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Manufactured by
Beckman Coulter, Inc.
250 S. Kraemer Blvd.
Brea, CA 92821 U.S.A.



WARNINGS AND PRECAUTIONS

READ ALL PRODUCT MANUALS AND CONSULT WITH BECKMAN COULTER-TRAINED PERSONNEL BEFORE ATTEMPTING TO OPERATE INSTRUMENT. DO NOT ATTEMPT TO PERFORM ANY PROCEDURE BEFORE CAREFULLY READING ALL INSTRUCTIONS. ALWAYS FOLLOW PRODUCT LABELING AND MANUFACTURER'S RECOMMENDATIONS. IF IN DOUBT AS TO HOW TO PROCEED IN ANY SITUATION, CONTACT YOUR BECKMAN COULTER REPRESENTATIVE.

HAZARDS AND OPERATIONAL PRECAUTIONS AND LIMITATIONS

WARNINGS, CAUTIONS, and IMPORTANTS alert you as follows:

WARNING - Can cause injury.

CAUTION - Can cause damage to the instrument.

IMPORTANT - Can cause misleading results.

BECKMAN COULTER, INC. URGES ITS CUSTOMERS TO COMPLY WITH ALL NATIONAL HEALTH AND SAFETY STANDARDS SUCH AS THE USE OF BARRIER PROTECTION. THIS MAY INCLUDE, BUT IT IS NOT LIMITED TO, PROTECTIVE EYEWEAR, GLOVES, AND SUITABLE LABORATORY ATTIRE WHEN OPERATING OR MAINTAINING THIS OR ANY OTHER AUTOMATED LABORATORY ANALYZER.

WARNING Risk of operator injury if:

- All doors, covers and panels are not closed and secured in place prior to and during instrument operation.
- The integrity of safety interlocks and sensors is compromised.
- Instrument alarms and error messages are not acknowledged and acted upon.
- You contact moving parts.
- You mishandle broken parts.
- Doors, covers and panels are not opened, closed, removed and/or replaced with care.
- Improper tools are used for troubleshooting.

To avoid injury:

- Keep doors, covers and panels closed and secured in place while the instrument is in use.
- Take full advantage of the safety features of the instrument. Do not defeat safety interlocks and sensors.
- Acknowledge and act upon instrument alarms and error messages.
- Keep away from moving parts.
- Report any broken parts to your Beckman Coulter Representative.
- Open/remove and close/replace doors, covers and panels with care.
- Use the proper tools when troubleshooting.

CAUTION System integrity might be compromised and operational failures might occur if:

- This equipment is used in a manner other than specified. Operate the instrument as instructed in the Product Manuals.
- You introduce software that is not authorized by Beckman Coulter into your computer. Only operate your system's computer with software authorized by Beckman Coulter.
- You install software that is not an original copyrighted version. Only use software that is an original copyrighted version to prevent virus contamination.

IMPORTANT If you purchased this product from anyone other than Beckman Coulter or an authorized Beckman Coulter distributor, and, if it is not presently under a Beckman Coulter service maintenance agreement, Beckman Coulter cannot guarantee that the product is fitted with the most current mandatory engineering revisions or that you will receive the most current information bulletins concerning the product. If you purchased this product from a third party and would like further information concerning this topic, call your Beckman Coulter Representative.

Issue A, 11/01

Software version 1A. Converted from Help Version 1A.012431.

Issue B, 5/02

Complete Revision. Software Version 2A. Converted from Help Version 2A.021501.

Issue C, 10/03

Changes were made to,

- comply with the EU IVD Directive (98/79/EC).
- change the company name from Coulter Corporation to Beckman Coulter Inc.
- change product name from LH750 to LH 700 Series.
- change LH 700 Series reagents to LH Series reagents.

Software Version 2B. Converted from Help Version 2B.031971.

Issue D, 10/06

LH 780 Software Version 1A. Converted from Help Version 1A.062781.

Issue DA, 08/09

LH 780 Software Version 1B1. Converted from Help Version 1B1.091732.

LH 750 Software Version 2D1. Converted from Help Version 2D1.091732.

Issue DB, 10/10

Updates were made to the Company corporate address.

Issue DC, 12/10

Changes were made to:

- [Cleaning the Dispense Probe and Rinse Cup](#)
- [Clearing a Clogged Dispense Probe and Rinse Cup](#)
- [SLIDE SPECIFICATIONS](#)

Issue DD, 12/11

Changes were made to:

- [Slide Dimensions.](#)
- [EXPIRATION DATES AND SLIDE STORAGE CONDITIONS](#)

This document applies to the latest software listed and higher versions. When a subsequent software version changes the information in this document, a new issue will be released to the Beckman Coulter website. For labeling updates, go to www.beckmancoulter.com and download the most recent manual or system help for your instrument.

Issue DE, 01/13

LH 780 Software Version 1B3. Manual derived from Online Help Version 1B3.

LH 750 Software Version 2D3. Manual derived from Online Help Version 2D3.

Changes were made to:

- [Space and Accessibility](#)
- [PHYSICAL SPECIFICATIONS](#)
- Added reference to the Hematology Tube List information.

Note: Changes that are part of the most recent revision are indicated in text by a bar in the margin of the amended page.

This document applies to the latest software listed and higher versions. When a subsequent software version changes the information in this document, a new issue will be released to the Beckman Coulter website. For labeling updates, go to www.beckmancoulter.com and download the most recent manual or system help for your instrument.

This introductory section contains the following topics:

- How to use your COULTER LH 700 Series System hard-copy manuals
- About this manual
- Online Help System
- Conventions

HOW TO USE YOUR COULTER LH 700 SERIES SYSTEM HARD-COPY MANUALS

Use the **Getting Started** booklet to see an overview of the system hardware and software. This document comes with your LH 700 Series System.

Use the **Reference** manual for in-depth information about what the instrument does, the methods it uses, its specifications, and information on installation, safety and software options. The Reference manual for the LH 700 Series System is included in the online Help system; it is available in hard copy by request.

Use the **Special Procedures and Troubleshooting** manual to run calibration; to clean, replace or adjust a component on the instrument; and for troubleshooting the instrument. This document is made up of procedures from the online Help system; it is available in hard copy by request.

Use the **Operator's Guide** for the day-to-day operation of your instrument. This document is made up of procedures from the online Help system; it includes Startup, running controls and samples, reviewing data, Shutdown, and the software on the Analyzer and the Workstation. This document is available in hard copy by request.

Use the **SlideMaker Operator's Guide** for in-depth information about what the SlideMaker does, the methods it uses, its specifications, and information on installation, safety and software, as well as day-to-day operating and troubleshooting your SlideMaker. This document is made up of procedures from the online Help system; it is available in hard copy by request.

Use the **SlideStainer Operator's Guide** for the day-to-day operating and troubleshooting of your SlideStainer. This document is made up of procedures from the online Help system; it includes in-depth information about what the SlideStainer does, the methods it uses, its specifications, and information on installation, safety and software. This document is available in hard copy by request.

Use the **Master Index** to easily locate a subject in your hard-copy Reference manual, Operator's Guide or Special Procedures and Troubleshooting manual. The Master Index comes with the hard copy of both the Operator's Guide and the Special Procedures and Troubleshooting manual.

Use the **Host Transmission Specification** to find the information needed to program the transmission interface between the LH 700 Series System and your laboratory's host computer. This document comes with your LH 700 Series System.

See the **Documentation** page on the back cover of this manual for the contents of each manual. It can help you to determine quickly in which manual the information you need is located.



ABOUT THIS MANUAL

Your LH 700 Series SlideMaker Operator's Guide is a source of information for the day-to-day operation of your instrument. This information is organized as follows:

- Chapter 1, Use and Function
Contains the intended use of the SlideMaker, a brief history of the methods used, the reagents, the hazards, and a short description of the major components.
- Chapter 2, Installation
Contains the SlideMaker installation requirements, and the diagrams of the reagent/pneumatic tubing connections and the interunit cable connections.
- Chapter 3, Operation Principles
Contains descriptions of the slide and sample flow through the SlideMaker, and information about choosing slides.
- Chapter 4, Specifications/Characteristics
Details the SlideMaker specifications and performance characteristics.
- Chapter 5, Operating Procedures
Contains instructions on using the SlideMaker screens, startup, using slides, cassettes and baskets, checking smear quality, and shutdown.
- Chapter 6, Cleaning/Replacement Procedures
Contains instructions on cleaning and replacing parts of the SlideMaker.
- Chapter 7, Troubleshooting
Contains an overview of troubleshooting concepts, instructions on troubleshooting SlideMaker components, and lists the SlideMaker error messages.
- References
- Index, hard copy only

ONLINE HELP SYSTEM

The LH Workstation has a comprehensive Online Help System, which includes reference information, all operating, maintenance and troubleshooting procedures. On the

LH Workstation, select  to access Help. Select  to access the tutorials.

CONVENTIONS

This document uses the following conventions:



indicates a key on the Numeric keypad.



indicates a key on the LH Workstation keyboard.



is the icon for Patient results on the LH Workstation.



is the icon for the Printer on the LH Workstation.

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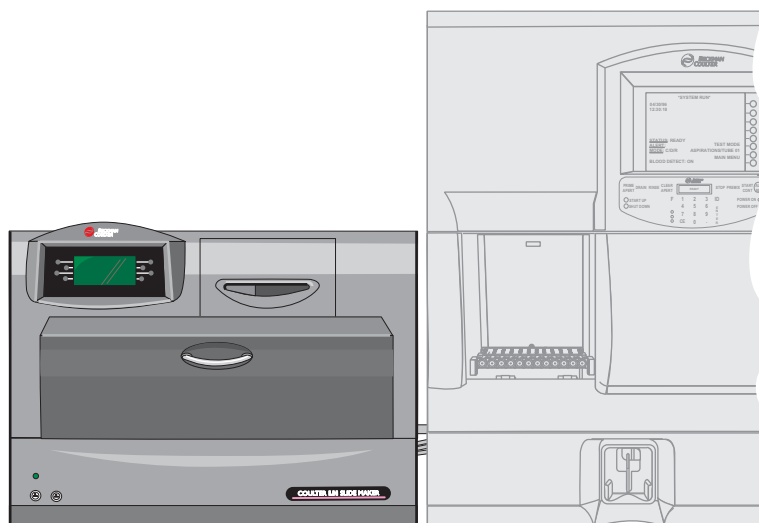
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BECKMAN COULTER, INC. CUSTOMER END USER LICENSE AGREEMENT

TRADEMARKS

1.1 INTENDED USE

The Beckman Coulter LH 700 Series SM SlideMaker shown in the following figure is intended for use as an optional peripheral to the Beckman Coulter LH 700 Series System. The SlideMaker creates a blood smear on a clean microscope slide using a segment of the blood sample aspirated by the LH 700 Series.



1.2 METHOD HISTORY

Blood smears or films have multiple uses in hematology. They can be used:

- To determine the leukocyte differential count.
- To check the leukocyte distribution to determine whether any abnormal leukocyte cells are present.
- To study erythrocytes and platelets.^{1S}

Peripheral blood films can be prepared using the wedge-pull technique. After a drop of mixed blood is deposited on one end of a slide, a second slide is placed at about a 45-degree angle to the first slide and quickly pushed to the other end of the first slide to spread the blood.^{2S}

Acceptable blood films should have:

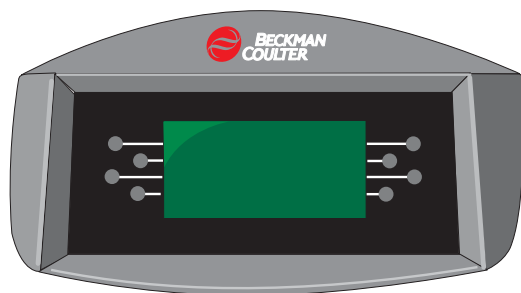
- An adequate working area with an acceptable morphology and minimum distributional distortion.
- A gradual decrease in thickness of sample.
- A minimum film of 2.5 cm.
- Edges narrower than the slide width.
- A far end without streaks that is at least 1 cm from the end of the slide.
- No artifacts derived from the technique.^{2S}

1.3 SYSTEM COMPONENTS

SlideMaker (Front View)

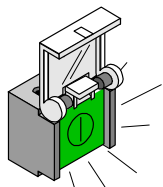


SlideMaker Screen

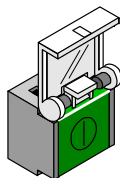


The SlideMaker screen displays the SlideMaker status and error messages, and provides buttons and screens for you to interface with the SlideMaker.

Power On/Off

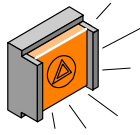


This button is illuminated when the SlideMaker power is on. When you press this button, the power to the SlideMaker turns OFF.



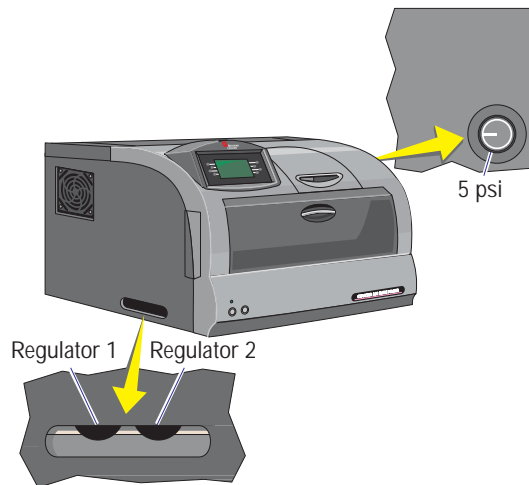
This button is not illuminated when the SlideMaker power is off. When you press this button, the power to the SlideMaker turns ON.

Reset Switch



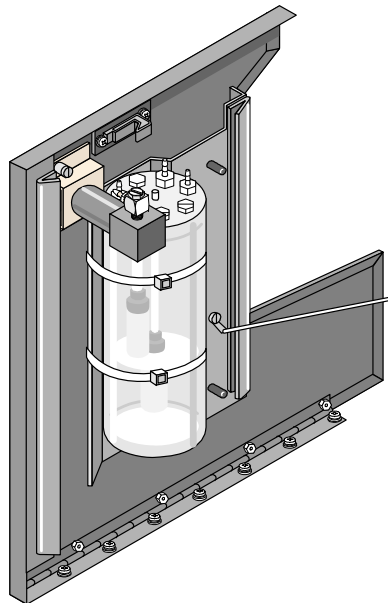
The reset switch is illuminated when the SlideMaker is processing slides. When you press this switch, the SlideMaker immediately initiates a reset cycle.

Regulators (SlideMaker)

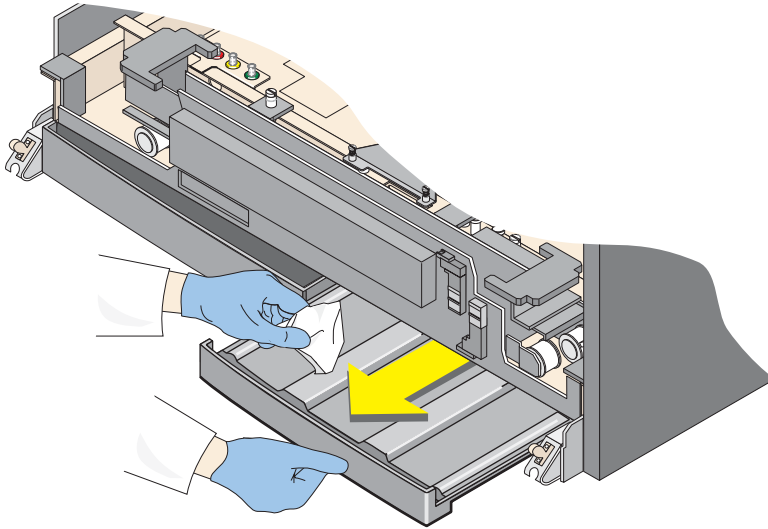


The regulators adjust the vacuum and pressure in the SlideMaker. Regulator 1 (REG1 or VAC1) adjusts 17.5 Hg vacuum and Regulator 2 (REG2 or VAC2) adjusts 6.5 Hg vacuum. The other regulator adjusts the 5 psi pressure.

Vacuum Accumulator



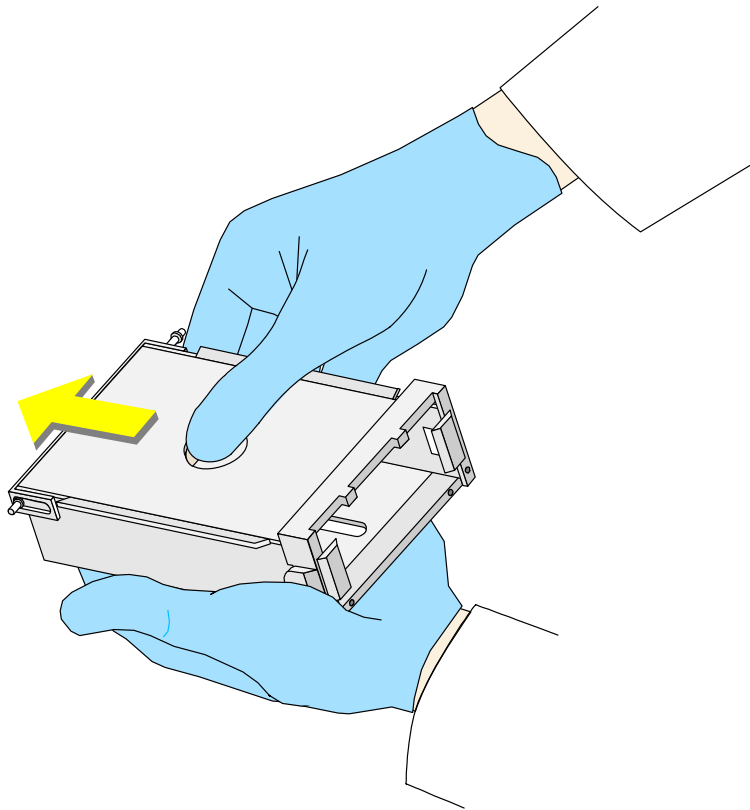
Catch Tray



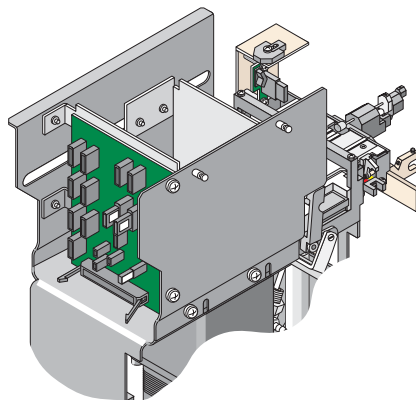
This graphic illustrates one of the catch trays that needs to be cleaned regularly.

WARNING Risk of personal injury and contamination. The processing areas may contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.

Slide Cassette

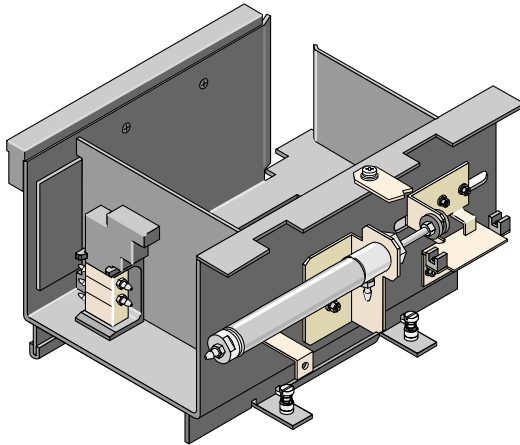


Input Queue



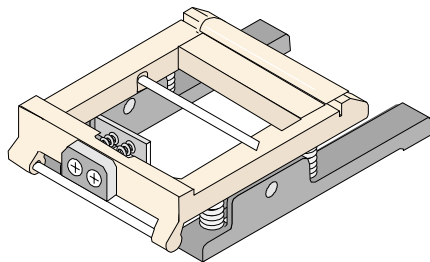
The cassette input queue moves filled slide cassettes into position for retrieval of the slides. Once the slide cassette is empty, it is moved to the output queue.

Output Queue



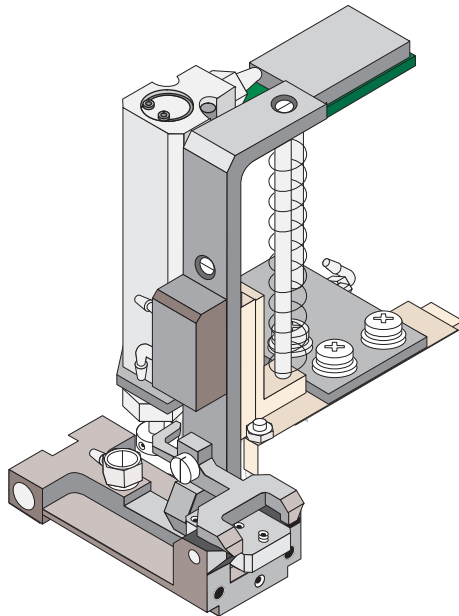
The cassette output queue stores empty slide cassettes until the operator can retrieve and refill the slide cassettes.

Ejector



The ejector pushes slides out of the cassette and onto the smear truck, one at a time.

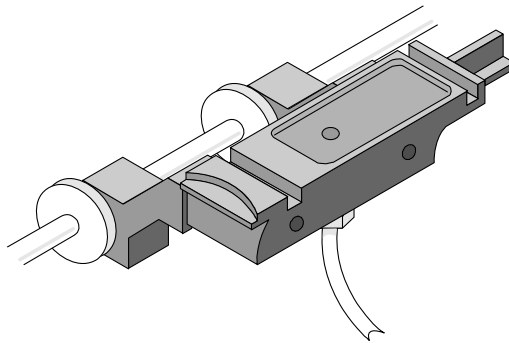
Truck



The truck:

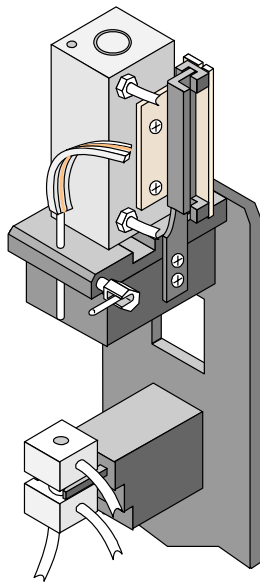
- Moves to the Slide Ejector module.
- Picks up slides from the Slide Ejector module and deposits slides on the shuttle.
- Holds a slide in position for making a wedge smear.
- Places a spreader slide on the smear slide, moves the spreader slide through the drop of blood, and stops, allowing the blood to wick along the end of the spreader slide. Then the smear truck pushes the spreader slide across the long direction of the smear slide, producing a wedge blood smear.

Shuttle



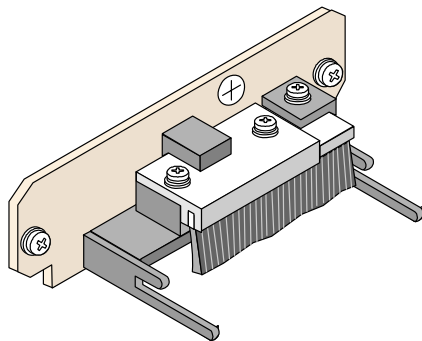
The shuttle is a moving platform that transports a slide between three positions: the smear (home) position, the printer (labeling) position, and the dispense position.

Dispense Module



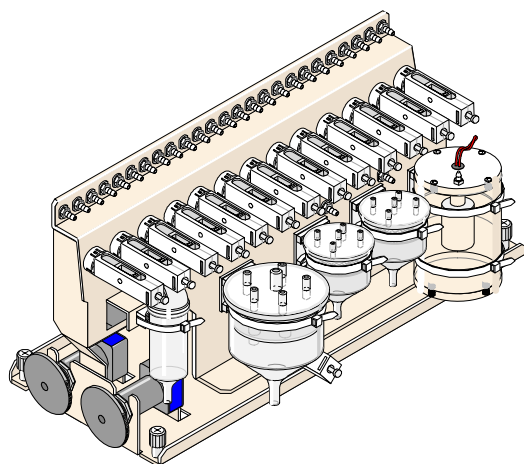
The Dispense Module includes a dispense probe and a probe wipe for measuring and positioning the drop of blood used for a smear.

Pusher Bars



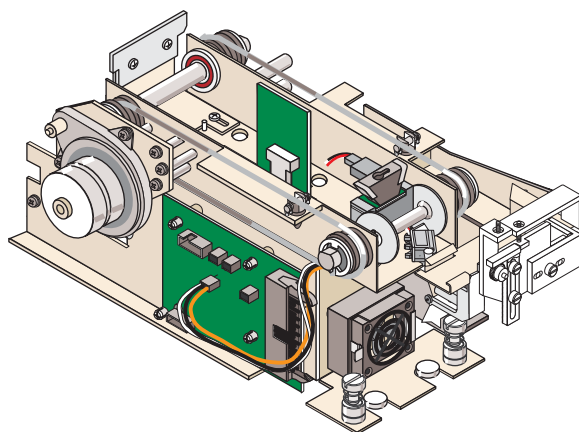
The slide pusher bars push the wet slide from the shuttle onto the conveyor belts of the Dryer module.

Main Fluidics



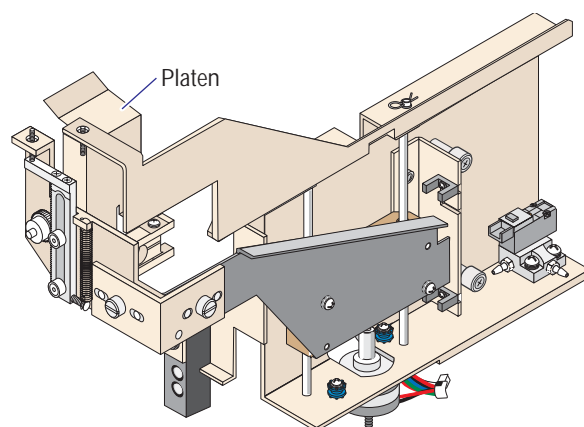
The Main Fluidics module is a centralized source of pneumatic power, reagents, and waste collection for the Dispense module.

Dryer



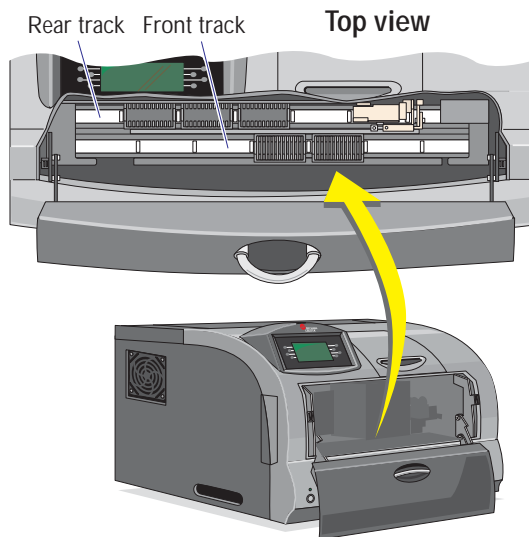
The dryer receives a labeled, wet, smear slide from the pusher bars, dries the smear, and moves the smear to the Slide Elevator module.

Platen and Elevator



The platen and elevator, also called the Slide Elevator module, receive dried smear slides from the Dryer module and insert the slides into slide baskets in the Basket Queue module.

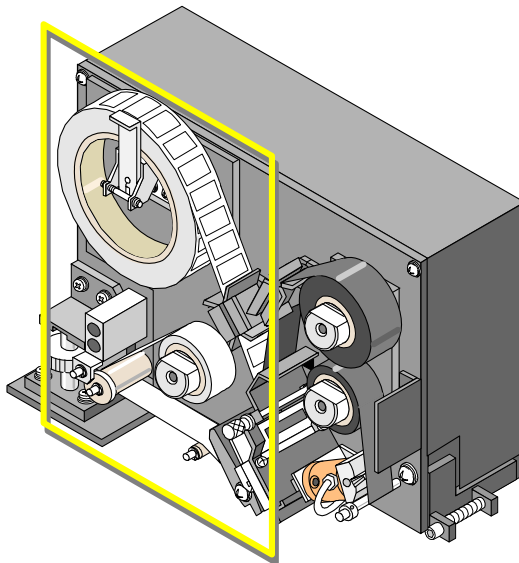
Basket Queue



The basket queue moves the slide baskets from the rear (input) track to the front (output) track.

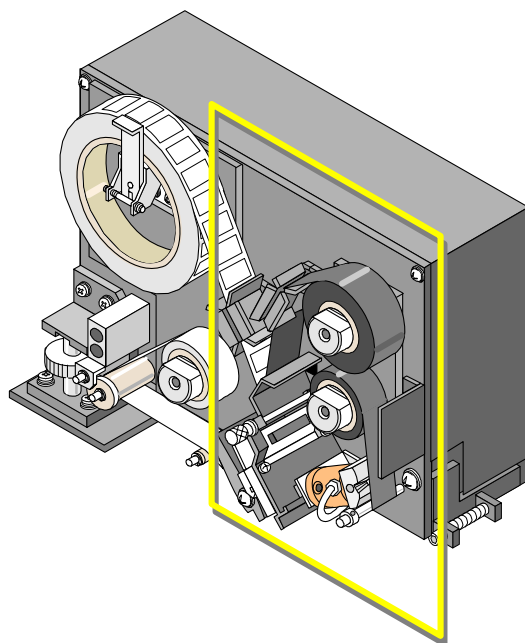
Note: Once a basket has advanced to the slide loading position under the platen, do not manually remove it from this position. You can advance the basket, if necessary, but do not manually remove a basket from the slide loading position.

Label Printer



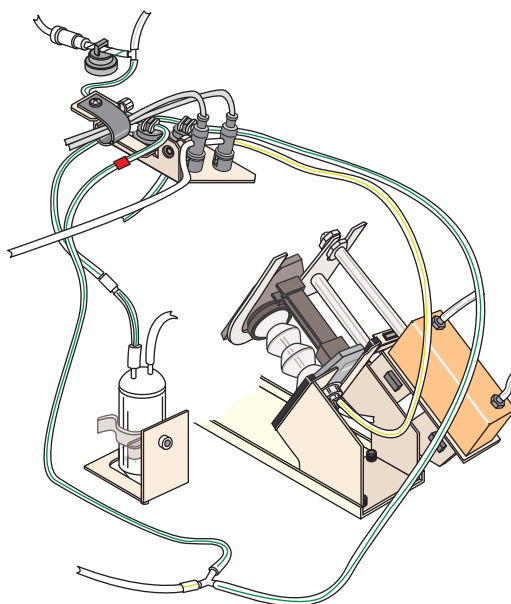
The SlideMaker contains a dedicated label printer that prints labels and applies the labels to the slides.

Printer Ribbon



The printer ribbon is used to print the bar-codes on the labels.

Needle Changes



When your Beckman Coulter Representative installs your SlideMaker, minor changes to the LH 700 Series Needle module are required.

1.4 REAGENTS

The SlideMaker uses the diluent and cleaning agent from the LH 700 Series analyzers.

2.1 DELIVERY INSPECTION

CAUTION Possible system damage can occur if you uncrate the instrument, install it or set it up. Keep the instrument in its packaging until your Beckman Coulter Representative uncrates it for installation and setup.

Your instrument is tested before it is shipped from the factory. International symbols and special handling instructions printed on the shipping cartons tell the carrier how to handle this electronic instrument.

Carefully inspect all cartons when they arrive. If you see any sign of mishandling or damage, file a claim with the carrier immediately. If the shipment is separately insured, file a claim with the insurance company.

2.2 SPECIAL REQUIREMENTS: HARDWARE

Install and operate this instrument in a conventional clinical laboratory environment. Since this instrument is part of the LH 700 Series and units are interrelated, you must determine the system location and layout before your Beckman Coulter Representative arrives to install this instrument. Consider the following special requirements.

Space and Accessibility

In addition to the space required for the individual components, consider:

- Comfortable working height.
- Access to perform service procedures.

Refer to the following figures for recommended space and accessibility requirements.

