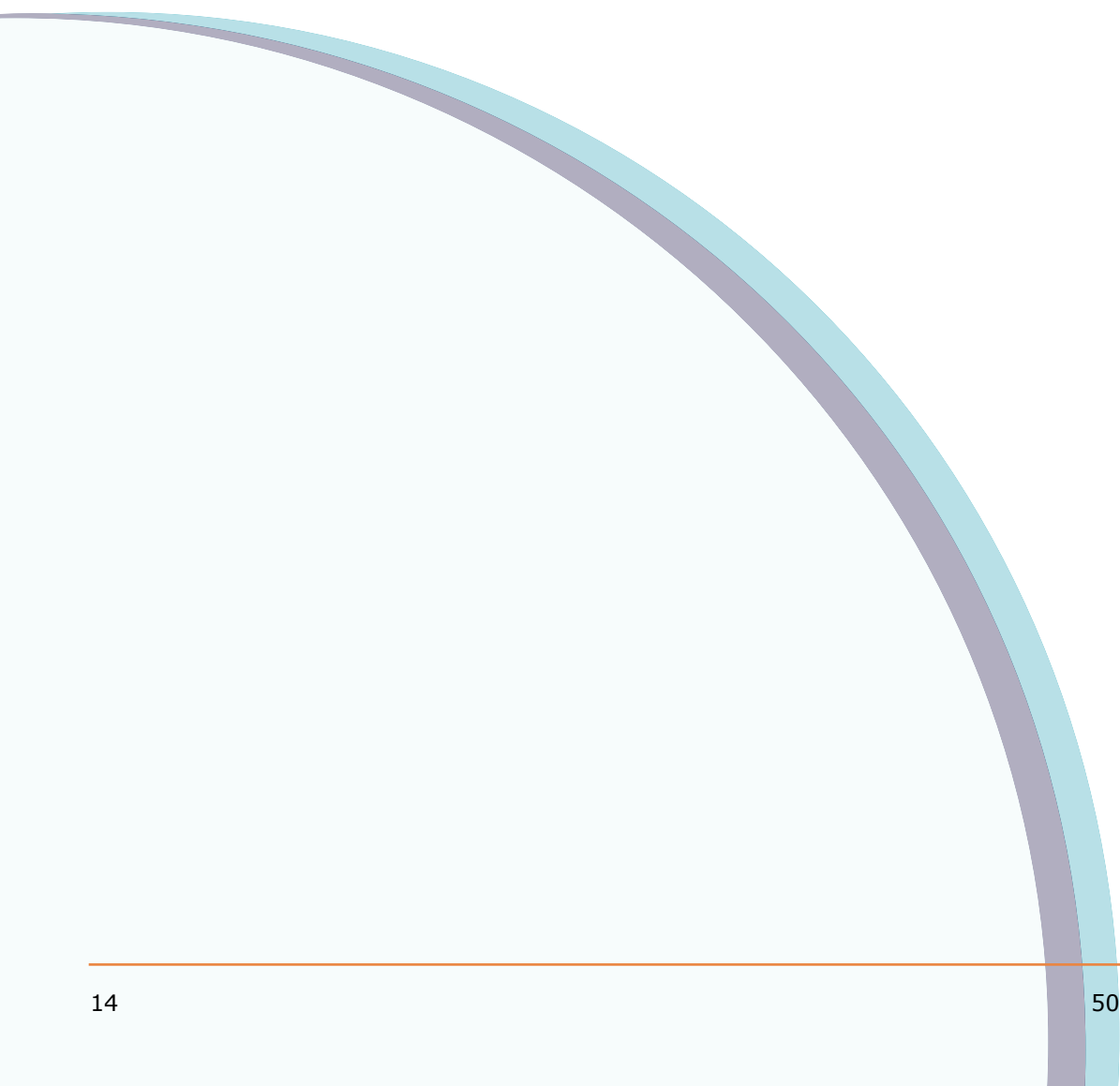
This equipment has been tested and found to comply with the limits for non-consumer ISM equipment, pursuant to part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a non-residential installation.

To maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables can result in interference to radio and TV reception.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, can cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (determined by turning the equipment off and on), the user is encouraged to try to correct the interference using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the physical separation between the equipment and the receiver.
- Connect the equipment and the receiver into outlets on different circuits.
- Consult the dealer or an experienced radio or television technician for assistance.

