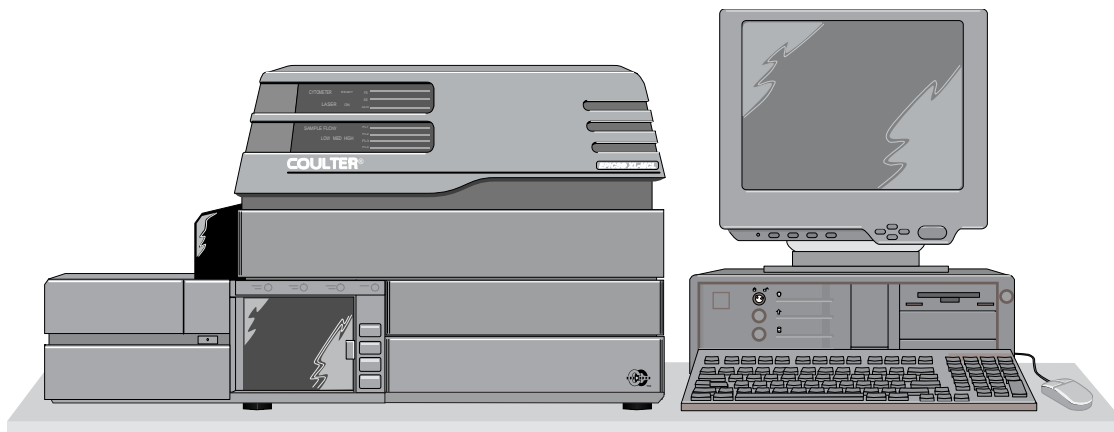


COULTER® EPICS® XL™ Flow Cytometer
COULTER EPICS XL-MCL™ Flow Cytometer
SYSTEM II™ Software

**Special Procedures
and Troubleshooting**



PN 4237296CA (September 2010)



Beckman Coulter, Inc.
250 S. Kraemer Blvd.
Brea, CA 92821



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.

Initial Issue, 1/96

SYSTEM II Software, Version 1.0. Initial issue for customer distribution.

Issue B, 12/98

Complete revision. SYSTEM II Software, Version 3.0. Includes new quality control features, patient report export feature, and user-defined run time reports.

Issue C, 6/03

Changes were made to change the company name from Coulter Corporation to Beckman Coulter Inc.

Issue CA, 09/10

Updates were made to the company corporate address.

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.

REVISION STATUS

WARNINGS AND PRECAUTIONS, ii

REVISION STATUS, iii

INTRODUCTION, ix

USING YOUR XL AND XL-MCL FLOW CYTOMETER MANUALS, ix

ABOUT THIS MANUAL, ix

CONVENTIONS, x

ICONS, x

1 CLEANING PROCEDURES, 1-1

 1.1 WHAT THIS CHAPTER EXPLAINS, 1-1

 1.2 CLEANING THE AIR FILTERS, 1-1
 Prepare to Clean the Air Filters, 1-2
 Rinse and Return the Air Filters, 1-3

 1.3 IDLE MODE, 1-4

 1.4 REMOVING THE REAGENT CONTAINERS, 1-5

 1.5 CLEANING THE SHEATH CONTAINER, 1-7

 1.6 CLEANING THE CLEANING AGENT CONTAINER, 1-9

 1.7 REPLACING THE REAGENT CONTAINERS, 1-11

 1.8 CLEANING THE VACUUM TRAP, 1-12
 Prepare to Clean VAC TRAP, 1-12
 Find and Pull Out VAC TRAP, 1-14
 Rinse and Return VAC TRAP to its Bracket, 1-15

 1.9 CLEANING THE SAMPLING SYSTEM, 1-18
 When to Clean the Sampling System, 1-18
 Routine Cleaning Procedure, 1-18
 Manual Mode Procedure (XL and XL-MCL Flow Cytometers), 1-19
 Auto Mode Procedure (XL-MCL Flow Cytometer Only), 1-21
 Testing for Residual Stain, 1-22
 Sample Head and Probe Cleaning Procedure, 1-22
 Manual Mode Procedure (XL and XL-MCL Flow Cytometers), 1-22
 Auto Mode Procedure (XL-MCL Flow Cytometer Only), 1-23
 Vacuum Line Cleaning Procedure, 1-24
 Auto Mode Procedure (XL-MCL Flow Cytometer Only), 1-24
 Manual Mode Procedure (XL and XL-MCL Flow Cytometers), 1-25

2 REPLACE/ADJUST PROCEDURES, 2-1

 2.1 WHAT THIS CHAPTER EXPLAINS, 2-1

- 2.2 REPLACING REAGENTS, 2-1
 - About the Reagent Containers, 2-1
- 2.3 FILLING THE SHEATH CONTAINER, 2-2
- 2.4 VENTING AIR BUBBLES, 2-5
- 2.5 FILLING THE CLEANING AGENT CONTAINER, 2-7
- 2.6 EMPTYING THE WASTE CONTAINER, 2-10
- 2.7 REPLACING THE SHEATH FILTER, 2-13
- 2.8 REPLACING THE MANUAL SAMPLE HEAD, 2-15
- 2.9 ADJUSTING THE SYSTEM PRESSURE, 2-18
- 2.10 POSITIONING THE NEUTRAL DENSITY FILTER, 2-20
- 2.11 RESETTING THE CIRCUIT BREAKERS, 2-22
- 3 TROUBLESHOOTING, 3-1**
 - 3.1 LEVEL SENSE INDICATORS, 3-1
 - Cleanse Low, 3-1
 - Sheath Low, 3-1
 - Waste Full, 3-1
 - To Print the Carousel Summary Report, 3-1
 - 3.2 ERROR MESSAGE LOG, 3-2
 - Searching the Error Message Log, 3-2
 - 3.3 ERROR MESSAGES, 3-3
 - About the Error Messages Table, 3-3
- A BAR-CODE OPTIONS, A-1**
 - A.1 BAR-CODE READER, A-1
 - A.2 BAR-CODE PRINTER, A-1
 - Bar-Code Printer Switch Settings, A-2
- B QC MAINTENANCE SCREEN, B-1**
 - B.1 WORKING WITH THE QC MAINTENANCE SCREEN, B-1
 - Accessing the Screen, B-1
 - Printing the Screen, B-2
 - B.2 EDITING THE MAINTENANCE SCREEN (OPERATOR LEVEL), B-2
 - Assigning An Operator ID To A Colored Box, B-2
 - Making an Entry, B-3
 - Erasing an Entry, B-3
 - B.3 EDITING THE MAINTENANCE SCREEN (SUPERVISOR LEVEL), B-4

Making Or Deleting An Entry, B-4

B.4 CHANGING THE PASSWORD (SUPERVISOR LEVEL), B-5

INDEX, INDEX-1

TRADEMARKS

CONTENTS

This introductory section contains the following topics:

- Using your COULTER EPICS XL and XL-MCL Flow Cytometer manuals
- About this Manual
- Conventions
- Icons.

USING YOUR XL AND XL-MCL FLOW CYTOMETER MANUALS

Use the **Reference** manual for in-depth information on the principles of flow cytometry, information about what your instrument does, the methods it uses, its specifications, and information on installation, safety, and system options.

Use the **Getting Started** manual to become familiar with the controls and indicators for your system and to learn about protocols, regions, panels, and the basic skills you need to operate the system. This manual also has an overview of the software.

Use the **Operator's Guide** for the day-to-day running of your instrument. Go through the detailed step-by-step procedures of startup, quality control (QC), running samples, analyzing data, printing reports, reviewing QC data, and shutdown.

Use the **Data Management** manual for instructions on how to export, save, copy, move, archive, and delete files. It also has information about the types of files your system creates and uses, instructions for working with QC features, and instructions for setting up the report template that you need to create your patient reports.

Use the **Special Procedures and Troubleshooting** manual to clean, replace, or adjust a component of the instrument. The Troubleshooting tables and error messages appear at the back of the manual.

Use the **Operating Summary** as a quick reference for basic procedures.

Use the **Master Index** to easily locate a topic in any of your manuals.

Use the **User's Comment Card** in the Reference manual to give us your comments about the manual and ways to improve it.

ABOUT THIS MANUAL

Your EPICS XL and XL-MCL Flow Cytometer Special Procedures and Troubleshooting manual describes how to clean, replace or adjust a component of the system. The Troubleshooting tables appear at the back of the manual.

This information is organized as follows:

- Chapter 1, Cleaning Procedures
Provides procedures for cleaning parts of the system.
- Chapter 2, Replace/Adjust Procedures
Provides procedures for replacing or adjusting parts.
- Chapter 3, Troubleshooting
Describes how to troubleshoot the system with the error messages that appear on the screen.
- Appendices
The appendices provide reference material on the following topics:

- Bar-Code Options
QC Maintenance Screen
- Index
Use the Index to easily locate specific information in this manual.

CONVENTIONS

This manual uses the following conventions:

Throughout this manual your EPICS XL or XL-MCL flow cytometer is referred to as the system.

Italics indicate screen messages.

Bold indicates a menu item.

Courier font indicates text you have to type using the keyboard.

␣ indicates a key (such as \hat{U}).

␣ + ␣ indicates that the two keys listed (such as \mathcal{P} + \hat{E}) are linked for a specific function and must be pressed in this sequence:

1. Press down on the first key listed and while continuing to press it, press down on the second key listed.
2. Release both keys at the same time.

␣ ␣ indicates to press and release the first key listed then press and release the next key listed. For example, \mathcal{Y} \hat{U} .



File ▶ Save Select the Save item on the File menu.



[OKAY] Use the mouse to click on the screen button labeled [OKAY].

␣ through ␣ Special function keys.

ICONS



Press and release the left mouse button.



Operational check.



Turn on the system at the computer.



Turn off the system at the computer.



Open the Power Supply door.



Power Supply.



Call your Coulter Representative.

1.1 WHAT THIS CHAPTER EXPLAINS

This chapter explains how to clean the:

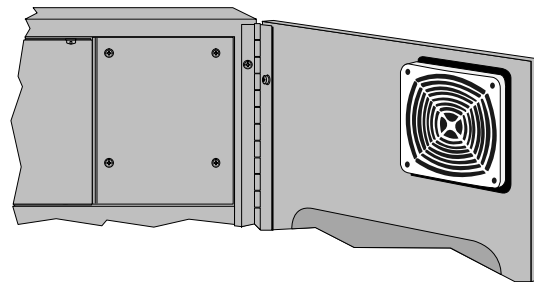
- Air filters (weekly) after the shutdown procedure
- Sheath fluid container (monthly) and cleaning agent container (every 60 days)
- VACuum TRAP (VAC TRAP) on the Power Supply (as needed).

For daily cleaning procedures, see the Shutdown chapter in the Operator's Guide.

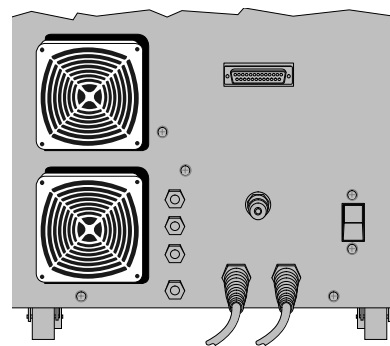
1.2 CLEANING THE AIR FILTERS

The instrument has five air filters. They are located on the:

- Cytometer Back Panel
- Power Supply, Inside Front Door
- Power Supply, Back Panel

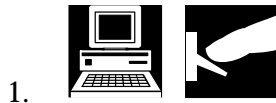


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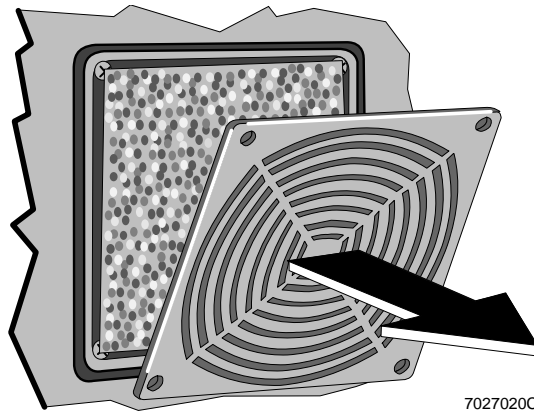
Prepare to Clean the Air Filters



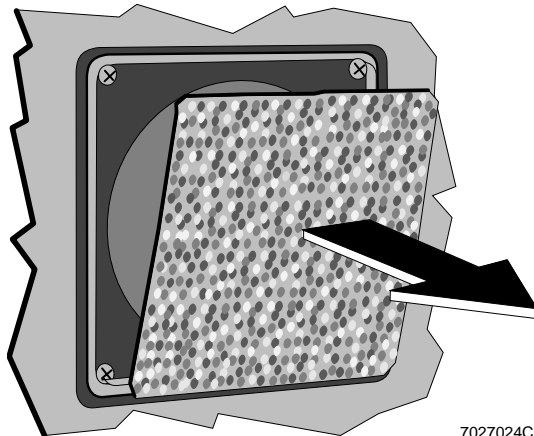
Turn off the system at the computer.

2. Pull off each filter cover. Even though the covers look like they are screwed in, they are not.

The filter covers are made of flexible plastic; they snap out when you pull them. Grab a segment of the grille between your thumb and index finger and then pull.

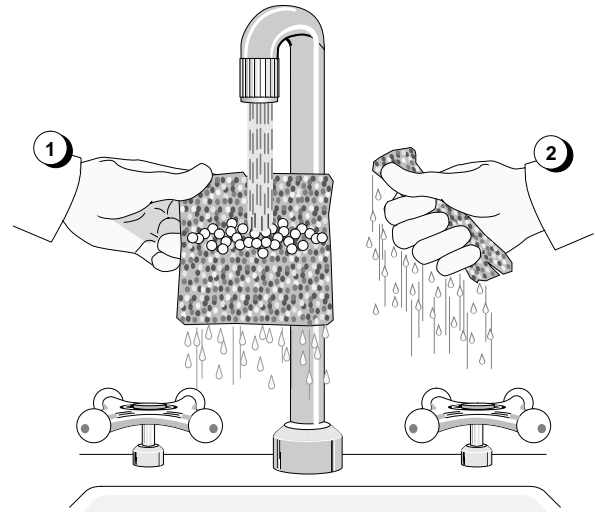


3. Pinch and pull out each filter. Handle them gently to avoid damaging them.



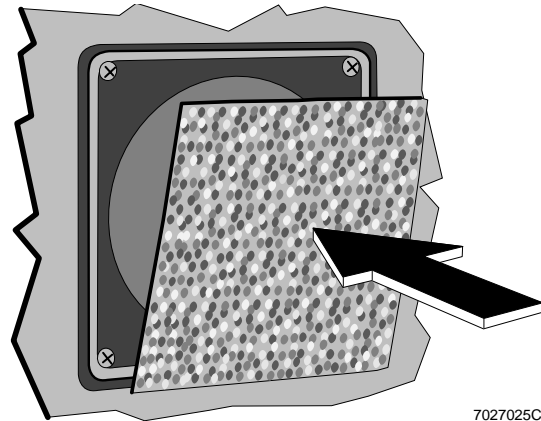
Rinse and Return the Air Filters

1. Rinse each filter in water ①, and then wring it out ②.



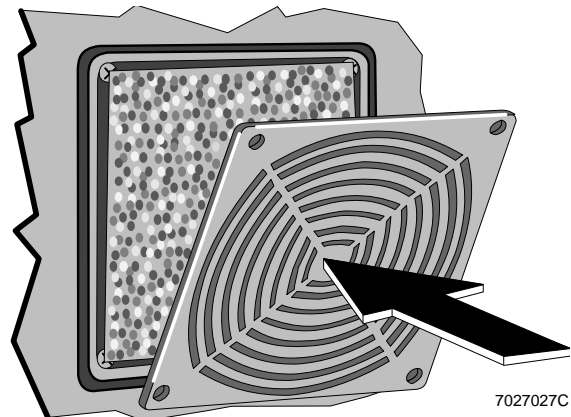
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2. Set each filter aside and let it dry out for about 30 minutes. Use paper towels to check that each filter is completely dry.
3. Return each filter to its holder; replace any torn ones.



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4. Put each filter cover back on.



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5. Turn on the system at the computer.

6. Record that the air filters were cleaned on the QC Maintenance screen. See Appendix B for instructions.



7.

Do you want to use the instrument?	
Yes	No
Do the startup procedure in the Operator's Guide.	You are done.

1.3 IDLE MODE

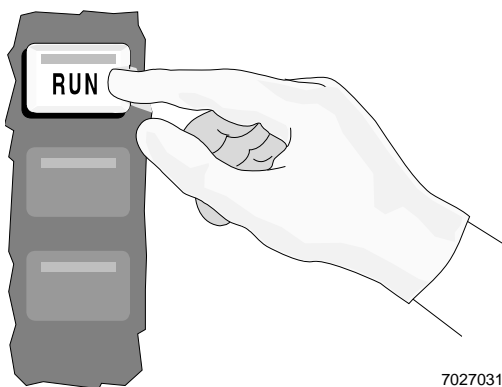
To clean or fill the reagent containers you need to put the Cytometer in the Idle mode.

To put the Cytometer in the Idle mode, press the RUN button.

You cannot open the reagent drawer unless the Cytometer is in the Idle mode; that is, when:

- A level sense indicator is glowing (not flashing) red, or
- The indicator in the Cytometer RUN button is flashing green.

The reagent drawer sits in a self-locking track. Pull open the drawer until it stops.



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1.4 REMOVING THE REAGENT CONTAINERS

Remove and clean the sheath fluid container once a month.

Remove and clean the cleaning agent container every 60 days.

Clean the reagent containers when the instrument indicates that the sheath fluid or cleaning agent is low, before you refill them.

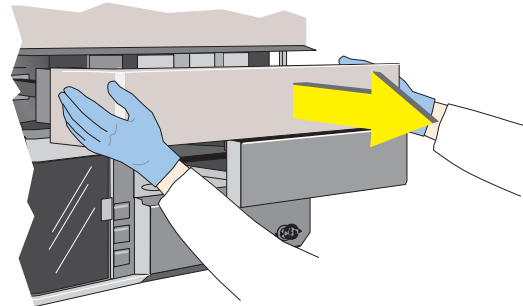
If you replace a reagent container, clean it before using it.

To remove either reagent container:

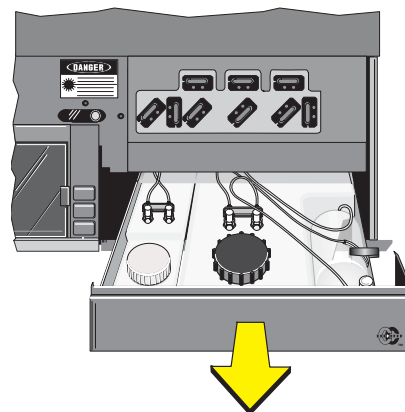
- | Is the instrument in the Idle mode? | |
|-------------------------------------|---|
| Yes | No |
| Go to step 2. | Press the RUN button.
The indicator in the button flashes green.

Wait about 10 seconds for the Cytometer to depressurize. |

- Remove the Cytometer center front panel.



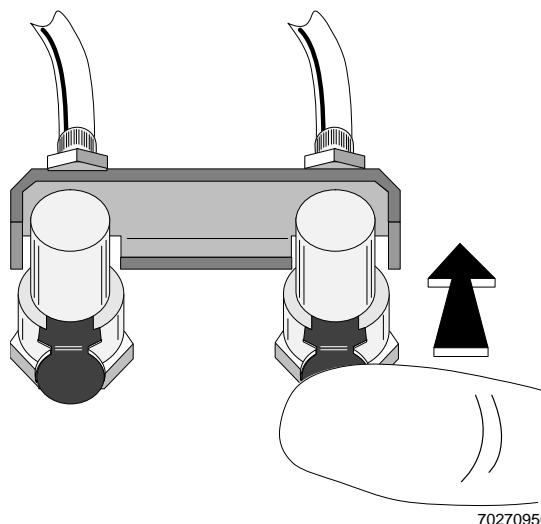
- Pull open the reagent drawer.



CLEANING PROCEDURES

REMOVING THE REAGENT CONTAINERS

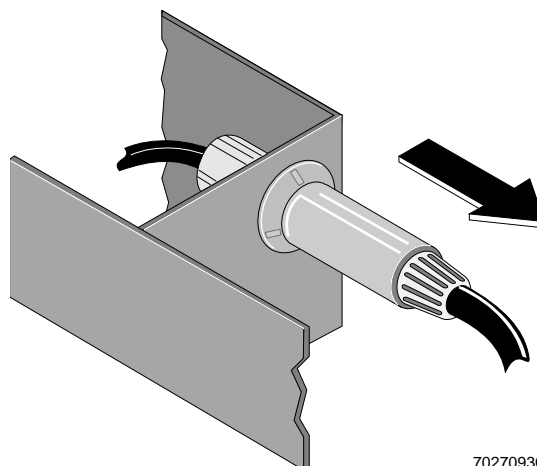
4. Disconnect the tubing on the top of the container by pushing in on the metal clips on the connectors.



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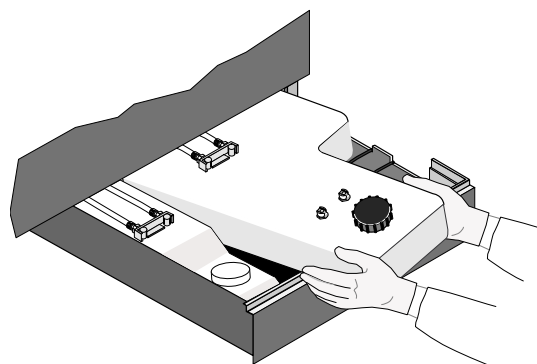
5. Pull open the reagent drawer all the way so you can disconnect the sensor at the back of the drawer by sliding its sleeve out.

The sensor for the sheath container (shown here) is on the right; for the cleaning agent container, on the left.



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6. Remove the container from the drawer, unscrew the cap and empty the container as completely as possible (sheath container is shown).
7. Clean up any spills or debris in the drawer.



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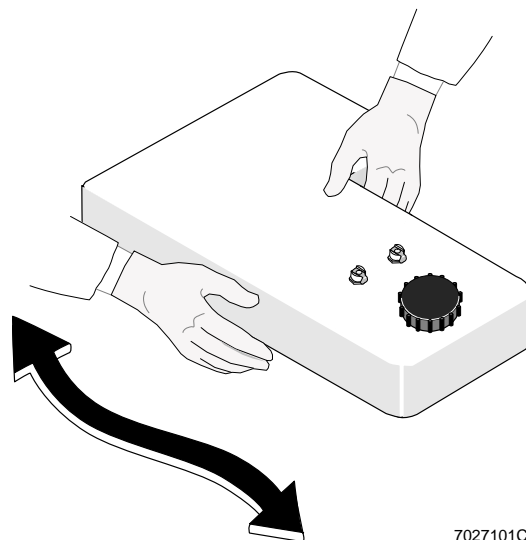
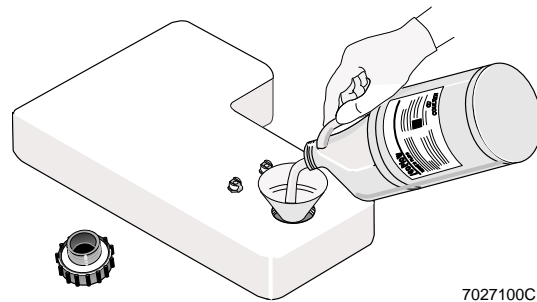
1.5 CLEANING THE SHEATH CONTAINER

IMPORTANT Misleading results could occur if you contaminate the sheath fluid container. Be careful not to contaminate the sheath fluid container. Do not let your fingers, paper towels, or other objects touch the inside of the container or the inside of its cap.

Remove and clean the sheath fluid container once a month.

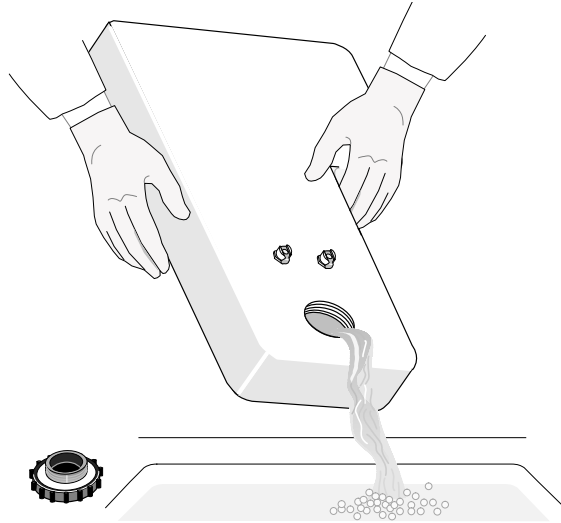
Follow the steps in Heading 1.4, Removing the Reagent Containers, and then:

1. Fill the sheath container with 100 to 200 mL of fresh IsoFlow™ sheath fluid. (Do not use any other type of sheath fluid.)
2. Screw the cap back on and then swirl the sheath fluid in the container, rinsing all surfaces.



CLEANING PROCEDURES
CLEANING THE SHEATH CONTAINER

3. Empty the container as completely as possible.



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4. Replace the sheath container as instructed in Heading 1.7, Replacing the Reagent Containers.
5. Record that the sheath fluid container was cleaned on the QC Maintenance screen. See Appendix B for instructions.

Monthly QC	
Linearity Check	<input type="checkbox"/>
Sensitivity Check	<input type="checkbox"/>
Carryover Test	<input type="checkbox"/>
Sheath Tank	<input checked="" type="checkbox"/>

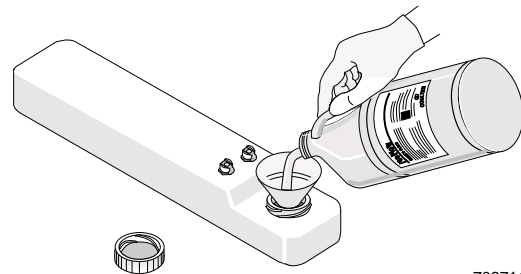
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1.6 CLEANING THE CLEANING AGENT CONTAINER

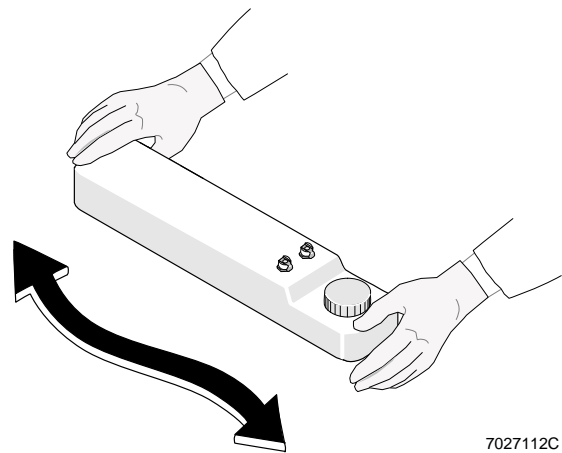
Remove and clean the cleaning agent container every 60 days.

Follow the steps in Heading, 1.4, Removing The Reagent Containers, and then:

1. Fill the cleaning agent container with 50 to 100 mL of fresh IsoFlow sheath fluid. (Do not use any other type of sheath fluid.)
2. Screw the cap back on and then swirl the sheath fluid in the container, rinsing all surfaces.