Figure 2.1 Space for tower-type computers

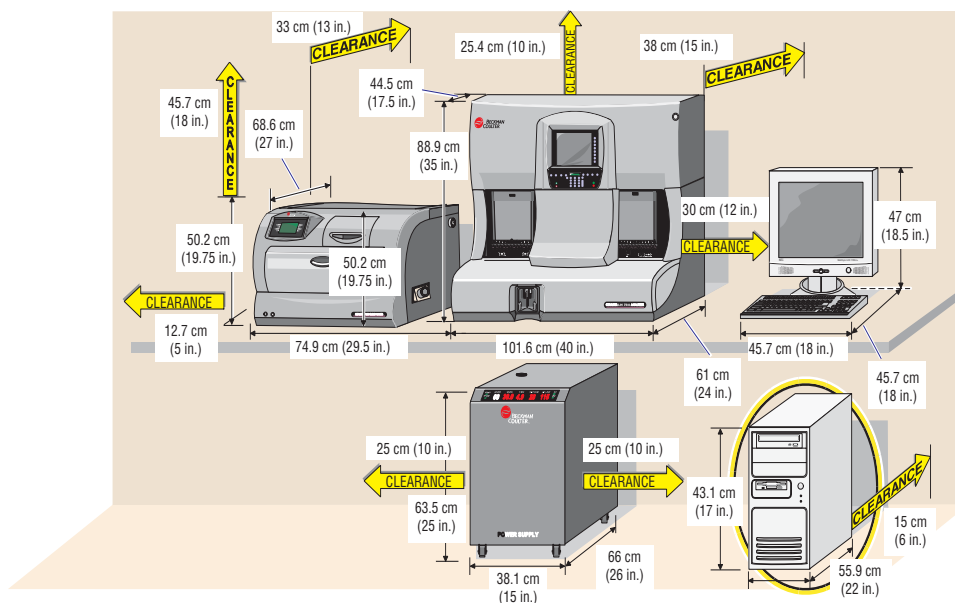
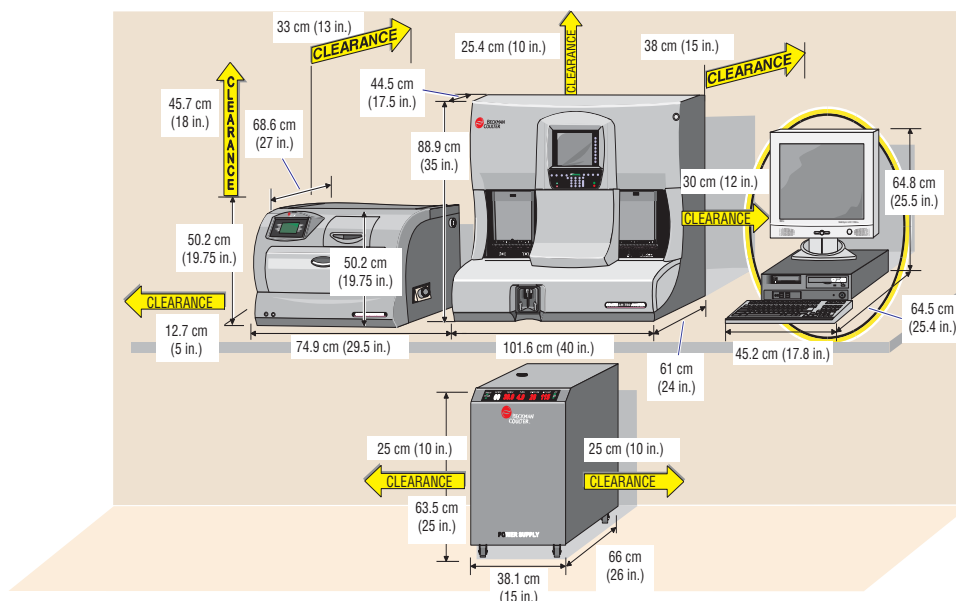


Figure 2.2 Space for Small Form Factor (SFF)-type computers



Electrical Input

CAUTION Introduction of electrical interference causing the instrument to lock up or reset frequently can occur if you do not plug the power cable directly into an electrical outlet. Overheating, melting and burning of the power lines can occur if you use an extension cord with the power cable. Plug the power cable directly into an electrical outlet. Place the instrument close enough to an electrical outlet so that an extension cord is not needed.

This instrument requires an ac outlet that is within 1.2 m (4 ft) of the area designated for the SlideMaker. The ac outlet must be properly grounded and transients protected.

Ambient Temperature and Humidity

Refer to the LH 700 Series Reference Manual ambient temperature and humidity information.

Air Conditioning

Compensate for system-generated heat in air-conditioned environments with an additional 500 Btus.

Ventilation

Position ventilation fans at least 25 cm (10 in.) away from walls or obstructions that could interfere with the flow of air.

Drainage

WARNING Biohazardous contamination could occur from contact with the waste container and its associated tubing if not handled with care. Avoid skin contact. Clean up spills immediately. Dispose of the contents of the waste container in accordance with your local regulations and acceptable laboratory procedures.

The waste line of this instrument is connected to the waste line of the LH 700 Series analyzer. For information about the drainage requirements for the LH 700 Series analyzer, refer to the LH 700 Series Reference Manual.


2.3 SPECIAL REQUIREMENTS: SOFTWARE


To set up the software on this instrument:

Ensure the proper date format is set up on the Workstation.

Power on the SlideMaker.

Select  on the Workstation Command Center.

Select  to access the SlideMaker Setup window.

Select . The Workstation installs the latest software on the SlideMaker.

Select ☒ YES to confirm the download.

Reset the SlideMaker to initiate the download.

2.4 INTERUNIT CONNECTIONS

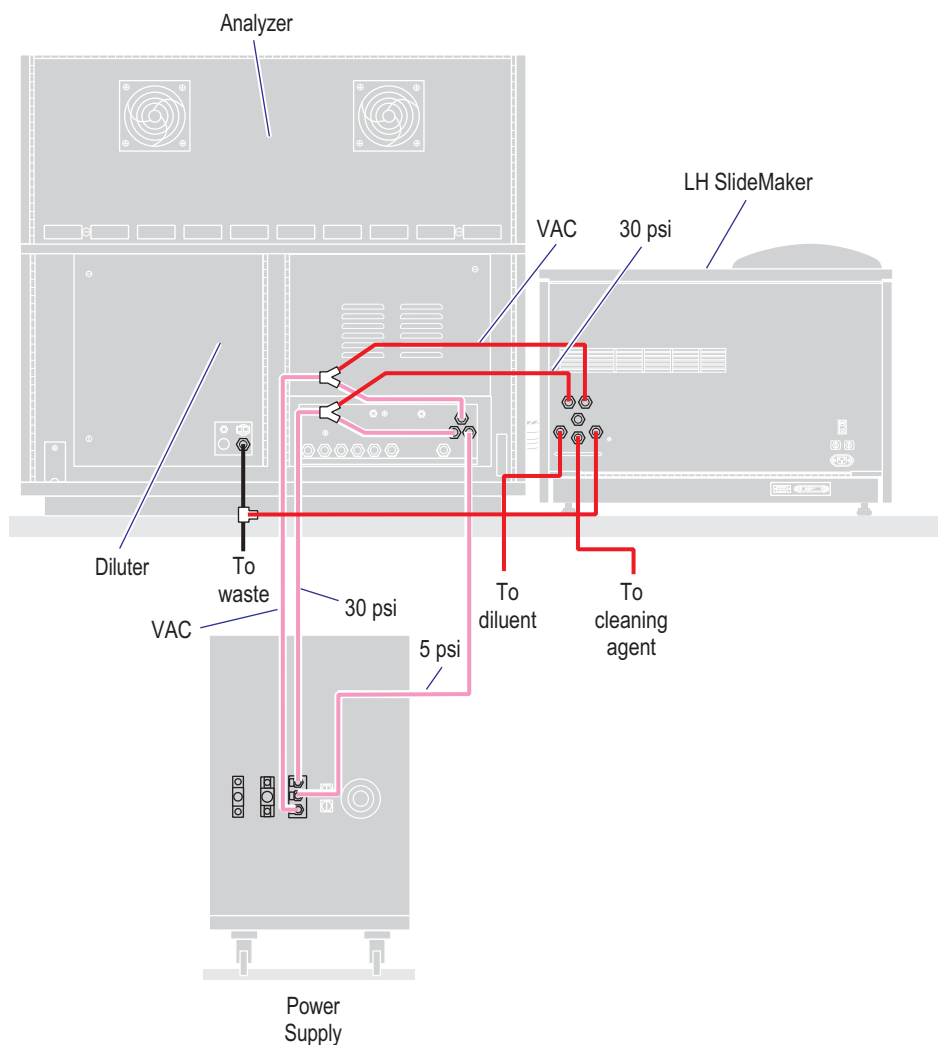
Fluid, Pressure and Vacuum Connections

CAUTION Possible reagent siphoning effect and priming problems can occur if a reagent container is placed above the level of the Analyzer. Do not place reagent containers above the level of the instrument.

The following figure shows the connections for fluid (reagent and waste), pressure and vacuum.

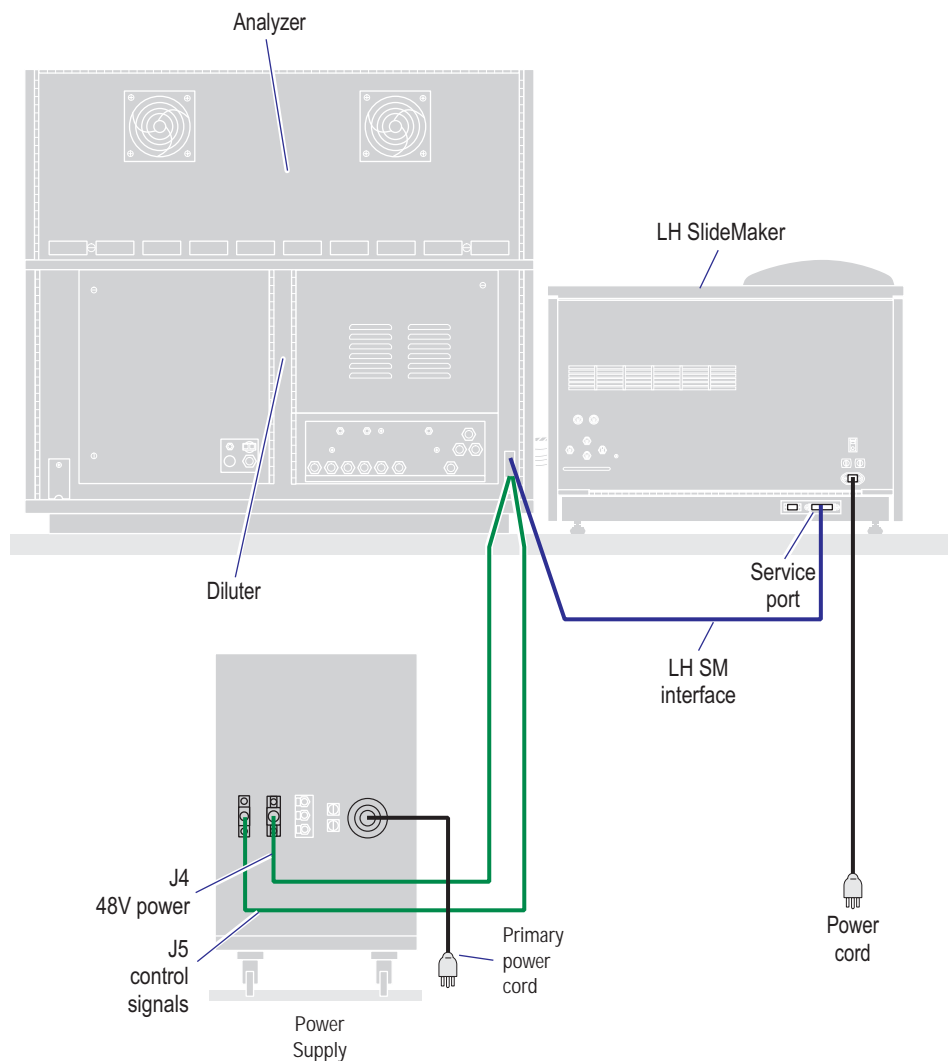
INSTALLATION

INTERUNIT CONNECTIONS



Power and Signal Cables

The following figure shows the interunit connections of the power and signal cables that are supplied with the instrument. Your Beckman Coulter Representative makes these connections when installing and qualifying your instrument for subsequent use.



3.1 SLIDE AND SAMPLE FLOW

Slide Request

The SlideMaker makes blood smears based on the criteria and rules set up for the sample on the Workstation. You, the operator, can also request a slide for a particular sample prior to running the sample by using the Make Slide field on the Add Test window.

Slide Preparation

You load at least one slide cassette containing clean slides into the Slide Ejector module. A mechanism pushes the cassette to the front of this module. Two prongs, called pawls, push a slide out of the cassette. Grippers hold the slide on the smear truck that carries the slide to the shuttle.

Sample Aspiration

The LH 700 Series analyzer aspirates sample from the specimen tube. The LH 700 Series analyzer uses the first sample aspiration for analysis. The LH 700 Series analyzer makes a second aspiration of 250 μL of sample from the vent side of the needle for the SlideMaker. If a partial aspiration is detected on the first sample aspiration, no second aspiration occurs.

Regulated vacuum pulls the sample into one of two, coiled sample reservoirs. An air bubble is inserted into the middle of the sample before it goes into the sample reservoir. While in the sample reservoir, the system moves the sample back and forth to keep it mixed.

The aspiration lines are rinsed and dried before the LH 700 Series analyzer finishes its count cycle. Sample mixing at the SlideMaker ends when the count cycle ends.

Slide Labeling

Blood smears can be made only on samples processed in the Automatic mode. Depending upon user-selected criteria, the sample smear process either starts immediately or only if selected flagging criteria occur on the sample's CBC or Diff results at the LH 700 Series analyzer.

The slide on the shuttle moves to the label printer and receives a label with the user-defined sample information sent from the LH 700 Series analyzer.

Sample Dispensing

Priming of the Dispense module and its probe is done with the first 168 μL of the 250 μL aspirated sample. Then the shuttle moves the slide to the Dispense module to receive a 4 μL aliquot of sample. This 4 μL is taken from the final 82 μL of the 250 μL sample.

Smear Production

The smear truck holds a clean, second slide at approximately a 45-degree angle and drags its edge over the slide with the sample to spread the blood sample. Then the second slide moves back over the first slide to make a wedge smear.

The pusher bars eject the slide with the smear onto the conveyor belt of the Dryer module. The second slide transfers to the shuttle to be used for the next sample.

Smear Drying

Warmed air dries the smear as the conveyor belt moves the slide through the Dryer module at a preprogrammed speed.

Basket Filling and Unloading

At the end of the Dryer module, the conveyor belt transfers the slide to a platform, called a platen. There, grippers hold the slide as the platen rotates to a vertical position. The platen lowers the slide and places it in an opening in the basket directly below. When a basket is full, it moves along a transport belt to a position where you can unload the basket. After unloading the basket, you must inspect the slides. Make sure the ID on the label is readable. If multiple slides exist with the same ID on the label, check the slide date and time of analysis for unique identification. Discard any slides that do not have labels or do not meet standard NCCLS slide characteristics.

Next Sample

To maintain optimum throughput, until the current sample is dispensed, the next aspirated sample goes to the second sample reservoir where it is mixed until needed.

3.2 CHOOSING SLIDES

Beckman Coulter requires that you use the slides developed especially for the Beckman Coulter SlideMaker. Beckman Coulter slides have many features that will help ensure system reliability. The frosted areas prevent multiple slide adhesion while the finely ground edges and cleanliness are important for consistent smear quality.

Storage and Handling

IMPORTANT Improper slide handling can cause misleading results. In addition to following good laboratory practices, the operator must be trained in the proper handling of slides.

Use the following guidelines for storing slides to minimize the risk of moisture contamination. Slides should be:

- Rotated in storage.
- Kept off concrete floors on a pallet.
- Kept away from doors and heating and air conditioning ducts.
- Used within six months of the date they were manufactured.

Allow slides and cover glass cases to come to room temperature in the lab before they are opened.

4.1 PHYSICAL SPECIFICATIONS

Check that the space is sufficient for the SlideMaker. The dimensions and requirements for accessibility are shown below:

Figure 4.1 Space for tower-type computers

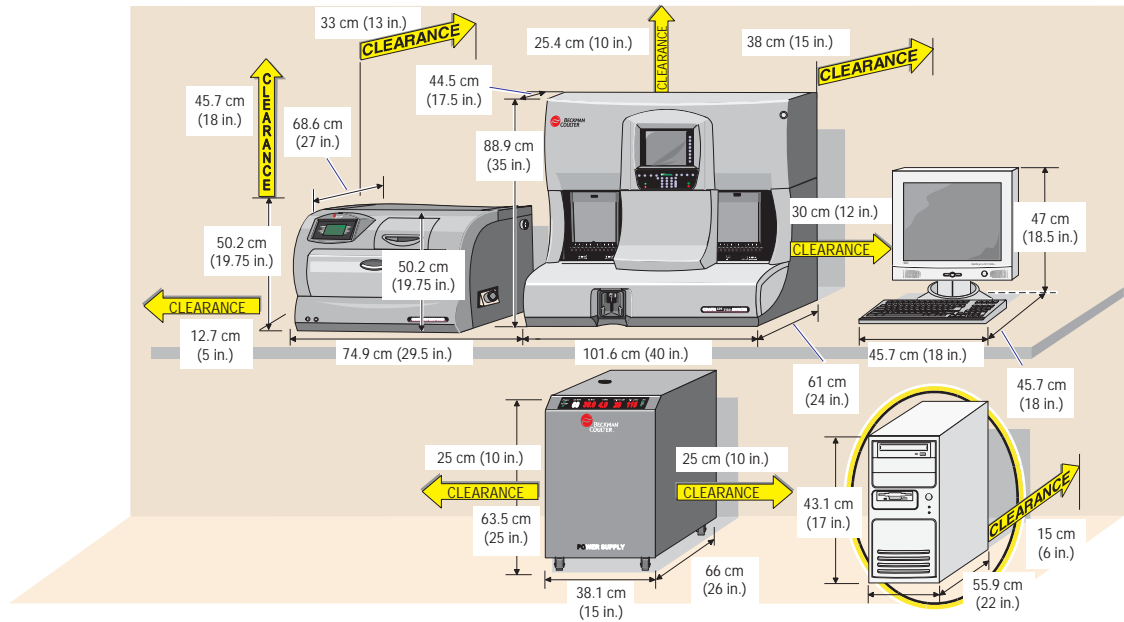
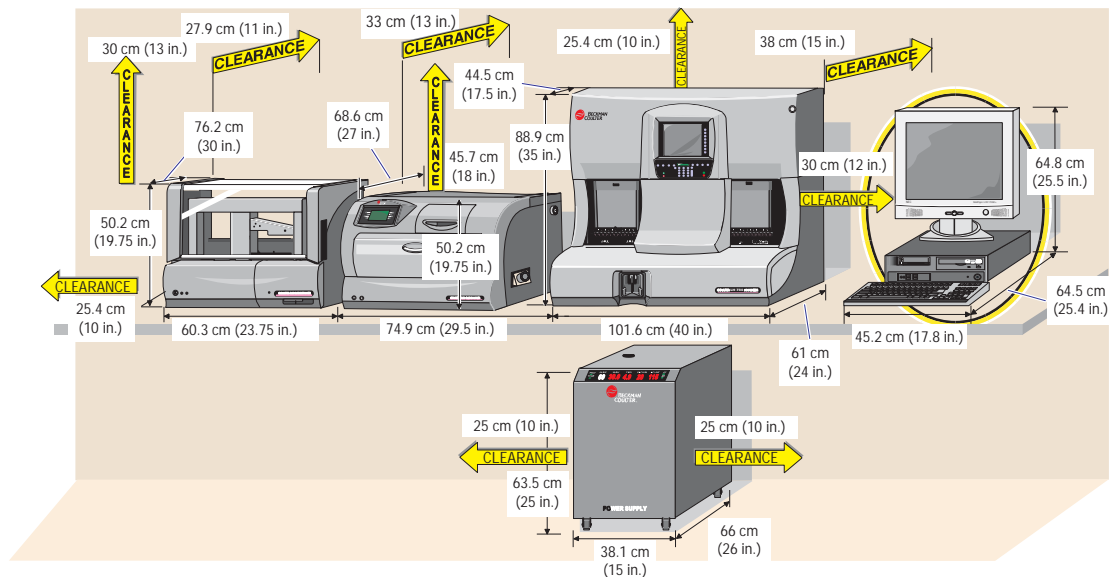


Figure 4.2 Space for Small Form Factor (SFF)-type computers



See the LH 700 Series analyzer specifications for general specifications that apply to both the LH 700 Series Analyzer and the SlideMaker.

Specifications that apply only to the SlideMaker are listed here.

Dimensions

Height	Width	Depth	Weight
52.1 cm	74.9 cm	68.6 cm	40.9 kg
(20.5 in.)	(29.5 in.)	(27 in.)	(90 lb)

Power

Input

90-264 Vac 48-62 Hz

Consumption

350 W (Btu) maximum

Recommended Reagents

The LH 700 Series SlideMaker uses the diluent and cleaning agent from the LH 700 Series:

- LH Series Diluent
- ISOTON 4 Diluent
- Beckman Coulter CLENZ cleaning agent
- LH Series Cleaner

Sample Volume

Aspirated Volume

250 μ L maximum

Dispensed Volume

4 μ L \pm 0.5 μ L

4.2 SLIDE SPECIFICATIONS

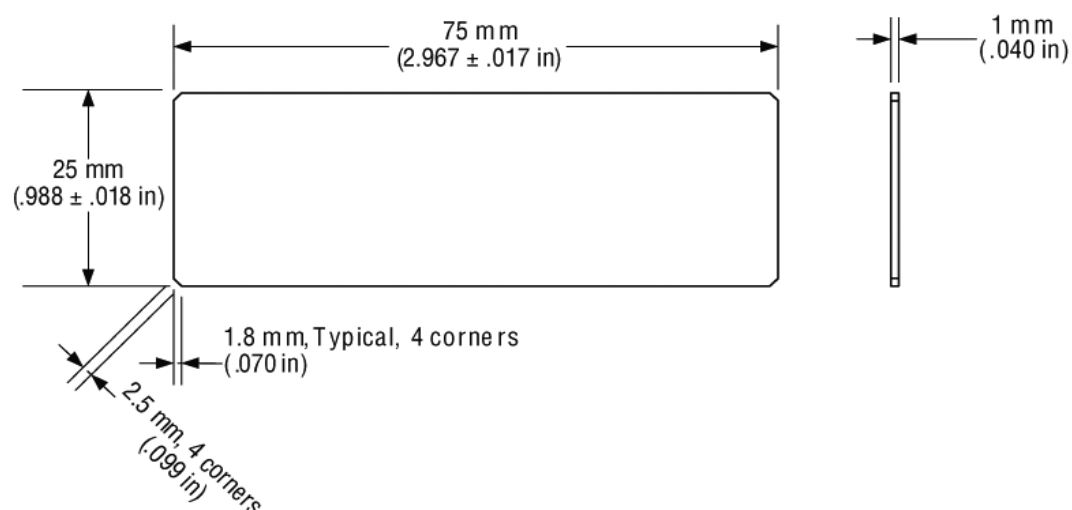
Slide Dimensions

Use only Beckman Coulter slides. Beckman Coulter has a 25 mm x 75 mm x 1mm slide and a 26 mm x 76 mm x 1 mm slide.

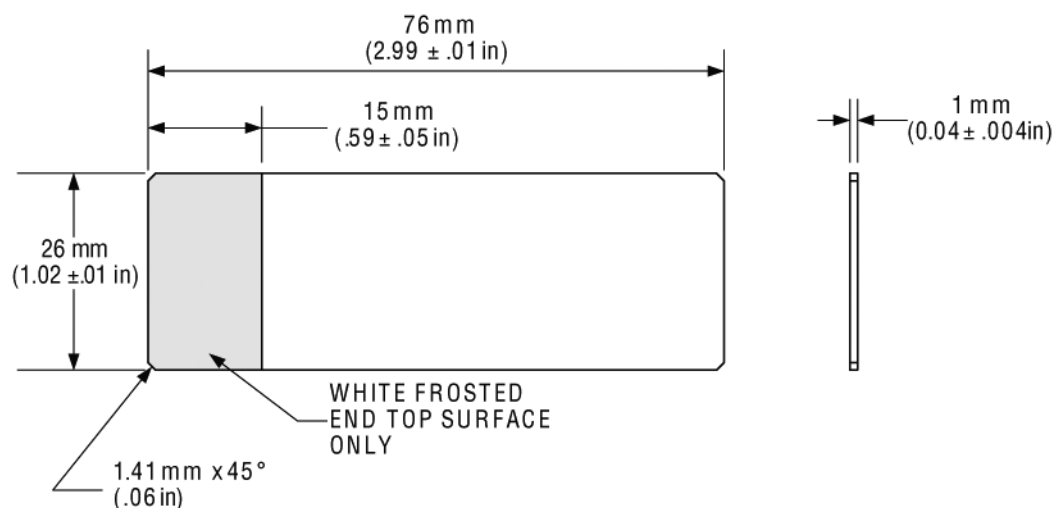
NOTE: The 26 mm x 76 mm x 1mm slide is available only for the Japanese market.

These slides are clean with finely ground edges and are packaged in lint-free, moisture-proof containers. Beckman Coulter slides are within these ranges:

25 mm x 75 mm Slide



26 mm x 76 mm Slide



Other Slide Parameters

Parameter	Specification 25mm x 75mm	Specification 26mm x 76mm
Slide Material	Soda lime glass	Soda Lime Glass
Slide Flatness	<0.00030 in.	<0.5 mm
Surface Wettability	Contact angle <10 degrees	Complies with ISO 80372, Section 4.7, Wettability
Edge Roughness	<200 peaks / in., RA < 8	Complies with ISO 80372, Section 4.4 for Edge Finish
Frosting Thickness	0.00125 in. \pm 0.00025 in.	.01mm

Note: Changes in slide length may require calibration of the SlideMaker.

The 25 mm x 75 mm Beckman Coulter slide has two frosted bars at opposite ends of the same side of the slide. The 26mm x 76mm slide contains a painted end with two laterally opposing frost dots on the opposite end. The frosted areas are a deposition coating and are not created by sandblasting or acid etching. This coating serves to minimize multislide adhesion during packaging, storage, and instrument operation when undesirable environmental conditions exist.

Material

The material composing the slide should be clear transparent glass, free from imbedded foreign material, bubbles, blisters, striae, and internal cloudiness. The type of glass chosen for slide construction shall have strength, hardness, and brittleness characteristics, which will minimize slide cracking and breakage as well as the formation of ground glass residue and glass chips.

Color and Optical Properties

The faces of the microscope slide are colorless when judged by the unaided eye. The slide may possess a slight greenish tint when viewed edgewise, but this coloration must not materially affect the color of light transmitted through the slide faces.

Precleaning

Slide: 25 mm x 75 mm - These slides are precleaned and when tested in accordance with Sections 4.4.1.1 and 4.4.1.2 of NNN-S-450B demonstrate uniform dispersion of liquid and an absence of smears on both surfaces. The precleaned slides are free of all traces of moisture, cloudiness, detergent, and oily, waxy, or syrupy film.

Slide: 26 mm x 76 mm - These slides comply with ISO 8037/2, Section 4.2, "Durability", which states that the slides shall have sufficient surface durability to pass the Solubility Test described in Section 6.9 of that Standard.

Boiling and Solubility

25 mm x 75 mm Slide: The slides show no evidence of fogging, chipping, cracking, or formation of pink color when tested as specified in Section 4.4.2 and 4.4.3 of NNN-S-450B4S.

26 mm x 76 mm Slide: The slide shall comply with the section ISO 8037/2, Section 4.2, “Durability”, which states that the slides shall have sufficient surface durability to pass the solubility test described in Section 6.9 of that standard.

Ribbon Specifications

Width: 1.00 ±0.005 in.

Length: Sufficient to print at least 5,000 labels

Type: Thermal transfer, 7.1 microns (max) thick; carbon pigment with resin binder

4.3 PERFORMANCE CHARACTERISTICS

The performance characteristics for this instrument apply only to an instrument that has been properly maintained as indicated in the Beckman Coulter LH 700 Series documentation. The following performance characteristics identify the quality of blood smears produced by the SlideMaker.

Precision and accuracy of blood smears prepared by the SlideMaker were evaluated at a clinical site as compared to the laboratory’s routine smear preparation method, a modified wedge technique.

Note: It is recognized that the [manual microscopic] reference method depends on human expertise and can be influenced by the subjective nature of the test. The subjective nature of the reference method should be remembered when making comparisons with the automated technique [or other microscopic techniques].

Precision

Precision was measured through replicate testing at the clinical site. Ten (10) blood films were prepared from a normal whole-blood specimen using two methods:

- Automated analysis of the sample using the LH 700 Series SM SlideMaker in the CBC/Diff Mode.
- Manual preparation using the laboratory’s current modified wedge technique: One-hundred cell manual differentials were performed on each of the ten films by a laboratory technologist at the clinical site. All smears were read by the same technologist.

The table below shows differential results for ten replicate determinations of normal whole blood in K3 EDTA using the two slide preparation methods.

Parameter	SlideMaker Mean	SlideMaker 1 SD	Manual Diff Mean	Manual Diff 1 SDSA
NE%	74.1	3.3	71.0	4.5
LY%	19.3	3.6	20.9	4.2
MO%	4.7	2.3	6.2	2.6
EO%	1.5	1.1	1.4	1.4
BA%	0.4	0.7	0.5	1.0

Carryover

- Sample slides that follow the analysis of manufactured controls may exhibit carryover of cellular subcomponents of the controls which may be mis-identified as an abnormal human cell or an unidentifiable cell.
- Studies on COULTER LH 750 and LH 780 Hematology Analyzers with LH SlideMakers have been performed which included analysis of a human blood sample with a WBC count approximately $90 \times 10^3/\mu\text{L}$ with a subsequent slide made from a red cell pool. While physiological variations can occur at the specimen level, Beckman Coulter's testing has determined within 95% confidence limits, zero to one cell may be carried over to the working area of a subsequent patient sample slide at a WBC level of $90 \times 10^3/\mu\text{L}$ (description below).

The Clinical and Laboratory Standards Institute (CLSI) (formerly known as NCCLS) provides the description of the working area for the microscopic examination of the blood film in their document H20-A2. The examination extends from "the area where approximately 50% of the erythrocytes overlap to the region where erythrocytes show a tendency to linear orientation, which, in even thinner parts of the film, causes separate streaks known as the 'feather edge'."

- Within this study, Beckman Coulter found that in the vast majority of the test cases, no cells were found in the working area of the slide.

Accuracy

SlideMaker accuracy was characterized using normal and abnormal specimens (approximately 50% normal:50% abnormal) at the clinical site. Manual differential results obtained using the laboratory's current smear preparation method were compared to manual differential results obtained using smears prepared by the SlideMaker. One-hundred cell manual differentials were examined for each method. Estimates of agreement were made by pair difference analysis and correlation.

Parameter	N	Population Minimum	Population Maximum	Mean Difference	Correlation Coefficient
NE%	104	6	98	+2.8	0.930
LY%	104	0	75	-2.3	0.929
MO%	104	0	37	-0.6	0.699

Parameter	N	Population Minimum	Population Maximum	Mean Difference	Correlation Coefficient
EO%	104	0	26	+0.2	0.811
BA%	104	0	17	-0.1	0.827

Quality Control Processing with LH SlideMaker

One-time action

1. Make a manual slide smear using Level III of COULTER Retic-C Cell Control and Abnormal I COULTER 5C Cell Control.
2. Stain slides using your laboratory staining process.
3. Review slides to familiarize staff to recognize the cellular sub-component of these control products.

Per control run

4. Process the control samples in the following order: COULTER Retic-C Cell Control Level III, II, I [highest to lowest Retic%] followed by COULTER 5C Cell Control Abnormal I, Normal and Abnormal II [highest to lowest WBC count].
5. Follow the control blood with one prime blood.
6. At a frequency appropriate to your workload and sample mix, prepare a slide on the sample following the prime blood from Step 2.
 - a. Go to Run Configuration screen at the Workstation.
 - b. Go to SlideMaker tab.
 - c. Set Patient Samples to All Samples.
 - d. Process a sample and prepare a slide.
 - e. Go to Run Configuration and reset the Patient Samples to your laboratory's routine slidemaking setting.
7. Stain the slide using the laboratory staining process.
8. Review the working area of the slide for the presence of the cellular sub-component of the controls.
9. If control sub-components are observed, [contact your Beckman Coulter Representative](#).

5.1 SLIDEMAKER SCREENS

Main Menu Screen

Use this screen to access the functions you want to perform.

Routine Functions

Press This Menu Item	To
Pneumatic/Power Supplies	View SlideMaker pneumatic and power supply levels.
Advance Basket	Advance a slide basket one basket position.
Unlock Cassette	Release the slide cassette.
Lock Cassette	Lock the slide cassette.

Printer Label Functions

Access functions to:
Decrease printer intensity.
Increase printer intensity.
Save printer intensity.
View SlideMaker settings, such as the slide counter and cycle counter.

Routine Fluidics

Access functions to:
Prime Reagent Reservoirs.
Drain the SlideMaker.
Draining the vacuum accumulator.
Prime the SlideMaker.
Start up the SlideMaker.
Shut down the SlideMaker.

Special Functions

Press This Menu Item	To
Define Smear Speed	Modify speed and wicking times used by the spreader slides.
Dryer Temperature	View the dryer temperature status.
Display Test	Test the SlideMaker display screen.
Dryer Function Test	Access functions to test the dryer and heater motors.
Reboot Printer	Reinitialize the SlideMaker printer.
Sensor Status	Displays the state (on/off) of each sensor.
Keypad Test	Test the SlideMaker keypad.

Run Mode

Press This Menu Item	To
Run Mode	Access the RUN MODE screen where you can make slides and view errors.

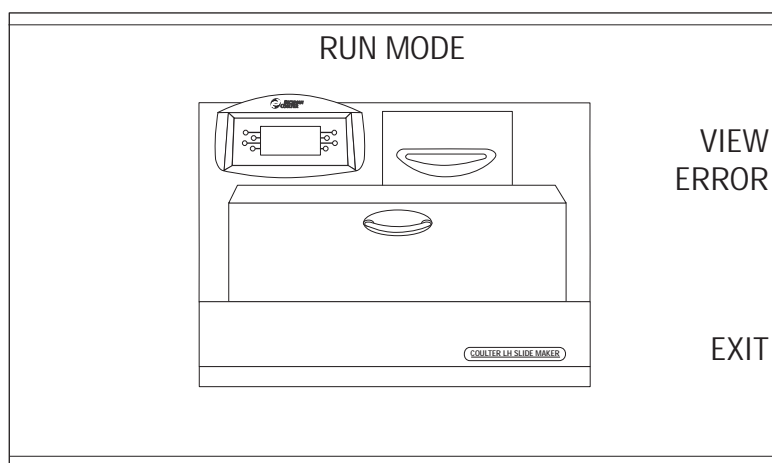
Special Cycles

Press This Menu Item	To
Print Label	Test label printing
Bleach System	Flush the SlideMaker

Run Mode Screen




Press **RUN MODE** on the SlideMaker MAIN MENU screen to access this screen.


This screen appears similar to the following. The messages on the SlideMaker status line display at the bottom of this screen. For more information about messages, refer to the Message List.



5.2 SLIDEMAKER SETUP

Setting Up SlideMaker

1. Ensure your Beckman Coulter Representative has enabled your SlideMaker.
2. Select  to display the System Setup window.
3. Select  to display the SlideMaker Setup window.
4. Specify the smear dispense mode.
5. Specify your laboratory ID.
6. Specify if you want to print bar-code tube ID.
7. Specify the print layout for the slide label.
8. Select  to close the SlideMaker Setup window and return to the System Setup window. The next time the SlideMaker makes a slide it will use the current setup.

