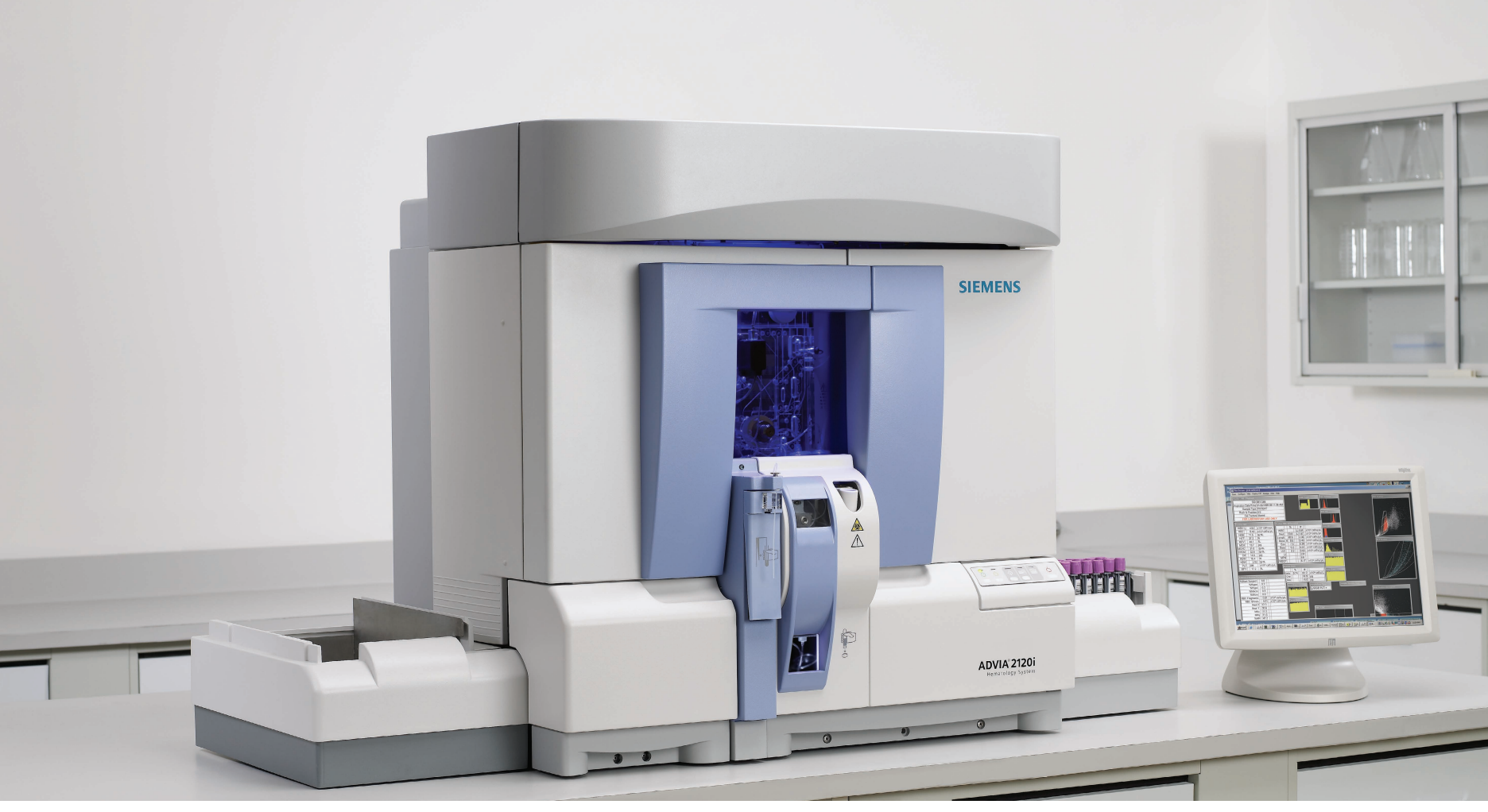


ADVIA® 2120i Hematology System

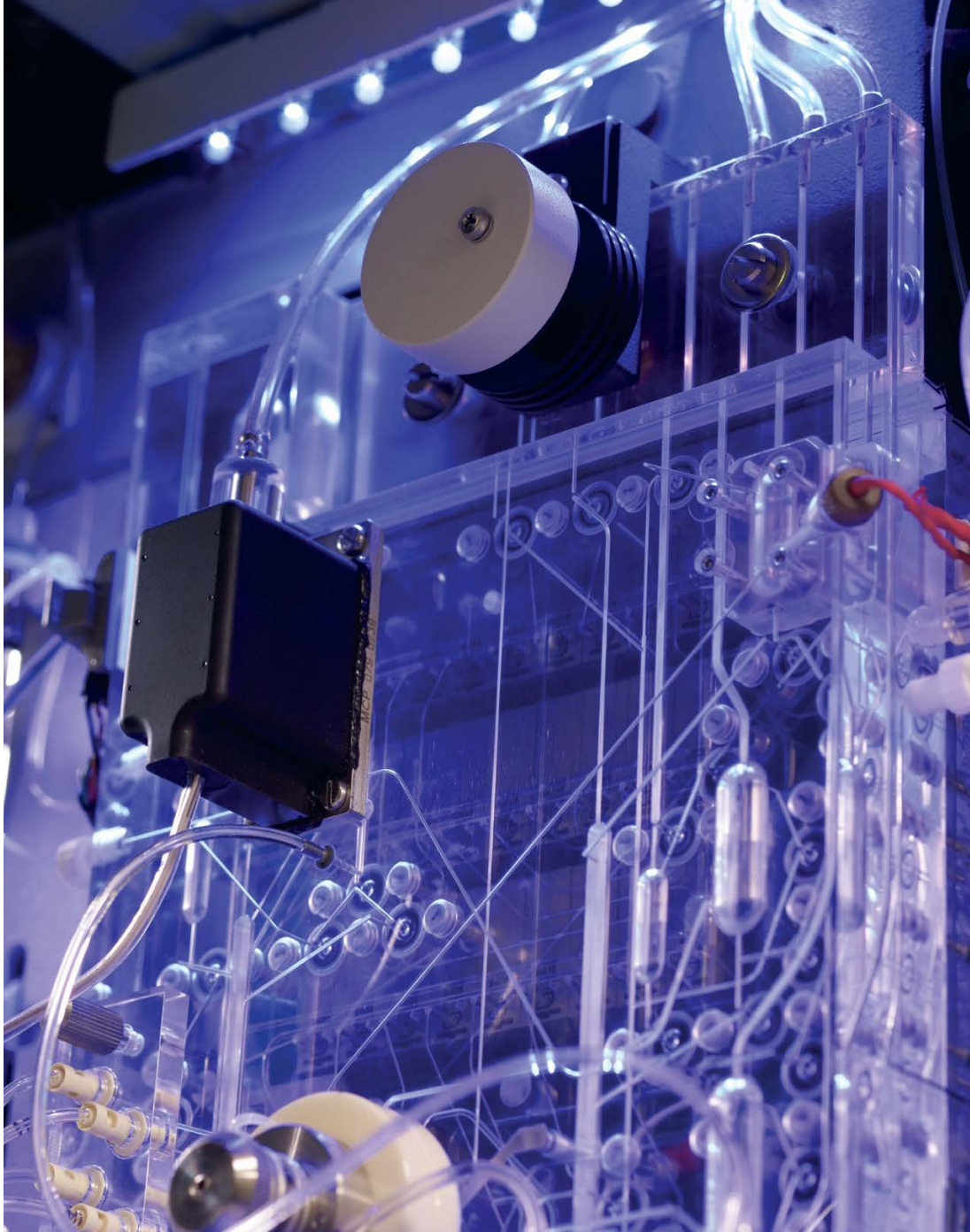
Quick Reference Guide

SIEMENS Healthineers

Table of Contents

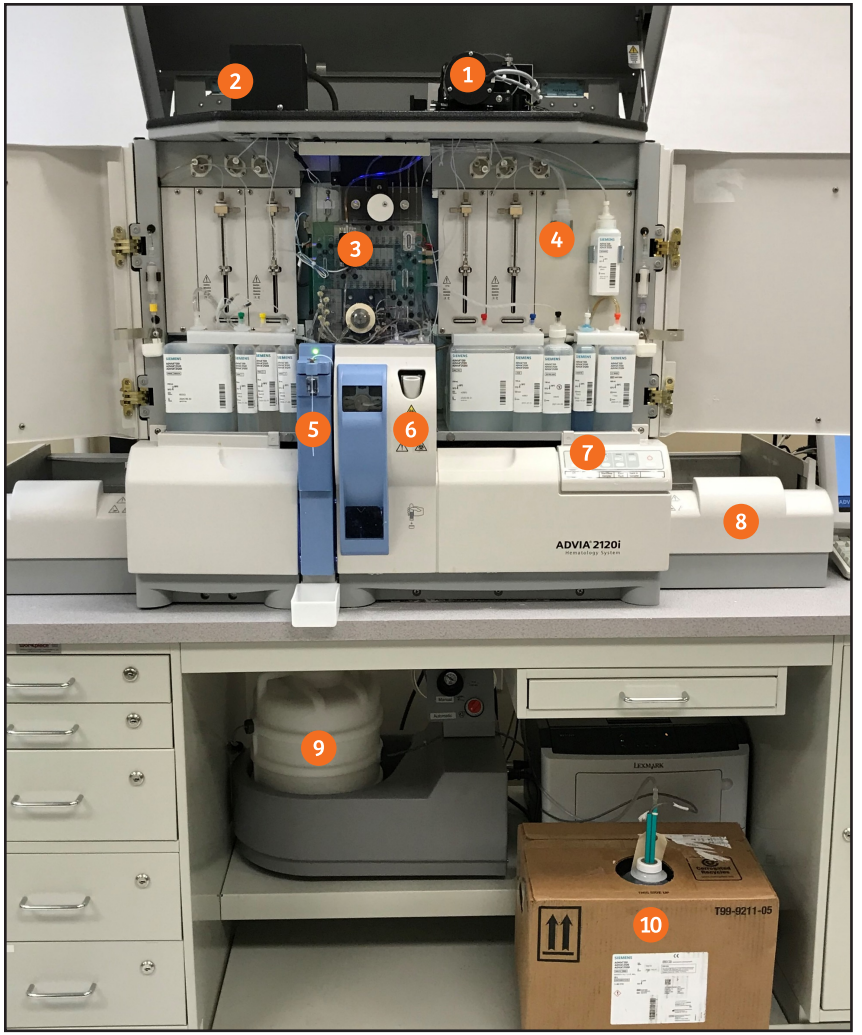