The user is cautioned that changes and modifications made to the equipment without the approval of Molecular Devices could void the authority of the user to operate this equipment.



Operation

The GenePix® SL50 Slide Loader should be in position on a flat level surface before operating. Before using, make sure that qualified Molecular Devices service personnel have installed and calibrated the GenePix SL50 Slide Loader.

Operation Startup Procedure

The GenePix SL50 Slide Loader is designed to work with a GenePix 4300 Scanner or a GenePix 4400A Scanner. The startup procedure for using the slide loader and scanner involves the following procedures:

- [Turning on the control computer on page 15](#)
- [Turning on the scanner on page 15](#)
- [Turning on the slide loader on page 16](#)
- [Starting the GenePix Pro Software on page 16](#)

Turning on the control computer

Molecular Devices service personnel will install and set up the slide loader and scanner and connect them to a control computer where the GenePix Pro Software is installed.

To turn on the control computer

- Turn on the control computer power switch.

Turning on the scanner

If this is the first time you are using the scanner, make sure you follow the procedures in the user guide for the scanner before you start the GenePix Pro Software.

To turn on the scanner

- Turn on the scanner power switch.

Turning on the slide loader

Initial startup of the GenePix SL50 Slide Loader includes a functional check to confirm that the slide loader is performing according to the specifications established by Molecular Devices.

To turn on the slide loader

1. Open the slide enclosure door of the slide loader and install both the left and right slide cassettes. Go to [To load the slide cassette on page 24](#).
2. Close the slide enclosure door.
3. Turn on the slide loader power switch.
The power LED turns on. No movement occurs.
4. If this is the first time you are turning on the slide loader or if you want to check the performance of the instrument, go to [Performing a Functional Checkout on page 18](#).








Starting the GenePix Pro Software

While it is recommended that you perform a functional checkout after initial installation of the GenePix SL50 Slide Loader, this is not required each time you start the GenePix Pro Software.

GenePix Pro Software icons

The icons shown in [Table 2-1 on page 17](#) are used when operating the GenePix SL50 Slide Loader.

Table 2-1 GenePix Pro Software icons

Icon	Description
	Scan Area Properties
	Scanner Door is Open. Click to Close Scanner Door.
	Scanner Door is Closed. Click to Open Scanner Door.
	Hardware Settings
	Preview Scan
	Data Scan
	Stop Scan

To start the GenePix Pro Software

1. Make sure that the slide loader and scanner are both free from any obstructions.
2. On the control computer, click **Start > Programs > Molecular Devices > GenePix Pro 7 > GenePix Pro 7**.

The slide loader moves to its starting position. If the scanner door is open, the GenePix Pro Software closes the door before performing calibration. The scanner is calibrated and the GenePix Pro Software starts in Manual mode.

CAUTION! It is important to use slides that are compatible with the GenePix SL50 Slide Loader microarray scanner. Using incompatible slides can result in damage to the scanner or to the slides. For more information, see [Using Compatible Slides on page 31](#)

CAUTION! It is important that you inspect the scanner's slide holder, as prompted by the software, and remove any slides that might be remaining on the slide holder from a previous session. Failure to remove slides can damage the slide, scanner, or slide loader.

3. If you are changing from Manual mode to Batch Scan mode and the GenePix Pro Software prompts you to remove any slides in the slide loader, click **OK**.



Note: For optimum performance, allow the GenePix 4300A/4400A Scanner to warm up for 15 minutes before scanning slides with the GenePix Pro Software.

Performing a Functional Checkout

Use the Functional Checkout procedure to help you confirm that your GenePix SL50 Slide Loader is performing according to factory specifications. A similar, but much more detailed procedure, was performed at the factory prior to shipping your unit.

The GenePix SL50 Slide Loader has been designed to provide robust service for years of normal use. However, if you think there is a problem with the slide loader, it is important to perform a functional check before contacting Technical Support.

We recommend that you perform a functional checkout once upon receiving the instrument and then at any time you want to check the performance of the instrument. The functional checkout procedure checks that:

- the slide detection mechanism on the GenePix SL50 Slide Loader is functioning correctly.
- the scanner and the slide loader are aligned correctly.
- the door of the scanner is opening and closing correctly and is synchronized with the slide loader.
- the Data Scan feature of the scanner is functioning correctly.