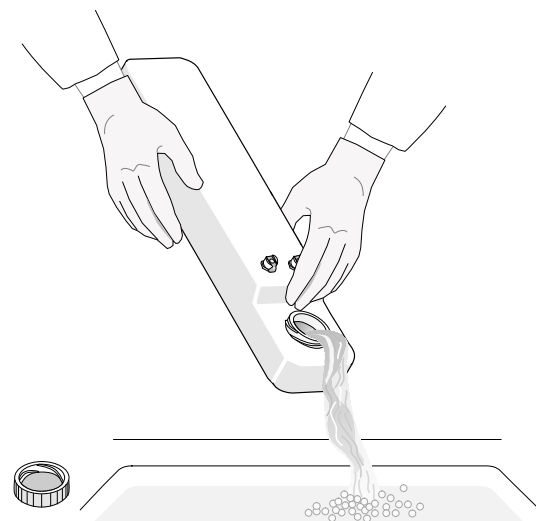


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7027112C

3. Empty the container as completely as possible.

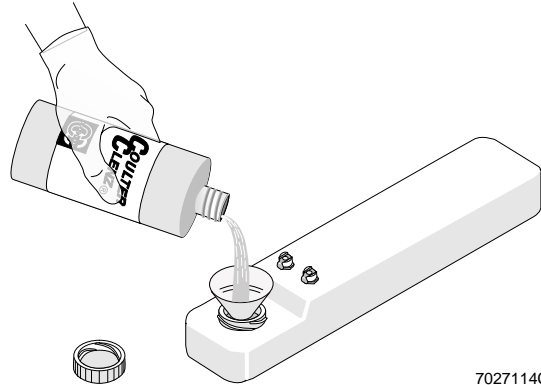


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CLEANING PROCEDURES

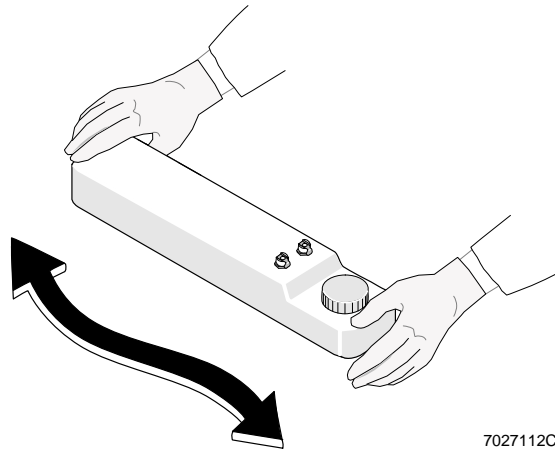
CLEANING THE CLEANING AGENT CONTAINER

4. Fill the container with 50 to 100 mL of fresh COULTER CLENZ® cleaning agent. (Do not use any other type of cleaning agent.)



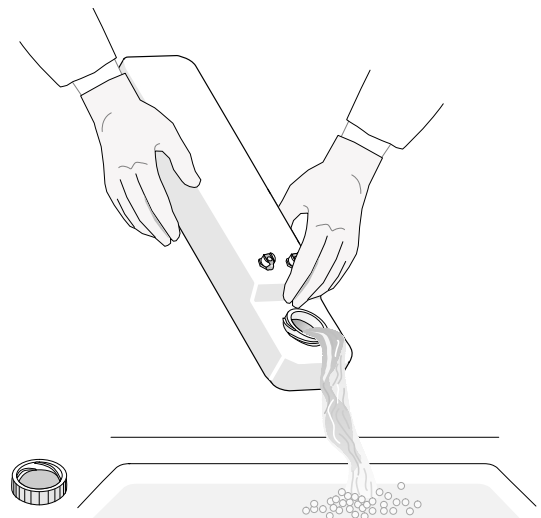
7027114C

5. Screw the cap back on and then swirl the cleaning agent in the container, rinsing all surfaces.



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6. Empty the container as completely as possible.



7027113C

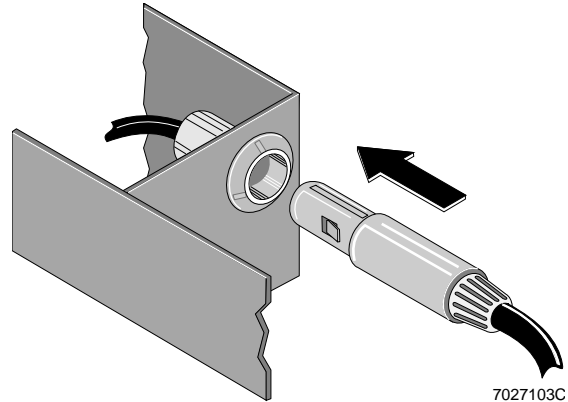
7. Replace the cleaning agent container as instructed in Heading 1.7, Replacing Reagent Containers.

- Record that the cleaning agent container was cleaned on the QC Maintenance screen. See Appendix B for instructions.

Bimonthly QC	
Cleanse Tank	X
<small>72980246</small>	

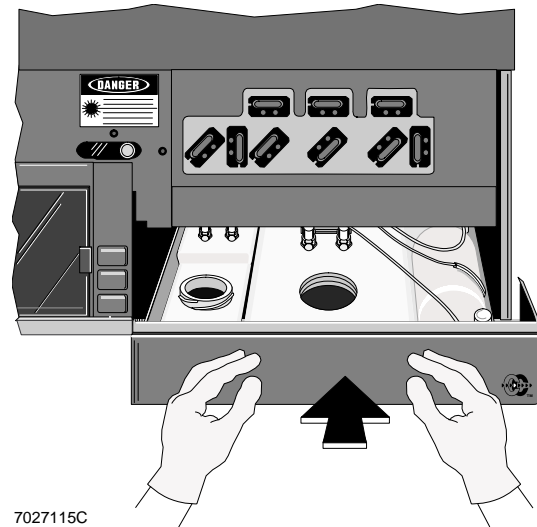
1.7 REPLACING THE REAGENT CONTAINERS

- Put the container back in the drawer. Check that the connector at the back of the container goes through the hole in the back of the drawer, and then reconnect the sensor (sheath sensor is shown).



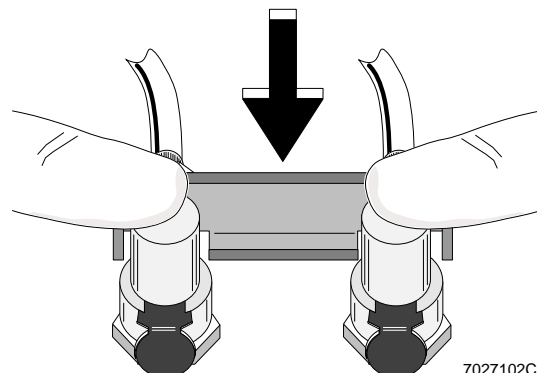
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- Slide the drawer back in part way; keep the neck of the container out.



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- Reconnect the tubing assembly by pushing down on the tubing inserts so that the tubing snaps into the connector.
- Fill the reagent containers as instructed in Heading 2.2, Replacing Reagents.
- Reposition the center front panel. See Heading 1.4, Removing the Reagent Containers, step 2.



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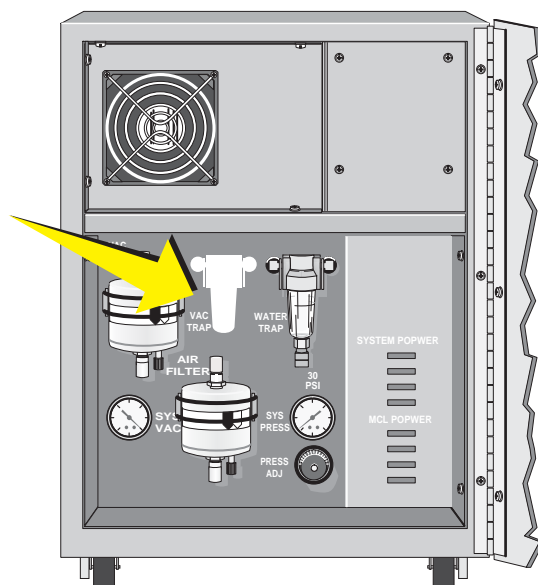
1.8 CLEANING THE VACUUM TRAP

Clean the vacuum trap as needed.

Check for fluid in the VACuum TRAP (VAC TRAP) on the front of the Power Supply as part of your daily startup procedure.

If the VAC TRAP is more than one-quarter full of fluid, empty and rinse it with tap water.

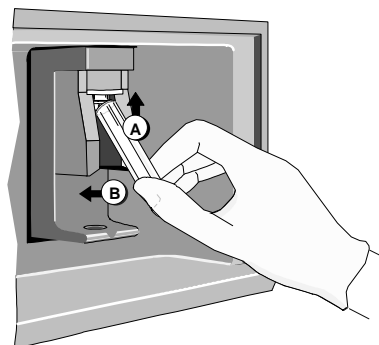
See Heading 1.3, Idle Mode, before cleaning the VAC TRAP.



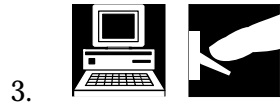
Prepare to Clean VAC TRAP

1.	Is the instrument in the Idle mode?	
	Yes	No
	Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

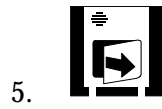
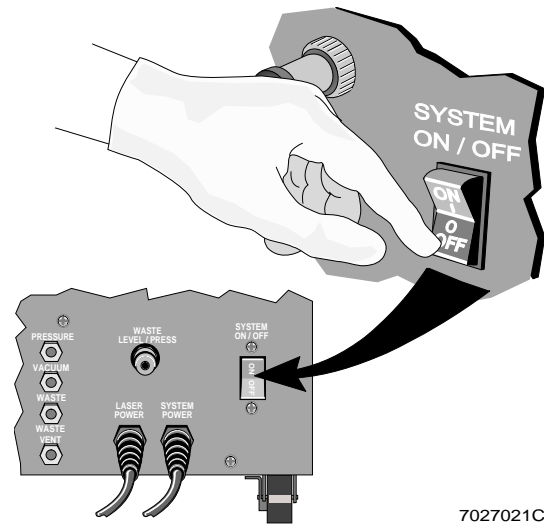
- Put about 1 mL of cleaning agent or sheath fluid in a test tube. Put the tube on the sample stage.



7296002A

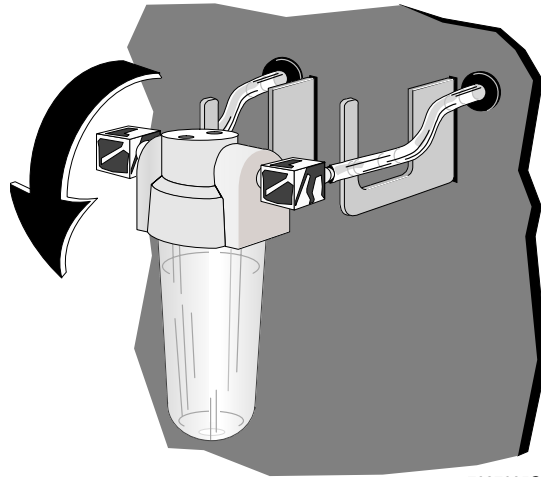


4. Turn off the system at the back of the Power Supply.



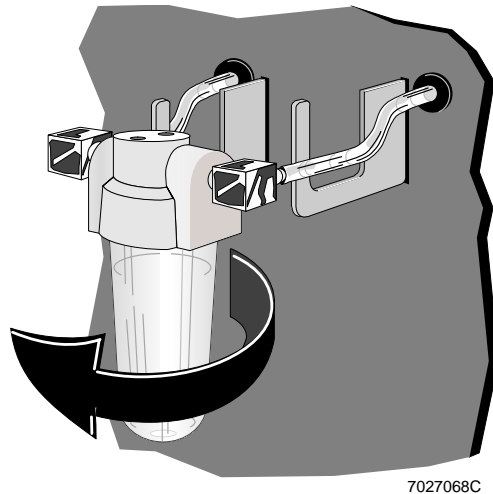
Find and Pull Out VAC TRAP

1. The VAC TRAP is the trap on the left. Lift the VAC TRAP assembly out of its bracket so that you can grasp the top of the assembly.



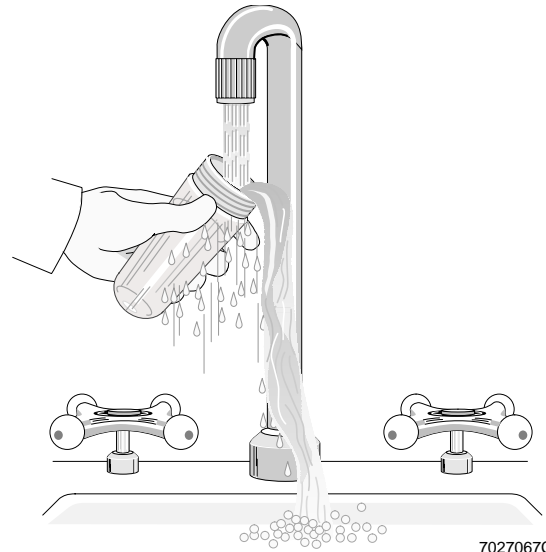
WARNING To prevent injury, avoid skin contact with the VAC TRAP and its associated tubing. The VAC TRAP and its associated tubing might contain residual biological material and must be handled with care. Clean up spills immediately. Dispose of the contents of the VAC TRAP in accordance with your local environmental regulations and acceptable laboratory procedures.

2. While using one hand to hold the top of the TRAP assembly, use the other hand to unscrew the VAC TRAP. Then, empty the VAC TRAP according to your local environmental regulations and your laboratory's procedures.



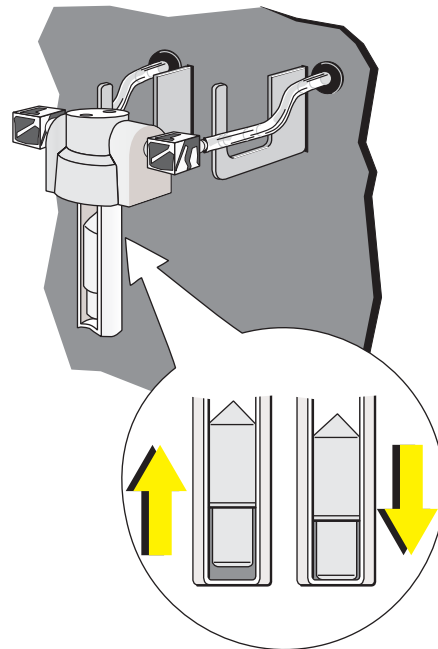
Rinse and Return VAC TRAP to its Bracket

1. Rinse the VAC TRAP with water, and then shake out the excess water.



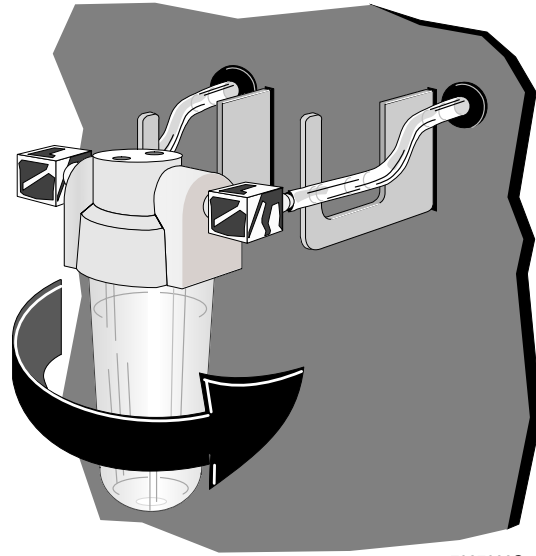
2. Insert the white center post, pointed end up, into the VAC TRAP assembly.

If the white center post in the VAC TRAP assembly is stuck in the up position, pull it down.



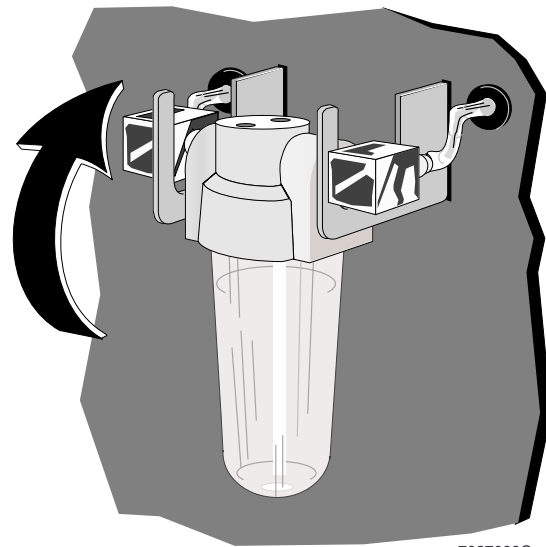
CLEANING PROCEDURES
CLEANING THE VACUUM TRAP

3. Carefully align the threads on the VAC TRAP jar with the threads on the VAC TRAP assembly and screw the VAC TRAP back into place.



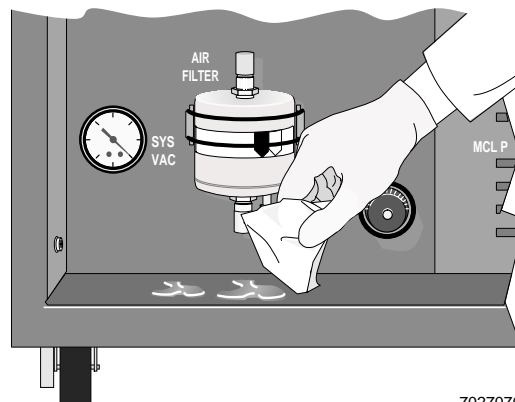
7027066C

4. Return the VAC TRAP assembly to its bracket.



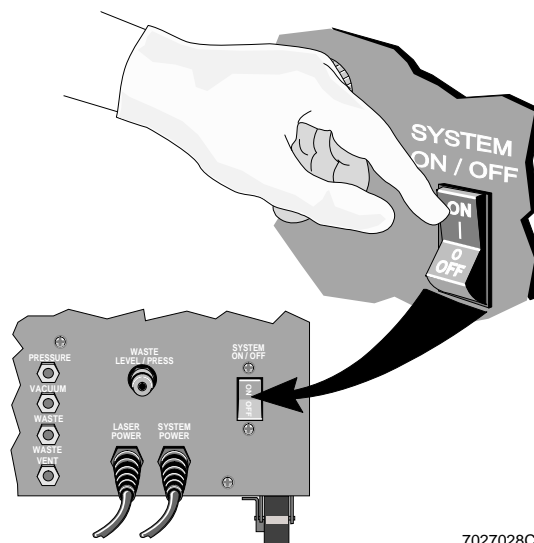
7027069C

5. Wipe up any spills.




7027070C

- Turn on the system at the Power Supply.




7027028C

- 
- Check that no error messages are displayed. If there are, see Heading 3.3, Error Messages.
- Record that the vacuum trap was cleaned on the QC Maintenance screen. See Appendix B for instructions.

Additional QC	
Clean Vac. Trap	X
Reagent Drawer	
Sheath Filter	
Rep Man Smp Head	
Adj Sys Pressure	

72980256

- | Do you want to use the instrument? | |
|---|---|
| Yes | No |
| Do the startup procedure in the Operator's Guide. |  |

1.9 CLEANING THE SAMPLING SYSTEM

When to Clean the Sampling System

Routine daily cleaning helps to minimize instrument downtime.

- Follow both Manual and Auto mode procedures for the XL-MCL flow cytometer.
- For the XL flow cytometer, follow only the Manual mode procedures.

The two levels of cleaning for the system are:

- Routine cleaning followed by sample head cleaning.
 - Vacuum line cleaning.
1. Perform the routine and sample head cleaning procedures:
 - When you change laboratory application procedures, especially if you are using vital fluorescent stains. If vital stains such as propidium iodide, ethidium bromide, acridine orange, thiazole orange, Coriphosphine-O, Fura 3, or fluorescein diacetate, are used, perform these cleaning procedures immediately after using the dyes.
 - Immediately prior to running any immunophenotyping application if vital stains are being used on the same instrument.
 - When you observe a significant increase in debris or background counts.
 - Before you perform the vacuum line cleaning procedure.
 - Before you perform the shutdown procedure.
 2. Perform the vacuum line cleaning procedure:
 - When you change laboratory application procedures, especially if you are using vital fluorescent stains. If vital stains such as propidium iodide, ethidium bromide, acridine orange, thiazole orange, Coriphosphine-O, Fura 3, or fluorescein diacetate, are used, perform these cleaning procedures immediately after using the dyes.
 - Every 8 hours of continuous operation.
 - Before shutdown.

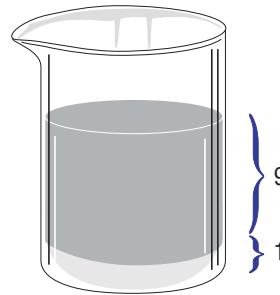
Routine Cleaning Procedure

WARNING The cleaning solution is hazardous and can cause personal injury or damage clothing. Beckman Coulter 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.

IMPORTANT A cleaning solution that is not fresh can leave residual stain in the system and misleading results could occur when you change laboratory applications. Be sure to prepare a fresh cleaning solution before performing the cleaning procedure and use it within the same day.

Manual Mode Procedure (XL and XL-MCL Flow Cytometers)

1. Prepare a cleaning solution of 1 part high-quality, fragrance-free bleach (5% solution of sodium hypochlorite - available chlorine) and 9 parts distilled water or IsoFlow sheath fluid.
Put 2 mL of the bleach solution in a test tube.



7297136B

2. At the Cytometer:



Application ▶ Acquisition.



Panel.



Cleaning Panel.



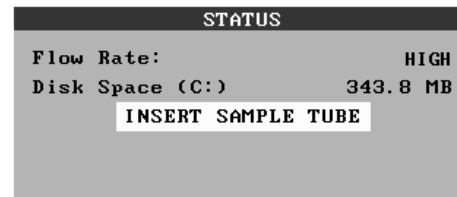
[Okay].



7297132A

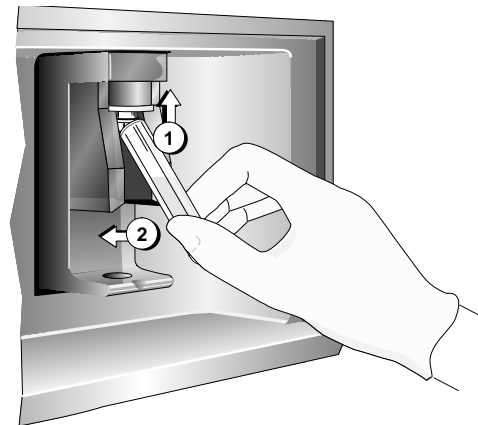
3. Check that the Cytometer status message reads *Insert Sample Tube*.

If it does not, call your Coulter Representative.



7418006A

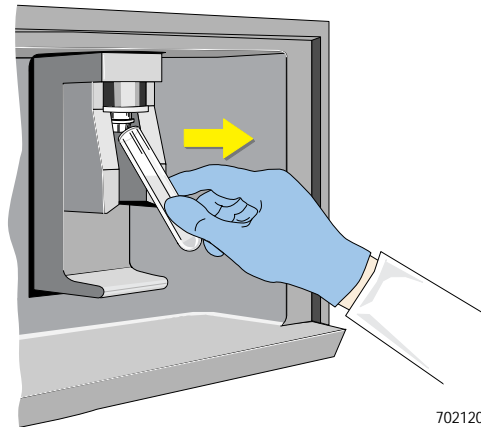
4. Put the test tube containing the 2 mL of bleach solution on the sample stage.
The sample stage rises and the bleach solution is aspirated.



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CLEANING PROCEDURES
CLEANING THE SAMPLING SYSTEM

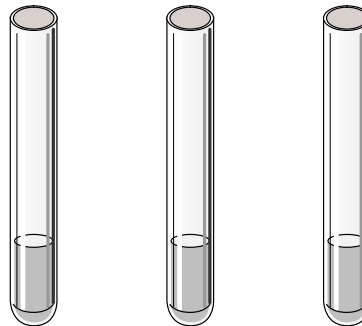
When the sample stage lowers, remove the tube.



7021203A

- Run three tubes of distilled water or IsoFlow sheath fluid.

About 2 mL of distilled water or sheath fluid in each



7296004B

- Record that the routine cleaning was done on the QC Maintenance screen. See Appendix B for instructions.

Daily Shutdown	
Bleach Man/MCL	X
Smp Head Man/MCL	
Vac Line Man/MCL	
Cleanse Cycle	

7296005B

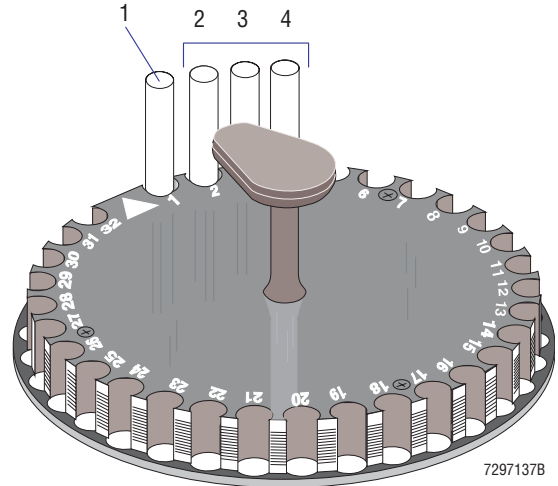
Auto Mode Procedure (XL-MCL Flow Cytometer Only)

1. Put a test tube containing 2 mL of freshly prepared bleach solution in carousel position 1.

Then put three freshly prepared tubes, each containing about 2 mL of distilled water or IsoFlow sheath fluid, in positions 2, 3, and 4 of the carousel.

Do not reuse the tubes from the manual mode procedure.

Ensure that the cleaning panel is still selected. If not, select it.



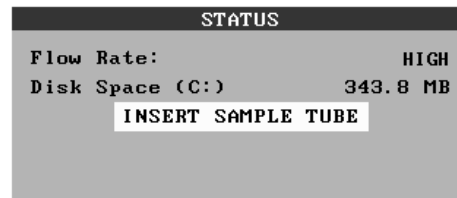
7297137B

2. Put the carousel in the MCL sample loader and close the carousel door. Press the AUTO button or click Run on the Workstation screen.

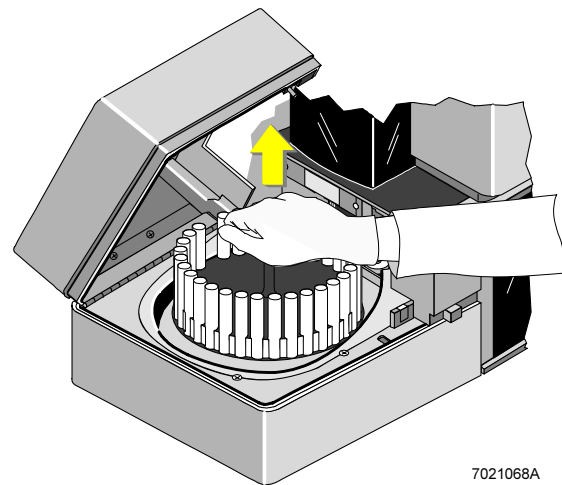
Press Y when the system asks *Are you starting a new carousel?*

Press N when the system asks *Do you want to enter specimen ID?*

3. When the MCL sample loader is done, remove the carousel.



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4. Record that the routine cleaning was done on the QC Maintenance screen. See Appendix B for instructions.