Do not select  unless your Beckman Coulter Representative has instructed you to do so. It is used to download SlideMaker software.





Ensuring the SlideMaker is Enabled

In order for SlideMaker to be enabled, the Communications window of System Setup and the SlideMaker tab from the Run Configuration window must be properly configured.



Do not enable or disable the SlideMaker while the system is processing a cassette. If the

system is processing samples, Press  twice to stop processing.

System Setup – [Communications]

1. Select  to display the Communications window.
2. Select  to display the settings for the instruments attached to your Workstation.
3. Check that  appears in the SlideMaker field.
4. Check that the serial number for the SlideMaker appears on the window.
5. Select  to save the changes.

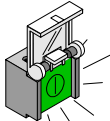
Run Configuration – SlideMaker tab

1. Select  to display the Run Configuration window.
2. Check that  appears in the SlideMaker field.
3. Select the preferred Automatic Output option for controls and samples.

Starting Up the SlideMaker

Procedure

Perform this procedure once every 24 hours after the daily SlideMaker Shutdown.

1. Check that the LH 700 Series analyzer has successfully completed startup and that the LH 700 Series analyzer status is *READY*.
2. Verify that the SlideMaker power is ON. If the power is OFF, press  to turn on the SlideMaker.
3. On the SlideMaker screen, press EXIT until you reach the MAIN MENU screen.
4. Press ROUTINE FUNCTIONS.

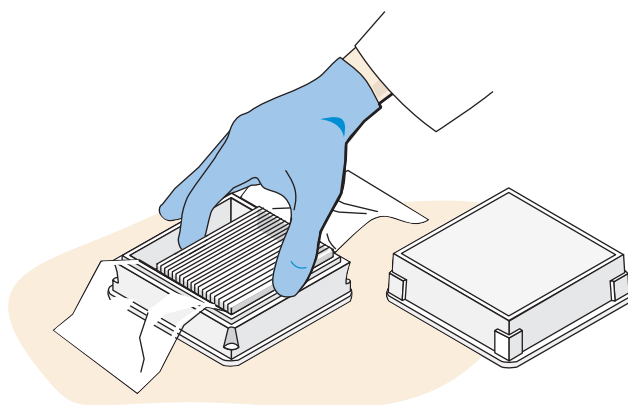
5. Press ROUTINE FLUIDICS.
6. Press RUN START UP. The SlideMaker drains and rinses the lines in preparation for making slides.
7. When startup is complete, verify that a *PASS* message is displayed on the LH 700 Series Daily Checks Workstation screen in the SlideMaker (SM) field.
Note: If a *FAIL* message is displayed, rerun the SlideMaker startup. If the SlideMaker startup fails again, call your Beckman Coulter Representative.
8. Press EXIT twice to return to the RUN MODE screen.

5.3 USING SLIDES, CASSETTES AND BASKETS

Loading Slides into a Cassette

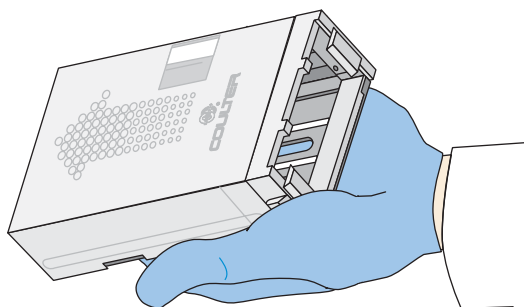
Procedure

CAUTION Use of improper slides can damage the SlideMaker and affect the quality of the blood smear. Use only slides with the characteristics recommended by Beckman Coulter Inc.

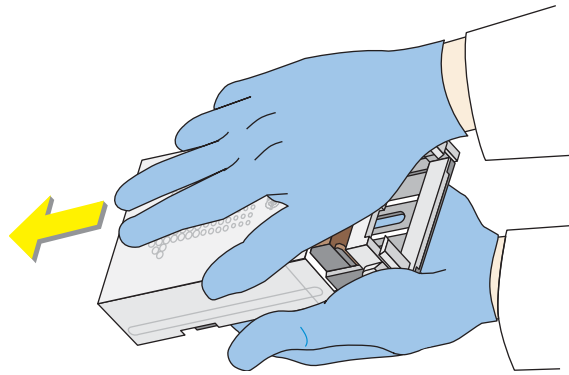


1. Open the box of slides and move the wrapping out of the way, then carefully place the box on a level surface.

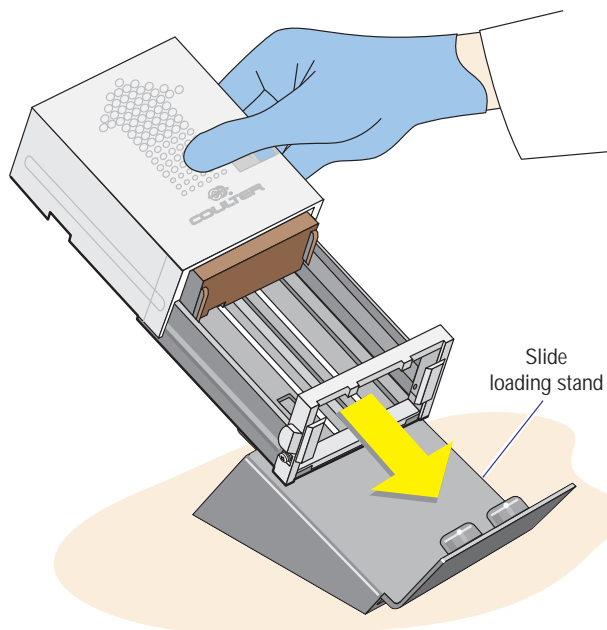
Note: Do not use dirty or stuck-together slides.



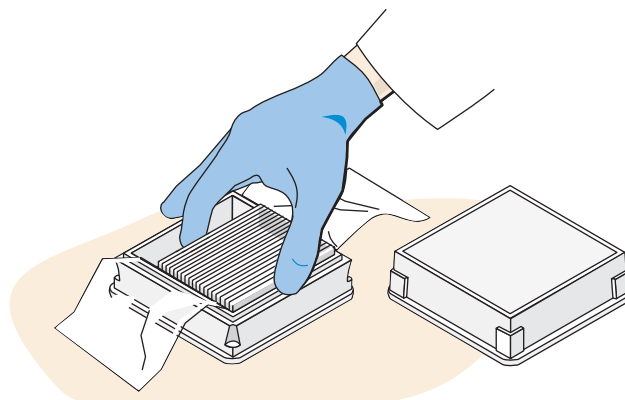
2. Hold the cassette in the palm of your hand with the arrow pointing forward.



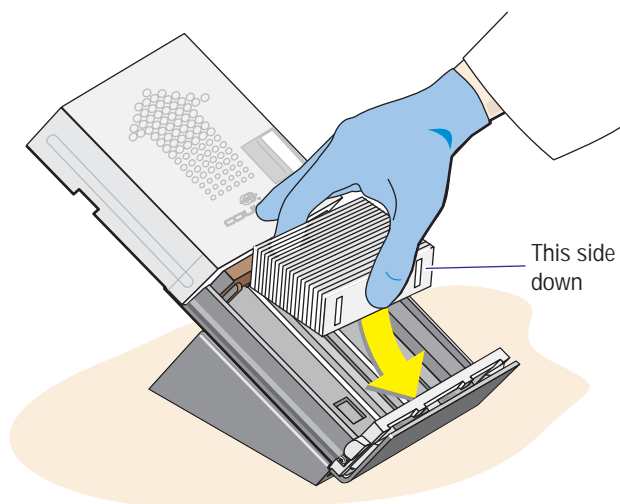
3. Hold the cover with two fingers and move it back until it locks.



4. Place the cassette on the slide loading stand.
Note: New slides can be loaded on top of the 4-5 remaining slides found in the cassette.

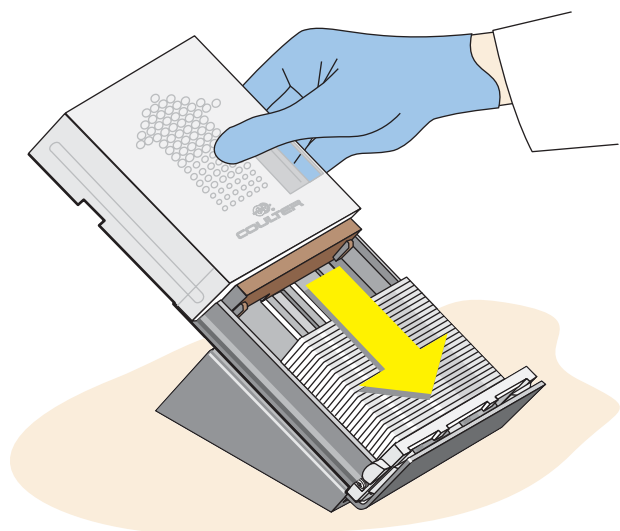


5. Remove any broken slides from the box and pick up the slides.



6. Place the slides in the cassette with the frosted bars facing the front opening of the cassette.

Note: Inspect the slide at the top of the cassette and discard it if it is contaminated from handling.

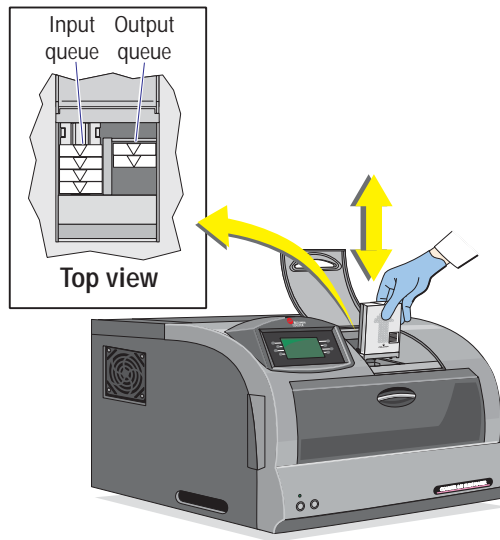


7. Slide the cover closed.
8. Tilt the cassette forward so the slides move into place at the front of the cassette and load the cassette into the SlideMaker.

Loading Slide Cassettes

Procedure

WARNING Risk of personal injury if you try to load or unload a slide cassette when a cassette is moving. Load or unload a slide cassette only when the slide cassette is not moving.

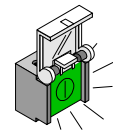
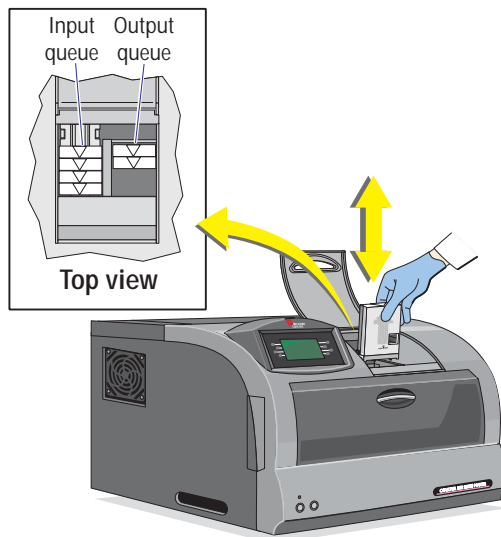


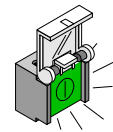
1. Position the cassette with the raised arrow pointing up and facing you.
2. Place up to four filled slide cassettes, one at a time, into the input queue in front of the cassette pusher.

Removing Slide Cassettes

Procedure

WARNING Risk of personal injury if you try to load or unload a slide cassette when a cassette is moving. Load or unload a slide cassette only when the slide cassette is not moving.



1. If necessary, press  to turn off the SlideMaker and release the current slide cassette.
2. Move the cassette backward and up from the output queue.
3. If necessary, **check the cassette** to make sure the slides inside it are not stuck together.
4. If a slide is jammed inside the **shuttle area**, remove and dispose of the slide.

Locking a Slide Cassette

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press LOCK CASSETTE.
The SlideMaker status line displays *LOCKING CASSETTE* while it locks the cassette in place.
When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.
5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Unlocking a Slide Cassette

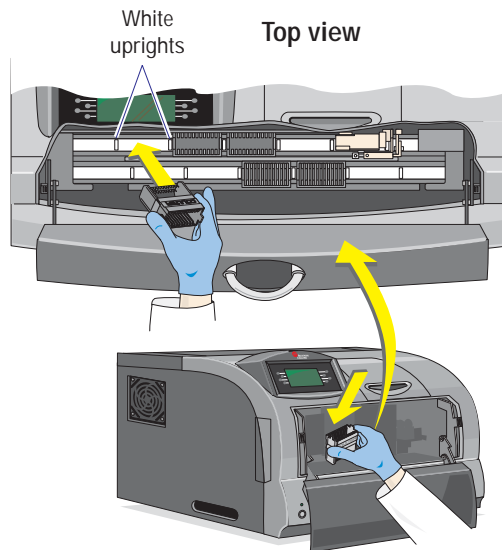
Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press UNLOCK CASSETTE.
The SlideMaker status line displays *UNLOCKING CASSETTE* while it releases the cassette or as it releases the cassette.
When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.
5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Loading Baskets

Procedure

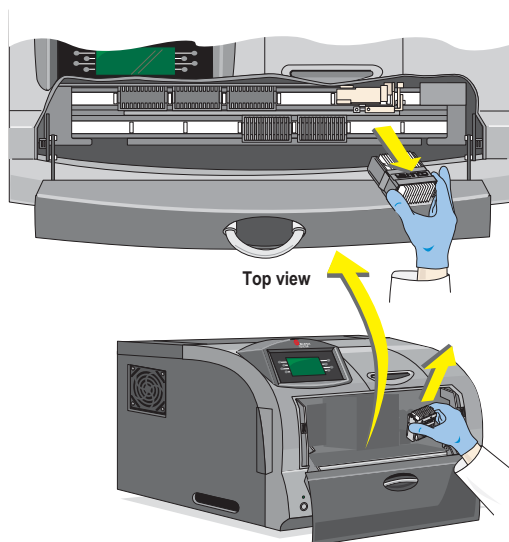
WARNING Risk of injury from movable part. Be careful when working with movable parts.



1. Open the plastic basket cover on the SlideMaker.
2. Hold the needed basket with two fingers, one finger on each end of the basket.
3. Place the empty basket in one of the empty positions on the conveyor belt. Position the basket in between two white uprights on the belt.
4. Load up to six baskets in the allowable positions on the conveyor belt.
5. Close the plastic basket cover on the SlideMaker.

Unloading Baskets

Procedure



1. Open the plastic basket cover on the SlideMaker.

WARNING The edges of the glass slides are sharp. They can cause cuts. Place your fingers only at the ends of the basket when unloading baskets with slides.

Note: Once a basket has advanced to the slide loading position, do not manually remove it from this position. You can advance the basket, if necessary, but do not manually remove a basket from the slide loading position.

2. Hold the needed basket with two fingers, one finger on each end of the basket.
Note: After a STAT sample, the basket might be only partially full.
3. Lift the basket up and out.
4. Close the plastic basket cover on the SlideMaker.
5. You can now stain these slides manually or with an automated stainer.

5.4 CHECKING SMEAR QUALITY

Smear quality may be affected by several factors, including the quality of the glass slide, the condition of the blood specimen, and the instrument's performance. A discussion of these factors follows.

- Slide quality: Beckman Coulter slides have been manufactured to maximize compatibility with your SlideMaker. They are double-washed to ensure cleanliness and specially packaged to reduce humidity and debris. Our slides have also been designed with strategically placed frosted areas to help prevent multiple slides from sticking together. But because excessive humidity could cause even these slides to stick together, you should load the cassettes with only those slides needed for one day of SlideMaker operation. Be sure to store the slides in a low-humidity environment and bring them to ambient room temperature before you open the slide package. You should also take precaution to avoid touching the smearing surface of the slides when you are loading slides into the cassettes to avoid fingerprints, which could cause vacuoles in your smears. Lesser quality slides could result in excessive debris, multiple streaks, irregular vacuoles, or an increase in slide jams.

- Characteristics of a good smear: The film should show a gradual transition in thickness from the thick to thin areas. Automated slides may show ridges or troughs at the far end of the slide, but it does not affect the cellular distribution in the working area. The field of examination should range from an area where there is 50% overlap of erythrocytes to a region where erythrocytes show a tendency toward linear orientation.

Normal Smear:



Acceptable Smear Length: 1.2 in [3.0 cm] minimum and 1.7 in [4.3 cm] maximum.

Long Smear:



Probable Cause: Low hemoglobin, diluted sample or smear speed misadjustment.

Large or Irregular Drop Pattern:



Probable Cause: Sample probe / rinse cup contamination.

Streak Through Middle of Smear:



Probable Cause: Air bubble or clot present in sample or sample probe / rinse cup contamination.

- Based on the elevated WBC carryover performance described in Performance Characteristics, each laboratory must develop a protocol for repeat preparation of patient sample slides for situations where carryover of cells from a previous patient sample may have occurred. If your laboratory observes carryover beyond what is described in Performance Characteristics, please contact your Beckman Coulter Representative.
- Specimen condition: Morphological artifacts on the smear could be the result of prolonged storage or inadequate mixing.
- Instrument performance: Daily performance of the Shutting Down the SlideMaker procedure and visual inspection of the dispense probe and rinse cup will enhance slide quality. Mechanical problems could result in smears that are too short, too thick, or too thin. Streaks on the smears could also be an indication of an instrument problem.
- Discard any slides that do not have labels on them after processing by the SlideMaker.
- Blood collection and handling techniques as well as film fixation and staining methods, while generally controllable when closely monitored, may be a source of random variability.

- While the number of cells counted is not statistically representative of the sample leukocyte population, evaluation errors can be reduced by increasing the number of cells counted on a film as well as increasing the number of slides read on a particular sample.
- No interfering substances will be observed other than the ones experienced using the manual method.
- When preparing manual blood films, it is advisable to use a spreader slide which is narrower than the film slide or one that has beveled corners in order to produce a film with lateral edges that can be evaluated.
 - Spreader slides should have a polished edge to minimize leukocyte distribution errors.
 - Delays in the spreading of the blood drop will result in poor leukocyte distribution.
 - Poor cell distribution and reproducibility results if the forward stroke of the spreader slide is too slow.
- Laboratory conditions, especially extremes in humidity and temperature adversely affect slide shelf life and blood film quality.
- Sample characteristics such as low hematocrits, viscosity, cell type and size, and sample age are considered uncontrollable but significant sources of variability.


5.5 SHUTDOWN

Shutting Down the SlideMaker

Procedure

Perform this procedure once every 24 hours, before shutting down the Analytical Station. A message will be posted to the SlideMaker event log.

Use the extended shutdown procedure if you are not going to operate the SlideMaker for 48 hours or more. This will prevent the reagents from drying out and forming precipitate.

1. Check that the LH 700 Series analyzer status is *READY*.
2. On the SlideMaker screen, press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ROUTINE FLUIDICS.
5. Press RUN SHUT DOWN. The SlideMaker fills the lines with cleaning agent.
6. When the Numeric Keypad displays *READY*, press .
7. Allow the cleaning agent to remain in the instrument for at least 30 minutes.
8. Visually inspect the rinse block and dispense probe for debris or dried blood. If blood is present, perform the Cleaning the Dispense Probe and Rinse Cup procedure.
9. Perform the SlideMaker Startup procedure prior to processing samples.

Extended Shutdown (SlideMaker)

Procedure

Use the extended shutdown procedure if you are not going to operate the SlideMaker for 48 hours or more. This will prevent the reagents from drying out and forming precipitate.

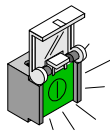
1. Clean the SlideMaker before shutting it down:
 - a. If the SlideMaker will remain in the laboratory, first shutdown the SlideMaker. Let the cleaning reagent remain in the instrument for at least 30 minutes.
 - b. If the SlideMaker will be transported, flush the SlideMaker.

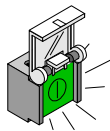
ATTENTION: Do not remove the waste pickup tube.

2. Remove the diluent and cleaning reagent pickup tubes from their reagent containers and place the tubes in a container of deionized water.

Note: The SlideMaker reagent lines are connected to the same pickup tubes as the LH 700 Series analyzer reagent lines.

3. Cycle deionized water through the reagent lines:
 - a. Press RUN SHUT DOWN (MAIN MENU ► ROUTINE FUNCTIONS ► ROUTINE FLUIDICS ► RUN SHUT DOWN) four times.
 - b. Press RUN STARTUP (MAIN MENU ► ROUTINE FUNCTIONS ► ROUTINE FLUIDICS ► RUN STARTUP) four times.



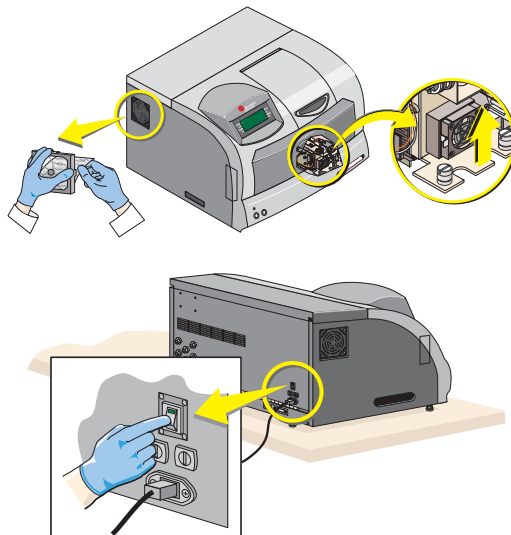
4. Press  to turn off the SlideMaker.


6.1 CLEANING PROCEDURES

Cleaning and Replacing Air Filter

Procedure

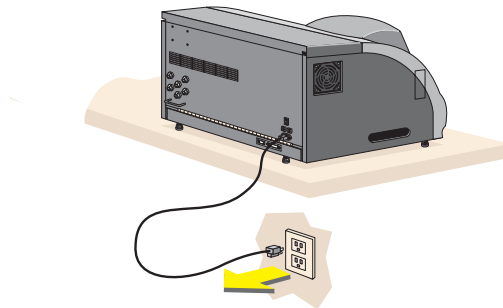
CAUTION Risk of damage to the Power Supply. A dirty air filter can cause the Power Supply to overheat. Check the filter and clean as needed. If a SlideStainer is attached to your SlideMaker, remove the SlideStainer cover prior to performing the following procedure.



1. Press  to turn off the SlideMaker.

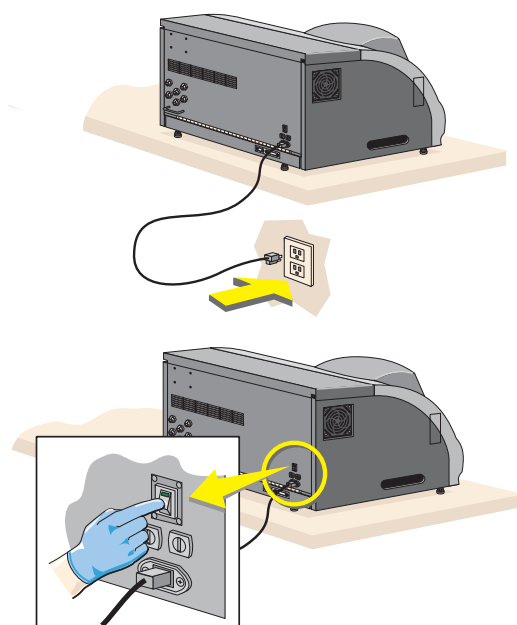
2. Turn off the power.


WARNING Risk of personal injury. A shock hazard exists if the power cord is connected. Unplug the primary power cord before performing these procedures.



3. Unplug the power cord.

4. Remove the filter cover.
5. Pinch and pull out the filter.
6. Wash the filter in soap and water, rinse it and dry it completely.
Note: If the filter is torn or shredded, discard it and replace it with a new one. Order replacement filters from your Beckman Coulter Representative.
7. Return the filter to its original location.
8. Put the filter cover back on.
 - a. If a SlideStainer is attached, replace the SlideStainer cover.
9. Locate the filter behind the slide bracket area, in front of the slide dryer fan.
10. Slide the filter out; no tools are required.
11. Inspect the filter. If necessary, wash and dry the filter.
12. Re-install the filter.
13. Plug in the power cord.



14. Turn on the power.
15. Press  to turn on the SlideMaker.

Cleaning Blood Spills and Broken Slides

Procedure

WARNING Possible biohazardous condition. Clean up any blood spill or broken slide as quickly as possible. Handle with care. Avoid skin puncture. Dispose of all contaminated disposable cleaning materials and broken slides (sharps) in accordance with your local regulations and acceptable laboratory practices.

WARNING Risk of operator injury and possible biohazardous condition. Do not blow or direct compressed or pressurized air into any area of the SlideMaker due to the possibility of creating airborne particles that might include dust, blood, reagents or broken fragments of slides.



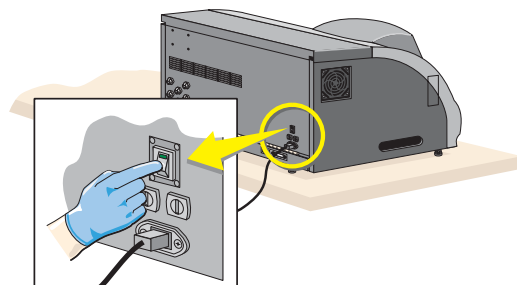
1. Use a spill control and decontamination kit containing the following items:

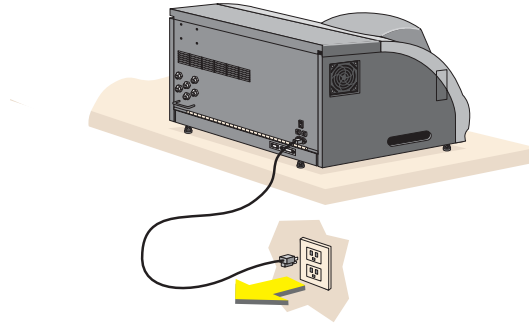
- A cleaning solution capable of inactivating the Human Immunodeficiency Virus (HIV) and Hepatitis B (HBV). To make an acceptable cleaning (bleach) solution, mix:
 - ▶ Four parts water.
 - ▶ One part high-quality, fragrance-free bleach (5 to 6% sodium hypochlorite - available chlorine).
- Sufficient absorbent materials to handle the largest potential spill (such as paper towels)
- Latex or rubber gloves
- Biohazard bag for waste

2. If the spill or broken slide is inside the SlideMaker:

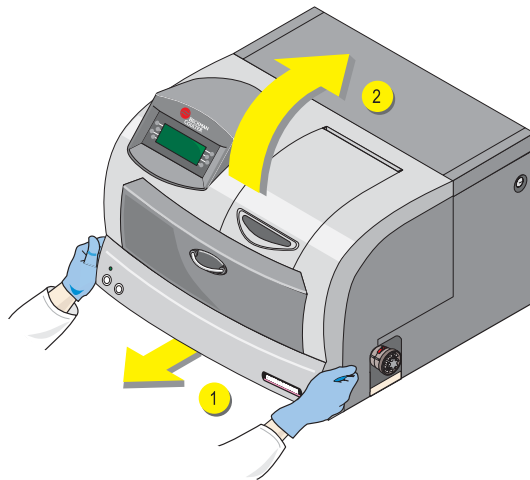
3. Press to turn off the SlideMaker.

4. Turn off the power.





5. Unplug the power cord.



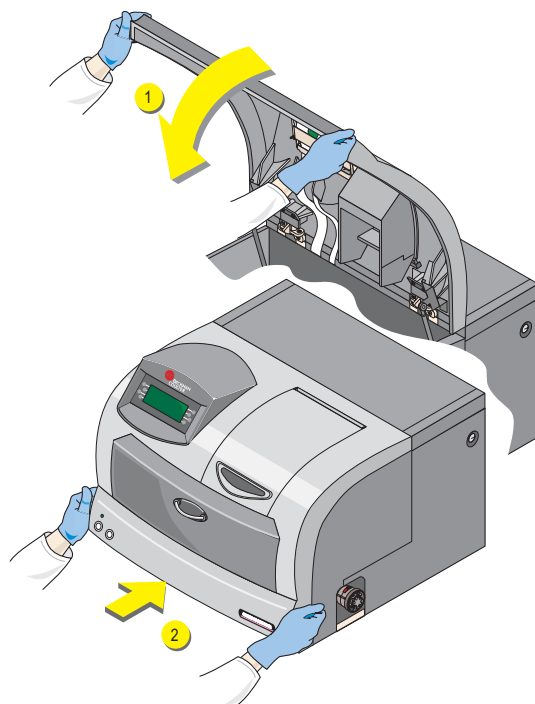
6. Unlatch the front cover and raise it up completely.



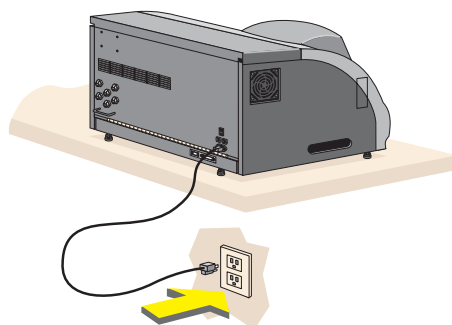
7. Clean up solid materials first by mechanical means (tongs or a brush).
8. Clean up any spilled blood with paper towels and place into a biomedical waste container.
9. Clean affected area with bleach solution.

10. If the spill or broken slide was inside the SlideMaker:

a. Close the cover.

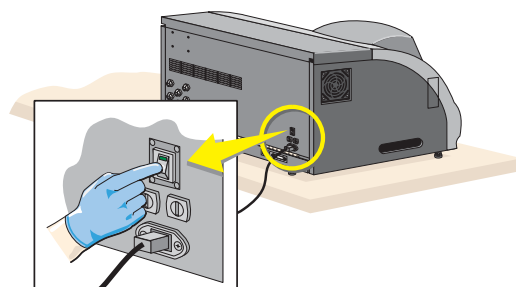


b. Plug in the power cord.



c. Turn on the power.

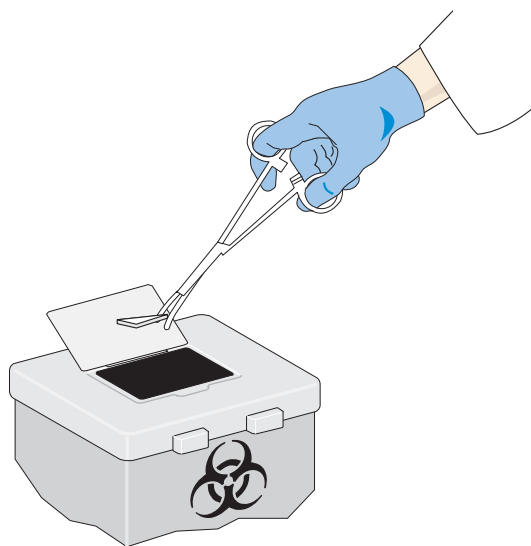
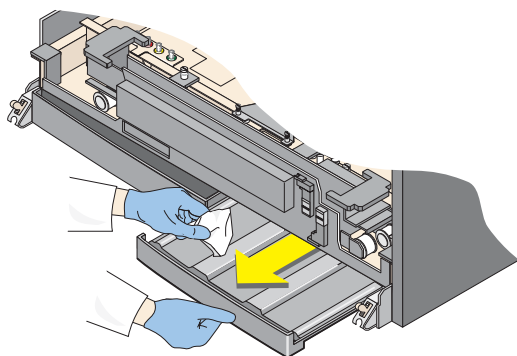
d. Press to turn on the SlideMaker.



Cleaning a Catch Tray

Procedure

CAUTION Possible biohazardous condition. Handle with care. Avoid skin puncture. Dispose of all contaminated disposable cleaning materials and broken slides (sharps) in accordance with your local regulations and acceptable laboratory practices.



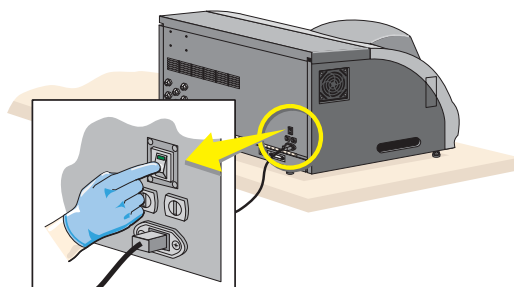
1. Use a cleaning solution capable of inactivating the Human Immunodeficiency Virus (HIV) and Hepatitis B (HBV). To make an acceptable cleaning (bleach) solution, mix:
 - Four parts water.
 - One part high-quality, fragrance-free bleach (5 to 6% sodium hypochlorite - available chlorine).
2. Open the SlideMaker cover.
3. Pull out the catch tray you want to clean.
4. Clean up solid materials first by mechanical means (tongs or a brush) and place the materials into a biomedical waste container.
5. Clean up any spilled blood with paper towels and place into a biomedical waste container.
6. Clean the catch tray with bleach solution.
7. Visually inspect the area where you removed the catch tray. Slides can fall behind and off the catch tray.
8. If necessary, remove any slides or debris by mechanical means (tongs or a brush) and place the slides or debris into a biomedical waste container.
9. Return the cleaned tray to its original position.

Cleaning the Dispense Probe and Rinse Cup

Procedure


Perform this procedure on a daily basis if visual inspection of the dispense probe and rinse cup reveal debris or dried blood. Excessive debris or dried blood on external surfaces may affect the quality of the smears produced. See [CHECKING SMEAR QUALITY](#).