*Software Version 6.10.9/6.11.7 onwards

T 02006.001 | Effective date: 06/01/22



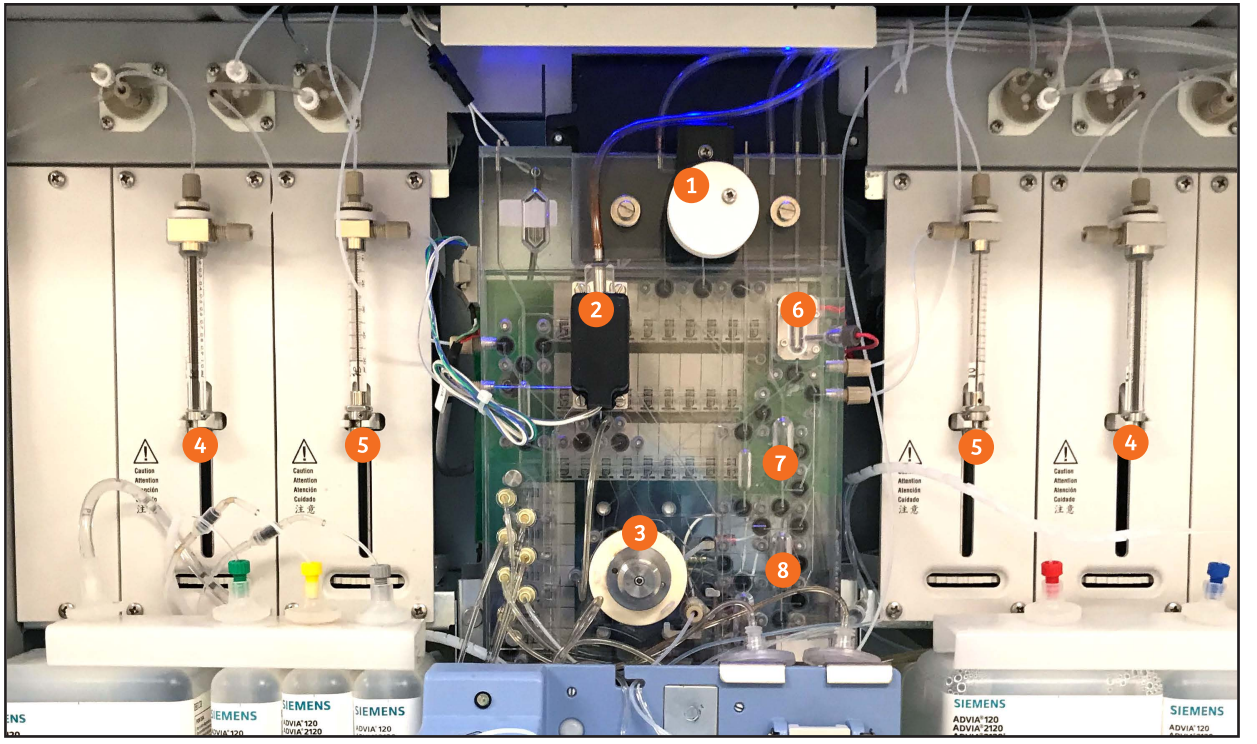
System Overview

1. Laser Optical Assembly
2. Perox Optical Assembly