Daily Shutdown	
Bleach Man/MCL	X
Smp Head Man/MCL	
Uac Line Man/MCL	
Cleanse Cycle	

7296026B

Testing for Residual Stain

If you use vital stains such as propidium iodide, ethidium bromide, acridine orange, thiazole orange, Coriphosphine-O, Fura 3, or fluorescein diacetate, you may want to test for residual stain after performing the routine cleaning procedure and before proceeding to your next application.

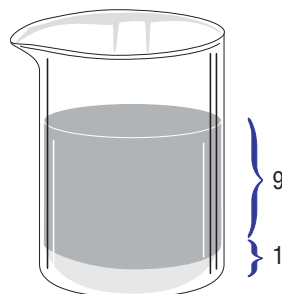
To test for residual stain, run unstained Immuno-Trol™ cells or CYTO-TROL™ control cells for your application to ensure that the autofluorescent population is where you normally expect it. If it is not, repeat the routine cleaning procedure.

Sample Head and Probe Cleaning Procedure

Manual Mode Procedure (XL and XL-MCL Flow Cytometers)

1. Prepare a cleaning solution of 1 part of high-quality, fragrance-free bleach (5% solution of sodium hypochlorite - available chlorine) and 9 parts of distilled water or IsoFlow sheath fluid.

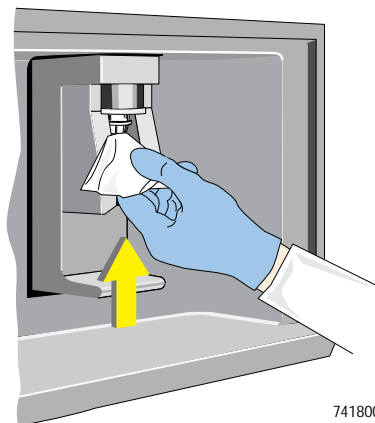
While wearing latex gloves, apply the 10% bleach solution to a gauze pad.



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2. Carefully push the moistened gauze pad up against the inside of the manual sample head and scrub away any debris inside and around the sample probe.

Continue scrubbing the sample head and probe by pushing the head up and down 10 times during a 60-second period. Replace gauze as needed.



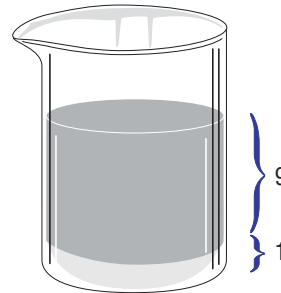
7418001A

3. Rinse the sample head and probe with gauze moistened with water.
4. Perform the Vacuum Line Cleaning procedure.

Auto Mode Procedure (XL-MCL Flow Cytometer Only)

1. Prepare a cleaning solution of 1 part of high-quality, fragrance-free bleach (5% solution of sodium hypochlorite - available chlorine) and 9 parts of distilled water or IsoFlow sheath fluid.

While wearing latex gloves, apply the 10% bleach solution to a gauze pad.

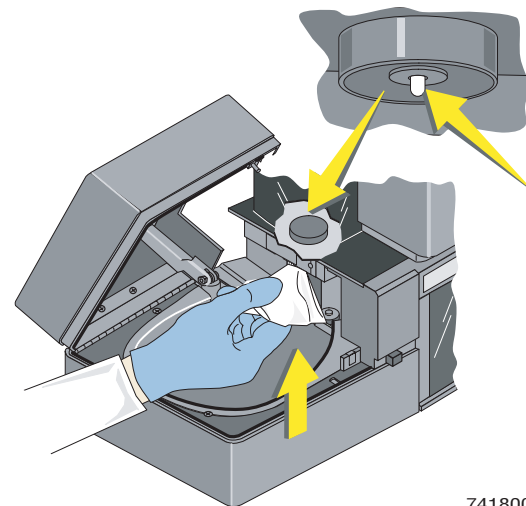


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2. Open the MCL lid and remove the carousel if installed.

Carefully push the moistened gauze pad up against the inside of the MCL sample head and scrub away any debris inside and around the sample probe.

Continue scrubbing the sample head and probe by pushing the head up and down 10 times during a 60-second period. Replace gauze as needed.



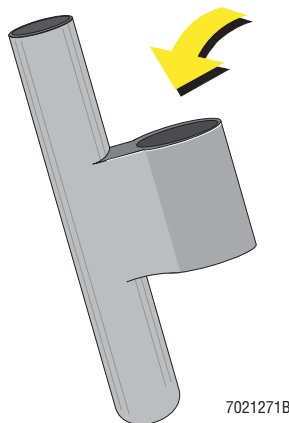
7418002A

3. Rinse the MCL sample head and probe with gauze moistened with water.
4. Perform the Vacuum Line Cleaning procedure.

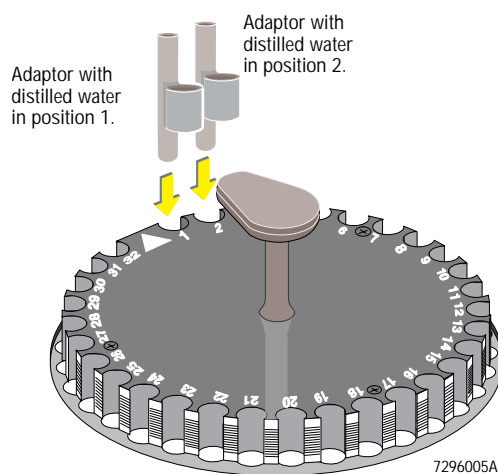
Vacuum Line Cleaning Procedure

Auto Mode Procedure (XL-MCL Flow Cytometer Only)

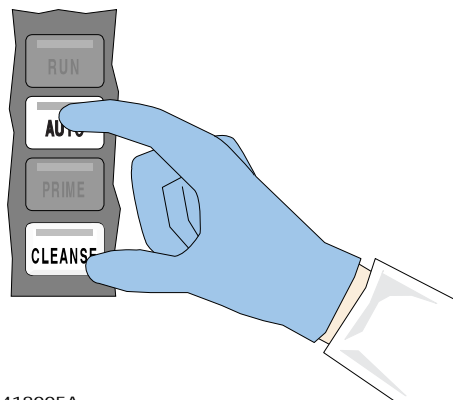
1. Fill two cleaning adaptors with 5 mL of distilled water.



2. Put one adaptor in position 1 of a carousel. Put the second adaptor in position 2. Orient the reservoirs toward the center of the carousel.



3. Put the carousel into the MCL and close the carousel door.
Check that the system is in the Idle mode with the RUN light flashing green. If not, press the RUN button to put the system into the Idle mode.
Press the AUTO and CLEANSE buttons at the same time.



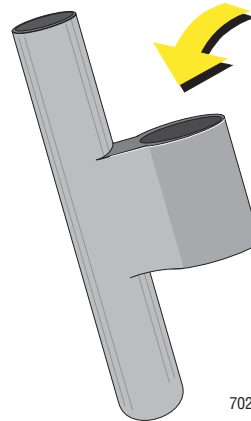
4. When *Press Run to Initialize* appears on the status line, remove the carousel.
5. Record that the vacuum line cleaning and cleanse cycle were done on the QC Maintenance screen. See Appendix B for instructions.

Daily Shutdown	
Bleach Man/MCL	X
Smp Head Man/MCL	X
Vac Line Man/MCL	X
Cleanse Cycle	X

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Manual Mode Procedure (XL and XL-MCL Flow Cytometers)

1. If the system is in the Run mode (the RUN button is glowing green), press the RUN button to take the system out of the Run mode. The RUN light blinks when the unit is not in the Run mode.
2. Fill a cleaning adaptor reservoir with 5 mL of distilled water.



7021271B

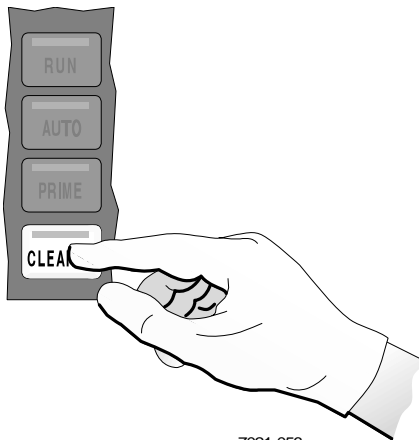
3. Install the adaptor just as a sample tube is installed on the sample stage.
Wait for the water to be aspirated before proceeding to step 4.4.



7021270B

- Remove the adaptor and press the CLEANSE button.

When the cleanse cycle ends, the CLEANSE button indicator turns off and the RUN button indicator flashes. The Cytometer status message reads *Press Run to Initialize*.



7021-056

- Record that the vacuum line cleaning and cleanse cycle were done on the QC Maintenance screen. See Appendix B for instructions.

Daily Shutdown	
Bleach Man/MCL	X
Smp Head Man/MCL	X
Vac Line Man/MCL	X
Cleanse Cycle	X

7296038B

2.1 WHAT THIS CHAPTER EXPLAINS

This chapter has these replacement and adjustment procedures:

- Filling the sheath container
- Venting air bubbles
- Filling the cleaning agent container
- Emptying the waste container
- Replacing the sheath filter
- Replacing the sample head
- Adjusting the system pressure
- Positioning the neutral density filter.

2.2 REPLACING REAGENTS

About the Reagent Containers

The Cytometer has a reagent drawer that has containers for sheath fluid and cleaning agent.

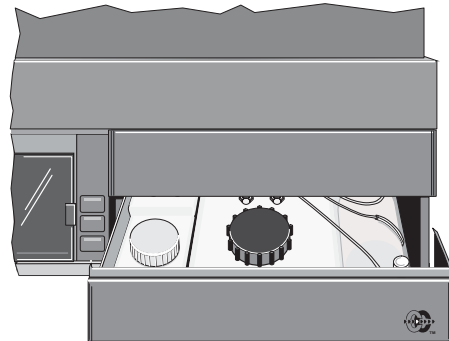
The sheath container has a working capacity of about 2 L. A bottle of IsoFlow sheath fluid holds 1.8 L.

The cleaning agent container has a working capacity of about 500 mL, the amount in a small bottle of COULTER CLENZ cleaning agent.

For best use of reagents, refill the reagent containers only when the instrument indicates that they are low.

When you fill an empty reagent container, you need about 2.8 L of sheath fluid and 1 L of cleaning agent. The amount of reagent beyond the working capacity is for pressurization and level sensing.

If you replace a reagent container, clean it before you fill it (see Chapter 1, Cleaning Procedures). Record that the reagent containers were cleaned on the QC Maintenance screen. See Appendix B for instructions.

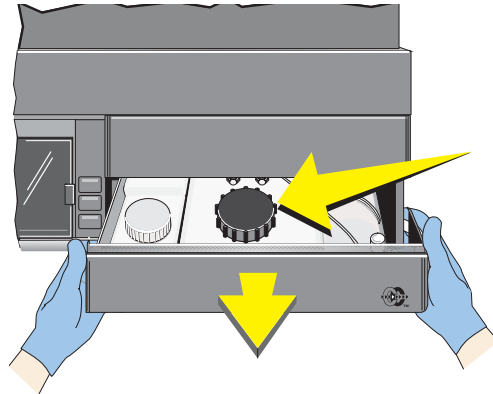


2.3 FILLING THE SHEATH CONTAINER

1.

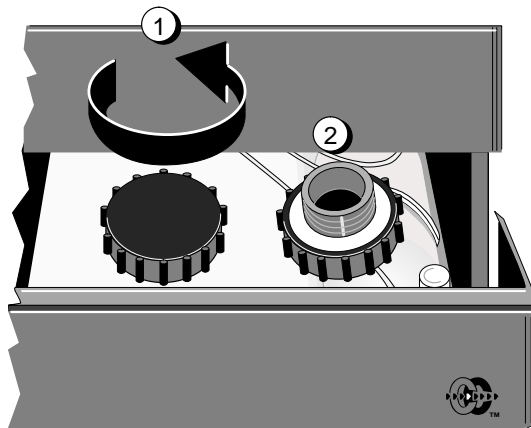
Is the instrument in the Idle mode?	
Yes	No
Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

2. Pull open the reagent drawer.



IMPORTANT Misleading results could occur if you contaminate the sheath fluid. Be careful not to contaminate the sheath fluid. Do not let your fingers, paper towels, or other objects touch the inside of the container or the inside of its cap.

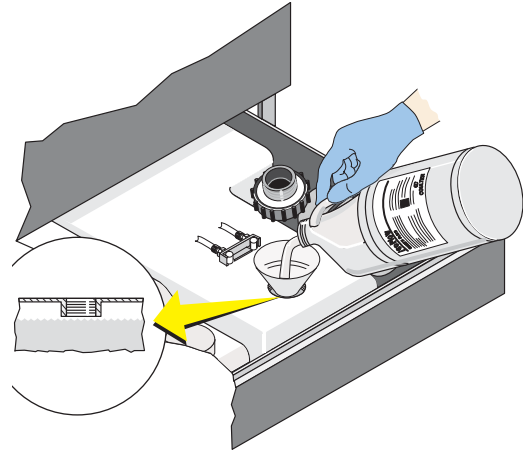
3. Unscrew the cap on the sheath container (A). To avoid contaminating the sheath fluid, lay the cap upside down on the container (B).



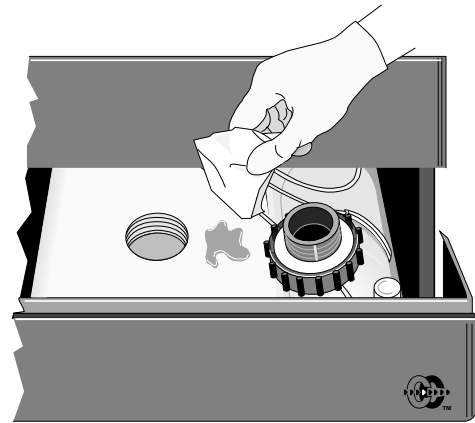
7027033C

CAUTION To prevent damage to the instrument, do not overfill the sheath container. Avoid spills. Do not tilt the container or remove it from the drawer to fill it.

4. Carefully pour fluid into the container, filling it just to the bottom of its neck.



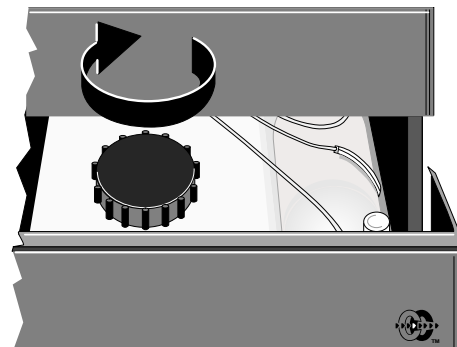
5. Carefully wipe up any spills.



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IMPORTANT Misleading results could occur if you analyze samples without the cap on the sheath container. Be sure to put the cap back on the sheath container after you fill it.

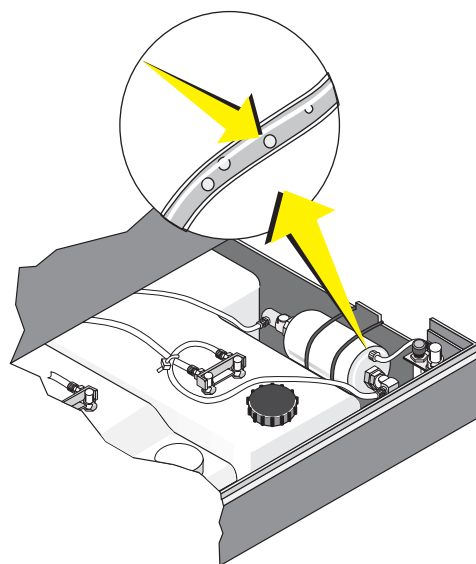
6. Screw the cap back on.



7027036C

7.

Are bubbles in the vent tubing?	
Yes	No
Go to Heading 2.4, Venting Air Bubbles	Close the reagent drawer, and press the RUN button. The indicator in the button glows (not glashes) green. Do the quality control procedure in the Startup chapter of the Operator's Guide.

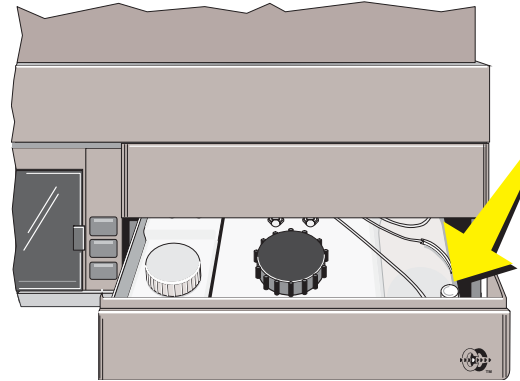



2.4 VENTING AIR BUBBLES

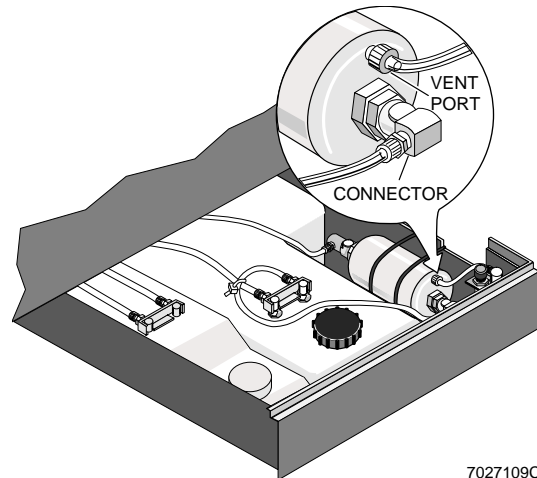
The vent button lets you release bubbles that are in the sheath filter and in the tubing for the sheath fluid.

While the reagent drawer is open, the vent button in the drawer is deactivated. This means that you cannot use the vent button unless the drawer is closed and the Cytometer is in the Run or Prime mode.

Remove the Cytometer center front panel so you can reach the vent button when the reagent drawer is closed.

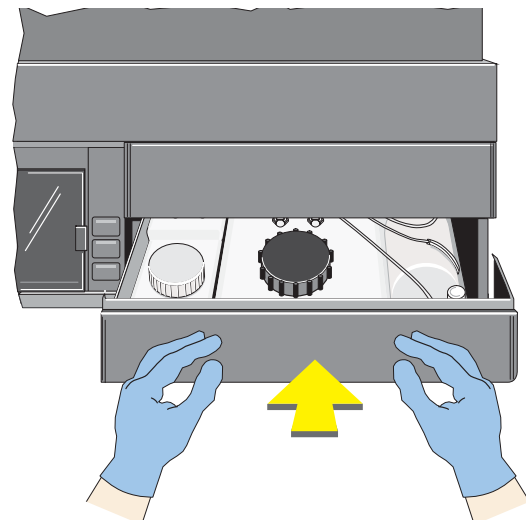


1.  Check that:
 - The vent port is above the connector and pointing toward you.
 - The tubing is not kinked or twisted.

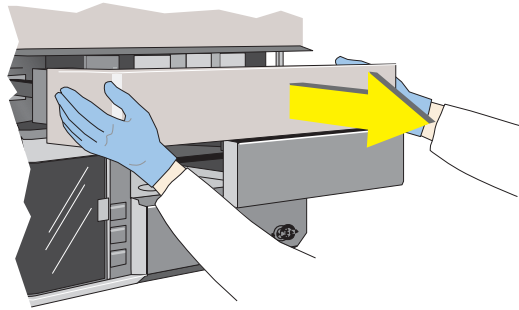


7027109C

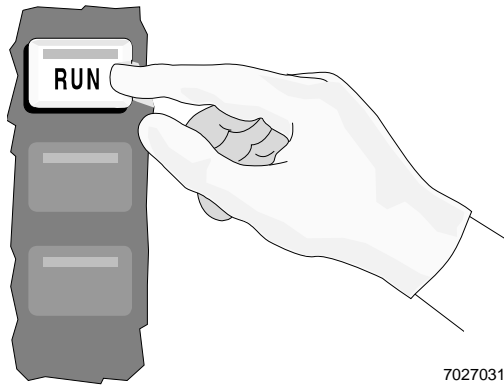
2. Close the reagent drawer.



3. Remove the Cytometer center front panel.

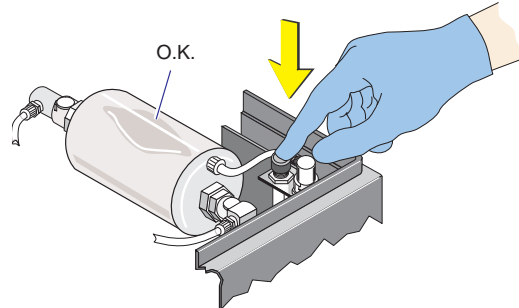


4. Put the system in the Run or Prime mode.

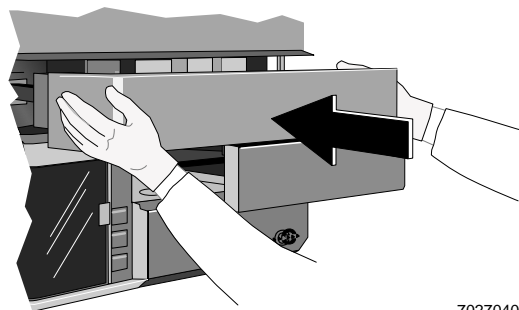


7027031C

5. Press and hold the vent button until the bubbles in the vent tubing are gone.



6. Reposition the center front panel. It snaps into place.



7027040C

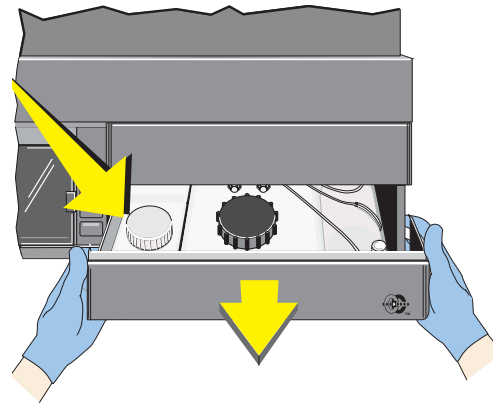
7. Do the quality control procedure in the Startup chapter of the Operator's Guide.

2.5 FILLING THE CLEANING AGENT CONTAINER

1.

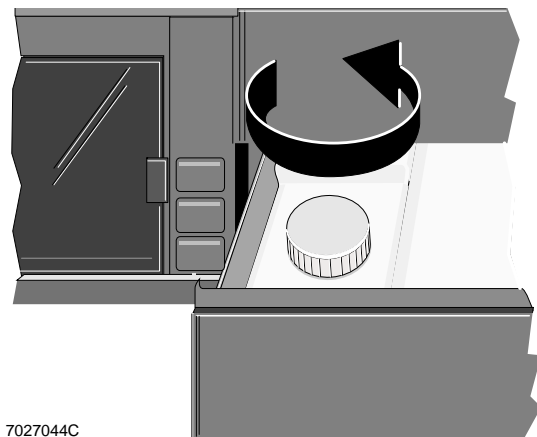
Is the instrument in the Idle mode?	
Yes	No
Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

2. Pull open the reagent drawer.



IMPORTANT Misleading results could occur if you contaminate the cleaning agent. Be careful not to contaminate the cleaning agent. Do not let your fingers, paper towels, or other objects touch the inside of the container or the inside of its cap.

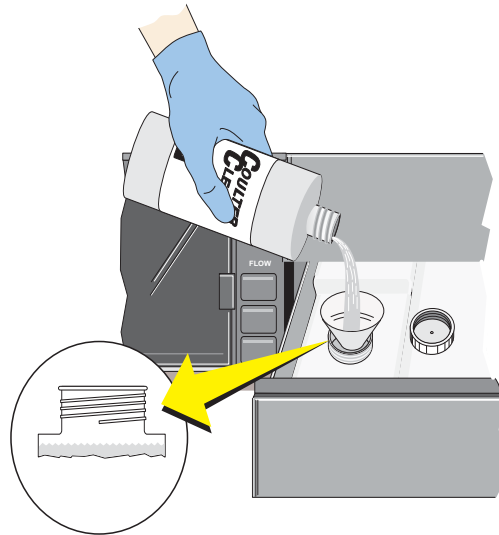
3. Unscrew the caps on the cleaning agent container and the cleaning agent bottle.



7027044C

CAUTION To prevent damage to the instrument do not overfill the cleaning agent container. Avoid spills. Do not tilt the container or remove it from the drawer to fill it.

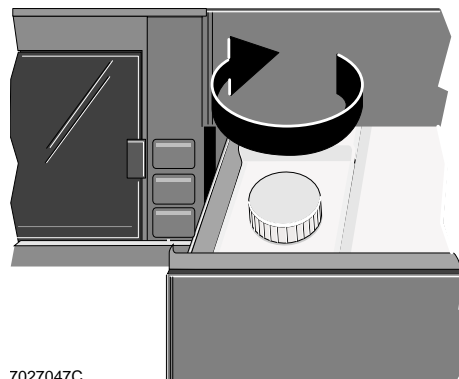
- Carefully pour cleaning agent into the container, filling it just to the bottom of its neck.




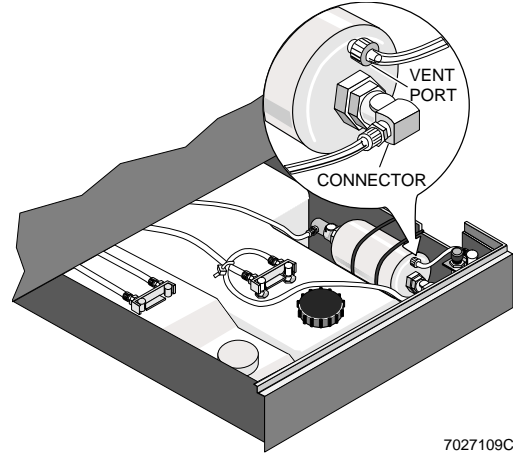
- Carefully wipe up any spills.



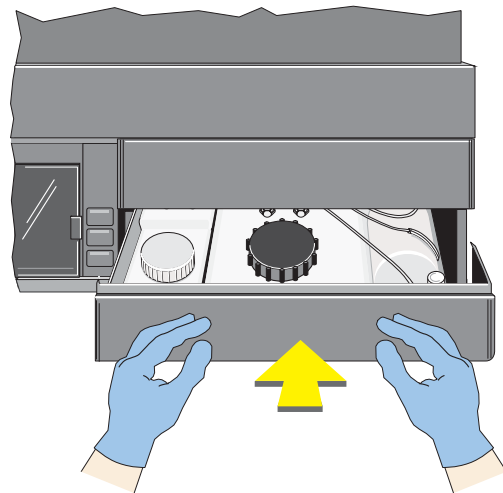
- Screw the cap back on.