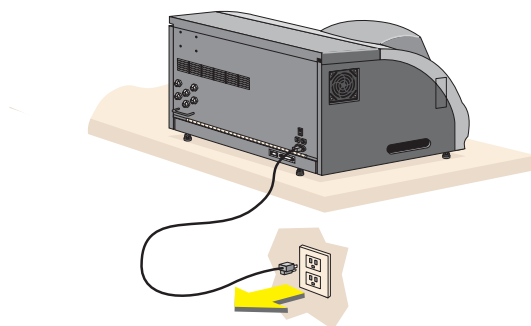
WARNING Possible biohazardous condition. Handle with care. Avoid skin puncture. Dispose of all contaminated disposable cleaning materials and broken slides (sharps) in accordance with your local regulations and acceptable laboratory practices.

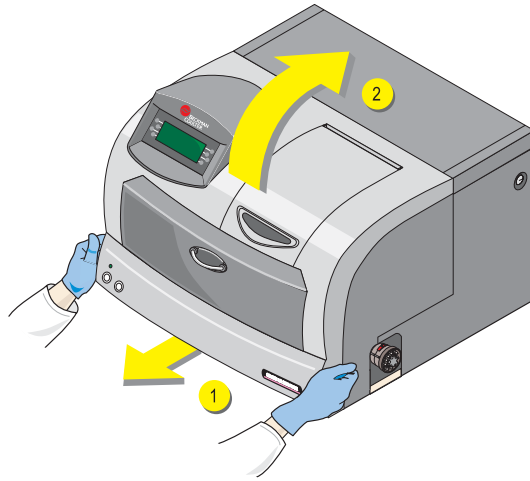


1. Use a cleaning solution capable of inactivating the Human Immunodeficiency Virus (HIV) and Hepatitis B (HBV). To make an acceptable cleaning (bleach) solution, mix:
 - Four parts distilled water.
 - One part high-quality, fragrance-free bleach (5 to 6% sodium hypochlorite - available chlorine).



2. Press  to turn off the SlideMaker.
3. Turn off the SlideMaker main power.
4. Unplug the SlideMaker power cord.

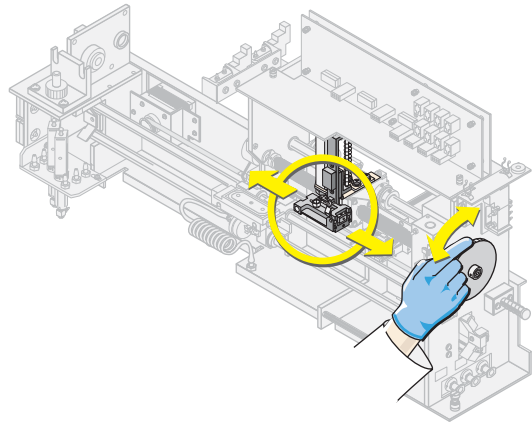
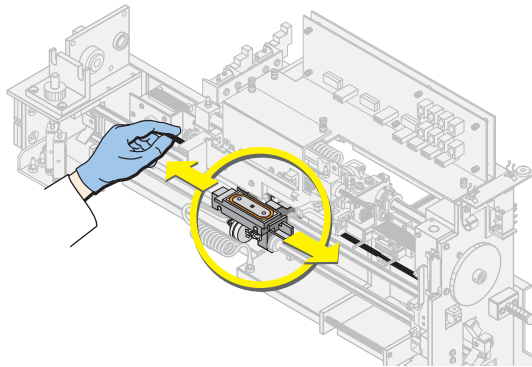




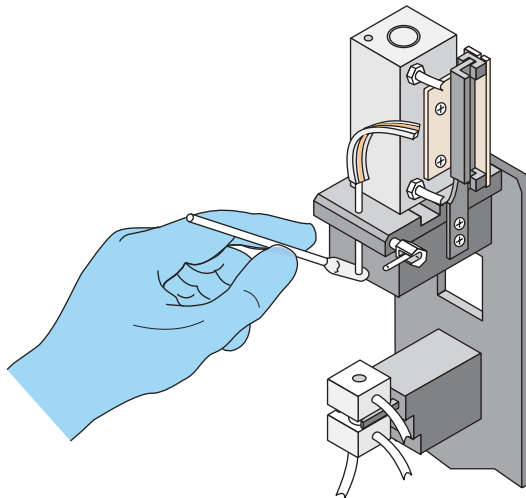
5. Unlatch the front cover of the SlideMaker and raise it up completely.

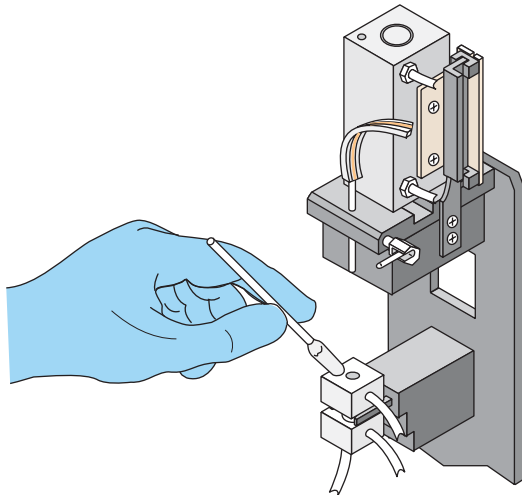
WARNING Risk of injury from movable part. Be careful when working with movable parts.

6. If necessary, manually move the smear truck and shuttle so they do not obstruct your view of the dispense probe.



7. Wipe the dispense probe with a cotton-tipped applicator stick moistened with bleach solution.

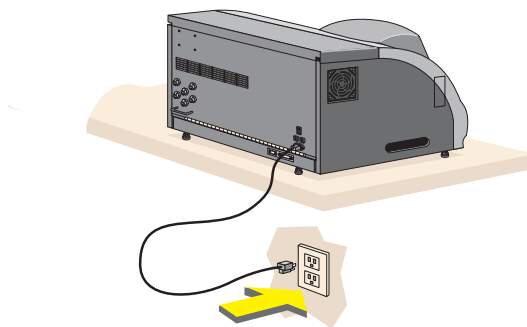




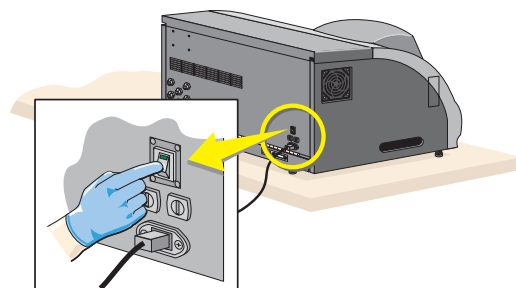
8. Wipe the rinse cup with another cotton-tipped applicator stick dipped in distilled water.

9. Close the cover.

10. Plug in the SlideMaker power cord.



11. Turn on the SlideMaker main power.



12. Press  to turn on the SlideMaker.

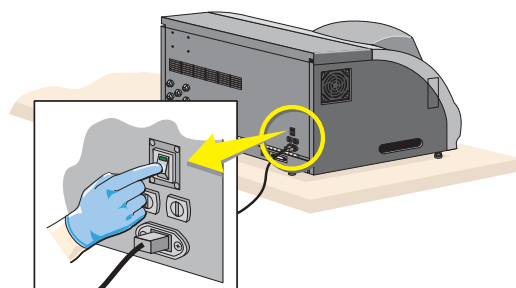
Note: If problem with [CHECKING SMEAR QUALITY](#) persists, call your Beckman Coulter Representative

Clearing a Clogged Dispense Probe and Rinse Cup

Procedure

Perform this procedure only if blood smears do not meet the characteristics as described in [CHECKING SMEAR QUALITY](#).

WARNING Possible biohazardous condition. Handle with care. Avoid skin puncture. Dispose of all contaminated disposable cleaning materials and broken slides (sharps) in accordance with your local regulations and acceptable laboratory practices.

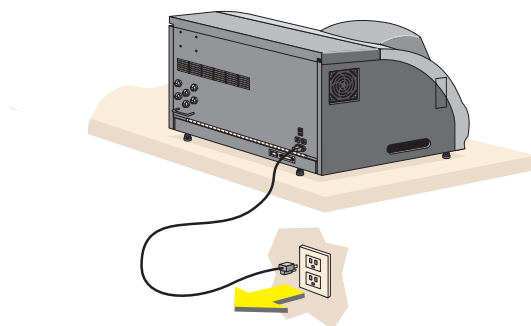


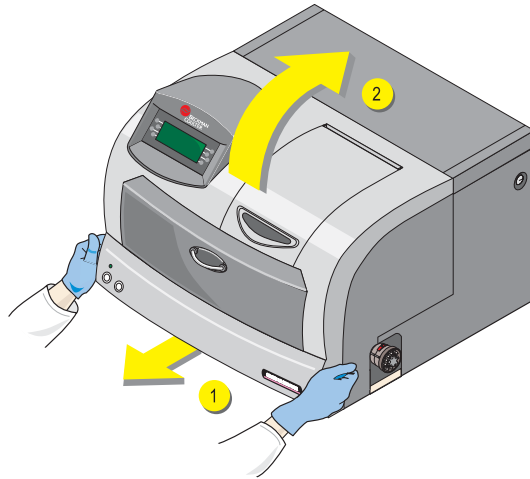
1. Use a cleaning solution capable of inactivating the Human Immunodeficiency Virus (HIV) and Hepatitis B (HBV). To make an acceptable cleaning (bleach) solution, mix:

- Four parts distilled water.
- One part high-quality, fragrance-free bleach (5 to 6% sodium hypochlorite - available chlorine).



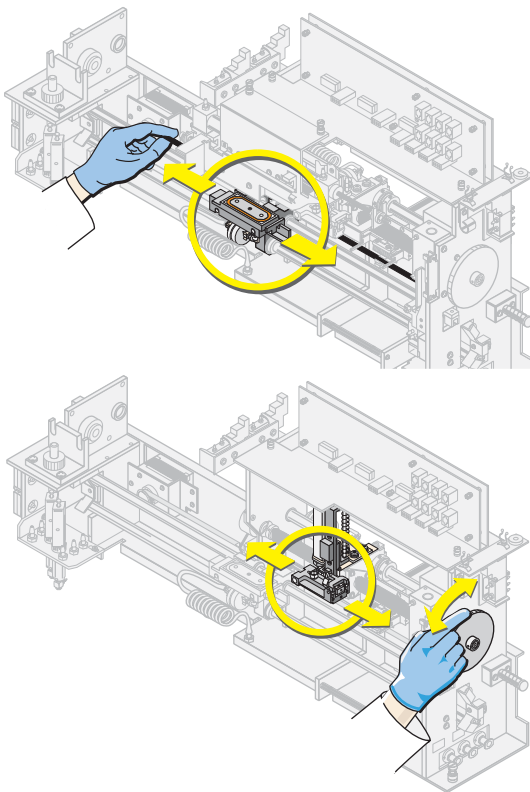
2. Press the power switch to turn off the SlideMaker.
3. Turn off the SlideMaker main power.
4. Unplug the SlideMaker power cord.



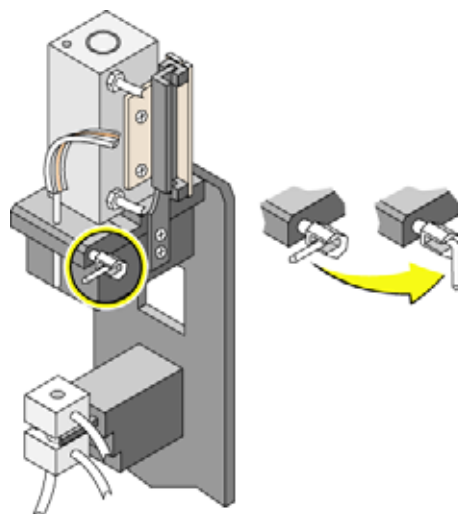


5. Unlatch the front cover of the SlideMaker and raise it up completely.

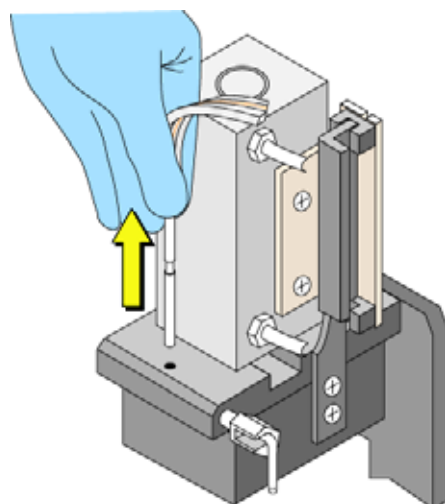
WARNING Risk of injury from movable part. Be careful when working with movable parts.



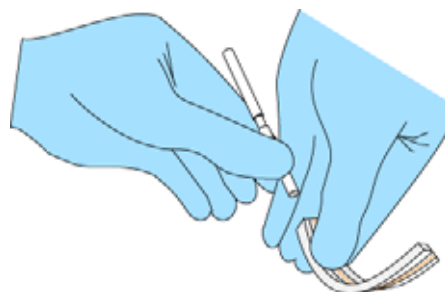
6. If necessary, manually move the smear truck and shuttle so they do not obstruct your view of the dispense probe.



7. Pull out and turn (1/4 turn) the locking lever on the dispense probe.

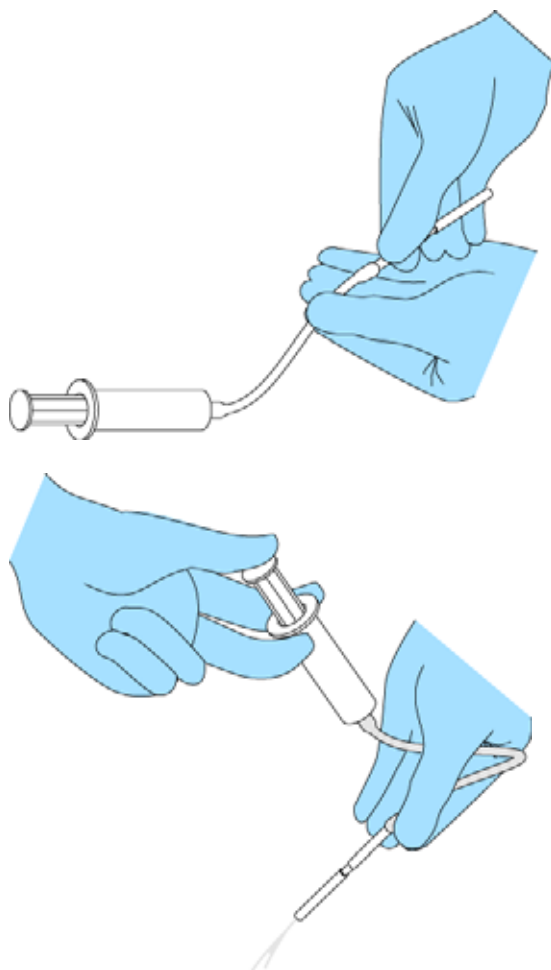


8. Lift the dispense probe out of the dispense probe mechanism.



9. Disconnect the red-striped I-beam tubing from the dispense probe.

WARNING Possible hazardous condition. Tubing can come in contact with biohazard materials. Skin contact with these materials can be harmful to your health. Handle contaminated tubing in accordance with your laboratory's procedures.

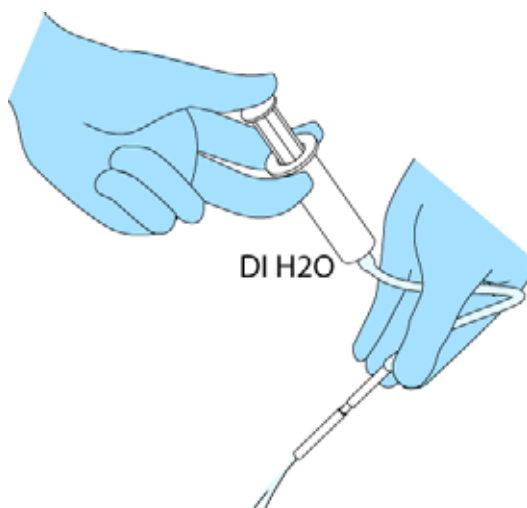


10. Aspirate some of the bleach solution using a syringe and some flexible tubing. Attach the free end of the tubing to the dispense probe.

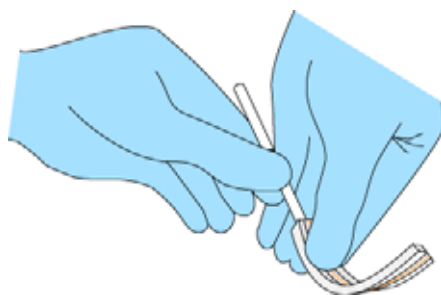
11. Push some of the bleach solution into and through the probe slowly, while holding the probe over some tissue. If there is dried blood or debris inside the probe, you will feel resistance.

If the probe is still obstructed, perform the following:

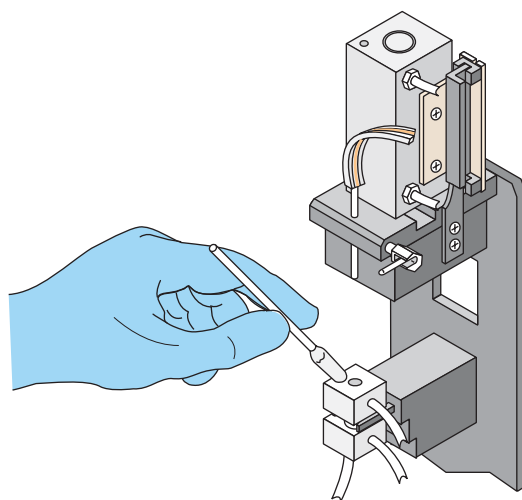
- a. Detach the syringe and tubing from the dispense probe.
- b. Soak the dispense probe in a small container with bleach solution for 15 minutes or more. If an ultrasonic bath is available, soak the dispense probe in the bath.
- c. Repeat steps 11 and 12.
- d. If obstructions persist, soak again in Coulter Clenz cleaning agent.
- e. If successful, push and pull the solution through the probe to be sure it is clear.



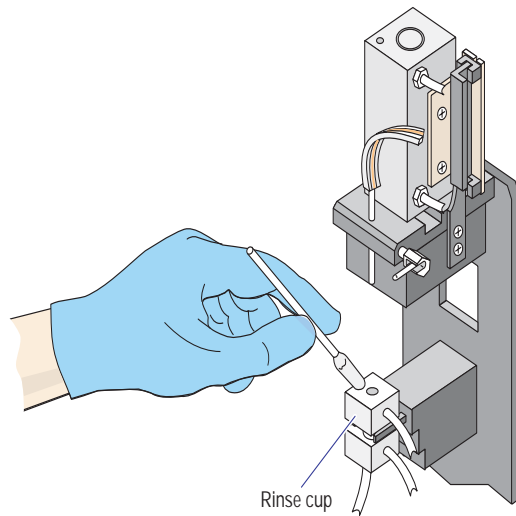
12. Rinse the dispense probe thoroughly with distilled water using another syringe with tubing to push and pull the distilled water through the probe.



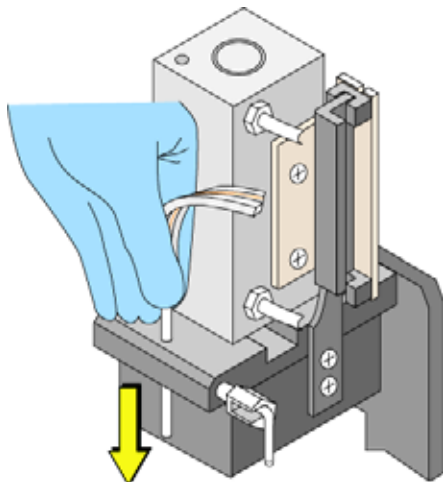
13. Dry the dispense probe with lint-free tissue.
14. Attach the SlideMaker red-striped I-beam tubing to the dispense probe.



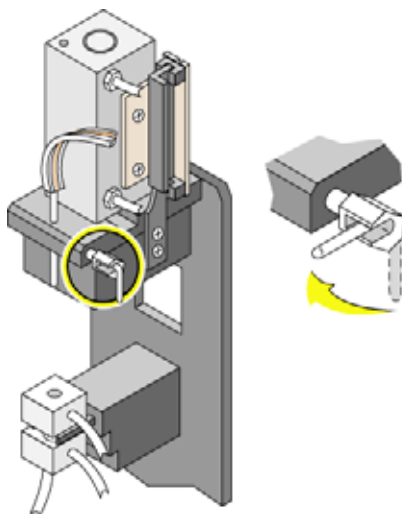
15. Wipe the dispense probe with a cotton-tipped applicator stick moistened with bleach solution.



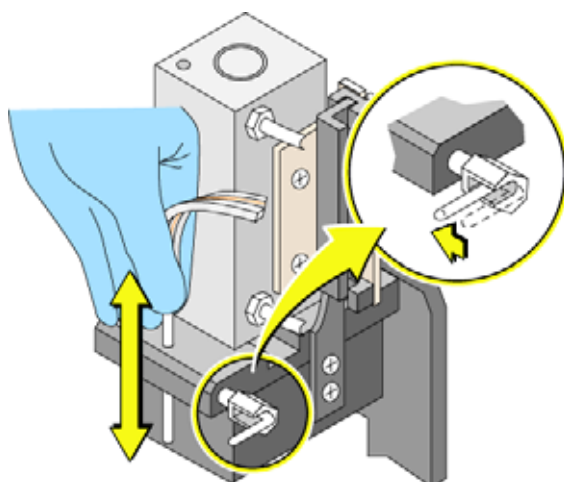
16. Wipe the rinse cup with another cotton-tipped applicator stick dipped in distilled water.



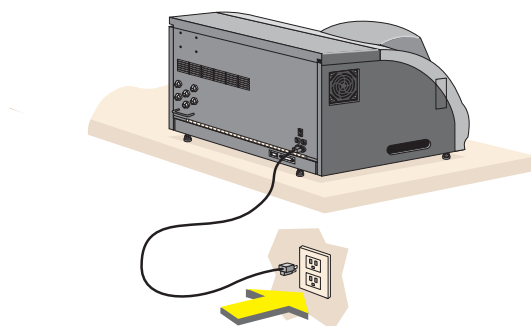
17. Push the dispense probe through the clearance hole in the dispense probe mechanism.



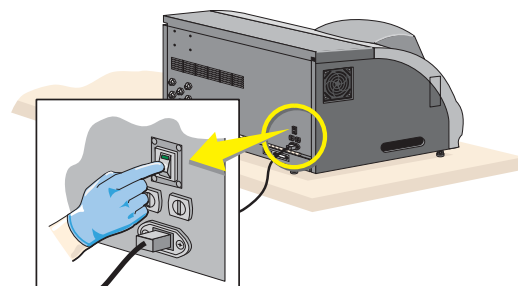
18. Turn the locking lever back (1/4 turn) and push in.



19. Manually slide the dispense probe up and down until the locking level drops into the groove on the probe.



20. Close the cover.
21. Plug in the SlideMaker main power.



22. Turn on the SlideMaker main power.



23. Press  to turn on the SlideMaker.

Note: If problem with [CHECKING SMEAR QUALITY](#) persists, call your Beckman Coulter Representative.

Priming/Backwashing SlideMaker

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ROUTINE FLUIDICS.
5. Press PRIME REAGENT RESERVOIRS.

The SlideMaker status line displays *BACKWASHING* while the SlideMaker backwashes the sample lines and rinses the rinse trough.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Flushing the SlideMaker (Bleach System)

Procedure

1. Prepare 750 mL of bleach solution in a container.
2. Place the reagent line labeled DISINFECT into the bleach container.
3. Press EXIT until you reach the MAIN MENU screen.
4. Press SPECIAL CYCLES.
5. Press BLEACH SYSTEM to decontaminate Diluter lines that are exposed to blood. This takes approximately 5 minutes.



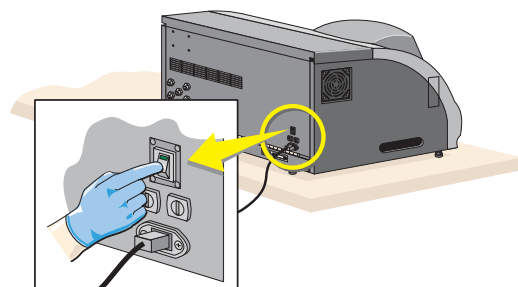
CAUTION System damage could occur if you leave the bleach solution for more than 15 minutes. Remove the bleach solution immediately after the system flush completes processing.

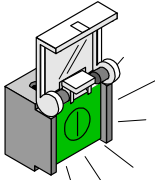
6. Remove the reagent line from the bleach container and place it in a 750 mL container of distilled water.
7. Press BLEACH SYSTEM to remove the bleach solution. This takes approximately 5 minutes.
8. Press EXIT until you reach the MAIN MENU screen.
9. Press ROUTINE FUNCTIONS.
10. Press ROUTINE FLUIDICS.
11. Press RUN SHUT DOWN.
12. Perform daily startup.

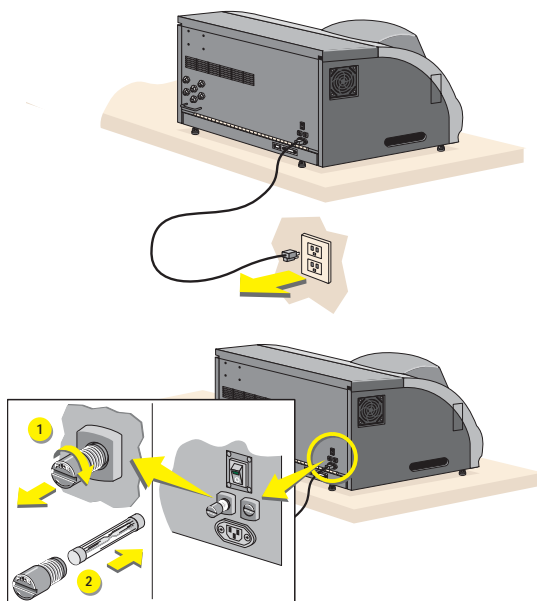
6.2 REPLACEMENT PROCEDURES

Replacing SlideMaker Fuses

Procedure

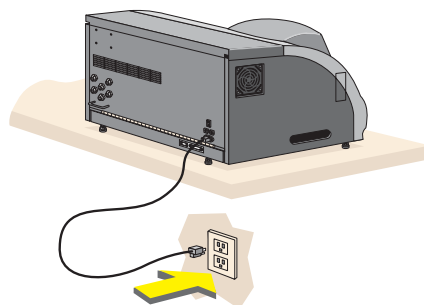


1. Press  to turn off the SlideMaker.
2. Turn off the power.
3. Unplug the power cord.

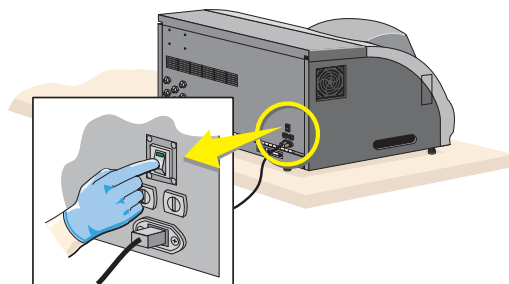


4. Unscrew the threaded fuse cap, and pull it out of its hole.

WARNING Risk of fire hazard. If you replace a fuse with a new fuse of a different type or rating, a fire can occur. For protection against fire hazard, replace fuses with those of the same type and rating only.



5. Remove the fuse from the cap and inspect it. If the fuse is burned out, replace it with a new one with the same type and rating.
6. Plug in the power cord.

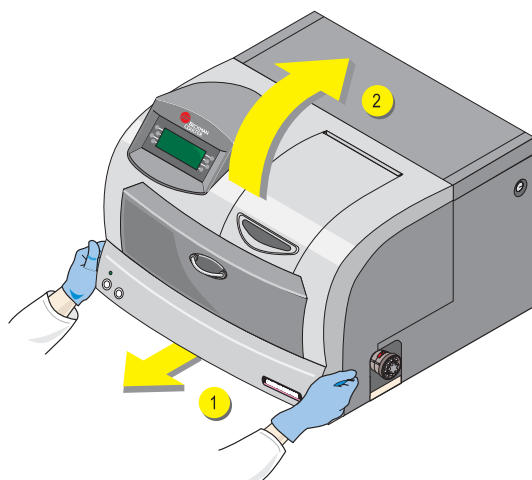


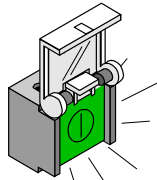
7. Turn on the power.

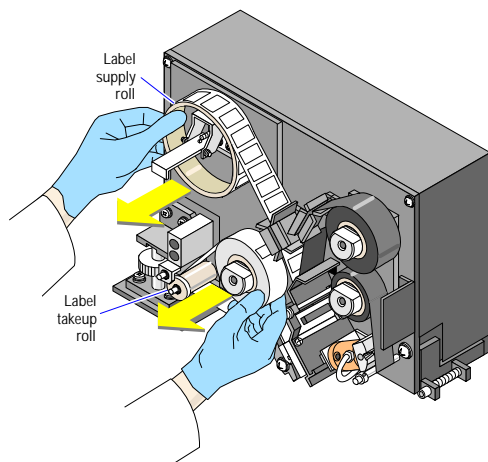
8. Press  to turn on the SlideMaker.

REPLACING THE SLIDEMAKER LABEL ROLL

Procedure

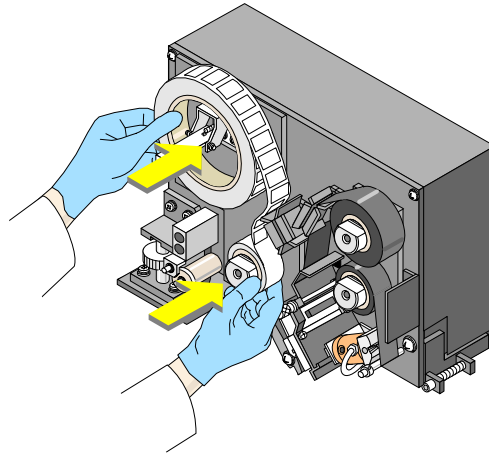


1. Press  to turn off the SlideMaker.
2. Unlatch the front cover and raise it up completely.

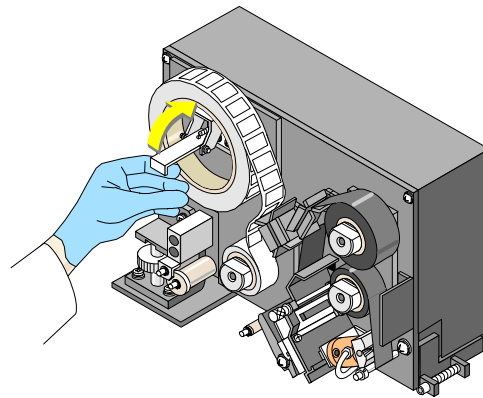


3. Remove the empty roll:
a. Open the clip on the label supply.
b. Remove the empty supply roll and the full take-up roll.
4. Open the package that contains the new supply roll and take-up roll.

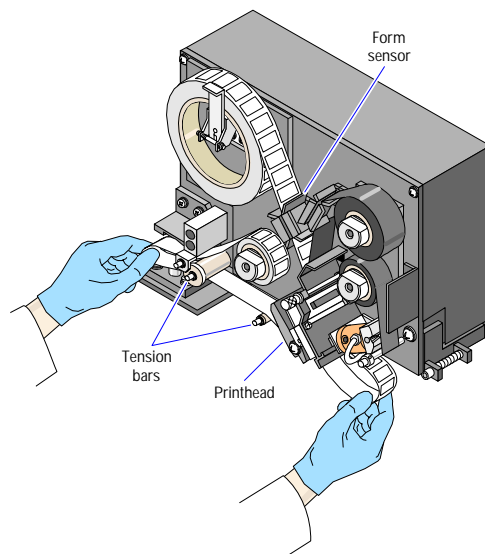
5. Place the new roll.
 - a. Place the supply and the take-up rolls on their retainer spools.

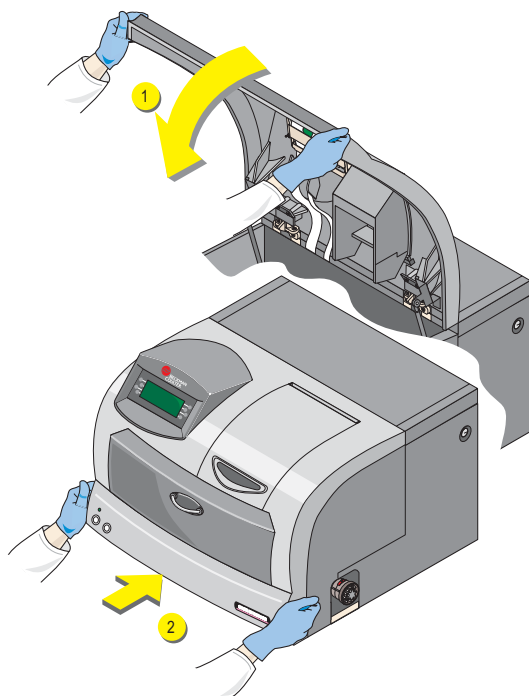


- b. Close the clip on the label supply.
Note: The SlideMaker contains an arrow path to show the proper direction to thread the label tape.

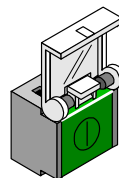


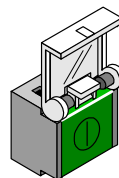
- c. Thread the label tape through the form sensor, through the printer head, and around the two label tension bars.





6. Close the cover.

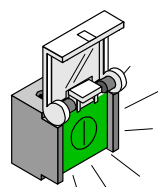
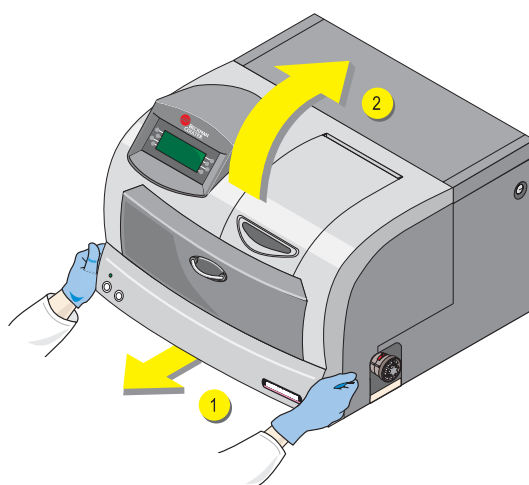


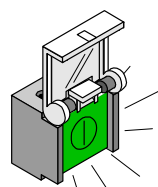
7. Press  to turn on the SlideMaker.
8. Print some test labels to ensure the new label roll is working properly.