Follow the [To perform a Functional Checkout](#) procedure to load four compatible slides and configure and check the alignment and movement of the slide loader and scanner.

To perform a Functional Checkout

1. Follow the startup procedure for using the slide loader and scanner. See [Operation Startup Procedure on page 15](#).
2. On the **Batch Scan** tab, in the **Scan Type** group, make sure that **Batch** is the selected scan type. If **Manual** is the selected scan type, click **Select**, select **Batch**, remove any slides on the scanner's slide holder, and click **OK**.
3. On the slide loader, open the slide enclosure door and remove both the left and right slide cassettes.
4. Place four compatible slides in slide cassette positions 1, 25, 26, and 50. For more information, see [Using Compatible Slides on page 31](#).



Tip! Slide cassette positions 1, 25, 26, and 50 are equivalent to positions 1 and 25 in each of the left and right slide cassettes.

5. Return both the left and right slide cassettes into the slide enclosure.
6. Close the slide enclosure door completely.
The Map Slides button on the Batch Scan tab is enabled. The Scan Batch button remains disabled.
7. Click **Map Slides**.
The slide loader scans the two slide cassettes. When the scan is complete, the Map window is updated to show the available slides. The Scan Batch button is enabled.
8. On the Batch Scan tab, right-click on slides 1, 25, 26, and 50, and then select **Data Scan Only** for all four slides.
9. Click **Save loader settings**.

- 10.** On the Image tab, press **Ctrl+N** to create a New Settings file.
A scan area is created that matches the size of each slide. You can reduce the amount of time for the scan by reducing the scan area size.
- 11.** Click **Scan Area Properties**.
- 12.** Type the following values:
 - ◆ **Left:** 3500
 - ◆ **Top:** 5000
 - ◆ **Width:** 15000
 - ◆ **Height:** 3000
- 13.** Click **OK**.
- 14.** On the **Batch Scan** tab, click **Scan Batch**.
The batch scan begins and all four slides are loaded, scanned, and unloaded, based on the defined settings.
The GenePix Pro Software automatically logs hardware performance into the Hardware Diagnostics Report every two hours during operation.

Manual Scanning

In Manual scan mode, the GenePix Pro Software operates the scanner only, in a conventional way. You can open and close the motorized scanner door, perform Preview Scans, Data Scans, adjust scanner settings from the Hardware Settings dialog box, and stop and start scans.

Any Global file options (Save locations, File name) set during a batch scan apply when performing a manual scan.

Follow the instructions carefully when inserting a slide in the scanner slide holder. The slide holder is a precision component designed to ensure proper focusing and field uniformity. Improper handling may damage the slide holder and affect imaging performance. In Manual scan mode, the GenePix SL50 Slide Loader is inactive and will not move.

To insert a slide in the scanner

1. In the GenePix Pro Software, click the **Open-Close Scanner Door** icon to raise the scanner door.
The scanner slide holder moves forward into the load position.

CAUTION! Never touch the slide holder while it is moving. Never force the slide holder closed, or apply significant pressure to it.

2. With the slide held between your thumb and finger, carefully place the slide, feature-side down, into the slide holder.

Note: Make sure the barcode on the slide is facing the front of the slide scanner.