7.  Check that:
- The vent port is above the connector and pointing toward you.
 - The tubing is not kinked or twisted.



8. Close the reagent drawer.

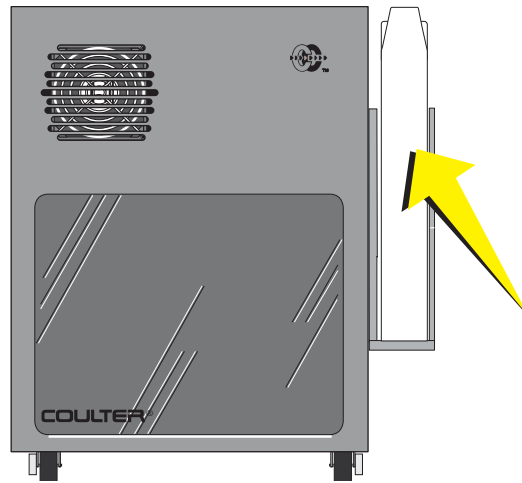


9.

Do you want to analyze samples?	
Yes	No
Press the RUN button. The indicator in the button glows (not flashes) green.	You are done.

2.6 EMPTYING THE WASTE CONTAINER

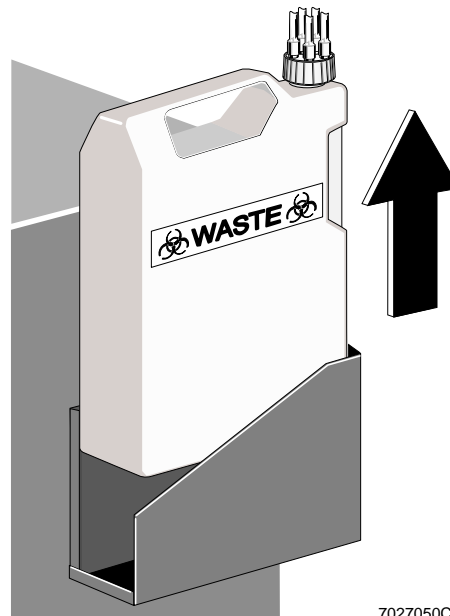
Your instrument has a 4-L waste container that sits in a bracket on the right side of the Power Supply. Empty it and follow these steps to put chlorine bleach in it.



1.

Is the instrument in the Idle mode?	
Yes	No
Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

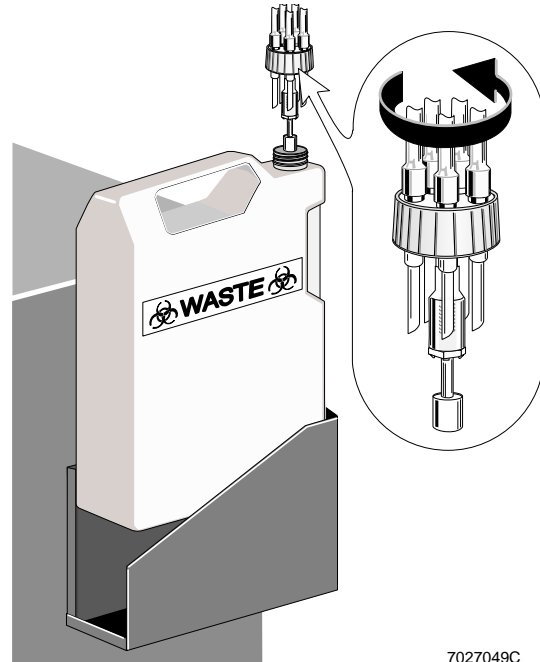
2. Lift the waste container out of its bracket and swirl it before removing the cap.



7027050C

WARNING To prevent injury, avoid skin contact with the waste container and its associated tubing. The waste container and its associated tubing might contain residual biological material and must be handled with care. Clean up spills immediately. Dispose of the contents of the waste container in accordance with your local regulations and acceptable laboratory procedures

3. Unscrew the cap and lay it on a leakproof disposable container, such as a glove or beaker.



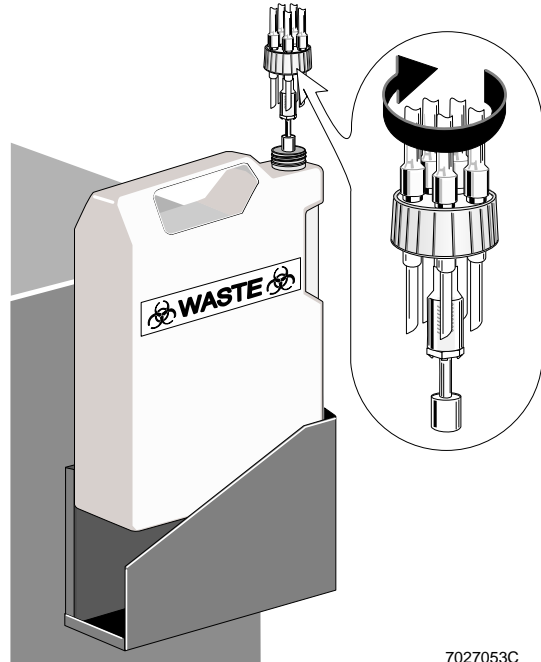
7027049C

4. Empty the waste container according to your laboratory's procedures.
5. Put about 400 mL of high-quality, fragrance-free bleach (5% sodium hypochlorite -available chlorine) in the waste container to cover the bottom of the container.

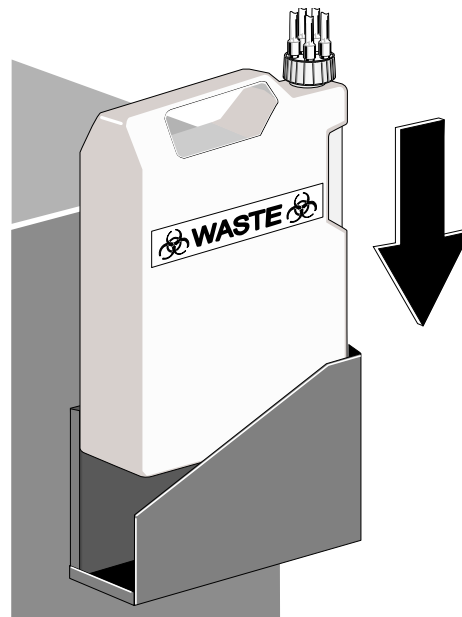


7027051C

6. Screw the cap back on.



7. Wipe the bracket with a paper towel moistened with a 10% bleach solution, and then return the container to the bracket.



8.

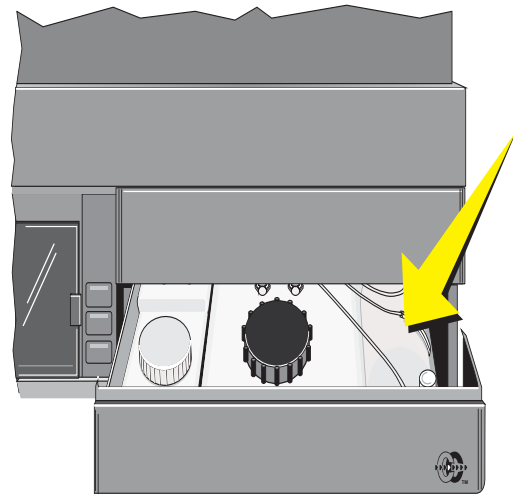
Do you want to analyze samples?	
Yes	No
Press the RUN button. The indicator in the button glows (not flashes) green.	You are done.

2.7 REPLACING THE SHEATH FILTER

The 0.2- μm sheath filter is in the Cytometer reagent drawer.

Replace the sheath filter,

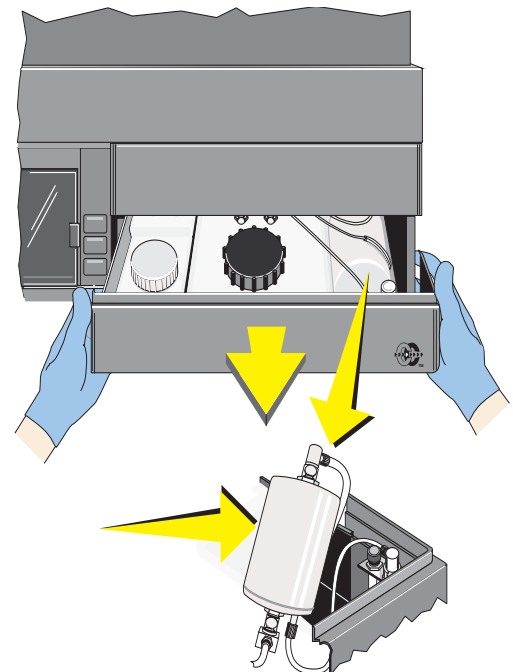
- Every 6 months.
- or
- Whenever the sample flow rate is too high (repeated data rate warnings or system pressure warnings).



1.

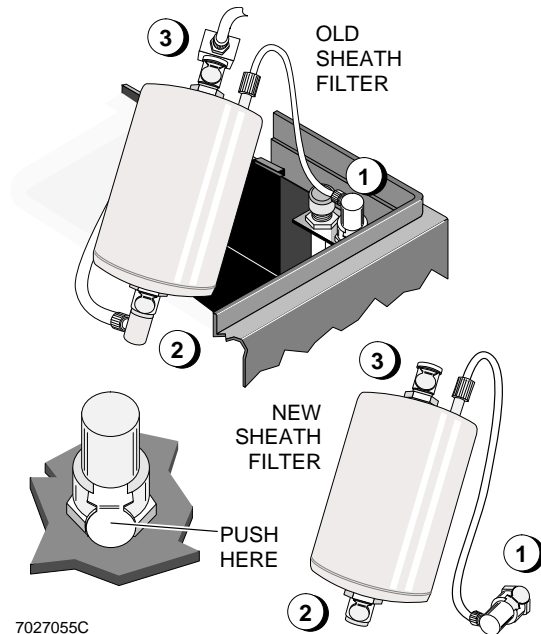
Is the instrument in the Idle mode?	
Yes	No
Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

2. Open the reagent drawer.



CAUTION Damage to the instrument can occur if you do not install the sheath filter correctly. It allows fluid to flow in one direction only. Make sure you install the new sheath filter correctly.

3. Pick up the old sheath filter, and notice how the three tubes are connected. Turn the filter and notice the direction of the arrow on it.
4. Get the new filter and hold it with the arrow going in the same direction as the arrow on the old filter. In the next step, immediately install the new filter to avoid spills.
5. Disconnect and reconnect each tube to the new filter, one at a time, beginning with ①. The tubes are disconnected by pushing in on the metal clips on the connectors. When reconnected, the connectors snap into place.

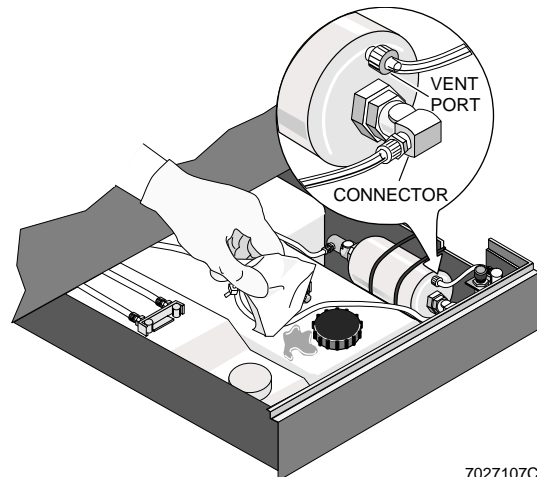


6. Wipe up any spills, and then put the filter in the drawer.



Check that:

- The vent port is above the connector and pointing toward you.
- The tubing is not kinked or twisted.



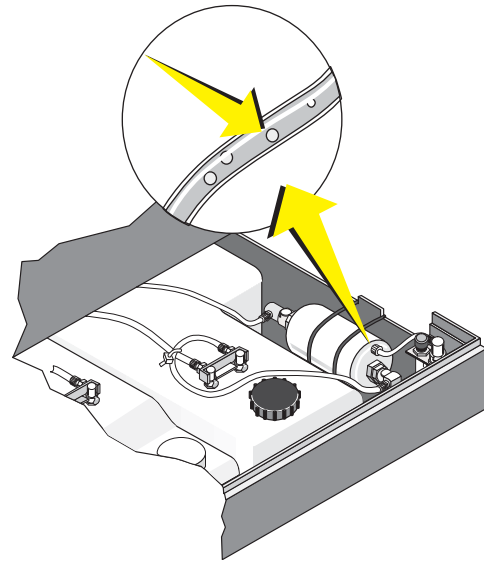
7. Record that the sheath fluid filter was replaced on the QC Maintenance screen. See Appendix B for instructions.

Additional QC	
Clean Vac. Trap	
Reagent Drawer	
Sheath Filter	X
Rep Man Smp Head	
Adj Sys Pressure	

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8.

Are bubbles in the vent tubing?	
Yes	No
Go to Heading 2.4, Venting Air Bubbles	Close the reagent drawer, and press the RUN button. The indicator in the button glows (not glashes) green. Do the quality control procedure in the Startup chapter of the Operator's Guide.



2.8 REPLACING THE MANUAL SAMPLE HEAD

Replace the sample head whenever,

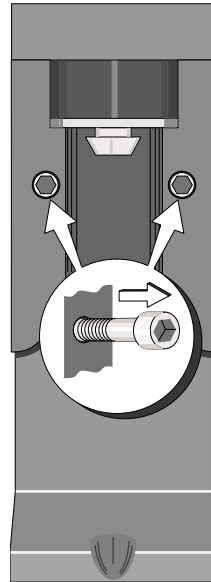
- Sample stage does not go up after a sample tube is inserted and *Insert Sample Tube* is displayed in red on the monitor.
- Sample head silicone seal is cut or nicked.
- Monitor displays *Sample Pressure Error* and system pressure is between 28 and 32 psi.
- You always have to use the PRIME button to start data acquisition.

1.

Is the instrument in the Idle mode?	
Yes	No
Go to step 2.	Press the RUN button. The indicator in the button flashes green. Wait about 10 seconds for the Cytometer to depressurize.

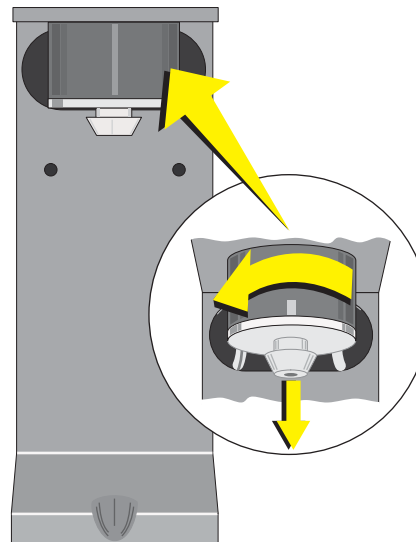
REPLACE/ADJUST PROCEDURES
REPLACING THE MANUAL SAMPLE HEAD

2. At the sample stage, remove the two Allen screws securing the test tube guide around the sample head.
3. Remove the test tube guide and set it aside.

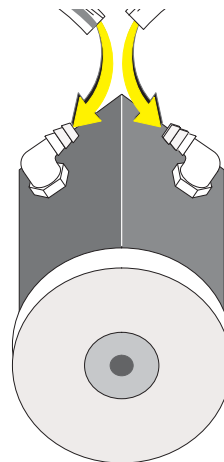


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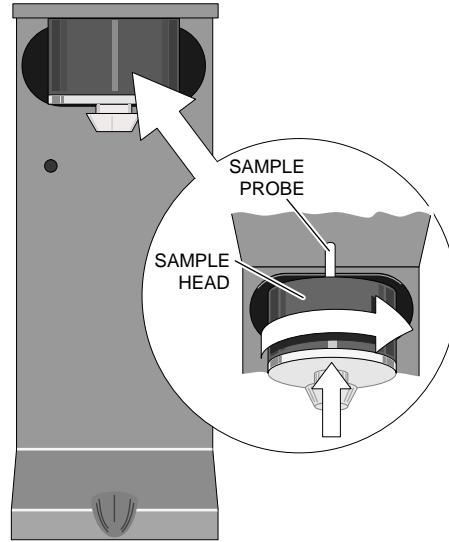
4. Pull down on the sample head while turning it to the left and slide it off the sample probe.



5. Transfer the tubing from the old head to the new head one at a time.

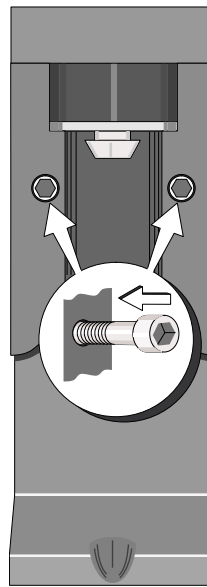


6. Slide the new sample head onto the sample probe and up into the head seat with the tubing facing the back.



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7. Install the test tube guide using the two Allen screws from step 2.



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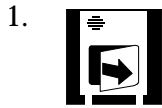
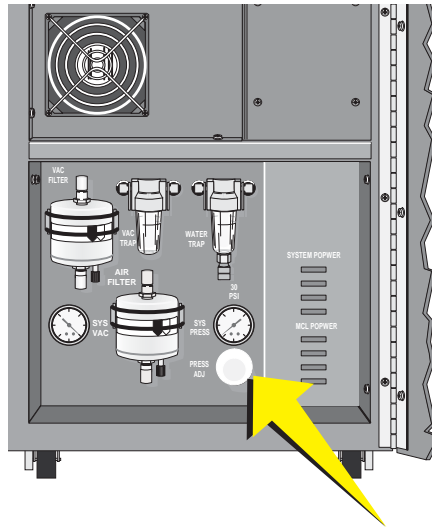
8. Record that the manual sample head was replaced on the QC Maintenance screen. See Appendix B for instructions.

Additional QC	
Clean Vac. Trap	
Reagent Drawer	
Sheath Filter	
Rep Man Smp Head	X
Adj Sys Pressure	

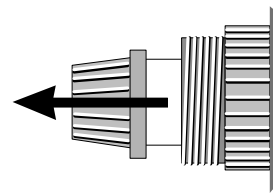
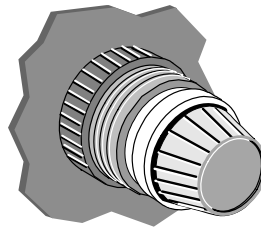
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2.9 ADJUSTING THE SYSTEM PRESSURE

The startup procedure in the Operator's Guide tells you to check the System PRESSure gauge reading on the Power Supply daily. If the reading is not 30 ± 2 psi, follow these steps to adjust it.

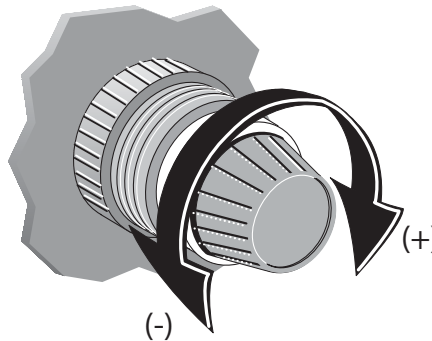


2. Pull the collar around the PRESSure ADJuster out toward you.



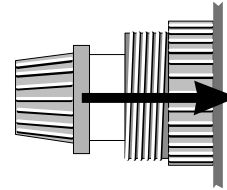
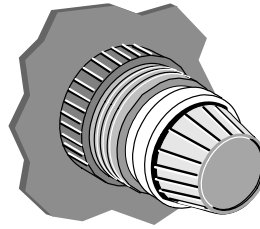
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3. Adjust the pressure to 30 ± 2 psi. Turn to the left to decrease; to the right to increase.



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4. Push in on the collar to lock it into place.



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5. Record that the system pressure was adjusted on the QC Maintenance screen. See Appendix B for instructions.

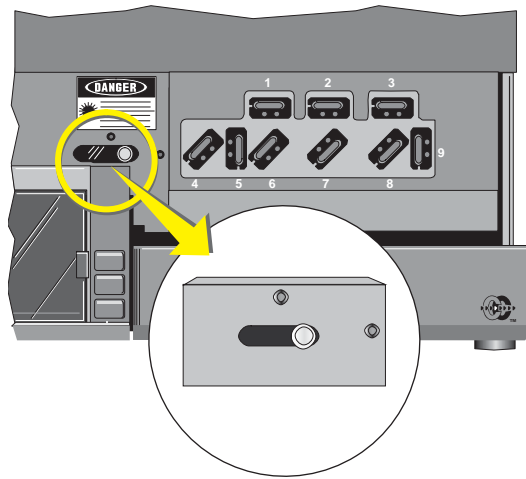
Additional QC	
Clean Vac. Trap	
Reagent Drawer	
Sheath Filter	
Rep Man Smp Head	
Adj Sys Pressure	X

7296031B

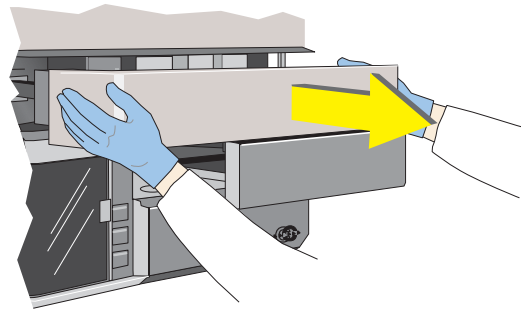
2.10 POSITIONING THE NEUTRAL DENSITY FILTER

If your laboratory primarily analyzes large particles (for example, plant cells), use the neutral density (ND1) filter. You do not need to install it. The filter is already in the Cytometer.

You position the ND1 filter by sliding a spring-loaded knob along a track. When the knob is at the right end of its track, the filter is not used. Follow these steps to position the ND1 filter.

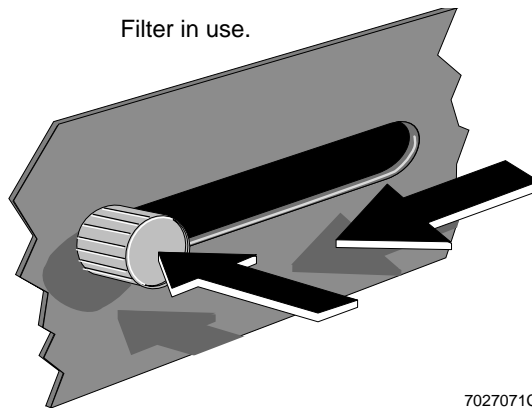


1. Remove the Cytometer center front panel.



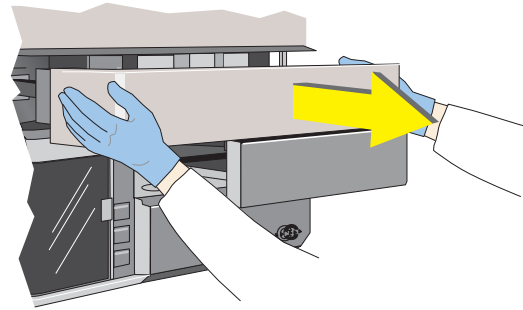
2. Slide the knob all the way to the left end of its track, and then push it in to lock it into position. Do not try to screw the knob in; doing so has no effect.

Filter in use.

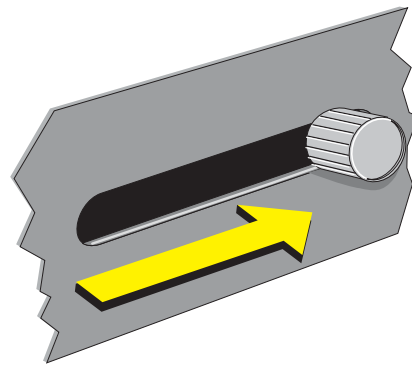


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3. Reposition the Cytometer center front panel. It snaps into place.



4. If you decide to stop using the ND1 filter, pull out on the knob to unlock it, and then guide the knob to the right end of its track.



2.11 RESETTING THE CIRCUIT BREAKERS



Check the indicators on the front of the Power Supply. If any of them are off, follow these steps to reset the appropriate circuit breakers:

1. On the back of the Power Supply, find the circuit breaker that corresponds to the dark indicator on the front:

System POWER Indicator	Circuit Breaker
+5 V	5 VOLTS
+15 V	15 VOLTS
-15 V	15 VOLTS
+24 V	24 VOLTS

MCL POWER Indicator	Circuit Breaker
+5 V	MCL 5 VOLTS
+12 V	MCL 5 VOLTS
-12 V	MCL 5 VOLTS
+24 V	MCL 24 VOLTS

2. Put the circuit breaker in the 0 position, and then return it to the 1 position.



- 3.
4. On the back of the Power Supply, turn off the system and then turn it back on to finish resetting the instrument.

3.1 LEVEL SENSE INDICATORS

Cleanse Low

When the cleanse low indicator is red, fill the cleanse container. You cannot start a cleanse cycle until this is done.

Sheath Low

During sample analysis, you have 5 minutes to finish analyzing the current sample after the indicator starts flashing red.

When the indicator glows red, you must fill the sheath fluid container (refer to Heading 2.2, Replacing Reagents) before you can analyze samples or use the instrument.


Waste Full

During sample analysis, you have 5 minutes to finish analyzing the current sample after the indicator starts flashing red.

When the indicator glows red, you must empty the waste container (refer to Heading 2.6, Emptying the Waste Container) before you can analyze samples or use the instrument.

To Print the Carousel Summary Report

If a full waste container is detected while the last sample in a carousel is being analyzed, the carousel summary report is not printed. To print the report:

 Applications → Acquisition.

 [Alt Save].

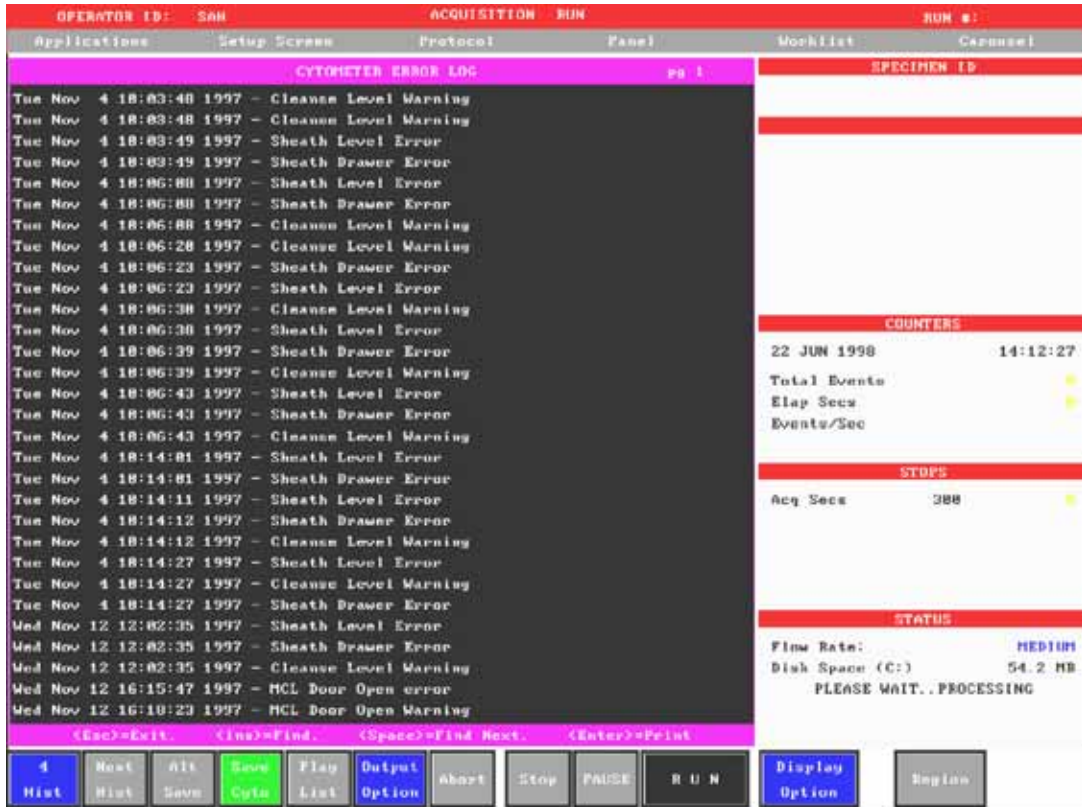
 [Print Carousel Report].