Replacing the SlideMaker Printer Ribbon

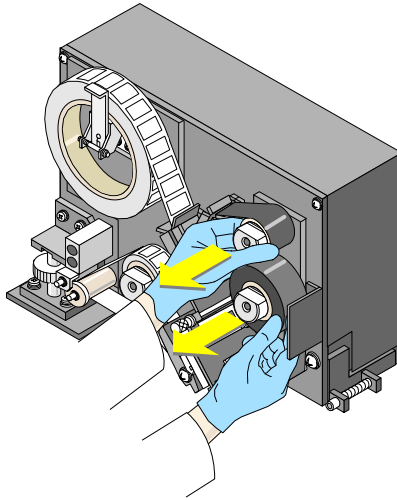
Procedure

Note: Replacing the printer ribbon is necessary after using approximately four rolls of labels.



1. Press  to turn off the SlideMaker.
2. Unlatch the front cover and raise it up completely.

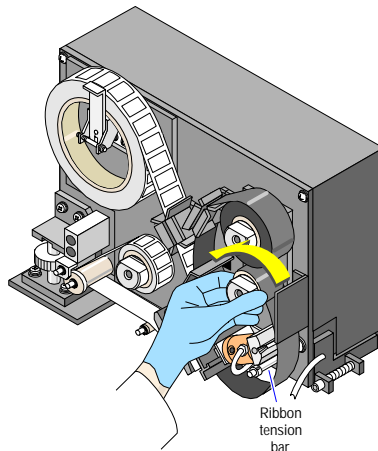
3. Remove the old printer ribbon.



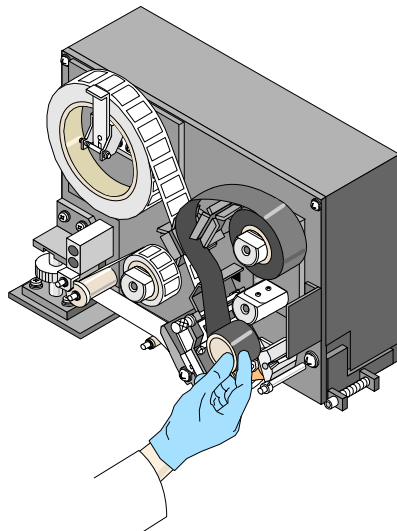
IMPORTANT Risk of breakage. The ribbon connecting the supply roll and take-up roll can break if you pull it too hard. Pull gently to separate the two rolls. If the connecting ribbon breaks, tape it to the take-up roll.

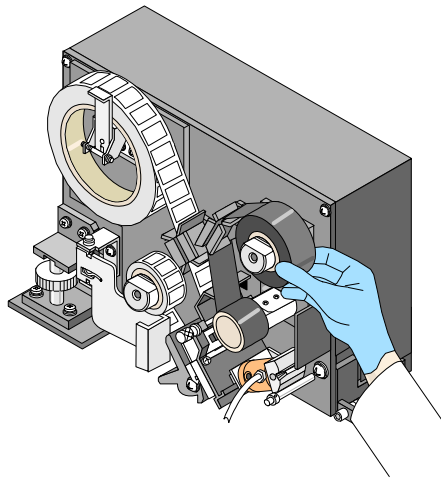
4. Open the new printer ribbon package.
5. While letting the take-up roll hang, thread the ribbon through the printer.

Note: The SlideMaker contains an arrow path to show the proper direction to thread the printer ribbon.

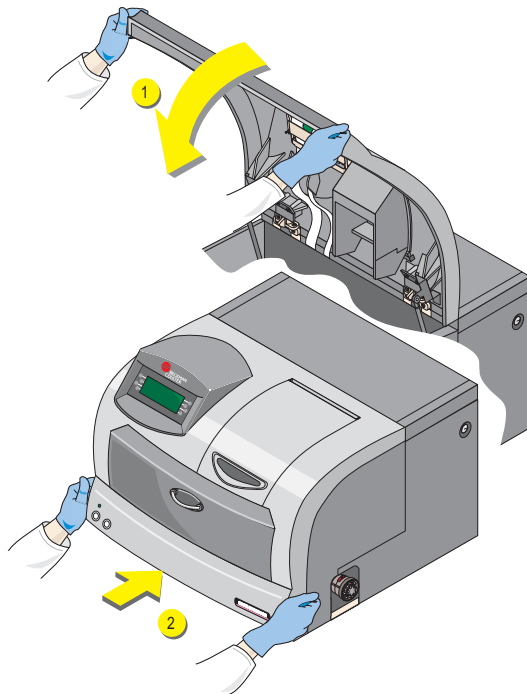


6. Place the supply roll on its retainer spool.

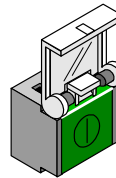




7. Place the take-up roll on its retainer.
8. Thread the ribbon around the tension bar.
9. Wind the ribbon until you see the ribbon reach the tension bar.



10. Close the cover.



11. Press SlideMaker. to turn on the

7.1 OVERVIEW

Slide quality is often the source of problems with the SlideMaker. When slides jam frequently on the SlideMaker, check your slides. Checking the SlideMaker for possible slide jams is also helpful in detecting problems. Make sure to check the:

- Slide cassette
- Slide Ejector module
- Shuttle
- Dryer
- Smear truck
- Slide platen and elevator
- Pusher bars

Smear quality can be affected in several ways.

- Cleaning the Dispense Probe and Rinse Cup

The SlideMaker screen allows you to perform several troubleshooting and general functions:

- Slide label problems
 - Increasing printer label intensity
 - Decreasing printer label intensity
 - Rebooting the printer
 - Saving printer label intensity
 - Testing label printing
- Fluidic problems
 - Draining the SlideMaker
 - Draining the SlideMaker vacuum accumulator
 - Priming/Backwashing the SlideMaker
 - Priming reagent reservoirs
 - Starting up the SlideMaker
 - Shutting down the SlideMaker
- Advancing a slide basket
- Checking pneumatic/power supplies
- Testing SlideMaker Keypad
- Testing SlideMaker Display

If you suspect a problem in any of these areas, you can attempt to perform these functions before calling your Beckman Coulter Representative. If requested to do so by a Beckman Coulter Representative, you can also use the reset switch on the SlideMaker.

7.2 EXPIRATION DATES AND SLIDE STORAGE CONDITIONS

Expiration dates will not appear on primary or secondary slide containers. Assuming proper manufacturing and packaging techniques are employed, the longevity of a slide is determined largely by storage conditions at distribution points and customer sites.

High humidity and high heat conditions appear to accelerate slide deterioration, while conditions of low humidity and low temperature appear to extend the shelf life of glass slides.

Temperature and Humidity Recommendations

Store at room temperature (15-30°C or 59-86°F) in a dry place (35-60% humidity).

Whenever possible, allow closed slide containers to equilibrate to the working environmental conditions prior to opening the box. This is extremely important when the slides have been stored at cold temperatures and the slides are to be used in a relatively humid laboratory environment.

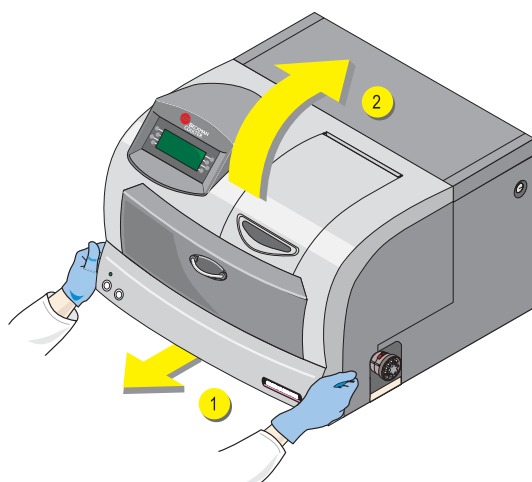
7.3 SLIDEJAMS OR DEBRIS

Checking the Dryer

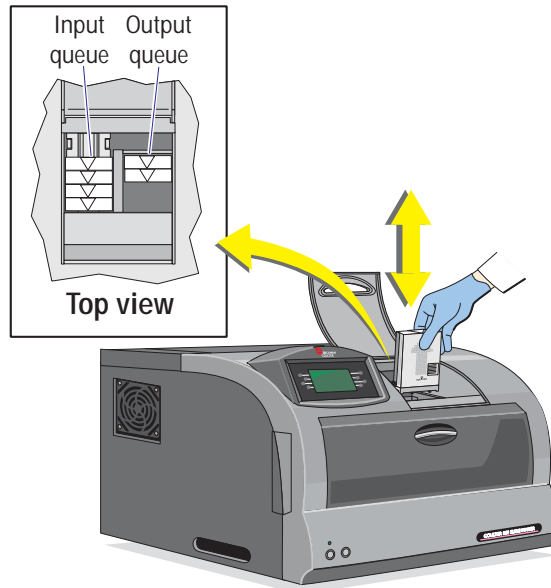
Procedure

If slides are not coming out of the dryer properly,

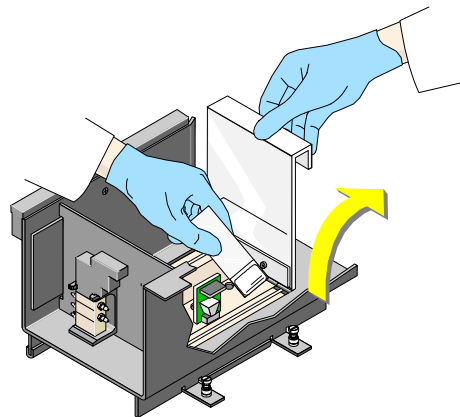
WARNING Possible biohazardous condition. Clean up any blood spill or broken slide as quickly as possible. Handle with care. Avoid skin puncture. Dispose of all contaminated disposable cleaning materials and broken slides (sharps) in accordance with your local regulations and acceptable laboratory practices.



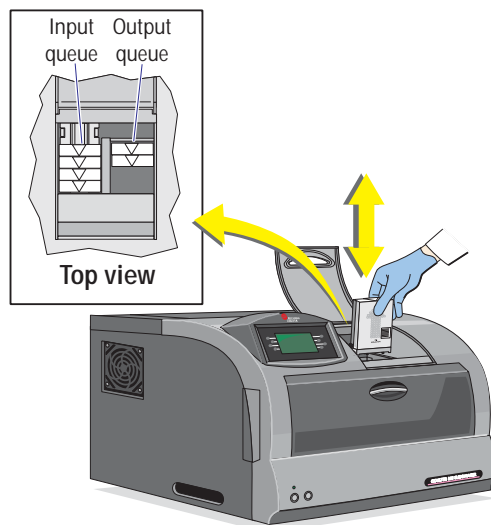
1. If you have not already done so, open the cover.



2. Remove all slide cassettes from the input and output queues.

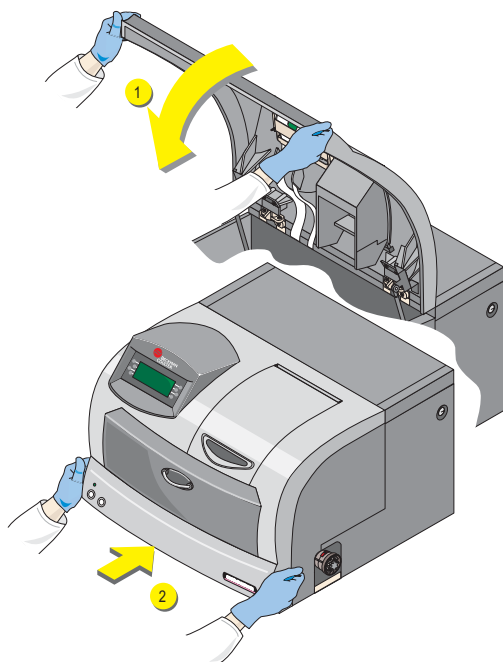


3. Lift the cover to the dryer area.
4. If a slide appears jammed in the dryer area, remove it with your hand and dispose of the slide.



5. Return the full slide cassettes to the input queue.

6. Close the cover.

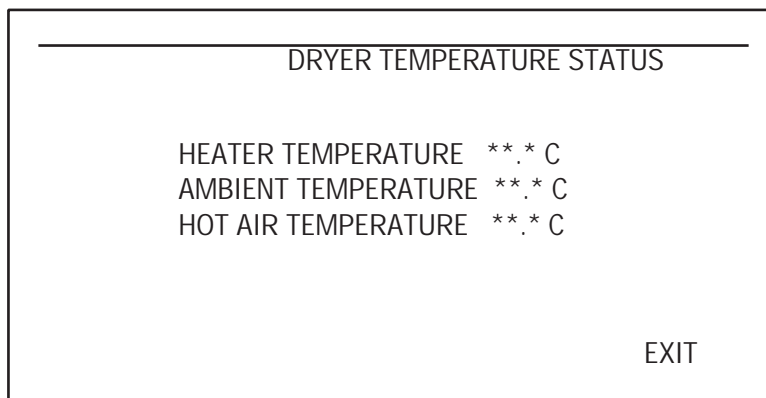


If slides do not appear to be drying properly,

1. Check the dryer temperature status.
2. Test the dryer motor and heater to ensure they are working properly.

Checking the Dryer Temperature

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press SPECIAL FUNCTIONS.
4. Press DRYER TEMPERATURE. The DRYER TEMPERATURE STATUS screen appears as follows.



- SlideMaker displays heater, ambient (reference) and air temperatures. If the difference between the heater and ambient temperatures:

- Exceeds 25°C (68°F), the SlideMaker status line displays **TEMPERATURE EXCEEDED**. Make sure the ambient room temperature of your laboratory is within acceptable limits. If you change your room temperature and the problem persists, contact your Beckman Coulter Representative.
 - Is less than 19°C (50°F), the SlideMaker status line displays **LOW TEMPERATURE**. Make sure the ambient room temperature of your laboratory is within acceptable limits. If you change your room temperature and the problem persists, contact your Beckman Coulter Representative.
 - If the difference between the hot air and ambient temperatures:
 - Exceeds 12°C (68°F), the SlideMaker status line displays **TEMPERATURE EXCEEDED**. Make sure the ambient room temperature of your laboratory is within acceptable limits. If you change your room temperature and the problem persists, contact your Beckman Coulter Representative.
 - Is less than 4°C (50°F), the SlideMaker status line displays **LOW TEMPERATURE**. Make sure the ambient room temperature of your laboratory is within acceptable limits. If you change your room temperature and the problem persists, contact your Beckman Coulter Representative.
5. Press **EXIT** until you reach the **MAIN MENU** screen.
 6. Press **RUN MODE** to return to the **RUN MODE** screen.

Testing the SlideMaker Dryer and Heater

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press **EXIT** until you reach the **MAIN MENU** screen.
3. Press **SPECIAL FUNCTIONS**.
4. Press **DRYER FUNCTION TEST**.
5. Select the function you want to test:

Press This	To
DRYER MOTOR ON	Turn on the SlideMaker dryer motor. Verify that the belt is moving. The SlideMaker status line displays <i>DRYER MOTOR ON</i> . If the dryer motor fails to turn on, check for a jam in the dryer area.
DRYER MOTOR OFF	Turn off the SlideMaker dryer motor. Verify that the belt stops moving. The SlideMaker status line displays <i>DRYER MOTOR OFF</i> . If the dryer motor fails to turn off, turn the SlideMaker off and call your Beckman Coulter Representative.

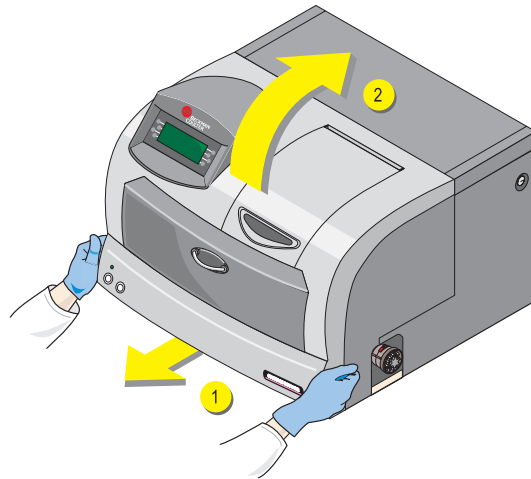
HEATER ON	Turn on the SlideMaker heater. The SlideMaker status line displays <i>HEATER ON</i> . Check the Dryer Temperature screen to verify heater temperatures. If the heater fails to turn on, turn the SlideMaker off and call your Beckman Coulter Representative.
HEATER OFF	Turn off the SlideMaker heater. The SlideMaker status line displays <i>HEATER OFF</i> . Check the Dryer Temperature screen to verify heater temperatures. If the heater fails to turn off, turn the SlideMaker off and call your Beckman Coulter Representative.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

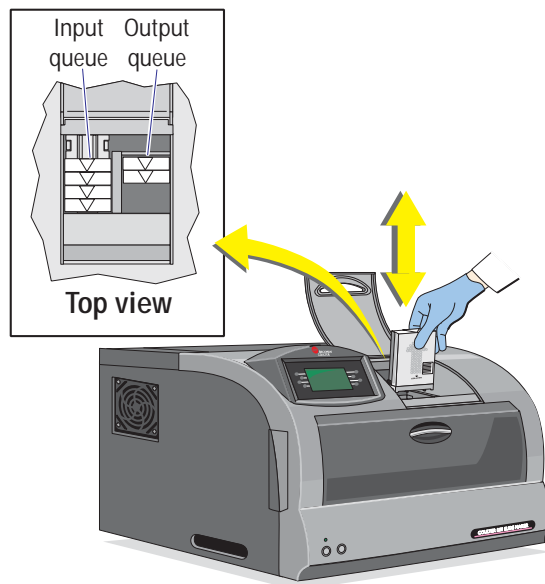
Checking the Pusher Bars

Procedure

WARNING Risk of injury from movable part. Be careful when working with movable parts.

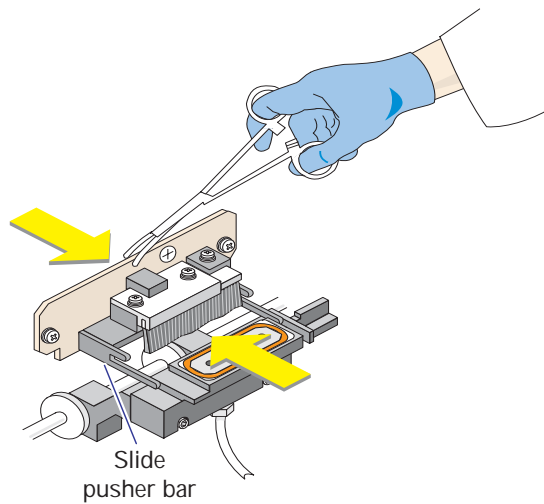


1. If you have not already done so, open the cover.

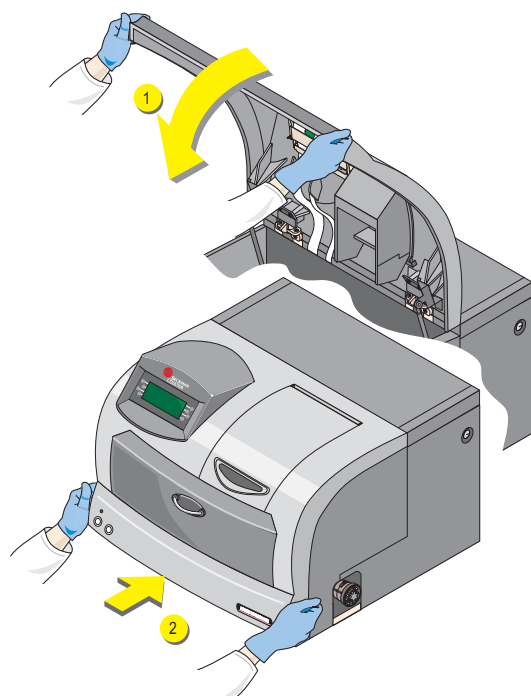


2. Remove all slide cassettes from the input and output queues.

3. Remove slides, including jammed slides and debris, from shuttle, truck and pawls.
4. Remove any jammed slides or debris from the transfer area or under the dryer belts.



5. If necessary, manually move the truck so it does not obstruct your view of the pusher bars.
6. Manually move the pusher bars using your hand or a hemostat. Make sure to move the pusher bars all the way forward and backward.



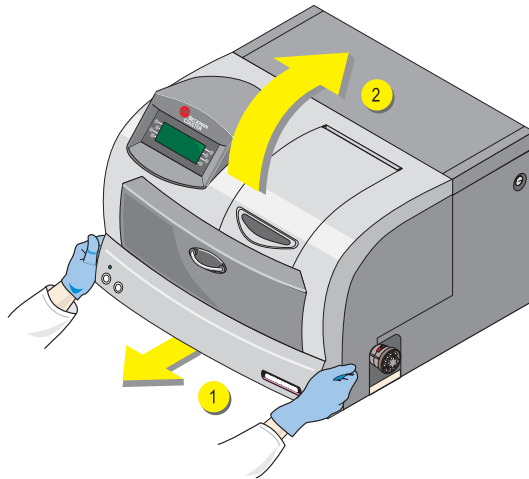
7. Return the full slide cassettes to the input queue.
8. Close the cover.

Checking the Shuttle

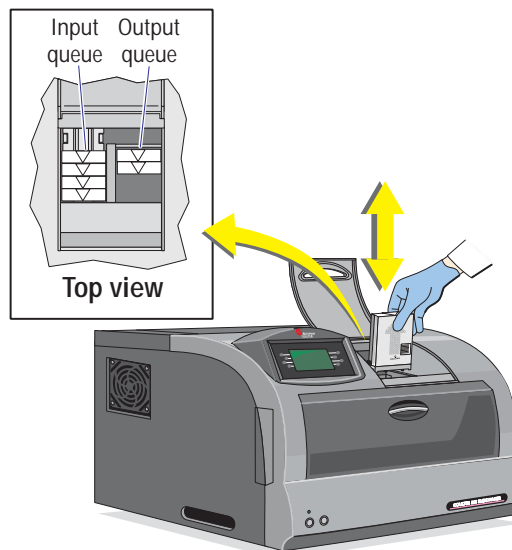
Procedure

WARNING Risk of injury from movable part. Be careful when working with movable parts.

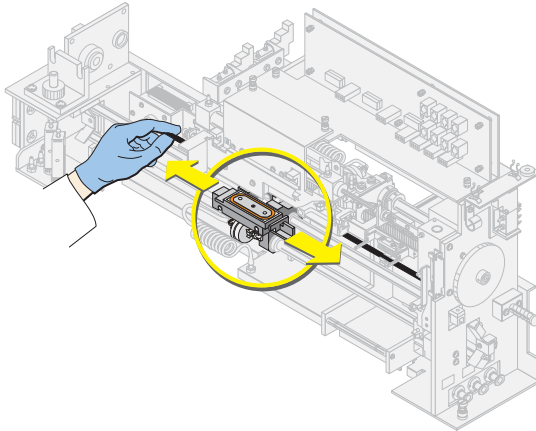
1. If you have not already done so, open the cover.



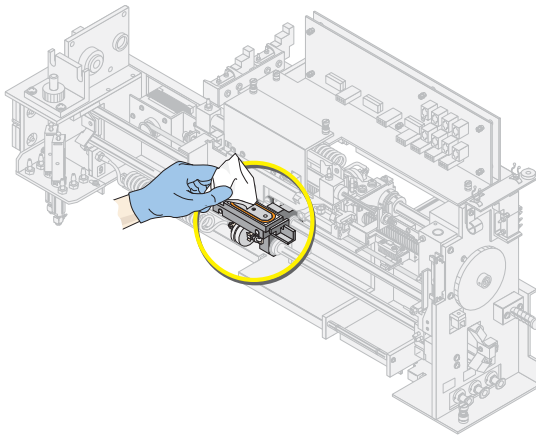
2. Remove all slide cassettes from the input and output queues.



TROUBLESHOOTING
SLIDEJAMS OR DEBRIS

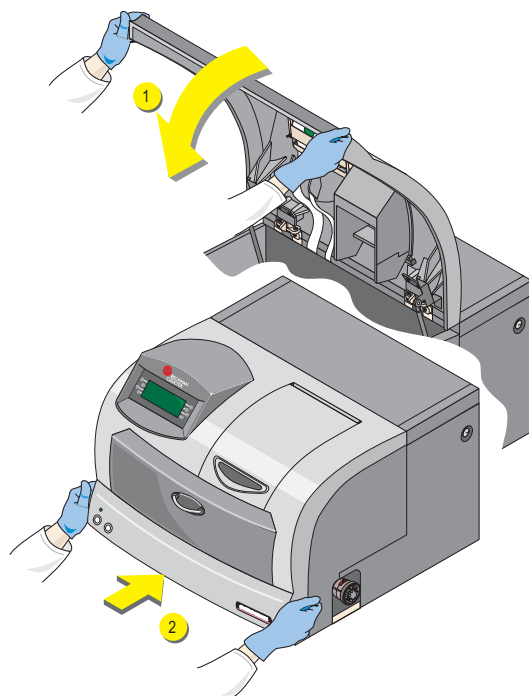


3. Remove slides, including jammed slides and debris, from shuttle, truck and pawls.
4. Manually move the shuttle by gently sliding it or moving its belt inside instrument. Make sure to move the shuttle all the way along its path.



5. If you suspect a vacuum problem, debris may exist on the shuttle or on the slide. Use a lint-free tissue to wipe the shuttle and remove any debris.
6. Return the full slide cassettes to the input queue.

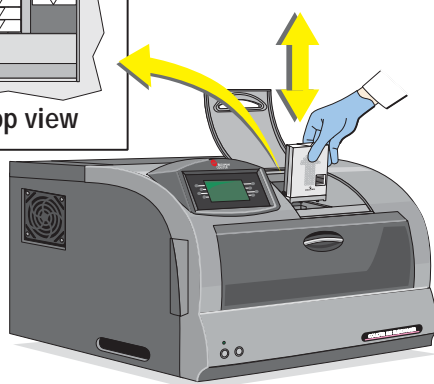
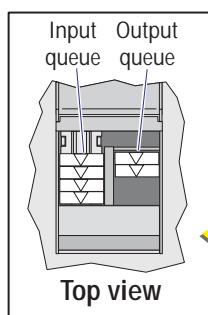
7. Close the cover.



Checking the Slide Cassette

Procedure

WARNING Risk of injury from movable part. Be careful when working with movable parts.



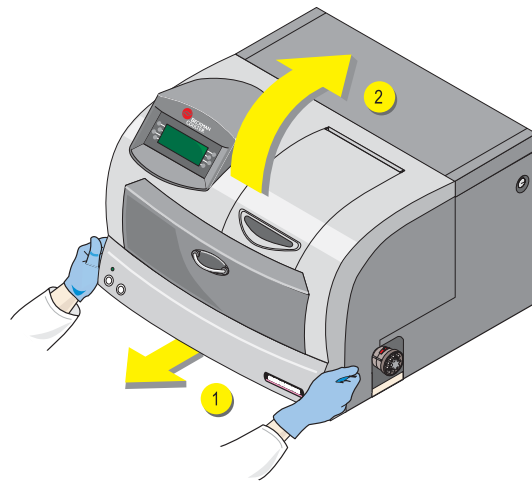
1. Remove all slide cassettes from the input and output queues.
2. Remove any jammed slides from the cassette.
3. Replace the slides in the cassette.
4. Return the full slide cassettes to the input queue.

Note: If your slides frequently jam in the cassette, call your Beckman Coulter Representative to adjust the slide opening.

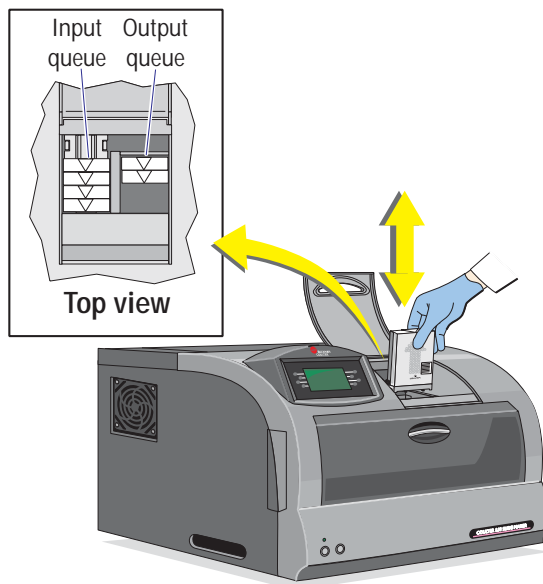
Checking the Slide Ejector Module

Procedure

WARNING Risk of injury from movable part. Be careful when working with movable parts.



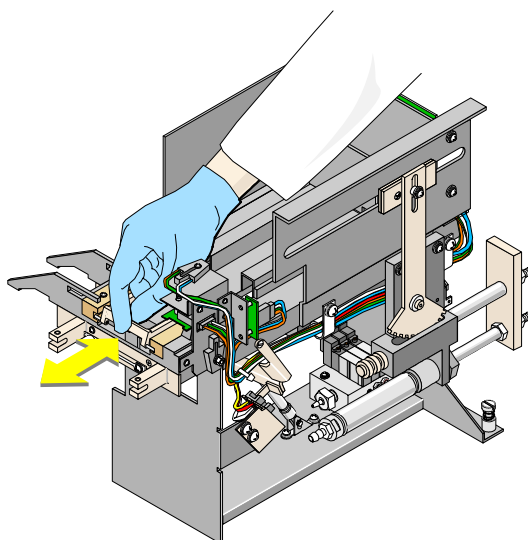
1. If you have not already done so, open the cover.



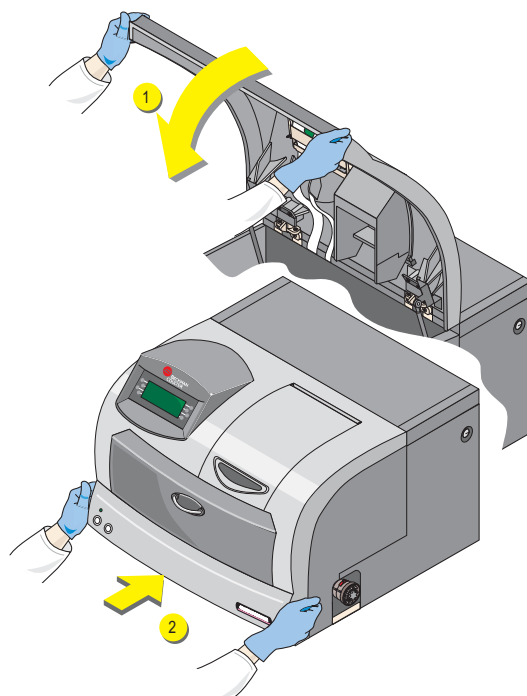
2. Remove all slide cassettes from the input and output queues.

3. Check the last slide cassette from the output queue and remove any jammed slides.
4. Remove any jammed slides or pieces of glass from the Slide Ejector module.

5. Manually move the pawls forward and backward to ensure debris is not blocking it.



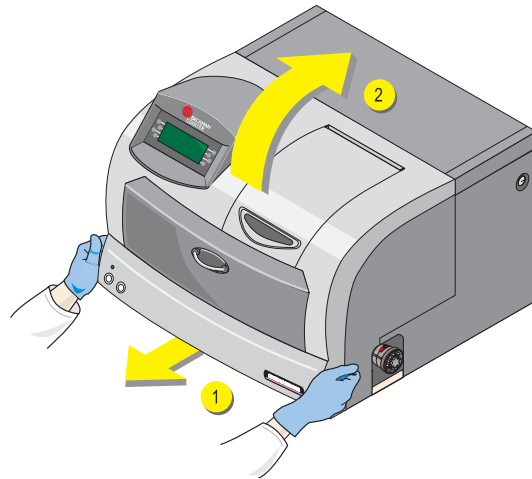
6. Return the full slide cassettes to the input queue.
7. Close the cover.



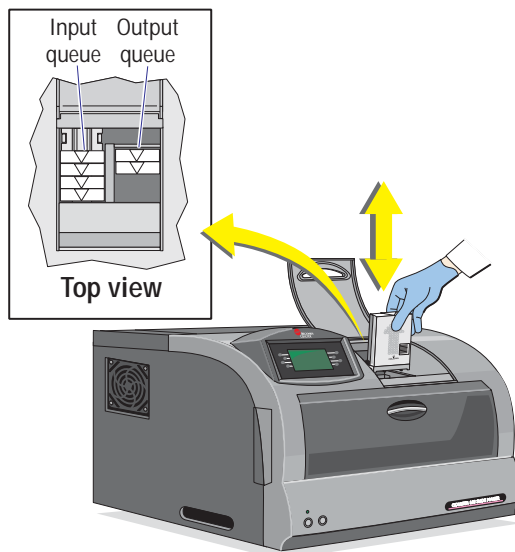
Checking the Truck

Procedure

WARNING Risk of injury from movable part. Be careful when working with movable parts.