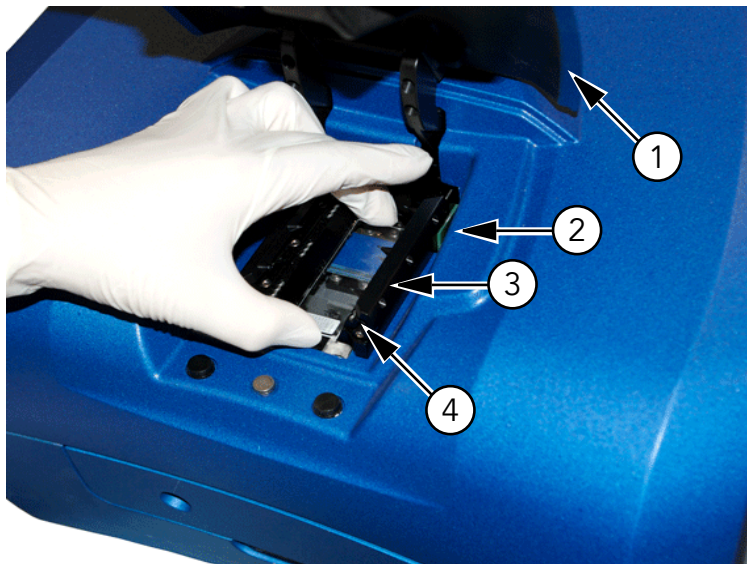


Figure 2-1 Scanner slide holder

Item	Name	Description
1	Scanner door	In raised position
2	Slide holder	In load position

Figure 2-1 Scanner slide holder (cont'd)

Item	Name	Description
3	Slide	Place feature-side down
4	Barcode	Barcode is facing the front of the slide scanner

3. Click the **Open-Close Scanner Door** icon to close the scanner door.

The door closes and the slide holder moves into the scan position.

To scan a single slide

1. On the **Batch Scan** tab, in the **Scan Type** group, click **Select**. The Scan Type dialog box appears.
2. Select **Manual** and click **OK**.
3. Insert a slide in the scanner. See [To insert a slide in the scanner on page 21](#).
4. Click the **Hardware Settings** icon on the right-hand side of the GenePix Pro window.
5. In the **Hardware Settings** dialog box, set the filter and PMT parameters.
6. Click the **Preview Scan** icon to scan the slide and display general data for the slide.
7. If you want to scan a smaller region, use the **Scan Region** tool to select a region, then click the **Data Scan** icon.
8. When you are finished scanning, click the **Open-Close Scanner Door** icon.
9. Remove the slide from the slide holder.

Batch Scanning

In Batch Scan mode, the scanner scans all selected slides in the slide loader, without any user intervention. The GenePix SL50 Slide Loader contains a three-axis robot that moves slides from each cassette in the slide enclosure to the scanner and then returns slides to their original position, after scanning is complete. The robot and the slide enclosure are external to the scanner.

During the initialization procedure, when starting the GenePix Pro Software, the GenePix SL50 Slide Loader maps the slide positions in both slide cassettes. The motion arm senses the presence or absence of slide cassettes in the slide enclosure and will not start a scan if no slide cassettes are present. Only those positions containing slides are accessed during the scan.

On the Batch Scan tab, you can customize various settings.

- For each slide in the slide carrier, you can specify hardware (scanner) settings and analysis settings.
- For the entire batch scan, you can specify file naming and saving options, as well as workflow options. Note that any Global file options set during a batch scan apply when performing a manual scan.

While scanning, the positions in the GenePix Pro slide carrier map change color depending on their scan status:

- Light-blue outline: Scan is in progress.
- Green: Scan was completed successfully.
- Red: Slide was not scanned because of a slide handling failure or scan cancellation.

To load the slide cassette

1. Use the handle on the right side of the slide loader tower to slide open the slide enclosure door.



Figure 2-2 Slide enclosure door handle

- Using the handle on top of the slide cassette, lift the left slide cassette out and place it on a stable position on the counter.



Figure 2-3 Slide enclosure door open with both slide cassettes visible

- With each slide held between your thumb and finger, carefully place slides, feature-side down and barcode facing the front, into empty slots in the slide cassette.



Note: The motion arm uses a sensor to locate and map slides in the cassette slots before beginning the batch scan.

- When you have placed all slides for scanning into the slide cassette, return the cassette to the slide enclosure by inserting it at a slight angle tilted away from you, then straighten it until it fits securely in the slide enclosure. You will hear a click when it is in place.
- If additional slots are required, perform [Step 2](#) through [Step 4](#) with the right slide cassette.

CAUTION! Do not access the slides in the cassette through the belt opening.

6. When all slides are loaded into the slide cassettes and the cassettes are returned to the slide enclosure, use the handle on the slide loader tower to slide both cassettes back into the slide enclosure. Both slide cassettes must be in the slide enclosure for the GenePix Pro Software to recognize that the slide enclosure is completely shut.

You will hear a click when the slide enclosure is completely shut.