3.2 ERROR MESSAGE LOG

The last 200 error messages from the Cytometer/instrument are stored in the error message log.

Press **P + z** to access the error message log when you are in Acquisition or Listmode.

Use the arrow keys, **ä**, **à**, **â**, and **ã** to move within the error message log and view the messages.



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Searching the Error Message Log

To search for a specific word or phrase listed anywhere in the error message log:

1. Press **P + z** to access the error log.
2. Turn **Ê** Off on the keyboard.
3. Press **à**.
4. In the prompt box, type in the number, word, or phrase to find and press **Û**.
5. The first page containing corresponding entries (highlighted in red) appears.
6. Press **ß** to display the next page with corresponding search entries.

3.3 ERROR MESSAGES

Error messages appear:

- In the center of the Workstation screen, and
- In the lower right corner of the Acquisition Run screen (instrument errors only).
- In the error log, which appears after you press **P** + **Z** . Refer to heading 3.2, Error Message Log, for details.

To acknowledge an error message that appears in the center of the screen:

- Press and release either mouse button, OR,
- Press **U** .

To acknowledge an error message in the lower right corner of the Acquisition Run screen, put the cursor on the message and press a mouse button.

About the Error Messages Table

Table 1 lists the error messages in alphabetical order, with their cause and what to do about them.

Call your Coulter Representative if:

- The recommended action does not solve the problem.
- You need help.

Table 3.1 Error Messages

Message	Cause	Action
<i>%Lymph + %Mono + %Gran + %Blast > 100.0</i>	The sum of these cannot be >100.	Correct the entries so that the sum is ≤100.
A		
<i>A region must first be selected</i>	You tried to do a region operation before selecting a region.	Select a region and then repeat the operation.
<i>All other errors</i>	Errors detected.	Call your Coulter Representative.
<i>All regions are already assigned</i>	You tried to create more than 24 regions.	Delete some existing regions and then create new ones.
<i>Allowable levels: 8 to 65535 or 0 for AUTO</i>	System cannot accept the value entered.	Enter values between the specified range, or 0 for auto scaling.
<i>Amorphous regions not allowed in prism equation</i>	System cannot create a prism divider using an amorphous region.	Assign a nonamorphous region to the prism equation.
<i>Analysis date earlier than DOB</i>	The analysis date is earlier than the date of birth.	Check the dates and correct as needed.
<i>Analysis date-time earlier than Collection date-time</i>	The analysis date and/or time is earlier than the collection date and /or time.	Check the dates and times and correct as needed.
<i>An empty string is not a valid password</i>	A password may not consist of an empty string.	Enter a password by typing a sequence of characters.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>An internal error has occurred</i>	Internal error occurred while initializing the Single or Dual Overlay screen.	<ol style="list-style-type: none"> Exit SYSTEM II Software. Restart SYSTEM II Software. From the Multigraph application, select the desired overlay screen. If error persists, call your Coulter Representative.
<i>Apparent File Load Error</i>	Error occurred when trying to load a Listmode file. A possible corrupted or missing file exists in the directory.	Rebuild directory. OR Reselect file to load.
<i>Autosetup Cycle Terminated</i>	The current Autosetup protocol was aborted. Autosetup cannot be performed.	<ol style="list-style-type: none"> Prime the system. Check the order of the test tubes. Check that cells appear in the Prime region of the histogram. Do not pause for long periods of time while running Autosetup.
B		
<i>Bar Code Printer NOT present or wrong type</i>	System cannot print bar code labels.	<ol style="list-style-type: none"> Ensure the printer is turned ON. Ensure the printer is connected to the correct COM port. Make sure your printer is allowed for use by SYSTEM II software.
C		
<i>Calibrator Region already exists</i>	System can assign only one CAL region per protocol.	Remove the existing Calibrator region and then you can assign a Calibrator to another region.
<i>Cannot assign CALIBRATOR to a Quadstat</i>	System cannot assign a CAL region to a Quadstat.	Reassign the CAL region to a region type other than Quadstat.
<i>Cannot be started -- [name]</i>	Database cannot be started.	Check name of server path.
<i>Cannot convert [name] to a [name]</i>	An invalid value has been supplied to or retrieved from the database.	Change the value that is causing the problem. OR Restart the database.
<i>Cannot find this region</i>	The region identified as the minimum event counter does not exist in the current protocol.	Change the minimum event counter to a region that exists in the current protocol. OR Create a region in the protocol for the minimum event counter.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Cannot get Cytometer ready</i>	Laser defective or not ignited. No vacuum. Incorrect pressure.	See Heading 2.11, Resetting the Circuit Breakers.
<i>Cannot get sample information from MCL</i>	Software error. Bad bar-code label on carousel or sample tube.	Clean the carousel or use a new one. OR Check condition and placement of bar-code label on sample tube.
<i>Cannot open log file [name]</i>	Database engine was not able to open the transaction log file.	Specify the correct device or directory using the DBLOG utility.
<i>Cannot open protocol queue file</i>	File load error. No file. You specified the wrong path.	Specify the correct directories on the Utilities Configuration screen. OR From the File menu, select Rebuild.
<i>Carousel completed ... cannot continue</i>	Current carousel is finished; no more tubes to run.	Restart the current carousel. OR Select a new carousel.
<i>Carousel restart error</i>	The MCL failed to activate the carousel and go to the designated tube.	1. Restart the MCL. 2. If error persists, reset the Cytometer by powering down.
<i>Caution: No histograms were noted</i>	Protocol is missing histograms.	Create histograms.
<i>Channel overflow condition exists</i>	At least one channel in the histogram has more than 65535 events.	None.
<i>Counter not available</i>	You tried to specify more than 3 stop counts.	Delete an existing stop count and then create a new one.
<i>Cleanse Level Error</i>	Low cleaning agent.	Fill cleaning agent container.
	Cleanse sensor failed.	Call your Coulter Representative.
<i>Cleanse Level Okay</i>	There is enough cleanse fluid to perform a cleanse cycle.	None. Informational only.
<i>Cleanse Level Warning</i>	Low cleaning agent.	Fill cleaning agent container.
	Cleanse sensor failed.	Call your Coulter Representative.
<i>Client/server communications protocol mismatch</i>	Client unable to start due to different versions.	Ensure the client and server software are the same version.
<i>Collection date earlier than DOB</i>	You entered a sample collection date that was earlier than the date of birth.	Check the dates and correct as needed.
<i>Com. Port unavailable</i>	COM port used to export files is not functional or is not present.	At the Utilities screen COM port setup, ensure the Workstation has correct COM port.
<i>Comm. complete</i>	Export action was successful.	No action. Informational only.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Communication error</i>	Communication error between client and server.	<ol style="list-style-type: none"> 1. Exit program. 2. Restart program. 3. Ensure server is running correctly.
<i>Confirmation failed</i>	When changing a supervisor password in the Maintenance screen, the user must type in the new password twice. This message indicates that the two times the user typed in the new password, these did not match.	Make sure the new password is typed in the same way both times.
<i>Connection not found</i>	Specified database was not found.	Check environment for correct database name.
<i>Connections to database have been disabled</i>	Database server connections are disabled.	Enable connections at the server.
<i>Counter not available</i>	The system was unable to enable the volume stop, since all counters are currently used.	Free up one of the Counters for use with volume.
<i>Crit [DOS FAT Disk Directory Files] err [Reading Writing] [drive]: [error type]</i>	An operating system critical error occurred during a disk access.	Call your Coulter Representative.
<i>Crit Non Disk err: [error type]</i>	An operating system critical error occurred, but not during a disk access.	<p>Check that the removable disk is in place.</p> <p>If error occurs again, call your Coulter Representative.</p>
<i>Current Worklist may NOT be selected</i>	<p>User tried to select and load a panel named 'Current Worklist'.</p> <p>SYSTEM II Software does not permit loading of this panel. It is created when the user selects a Worklist to run.</p>	Select another panel.
<i>Cyto_change_error</i>	An error occurred while trying to adjust the cytometer voltage, compensation, or discriminator.	<ol style="list-style-type: none"> 1. Repeat operation. 2. If error persists, reset the Cytometer by powering down.
<i>Cytometer communications failure during file load</i>	System unable to send the Cytometer program file to the Cytometer.	<ol style="list-style-type: none"> 1. Restart system software. 2. If error persists, reset the computer then restart the software.
<i>Cytometer error</i>	The Cytometer did not respond. A timeout error occurred.	<ol style="list-style-type: none"> 1. Repeat operation. 2. If error persists, reset the SYSTEM II Software. 3. If error still persists, reset the computer and restart the SYSTEM II Software.
<i>Cytometer program file not found</i>	System unable to find the Cytometer program file.	Ensure the files (*.btI) are under the C:\XL directory or call your Coulter Representative.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Cytometer read cyto state timeout</i>	Cytometer communication error.	At the Workstation turn the system off, and then turn it back on.
D		
<i>Data Memory Problem</i>	Memory failure.	Reset computer. If error persists, call your Coulter Representative.
<i>Data rate error</i>	Data rate too high for Cytometer data handling.	Dilute sample or change discriminator setting. Check that the sheath tank cap is tightened.
<i>Data Rate Warning</i>	The discriminated data rate exceeded 6,000 cells per second.	Dilute sample or change the discriminator setting. Check that the sheath tank cap is tightened.
<i>Data Stream Error</i>	Data acquisition hardware error	Call your Coulter Representative.
<i>Data Stream Okay</i>	Communication between the data acquisition hardware and the Cytometer software has been established.	None. Informational only.
<i>Data Stream Warning</i>	Data acquisition hardware error	Call your Coulter Representative.
<i>Database engine not running</i>	Database engine or network requester has not been run.	Check environment and server.
<i>Database engine not running in multi-user mode</i>	The database was started for bulk load with the '-b' runtime switch.	<ol style="list-style-type: none"> 1. Stop the database by exiting SYSTEM II Software. 2. Restart SYSTEM II Software without the '-b' switch.
<i>Database name required to start engine</i>	No database name was specified.	Specify a database name through the environment.
<i>Database was initialized with an older version of the software</i>	Database is missing some system table definitions of the new version.	<ol style="list-style-type: none"> 1. Unload the database. 2. Reload the database into a database initialized with newer WSQL.
<i>Dbllib/database engine version mismatch</i>	Mismatch between database and engine.	Reload/reinstall correct version of the database.
<i>DEFAULT is a reserved name</i>	DEFAULT is a reserved word within the SYSTEM II Software and cannot be used to save your configuration.	Use a different name than DEFAULT.
<i>Disk full -- transaction rolled back</i>	Disk is out of free disk space.	Remove or archive files which are not needed.
<i>Do not have permission to [name]</i>	Specified user does not have permission to use this database.	Change the user ID or supply the correct level of permission.
<i>Duplicate entry not possible</i>	The system can create only one report for the Acquisition run. An Acquisition entry has been detected in the database.	Generate a Listmode patient report that allows multiple entries.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
E		
<i>Equation(s) exceed defined limitations</i>	Software failure.	At the Workstation turn the system off, and then turn it back on.
<i>ERROR: 2 parameter histograms not allowed</i>	You selected a two-parameter histogram as control or test.	Select a one-parameter histogram.
<i>Error accessing panel file</i>	System unable to add the selected panel to the Worklist.	1. Ensure the directory path is correct. 2. Rebuild the panel directory. 3. Repeat the operation.
<i>Error accessing password</i>	The file containing the supervisor password in the Maintenance screen is either missing or damaged.	First time use of the Supervisor box in the Maintenance screen creates the password file.
<i>Error allocating extended memory</i>	Software cannot allocate extended memory.	At the Workstation turn the system off, and then turn it back on.
<i>Error building WorkList panel</i>	Program could not build Worklist.	1. Ensure all fields in the Worklist screen are correctly filled out. 2. Ensure all entries used have an assigned protocol.
<i>ERROR: Channel resolution of histograms are different</i>	You selected control and test histograms with different resolutions.	Select other control and/or test histograms.
<i>Error creating WorkList LoadList</i>	Program could not create Worklist.	1. Ensure all fields in the Worklist screen are correctly filled out. 2. Ensure all entries used have an assigned protocol.
<i>ERROR! DEFAULT is a reserved name</i>	You entered "Default" as a name.	Enter another name.
<i>ERROR! <your file name> does not exist in this directory!</i>	Software cannot find the named file in the directory.	From File menu, select Rebuild.
<i>Error forming queue</i>	System program error.	Call your Coulter Representative.
<i>ERROR: Histogram Log decades are different</i>	You selected control and test histograms with different log types.	Select other control and/or test histograms.
<i>Error in acquiring</i>	Cytometer could not acquire data.	1. Turn system off at Workstation. 2. Turn the system on again.
<i>Error in entry</i>	System is unable to accept your input.	Enter the correct value.
<i>Error in equation</i>	System unable to compute the equation entered.	1. Verify the validity of the equation. 2. Check that the equation line labels are lower case letter combinations, such as: aa, ab, and so forth.
<i>ERROR IN LOADING DATA</i>	System cannot find the Listmode file. Either it does not exist, it is corrupted, or does not have enough memory to load.	Rebuild the directory or select another file.

Table 3.1 Error Messages (*Continued*)

Message	Cause	Action
<i>Error in loading protocol</i>	Software cannot access protocol file.	From File menu, select Rebuild.
<i>Error in rename listmode file</i>	File write error. Hard disk error	Select Alt Save and repeat save.
<i>Error in sending all the compensation values of the signals</i>	Workstation/Cytometer communication error	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending all the gain settings to Cytometer</i>	Workstation/Cytometer communication error	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending all the pertinent time parameters to Cytometer</i>	Workstation/Cytometer communication error	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending all the signals selected as parameters during acquisition</i>	Workstation/Cytometer communication error.	1. See Heading 2.11, Resetting the Circuit Breakers. 2. At the Workstation, turn the system off. 3. Turn the system on again.
<i>Error in sending compensation to Cytometer</i>	Workstation/Cytometer communication error	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending discriminators to Cytometer</i>	Workstation/Cytometer communication error.	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending ratio's numerator and denominator to Cytometer</i>	Workstation/Cytometer communication error.	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending sample pressure</i>	Workstation/Cytometer communication error.	1. At the Workstation, turn the system off. 2. Turn the system on again.
<i>Error in sending signal with the discriminator set</i>	Workstation/Cytometer communication error.	1. At the Workstation, turn the system off. 2. Turn the system on again. At the Workstation turn the system off, and then turn it back on.
<i>Error in sending signals to Cytometer</i>	Workstation/Cytometer communication error	1. See Heading 2.11, Resetting the Circuit Breakers. 2. At the Workstation, turn the system off. 3. Turn the system on again.
<i>Error in setting Cytometer in the awaiting sample state</i>	Workstation/Cytometer communication error.	At the Workstation turn the system off, and then turn it back on.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Error in writing file</i>	You specified the wrong path. Full disk.	Specify the correct directories on the Utilities Configuration screen. OR Use archive on the Utilities Configuration screen and free up disk space.
<i>Error in writing file, Carousel aborted on tube # [tube number]</i>	System cannot save file to the local path. Possible full disk.	At the Utilities Configuration screen, specify the correct directories. OR Use Archive to free up disk space.
<i>Error in writing file, Current operation aborted</i>	System cannot save file to the local path. Possible full disk.	At the Utilities Configuration screen, specify the correct directories. OR Use Archive to free up disk space.
<i>Error initializing protocol</i>	An internal error initializing the memory for histograms was detected.	<ol style="list-style-type: none"> 1. Exit the SYSTEM II Software. 2. Restart the software. 3. Enter the Multigraph application. 4. If the problem persists, call your Coulter Representative.
<i>Error installing clock interrupt vector</i>	SYSTEM II Software cannot properly initialize itself.	<ol style="list-style-type: none"> 1. Power off the Workstation. 2. Wait a few minutes, then turn the power on again to the Workstation. 3. If error persists, call your Coulter Representative.
<i>Error installing Cytometer interrupt vector</i>	Cytometer interrupt has not been installed correctly.	<ol style="list-style-type: none"> 1. Restart the SYSTEM II Software. 2. If error persists, reset the computer then restart SYSTEM II Software program.
<i>Error installing interrupt [hexadecimal number] handler</i>	SYSTEM II Software cannot properly initialize itself.	<ol style="list-style-type: none"> 1. Power off the Workstation. 2. Wait a few minutes, then turn the power on again to the Workstation. 3. If error persists, call your Coulter Representative.
<i>Error: Invalid path selected</i>	You entered an invalid path.	Enter another path.
<i>Error loading cytometer program file</i>	Software unable to program the Cytometer.	At the Workstation turn the system off, and then turn it back on.
<i>Error loading file</i>	System cannot load the selected file.	<ol style="list-style-type: none"> 1. Repeat the operation. 2. If error persists, then the file is either missing or is damaged.
<i>ERROR LOADING LISTMODE FILE</i>	Program cannot access Listmode file.	From File menu, select Rebuild.
<i>ERROR LOADING PROTOCOL</i>	Program cannot access protocol file.	From File menu, select Rebuild.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>ERROR: Mouse Driver Not Present</i>	No mouse is detected.	Tighten mouse connector. At the Workstation turn the system off, and then turn it back on.
	No mouse driver is installed.	Call your Coulter Representative.
<i>ERROR! Name must not consist entirely of spaces</i>	You entered a name consisting of all blank spaces.	Enter another name.
<i>ERROR: No more entries may be selected</i>	The maximum number of protocols in a panel is 32.	Delete some protocols and then add others.
<i>ERROR: Not enough memory to calculate amorphous statistics</i>	System needs more memory to calculate the statistics for an amorphous region.	At the Workstation turn the system off, and then turn it back on.
<i>ERROR! Possible full disk</i>	Software cannot write information to file.	Specify the correct directories on the Utilities Configuration screen. OR Use archive on the Utilities Configuration screen and free up disk space.
<i>Error reading Carousel file</i>	The Panel Loadlist file could not be read.	1. Ensure that the panel loadlist file exists. 2. Run MCL again.
<i>ERROR! Requested file does not exist in this directory</i>	Software cannot find the file in the directory.	From File menu, select Rebuild.
<i>Error saving file</i>	The System detected an error during the file save operation.	Repeat the operation.
<i>Error stop Cytometer</i>	Workstation/Cytometer communication error	At the Workstation turn the system off, and then turn it back on.
<i>ERROR! Unable to access file</i>	Software cannot load the file.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>ERROR! Unable to access file <your file name></i>	Software cannot load the named file, or the named file is invalid.	Specify the correct directories on Utilities Configuration screen. OR From File menu, select Rebuild.
<i>ERROR! Unable to get the available disk space for the specified drive</i>	Software cannot calculate the available disk space.	At the Workstation turn the system off, and then turn it back on.
<i>ERROR: Unable to receive cytometer's program version</i>	Instrument cannot receive Cytometer program's version.	At the Workstation turn the system off, and then turn it back on.
<i>ERROR! -- Unable to read non-XL protocols!</i>	Instrument can use protocol files created using the XL or XL-MCL flow cytometer software only.	Use a valid protocol.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Error validating your entry</i>	An internal error occurred when creating a minimum counter.	<ol style="list-style-type: none"> 1. Exit SYSTEM II Software. 2. Call your Coulter Representative.
<i>ERROR writing to file [file name]! Possible full disk</i>	Software cannot save information to the named file.	Specify the correct directories on the Utilities Configuration screen and use archive on the Utilities Configuration screen and free up disk space.
<i>Error writing to log file</i>	The database engine receiving an I/O error writing the log file.	<ol style="list-style-type: none"> 1. Ensure the disk is not full. 2. Ensure the log file name is valid.
F		
<i>'Fm__system' not allocated</i>	Internal error.	<ol style="list-style-type: none"> 1. Exit SYSTEM II Software. 2. Call your Coulter Representative.
<i>Fail to close Listmode file</i>	Hard disk error. Full disk.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Fail to close Listmode file, Carousel aborted on tube #[tube number]</i>	Hard disk error. Full disk.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Fail to close Listmode file, Current operation aborted</i>	Hard disk error. Full disk.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Failed to read MCL state</i>	MCL status is unknown.	<ol style="list-style-type: none"> 1. Repeat the operation. 2. If the error persists, power off the Cytometer and restart the SYSTEM II Software program.
<i>Failed to update password</i>	When user attempted to change an old password in the Maintenance screen for a new one, the file could not be found or was damaged.	First time use of the Supervisor box in the Maintenance screen creates the password file. If this is not the case, restart the SYSTEM II Software. If problem persists, get out of the SYSTEM II program and reboot the computer.
<i>Failure to resume panel: [panel name]</i>	MCL could not continue with the current panel.	<ol style="list-style-type: none"> 1. Try to continue with MCL. 2. If the error persists, restart the SYSTEM II Software program.
<i>Failure to resume Protocol: [protocol name]</i>	MCL could not continue with the current protocol. (The MCL was running a single protocol.)	<ol style="list-style-type: none"> 1. Try to continue with MCL. 2. If the error persists, restart the SYSTEM II Software program.
<i>[Filename] does NOT exist</i>	The selected file does not exist under the current directory path.	Ensure the directory path is correct.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>[Filename] does not exist in this directory!</i>	Error opening the current panel file.	<ol style="list-style-type: none"> 1. Exit SYSTEM II Software. 2. Restart the program. 3. If error persists, reboot the Workstation.
<i>File name is <QC file name></i>	The file being translated to a test file (used with a spreadsheet program) is not a QC file.	Check the file to be used as a source file for the translation and make sure it is a QC file (with QCS or QCC extension).
<i>FILE [filename] REMOVED</i>	QC file has been removed.	Rerun panel to re-create the QC file.
<i>File larger than 32768 bytes</i>	File could not be exported or sent through COM port since it exceeded the maximum allowable size.	No action.
<i>File problem</i>	Damaged QC file.	<ol style="list-style-type: none"> 1. Delete the QC file. 2. Rerun the panel to re-create the QC file.
<i>File Write Error [file name]</i>	Damaged QC file.	<ol style="list-style-type: none"> 1. Delete the QC file. 2. Rerun the panel to re-create the QC file.
<i>File Write Error - <QC file name></i>	The QC file currently being updated had a write error.	Run the protocol again. Run the panel if protocol located in a panel. Make sure the QC path is correct and the QC file being processed is located in this path.
H		
<i>Help is not available at this time</i>	No help screens are available yet.	None. Informational only.
<i>High channel value must not be smaller than Low Channel</i>	System cannot accept a numeric region when the High channel value entered is smaller than the Low channel value.	Enter a value within the range indicated.
<i>Host command invalid</i>	The Cytometer software could not process the requested command from the Workstation.	Record an entry into the instrument log.
I		
<i>I/O error [name] -- transaction rolled back</i>	Watcom® SQL has detected a problem with your hard disk.	Check hard disk using the operating system or call your Coulter Representative.
<i>ID must consist of 12 alphanumeric characters</i>	System cannot accept the characters entered.	Enter a valid number consisting of alphanumeric characters.
<i>Ignoring invalid regions</i>	When editing an equation, an invalid region has been entered.	Verify that the equation entered is the required equation.
<i>Illegal Cytometer state</i>	Cytometer error.	At the Workstation turn the system off, and then turn it back on.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Initializing Empty Template</i>	Program did not find a template for this panel.	If this is a new template, just press  to acknowledge the message. If trying to load an existing template, try rebuilding the directory.
<i>Insufficient memory available</i>	System needs more memory.	At the Workstation turn the system off, and then turn it back on.
<i>Insufficient memory for dialog box</i>	An internal error occurred.	Exit SYSTEM II Software program and call your Coulter Representative.
<i>Insufficient memory for listmode replay</i>	System needs more memory to replay Listmode data	At the Workstation turn the system off, and then turn it back on.
<i>Insufficient memory to load file</i>	System needs more memory to load Listmode data.	On the Utilities Configuration screen, toggle Color to off. OR In the Listmode/Protocol screen, reduce the histogram resolution. OR Add more memory to your computer.
<i>Insufficient memory to load maintenance</i>	The data located in the Maintenance screen could not be loaded from its file because there was not enough memory available.	Exit the SYSTEM II program and reboot the computer.
<i>Insufficient space on [drive] : [number of bytes] bytes free! [number of bytes] bytes selected!</i>	More space is needed on destination disk drive to copy or move files.	Remove files from the target drive.
<i>Internal database error [name] --transaction rolled back</i>	Watcom SQL detected a problem.	Report this problem to Watcom and/or your Coulter Representative.
<i>INTERNAL System ERROR: Invalid application specified</i>	Software error.	At the Workstation turn the system off, and then turn it back on.
<i>Invalid count value</i>	You entered an invalid histogram stop count.	Enter a valid stop count.
<i>Invalid database engine command line</i>	It was not possible to start the database engine.	Executable file could not be found. Check environment variables.
<i>Invalid equation string</i>	You entered an invalid histogram equation.	Enter a valid histogram equation.
<i>Invalid Loadlist Attributes changed in [panel name]</i>	The Panel you want to continue has been modified.	Reload the Panel.
<i>Invalid Loadlist Error accessing panel [panel name]</i>	System could not open the specified panel.	From File menu, select Rebuild.
<i>Invalid Loadlist Error opening panel [panel name]</i>	File access error.	From File menu, select Rebuild.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Invalid Loadlist Panel size changed in [panel name]</i>	The Panel size you want to continue has been modified (protocols have been added or deleted).	Reload the Panel.
<i>Invalid Loadlist Protocol changed in [panel name]</i>	The Panel you want to continue has been modified. A protocol has been changed.	Reload the Panel.
<i>Invalid Name. Must be other than blank characters.</i>	You entered a name consisting of blank spaces.	Enter another name.
<i>Invalid operator id! Range: (A to Z) and (0 - 9)</i>	System cannot accept the entered characters.	Enter a valid operator ID.
<i>Invalid path selected</i>	System cannot process the entered path.	Enter a valid path.
<i>Invalid region id</i>	The Region ID entered does not exist in the current protocol.	Specify a region that exists in the current protocol or create a new region.
<i>Invalid region index. Call for service.</i>	Software error.	At the Workstation turn the system off, and then turn it back on.
<i>Invalid user id or password</i>	User has supplied an invalid user ID or password.	Enter a valid user ID or password.
<i>Invalid value for column '[name]' in table '[name]'</i>	The specified value violates a CHECK constraint.	Enter the correct value.
L		
<i>Laser Current Error</i>	The amount of current required by the laser is outside the expected range.	Call your Coulter Representative.
<i>Laser Current Okay</i>	The amount of current required by the laser was outside the expected range but is okay now.	Call your Coulter Representative.
<i>Laser Power Error</i>	The amount of laser light power is outside the instrument's operating range.	Call your Coulter Representative.
<i>Laser Power Okay</i>	The amount of laser light power was outside the instrument's operating range but is okay now.	Call your Coulter Representative.
<i>Laser Regulation Warning</i>	The laser light power is fluctuating.	Call your Coulter Representative.
<i>Laser Start Error</i>	The laser failed to start within 120 seconds.	Record an entry in the instrument log. Power the instrument off then on. If problem persists, call your Coulter Representative.
<i>Last and only entry in <QC file name> was erased. File was removed. Erase corresponding entry in the QCS/QCC file.</i>	After running an _A, _C, or _Q type protocol, the user erased the last entry after the protocol finished running.	This message tells the user that the QC file had only one entry and since it was erased, the QC file was deleted. For _A and _C erase the QCS file (baseline) and for _Q erase the QCC file.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>LAST ENTRY ERASED IN [file name]</i>	Last entry in QC file has been erased.	None.
<i>Last entry in <QC file name> was erased. Erase corresponding entry in the QCS/QCC file.</i>	After running an _A, _C or _Q type protocol, the user erased the last entry after the protocol finished running.	Erase the corresponding entry in the matching QC file. For _A and _C erase the QCS file (baseline) and for _Q erase the QCC file.
<i>Less than 1 megabyte of disk space available</i>	Less than 1 megabyte of disk space available on C: drive.	Use archive, delete, or move on the Utilities Configuration screen and free up disk space.
<i>Less than 4 megabytes of disk space available</i>	There is a shortage of disk space available for saving new files for MCL run.	Use archive, delete, or move on the Utilities Configuration screen and free up disk space.
<i>Less than 20 megabytes of disk space for MCL</i>	There is a shortage of disk space available for saving new files for MCL run.	Use archive, delete, or move on the Utilities Configuration screen and free up disk space.
<i>LISTMODE FILE NOT FOUND</i>	The system cannot find the selected Listmode file.	Specify the correct directories OR From File menu, select Rebuild.
<i>Log file corrupted</i>	Log file for this database is corrupted.	Delete the log file which pertains to this database.
M		
<i>Maximum is Eight Parameters</i>	The system cannot process more than eight parameters.	Select no more than eight parameters.
<i>May NOT archive to a root directory</i>	The system cannot Archive to the root directory.	Change the archival directory.
<i>MCL Carousel Homing Error</i>	Carousel did not go to home position.	Check that there is no obvious obstructions (sample tube) in the MCL area. If no obstruction is found, call your Coulter Representative.
<i>MCL Carousel In/Out Error</i>	Carousel did not move when requested to.	Check that there is no obvious obstructions (sample tube) in the MCL area. If no obstruction is found, call your Coulter Representative.
<i>MCL Carousel Label Error</i>	MCL did not read carousel bar-code label.	Check that the bar-code label is not torn or written on. Try using another carousel. If problem persists, call your Coulter Representative.
<i>MCL Carousel Rotate Error</i>	Carousel did not rotate correctly	Check that there is no obvious obstructions (sample tube) in the MCL area. If no obstruction is found, call your Coulter Representative.
<i>MCL CPU error</i>	MCL hardware error.	Call your Coulter Representative.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>MCL Door Open Error</i> <i>MCL Door Open Warning</i>	MCL door is open while the MCL is in use.	Close MCL door.
<i>MCL EPROM Error</i>	MCL hardware error.	Call your Coulter Representative.
<i>MCL Error</i>	MCL hardware error.	Call your Coulter Representative.
<i>MCL Interlock Error</i>	The MCL Interlock is open while the MCL is in use.	Call your Coulter Representative.
<i>MCL Parallel Recv Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Parallel Send Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Probe Up/Down error</i>	MCL sample probe did not move when requested to.	Call your Coulter Representative.
<i>MCL Program Load Error</i>	An MCL hardware error.	Call your Coulter Representative.
<i>MCL RAM Error</i>	An MCL hardware error.	Call your Coulter Representative.
<i>MCL Rec from Fault</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Receive Timeout</i>	An MCL communication error.	Call your Coulter Representative.
<i>MCL Request Error</i>	Communication error between the Cytometer and the MCL.	Record an entry into the instrument log. Power the instrument off then on. If problem persists, call your Coulter Representative.
<i>MCL Serial 1 Recv Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Serial 1 Send Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Serial 2 Recv Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Serial 2 Send Error</i>	An MCL communications error.	Call your Coulter Representative.
<i>MCL Transmit Timeout</i>	An MCL communication error.	Call your Coulter Representative.
<i>MCL Tube Displaced Error</i>	Tube is positioned incorrectly.	Call your Coulter Representative.
<i>MCL Tube Jam Error</i>	Tube is stuck in the MCL.	Call your Coulter Representative.
<i>MCL Tube Load Error</i>	Bad seal between the MCL sample probe guide and sample tube.	Put sample in another tube.
<i>MCL Tube Position Error</i>	MCL did not rotate to the correct tube position or there was an error reading the position bar code on the carousel.	Call your Coulter Representative.
<i>MCL Tube Up/Down Error</i>	Unable to load or unload the sample tube from the MCL sampling position.	Check that the labels on the sample tubes are secure and are not adhering to the walls of the carousel. If problem continues, call your Coulter Representative.
<i>MegaPanel cannot exceed 32 entries; Panel not copied.</i>	The maximum number of protocols in a panel is 32.	Delete some protocols to avoid exceeding maximum number of 32.
<i>Memory unavailable</i>	Unable to allocate memory to allow export action to take place.	Exit SYSTEM II Software then restart program. If error persists, reboot Workstation.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Missing Protocol(s). Panel is not loaded.</i>	Protocols are missing from Panel being loaded.	Ensure all protocols are present in the panel/protocol directory.
<i>Must be greater than previous level [n]</i>	You entered a smaller scaling value than the previous one.	Enter a larger scaling value.
<i>Must enter RBC or WBC to save Hematology info</i>	To save hematology information to the database, the RBC and WBC fields must not be empty.	Enter correct value.
<i>Must first select a histogram to redisplay</i>	You tried to redisplay an unspecified histogram.	Select a histogram first.
<i>Must first select a histogram to rescale</i>	You tried to rescale an unspecified histogram.	Select a histogram first.
<i>Must RESTART after cyto adjust. Run aborted</i>	Adjustments were made without restarting Acquisition. Current run is aborted.	1. Restart acquisition after making adjustments to the Cytometer. 2. Click on the RESTART button.
<i>Must select panel to edit template!</i>	To edit a template, first select a panel/template.	Select a panel/template.