3. UFC (Unified Fluids Circuit)
4. Overflow Bottle
5. Manual Open-Tube Sampler (MOTS)
6. Manual Close-Tube Sampler (MCTS)
7. Touchpad
8. Autosampler
9. Waste
10. Sheath/Rinse



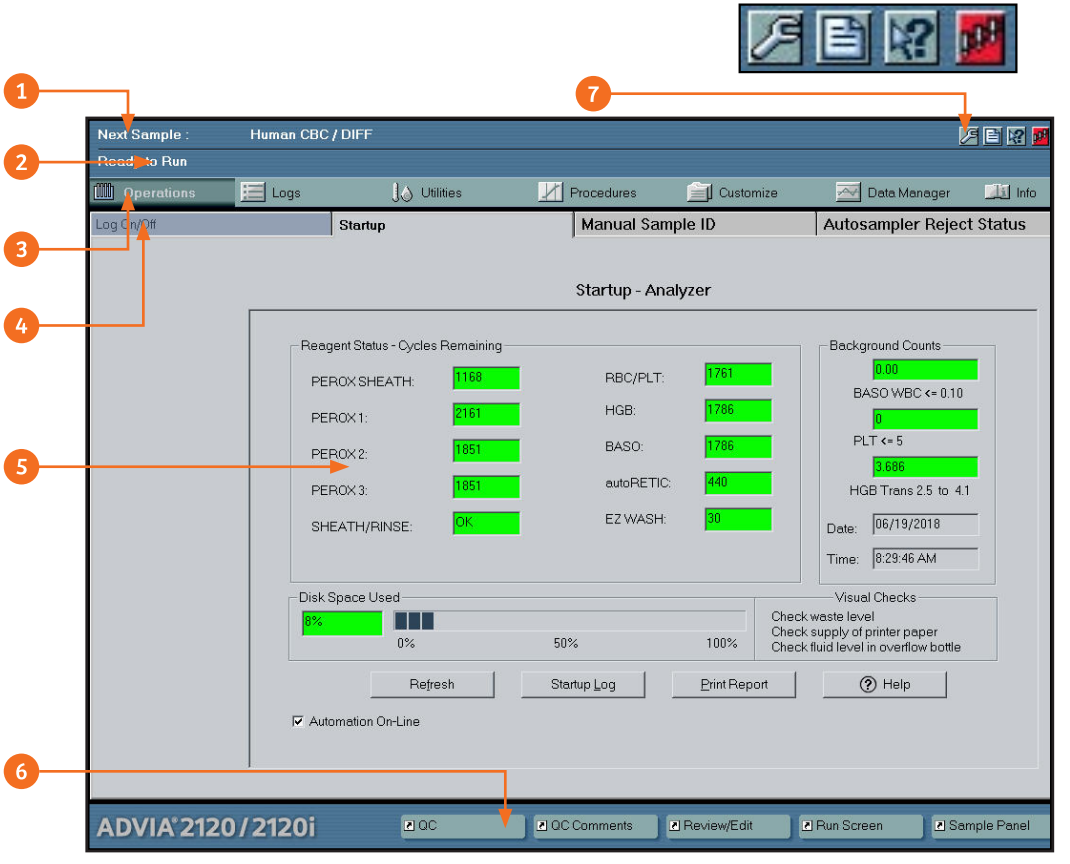
Unified Fluids Circuit (UFC)

1. Hgb Optical Assembly
2. Perox Reaction Chamber
3. Sample Shear Valve
4. 1000 µl Syringe
5. 50 µl Syringe
6. Baso Reaction Chamber
7. RBC Reaction Chamber
8. Retic Reaction Chamber