To perform a batch scan

1. On the **Batch Scan** tab, in the **Scan Type** group, make sure that **Batch** is the selected scan type. If **Manual** is the selected scan type, click **Select**, select **Batch**, remove any slides on the scanner's slide holder, and click **OK**.



Note: For optimum performance, allow the GenePix 4300A/4400A Scanner to warm up for 15 minutes before scanning slides with the GenePix Pro Software.

Slide positions containing slides to be scanned are indicated in light blue on the slide cassette map.

Slide positions containing no slides are indicated in white.

Slide positions in gray indicate that a slide is present but has not been selected to be scanned (based on the current GenePix SL50 Slide Loader settings).

By default, all slides present in a batch are scanned.

2. Click the **Hardware Settings** icon on the right-hand side of the GenePix Pro window.
3. In the **Hardware Settings** dialog box, select the laser and filter settings for all slides. To override these hardware settings for individual slides, ensure that you select specific hardware settings for selected sub-batches of slides in [Step 8](#).
4. In the **global file options** group, click **Save Locations [...]** to open the **Options > Folders** dialog box and set the directories in which to save various file types.
5. In the **global file options** group, click **File name [...]** to open the **Options > File Save** dialog box and set the naming conventions for files saved during batch scans.

6. If you want to save all settings on the Batch Scan tab to re-use in another scan or if you want to open a previously saved settings file, use the **Loader Settings** group and select one of the following options:
 - ◆ Click **New** to save the batch scan configuration in a loader settings file (*.gpa).
 - ◆ Click **Open** to open a previously saved loader settings file (*.gpa).
7. If you want to scan a slide multiple times (for example, at different PMT settings or using different scan regions), do the following:
 - ◆ Select the slide in the Batch Scan list.
 - ◆ Use the arrows in the **Scan # times** field to set the number of times to scan the slide.

Based on the number of times selected, the scan is copied in the Batch Scan list (for example 1a, 1b) and each instance of a scan gets its own entry. You can assign scan settings to each entry independently.

8. If you want to select a sub-batch of slides for scanning, use Ctrl-click and Shift-click to select multiple slides in the Batch Scan table, and then select the following settings for the sub-batch scan in the **For the selected sub-batch of slides** group.
 - ◆ Click the **Scans** drop-down list to select the type of scan to perform on the selected sub-batch of slides.
 - ◆ Type a **File name body** to save the selected sub-batch of slides with a specific file name.
 - ◆ Choose the **Hardware Settings** for the selected sub-batch of slides either by clicking **Current settings** or by clicking **GPS file** and using the [...] button to navigate to a specific GenePix Settings (GPS) file.
 - ◆ For each slide in the selected sub-batch, choose the **Auto PMT** gain either by clicking **Selected hardware settings** to use the current hardware settings or by clicking **GAL file** and using the [...] button to override the specified settings and navigate to a specific GenePix Array List (GAL) settings file.



Note: For information on Auto PMT, see [Setting PMT Gain Automatically on page 29](#).

9. If you have multiple sub-batches, repeat [Step 8](#) for any other sub-batches selected.
To copy and paste slide settings from one slide to another, select a row and use the Copy Row and Paste Row buttons at the bottom of the Batch Scan tab.
10. In the **After batch scan** group, select what you want to happen when the batch scan is complete:
 - ◆ If you want to browse the scanned images without analyzing them, use the Browse tool on the Batch Analysis tab.
 - ◆ If you want to run a batch analysis after the batch scan is complete, check **Add image files and analysis settings files to Batch Analysis tab** and type a name for the file, and then click **Run batch analysis**.
11. If you want to save the current configuration of the Batch Scan tab settings with a new file name, click **Save loader settings [...]** and enter a new file name.
12. Click **Scan Batch** to perform a batch scan using the settings configured on the Batch Scan tab.



Note: Do not disturb the scanner or slide loader during the batch scan. Depending on the resolution and the number of wavelengths or channels you select for scanning, a single scan can take from 4 to 35 minutes to complete.

When the batch scan is complete, a message appears in the GenePix Pro Software.

Stopping a Batch Scan

You can stop a batch scan at any time during the scan. You can then choose to continue the scan or to cancel it.