N

<i>[Name] may NOT be selected</i>	Worklist megapanel may not be loaded directly.	Select Worklist.
<i>[Name]' is an unknown user id</i>	User has specified an unknown user ID.	Specify correct user ID.
<i>Name must not consist entirely of spaces. DEFAULT is a reserved name.</i>	The system cannot process a name consisting of blank spaces.	Enter another name.
<i>Need a file name to save (Select 'Save As' for new file)</i>	A new Worklist must be given a name when attempting to save.	Use the 'Save As' operation in order to assign a name to a new Worklist.
<i>No available counters</i>	When trying to create a minimum counter, there were no spare counters available	Disable a histogram stop, time or volume stop.
<i>No changes allowed while in Listmode</i>	You tried to make a change while in Listmode data analysis.	None. Informational only.
<i>No disk space on this device</i>	Disk full or not accessible.	Check device to see if media is write protected or media is missing.
<i>No histograms were noted</i>	Protocol has missing histograms.	Create histograms.
<i>No listmode results to display</i>	You tried to display a histogram before replaying Listmode.	Replay the Listmode data first.
<i>No more entries may be selected</i>	The maximum number of protocols in a panel is 32.	Delete some protocols to avoid exceeding maximum number of 32.
<i>No more than 8 signals may be chosen as parameters.</i>	You selected more than 8 signals as parameters.	Deselect some signals and then select others.
<i>No more prism parameters can be assigned</i>	The prism equation can only accept 4 parameters.	Reduce the number of prism parameters to assign a new one.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>No parameter selected</i>	You tried to acquire data before selecting any parameters.	Select parameters first.
<i>No reports queue has been selected.</i>	Queue has not been selected.	Change directory or select a report.
<i>No template possible for Loadlist</i>	A patient report template cannot be created for a Worklist which has more than one primary.	Define a patient report template for the individual panels in the Worklist.
<i>No valid baseline file</i>	The QC baseline file (QCS) was not found.	Rerun _A protocol or QC panel to re-create QCS file.
	The QC baseline file (QCS) required by the protocol does not exist.	Rerun the QC protocol. Run the QC panel if the protocol is located in a panel. Make sure the QC path is correct and the QC file being processed is located in this path.
<i>No valid histogram files were found</i>	You specified the wrong path No directory files.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>No valid histograms were noted</i>	No histograms were detected in the current protocol.	Create new histograms.
<i>No valid listmode files were found</i>	You specified the wrong path No directory files.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>No valid protocol files were found</i>	You specified the wrong path No directory files.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>No valid Specimen ID</i>	The system could not enter the Specimen ID into the database.	Enter a valid Specimen ID.
<i>Not a valid region</i>	The system cannot accept a Quadstat region for the minimum event counter.	Select a linear, rectilinear, or an amorphous region.
<i>Not connected to SQL database</i>	You have not connected correctly to the database.	Check environment and connect correctly.
<i>Not enough memory to calculate amorphous statistics</i>	System needs more memory to calculate the statistics for an amorphous region.	At the Workstation, turn the system off, and then turn it back on.
<i>Not enough memory to start</i>	The database engine loaded, but there was not enough memory for it to run.	Free some conventional memory by unloading any non-XL programs that you have loaded into the MS-DOS operating system prior to starting the XL software.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Not enough space for COPY</i>	There are insufficient data entry lines on the Worklist to copy the selected panel.	Ensure that the selected panel(s)'s protocols do not exceed the number of available data entry lines.
<i>Not enough space for MOVE</i>	There are insufficient data entry lines on the Worklist to move the selected panel.	Ensure that the selected panel's protocols do not exceed the number of available data entry lines.
<i>Not enough space to add panel</i>	There are insufficient entry lines in Worklist for the selected panel to be added.	Ensure that the selected panel's protocols do not exceed the number of available data entry lines. Add the panel to another area of Worklist or make room by rearranging the existing panels in the Worklist.
<i>Not Yet Implemented</i>	An internal error has occurred.	Exit SYSTEM II Software and call your Coulter Representative.
O		
<i>Only one more prism parameter can be assigned</i>	The system can only accept 4 prism parameters. 3 are already assigned.	Assign one more parameter to prism or edit the current equation.
<i>Operator ID: <operator ID> is already assigned</i>	When assigning an operator ID to one of the operator ID boxes in the Maintenance screen (located to the right of the QC Maintenance table) one of these boxes already contained that ID.	Either assign a different operator ID or change the ID in the box that is in conflict with ID being assigned.
<i>Out of MEMORY printing cytosettings</i>	SYSTEM II Software could not print the cytosettings due to insufficient memory.	Exit SYSTEM II Software and call your Coulter Representative.
<i>Out of range</i>	The system cannot process the entered value.	Enter a value within the correct range.
<i>Out of range: 0 - 9,999,999</i>	The system cannot process the entered value.	Enter a value within specified range.
P		
<i>Panel contains deleted protocols or Error accessing panel file.</i>	The selected panel contains the name of protocols that are not present under current directory path.	Edit the Panel to include Protocols in the current directory or copy the required protocols into the current directory.
<i>Panel has auto setup protocols</i>	Panel contains protocols whose user name starts with an underscore "_". These are protocols used for Autosetup and may not be run in a Worklist.	Select protocols that are NOT Autosetup. That is, they do not begin with an underscore "_".
<i>Panel has been modified since last MCL run</i>	The system has detected a modified panel since the last MCL run.	The system restarts the panel from the beginning.
<i>[Panel name]: Invalid panel selected</i>	You selected an invalid panel.	From File menu, select Rebuild.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>[Panel name]: Invalid panel selected [deleted protocol]: Protocol is deleted.</i>	Occurs when a panel is selected and a protocol is missing from that panel.	Ensure that all protocols within the panel are present in the selected directory.
<i>Panel needs to be saved first</i>	When adding a panel to a panel, if the current panel on the screen has been modified but not saved, save the panel before adding to it.	When adding a panel to a panel, ensure that you save the current panel before adding another to it.
<i>Panel was edited, save before exiting</i>	Occurs when the user attempts to exit the panel screen after modifying a panel but not saving it.	To save the changes to the panel, use Save to overwrite the current panel or Save As to save to a new panel. To restore the panel, select the Restore button at the bottom of the screen.
<i>Panel: [panel name], NOT found</i>	The current panel file does not exist or is corrupted.	From File menu, select Rebuild, or select another file.
<i>Parameters are not present</i>	Parameters are missing from protocol.	Create the protocol again.
<i>Parameters are not present, Carousel aborted on tube # [tube number]</i>	Parameters are missing from the current loaded protocol in the panel.	Recreate the protocol.
<i>Password was changed</i>	The user successfully changed the old supervisor password in the Maintenance screen for a new one.	None. Informational only.
<i>Patient ID minimum of 5 characters</i>	The system is unable to accept a Patient ID that is less than 5 characters.	Enter a Patient ID that is at least 5 characters long.
<i>Possible full disk</i>	Program cannot write information to file.	Specify the correct directories on the Utilities Configuration screen. OR Use archive on the Utilities Configuration screen and free up disk space.
<i>Printer busy</i>	Printer is busy.	Check Printer for error message. OR Wait. OR At the Workstation turn the system off, and then turn it back on.
<i>Printer error</i>	Printer is out of order.	Check Printer for error message. OR At the Workstation turn the system off, and then turn it back on.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>PRINTER NOT READY!</i>	Printer is not on-line or is out of paper.	Put Printer on-line or add paper as needed. Check Printer for error message. OR At the Workstation turn the system off, and then turn it back on.
<i>Printer out of paper</i>	Printer paper tray is empty.	Add paper.
<i>Prism parameters coexist. Dividers are set to lower letter regions</i>	Two Quadstat regions have common parameter.	None.
<i>Protocol not valid</i>	You created an invalid protocol.	Create another protocol.
Q		
<i>QC Lot# could not be read from <QC file name></i>	The Lot# located in the header of the QC file being updated by the currently running protocol could not be opened. File was not found or was damaged.	Run the protocol again. Run the panel if the protocol is located in a panel. Make sure the QC path is correct and the QC file being processed is located in this path.
<i><QC file name> was updated</i>	The named QC file was updated with the data as presented in the Data Table. All entries marked (yellow) or entries marked as deleted (purple) are also marked in the QC file.	N/A.
<i><QC file name> will be renamed to <QC file name></i>	This error message is due to a mismatch between the Lot #'s located in the QC protocol (a protocol with an underscore "_") and its corresponding QC file. The message states that this file will be renamed to another name. The first file will then be reset and the Lot # from the protocol added to it. The results of the protocol run will then be added to this file. The renamed file will contain all the entries corresponding to the old Lot#.	Make a note for your records of the new name that the system gives the QC file. Be sure to record the Lot # corresponding to this QC file for future reference.
<i>Quadstat regions not allowed in this equation</i>	A quadstat region cannot be used as a gating region.	Refer to the Getting Started manual for more details on gating regions.
R		
<i>RAM memory is full</i>	No more RAM memory available to acquire more data.	On the Utilities Configuration screen, toggle Color to off. OR On the Protocol screen, reduce the histogram resolution. OR Add more memory to your computer.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Read Cyto State timeout</i>	The Workstation timed out while waiting for the Cytometer to send state information.	Repeat operation. If error persists power OFF the Cytometer then restart the SYSTEM II Software program.
<i>Rectilinear regions not allowed in prism equation</i>	The system cannot assign a rectilinear region to a prism equation.	Change region type and re-create region to assign a region to a prism equation.
<i>Region already erased</i>	You tried to erase a region that no longer exists.	Check cursor mode.
<i>Region does not exist</i>	You are selecting a region that does not exist.	Select a region that exists.
<i>Region undefined. May only edit defined regions.</i>	You tried to edit an unspecified region.	Create a region before edit.
<i>Region with PRISM, TIME, AUX not allowed in prism</i>	Parameter PRISM, TIME and AUX cannot be selected as a prism parameter.	Do not assign the region to prism equation.
<i>Replay Not Active</i>	You pressed  during Listmode data analysis, but were not acquiring data.	None.
<i>Replaying Data For Listmode Files Saved</i>	Replaying the Listmode saved for post carousel report.	None.
<i>Requested file does not exist in this directory</i>	Program cannot find the file in the directory.	From File menu, select Rebuild.
<i>Restarting MCL because: Did not find panel [panel file] in current directory</i>	The MCL was not able to continue because the panel it ran last could not be found in the directory of the panel's local path.	Rebuild panel directory before starting MCL.
<i>Restarting MCL because Failed to access carousel file (entry [carousel entry num])</i>	The MCL could not continue because the Carousel file could not be read or it was damaged.	Load the panel again and run using the MCL.
<i>Restarting MCL because: Failed to access carousel file (entry 33)</i>	The MCL could not continue because the last entry of Carousel file containing the panel name, could not be read.	Load the panel again and run using the MCL.
<i>Restarting MCL because: Failed to get info about panel [panel file]</i>	The MCL could not continue because the named panel could not be found.	Rebuild panel directory and load and run the panel again.
<i>Restarting MCL because: Failed to open panel [panel file]</i>	The MCL could not continue because the named panel although found could not be opened.	Rebuild panel directory and load and run the panel again.
<i>Restarting MCL because: MCL/Panel attribute mismatch at entry [carousel entry num]</i>	The MCL could not continue because the attributes of the protocol in the panel did not match the attributes of the corresponding protocol in the Carousel file at the given entry number.	The only choice is to reload the panel or run the panel from the beginning using the MCL.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Restarting MCL because: MCL/Panel panel name mismatch at entry [carousel entry num]</i>	The MCL could not continue because the panel name corresponding to the protocol at the given entry in the Carousel file is different from the corresponding entry in the panel file.	The only choice is to reload the panel or run the panel from the beginning using the MCL.
<i>Restarting MCL because: MCL/ Panel protocol mismatch at entry [carousel entry num]</i>	The MCL could not continue because the protocol name at the given entry in the Carousel file is different from the corresponding entry in the panel file.	The only choice is to reload the panel or run the panel from the beginning using the MCL.
<i>Restarting MCL because: Num of protocols in [panel file] was changed</i>	The MCL could not continue because the number of protocols recorded in Carousel file corresponding to the panel at the time it was run is different from the number of protocols in the panel as is now.	The only choice is to reload the panel or run the panel from the beginning using the MCL.
<i>Run time SQL error -- [name]</i>	Watcom SQL has detected a problem.	This problem should be reported to Watcom and/or your Coulter Representative.
S		
<i>Sample Pressure Error</i>	There may be a leak caused by a bad sample tube or a bad sample head.	Inspect sample tube and sample head for damage. Change as required. See Heading 2.8, Replacing the Sample Head.
	Bad regulator or tubing.	Call your Coulter Representative.
<i>Sample Pressure Okay</i>	The sample pressure was outside the system's operating range but is okay now.	None.
<i>Sample pressure warning</i>	Sample tube not pressurized because it is bad.	Put sample into another tube.
<i>Sample Stage Error</i>	The manual sample stage failed to move.	Call your Coulter Representative.
<i>Sample Tube Error</i>	On Restart or Continue after Pause, the system could not sense a sample tube in the sample stage.	Reinsert the sample tube.
	The system sensed a sample tube but after raising the sample stage it could no longer sense one.	Remove then reinsert the sample tube.
	The system cannot run a cleanse cycle because there is a sample tube in the sample stage.	Remove the sample tube from the sample stage.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Seek error [record #] or [offset #]</i>	Damaged QC file.	Delete QC file and allow program to recreate it.
	The record number located at the given offset could not be obtained.	Rerun the protocol. Run the panel if the protocol is located in a panel. Make sure the QC path is correct and the QC file is located in this path.
<i>Selected panel not loaded into memory</i>	System was unable to load the selected panel in memory due to file access problems.	Rebuild your directory and try selecting the file again. If the error still occurs, you may have a corrupted file.
<i>Selected Region is not in specified histogram</i>	Selected region is not part of a histogram.	Call your Coulter Representative.
<i>Selected signal cannot be a CALCULATED parameter</i>	You tried to assign RATIO or TIME as the numerator or denominator for the RATIO parameter.	Select other signals.
<i>Selected signal must be a parameter</i>	You tried to assign an unselected signal to the numerator or denominator for the RATIO parameter.	Select the signal as a parameter first.
<i>Selection, edit or erase of ratio not allowed under listmode</i>	You tried to select, edit, or erase the RATIO parameter while doing Listmode data analysis.	None.
<i>Selection or erase of signals not allowed under listmode</i>	You tried to select or erase parameters while doing Listmode data analysis.	None.
<i>Sensor data stream error</i>	Data acquisition hardware error.	Call your Coulter Representative.
<i>Sensors Stream Warning</i>	There was an error in the communication of the instrument operating data packet from the acquisition hardware to the Cytometer software.	Record an entry into the instrument log.
<i>Server/database engine version mismatch</i>	Your version of the database server software is not compatible with your version of the database engine.	Load the correct client and server software combinations.
<i>Set Idle Mode Cmd timeout</i>	The Workstation timed out while waiting for the Cytometer to enter idle state.	Repeat operation. If error persists, power OFF the Cytometer then restart the SYSTEM II Software program.
<i>Set sample pressure fail</i>	Cytometer communication error.	At the Workstation turn the system off, and then turn it back on.
<i>Sheath Drawer Error</i>	Reagent drawer is open.	Close reagent drawer completely.
<i>Sheath Drawer Okay</i>	The drawer containing the sheath tank was open but now is closed.	None. Informational only.
<i>Sheath Drawer Warning</i>	Reagent drawer is open.	Close reagent drawer completely.
<i>Sheath Level Error</i>	There is not enough sheath fluid for further sample analysis.	Fill sheath container.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>SHEATH LEVEL LOW! Add fluid. When cyto is READY, press Run</i>	Low sheath fluid or sheath sensor failed.	Fill sheath container. If the sheath container is full but the error still occurs, call your Coulter Representative.
<i>Sheath Level Okay</i>	There was a sheath level warning or error, but the level is alright now.	None.
<i>Sheath Level Warning</i>	The first time this message is displayed, there is enough sheath fluid for about 5 minutes of sample analysis.	Fill the sheath container. See Heading 2.3, Filling the Sheath Fluid Container.
	The second time this message is displayed, there is enough sheath fluid for about 4 minutes of sample analysis.	
	Sheath sensor failed.	If the sheath fluid container is full but the error still occurs, call your Coulter Representative.
<i>Sheath Pressure Error</i>	The sheath pressure was outside the system's operating range.	Check sheath and cleanse tank caps for tightness. Call your Coulter Representative.
<i>Sheath Pressure Okay</i>	The sheath pressure was outside the system's operating range but is okay now.	Check sheath and cleanse tank caps for tightness. Call your Coulter Representative.
<i>Sheath Pressure Warning</i>	Connectors on sheath container are loose.	Tighten connectors.
	Sheath container cap loose	Tighten cap.
<i>Signal is already not used as a parameter</i>	Signal is not being used.	Check cursor mode and select another signal.
<i>Signal is already used as a parameter</i>	Signal is being used.	Check cursor mode. OR Select another signal.
<i>Skipping a queued file due to error</i>	Invalid file format.	From the File menu, select Rebuild.
<i>Skipping queued file [file name] due to error.</i>	Erroneous entry detected while rebuilding and checking directory queue. The entry is automatically discarded.	None.
<i>Software Failure</i>	Cytometer software failure.	Record an entry in the instrument log. Power the instrument off then on.
<i>Specified database is invalid</i>	The specified database is invalid.	Specify the correct database. Check the environment.
<i>Specified database not found</i>	The database engine was started but the database cannot be found.	Check the specified path of database or server.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Specimen ID change NOT allowed</i>	Editing of Spec ID not allowed if call came from patient report pop-up.	Do not modify the specimen ID.
<i>State Machine Failure</i>	Cytometer software failure.	Record an entry in the instrument log. Power the instrument off then on.
<i>Statement interrupted by user</i>	The user aborted a statement during its execution.	The database stops the command without doing a rollback.
<i>String must be NUMERIC if longer than 8 characters</i>	The tube ID consisted of more than eight alphanumeric characters.	Enter only numeric characters if tube ID is longer than 8 characters.
<i>System Pressure Error</i>	Pressure line is not connected between the power module and the Cytometer.	Connect the power line.
	The pressurized air supply is outside the system's operating range.	<ol style="list-style-type: none"> 1. Go to the Ready State, then check that the system pressure is 30 psi. 2. Run a sample and monitor the system pressure. If the system pressure drops below the range specified in the instrument manual, then call your Coulter Representative.
<i>System Pressure Okay</i>	The pressurized air supply was outside the instrument's operating range but is okay now.	<ol style="list-style-type: none"> 1. Go to the Ready State by being in the Run mode and selecting a protocol or panel. Check that the system pressure is 30 psi. 2. Run a sample and monitor the system pressure. If the system pressure drops below the range specified in the instrument manual, then call your Coulter Representative.
<i>System Pressure Warning</i>	Pressure is low.	<p>Check that:</p> <ol style="list-style-type: none"> 1. WATER TRAP on front of Power Supply is tight. 2. Blue connectors on back of Power Supply and Cytometer are tight, and attached hose is intact. 3. No tubing is pinched.
<i>System Vacuum Error</i>	Liquid in the vacuum trap.	Check that the vacuum trap (on the front of the Power Supply) is tight and is less than 1/4 full of fluid. If it is more full, empty it (see Heading 1.8, Cleaning the VAC TRAP).
	Vacuum line is not connected between the power module and the Cytometer.	Connect the vacuum line.
	Hardware problem.	Call your Coulter Representative.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>System Vacuum Okay</i>	The vacuum supply was outside the instrument's operating range but is okay now.	None.
T		
<i>TARGET HISTOGRAM INCOMPATIBLE</i>	When attempting to copy a region, the destination histogram is not compatible with the source histogram [number of parameters must be the same].	Ensure that the number of parameters in the destination histogram match the source histogram.
<i>TARGET HISTOGRAM MUST BE DIFFERENT</i>	You attempted to copy a region onto the same histogram.	Select a different histogram to be the destination histogram OR use the region create function to create another region on the same histogram.
<i>Temperature Error</i>	Temperature inside Cytometer has risen above 60°C.	Clean your air filters. If problem continues, call your Coulter Representative.
<i>Temperature Okay</i>	The temperature inside the instrument went too high but now it is back in the normal range.	Call your Coulter Representative.
<i>Temperature Sensor Failure</i>	Temperature sensor failure.	Call your Coulter Representative.
<i>Temperature Warning</i>	Temperature inside Cytometer is above 50°C.	Clean your air filters. If problem continues, call your Coulter Representative.
<i>TERMINAL ERROR IN System! Press the Enter key to exit program.</i>	Hardware failure.	At the Workstation turn the system off, and then turn it back on.
<i>Terminated by user -- transaction rolled back</i>	The user aborted a command while the database was running.	A ROLLBACK WORK command is automatically executed by the database engine.
<i>There are no saved key strokes to write to disk</i>	You tried to save a macro, but there is nothing to save.	Create the macro again.
<i>There are still active database connections</i>	A database stop was requested while there are active connections.	Close down the connections and then stop the database.
<i>There is no acquisition data to print</i>	You tried to print a histogram before acquiring any data.	Acquire data first.
<i>There is presently no panel file to process</i>	No panel files are available.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>This report requires that COLOR be ON for your printer in the Utilities Configuration screen</i>	This message occurs while in the Multigraph Overlay screen and a report is requested but the COLOR is OFF in the Utilities Configuration screen.	Select the Utilities screen and change the color option for your printer.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>To cont. MCL wait for msg -Insert Sample Tube-, press AUTO</i>	After sheath low or waste full, this message appears.	Follow instructions on message
<i>To use 'Save' a protocol must be loaded</i>	An attempt was made to save a QC template but no protocol was selected first. A protocol must be selected so that if you select Save from the File pull-down menu, the system can create the corresponding QC template.	Select a protocol by activating Select from the File pull-down menu located in the QC Template screen.
<i>To use 'Save As' a protocol must be loaded</i>	An attempt was made to save a QC template to a new QC template file before you selected a protocol. Select a protocol first to identify the source QC template file to the system. To copy the currently loaded protocol to a new protocol, select Save As from the File pull-down menu. This also copies the current QC template to a QC template file for the new protocol.	Select a protocol by activating Select from the File pull-down menu located in the QC Template screen.
<i>Too many connections to database</i>	You have exceeded the maximum number of users.	Acquire a license for more users.
<i>Too many prism parameters entered</i>	They system can only accept up to 4 prism parameters.	Reassign prism equations.
<i>Too many Protocols in Panel</i>	You cannot edit a panel which has more than 32 protocols.	Reduce the number of protocols to 32 or less.
<i>Too many regions used for gating</i>	The histogram builder has reached its limit for gating and minimum counter regions.	Either do not use a minimum counter, or eliminate a gating region.
<i>Transmit time-out</i>	The export process timed out waiting for COM port to become available for next transmission.	Ensure sending and receiving baud rates match. Make sure cables are properly connected.
<i>Transputer 1 error Transputer 2 error</i>	Cytometer software error.	At the Workstation turn the system off, and then turn it back on.
<i>Transputer Link Error</i>	A cytometer computer communications error.	Call your Coulter Representative.
<i>Transputer Link Failure</i>	A cytometer computer communications error.	Call your Coulter Representative.
<i>Transputer Link Okay</i>	A cytometer computer communications error.	Call your Coulter Representative.
<i>Tube ID already assigned</i>	The assigned tube ID already exists in Worklist.	Enter a tube ID that is not already assigned to a protocol in Worklist.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Tube ID does not match barcode. MCL will be stopped.</i>	While running a Worklist using the MCL the tube ID assigned to the current protocol did not match the barcode attached to the tube being processed.	Inspect the MCL and make sure that each tube barcode matches its corresponding tube ID in the Worklist.
U		
<i>Unable to access file.</i>	SYSTEM II Software was unable to access a file.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>Unable to access file [file name]</i>	Error reading current panel file.	Exit SYSTEM II Software then restart program. If error persists, reboot Workstation.
<i>Unable to access file [protocol name]</i>	Program cannot load the named protocol file, or the named file is invalid.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>Unable to activate mouse</i>	Mouse graphics driver not activated - missing mouse driver or mouse.	Check MS-DOS® system configuration to set mouse driver and test mouse before running program.
<i>Unable to allocate memory</i>	This message appears when a report is requested or switching to the Histogram Data screen, but there is insufficient memory to perform the operation.	Exit SYSTEM II Software and restart it. Enter the Multigraph application and retry the operation. If this still does not work, call your Coulter Representative.
<i>Unable to allocate protocol memory</i>	This message occurs during Multigraph initialization and there is insufficient memory for Multigraph to operate correctly.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.
<i>Unable to assign histogram memory</i>	This message occurs during Multigraph initialization and there is an internal error initializing the memory used for histograms.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.
<i>Unable to autogate</i>	Not enough data points inside the gate. Unable to identify a distinct population.	Run the sample again. OR Redraw the region.
<i>Unable to change histogram display</i>	An internal error has occurred in the Multigraph histogram display.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>UNABLE TO COPY - MAXIMUM NUMBER OF AMORPHOUS REGIONS</i>	When copying an amorphous region, the system is unable to complete the task since the protocol already has the maximum number of eight amorphous regions allowed.	Try deleting some amorphous regions before assigning new ones.
<i>Unable to create the histogram queue</i>	SYSTEM II Software was unable to create a histogram queue.	Ensure the disk where your histograms are located is not write protected. Also, check for a possible disk full condition.
<i>Unable to create the regions display</i>	There is insufficient memory to process the histogram in Multigraph single histogram display.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.
<i>Unable to find/open the protocol file</i>	File deleted.	Recreate the protocol. OR Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>Unable to find the Listmode file</i>	Program cannot access Listmode file.	From File menu, select Rebuild.
<i>Unable to find the Listmode file, Carousel aborted on tube # [tube number]</i>	Program cannot access Listmode file.	From File menu, select Rebuild.
<i>Unable to find the Listmode file, Current operation aborted</i>	Program cannot access Listmode file.	From File menu, select Rebuild.
<i>Unable to find the panel info</i>	You pressed \hat{E} or \hat{E} during panel selection. Panel file cannot be found.	Select panel again. OR Specify the correct directories on the Utilities Configuration screen.
<i>Unable to get the available disk space</i>	Program cannot calculate the available disk space.	At the Workstation, turn the system off, and then turn it back on.
<i>Unable to get the specified Cytometer state</i>	Cytometer failed.	Call your Coulter Representative.
<i>Unable to initialize histogram memory</i>	An internal error was detected on initializing the memory required for histograms in Multigraph.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.
<i>Unable to initialize protocol memory</i>	An internal error was detected on initializing the memory used for histograms in Multigraph.	Exit SYSTEM II Software and restart it. Enter the Multigraph application. If this still does not work, call your Coulter Representative.
<i>Unable to load current panel</i>	Panel file is corrupted and cannot be opened.	Re-create the panel or select another panel.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Unable to load hematology info from database</i>	Loading hematology information from database failed.	Check Hematology ID in database is same as Specimen ID.
<i>UNABLE TO LOAD LISTMODE FILE</i>	Wrong types of data file, or corrupted file.	Select another Listmode file.
<i>Unable to load panel</i>	Panel file is corrupted and cannot be opened.	Re-create Panel or select another panel.
<i>Unable to load patient info from database</i>	Loading patient information from database failed.	Check Patient ID in database.
<i>Unable to load queue file</i>	File load error, no queue file. You specified a wrong path.	Specify the correct directory on the Utilities Configuration screen OR From File menu, select Rebuild.
<i>Unable to load specimen info from database</i>	Loading specimen information from database failed.	Check Specimen ID.
<i>Unable to load this protocol version</i>	Protocol incompatible with current program.	Re-create the protocol with current program.
<i>Unable to open current panel</i>	Unable to open the current panel.	Rebuild the directory and reselect the panel. If unable to re-select, call your Coulter Representative.
<i>Unable to open file</i>	Error opening file for export.	Repeat export operation. If error persists, exit SYSTEM II Software and reset Workstation.
<i>Unable to open file for processing</i>	File load error.	Specify the correct directories on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>Unable to open Listmode work file</i>	You specified wrong path.	Specify the correct directories on the Utilities Configuration screen.
<i>Unable to open matching QCS file</i>	This message occurs when a QCC file is loaded but no matching QCS file is found.	Create the QCS file by running the _A protocol whose xyz prefix matches that of the _Q protocol which created the QCC file.
<i>Unable to open QCC (or QCS) file</i>	An attempt was made to open a QCC (or QCS) file that is nonexistent or damaged.	Make sure the QC path is correct and the QC file being accessed is located in this path.
<i>Unable to load QC Template file related to this protocol</i>	A protocol was selected that did not have a matching template file.	In the Template screen, select the protocol and create a template. Then select Save from the File pull-down menu. This creates a template matching the selected protocol.
<i>Unable to open Panel file</i>	Panel file is corrupted and cannot be opened.	Recreate the panel or select another panel.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Unable to open template file</i>	File load error.	Specify the correct directory on the Utilities Configuration screen. OR From File menu, select Rebuild.
<i>Unable to print with no histograms</i>	This message is displayed when there are no histograms for printing.	Select histogram to print, if none create histograms in Listmode replay.
<i>UNABLE TO PROCESS [file name]</i>	QC file not found.	Rerun QC panel to create QC file.
<i>Unable to Process <QC file name></i>	When erasing the last entry from a QC file after running an _A, _C, or _Q protocol, the file was lost or damaged.	Run the protocol again. Run the panel if protocol located in a panel. Make sure the QC path is correct and the QC file being processed is located in this path.
<i>Unable to read file</i>	Error occurred while reading file being exported.	Retry export operation. If error persists, exit SYSTEM II Software and reset Workstation. If no change, file may be damaged.
<i>Unable to read header</i>	Panel file is corrupted and cannot be opened.	Recreate the panel or select another panel.
<i>Unable to read non-XL protocols</i>	You tried to load a non-XL program protocol.	Do not load any non-XL protocols.
<i>Unable to reset Cytometer--reboot</i>	Cytometer cannot be reset with the RESET button.	At the Workstation turn the system off, and then turn it back on.
<i>Unable to save - Protocol not loaded</i>	Unable to perform save because no protocol has been loaded.	Load or create a protocol.
<i>Unable to save histogram [n] error [m]</i>	This message is displayed when saving the histograms in the working set. 'n' is the number of the histogram in working set and 'm' is the error code.	Ensure the disk containing your histograms is not write protected. Also, check for a possible disk full condition.
<i>Unable to save protocol file</i>	You specified wrong path.	Specify the correct directories on the Utilities Configuration screen.
	Disk full.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Unable to save protocol file Carousel aborted on tube # [tube number]</i>	You specified wrong path.	Specify the correct directories on the Utilities Configuration screen.
	Disk full.	Use archive on the Utilities Configuration screen and free up disk space.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Unable to save protocol file Current operation aborted</i>	You specified wrong path.	Specify the correct directories on the Utilities Configuration screen.
	Disk full.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Unable to save protocol with no histograms</i>	The system cannot save a Protocol with no histograms	Create histograms before saving the protocol.
<i>Unable to save template</i>	Error occurred during the saving of a template.	Ensure template was created. Repeat operation.
<i>Unable to set Cytometer in the READY to ACQUIRE state</i>	Cytometer failed.	See Heading 2.11, Resetting the Circuit Breakers.
<i>Unable to start database engine</i>	It was not possible to start the database engine.	Executable file could not be found. Check environment variables.
<i>Unable to start specified database</i>	It was not possible to start the database engine.	Executable file could not be found. Check environment variables.
<i>Unable to write PCX file</i>	The system cannot access the specified path. Disk full.	Specify the correct directory. Use archive on the Utilities Configuration screen and free up disk space.
<i>Unknown data stream error</i> <i>Unknown data stream warning</i>	Data acquisition hardware error.	Call your Coulter Representative.
<i>Unknown error</i>	System unable to program Cytometer.	At the Workstation turn the system off, and then turn it back on.
<i>Unknown file type</i>	This file may not be exported.	Select correct file type for export.
<i>Unknown region type. Call for service.</i>	Unknown region types.	Call your Coulter Representative.
<i>Unknown Stream Warning</i>	An unidentified data packet communication error occurred between the Cytometer hardware and software.	Record an entry into the instrument log.
<i>Use \ddot{E} from run screen to print for special analyses</i>	The System cannot replay listmode data with Cell Stat or Retic Stat prior to Alt-Save/Print Histogram option.	Do not highlight the option on the Alt-Save box. Instead, use \ddot{E} after exiting the Alt-Save box.
V		
<i>Vacuum Chamber Error</i> <i>Vacuum Chamber Warning</i>	Liquid level in vacuum chamber is too high.	Use the cleaning tube adapter.
<i>Valid display angle range is 0 to 360</i>	The system cannot process the entered display angle.	Enter a value between 0 and 360.
<i>Valid range is [.]</i>	The system cannot process the entered numeric value.	Enter a value within a specified range.
<i>Values allowed: [valid range]</i>	The system cannot process the entered value.	Enter a value within the specified range.

Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>VDI display device driver not loaded properly.</i>	No VDI graphics are loaded.	Put the software program diskette in drive A. At the A:\ prompt, type install.
W		
<i>Warning: Less than 4 megabytes of disk space available</i>	Less than 4 MB is free on the hard disk.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Warning: Less than 1 megabyte of disk space available</i>	Less than 1 MB is free on the hard disk.	Use archive on the Utilities Configuration screen and free up disk space.
<i>Warning: No valid histograms were noted</i>	You created a protocol with no histograms. You created histograms that do not match the gates you created.	Create another protocol.
<i>Warning: No valid signals were noted</i>	The protocol (in Listmode data analysis) does not match the signal.	Create or select another protocol. OR Select another Listmode file.
<i>Waste Backpressure Error</i>	The filter on the waste tank vent line is probably wet or clogged or disconnected.	Check waste vent filter for presence of liquid and proper connection. Call your Coulter Representative.
<i>Waste Backpressure Okay</i>	There was too much pressure in the waste tank but it is okay now.	None.
<i>Waste Level Error</i>	There is not enough empty volume in the waste tank for further sample analysis.	Empty the waste container.
<i>WASTE LEVEL FULL! Empty tank. When cyto is READY, press RUN</i>	Waste container is full. Waste sensor failed.	Empty the waste container. If the waste container is not full and this error appears, call your Coulter Representative.
<i>Waste Level Okay</i>	Waste tank for is back to normal from a waste level warning or error state.	None. Informational only.
<i>Waste Level Warning</i>	There is enough empty volume in the waste tank for about 5 minutes of sample analysis.	Empty waste tank.
	Waste sensor failed.	If the waste tank is not full when this error message appears, call your Coulter Representative.
<i>Worklist file not found</i>	The given Worklist file was not found at the directory paths as given in the Utilities Data Management screen.	Ensure the directory paths are correct and repeat the operation.
<i>Worklist type panel may not be edited</i>	Tried to select 'Current Worklist' Panel from the Select menu.	Do not select Worklist type panel.

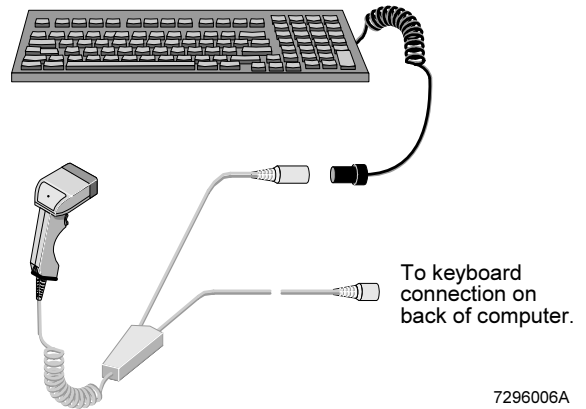
Table 3.1 Error Messages (Continued)

Message	Cause	Action
<i>Wrong Date format or out of range</i>	When entering the date, either an illegal date was entered or the format was not as DDMMYY (for example, 12Apr98).	Enter correct format and make sure the day does not exceed max month day.
<i>Wrong file</i>	An error has occurred accessing the selected configuration.	Rebuild configuration directory and retry selecting the configuration file. If unsuccessful, call your Coulter Representative.
<i>Wrong password</i>	When trying to activate the Supervisor ID box on the QC Maintenance screen, the user has entered the wrong supervisor password.	Enter the correct password. If supervisor is unable to reproduce the correct password then the Master Password must be used. This password should be in possession of an authorized person.
<i>Wrong Time format or out of range</i>	The system cannot process the Time value entered.	Enter a valid time.
X		
<i>X and y channel count exceeded 65535</i>	Count too high when calculating a projection.	Statistics are invalid
<i>X channel count exceeded 65535</i>	Count too high when calculating a projection.	Statistics are invalid.
Y		
<i>Y channel count exceeded 65535</i>	Count too high when calculating a projection.	Statistics are invalid.
<i>You cannot delete the next use entry</i>	The system cannot delete the 'Next' used entry from a queue.	To delete that entry, reassign the 'Next' to another entry and then delete.
<i>You cannot deselect the next use entry</i>	The system cannot deselect the 'Next' used entry.	To deselect the 'Next' entry, reassign 'Next' first.
<i>You may not make a deleted or errored entry as next</i>	The system can assign 'Next' to a deleted protocol.	Do not assign 'Next' to a deleted protocol.
	The system cannot assign a deleted or corrupted protocol as 'Next'.	Reassign 'Next'.
<i>You must select a protocol.</i>	You must first select a protocol to edit this column.	Select a protocol in the protocol/equation column.
Z		
<i>Zero length file</i>	File is empty.	Ensure file for export contains data.

A.1 BAR-CODE READER

An optional hand held bar-code reader is available for your system. Refer to the bar-code reader manufacturer's manual for specific instructions about using it.

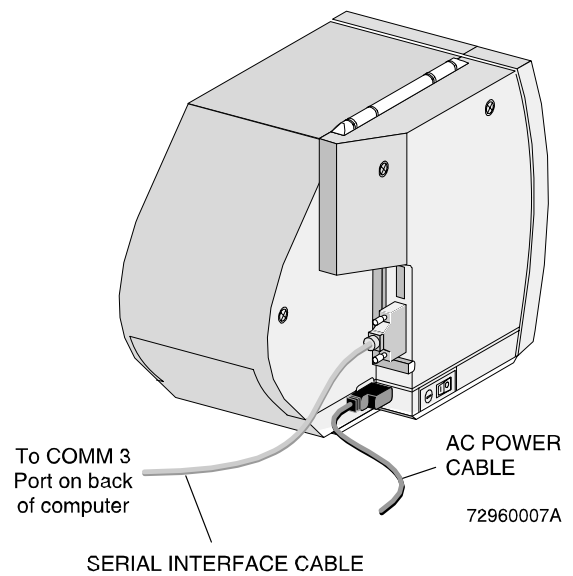
The illustration to the right shows how to connect the bar-code reader to your system.



A.2 BAR-CODE PRINTER

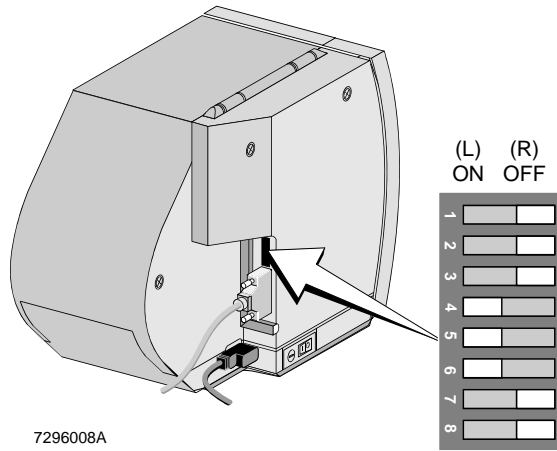
An optional bar-code printer is available for your system. Refer to the printer manufacturer's manual for specific instructions about using it.

The illustration to the right shows how to connect the bar-code printer to your system.



Bar-Code Printer Switch Settings

The illustration to the right shows how to set the bar-code printer switch settings for use with your system.



B.1 WORKING WITH THE QC MAINTENANCE SCREEN

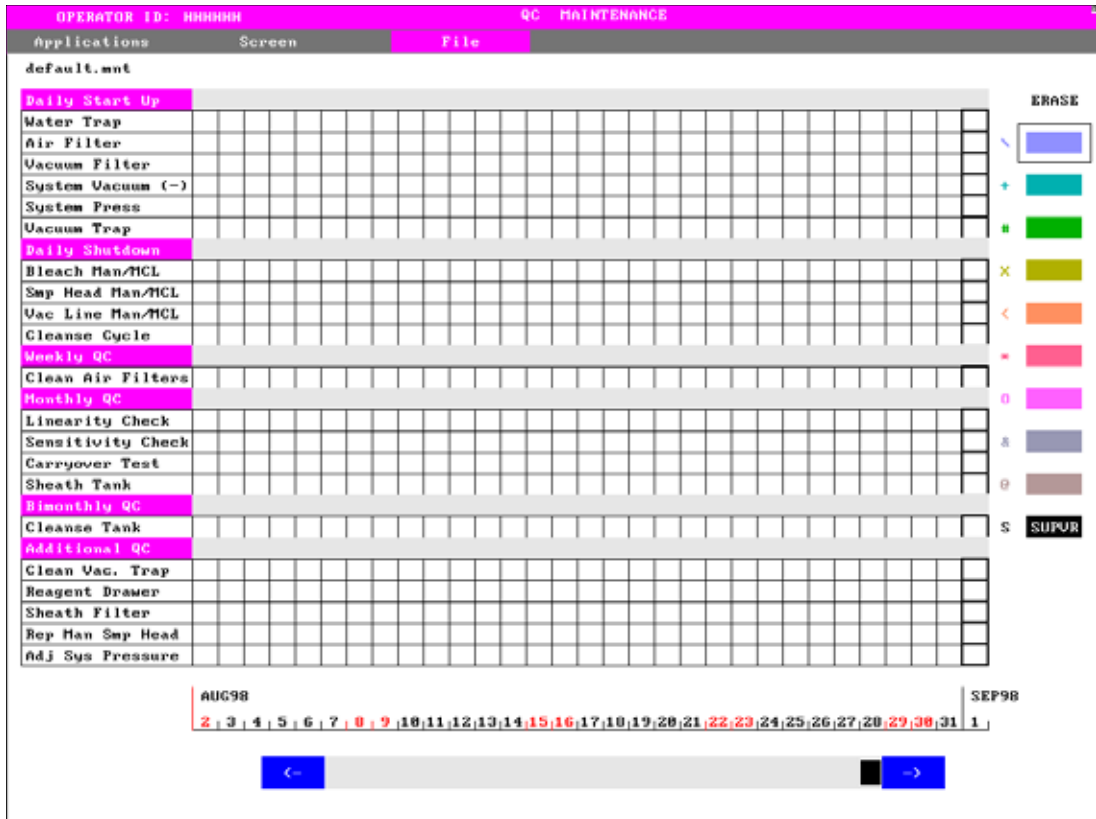
This screen maintains a dated maintenance log for your records, including the operator ID symbol for each of the listed actions.

Use the QC Maintenance screen to record:

- Daily start up actions
- Daily shutdown actions
- Cleaning procedures
- Replacement procedures
- Adjustment procedures.

On the day you perform one of the above actions, enter your operator ID symbol next to the maintenance action you performed. Assign and use a different operator ID symbol to each operator for your record keeping.

A supervisor can edit any entry made in the QC Maintenance screen.



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Accessing the Screen

To open the QC Maintenance screen:

 Applications » QC.

 Screen » Maintenance.

Printing the Screen

If you want to print the screen for your laboratory records:



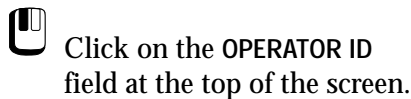
B.2 EDITING THE MAINTENANCE SCREEN (OPERATOR LEVEL)

Assigning An Operator ID To A Colored Box

You need to assign your operator ID to one of the colored boxes at the right of the screen before you can edit the QC Maintenance screen. Nine different operators plus the supervisor can be defined in the system at the same time. Once assigned, your operator ID always appears in the same colored box until changed.

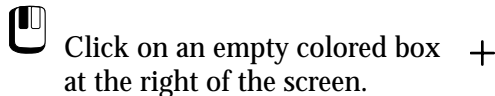
To assign your operator ID to a colored box so you enter the corresponding symbol when you record a maintenance action performed:

1. If you have not already entered your operator ID into the software:



Type in your operator ID.


2. After your operator ID is in the system:




3. The current operator ID automatically appears in the box. Whenever you click in a square in the QC Maintenance screen, the matching color and symbol of the box for the current operator ID appears in the square on the screen.



Making an Entry

1.  Click on the colored box with your operator ID in it.




2.  Click on the square for each action completed today. Your color and symbol appear in each selected square.

Daily Shutdown	
Bleach Man/MCL	X
Smp Head Man/MCL	X
Uac Line Man/MCL	X
Cleanse Cycle	X


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Note: Only a supervisor can make entries on prior days.

3. For System Pressure and System Vacuum:

-  Click on the square for each action completed today.
 Type in the number of the instrument reading.


Erasing an Entry

1.  Click on the colored box with your operator ID in it.



2.  Click on the Erase box.



3.  Click on any of today's entries that you want to erase.


Note: Only a supervisor can erase entries on prior days.

B.3 EDITING THE MAINTENANCE SCREEN (SUPERVISOR LEVEL)

Only a supervisor can:

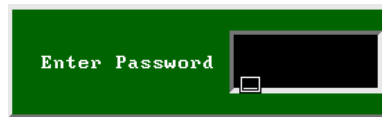
- Make an entry on a day prior to today.
- Erase entries made on a day prior to today.

Making Or Deleting An Entry


1.  Click on the black SUPVR box.




2. Type in your password at the system prompt and press \hat{U} .




3. Use the scroll bar at the bottom of the screen to access the day needed.
4. To make an entry:

-  Click on the square for each action completed for that day. An S in a black background appears in each selected square.


To delete an entry:


-  Click on a square a second time and the S just entered changes to “-” in the square.

B.4 CHANGING THE PASSWORD (SUPERVISOR LEVEL)

1.  Click on the SUPVR box with the right mouse button.




2. Type in your OLD (current) password at the system prompt and press  .

When doing this for the first time after system installation there is no OLD password. Simply press  .




7296016B

3. Type in your NEW password at the system prompt and press  .



7296017B

4. Type in your NEW password again at the system prompt and press  to confirm your new password.

The new password is now valid.