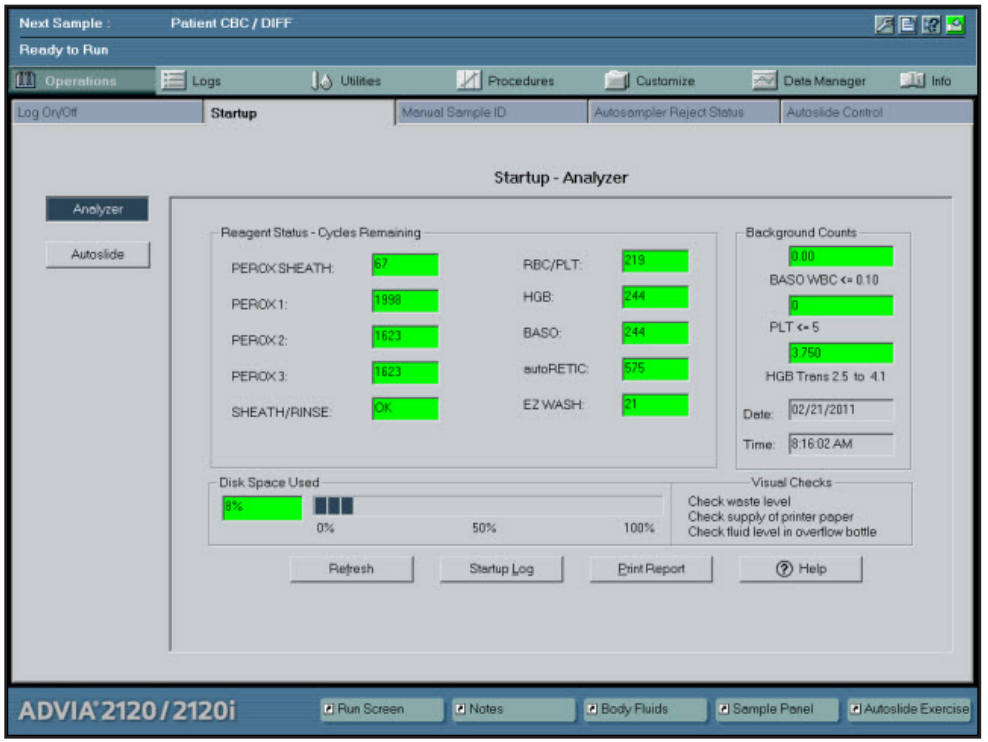
Software Overview

1. **Status Line 1**
   Sample ID, sample type, species (if applicable), selectivity and icons
2. **Status Line 2**
   Displays analyzer status and status-line messages
3. **Menu Buttons**
   Select to display a dropdown of system functions
4. **Tabs**
   Correspond to items on active menu button
5. **Main Display Area**
   Displays active screen
6. **Shortcut Keys**
   Customized quick links to frequently used menu items
7. **Icons**
   Service Log, Status Messages, Help, Notepad, Automation status (if applicable), and Autoslide status (if applicable)



Starting Each Shift Tasks

1. Empty the Waste (if applicable).
2. Check the Overflow Bottle.
3. Check the Reagents.
4. Verify Background Counts are in range (green) on the **Startup** screen



Note:
If Background counts are out of range (red), select **Refresh**; if still out, perform System Wash followed by another Refresh.

Empty Waste

Automatic Waste Removal

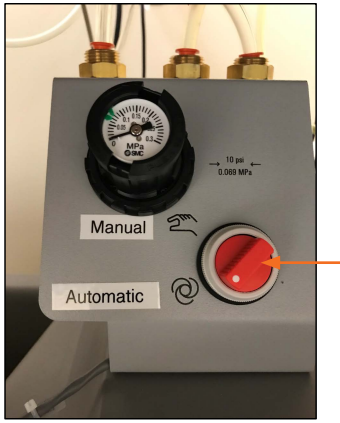
Important: The Autowaste assembly mode selector knob set to the automatic mode eliminates the need to manually empty waste when it is connected to waste disposal system.