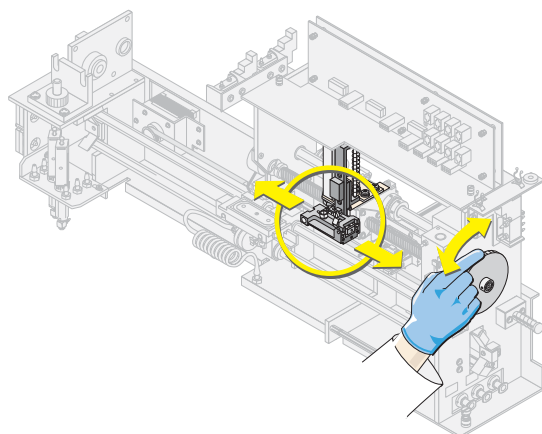


1. If you have not already done so, open the cover.

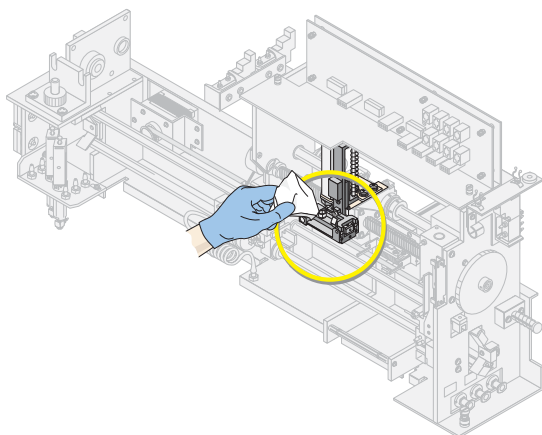


2. Remove all slide cassettes from the input and output queues.

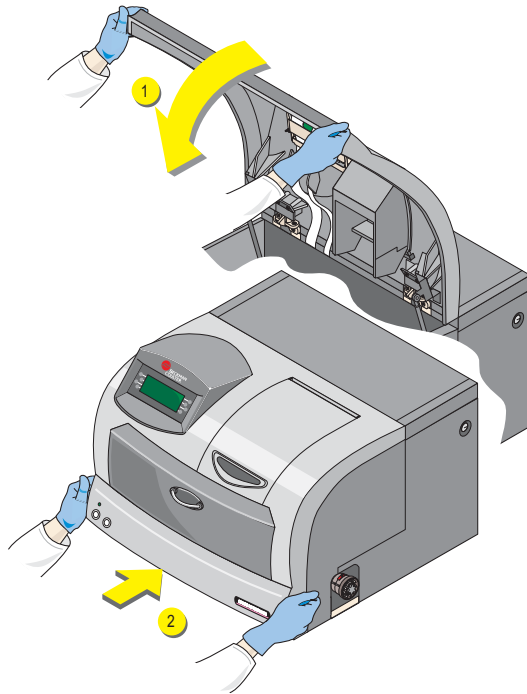
3. Remove slides, including jammed slides and debris, from shuttle, truck and pawls.



4. Manually move the truck by gently turning its gear on the right side of the instrument. Make sure to move the truck all the way along its path.



5. If you suspect a vacuum problem, debris may exist on the truck or on the slide. Use a lint-free tissue to wipe the truck and remove any debris.



6. Return the full slide cassettes to the input queue.
7. Close the cover.

7.4 SLIDE BASKET/CASSETTE

Advancing a Slide Basket

Procedure

Note: This applies on SlideMaker option when running Automatic Mode Analysis. It does not apply if you have a SlideStainer.

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ADVANCE BASKET.

The SlideMaker advances a slide basket one basket position. The SlideMaker status line displays *ADVANCING BASKET* during operation, then *READY*.

Note: Once a basket has advanced to the slide loading position, do not manually remove it from this position. You can advance the basket, if necessary, but do not manually remove a basket from the slide loading position.

5. Press EXIT to return to the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Unlocking a Slide Cassette

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press UNLOCK CASSETTE.

The SlideMaker status line displays *UNLOCKING CASSETTE* while it releases the cassette or as it releases the cassette.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

7.5 LABEL PRINTING

Testing Label Printing

Procedure

1. Press EXIT until you reach the MAIN MENU screen.
2. Press SPECIAL CYCLES.
3. Press PRINT LABEL.



The SlideMaker status line displays *PRINTING LABEL* while the SlideMaker testing label is printing.

The SlideMaker prints test data on labels, applies the labels to slides and deposits the slides in slide baskets.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

Note:

For Japanese translation only, the Katakana font is available for SlideMaker labels. Seven (7) lines of sample demographics are available to print on the label. The length of each line on the slide label is limited to nine (9) Katakana characters or seven (7) Katakana numbers.

The total available space from top to bottom of the label is 100. The small font takes 14 spaces, the large font takes 20. Katakana font takes 26 and the printed bar-code takes 42 spaces. The sum of the line spaces cannot exceed 100.

4. Press EXIT until you reach the MAIN MENU screen.
5. Press RUN MODE to return to the RUN MODE screen.

Saving Printer Label Intensity As Default

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press PRINTER LABEL FUNCTIONS.
5. Specify the label intensity you want:

Press This	To
DECREMENT INTENSITY	Decrease the label intensity (make lighter). The minimum value is 1. After the value reaches 1, the label intensity jumps back to the maximum (32).
INCREMENT INTENSITY	Increase the label intensity (make darker). The maximum value is 32. After the value reaches 32, the label intensity jumps back to the minimum (1).
SAVE PRINTER LABEL INTENSITY	Save the intensity selection.

The SlideMaker uses the saved value as the new default for printer label intensity.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Rebooting the SlideMaker Printer

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press SPECIAL FUNCTIONS.
4. Press REBOOT PRINTER.

The SlideMaker status line displays *REBOOTING PRINTER* while it reinitializes the Printer.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Decreasing SlideMaker Printer Label Intensity

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press PRINTER LABEL FUNCTIONS.
5. Press DECREMENT INTENSITY once for each level you want to decrease the label intensity (make lighter).

The minimum value is one. After the value reaches one, the label intensity jumps back to the maximum of 32.

The SlideMaker uses this printer label intensity until it is restarted. If you want to save this printer label intensity as the new default, press **SAVE PRINTER LABEL INTENSITY**.

6. Press **EXIT** until you reach the **MAIN MENU** screen.
7. Press **RUN MODE** to return to the **RUN MODE** screen.

Increasing SlideMaker Printer Label Intensity

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press **EXIT** until you reach the **MAIN MENU** screen.
3. Press **ROUTINE FUNCTIONS**.
4. Press **PRINTER LABEL FUNCTIONS**.
5. Press **INCREMENT INTENSITY** once for each level you want to increase the label intensity (make darker).

The minimum value is 1. After the value reaches 32, the label intensity jumps back to the minimum of 1.

The SlideMaker uses this printer label intensity until it is restarted. If you want to save this printer label intensity as the new default, press **SAVE PRINTER LABEL INTENSITY**.

6. Press **EXIT** until you reach the **MAIN MENU** screen.
7. Press **RUN MODE** to return to the **RUN MODE** screen.

7.6 REAGENTS AND REAGENT RESERVOIRS

Draining the SlideMaker

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is ready to process samples.
2. Press **EXIT** until you reach the **MAIN MENU** screen.
3. Press **ROUTINE FUNCTIONS**.
4. Press **ROUTINE FLUIDICS**.

WARNING Risk of contamination. Do not operate the Instrument if the waste level sensor is disconnected and waste is being dropped into the waste container. The waste container contains biohazardous material. Handle with care and avoid skin contact.

5. Press **DRAIN**. The SlideMaker status line displays *DRAINING SYSTEM* while the SlideMaker:
 - a. Drains its waste chamber into the LH 700 Series analyzer waste container.

- b. Lowers its dispense probe into the rinse cup.
- c. Drains the diluent reservoir.
- d. Dries the aspiration line

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Draining the SlideMaker Vacuum Accumulator

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ROUTINE FLUIDICS.
5. Press DRAINING VACUUM ACCUMULATOR. The SlideMaker status line displays *RINSING VACUUM ACCUMULATOR* while the SlideMaker drains the vacuum accumulator into the LH 700 Series analyzer waste container and rinses the vacuum accumulator.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.
6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Priming/Backwashing SlideMaker

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ROUTINE FLUIDICS.
5. Press PRIME SYSTEM.

The SlideMaker status line displays *BACKWASHING* while the SlideMaker backwashes the sample lines and rinses the rinse trough.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.
6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Priming Reagent Reservoirs

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press ROUTINE FLUIDICS.
5. Press PRIME REAGENT RESERVOIRS.

The SlideMaker status line displays *PRIMING REAGENT RESERVOIRS* while the SlideMaker:

- Drains waste from SlideMaker waste chamber into LH 700 Series analyzer waste container.
- Fills the SlideMaker diluent reservoirs.

When the SlideMaker completes this processing, *READY* appears on the SlideMaker status line.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

7.7 HARDWARE

Checking Pneumatic/Power Supplies (SlideMaker)

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press PNEUMATIC/POWER SUPPLIES.

SlideMaker displays the pneumatic supply levels and the electrical power supply voltages along with the acceptable ranges.

If the pneumatic supply levels are outside the acceptable ranges, adjust the regulators as indicated below:

For This	Use This
5 PSI	5 psi adjustment regulator on the rear of the SlideMaker.
30 PSI	30 psi adjustment control on the LH 700 Series Power Supply.
RAW VAC	The RAW VAC comes from the LH 700 Series Power Supply. It can only be adjusted by your Beckman Coulter Representative.

REG VAC1 (17.5 Hg)	VAC1 regulator on the left side of the SlideMaker. If a SlideStainer is attached to your SlideMaker, call your Beckman Coulter Representative for assistance.
REG VAC2 (6.5 Hg)	VAC2 regulator on the left side of the SlideMaker. If a SlideStainer is attached to your SlideMaker, call your Beckman Coulter Representative for assistance.

If the power supply voltages are outside their acceptable ranges, contact your Beckman Coulter Representative.

5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Testing the SlideMaker Keypad

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press SPECIAL FUNCTIONS.
4. Press KEYPAD TEST.
5. Press a key on the keypad. A row of # symbols appears on the screen, indicating which key was pressed. Repeat as needed for other keys.

If a key fails to function properly, call your Beckman Coulter Representative.
6. Press any key three times to exit to the SPECIAL FUNCTIONS screen.
7. Press EXIT to return to the MAIN MENU screen.
8. Choose RUN MODE.

Testing the SlideMaker Display

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press SPECIAL FUNCTIONS.
4. Press DISPLAY TEST and watch as the SlideMaker tests the screen by flashing off and on in a checkerboard pattern. A diagonal line flashes, followed by characters that fill the screen, then each element of the screen turns on and off.
5. Press EXIT until you reach the MAIN MENU screen.
6. Press RUN MODE to return to the RUN MODE screen.

Testing the SlideMaker Dryer and Heater

Procedure

1. Ensure:
 - SlideMaker is ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT until you reach the MAIN MENU screen.
3. Press SPECIAL FUNCTIONS.
4. Press DRYER FUNCTION TEST.
5. Select the function you want to test:

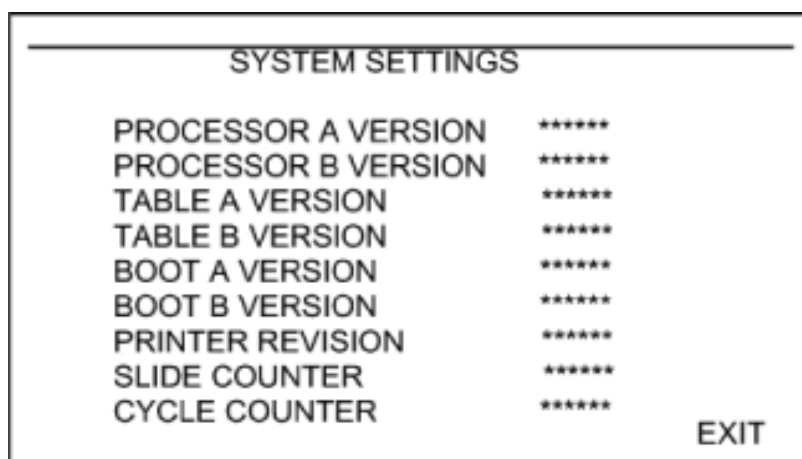
Press This	To
DRYER MOTOR ON	Turn on the SlideMaker dryer motor. Verify that the belt is moving. The SlideMaker status line displays <i>DRYER MOTOR ON</i> . If the dryer motor fails to turn on, check for a jam in the dryer area.
DRYER MOTOR OFF	Turn off the SlideMaker dryer motor. Verify that the belt stops moving. The SlideMaker status line displays <i>DRYER MOTOR OFF</i> . If the dryer motor fails to turn off, turn the SlideMaker off and call your Beckman Coulter Representative.
HEATER ON	Turn on the SlideMaker heater. The SlideMaker status line displays <i>HEATER ON</i> . Check the Dryer Temperature screen to verify heater temperatures. If the heater fails to turn on, turn the SlideMaker off and call your Beckman Coulter Representative.
HEATER OFF	Turn off the SlideMaker heater. The SlideMaker status line displays <i>HEATER OFF</i> . Check the Dryer Temperature screen to verify heater temperatures. If the heater fails to turn off, turn the SlideMaker off and call your Beckman Coulter Representative.

6. Press EXIT until you reach the MAIN MENU screen.
7. Press RUN MODE to return to the RUN MODE screen.

Viewing SlideMaker Settings

Procedure

1. Ensure:
 - SlideMaker is either making or ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press EXIT to access the MAIN MENU screen.
3. Press ROUTINE FUNCTIONS.
4. Press SYSTEM SETTINGS. The *SYSTEM SETTINGS* screen appears as follows.




- SlideMaker software version for each microprocessor
 - SlideMaker table versions for fluidics and screen display
 - SlideMaker printer revision
 - Slide counter - initialized to one, increments by one for each slide prepared; cannot be reset
 - Cycle counter - initialized to one, increments by one each blood that is aspirated; cannot be reset
5. Press EXIT until you reach the MAIN MENU screen.
 6. Press RUN MODE to return to the RUN MODE screen.

Viewing SlideMaker Errors on the SlideMaker

Procedure

Note: The SlideMaker stores the last 10 messages in a log on the SlideMaker. The SlideMaker also sends all SlideMaker messages to the Workstation. The Workstation stores the messages in the SlideMaker history log.

1. Ensure:
 - SlideMaker is either making or ready to make smears.
 - LH 700 Series analyzer is either processing or ready to process samples.
2. Press VIEW ERROR on the RUN MODE screen.
 - The screen title changes to ERROR DISPLAY and the SlideMaker status line displays the last SlideMaker error message that occurred.
3. Use  to view the next/previous message.
If you need more information, select the message in the Message List.
4. Press EXIT to return to the RUN MODE screen.

7.8 SLIDEMAKER ERROR MESSAGES

Table 7.1 Miscellaneous System Messages

SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
	N/A	SlideMaker Log	N/A		SlideMaker stops.		No action necessary.
	N/A	SlideMaker Log		For the first two incomplete aspirations without resetting the system.	The incomplete sample is discarded.	Blood is not sensed by the correct fluid dispensor during aspiration because: <ul style="list-style-type: none">• The blood is too viscous and did not reach the detector in time.• The specimen tube has insufficient blood sample.• The vacuum for advancing the blood is insufficient.• The fluid detector failed.• A solenoid failed.	Note: Press any key on the SlideMaker screen to reset the alarm. <ol style="list-style-type: none">1. If this message only appears for one sample, check the specimen condition and volume.2. Resume normal operation. If the mesasge persisits:<ol style="list-style-type: none">a. .Wait until the last slide in the Dryer module is deposited in a slide basket.b. Turn off the SlideMaker.c. If AutoStop is ON, turn AutoStop OFF to resume Analytical Station operation. Samples that require slides appear in the slide list.d. Call your Beckman Coulter representative.
(84)	N/A	SlideMaker Log			SlideMaker continues operation.	<ul style="list-style-type: none">• The operator did not place a slide in the dryer.• The slide fell into the dryer area.	Remove the fallen slide from the dryer area. If the message persists: <ol style="list-style-type: none">1. Turn the SlideMaker off and then on.2. If the message persists:3. Call your Beckman Coulter Representative.
N/A	No	Event Log			N/A	<ul style="list-style-type: none">• The SlideMaker is off.• The SlideMaker is disconnected.	<ol style="list-style-type: none">1. Verify the SlideMaker is connected and on.2. Acknowledge the error at the Workstation to reset the SlideMaker.3. If the message persists, call your Beckman Coulter Representative.
N/A	No	SlideMaker Log	No	N/A	Ready	N/A	N/A
N/A	No	Slidemaker Log		If AutoStop is OFF	N/A	Download initiated by customer failed.	<ol style="list-style-type: none">1. Turn the SlideMaker off and then on.2. Reinitiate the download.3. If the message persists, call your Beckman Coulter Representative.

Table 7.1 Miscellaneous System Messages (Continued)







SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
N/A	No	Slidemaker Log <i>SlideMaker Needs To Download The New Software.</i>		If AutoStop is OFF 	If AutoStop is ON 	Ready	Revision level mismatch.	Initiate download.
N/A	No	SlideMaker Log <i>SlideMaker Communication Problem</i>		If AutoStop is OFF 	If AutoStop is ON 	Ready	<ul style="list-style-type: none"> The SlideMaker is off. The SlideMaker is disconnected. 	<ol style="list-style-type: none"> Verify the SlideMaker is connected and on. Acknowledge the error at the Workstation to reset the SlideMaker. If the message persists, call your Beckman Coulter Representative.
N/A	N/A	SlideMaker Log <i>Unknown Error Code Received From SlideMaker: <Error Code>.</i>	N/A			No known problems identified, so continues operation.	Workstation received an unknown error code from the SlideMaker	<p>If the message persists:</p> <ol style="list-style-type: none"> Wait until the last slide in the Dryer module is deposited in a slide basket. Turn the SlideMaker off and then on. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> <p>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. Note: You may not be able to retrieve all the slides. If the dryer belts had stopped motion, review the slides that were within the dryer area as they may have excessive heat damage. Call your Beckman Coulter Representative.
BUSY	No	N/A	No	N/A	N/A	<ul style="list-style-type: none"> SlideMaker is running a sample. SlideMaker is in the Service mode. 	<ul style="list-style-type: none"> SlideMaker is running a sample. SlideMaker is in the Service mode. 	No action necessary

Table 7.1 Miscellaneous System Messages (Continued)


SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
INCOMPLETE ASPIRATION	Yes	SlideMaker Log <i>SlideMaker Incomplete Aspiration.</i>		If AutoStop is OFF For the third incomplete aspiration in a row.	If AutoStop is ON For the third incomplete aspiration in a row.	The incomplete sample is discarded. If three consecutive incomplete aspirations occur: 1. No new samples are aspirated. 2. Completed smears are dried and deposited in a slide basket. 3. The SlideMaker stops and an error is sent to the Workstation.	Blood is not sensed by the correct fluid detector during aspiration because: <ul style="list-style-type: none">The blood is too viscous and did not reach the detector in time.The specimen tube has insufficient blood sample.The vacuum for advancing the blood is insufficient.The fluid detector failed.A solenoid failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Deleted 2. If this message appears for three consecutive samples: a. Ensure the last three specimen tubes had enough blood. (The SlideMaker needs 250 µL). b. If there is sufficient blood in the specimen tubes, clean the aspiration lines: 1) From the MAIN MENU, select ROUTINE FUNCTIONS » ROUTINE FLUIDICS » RUN SHUT DOWN to flush the lines with cleaning agent. 2) From the MAIN MENU, select ROUTINE FUNCTIONS » ROUTINE FLUIDICS » RUN START UP to rinse the lines with diluent. 3. Resume normal operation. If the message persists: a. Wait until the last slide in the Dryer module is deposited in a slide basket. b. Turn off the SlideMaker. c. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. d. Call your Beckman Coulter Representative.

Table 7.1 Miscellaneous System Messages (Continued)






SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
MAIN COVER OPEN (SENSOR 53)	No	SlideMaker Log SlideMaker Main Cover Open (Sensor 53).		If AutoStop is OFF  If AutoStop is ON 	If in the Service mode, the SlideMaker continues operating normally. If in the Normal mode: 1. Any truck operation in progress continues. 2. The Label Printer continues (if operating). 3. Any sample already aspirated is processed until its smear is dried and deposited in a slide basket. Two slides may be completed before the SlideMaker stops. 4. No new samples are aspirated. 5. If the Printer is out of labels or ribbon, CL4 is retracted, releasing the printhead, so you can insert the new label or ribbon roll. Note: The printhead is closed again when, with the cover closed, you reset the SlideMaker. 6. The SlideMaker stops.	1. Operator opened the main cover while unit was in operation. 2. Main cover interlock (SEN53) is obstructed or defective.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. If the cover appears closed, open the cover and close it again. 2. Acknowledge the error at the Workstation to reset the SlideMaker. 3. If the message persists: a. Ensure SEN53 is unobstructed. b. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 4. If the message still persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact. c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. Note: You may not be able to retrieve all the slides. d. Close the cover and call your Beckman Coulter Representative.
NOT READY	No	N/A	No	N/A	<ul style="list-style-type: none">SlideMaker is not enabled for making slides.SlideMaker is waiting to initialize.	<ul style="list-style-type: none">SlideMaker is waiting to initialize.SlideMaker is not enabled for making slides.	1. If the SlideMaker is waiting to initialize, wait until initialization has completed. 2. If the Slide Maker is not enabled for making slides, enable the SlideMaker at the Workstation. Refer to the Online Help procedure, Ensuring the SlideMaker Is Enabled.
READY	No	N/A	No	N/A	Ready	N/A	No action necessary.
READY	No	SlideMaker Log Data Late.			SlideMaker printed Auto Slide on the label and automatically created a slide using default parameters.	<ul style="list-style-type: none">Product performed an Auto Clear cycle.Delay in the Workstation.	No action necessary.

Table 7.1 Miscellaneous System Messages (Continued)



SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
RESET IN PROGRESS, PLEASE WAIT	Yes	SlideMaker Log	N/A	N/A	1. The reset request is held pending until the end of the current cycle or until 120 seconds have elapsed since the last aspiration. During the pending state the reset request message is displayed and the reset light is lit. 2. When the reset command is executed, the message is removed and the reset light goes out.	Operator pressed reset button.	No action necessary.
RESET Button Pressed							
WARNING: SLIDE FELL FROM DRYER	Yes	SlideMaker Log			Warning only. The SlideMaker continues operating normally.	<ul style="list-style-type: none"> The operator manually removed a slide from the dryer. The slide pusher bars did not transfer the slide from the shuttle to the dryer belts. The dryer motor is not operating correctly. The dryer exit sensor, SEN49, failed. One or both of the dryer conveyer belts broke and the slides fell somewhere within the Dryer module or between the shuttle and the Dryer module. 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> If an operator manually removed a slide from the Dryer module, ignore this warning. If no-one manually removed a slide from the Dryer module: <ol style="list-style-type: none"> Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Ensure the dryer belts are moving. Check inside the dryer for fallen slides. Retrieve and inspect any fallen slides for possible heat damage. Check the entrance to the Dryer module for fallen slides. Retrieve and place any fallen slides in a slide basket for staining. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. <ol style="list-style-type: none"> If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.

Table 7.2 Basket Error Messages







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
BASKET (ALL BASKETS FULL)	Yes	SlideMaker Log <i>SlideMaker: No Empty Basket Available.</i>	<div></div> <div>If AutoStop is OFF </div> <div>If AutoStop is ON </div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is processed.</div><div>3. The last completed smear is transferred to the Dryer module.</div><div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div><div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div></div>	<div>After a slide is deposited in a slide basket, the slide baskets are advanced to prepare for the next slide. Not detecting an open position after testing all the basket positions could indicate:<ul style="list-style-type: none">All the slide baskets are full.The basket index sensor, SEN37, is not working correctly.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.<div><div>1. If all the slide baskets are full, replace the full baskets with empty baskets.</div><div>2. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>3. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List..</div></div></div></div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Inspect the area under the smear truck for a fallen slide and retrieve if possible.</div><div>e. Close the cover and call your Beckman Coulter Representative</div></div></div>
BASKET (CORNERS FULL)	Yes	SlideMaker Log <i>SlideMaker: Transfer Of Basket Between Belts Not Possible.</i>	<div></div> <div>If AutoStop is OFF </div> <div>If AutoStop is ON </div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is processed.</div><div>3. The last completed smear is transferred to the Dryer module.</div><div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div><div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div></div>	<div>Note: This condition can also generate a <i>SlideMaker Basket Track Full.</i> error at the Workstation.<ul style="list-style-type: none">Each of the four corners of the Basket Queue module has a slide basket so a slide basket cannot be transferred from one track to the other.One of these basket or belt position sensors is blocked:<div><div>▸ Rear belt position, SEN31</div><div>▸ Front belt position, SEN32</div><div>▸ Basket present rear right, SEN33</div><div>▸ Basket present front right, SEN34</div><div>▸ Basket present rear left, SEN35</div><div>▸ Basket present front left, SEN36</div></div>SEN31, SEN32, SEN33, SEN34, SEN35 or SEN36 failed, indicating a corner has a slide basket when it does not.The track belts are misaligned; a basket is not actually at the corner.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm<div><div>1. If all four corners of the Basket Queue module are occupied, remove the filled slide baskets.</div><div>2. If the corners of the Basket Queue module are not occupied, wait until the dryer belts stop moving.</div><div>3. Acknowledge the error at the Workstation to reset the SlideMaker.<div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div></div><div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div></div></div></div><div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div><div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div>

Table 7.2 Basket Error Messages (Continued)







SLIDEMAKER		WORKSTATION		RECOVERY	
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
BASKET (DID NOT FULLY ADVANCE)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Basket Did Not Fully Advance.</div> <div></div> <div>If AutoStop is OFF </div> <div>If AutoStop is ON </div>	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is processed.</div> <div>3. The last completed smear is transferred to the Dryer module.</div> <div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div> <div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div>	<div>The slide basket exceeded the maximum time allotted to finish its motion. This could indicate:</div> <div><ul style="list-style-type: none">• An obstruction in the Basket Queue module.• Stepper motor MF3 or MF4 failed.• One of these basket or belt position sensors failed.<ul style="list-style-type: none">▸ Rear belt position, SEN31▸ Front belt position, SEN32▸ Basket present rear right, SEN33▸ Basket present front right, SEN34▸ Basket present rear left, SEN35▸ Basket present front left, SEN36</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Inspect both tracks in the Basket Queue module for obstructions.</div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div>2. Open the basket cover and inspect the area under the basket for a broken or fallen slide and retrieve if possible.</div><div>3. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>4. If the message persists:<ul style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div>d. Close the cover and call your Beckman Coulter Representative.</div></div>
BASKET (DID NOT TRANSFER BETWEEN BELTS)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Basket Did Not Transfer Between Belts</div> <div></div> <div>If AutoStop is OFF </div> <div>If AutoStop is ON </div>	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is processed.</div> <div>3. The last completed smear is transferred to the Dryer module.</div> <div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div> <div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div>	<div><ul style="list-style-type: none">• A jam prevented completion of the slide basket transfer.• When you turned the SlideMaker on, a basket was in a corner but not at a belt position sensor.• One of the sensors monitoring the extension and retraction of the cylinder that transfers the slide baskets from one track to the other is blocked.<div>Extension is detected by the corner sensor opposite the slide basket. The corner sensors are:<ul style="list-style-type: none">▸ Basket present rear right, SEN33▸ Basket present front right, SEN34▸ Basket present rear left, SEN35▸ Basket present front left, SEN36</div><div>Retraction is detected by sensors on the cylinders:<ul style="list-style-type: none">▸ Left crossover home, SEN39▸ Right crossover home, SEN40</div><ul style="list-style-type: none">• SEN33, SEN34, SEN35, SEN36, SEN39, or SEN40 failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm</div> <div><div>1. Wait until the dryer belts stop moving.</div><div>2. Remove any jammed slide baskets.</div><div>3. Acknowledge the error at the Workstation to reset the SlideMaker.<div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div></div><div>4. If the message persists:<ul style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div><div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div><div><ul style="list-style-type: none">c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div>

Table 7.2 Basket Error Messages (Continued)







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
BASKET (MOVE POSITION)	Yes	SlideMaker Log SlideMaker Basket Move Position Failure.	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is processed.</div><div>3. The last completed smear is transferred to the Dryer module.</div><div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div><div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div></div>	<div>The slide basket did not reach the desired position after the number of steps required. This could indicate:<ul style="list-style-type: none">The slide basket is jammed.The rear belt position, SEN31, or the front belt position, SEN32, failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Remove the jammed slide basket.</div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div>2. Open the basket cover and inspect the area under the basket for a broken or fallen slide and retrieve if possible.</div><div>3. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.</div><div>Note: You may not be able to retrieve all the slides.</div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div>
BASKET (SLIDE NOT PLACED IN BASKET)	Yes	SlideMaker Log SlideMaker: Slide Not Placed in Basket	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is processed.</div><div>3. Any completed smear remains on the shuttle.</div><div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div><div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div></div>	<div>The gripper detected a slide when the slide exited the Dryer module, but neither the basket index sensor, SEN37, nor the vertical slide sensor, SEN41, detected a slide in the slide basket. This could indicate:<ul style="list-style-type: none">The slide fell from the Slide Elevator module into the slide basket at an angle which did not interrupt the beam of the basket index sensor.The basket index sensor, SEN37, and the vertical slide sensor, SEN41, are misaligned.Slide edge characteristics do not meet specifications. For specifications refer to Online Help System topic "Physical Specifications - SlideMaker".</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>WARNING Risk of contamination. The prepared smears contain biohazardous material. Handle with care and avoid skin contact.</div><div>1. Open the basket cover and inspect the area under the basket for fallen or broken slides.</div><div>2. Retrieve the slides if possible and place in a slide basket for staining.</div><div>3. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.</div><div>Note: You may not be able to retrieve all the slides.</div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div>

Table 7.2 Basket Error Messages (Continued)






SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
BASKET (TRACK FULL)	Yes	SlideMaker Log SlideMaker Basket Track Full.	<div> If AutoStop is OFF  If AutoStop is ON </div>	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is processed.</div> <div>3. The last completed smear is transferred to the Dryer module.</div> <div>4. The Dryer module continues to operate until a slide is ready to exit from the module.</div> <div>5. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div>	<div>Note: This condition can also generate a <i>SlideMaker: Transfer Of Basket Between Belts Not Possible</i> error at the Workstation.</div> <div><ul style="list-style-type: none">Each of the four corners of the Basket Queue module has a slide basket so a slide basket cannot be transferred from one track to the other.Only one track is moving and the end of that track has a slide basket.One of these basket or belt position sensors is blocked:<div><div>▸ Rear belt position, SEN31</div><div>▸ Front belt position, SEN32</div><div>▸ Basket present rear right, SEN33</div><div>▸ Basket present front right, SEN34</div><div>▸ Basket present rear left, SEN35</div><div>▸ Basket present front left, SEN36</div></div>SEN31, SEN32, SEN33, SEN34, SEN35 or SEN36 failed, indicating a corner has a slide basket when it does not.The track belts are misaligned; a basket is not actually at the corner.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. If all four corners are occupied, or if the slide basket position at the end of a track is occupied, remove the filled slide baskets.</div><div>2. If the corners of the Basket Queue module are not occupied, wait until the dryer belts stop moving.</div><div>3. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div><div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation.Samples that require slides appear in the Slide List.</div></div></div><div><div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div><div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.</div><div>Note: You may not be able to retrieve all the slides.</div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div>
BASKET COVER OPEN (SENSOR 54)	Yes	SlideMaker Log SlideMaker Basket Cover Open (Sensor 54).	<div> </div>		<div>1. Operator opened the basket cover.</div> <div>2. Main basket interlock (SEN54) is obstructed or defective.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. If the cover appears closed, open the cover and close it again.</div><div>2. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>3. If the message persists:<div><div>a. Ensure SEN54 is unobstructed.</div><div>b. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div></div></div><div>4. If the message still persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume GEN•S System operation. Samples that require slides appear in the Slide List.</div><div>c. Close the cover and call your Beckman Coulter Representative.</div></div></div></div>

Table 7.3 Cassette Error Messages










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
CASSETTE (CYLINDER SENSORS)	Yes	SlideMaker Log SlideMaker Cassette Output Queue Is Obstructed Or Sensor Failed.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The sensors for the output cassette transfer mechanism (the mechanism that advances the slide cassettes in the Cassette Output Queue module) indicating the cylinder is both extended and retracted at the same time because: <ul style="list-style-type: none">The output cassette retracted sensor, SEN15, or the output cassette extended sensor, SEN16, is blocked.SEN15 or SEN16 failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Remove empty cassettes. 2. Place a full cassette in input queue. 3. Acknowledge the error at the Workstation to reset the SlideMaker and continue. 4. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
CASSETTE (EXTEND TIMEOUT)	Yes	SlideMaker Log SlideMaker Cassette Transfer To Output Queue Timeout.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The upper cassette transfer mechanism (the mechanism that advances the empty cassette from the Cassette Input Queue module to the Cassette Output Queue module) did not extend within the allowable time, or the sensor did not detect its extension because: <ul style="list-style-type: none">The upper cassette transfer mechanism is jammed.The cylinder, CL9, failed.The cassette transit sensor, SEN30, is blocked or failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Remove all cassettes. 2. Place a full cassette in input queue. 3. Acknowledge the error at the Workstation to reset the SlideMaker and continue. 4. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
CASSETTE (LOCK SENSOR)	Yes	SlideMaker Log SlideMaker Cassette Lock Sensor Failure.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The cassette locked sensor, SEN21, and cassette unlocked sensor, SEN22, indicate that the cassette is both locked and unlocked at the same time because: <ul style="list-style-type: none">SEN21 or SEN22 failed.SEN21 or SEN22 is blocked (not a likely cause).	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn off the SlideMaker. 3. Remove and reinstall the slide cassette that is in the slide ejector station. 4. Turn on the SlideMaker. 5. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.3 Cassette Error Messages (Continued)









SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
CASSETTE (LOCKED, SENSOR 21)	Yes	SlideMaker Log <i>SlideMaker Cassette Locked (Sensor 21).</i>		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div>	<div>A timeout occurred in attempting to unlock the slide cassette at the slide ejection station. A locked empty slide cassette cannot be transferred to the Cassette Output Queue module.</div> <div><ul style="list-style-type: none">The locking mechanism did not unlock the slide cassette.The cassette locked sensor, SEN21, failed.</div>	Note: Press any key on the SlideMaker screen to reset the alarm. <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div> <div>2. Turn off the SlideMaker.</div> <div>3. Remove and reinstall the slide cassette that is in the slide ejector station.</div> <div>4. Turn on the SlideMaker.</div> <div>5. If the message persists:<div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div>
CASSETTE (NO CASSETTE)	Yes	SlideMaker Log <i>If No Cassette Is Present In The Input Queue Then Add Loaded Cassette.</i>				<div>1. No new samples are aspirated.</div> <div>2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div>	<div><ul style="list-style-type: none">No slide cassette is available at the Cassette Input Queue module.The cassette present sensor, SEN26, indicates no slide cassette is present, but a slide cassette is present.</div>	Note: Press any key on the SlideMaker screen to reset the alarm. <div>1. If the Cassette Input Queue module is empty:<div>a. Place a full slide cassette in the Cassette Input Queue module.</div><div>b. Acknowledge the error at the Workstation to reset the SlideMaker.</div></div> <div>2. If a full slide cassette is in the Cassette Input Queue module:<div>a. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>b. At the MAIN MENU, select ROUTINE FUNCTIONS ► UNLOCK CASSETTE to unlock the cassette.</div><div>c. Remove and reinstall the slide cassette that is in the slide ejector station.</div><div>d. Acknowledge the error at the Workstation to reset the SlideMaker.</div></div> <div>3. If the message persists:<div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div>
CASSETTE (NOT LOCKED, SENSOR 22)	No	SlideMaker Log		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div>	<div>A timeout occurred in attempting to lock a slide cassette in place for drawing slides. Slide cannot be ejected from an unlocked slide cassette.</div> <div><ul style="list-style-type: none">The locking mechanism did not lock the slide cassette in place.The cassette unlocked sensor, SEN22, failed.</div>	Note: Press any key on the SlideMaker screen to reset the alarm. <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div> <div>2. Turn off the SlideMaker.</div> <div>3. Remove and reinstall the slide cassette that is in the slide ejector station.</div> <div>4. Turn on the SlideMaker.</div> <div>5. If the message persists:<div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div>

Table 7.3 Cassette Error Messages (Continued)










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
CASSETTE (OUTPUT QUEUE FULL)	Yes	SlideMaker Log SlideMaker Cassette Output Queue Full.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The output cassette transfer mechanism (the mechanism that advances the slide cassettes in the Cassette Output Queue module) did not advance to its retracted state, or the sensor did not detect its advancement, because: <ul style="list-style-type: none">The Cassette Output Queue module is full.The cylinder, CL7, failed.The output cassette retracted sensor, SEN15, failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. If the Cassette Output Queue module is full: <ul style="list-style-type: none">Remove the empty slide cassettes.Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the Cassette Output Queue module is not full: <ul style="list-style-type: none">Wait until the last slide in the Dryer module is deposited in a slide basket.Acknowledge the error at the Workstation to reset the SlideMaker. 3. If the message persists: <ul style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Call your Beckman Coulter Representative.
CASSETTE (RETRACT TIMEOUT)	Yes	SlideMaker Log SlideMaker Cassette Transfer Retract Timeout.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The upper cassette transfer mechanism (the mechanism that advances the empty cassette from the Cassette Input Queue module to the Cassette Output Queue module) did not retract within the allowable time, or the sensor did not detect its retraction because: <ul style="list-style-type: none">The upper cassette transfer mechanism is jammed.The cylinder, CL9, failed.The cassette transfer home sensor, SEN8, is blocked or failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn off the SlideMaker. 3. Remove all the slide cassettes from the Cassette Input Queue and Cassette Output Queue modules. 4. Manually push the upper cassette transfer mechanism back to the retracted position (to the left). 5. Put a full slide cassette in the Cassette Input Queue module. 6. Turn on the SlideMaker. 7. If the message persists: <ul style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Call your Beckman Coulter Representative.
CASSETTE (TRANSFER SENSORS)	Yes	SlideMaker Log SlideMaker Cassette Transfer Sensor Failure		If AutoStop is OFF 	If AutoStop is ON 	1. No further aspirations will occur. 2. If a slide can be picked up by the truck a smear can be made for a sample. Any other samples will be discarded following RESET. 3. Any completed smear will be processed through the dryer into the basket.	Input cassette retracted sensor #27, failure or blocked.	1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn off the SlideMaker. 3. Remove all the slide cassettes from the Cassette Input Queue and the Output Queue modules. 4. Manually push the upper cassette transfer mechanism back to the retracted position. 5. Put a full slide cassette in the Cassette Input Queue module. 6. Turn on the SlideMaker. 7. If the message persists: <ul style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Call your Beckman Coulter Representative.:

Table 7.3 Cassette Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
CASSETTE (TRANSFER TIMEOUT)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Cassette Output Queue Cylinder Did Not Extend in Time.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	<ol style="list-style-type: none"> No new samples are aspirated. If the smear truck cannot pick up a slide to make a smear, the sample is not used. <p>Note: Unused samples are discarded following reset.</p> <ol style="list-style-type: none"> Completed smears are dried and deposited in a slide basket. The SlideMaker stops. 	The cylinder in the output cassette transfer mechanism (the mechanism that advances the slide cassettes in the Cassette Output Queue module) did not extend in time, or the sensor did not detect its extension, because: <ul style="list-style-type: none"> The cylinder, CL7, failed. The output cassette extended sensor, SEN16, failed. 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Remove all cassettes. Place a full cassette in input queue. Acknowledge the error at the Workstation to reset the SlideMaker and to continue. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.

Table 7.4 Communication Error Messages










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
COMMUNICATION (ANALYZER CRC)	Yes	SlideMaker Log SlideMakerTo Product Communication Lost (CRC Check Failed).		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If this error occurred after a sample was ready to be dispensed onto the slide, a smear is made for that sample. 3. Any other sample in a reservoir is discarded. 4. Completed smears are dried and deposited in a slide basket.	Five consecutive messages from the SlideMaker to the Product were not acknowledged.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Check if the Product is working correctly. If necessary, reset the Analyzer. 2. If the message persists, wait until the last slide in the Dryer module is deposited in a slide basket, then acknowledge the error at the Workstation to reset the SlideMaker. 3. If the message still persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
COMMUNICATION (ANALYZER TIMEOUT)	No	SlideMaker Log SlideMaker To Product Communication Timeout.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. If this error occurred after a sample was ready to be dispensed onto the slide, a smear is made for that sample. 3. Any other sample in a reservoir is discarded. 4. Completed smears are dried and deposited in a slide basket.	No response from the Product.	1. Check if the Product is working correctly. If necessary, reset the Analyzer. 2. If the message persists, wait until the last slide in the Dryer module is deposited in a slide basket, then acknowledge the error at the Workstation to reset the SlideMaker. 3. If the message still persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
COMMUNICATION (CANNOT PERFORM REQUEST AT THIS TIME)	No					SlideMaker continues current operation.	The operator requested an operation requiring the SlideMaker and Product to be in the <i>READY</i> state, while one of them was not ready. Requests such as, shutdown and startup.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the Analyzer and SlideMaker screens display <i>READY</i> . 2. Repeat the request.
COMMUNICATION (FLASH MEMORY)	Yes	SlideMaker Log SlideMaker FLASH MEMORY Communication Failure. FATAL ERROR.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops. A fatal error occurred during: <ul style="list-style-type: none">Download from the Workstation. The flash memory has unknown or unreliable information.Service mode changes to the flash memory contents.	Erase error, write error or verify memory error when placing parameters in the flash memory.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Turn off the SlideMaker. 2. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. Note: You may not be able to retrieve all the slides. 4. Close the cover and call your Beckman Coulter Representative.

Table 7.4 Communication Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
COMMUNICATION (RAM ERROR)	Yes	<div>SlideMaker Log</div> <div>SlideMaker BATTERY BACKED RAM Failure.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	The SlideMaker stops all mechanical activity.	Failure in reading or writing the parameters to the battery-backed RAM.	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. Turn off the SlideMaker.</div> <div>2. Open the cover.</div> <hr/> <div> <div>WARNING</div> <div>Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div> </div> <hr/> <div>3. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div> <div>4. Close the cover and turn on the SlideMaker.</div> <div>5. If the message persists: <div> <div>a. Turn off the SlideMaker.</div> <div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div> <div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.</div> <div> <div>Note: You may not be able to retrieve all the slides.</div> <div>d. Close the cover and call your Beckman Coulter Representative.</div> </div> </div> </div>

Table 7.5 Dispense Error Messages







SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
DISPENSE (PROBE NOT DOWN, SEN 12)	Yes	SlideMaker Log SlideMaker Dispense Probe Not Down (Sensor 12).		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is not processed.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div> <div>The dispense probe must be down to discard the front part of the blood, to deposit a drop on the slide, and to backwash.</div> <div>The dispense probe is not down at the correct times in the cycle, or the sensor does not detect the probe is down, because:</div> <div><ul style="list-style-type: none">The dispense probe is stuck.The mechanism that pushes the dispense probe down is not receiving sufficient pressure.Probe down sensor, SEN12, failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div> <div>2. Open the cover.</div> <div>3. If a slide is on the shuttle or has fallen, remove the slide.</div> <div>4. Check the area below the smear truck for fallen slides and, if possible, retrieve the slides.</div> <div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div> <div>6. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div>
DISPENSE (PROBE NOT UP, SENSOR 11)	Yes	SlideMaker Log SlideMaker Dispense Probe Not Up (Sensor 11).		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is not processed.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div> <div>The dispense probe must be up for the shuttle to bring a slide to the dispense position.</div> <div>The dispense probe is not up at the correct time in the cycle, or the sensor did not detect the probe is up, because:</div> <div><ul style="list-style-type: none">The dispense probe is stuck.The mechanism that lifts the dispense probe is not receiving sufficient pressure.The probe up sensor, SEN11, failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div> <div>2. Open the cover.</div> <div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div> <div>3. If a slide is on the shuttle or has fallen, remove the slide.</div> <div>4. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div> <div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div>

Table 7.5 Dispense Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
DISPENSE (SENSORS)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Dispense Probe Sensor Failure.</div> <div>  </div> <div> If AutoStop is OFF  </div> <div> If AutoStop is ON  </div>	1. No new samples are aspirated. 2. Any sample in a reservoir is not processed. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	The probe up sensor, SEN11, and the probe down sensor, SEN12, indicate the dispense probe is both up and down at the same time because: <ul style="list-style-type: none"> • SEN11 or SEN12 is blocked. • SEN11 or SEN12 failed. 	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div> 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn off the SlideMaker and open the cover. </div> <hr/> <div> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. </div> <hr/> <div> 3. If a slide is on the shuttle or has fallen, remove the slide. 4. Check the area below the smear truck for fallen slides and retrieve if possible. 5. Close the cover and turn on the SlideMaker. 6. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative. </div>

Table 7.6 Dryer Error Messages







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
DRYER (EXTEND, SENSOR 10)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Dryer Transfer Mechanism (Shuttle to Dryer) Did Not Extend (Sensor 10).</i>	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Any completed smear remains on the shuttle.</div><div>4. The SlideMaker stops.</div></div>	<div>The slide pusher bars (the mechanism that transfers the slide from the shuttle to the Dryer module) did not extend to transfer the slide, or the sensor did not detect the extension. This could indicate:<ul style="list-style-type: none">The slide pusher bars mechanism is jammed.The shuttle and the slide pusher bars are misaligned.The slide pusher bars mechanism is defective.The slide transfer extended sensor, SEN10, failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div> <div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div> <div><div>3. If a slide is on the shuttle or has fallen, remove the slide.</div><div>4. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>
DRYER (HIGH TEMPERATURE)	Yes	SlideMaker Log <i>SlideMaker Dryer Temperature Too High.</i>	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. The dryer heater is turned off.</div><div>4. Completed smears are deposited in a slide basket.</div><div>5. The SlideMaker stops.</div></div>	<div><ul style="list-style-type: none">Error in one of these three temperature sensors and/or the truck loop:<ul style="list-style-type: none">Ambient temperature thermistor on the System Control card.Heatsink temperature sensor in the heatsink assembly in the Dryer module. Hot air path temperature sensor on the Temperature Sensor card in the Dryer module. Short circuit in dryer controllerA/D converter failure.Dryer module fan failure.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Turn off the SlideMaker.</div><div>2. Open the cover.</div></div> <div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div> <div><div>3. Remove the slides from the pusher bars area, Dryer module, and platen, and place the slides in a basket for staining.<div>Note: You may not be able to retrieve all the slides.</div><div>Review the slides that were within the dryer area as they may have excessive heat damage.</div></div><div>4. Close the cover and turn on the SlideMaker.<div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div></div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div></div></div></div> <div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div> <div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div>

Table 7.6 Dryer Error Messages (Continued)






SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
DRYER (LOW TEMPERATURE) (28)	No	SlideMaker Log SlideMaker Dryer Temperature too low.  	This is a Warning only. As each slide enters the dryer the dryer temperature is evaluated. If low, the warning is sent. The SlideMaker does not stop.	<ol style="list-style-type: none"> Dryer heater failure. Error in temperature sensors and/or servo loop. There are three temperature sensors involved: <ol style="list-style-type: none"> Ambient temperature sensor located on the CPU27 board. Heatsink temperature sensor attached to the dryer heatsink. Hot air temperature sensor mounted in the path of the heated air from the dryer. Power supply failure or short circuit. A/D failure. Fan failure. 	<ol style="list-style-type: none"> This is a Warning only. Slides may not be fully dried before exiting from dryer. Check if the slides exiting the dryer are dry enough. If not dried sufficiently, put the basket aside to dry before performing a staining cycle. If the message still persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.
DRYER (NO SLIDE DETECTED ON PLATEN)	Yes	SlideMaker Log SlideMaker: No Slide Detected on Platen  <div> If AutoStop is OFF  </div> <div> If AutoStop is ON  </div>	<ol style="list-style-type: none"> No new samples are aspirated. Any sample in a reservoir is not processed. The last completed smear is transferred to the Dryer module. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off. 	<p>The slide was lost sometime between when the dryer exit sensor, SEN49, detected its trailing edge, and when the gripper overextended sensor, SEN46, detected it was not present on the platen.</p> <ul style="list-style-type: none"> The slide did not fall on the platen. The gripper overextended sensor, SEN46, is blocked. The gripper overextended sensor, SEN46, failed. <p>Note: If SEN46 is blocked or defective, the slide could be stuck on the platen.</p>	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Open the cover. <hr/> <p>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Remove the slides from the pusher bars area, Dryer module, and platen, and place the slides in a basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> Check the gripper overextended sensor, SEN46, for blockage. If the platen is empty, check the area below the platen and in the rear track of the Basket Queue module for a fallen slide. Retrieve and place the fallen slide in a slide basket for staining. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. <p>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</p> If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> <p>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> Close the cover and call your Beckman Coulter Representative.

Table 7.6 Dryer Error Messages (Continued)




SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
DRYER (PLATEN DID NOT COMPLETEMOVE)	Yes	SlideMaker Log <i>SlideMaker Platen Did Not Complete Move.</i>	<div><div>If AutoStop is OFF </div>If AutoStop is ON </div>	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is processed.</div> <div>3. The last completed smear is transferred to the Dryer module.</div> <div>4. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div>	<div>The elevator should take a fixed number of steps go from the low point to the high point, or from the high point to the low point. Exceeding this number of steps (by a certain margin) could indicate:</div> <div><ul style="list-style-type: none">Interference in the elevator's path.The platen elevator up sensor, SEN44, or the platen elevator down sensor, SEN45, is blocked.SEN44 or SEN45 failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div> <div><div>1. Open the cover and check the Slide Elevator module:<div><div>a. Check the platen and the elevator for jammed slides or any other interference in the elevator's path.</div><div>b. Check the platen elevator up sensor, SEN44, and the platen elevator down sensor, SEN45, for blockage.</div></div></div><div>2. Remove the slides from the pusher bars area, Dryer module, and platen, and place the slides in a basket to dry for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>3. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.<div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div></div><div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div></div></div></div> <div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div> <div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div>

Table 7.6 Dryer Error Messages (Continued)







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
DRYER (PLATEN SENSORS)	Yes	SlideMaker Log <i>SlideMaker Elevator Sensors Failure.</i>	<div></div> <div><div>If AutoStop is OFF</div><div></div></div> <div><div>If AutoStop is ON</div><div></div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is processed.</div><div>3. The last completed smear remains on the shuttle.</div><div>4. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div></div>	<div>The platen elevator up sensor, SEN44, or the platen elevator down sensor, SEN45, indicate that the elevator is both at its high point and at its low point at the same time because:<ul style="list-style-type: none">• SEN44 or SEN45 is blocked.• SEN44 or SEN45 failed.</div>	<div><div>Note: Press any key on the SlideMaker screen to reset the alarm.</div><div><div>1. Open the cover.</div><div><div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div></div></div><div><div>2. Check SEN44 and SEN45 for blockage.</div><div>3. Remove the slides from the pusher bars area, Dryer module, and platen, and place the slides in a basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>4. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.<div>Note: Depending on how long the dryer was off, there may be a delay before the dryer reaches full temperature and completely dries the slides.</div></div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div></div></div><div><div>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</div><div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div></div>
DRYER (RETRACT, SENSOR 9)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Dryer Transfer Mechanism (Shuttle to Dryer) Did Not Retract (Sensor 9).</i>	<div></div> <div><div>If AutoStop is OFF</div><div></div></div> <div><div>If AutoStop is ON</div><div></div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Completed smears are dried and deposited in a slide basket.</div><div>4. The SlideMaker stops.</div></div>	<div>The slide pusher bars (the mechanism that transfers the slide from the shuttle to the Dryer module) did not retract after transferring the slide, or the sensor did not detect the retraction. This could indicate:<ul style="list-style-type: none">• The slide pusher bars mechanism is defective.• The slide transfer retracted sensor, SEN9, failed.</div>	<div><div>Note: Press any key on the SlideMaker screen to reset the alarm.</div><div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div><div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div></div><div><div>3. If a slide is on the shuttle or has fallen, remove the slide.</div><div>4. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div></div>

Table 7.6 Dryer Error Messages (Continued)




SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
DRYER (SENSORS)	Yes	SlideMaker Log <i>SlideMaker Slide Transfer Sensors Obstructed Or Failed.</i>	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	1. No new samples are aspirated. 2. Any sample in a reservoir is not processed. 3. Completed smears within the Dryer module are dried and deposited in a slide basket. 4. The slide on the shuttle may not have been transferred to the Dryer module. 5. The SlideMaker stops.	The sensors indicate that the slide pusher bars are both retracted and extended at the same time because: <ul style="list-style-type: none">The slide transfer retracted sensor, SEN9, or the slide transfer extended sensor, SEN10, is blocked.The slide transfer retracted sensor, SEN9, or the slide transfer extended sensor, SEN10, failed.	Note: Press any key on the SlideMaker screen to reset the alarm. <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover.</div> <hr/> <div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div> <hr/> <div>3. If a slide is on the shuttle or has fallen, remove the slide. 4. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 5. If the message persists:<div>a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.</div></div>

Table 7.7 Ejector Error Messages







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
EJECTOR (REGISTER X RETRACT ERROR)	Yes	SlideMaker Log <i>SlideMaker Slide Ejector (Register Retract) Failure.</i>		If AutoStop is OFF 	If AutoStop is ON 	<div><div>1. No new samples are aspirated.</div><div>2. The slide pusher is retracted.</div><div>3. If the smear truck cannot pick up a slide to make a smear, the sample is not used.</div><div>Note: Unused samples are discarded following reset.</div><div>4. Any further sample in a reservoir is not processed.</div><div>5. Any completed smear remains on the shuttle.</div><div>6. The SlideMaker stops.</div></div>	<div>The register X cylinder did not retract or did not retract far enough to engage the register X (cleared) sensor, SEN17, or SEN17 did not detect the retraction. This could indicate:<ul style="list-style-type: none">The register mechanism is jammed or bindingRegister X (cleared) sensor, SEN17, failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div><div>3. At the MAIN MENU, select ROUTINE FUNCTION ►► UNLOCK CASSETTE to unlock the cassette.</div><div>4. Remove the slide cassette that is in the slide ejector station.</div><div>5. Manually remove any slides from the slide ejector mechanism.</div><div>6. Close the cover.</div><div>7. Reinstall the slide cassette in the Cassette Input Queue module.</div><div>8. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>9. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>
EJECTOR (RETRACT, SENSOR 23)	Yes	SlideMaker Log <i>SlideMaker Slide Ejector Did Not Retract (Sensor 23).</i>		If AutoStop is OFF 	If AutoStop is ON 	<div><div>1. No new samples are aspirated.</div><div>2. The slide pusher is left extended.</div><div>3. If the smear truck cannot pick up a slide to make a smear, the sample is not used.</div><div>Note: Unused samples are discarded following reset.</div><div>4. Any further sample in a reservoir is not processed.</div><div>5. Completed smears are dried and deposited in a slide basket.</div><div>6. The SlideMaker stops.</div></div>	<div>The slide pusher did not retract, or the sensor did not detect the retraction. This could indicate:<ul style="list-style-type: none">The slide pusher is jammedThe motor is defectiveThe slide pusher retracted sensor, SEN23, is blocked or failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div><div>3. At the MAIN MENU, select ROUTINE FUNCTIONS ►► UNLOCK CASSETTE to unlock the cassette.</div><div>4. Carefully try to remove the slide cassette that is in the slide ejector station. Check for and remove any slides, broken or stuck together.</div><div>5. Manually remove any slides or pieces of slides from the slide ejector mechanism.</div><div>6. Close the cover.</div><div>7. Reinstall the slide cassette in the Cassette Input Queue module.</div><div>8. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>9. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>

Table 7.7 Ejector Error Messages (Continued)




SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
EJECTOR (SENSOR ERROR)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Ejector Sensor Failure.</i>	<div></div> <div><div>If AutoStop is OFF</div><div></div></div> <div><div>If AutoStop is ON</div><div></div></div>	<div><div>1. No new samples are aspirated.</div><div>2. The slide pusher is left in the last known good position.</div><div>3. If the smear truck cannot pick up a slide to make a smear, the sample is not used.</div><div>Note: Unused samples are discarded following reset.</div><div>4. Any further sample in a reservoir is not processed.</div><div>5. Completed smears are dried and deposited in a slide basket.</div><div>6. The SlideMaker stops.</div></div>	<div>The slide pusher retracted sensor, SEN23, and the slide pusher extended sensor, SEN24, indicate that the slide pusher is both retracted and extended because:<ul style="list-style-type: none">The slide pusher retracted sensor, SEN23, or the slide pusher extended sensor, SEN24, is blocked.SEN23 or SEN24 failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div><div>3. At the MAIN MENU, select ROUTINE FUNCTIONS ▶ UNLOCK CASSETTE to unlock the cassette.</div><div>4. Carefully try to remove the slide cassette that is in the slide ejector station. Check for and remove any slides, broken or stuck together.</div><div>5. Manually remove any slides or pieces of slides from the slide ejector mechanism.</div><div>6. Close the cover.</div><div>7. Reinstall the slide cassette in the Cassette Input Queue module.</div><div>8. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>9. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>

Table 7.7 Ejector Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
EJECTOR (SLIDE NOT EJECTED)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Slide Not Ejected.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	<ol style="list-style-type: none"> No new samples are aspirated. The slide pusher is left retracted. If the smear truck cannot pick up a slide to make a smear, the sample is not used. <div>Note: Unused samples are discarded following reset.</div> Any further sample in a reservoir is not processed. Completed smears are dried and deposited in a slide basket. The SlideMaker stops. 	<p>The slide pusher attempts to dispense a slide twice before generating this error: the first attempt at high speed, the second at low.</p> <ul style="list-style-type: none"> The slide pusher is jammed. Slides may be stuck together due to humidity or a broken slide may be preventing a slide from being dispensed. The slide pusher extended sensor, SEN24, is blocked or failed. 	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <ol style="list-style-type: none"> Wait until the last slide in the Dryer module is deposited in a slide basket. Open the cover. At the MAIN MENU, select ROUTINE FUNCTIONS ►► UNLOCK CASSETTE to unlock the cassette. Carefully try to remove the slide cassette that is in the slide ejector station. Check for and remove any slides, broken or stuck together. Manually remove any slides or pieces of slides from the slide ejector mechanism. Close the cover. Reinstall the slide cassette in the Cassette Input Queue module. Acknowledge the error at the Workstation to reset the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.

Table 7.7 Ejector Error Messages (Continued)








SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
EJECTOR (SLIDE NOT X REGISTERED)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Slide Ejector (X Register Extend) Failure.</div> <div>  <div> <div>If AutoStop is OFF</div> <div>    </div> </div> <div> <div>If AutoStop is ON</div> <div>    </div> </div> </div>	<ol style="list-style-type: none"> No new samples are aspirated. The slide pusher is left extended. If the smear truck cannot pick up a slide to make a smear, the sample is not used. Note: Unused samples are discarded following reset. Any further sample in a reservoir is not processed. Completed smears are dried and deposited in a slide basket. The SlideMaker stops. 	<p>The X-register mechanism did not push the slide to the left wall or the slide registered sensor, SEN25, did not sense the slide at the left wall because:</p> <ul style="list-style-type: none"> The X-register mechanism is jammed. The slide is broken, and is too short to push the flag into the slide registered sensor, SEN25. The flag for SEN25 is stuck. The Z-register arm is not forceful enough to prevent the X-register arm from pushing the slide past the sensor flag spring for SEN25. The slide registered sensor, SEN25, failed. 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Wait until the last slide in the Dryer module is deposited in a slide basket. Open the cover. At the MAIN MENU, select ROUTINE FUNCTIONS ►► UNLOCK CASSETTE to unlock the cassette. Carefully try to remove the slide cassette that is in the slide ejector station. Check for and remove any slides, broken or stuck together. Manually remove any slides or pieces of slides from the slide ejector mechanism. Close the cover. Reinstall the slide cassette in the Cassette Input Queue module. Acknowledge the error at the Workstation to reset the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.

Table 7.8 Fluidics Error Messages










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
FLUIDICS (CALIBRATE)	Yes	SlideMaker Log SlideMaker Fluid Detector Calibration Is Required.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity except when in Service mode.	At initialization time, the table containing the calibration value (gain) for the fluid detectors contains invalid values.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. 3. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 1)	No, if warning Yes, if error	SlideMaker Log SlideMaker Fluid Detector 1 Failure.		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: 1. No new samples are aspirated. 2. A smear may be made on one of the samples in a reservoir. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">Fluid detector FD1 is defective.A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 2)	No, if warning Yes, if error	SlideMaker Log SlideMaker Fluid Detector 2 Failure.		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: 1. No new samples are aspirated. 2. A smear may be made on one of the samples in a reservoir. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">Fluid detector FD2 is defective.A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.8 Fluidics Error Messages (Continued)










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
FLUIDICS (DETECTOR 3)	No, if warning Yes, if error	SlideMaker Log <i>SlideMaker Fluid Detector 3 Failure.</i>		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: 1. No new samples are aspirated. 2. A smear may be made on one of the samples in a reservoir. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">Fluid detector FD3 is defective.A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 4)	No, if warning Yes, if error	SlideMaker Log <i>SlideMaker Fluid Detector 4 Failure.</i>		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: 1. No new samples are aspirated. 2. A smear may be made on one of the samples in a reservoir. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">Fluid detector FD4 is defective.A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 5)	No, if warning Yes, if error	SlideMaker Log <i>SlideMaker Fluid Detector 5 Failure.</i>		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: 1. No new samples are aspirated. 2. A smear may be made on one of the samples in a reservoir. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">Fluid detector FD5 is defective.A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.8 Fluidics Error Messages (Continued)










SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
FLUIDICS (DETECTOR 6)	No, if warning Yes, if error	SlideMaker Log <i>SlideMaker Fluid Detector 6 Failure.</i>		For the first two failures during blood flow 	For the third failure in a row during blood flow, or the first failure during backwash 	The sample is discarded. If three consecutive failures occur during aspiration, or if this failure occurs during backwash: <ol style="list-style-type: none">1. No new samples are aspirated.2. A smear may be made on one of the samples in a reservoir.3. Completed smears are dried and deposited in a slide basket.4. The SlideMaker stops.	<ul style="list-style-type: none">• Fluid detector FD6 is defective.• A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. <ol style="list-style-type: none">1. Acknowledge the error at the Workstation to reset the SlideMaker.2. If the message persists:<ol style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 7)	Yes	SlideMaker Log <i>SlideMaker Fluid Detector 7 Failure.</i>		If AutoStop is OFF 	If AutoStop is ON 	<ol style="list-style-type: none">1. No new samples are aspirated.2. A smear may be made on one of the samples in a reservoir.3. Completed smears are dried and deposited in a slide basket.4. The SlideMaker stops.	<ul style="list-style-type: none">• Fluid detector FD7 is defective.• A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. <ol style="list-style-type: none">1. Acknowledge the error at the Workstation to reset the SlideMaker.2. If the message persists:<ol style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.
FLUIDICS (DETECTOR 8)	Yes	SlideMaker Log <i>SlideMaker Fluid Detector 8 Failure.</i>		If AutoStop is OFF 	If AutoStop is ON 	<ol style="list-style-type: none">1. No new samples are aspirated.2. A smear may be made on one of the samples in a reservoir.3. Completed smears are dried and deposited in a slide basket.4. The SlideMaker stops.	<ul style="list-style-type: none">• Fluid detector FD8 is defective.• A fluidics problem	Note: Press any key on the SlideMaker screen to reset the alarm. <ol style="list-style-type: none">1. Acknowledge the error at the Workstation to reset the SlideMaker.2. If the message persists:<ol style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.

Table 7.9 Pneumatics Error Messages




SLIDEMAKER		WORKSTATION		RECOVERY	
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
<i>PNEUMATICS (30 PSI SUPPLY)</i> (24)	Yes	SlideMaker Log <i>SlideMaker 30 PSI Out Of Range Or Not Present.</i> <div>  <div> If AutoStop is OFF <div>  </div> </div> <div> If AutoStop is ON <div>  </div> </div> </div>	The SlideMaker stops all mechanical activity.	1. 30 psi out of range: either loss of pressure or excessive pressure from the pneumatic pump (PM1) in the Product's Power Supply. <ul style="list-style-type: none"> Loss of pressure occurs if the 30 psi line to the SlideMaker is disconnected or if the pneumatic pump fails. Excessive pressure occurs if the 30 psi regulator (RG1) in the Power Supply is set too high or if the diaphragm in RG1 is ruptured. 2. Pneumatic Supply Monitor, 30-Psi card failure. 3. A/D converter error or failure	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> 1. Check the 30 psi: <ol style="list-style-type: none"> From the MAIN MENU, select ROUTINE FUNCTIONS >> PNEUMATIC/POWER SUPPLIES. While monitoring the 30- psi reading on the screen, check for a 30-psi leak. 2. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker and open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Check the area below the smear truck for fallen slides and retrieve the slides if possible. Close the cover and turn on the SlideMaker. 3. If the message still persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> <p>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> <ol style="list-style-type: none"> Close the cover and call your Beckman Coulter Representative.

Table 7.9 Pneumatics Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
<i>PNEUMATICS (5 PSI SUPPLY)</i> (23)	Yes	<div>SlideMaker Log</div> <div>SlideMaker 5 PSI Out Of Range Or Not Present.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	The SlideMaker stops all mechanical activity.	1. 5 psi regulator is misadjusted. If it was set too high, it could have ruptured the diaphragm. 2. Pressure leak, most likely from a disconnected line. 3. Pneumatic Supply Monitor, 5-Psi card failure 4. A/D converter error or failure	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. Check the 5 psi:</div> <div> a. From the MAIN MENU, select ROUTINE FUNCTIONS ►► PNEUMATIC/POWER SUPPLIES. </div> <div> b. While monitoring the 5-psi reading on the screen, adjust the 5-psi regulator, REG1. </div> <div> c. If the message persists, check for a 5-psi leak. </div> <div>2. If the message persists:</div> <div> a. Turn off the SlideMaker and open the cover. </div> <hr/> <div> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. </div> <hr/> <div> b. Check the area below the smear truck for fallen slides and retrieve the slides if possible. </div> <div> c. Close the cover and turn on the SlideMaker. </div> <div>3. If the message still persists:</div> <div> a. Turn off the SlideMaker. </div> <div> b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. </div> <hr/> <div> WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact. </div> <hr/> <div> c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. </div> <div> Note: You may not be able to retrieve all the slides. </div> <div> d. Close the cover and call your Beckman Coulter Representative. </div>

Table 7.9 Pneumatics Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
<i>PNEUMATICS (LOW VACUUM 1)</i>	Yes	<div>SlideMaker Log</div> <div>SlideMaker Low Vacuum Out Of Range Or Not Present.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	The SlideMaker stops all mechanical activity.	<ol style="list-style-type: none"> 17.5 in. Hg vacuum misadjusted Vacuum leak Pneumatic Supply Monitor, 17.5-in. Hg card failure A/D converter failure or error 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Check the 17.5 in. Hg vacuum: <ol style="list-style-type: none"> From the MAIN MENU, select ROUTINE FUNCTIONS » PNEUMATIC/POWER SUPPLIES. While monitoring the 17.5-in. Hg vacuum reading on the screen, adjust the 17.5-in. Hg vacuum regulator, REG1. If the message persists, check for a vacuum leak. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker and open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Check the area below the smear truck for fallen slides and retrieve the slides if possible. Close the cover and turn on the SlideMaker. If the message still persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> <p>WARNING Risk of contamination. The prepared smears can contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> <ol style="list-style-type: none"> Close the cover and call your Beckman Coulter Representative.