To stop the current scan

1. In the GenePix Pro Software, click the **Stop Scan** icon.
2. Choose one of the following options:
 - ◆ To continue scanning the batch from the current position in the slide carrier, click **Continue**.
 - ◆ To cancel the batch or to restart a batch from a position that has already been scanned, click **Stop**.

Setting PMT Gain Automatically

GenePix Pro Software and the GenePix SL50 Slide Loader support automatic setting of PMT gain (Auto PMT) when scanning. The algorithm requires a GenePix Array List (GAL) or GenePix Settings (GPS) file that both accurately describe the size of features, and their approximate positions. The GAL/GPS file does not need to be aligned to features, but it does need to be roughly near the features on the array. For more information on PMT topics, see the GenePix Pro online help.

Performing a Batch Analysis

After a Batch Scan is completed, you can automatically analyze all the images by adding them to the Batch Analysis tab.

To perform a batch analysis

- On the **Batch Analysis** tab, either click **Select GAL** or **Select GPS** to select a GenePix Array List (GAL) or GenePix Settings (GPS) file for analysis.

For more information on batch analysis, see the GenePix Pro online help. Locate the Batch Analysis topic in the GenePix Pro Features section.

Reviewing the Batch Scan Log File

The GenePix Pro Software saves a log file for each batch of slides that it scans. If there is a problem with a batch, you should open and review the log file for diagnostic information.

The log file is saved by default in the ...\\Documents\\Molecular Devices\\GenePix Pro\\Data directory, but you can specify where it is saved.

To open a batch scan log file

- From the main menu, select **File > Open Batch Scan Log**.

To select a location for the batch scan log file

1. On the **Batch Analysis** tab, select **Use folder options**.
2. In the **Options** dialog box, click the **Folders** tab.
3. On the **Folders** tab, click **Specified folder for individual file types**.
4. In the **Slide Loader Log** field, click **Browse** to navigate to a location to store the batch scan log file.

Shutting Down the Slide Loader

Proper shutdown of the GenePix SL50 Slide Loader ensures that the slide loader and software are not damaged.

To shut down the slide loader

1. Close the GenePix Pro Software.
2. Turn off the slide loader power switch.
3. Turn off the scanner power switch.
4. Turn off the control computer.

Routine Maintenance and Troubleshooting

The GenePix® SL50 Slide Loader requires very little maintenance. Routine maintenance procedures are limited to installing additional filters.

The user can perform basic troubleshooting procedures for the slide loader. However, if the slide loader is damaged or requires repair, contact Molecular Devices.

Using Compatible Slides

CAUTION! Use only slides that are compatible with the GenePix SL50 Slide Loader microarray scanner. Damage to the scanner caused by incompatible slides is not covered by warranty or service contract. Contact Molecular Devices if you are not sure if your slides are compatible.

The slide cassette can accommodate slides that are between 0.9 mm and 1.1 mm thick, including any labels. Slides thicker than 1.1 mm will not fit properly in the slide carrier and can cause slide-handling failure because of the manual force required to remove the slides from the cassette. Make sure that slides move freely in the slide cassette when you insert them. Slides thinner than 0.9 mm will not remain in the proper position in the slide cassette for pick-up by the motion arm.

Figure 3-1 Slide dimension requirements

Slide Dimension	Minimum	Maximum
Length	74.50 mm	76.35 mm
Width	24.90 mm	25.90 mm
Thickness (including labels)	00.90 mm	01.10 mm

Slide edges should be either square-cut or rounded.

Make sure you keep a 2mm-wide area on the long edge of each slide free of any material (for example, coverslips).

Make sure that slides are free of sticky substances that might adhere to the motion arm. Sticky substances can result from use of labels, adhesives, attached superstructures, waxy coatings, or polish. These substances can cause slide-handling failure during the loading and unloading of the slide in the slide cassette.

Position arrays at least 7 mm from the front end of each slide to avoid contact with the motion arm during slide handling.