If emptying of waste is needed with Autowaste Assembly, perform the following:

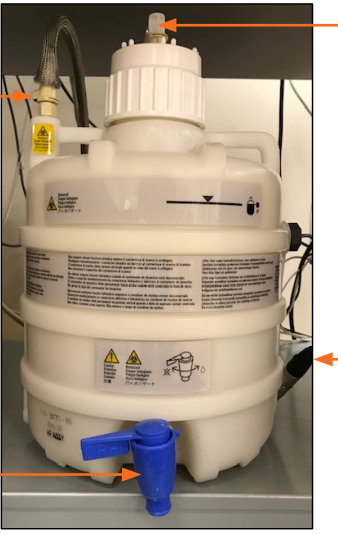
1. Turn the mode selector knob on the waste removal assembly tray from Automatic to Manual (this will take 2–5 minutes to empty).
2. Look for air bubbles in the discharge line. The air bubbles indicate the container is empty.
3. After the waste container is empty, turn the mode selector knob to Automatic mode.

Manual Waste Removal

1. Make sure that the analyzer is not sampling.
2. Disconnect the waste line and the vacuum line. To do this, press the buttons on the quick-release connectors and pull the lines straight up.
3. Disconnect the level switch sensor connector by pressing its button.
4. Empty the full container by opening the spigot into a drain in accordance with laboratory policy.
5. When the waste container is empty close the spigot. Verify spigot is closed securely.
6. Connect the waste line, vacuum line and level sensor to the emptied container.



Mode selector knob



Waste line

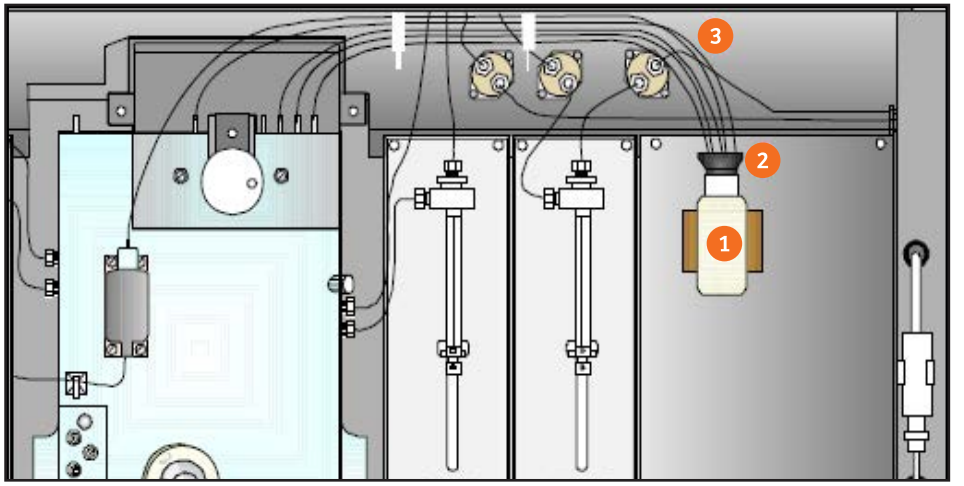
Vacuum line

Level switch sensor connector

Spigot

Check Overflow Bottle

1. Visually check the fluid level in the small overflow bottle (1).
2. Snap the bottle out of the clip, then remove the bottle cap (2). The lines (3) with the cap can hang loosely.
3. Empty the contents in accordance with laboratory policy.
4. Replace the cap, then snap the bottle in place.
5. The ends of the tubes should be at least 1.5 inches (3.81 cm) from the bottom of the bottle.