Table 7.9 Pneumatics Error Messages (Continued)




SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
PNEUMATICS (LOW VACUUM 2)	Yes	SlideMaker Log SlideMaker Low Vacuum Out Of Range Or Not Present.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity.	<div> 1. 6.5 in. Hg vacuum misadjusted 2. Vacuum leak 3. Pneumatic Supply Monitor, 6.5-in. Hg card failure 4. A/D converter failure or error </div> <div> <p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> 1. Check the 6.5 in. Hg vacuum: <div> a. From the MAIN MENU, select ROUTINE FUNCTIONS ►► PNEUMATIC/POWER SUPPLIES. b. While monitoring the 6.5-in. Hg vacuum reading on the screen, adjust the 6.5-in. Hg vacuum regulator, REG2. c. If the message persists, check for a vacuum leak. </div> 2. If the message persists: <div> a. Turn off the SlideMaker and open the cover. </div> <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <div> b. Check the area below the smear truck for fallen slides and retrieve the slides if possible. c. Close the cover and turn on the SlideMaker. </div> 3. If the message still persists: <div> a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume. Samples that require slides appear in the Slide List. </div> <hr/> <p>WARNING Risk of contamination. The prepared smears contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <div> c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> d. Close the cover and call your Beckman Coulter Representative. </div> </div>

Table 7.9 Pneumatics Error Messages (Continued)




SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
<i>PNEUMATICS (NO HIGH VACUUM)</i>	Yes	<div>SlideMaker Log</div> <div>SlideMaker High Vacuum Out Of Tolerance Or Not Present.</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	The SlideMaker stops all mechanical activity	<ol style="list-style-type: none"> Vacuum leak Loss of vacuum from the pneumatic pump (PM1) in the 's Power Supply Pneumatic Supply Monitor, Vacuum card failure A/D converter failure or error 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Check the high, unregulated vacuum: <ol style="list-style-type: none"> From the MAIN MENU, select ROUTINE FUNCTIONS » PNEUMATIC/POWER SUPPLIES. While monitoring the high vacuum reading on the screen, check for a high vacuum leak. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker and open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Check the area below the smear truck for fallen slides and retrieve the slides if possible. Close the cover and turn on the SlideMaker. If the message still persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. <hr/> <p>WARNING Risk of contamination. The prepared smears contain biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> <ol style="list-style-type: none"> Close the cover and call your Beckman Coulter Representative.

Table 7.9 Pneumatics Error Messages (Continued)




SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
PNEUMATICS (VACUUM ACCUMULATOR FULL OF LIQUID)	Yes	SlideMaker Log SlideMaker Vacuum Accumulator Full Of Liquid		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is discarded.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops all mechanical activity and the Dryer module heater is turned off.</div>	<div>This error should not occur during normal operation because the vacuum accumulator is emptied during the Startup cycle and any time the SlideMaker is turned off and on.</div> <div>To clear this error:</div> <div>1. The Analyzer grants the SlideMaker permission to empty the vacuum accumulator.</div> <div>2. The SlideMaker empties the vacuum accumulator until the vacuum reservoir sensor, SEN51, indicates the reservoir is not full or until 30 seconds has elapsed.</div> <div>Note: The vacuum accumulator is then completely emptied over a fixed time period.</div> <div>If the 30 second timeout occurs, it could indicate:</div> <div><ul style="list-style-type: none">The vacuum reservoir sensor, SEN51, is defective.The vacuum accumulator drain solenoid, SOL63, is defective.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. If AutoStop is OFF, press STOP on the Numeric Keypad to stop the.</div> <div>2. After the Diluter goes to an idle state, wait until the SlideMaker empties the vacuum accumulator and the SlideMaker screen displays READY.</div> <div>3. Press START/CONT on the to resume normal operation.</div> <div>4. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div>

Table 7.10 Power Error Messages



SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
<i>POWER (5V SUPPLY)</i> Note: If event severe, this message may not appear.	No	SlideMaker Log <i>SlideMaker 5V Supply Out Of Tolerance Or Not Present.</i>	<div><div><div>If AutoStop is OFF</div><div><div></div><div></div><div></div></div></div><div><div>If AutoStop is ON</div><div><div></div><div></div><div></div></div></div></div> <div><ul style="list-style-type: none">If the 5 V supply is out of tolerance but >4.5 V minimum reset threshold, the SlideMaker stops all mechanical activity and displays a message.If the 5 V supply is less than the minimum reset thresholds, the SlideMaker presents no signs of operation to the operator.</div> <div><ul style="list-style-type: none">Power supply failure or short circuitA/D converter failure</div> <div><div><div>1. Turn off the SlideMaker.</div><div>2. Open the cover.</div></div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div><div>3. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div><div>4. Close the cover and turn on the SlideMaker.</div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div></div>			
<i>POWER (10V REFERENCE)</i>	Yes	SlideMaker Log <i>SlideMaker 10V Supply Out Of Tolerance Or Not Present.</i>	<div><div><div>If AutoStop is OFF</div><div><div></div><div></div><div></div></div></div><div><div>If AutoStop is ON</div><div><div></div><div></div><div></div></div></div></div> <div>The SlideMaker stops all mechanical activity.</div> <div><ul style="list-style-type: none">Power supply failure or short circuitA/D converter error</div> <div><div><div>1. Turn off the SlideMaker.</div><div>2. Open the cover.</div></div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div><div>3. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div><div>4. Close the cover and turn on the SlideMaker.</div><div>5. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div></div></div></div>			

Table 7.10 Power Error Messages (Continued)



SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
POWER (15V SUPPLY)	Yes	SlideMaker Log <i>SlideMaker 15V Supply Out Of Tolerance Or Not Present.</i>	<div><div><div>If AutoStop is OFF</div><div>If AutoStop is ON</div></div></div>	The SlideMaker stops all mechanical activity.	<ul style="list-style-type: none">Power supply failure or short circuitA/D converter error	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none">Turn off the SlideMaker.Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none">Check the area below the smear truck for fallen slides and retrieve the slides if possible.Close the cover and turn on the SlideMaker.If the message persists:<ol style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<p>Note: You may not be able to retrieve all the slides.</p>Close the cover and call your Beckman Coulter Representative.
POWER (-15V SUPPLY)	Yes	SlideMaker Log <i>SlideMaker -15V Supply Out Of Tolerance Or Not Present.</i>	<div><div><div>If AutoStop is OFF</div><div>If AutoStop is ON</div></div></div>	The SlideMaker stops all mechanical activity.	<ul style="list-style-type: none">Power supply failure or short circuitA/D converter error	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none">Turn off the SlideMaker.Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none">Check the area below the smear truck for fallen slides and retrieve the slides if possible.Close the cover and turn on the SlideMaker.If the message persists:<ol style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<p>Note: You may not be able to retrieve all the slides.</p>Close the cover and call your Beckman Coulter Representative.

Table 7.10 Power Error Messages (Continued)















SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
POWER (2.5V SUPPLY)	Yes	<div>SlideMaker Log</div> <div>SlideMaker 2.5V Supply Out Of Tolerance Or Not Present.</div> <div>  <div> <div>If AutoStop is OFF</div> <div>    </div> </div> <div> <div>If AutoStop is ON</div> <div>    </div> </div> </div>	The SlideMaker stops all mechanical activity.	<ul style="list-style-type: none"> Power supply failure or short circuit A/D converter error 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Turn off the SlideMaker. Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Check the area below the smear truck for fallen slides and retrieve the slides if possible. Close the cover and turn on the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> Close the cover and call your Beckman Coulter Representative.
POWER (24V SUPPLY)	Yes	<div>SlideMaker Log</div> <div>SlideMaker 24V Supply Out Of Tolerance Or Not Present.</div> <div>  <div> <div>If AutoStop is OFF</div> <div>    </div> </div> <div> <div>If AutoStop is ON</div> <div>    </div> </div> </div>	The SlideMaker stops all mechanical activity.	<ul style="list-style-type: none"> Power supply failure or short circuit A/D converter error 	<p>Note: If the alarm sounds, press any key on the SlideMaker screen to reset it.</p> <ol style="list-style-type: none"> Turn off the SlideMaker. Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Check the area below the smear truck for fallen slides and retrieve the slides if possible. Close the cover and turn on the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. <p>Note: You may not be able to retrieve all the slides.</p> Close the cover and call your Beckman Coulter Representative.

Table 7.10 Power Error Messages (Continued)















SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
POWER (PROCESSOR A)	Yes	SlideMaker Log SlideMaker Reports Processor 'A' VPP Failure.	<div><div><div>If AutoStop is OFF</div><div></div></div><div><div>If AutoStop is ON</div><div></div></div></div>	The SlideMaker stops all mechanical activity.	Power supply failure or short circuit	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none">Turn off the SlideMaker. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none">Open the cover.Check the area below the smear truck for fallen slides and retrieve the slides if possible.Close the cover and turn on the SlideMaker.If the message persists:<ol style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<p>Note: You may not be able to retrieve all the slides.</p>Close the cover and call your Beckman Coulter Representative.
POWER (PROCESSOR B)	Yes	SlideMaker Log SlideMaker Reports Processor 'B' VPP Failure.	<div><div><div>If AutoStop is OFF</div><div></div></div><div><div>If AutoStop is ON</div><div></div></div></div>	The SlideMaker stops all mechanical activity.	Power supply failure or short circuit	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none">Turn off the SlideMaker.Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none">Check the area below the smear truck for fallen slides and retrieve the slides if possible.Close the cover and turn on the SlideMaker.If the message persists:<ol style="list-style-type: none">Turn off the SlideMaker.If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<p>Note: You may not be able to retrieve all the slides.</p>Close the cover and call your Beckman Coulter Representative.

Table 7.11 Printer Error Messages (Continued)





























SLIDEMAKER		WORKSTATION				RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center				SlideMaker Status	Probable Cause	Corrective Action
PRINTER (NO COMMUNICATION)	No	SlideMaker Log Label Printer Communication Timeout.		If AutoStop is OFF   	If AutoStop is ON   	1. No new samples are aspirated. 2. If a sample's label is not printed, the sample is not used. 3. Completed smears are dried and deposited in a slide basket.	No response from the Label Printer module, or handshake signals are absent for too long.	1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn the SlideMaker off and then on. 3. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
PRINTER (OUT OF LABELS)	Yes	SlideMaker Log SlideMaker Label Printer Out Of Labels.		If AutoStop is OFF   	If AutoStop is ON   	1. No new samples are aspirated. 2. Any sample in a reservoir is processed to a smear. Note: The Label Printer module has up to two labels available when it senses the roll is out of labels. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	Label Printer module detected two successive missing labels. <ul style="list-style-type: none">• The label roll is empty.• Labels are missing from the label roll.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover and check the label roll: <ul style="list-style-type: none">• If the label roll is missing a few labels, move the label dispenser until more labels are available.• If the label roll is empty, replace the roll. Refer to the Replacing the SlideMaker Label Roll procedure in the Online Help system. 3. Close the cover and acknowledge the error at the Workstation to initialize the printer and continue operation of the SlideMaker.
PRINTER (OUT OF RIBBON)	Yes	SlideMaker Log SlideMaker Label Printer Out Of Ribbon.		If AutoStop is OFF   	If AutoStop is ON   	1. No new samples are aspirated. 2. Any sample in a reservoir is not processed. Note: The Label Printer module still has printing capacity for up to two labels when it senses the ribbon is out. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity	Label Printer module detected that ribbon is out.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover and replace the printer ribbon. Refer to the Replacing the SlideMaker Printer Ribbon procedure in the Online Help system. 3. Close the cover and acknowledge the error at the Workstation to initialize the printer and continue operation of the SlideMaker.
PRINTER (TEMPERATURE)	Yes	SlideMaker Log SlideMaker Label Printer Temperature Exceeded.		If AutoStop is OFF   	If AutoStop is ON   	1. No new samples are aspirated. 2. If a sample's label is not printed, the sample is not used. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	Elevated printhead temperature.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Turn the SlideMaker off, wait approximately 30 minutes, then turn the SlideMaker on. 3. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.11 Printer Error Messages (Continued)




SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
PRINTER (TOP OF FORM)	Yes	SlideMaker Log SlideMaker Label Printer Top Of Form Not Detected.	 If AutoStop is OFF  If AutoStop is ON 	1. No new samples are aspirated. 2. Any sample in a reservoir is not processed. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	1. Top-of-form is not within allowable distance. Most likely caused by labels jammed in the top-of-form sensor. 2. Three consecutive labels not found during initialization of the Printer. 3. Printer motor failure	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover. 3. Check the top-of-form sensor and remove any labels stuck on the sensor. 4. Close the cover, acknowledge the error at the Workstation to initialize the printer and continue operation of the SlideMaker 5. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.12 Reagent Error Messages






SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
REAGENT (REAGENT TANK NOT FULL)	Yes	SlideMaker Log SlideMaker Reagent Tank Not Full.		If AutoStop is OFF 	If AutoStop is ON 	If this error appears when the reagent tank is pulling diluent: 1. No new samples are aspirated. 2. Any sample in a reservoir is processed. 3. Backwashing may fail (depending on amount of diluent in the tank). 4. Completed smears are dried and deposited in a slide basket. 5. The SlideMaker stops all mechanical activity because the SlideMaker cannot run without diluent. If this error appears when the reagent tank is pulling cleaning agent: <ul style="list-style-type: none">All operations except shutdown continue normally.Shutdown cannot be done until the reagent tank can fill with cleaning agent.	After trying to fill the reagent tank for 15 seconds, the reagent full sensor, SEN47, indicates the tank is not full because: <ul style="list-style-type: none">No reagent is being pulled into the tank. Note: Since the diluent and cleaning agent share the same reservoir, the reservoir sensor only reports on the level of the reagent in the reservoir, not on the kind of reagent. <ul style="list-style-type: none">Reagent supply (diluent or cleaning agent) empty.The reagent full sensor, SEN47, failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Ensure the reagent lines are connected to the reagent containers. 2. If the message occurs during a Startup or a normal operating cycle, the diluent supply is low. <ul style="list-style-type: none">Replace the diluent container. Follow the Replacing Reagent Containers procedure in the Online Help system for the message that appears on the .Do a SlideMaker Startup cycle to prime the diluent lines. Select MAIN MENU » ROUTINE FUNCTIONS » ROUTINE FLUIDICS » RUN START UP. 3. If the message occurs during a Shutdown cycle, the cleaning agent is low. <ul style="list-style-type: none">Replace the cleaning agent container. Follow the Replacing Reagent Containers procedure in the Online Help system for the message that appears on the Product.Do a SlideMaker Shutdown cycle to prime the cleaning agent lines. Select MAIN MENU » ROUTINE FUNCTIONS » ROUTINE FLUIDICS » RUN SHUT DOWN. 4. If the message persists, call your Beckman Coulter Representative.
REAGENT (WASTE FULL)	No	SlideMaker Log Product Waste Full.	N/A			1. No new samples are aspirated. 2. Any sample in a reservoir is processed to a smear. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker is ready.	Product detected full waste container.	Replace the waste container at the Product. Follow the Replacing Waste Container procedure in the Online Help system for the message that appears on the Product.
REAGENTS (OUT OF DILUENT)	No	SlideMaker Log Product out of Diluent	No		If AutoStop is ON 	1. Any sample in a reservoir is processed to a smear. 2. Completed smears are dried and deposited in a slide basket. 3. The SlideMaker is ready.	Product detected out of diluent agent.	

Table 7.13 Shuttle Error Messages







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
SHUTTLE (CALIBRATE)	Yes	SlideMaker Log SlideMaker Shuttle Calibration Required.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity, except for Service mode.	At initialization, either the shuttle has never been calibrated (a new flash memory chip) or the values are lost.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
SHUTTLE (NOT AT DISPENSE, SENSOR 7)	Yes	SlideMaker Log SlideMaker Shuttle Not At Dispense Position (Sensor 7).		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. Any sample in a reservoir is not processed. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops.	<ul style="list-style-type: none">A jam in the shuttle prevents the shuttle from reaching the dispense position.The dispense position sensor, SEN7, failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Check the slide on the shuttle and remove the slide if it is labeled or has blood on it. 4. Remove any slides that have fallen or are jamming the shuttle. 5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 6. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.13 Shuttle Error Messages (Continued)







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
SHUTTLE (NOT AT PRINTER, SENSOR 5)	Yes	SlideMaker Log SlideMaker Shuttle Not At Label Printer Position (Sensor 5).	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Completed smears are dried and deposited in a slide basket.</div><div>4. The SlideMaker stops.</div></div>	<div><div>A jam in the shuttle prevents the shuttle from reaching the printer position.</div><div>The printer position sensor, SEN5, failed.</div></div>	<div><div>Note: Press any key on the SlideMaker screen to reset the alarm.</div><div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div><div><div>WARNING</div><div>Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div><div><div>3. Check the slide on the shuttle and remove the slide if it is labeled or has blood on it.</div><div>4. Remove any slides that have fallen or are jamming the shuttle.</div><div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>6. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div></div>
SHUTTLE (NOT AT SMEAR, SENSOR 6)	Yes	SlideMaker Log SlideMaker Shuttle Not At Smear Position (Sensor 6).	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Any completed smear remains on the shuttle.</div><div>4. The SlideMaker stops.</div></div>	<div><div>A jam in the shuttle prevents the shuttle from reaching the home (smear) position.</div><div>The smear position sensor, SEN6, failed.</div></div>	<div><div>Note: Press any key on the SlideMaker screen to reset the alarm.</div><div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div><div><div>WARNING</div><div>Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div><div><div>3. Check the slide on the shuttle and remove the slide if it is labeled or has blood on it.</div><div>4. Remove any slides that have fallen or are jamming the shuttle.</div><div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>6. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div></div>

Table 7.13 Shuttle Error Messages (Continued)







SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
SHUTTLE (SENSORS)	Yes	SlideMaker Log SlideMaker Shuttle Position Sensors Failure.	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Completed smears are dried and deposited in a slide basket.</div><div>4. The SlideMaker stops.</div></div>	<div>More than one shuttle position sensor (printer position sensor, SEN5; dispense position sensor, SEN7; or smear position sensor, SEN6) is active at a time because:<ul style="list-style-type: none">A sensor is blocked.A sensor failed.The most likely condition is that when the shuttle is near the printer position or the dispense position, the shuttle belt swings through the smear position sensor.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.<div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Turn the SlideMaker off and then on.</div><div>3. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div></div>
SHUTTLE (VACUUM, SENSOR 4)	Yes	SlideMaker Log SlideMaker Shuttle Bed Vacuum Failure (Sensor 4).	<div><div>If AutoStop is OFF </div><div>If AutoStop is ON </div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is not processed.</div><div>3. Completed smears are dried and deposited in a slide basket.</div><div>4. The SlideMaker stops.</div></div>	<div>Failure to detect vacuum when passing a slide from the smear truck to the shuttle could indicate:<ul style="list-style-type: none">An improperly placed slide or debris on the shuttle prevents the necessary seal.The shuttle vacuum sensor, SEN4, is defective.The shuttle vacuum supply solenoid is defective.Failure to release the vacuum to transfer the slide to the Dryer module could indicate the shuttle vacuum supply solenoid is defective.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.<div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div><div><div>3. If a slide is on the shuttle, remove the slide. If the slide is a labeled smear, set it aside for staining.</div><div>4. Carefully wipe the shuttle with a lint-free tissue.</div><div>5. Remove any fallen slides.</div><div>6. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>7. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div></div>

Table 7.14 Truck Error Messages










SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
TRUCK (DID NOT COMPLETE MOVE)	Yes	SlideMaker Log SlideMaker Truck Did Not Complete Move.		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. The sample in the reservoir is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket.	Every truck operation has a 6 second timeout value that is greater than the time required to perform the operation. If the operation is not completed within the allocated time, a timeout error occurs. This could indicate the truck motor: <ul style="list-style-type: none">Slipped.Jammed.Failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Remove the Slide Cassette from the slide ejector station. 4. Remove any glass slides or pieces of slides from slide ejector mechanism. 5. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it. 6. Check the area below the smear truck for fallen slides and retrieve the slides if possible. 7. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 8. If the message persists: <ul style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.
TRUCK (FORWARD, SENSOR 2)	Yes	SlideMaker Log SlideMaker Truck Forward Motion (Sensor 2).		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker continues current operations	At truck initialization: <ul style="list-style-type: none">Truck is jammed or bindingEncoder failedTruck motor failed.Truck forward limit sensor, SEN2, failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: <ul style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.
TRUCK (INDEX NOT FOUND)	Yes	SlideMaker Log SlideMaker Truck Index Position Not Found.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity.	At initialization, both polarities of the encoder are tried in an effort to find the index position. This error is generated if trying both polarities of the encoder does not find the index position, possibly indicating: <ul style="list-style-type: none">An encoder failed.The truck motor failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: <ul style="list-style-type: none">a. Turn off the SlideMaker.b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.c. Call your Beckman Coulter Representative.

Table 7.14 Truck Error Messages (Continued)







SLIDEMAKER		WORKSTATION			RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action
TRUCK (INITIALIZATION)	Yes	SlideMaker Log <i>SlideMaker Truck Initialization Failure.</i>		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity. When initializing the truck, three successive attempts were made to perform a hardware and software initialization of the truck controller chip and all three attempts failed. This could indicate the System Control card failed.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
TRUCK (INVALID COMMAND)	Yes	SlideMaker Log <i>SlideMaker Truck Received An Invalid Command.</i>		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. The sample in the reservoir is not used. Note: Unused samples are discarded following reset. 3. Completed smears are dried and deposited in a slide basket. An invalid command was sent by processor "A" to the truck controller. This indicates an error in: • Processor "A." • Outputs of processor "A." • truck controller.	1. Turn off the SlideMaker. 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. 3. Check the area below the smear truck for fallen slides and retrieve the slides if possible. 4. Close the cover and turn on the SlideMaker. 5. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining. Note: You may not be able to retrieve all the slides. d. Close the cover and call your Beckman Coulter Representative.

Table 7.14 Truck Error Messages (Continued)







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
TRUCK (LIMIT SENSOR)	Yes	SlideMaker Log SlideMaker Truck Sensor Failure.		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity.	When either the truck reverse or the truck forward limit sensor was reached, the other sensor also indicated it was blocked, probably indicating: <ul style="list-style-type: none">Truck reverse limit sensor, SEN1, failed.truck forward limit sensor, SEN2, failed.	<div>1. Turn off the SlideMaker.</div> <div>2. Open the cover.</div> <div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div> <div>3. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div> <div>4. Close the cover and turn on the SlideMaker.</div> <div>5. If the message persists:<div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Open the cover and remove the slides from the pusher bars area, Dryer module, and platen, and place them in a slide basket for staining.<div>Note: You may not be able to retrieve all the slides.</div></div><div>d. Close the cover and call your Beckman Coulter Representative.</div></div>
TRUCK (NOT AT CLEARANCE POSITION)	Yes	SlideMaker Log SlideMaker Truck Not At Clearance Position.		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is discarded.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops all mechanical activity.</div>	<div>When traveling to the clearance position, the smear truck ended at a position greater than ±0.050 in.of the desired position.</div> <div>The first time this occurs, the smear truck tries again. If it fails on the second attempt, this error is generated.</div> <div>Cause unknown.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div> <div>2. Open the cover.</div> <div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div> <div>3. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it.</div> <div>4. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div> <div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div> <div>6. If the message persists<div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div>

Table 7.14 Truck Error Messages (Continued)







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
TRUCK (NOT AT PICK POSITION)	Yes	SlideMaker Log <i>SlideMaker Truck Not At Pick Position.</i>		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. Any sample in a reservoir is discarded. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	When traveling to the pick position, the smear truck ended at a position greater than ±0.050 in. of the desired position. The first time this occurs, the smear truck moves to the clearance position and tries again. If it fails on the second attempt, this error is generated. Cause unknown.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Remove the Slide Cassette from the slide ejector station. 4. Remove any glass slides or pieces of slides from slide ejector mechanism. 5. Check the slide on the shuttle. Discard that slide if it is labeled or has blood on it. 6. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 7. If the message persists a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
TRUCK (NOT AT PLACEMENT POSITION)	Yes	SlideMaker Log <i>SlideMaker Truck Not At Placement Position</i>		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. Any sample in a reservoir is discarded. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	When traveling to the placement position, the smear truck ended at a position greater than ±0.050 in. of the desired position. The first time this occurs, the smear truck moves to the clearance position and tries again. If it fails on the second attempt, this error is generated. Cause unknown.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket. 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it. 4. Check the area below the smear truck for fallen slides and retrieve the slides if possible. 5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 6. If the message persists a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.

Table 7.14 Truck Error Messages (Continued)







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
TRUCK (NOT AT WICK POSITION)	Yes	SlideMaker Log <i>SlideMaker Truck Not At Wick Position.</i>		If AutoStop is OFF 	If AutoStop is ON 	1. No new samples are aspirated. 2. Any sample in a reservoir is discarded. 3. Completed smears are dried and deposited in a slide basket. 4. The SlideMaker stops all mechanical activity.	When traveling to the wick position, the smear truck ended at a position greater than ±0.050 in. of the desired position. Cause unknown.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Wait until the last slide in the Dryer module is deposited in a slide basket 2. Open the cover. <hr/> WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact. <hr/> 3. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it. 4. Check the area below the smear truck for fallen slides and retrieve if possible. 5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker. 6. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. c. Call your Beckman Coulter Representative.
TRUCK (NOT CALIBRATED)	Yes	SlideMaker Log <i>SlideMaker Truck Calibration Required.</i>		If AutoStop is OFF 	If AutoStop is ON 	The SlideMaker stops all mechanical activity except when in the Service mode.	The truck calibration values for the pick and wick locations are missing at initialization.	Note: Press any key on the SlideMaker screen to reset the alarm. 1. Acknowledge the error at the Workstation to reset the SlideMaker. 2. If the message persists: a. Turn off the SlideMaker. b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. 3. Call your Beckman Coulter Representative.

Table 7.14 Truck Error Messages (Continued)







SLIDEMAKER		WORKSTATION			RECOVERY			
View Error Screen Message	Alarm	Log Message and Icons on Command Center			SlideMaker Status	Probable Cause	Corrective Action	
TRUCK (NOT DOWN ERROR)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Truck Down Position Error.</i>		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is discarded.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div>	<div>The truck position is checked when the slide is placed on the shuttle. This error is generated if the truck lift down sensor, SEN19, does not indicate the truck lift is up.</div> <div><ul style="list-style-type: none">Truck lift cylinder failedTruck lift down sensor, SEN19, failed</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div> <div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div> <div><div>3. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it.</div><div>4. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div><div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>6. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative</div></div></div></div>
TRUCK (NOT UP ERROR)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Truck Up Position Failure.</i>		If AutoStop is OFF 	If AutoStop is ON 	<div>1. No new samples are aspirated.</div> <div>2. Any sample in a reservoir is discarded.</div> <div>3. Completed smears are dried and deposited in a slide basket.</div> <div>4. The SlideMaker stops.</div>	<div>The truck position is checked after the slide is placed on the shuttle. This error is generated if the truck lift up sensor, SEN18, does not indicate the truck lift is up.</div> <div><ul style="list-style-type: none">Truck lift cylinder failedTruck lift up sensor, SEN18, failed</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Open the cover.</div></div> <div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div> <div><div>3. Check the slide on the shuttle and remove that slide if it is labeled or has blood on it.</div><div>4. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div><div>5. Close the cover and acknowledge the error at the Workstation to reset the SlideMaker.</div><div>6. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative</div></div></div></div>

Table 7.14 Truck Error Messages (Continued)













SLIDEMAKER		WORKSTATION	RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center	SlideMaker Status	Probable Cause	Corrective Action
TRUCK (POSITION ERROR)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Truck At Improper Position (Sensors 58, 59, 60).</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	<ol style="list-style-type: none"> No new samples are aspirated. The sample in the reservoir is not used. Completed smears are dried and deposited in a slide basket. <p>Note: Unused samples are discarded following reset.</p>	The actual position of the truck differs from the desired position more than ±0.25 in. This can be caused by: <ul style="list-style-type: none"> Interference with truck motion. Encoder failure. 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Wait until the last slide in the Dryer module is deposited in a slide basket. Open the cover. <hr/> <p>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</p> <hr/> <ol style="list-style-type: none"> Remove the Slide Cassette from the slide ejector station. Remove any glass slides or pieces of slides from slide ejector mechanism. Check the slide on the shuttle and discard that slide if it is labeled or has blood on it. Check the area below the smear truck for fallen slides and retrieve the slides if possible. Check the smear truck for a slide. <ol style="list-style-type: none"> If the smear truck is holding a slide: <ol style="list-style-type: none"> Turn off the SlideMaker. The smear truck drops the slide. Retrieve the fallen slide. Close the cover and turn on the SlideMaker. If the smear truck is empty, close the cover and acknowledge the error at the Workstation to reset the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.
TRUCK (REVERSE, SENSOR 1)	Yes	<div>SlideMaker Log</div> <div>SlideMaker Truck Reverse Motion (Sensor 1).</div> <div>  <div> <div>If AutoStop is OFF</div>  </div> <div> <div>If AutoStop is ON</div>  </div> </div>	The SlideMaker continues current operations	At truck initialization: <ul style="list-style-type: none"> Truck is jammed or binding Encoder failed Truck motor failed. Truck reverse limit sensor, SEN1, failed. 	<p>Note: Press any key on the SlideMaker screen to reset the alarm.</p> <ol style="list-style-type: none"> Acknowledge the error at the Workstation to reset the SlideMaker. If the message persists: <ol style="list-style-type: none"> Turn off the SlideMaker. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List. Call your Beckman Coulter Representative.

Table 7.14 Truck Error Messages (Continued)

SLIDEMAKER		WORKSTATION		RECOVERY		
View Error Screen Message	Alarm	Log Message and Icons on Command Center		SlideMaker Status	Probable Cause	Corrective Action
TRUCK (SENSOR ERROR)	Yes	SlideMaker Log <i>SlideMaker Reports Slide Truck Sensor Failure.</i>	<div><div><div>If AutoStop is OFF</div><div></div></div><div><div>If AutoStop is ON</div><div></div></div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is discarded.</div><div>3. Completed smears are dried and deposited in a slide basket.</div><div>4. The SlideMaker stops.</div></div>	<div>The truck lift up sensor, SEN18, and the truck lift down sensor, SEN19, indicate the smear truck is both up and down. SEN18 or SEN19 failed.</div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Acknowledge the error at the Workstation to reset the SlideMaker.</div><div>3. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>
TRUCK (VACUUM, SENSOR 3)	Yes	SlideMaker Log <i>SlideMaker Truck Vacuum Out Of Tolerance (Sensor 3).</i>	<div><div><div>If AutoStop is OFF</div><div></div></div><div><div>If AutoStop is ON</div><div></div></div></div>	<div><div>1. No new samples are aspirated.</div><div>2. Any sample in a reservoir is discarded.</div><div>3. Completed smears are dried and deposited in a slide basket.</div></div>	<div><div><div>• The truck is not properly located over a slide.</div><div>• Vacuum has not been applied.</div><div>• Vacuum is too low.</div><div>• The truck vacuum sensor, SEN3, failed.</div><div>• Debris is impeding the establishment of vacuum.</div></div></div>	<div>Note: Press any key on the SlideMaker screen to reset the alarm.</div> <div><div>1. Wait until the last slide in the Dryer module is deposited in a slide basket.</div><div>2. Turn off the SlideMaker and open the cover.</div></div> <div><div>WARNING Risk of personal injury and contamination. The slide processing areas can contain prepared smears and/or broken glass with biohazardous material. Handle with care and avoid skin contact.</div></div> <div><div>3. Remove the Slide Cassette from the slide ejector station.</div><div>4. Remove any glass slides or pieces of slides from slide ejector mechanism.</div><div>5. Remove any slide on the shuttle and wipe the shuttle with a clean tissue to remove any debris.</div><div>6. Check the area below the smear truck for fallen slides and retrieve the slides if possible.</div><div>7. Place the slide cassette back in the Cassette Input Queue module.</div><div>8. Close the cover and turn on the SlideMaker.</div><div>9. If the message persists:<div><div>a. Turn off the SlideMaker.</div><div>b. If AutoStop is ON, turn AutoStop OFF to resume operation. Samples that require slides appear in the Slide List.</div><div>c. Call your Beckman Coulter Representative.</div></div></div></div>

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*National Committee for Clinical Laboratory Standards has changed to Clinical and Laboratory Standards Institute (CLSI).

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COULTER LH 700 SERIES SYSTEM DOCUMENTATION

- Host Transmission PN 4277303 Specifications for transmitting to a host computer.
- LH 750 Reference PN 4277248 Use and Function • Installation • Operation Principles • Specifications/Characteristics • Precautions/Hazards • References • Glossary • Index
- LH 780 Reference PN 773021 Available in hard copy by request.
- LH 750 Operator's Guide PN 4277249 Controls and Indicators • Startup • QC • Sample Analysis • Data Analysis • Shutdown • Analyzer CRT Functions • Workstation • Run Samples Display • To Do List • Database •
- LH 780 Operator's Guide PN 773022 Controls • Setup • Appendices
Available in hard copy by request.
- LH 750 Special Procedures and Troubleshooting PN 4277250 Calibration • Cleaning Procedures • Replace/Adjust Procedures • Troubleshooting • Error Messages
Available in hard copy by request.
- LH 780 Special Procedures and Troubleshooting PN 773023 Calibration • Cleaning Procedures • Replace/Adjust Procedures • Troubleshooting • Error Messages
Available in hard copy by request.
- LH SlideMaker Operator's Guide PN 4277299 Use And Function • Installation • Operation Principles • Specifications/characteristics • Operating Procedures • Cleaning/Replacement Procedures • References
Available in hard copy by request.
- LH SlideStainer Operator's Guide PN 4277300 Use And Function • Installation • Operation Principles • Specifications/characteristics • Operating Procedures • Cleaning/Replacement Procedures • References
Available in hard copy by request.
- Body Fluids Instructions for Use, PN 731113 Operating instructions regarding the use of the body fluids application.
- Hematology Tube List PN A70017 Tube List information

The information in the Reference manual, Operator's Guide, Special Procedures and Troubleshooting manual, SlideMaker Operator's Guide SlideStainer Operator's Guide, and the Body Fluids Instructions for Use comes from the Online Help System.

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