7296018B

QC MAINTENANCE SCREEN
CHANGING THE PASSWORD (SUPERVISOR LEVEL)

Symbols

%Lymph + %Mono + %Gran + %Blast > 100.0, 3-3

A

A region must first be selected, 3-3

adaptor, cleaning

how to use, 1-24, 1-25

adjustment procedures, 2-1

circuit breakers, resetting, 2-22

neutral density (ND1) filter, positioning, 2-20

record on Maintenance screen, B-1

system pressure, 2-18

air bubbles, venting, 2-5, 2-14

air filters

See filters, 1-1

All other errors, 3-3

All regions are already assigned, 3-3

Allowable levels

8 to 65535 or 0 for AUTO, 3-3

Amorphous regions not allowed in prism

equation, 3-3

An empty string is not a valid password, 3-3

An internal error has occurred, 3-4

Analysis date earlier than DOB, 3-3

Analysis date-time earlier than Collection

date-time, 3-3

Apparent File Load Error, 3-4

Autosetup Cycle Terminated, 3-4

B

Bar Code Printer NOT present or wrong type, 3-4

bar-code printer

connection, A-1

illustration, A-1

switch settings, A-2

bar-code scanner/reader

connection, A-1

illustration, A-1

bleaching

routine cleaning, auto mode, 1-21

routine cleaning, manual mode, 1-19

bubbles

venting, 2-5

buttons

vent, 2-5

C

Calibrator Region already exists, 3-4

Cannot assign CALIBRATOR to a Quadstat, 3-4

Cannot find this region, 3-4

Cannot get Cytometer ready, 3-5

Cannot get sample information from MCL, 3-5

Cannot open protocol queue file, 3-5

Carousel completed ... cannot continue, 3-5

Carousel restart error, 3-5

Caution

No histograms were noted, 3-5

changed, 3-24

Channel overflow condition exists, 3-5

circuit breakers

resetting, 2-22

cleaning adaptor

how to use, 1-24, 1-25

cleaning agent

container, cleaning, 1-9

container, filling, 2-7

cleaning agent container

cleaning, 1-9

filling, 2-7

cleaning procedures, 1-1

air filters, 1-1

bleaching, 1-18

cleaning agent container, 1-9

record on Maintenance screen, B-1

routine, 1-18

sample head, 1-22, 1-23

sample probe, 1-22, 1-23

sampling system, when to clean, 1-18

sheath fluid, 1-7

vacuum line, 1-24, 1-25

vacuum trap, 1-12

cleanse cycle, 1-24, 1-25

Cleanse Level Error, 3-5

Cleanse Level Okay, 3-5

Cleanse Level Warning, 3-5

cleanse low indicator, 3-1

what to do when red, 3-1

Client/server communications protocol

mismatch, 3-5

Collection date earlier than DOB, 3-5

Com. Port unavailable, 3-5

Comm. complete, 3-5

Communication error, 3-6

Confirmation failed, 3-6

Connection not found, 3-6

Connections to database have been disabled, [3-6](#)
 container, reagent
 replacing, [1-11](#)
 container, waste
 replacing, [2-10](#)
 containers, replacing
 reagent, [1-11](#)
 conventions
 used in the manual, [x](#)
 Counter not available, [3-5](#), [3-6](#)
 Current Worklist may NOT be selected, [3-6](#)
 Cyto_change_error, [3-6](#)
 Cytometer communications failure during file
 load, [3-6](#)
 Cytometer error, [3-6](#)
 Cytometer program file not found, [3-6](#)
 Cytometer read cyto state timeout, [3-7](#)

D

daily
 routine cleaning, [1-18](#)
 vacuum line cleaning, [1-24](#)
 Data Memory Problem, [3-7](#)
 Data rate error, [3-7](#)
 Data Rate Warning, [3-7](#)
 Data Stream Error, [3-7](#)
 Data Stream Okay, [3-7](#)
 Data Stream Warning, [3-7](#)
 Database engine not running, [3-7](#)
 Database engine not running in multi-user
 mode, [3-7](#)
 Database name required to start engine, [3-7](#)
 Database was initialized with an older version of the
 software, [3-7](#)
 Dblib/database engine version mismatch, [3-7](#)
 DEFAULT is a reserved name, [3-7](#)
 Disk full -- transaction rolled back, [3-7](#)
 documentation for your instrument
 about your special procedures and
 troubleshooting manual, [ix](#)
 conventions used, [x](#)
 icons, description, [x](#)
 introduction to your manuals, [ix](#)
 symbols, meaning, [x](#)
 using the manuals, [ix](#)
 does NOT exist, [3-12](#)
 does not exist in this directory!, [3-13](#)
 Crit, [3-6](#)
 Insufficient space on, [3-14](#)

due to error., [3-26](#)
 Duplicate entry not possible, [3-7](#)

E

emptying waste container, [2-10](#)
 Equation(s) exceed defined limitations, [3-8](#)
 err Reading | Writing, [3-6](#)
 ERROR
 2 parameter histograms not allowed, [3-8](#)
 Channel resolution of histograms are
 different, [3-8](#)
 Histogram Log decades are different, [3-8](#)
 Mouse Driver Not Present, [3-11](#)
 No more entries may be selected, [3-11](#)
 Not enough memory to calculate amorphous
 statistics, [3-11](#)
 Unable to receive cytometer's program
 version, [3-11](#)

Error
 Invalid path selected, [3-10](#)
 Error accessing panel file, [3-8](#)
 Error accessing password, [3-8](#)
 Error allocating extended memory, [3-8](#)
 Error building WorkList panel, [3-8](#)
 Error creating WorkList Loadlist, [3-8](#)
 Error forming queue, [3-8](#)
 Error in acquiring, [3-8](#)
 Error in entry, [3-8](#)
 Error in equation, [3-8](#)
 ERROR IN LOADING DATA, [3-8](#)
 Error in loading protocol, [3-9](#)
 Error in rename listmode file, [3-9](#)
 Error in sending all signals selected as parameters
 during acq, [3-9](#)
 Error in sending all the compensation values of the
 signals, [3-9](#)
 Error in sending all the gain settings to
 Cytometer, [3-9](#)
 Error in sending all the pertinent time parameters to
 Cytometer, [3-9](#)
 Error in sending compensation to Cytometer, [3-9](#)
 Error in sending discriminators to Cytometer, [3-9](#)
 Error in sending ratio's numerator and denominator
 to Cytometer, [3-9](#)
 Error in sending sample pressure, [3-9](#)
 Error in sending signal with the discriminator
 set, [3-9](#)
 Error in sending signals to Cytometer, [3-9](#)
 Error in setting Cytometer in the awaiting sample

- state, 3-9
- Error in writing file, 3-10
- Error in writing file, Current operation aborted, 3-10
- Error initializing protocol, 3-10
- Error installing clock interrupt vector, 3-10
- Error installing Cytometer interrupt vector, 3-10
- Error loading cytometer program file, 3-10
- Error loading file, 3-10
- ERROR LOADING LISTMODE FILE, 3-10
- ERROR LOADING PROTOCOL, 3-10
- error messages
 - list of, 3-3
 - log, description, 3-2
 - log, screen, 3-2
- Error reading Carousel file, 3-11
- Error saving file, 3-11
- Error stop Cytometer, 3-11
- Crit Non Disk err
 - , 3-6
- Error validating your entry, 3-12
- Error writing to log file, 3-12
- ERROR! does not exist in this directory!, 3-8
- ERROR! -- Unable to read non-XL protocols!, 3-11
- ERROR! DEFAULT is a reserved name, 3-8
- ERROR! Name must not consist entirely of spaces, 3-11
- ERROR! Possible full disk, 3-11
- ERROR! Requested file does not exist in this directory, 3-11
- ERROR! Unable to access file, 3-11, 3-11
- ERROR! Unable to get available disk space for specified drive, 3-11

F

- Use, 3-34
- Fail to close Listmode file, 3-12
- Fail to close Listmode file, Current operation aborted, 3-12
- Failed to read MCL state, 3-12
- Failed to update password, 3-12
- Restarting MCL because
 - Failed to get info about panel, 3-23
 - Failed to open panel, 3-23
- File larger than 32768 bytes, 3-13
- ERROR writing to file, 3-12
- File Write Error, 3-13
- LAST ENTRY ERASED IN, 3-16
- Skipping queued file, 3-26

- Unable to access file, 3-30
- UNABLE TO PROCESS, 3-33
- File name is, 3-13
- File problem, 3-13
- File Write Error -, 3-13
- , 3-12, 3-13
- FILE, 3-13
- filters
 - air, cleaning, 1-1
 - air, location, 1-1
 - neutral density (ND1) filter, positioning, 2-20
 - sheath, replacing, 2-13
- Fm__system not allocated, 3-12
- from run screen to print for special analysis, 3-34

H

- hand held scanner/reader
 - See bar-code scanner/reader, A-1
- handler, 3-10
- Help is not available at this time, 3-13
- Error installing interrupt, 3-10
- High channel value must not be smaller than Low Channel, 3-13
- Host command invalid, 3-13

I

- icons used in the manual, x
- ID must consist of 12 alphanumeric characters, 3-13
- idle mode, 1-4
- Ignoring invalid regions, 3-13
- Illegal Cytometer state, 3-13
- indicators, level sense, 3-1
- Initializing Empty Template, 3-14
- Insufficient memory available, 3-14
- Insufficient memory for dialog box, 3-14
- Insufficient memory for listmode replay, 3-14
- Insufficient memory to load file, 3-14
- Insufficient memory to load maintenance, 3-14
- INTERNAL System ERROR
 - Invalid application specified, 3-14
- introduction to your manuals, ix
- Invalid count value, 3-14
- Invalid database engine command line, 3-14
- Invalid equation string, 3-14
- Invalid Name. Must be other than blank characters., 3-15
- Invalid operator id! Range

(A to Z) and (0 - 9), 3-15
 Invalid path selected, 3-15
 Invalid region id, 3-15
 Invalid region index. Call for service., 3-15
 Invalid user id or password, 3-15
 is an unknown user id, 3-18

L

Laser Current Error, 3-15
 Laser Current Okay, 3-15
 Laser Power Error, 3-15
 Laser Power Okay, 3-15
 Laser Regulation Warning, 3-15
 Laser Start Error, 3-15
 Last and only entry in erased. File removed., 3-15
 Last entry in erased. Erase entry in QCS/QCC file, 3-16
 Less than 1 megabyte of disk space available, 3-16
 Less than 20 megabytes of disk space for MCL, 3-16
 Less than 4 megabytes of disk space available, 3-16
 level sense indicators, 3-1
 cleanse low, 3-1
 sheath low, 3-1
 waste full, 3-1
 LISTMODE FILE NOT FOUND, 3-16
 Log file corrupted, 3-16
 log sheets
 error messages, 3-2
 QC Maintenance screen, B-1

M

error, 3-33
 Maintenance screen
 See QC Maintenance screen, B-1
 manuals for your instrument
 conventions used, x
 how to use, ix
 icons, description, x
 introduction to your manuals, ix
 symbols, meaning, x
 using the manuals, ix
 Maximum is Eight Parameters, 3-16
 May NOT archive to a root directory, 3-16
 may NOT be selected, 3-18
 MCL Carousel Homing Error, 3-16
 MCL Carousel In/Out Error, 3-16
 MCL Carousel Label Error, 3-16
 MCL Carousel Rotate Error, 3-16

MCL CPU error, 3-16
 MCL Door Open Error, 3-17
 MCL Door Open Warning, 3-17
 MCL EPROM Error, 3-17
 MCL Error, 3-17
 MCL Interlock Error, 3-17
 MCL Parallel Recv Error, 3-17
 MCL Parallel Send Error, 3-17
 MCL Probe Up/Down error, 3-17
 MCL Program Load Error, 3-17
 MCL RAM Error, 3-17
 MCL Rec from Fault, 3-17
 MCL Receive Timeout, 3-17
 MCL Request Error, 3-17
 MCL Serial 1 Recv Error, 3-17
 MCL Serial 1 Send Error, 3-17
 MCL Serial 2 Recv Error, 3-17
 MCL Serial 2 Send Error, 3-17
 MCL Transmit Timeout, 3-17
 MCL Tube Displaced Error, 3-17
 MCL Tube Jam Error, 3-17
 MCL Tube Load Error, 3-17
 MCL Tube Position Error, 3-17
 MCL Tube Up/Down Error, 3-17
 MegaPanel cannot exceed 32 entries, 3-17
 Memory unavailable, 3-17
 messages
 error, list of, 3-3
 error, log, 3-2
 Missing Protocol(s). Panel is not loaded., 3-18
 mode
 auto, routine cleaning, 1-21
 idle, 1-4
 manual, routine cleaning, 1-19
 Must enter RBC or WBC to save Hematology info, 3-18
 Must first select a histogram to redisplay, 3-18
 Must first select a histogram to rescale, 3-18
 Must RESTART after cyto adjust. Run aborted, 3-18
 Must select panel to edit template!, 3-18

N

Must be greater than previous level, 3-18
 Unable to save histogram, 3-33
 , 3-18
 Cannot be started --, 3-4
 Cannot convert, 3-4
 Do not have permission to, 3-7
 in table, 3-15

Invalid value for column, [3-15](#)
 Run time SQL error --, [3-24](#)
 to a, [3-4](#)
 Name must not consist entirely of spaces.
 DEFAULT is reserved, [3-18](#)
 Need a file name to save (Select 'Save As' for new
 file), [3-18](#)
 neutral density (ND1) filter
 See filters, [2-20](#)
 No available counters, [3-18](#)
 No changes allowed while in Listmode, [3-18](#)
 No disk space on this device, [3-18](#)
 No histograms were noted, [3-18](#)
 No listmode results to display, [3-18](#)
 No more entries may be selected, [3-18](#)
 No more prism parameters can be assigned, [3-18](#)
 No more than 8 signals may be chosen as
 parameters., [3-18](#)
 No parameter selected, [3-19](#)
 No reports queue has been selected., [3-19](#)
 No template possible for Loadlist, [3-19](#)
 No valid baseline file, [3-19](#)
 No valid histogram files were found, [3-19](#)
 No valid histograms were noted, [3-19](#)
 No valid listmode files were found, [3-19](#)
 No valid protocol files were found, [3-19](#)
 No valid Specimen ID, [3-19](#)
 Not a valid region, [3-19](#)
 Not connected to SQL database, [3-19](#)
 Not enough memory to calculate amorphous
 statistics, [3-19](#)
 Not enough memory to start, [3-19](#)
 Not enough space for COPY, [3-20](#)
 Not enough space for MOVE, [3-20](#)
 Not enough space to add panel, [3-20](#)
 NOT found, [3-21](#)
 Not Yet Implemented, [3-20](#)

O

or, [3-25](#)
 Only one more prism paramete can be
 assigned, [3-20](#)
 Operator ID
 is already assigned, [3-20](#)
 operator ID
 assign on Maintenance screen, [B-2](#)
 record on the Maintenance screen, [B-2](#)
 supervisor, change the password, [B-5](#)
 options

bar-code printer, how to connect, [A-1](#)
 bar-code printer, switch settings, [A-2](#)
 bar-code scanner/reader, how to connect, [A-1](#)
 Out of MEMORY printing cytosettings, [3-20](#)
 Out of range, [3-20](#)
 0 - 9,999,999, [3-20](#)

P

Panel contains deleted protocols or Error accessing
 panel file., [3-20](#)
 Restarting MCL because
 Num of protocols, [3-24](#)
 Panel has auto setup protocols, [3-20](#)
 Panel has been modified since last MCL run, [3-20](#)
 Failure to resume panel
 , [3-12](#)
 Invalid Loadlist Attributes changed in, [3-14](#)
 Invalid Loadlist Error accessing panel, [3-14](#)
 Invalid Loadlist Error opening panel, [3-14](#)
 Invalid Loadlist Panel size changed in, [3-15](#)
 Invalid Loadlist Protocol changed in, [3-15](#)
 Panel
 , [3-21](#)
 Panel needs to be saved first, [3-21](#)
 Panel not copied., [3-17](#)
 Panel was edited, save before exiting, [3-21](#)
 Parameters are not present, [3-21](#)
 Parameters are not present, Carousel aborted on
 tube #, [3-21](#)
 Password was changed, [3-21](#)
 password, supervisor
 how to change, [B-5](#)
 Patient ID minimum of 5 characters, [3-21](#)
 positioning neutral density (ND1) filter, [2-20](#)
 Possible full disk, [3-12](#), [3-21](#)
 pressure
 system, adjusting, [2-18](#)
 Printer
 bar-code, connection, [A-1](#)
 bar-code, switch settings, [A-2](#)
 Printer busy, [3-21](#)
 Printer error, [3-21](#)
 PRINTER NOT READY!, [3-22](#)
 Printer out of paper, [3-22](#)
 Prism parameters coexist. Dividers set to lower
 letter regions, [3-22](#)
 probe, sample
 cleaning, [1-22](#), [1-23](#)
 procedures

adjustment. See adjustment procedures, [2-1](#)
 cleaning. See cleaning procedures, [1-1](#)
 replacement. See replacement procedures, [2-1](#)

Failure to resume Protocol
 , [3-12](#)

Unable to access file, [3-30](#)
 Protocol not valid, [3-22](#)

Q

QC Lot# could not be read from, [3-22](#)

QC Maintenance screen
 editing, [B-2](#)
 working with, [B-1](#)

Quadstat regions not allowed in this equation, [3-22](#)

R

RAM memory is full, [3-22](#)

Read Cyto State timeout, [3-23](#)

reader, hand held

See bar-code scanner/reader, [A-1](#)

reagent containers

about, [2-1](#)

removing, [1-5](#)

reagent drawer

location, [1-5](#), [2-1](#)

reagents

containers, fill level, [2-8](#)

containers, replacing, [2-1](#)

replacing, [2-1](#)

Seek error, [3-25](#)

Rectilinear regions not allowed in prism
 equation, [3-23](#)

reference manual

conventions used, [x](#)

introduction to your manuals, [x](#)

using the manuals, [x](#)

Region already erased, [3-23](#)

Region does not exist, [3-23](#)

Region undefined. May only edit defined
 regions., [3-23](#)

Region with PRISM, TIME, AUX not allowed in
 prism, [3-23](#)

REMOVED, [3-13](#)

removing

reagent containers, [1-5](#)

replacement procedures, [2-1](#)

cleaning agent, [2-7](#)

reagent containers, [1-11](#), [2-1](#)

record on Maintenance screen, [B-1](#)

sample head, [2-15](#)

sheath filter, [2-13](#)

sheath fluid, [2-2](#)

Replay Not Active, [3-23](#)

Replaying Data For Listmode Files Saved, [3-23](#)

Requested file does not exist in this directory, [3-23](#)

residual stain

testing for, [1-22](#)

Restarting MCL because

Did not find panel in current directory, [3-23](#)

MCL/ Panel protocol mismatch at entry, [3-24](#)

MCL/Panel attribute mismatch at entry, [3-23](#)

MCL/Panel panel name mismatch at entry, [3-24](#)

Restarting MCL because Failed to access carousel
 file (entry 33), [3-23](#)

Restarting MCL because Failed to access carousel
 file (entry), [3-23](#)

S

sample head

cleaning, [1-22](#), [1-23](#)

replacing, [2-15](#)

Sample Pressure Error, [3-24](#)

Sample Pressure Okay, [3-24](#)

Sample pressure warning, [3-24](#)

sample probe

cleaning, [1-22](#), [1-23](#)

Sample Stage Error, [3-24](#)

Sample Tube Error, [3-24](#)

sampling system

when to clean, [1-18](#)

scanner, hand held

See bar-code scanner/reader, [A-1](#)

Selected panel not loaded into memory, [3-25](#)

Selected Region is not in specified histogram, [3-25](#)

Selected signal cannot be a CALCULATED
 parameter, [3-25](#)

Selected signal must be a parameter, [3-25](#)

Selection or erase of signals not allowed under
 listmode, [3-25](#)

Selection, edit or erase of ratio not allowed under
 listmode, [3-25](#)

Sensor data stream error, [3-25](#)

Sensors Stream Warning, [3-25](#)

Server/database engine version mismatch, [3-25](#)

Set Idle Mode Cmd timeout, [3-25](#)

Set sample pressure fail, [3-25](#)

sheath container

- cleaning, [1-7](#)
- filling, [2-2](#)
- Sheath Drawer Error, [3-25](#)
- Sheath Drawer Okay, [3-25](#)
- Sheath Drawer Warning, [3-25](#)
- sheath filter
 - replacing, [2-13](#)
- sheath fluid
 - container, cleaning, [1-7](#)
 - replacing, [2-2](#)
 - use in routine cleaning, [1-19](#), [1-21](#)
- Sheath Level Error, [3-25](#)
- SHEATH LEVEL LOW! Add fluid. When cyto is READY, press, [3-26](#)
- Sheath Level Okay, [3-26](#)
- Sheath Level Warning, [3-26](#)
- sheath low indicator, [3-1](#)
 - what to do when red, [3-1](#)
- Sheath Pressure Error, [3-26](#)
- Sheath Pressure Okay, [3-26](#)
- Sheath Pressure Warning, [3-26](#)
- Signal is already not used as a parameter, [3-26](#)
- Signal is already used as a parameter, [3-26](#)
- Skipping a queued file due to error, [3-26](#)
- Software Failure, [3-26](#)
- special procedures and troubleshooting manual
 - icons, description, [x](#)
 - information organization, [ix](#)
 - symbols, meaning, [x](#)
 - using the manual, [ix](#)
- Specified database is invalid, [3-26](#)
- Specified database not found, [3-26](#)
- Specimen ID change NOT allowed, [3-27](#)
- stain, residual
 - testing for, [1-22](#)
- State Machine Failure, [3-27](#)
- Statement interrupted by user, [3-27](#)
- String must be NUMERIC if longer than 8 characters, [3-27](#)
- supervisor password
 - how to change, [B-5](#)
- symbols used in the manual, [x](#)
- system pressure
 - adjusting, [2-18](#)
- System Pressure Error, [3-27](#)
- System Pressure Okay, [3-27](#)
- System Pressure Warning, [3-27](#)
- System Vacuum Error, [3-27](#)
- System Vacuum Okay, [3-28](#)

T

- TARGET HISTOGRAM INCOMPATIBLE, [3-28](#)
- TARGET HISTOGRAM MUST BE DIFFERENT, [3-28](#)
- Temperature Error, [3-28](#)
- Temperature Okay, [3-28](#)
- Temperature Sensor Failure, [3-28](#)
- Temperature Warning, [3-28](#)
- TERMINAL ERROR IN System! Press the Enter key to exit program, [3-28](#)
- Terminated by user -- transaction rolled back, [3-28](#)
- There are no saved key strokes to write to disk, [3-28](#)
- There are still active database connections, [3-28](#)
- There is no acquisition data to print, [3-28](#)
- There is presently no panel file to process, [3-28](#)
- This report requires that COLOR be ON for your printer, [3-28](#)
- To cont. MCL wait for msg -Insert Sample Tube-, press AUTO, [3-29](#)
- To use 'Save As' a protocol must be loaded, [3-29](#)
- To use 'Save' a protocol must be loaded, [3-29](#)
- Too many connections to database, [3-29](#)
- Too many prism parameters entered, [3-29](#)
- Too many Protocols in Panel, [3-29](#)
- Too many regions used for gating, [3-29](#)
- Transmit time-out, [3-29](#)
- Transputer 1 error, [3-29](#)
- Transputer 2 error, [3-29](#)
- Transputer Link Error, [3-29](#)
- Transputer Link Failure, [3-29](#)
- Transputer Link Okay, [3-29](#)
- troubleshooting, [3-1](#)
 - error message log, [3-2](#)
 - error messages, [3-3](#)
 - level sense indicators, [3-1](#)
- Tube ID already assigned, [3-29](#)
- Tube ID does not match barcode. MCL will be stopped., [3-30](#)
- Fail to close Listmode file, Carousel aborted on tube#, [3-12](#)
- Error in writing file, Carousel aborted on tube #, [3-10](#)

U

- Unable to access file., [3-30](#)
- Unable to activate mouse, [3-30](#)
- Unable to allocate memory, [3-30](#)
- Unable to allocate protocol memory, [3-30](#)

Unable to assign histogram memory, 3-30
 Unable to autogate, 3-30
 Unable to change histogram display, 3-30
 Unable to create the histogram queue, 3-31
 Unable to create the regions display, 3-31
 Unable to find the Listmode file, 3-31
 Unable to find the Listmode file, Carousel aborted on tube #, 3-31
 Unable to find the Listmode file, Current operation aborted, 3-31
 Unable to find the panel info, 3-31
 Unable to find/open the protocol file, 3-31
 Unable to get the available disk space, 3-31
 Unable to get the specified Cytometer state, 3-31
 Unable to initialize histogram memory, 3-31
 Unable to initialize protocol memory, 3-31
 Unable to load current panel, 3-31
 Unable to load hematology info from database, 3-32
 UNABLE TO LOAD LISTMODE FILE, 3-32
 Unable to load panel, 3-32
 Unable to load patient info from database, 3-32
 Unable to load QC Template file related to this protocol, 3-32
 Unable to load queue file, 3-32
 Unable to load specimen info from database, 3-32
 Unable to load this protocol version, 3-32
 Unable to open current panel, 3-32
 Unable to open file, 3-32
 Unable to open file for processing, 3-32
 Unable to open Listmode work file, 3-32
 Unable to open matching QCS file, 3-32
 Unable to open Panel file, 3-32
 Unable to open QCC (or QCS) file, 3-32
 Unable to open template file, 3-33
 Unable to print with no histograms, 3-33
 Unable to Process, 3-33
 Unable to read file, 3-33
 Unable to read header, 3-33
 Unable to read non-XL protocols, 3-33
 Unable to reset Cytometer--reboot, 3-33
 Unable to save - Protocol not loaded, 3-33
 Unable to save protocol file, 3-33
 Unable to save protocol file Carousel aborted on tube #, 3-33
 Unable to save protocol file Current operation aborted, 3-34
 Unable to save protocol with no histograms, 3-34
 Unable to save template, 3-34
 Unable to set Cytometer in the READY to ACQUIRE

state, 3-34
 Unable to start database engine, 3-34
 Unable to start specified database, 3-34
 Unable to write PCX file, 3-34
 Unknown data stream error, 3-34
 Unknown data stream warning, 3-34
 Unknown error, 3-34
 Unknown file type, 3-34
 Unknown region type. Call for service., 3-34
 Unknown Stream Warning, 3-34

V

Vacuum Chamber Error, 3-34
 Vacuum Chamber Warning, 3-34
 vacuum line
 cleaning, 1-24, 1-25
 vacuum trap
 cleaning, 1-12
 Valid display angle range is 0 to 360, 3-34
 Values allowed
 , 3-34
 VDI display device driver not loaded properly., 3-35
 vent button
 function, 2-5
 location, 2-5
 vent port
 location, 2-5

W

Warning
 Less than 1 megabyte of disk space available, 3-35
 Less than 4 megabytes of disk space available, 3-35
 No valid histograms were noted, 3-35
 No valid signals were noted, 3-35
 Waste Backpressure Error, 3-35
 Waste Backpressure Okay, 3-35
 waste container
 emptying, 2-10
 location, 2-10
 waste full indicator
 what to do when red, 3-1
 Waste Level Error, 3-35
 WASTE LEVEL FULL! Empty tank. When cyto is READY, press RUN, 3-35
 Waste Level Okay, 3-35
 Waste Level Warning, 3-35

Worklist file not found, [3-35](#)
Worklist type panel may not be edited, [3-35](#)
Wrong Date format or out of range, [3-36](#)
Wrong file, [3-36](#)
Wrong password, [3-36](#)
Wrong Time format or out of range, [3-36](#)

X

X and y channel count exceeded 65535, [3-36](#)
X channel count exceeded 65535, [3-36](#)
XL/XL-MCL system
 installation, [2-1](#)
 manuals, hard-copy, [ix](#)

Y

Y channel count exceeded 65535, [3-36](#)
You cannot delete the next use entry, [3-36](#)
You cannot deselect the next use entry, [3-36](#)
You may not make a deleted or errored entry as
 next, [3-36](#)
You must select a protocol., [3-36](#)

Z

Zero length file, [3-36](#)

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