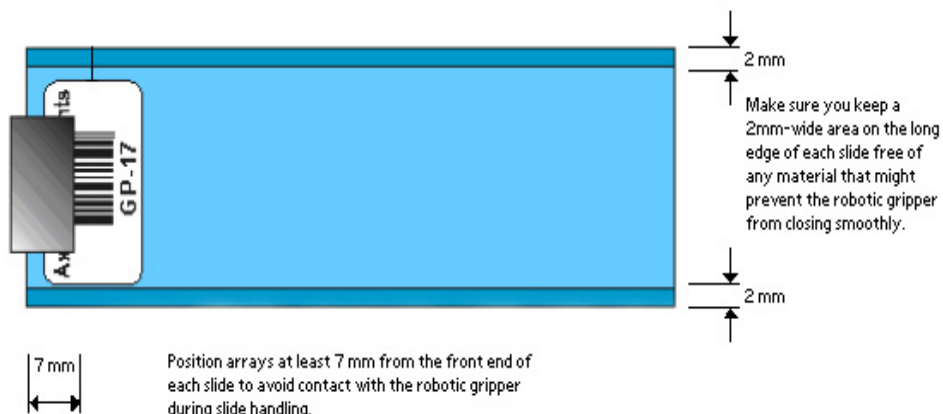


Figure 3-2 Slide compatibility details

Removing Particles from Equipment

Periodically check both the scanner and the slide cassettes for glass slide particles that can accumulate over time. Use only a brush or vacuum to remove particles. Do not use an aerosol duster to remove particles because this can distribute particulates to other areas of the scanner and this can result in airborne particles that can cause eye and nose irritation.

Troubleshooting Fuse Errors

If the GenePix SL50 Slide Loader does not start up, a fuse may no longer be functioning. If you suspect a fuse has stopped functioning, contact Technical Support.

Replaceable fuse specifications: 6.3 mm x 35 mm, 2 Ampere, 250 V, time delay.

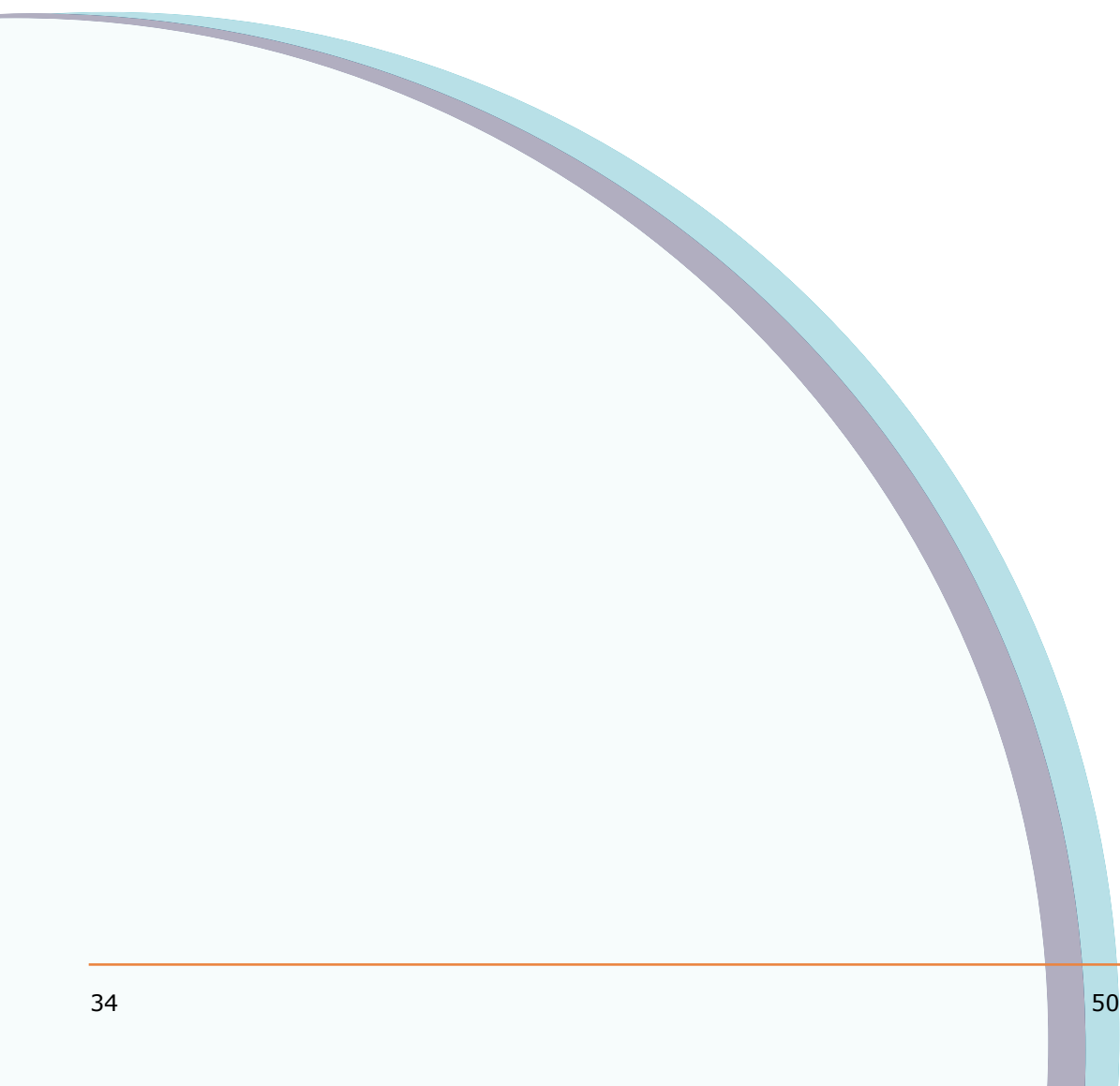
Returning the Slide Loader to Home Position

If the GenePix SL50 Slide Loader is operating, but not operating reliably, you might need to stop and restart the GenePix Pro Software to return the slide loader to its Home position.

CAUTION! If a slide remains in the motion arm, shut down the system and remove the slide before attempting to initialize the slide loader. A slide in the gripper can be damaged when the slide loader moves to its lowest point during the procedure.

To return the slide loader to Home position

1. Close the GenePix Pro Software.
2. Start the GenePix Pro Software.
3. If a slide remains in the motion arm, when the slide loader has moved to its far right position, turn off the slide loader power switch, and then carefully remove the slide from the gripper. After removing the slide from the gripper, turn on the slide loader power switch.
4. Close the GenePix Pro Software.
5. Start the GenePix Pro Software.
The slide loader returns to Home position. The GenePix Pro Software starts in Manual mode.
6. Perform manual scans as required. For more information, see [Manual Scanning on page 20](#).



Warranty and Service

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Molecular Devices is committed to ensuring the highest quality of our products and customer service.

If you have any problems with your GenePix® SL50 Slide Loader, contact Technical Support group. In the US, contact us at 1-800-635-5577. For locations outside the US, please contact your local Molecular Devices sales representative.

Standard Warranty

Molecular Devices warrants its non-consumable hardware products to be free from defects in materials and workmanship for 12 months from date of invoice or date of purchased installation visit, whichever is later. The warranty covers the cost of parts and labor to repair the product.

Please keep the shipping container for future use. If you require an additional container, one can be provided for an additional charge. Products returned for repair should be properly packaged with transportation charges prepaid. Molecular Devices will pay for the return shipping of the product to the customer. If the shipment is to a location outside the United States, the customer is responsible for all duties, taxes and freight clearance charges.

The warranty is valid when the product is used for its intended purpose and does not cover products which have been modified without approval from Molecular Devices, or which have been damaged by abuse, accident or connection to incompatible equipment.

This warranty is in lieu of all other warranties, expressed or implied.

Out-of-Warranty Repair Service

Out-of-warranty repair service is available. Contact Technical Support for more information.

Optional Service Agreement

Purchasing an optional Service Agreement extends the coverage of the Standard Warranty. Contact Molecular Devices for current rates.

Technical Support

In order to receive the best possible technical support, we encourage you to register on our web site www.moleculardevices.com/login.php, especially if your sales transaction was conducted by a purchasing agent. Your name in our database ensures that we can contact you directly with important information about product upgrades and special promotional opportunities. Once you register your name, you can then register your instrument.

If you require advice on the use of your GenePix SL50 Slide Loader, do not hesitate to contact Technical Support. Visit our Technical Support web site at <http://support.moleculardevices.com> and complete the Technical Support Request form.

You can also phone Technical Support at:

1-408-747-1700 or
1-800-635-5577 (USA only) or
+44 118 944 8000 (EU)

Follow the prompts for **GenePix Technical Support**.

Staying in touch with all of our customers is a valuable part of our ongoing development process, ensuring the excellence of every product we offer.