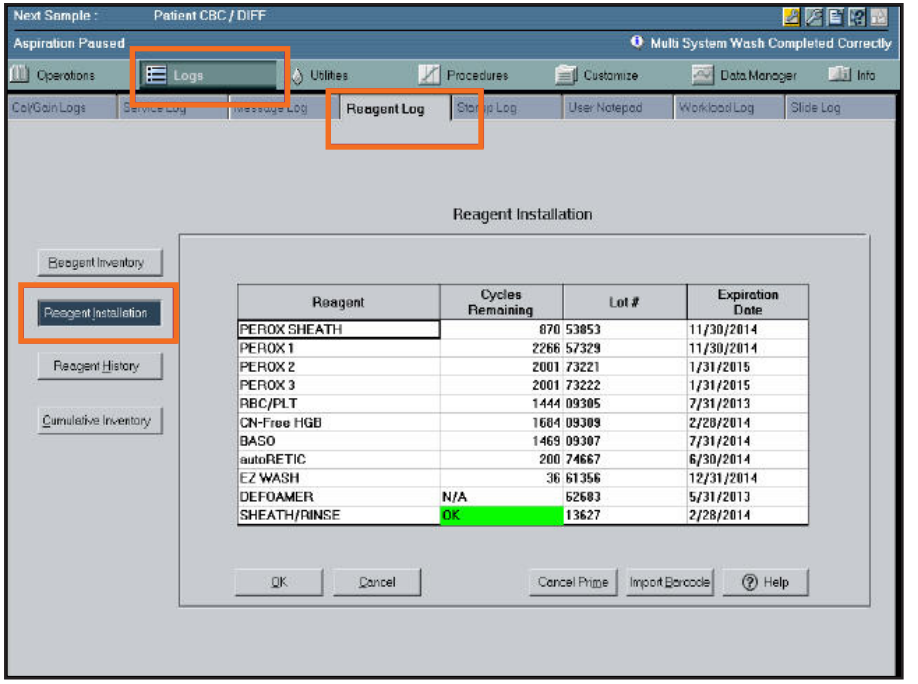


Note:
If fluid consistently accumulates in the overflow bottle contact Siemens Healthineers Customer Support.

Reagent Installation

1. Select **Logs** menu
2. Select **Reagent Log**
3. Select **Reagent Installation**
4. Scan barcode of each reagent to be replaced.
5. Load reagents on the instrument.
6. Select **Import Barcode**
7. Select **OK**
8. Select **Yes**
9. Run Quality Control as per laboratory policy.

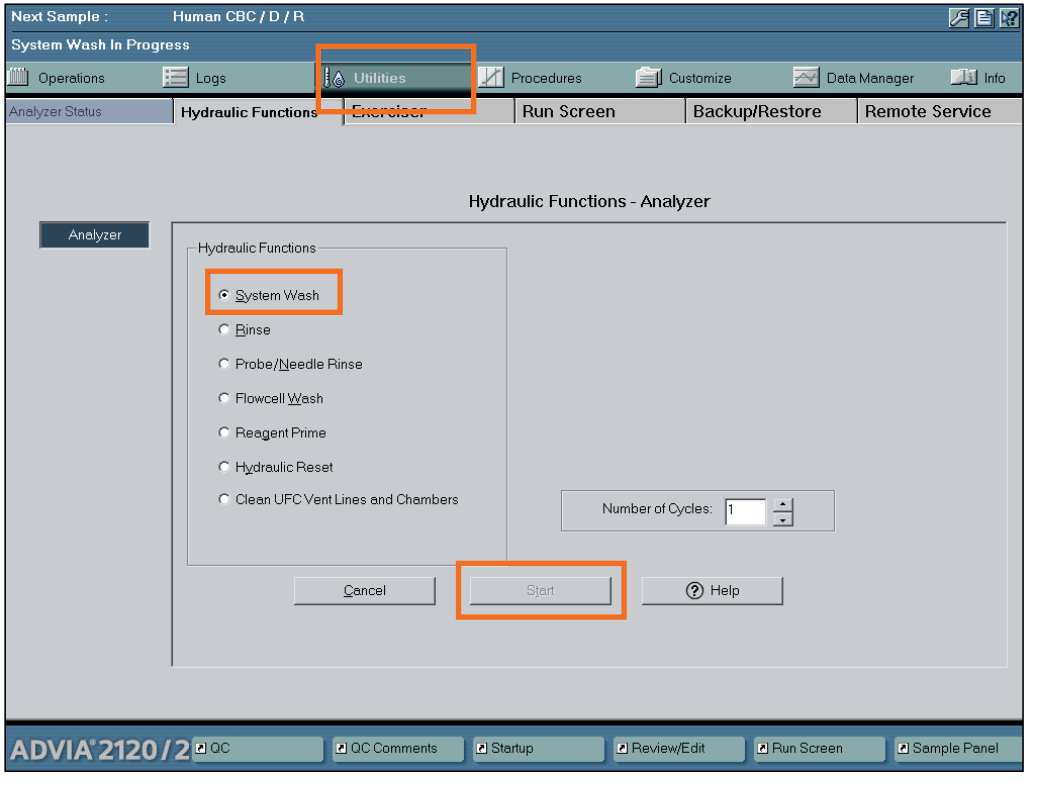
■	Green	Adequate supply
■	Yellow	Low supply
■	Red	No reagent



Note:
Must visually check the supply of ADVIA Defoamer.

System Wash

1. Select **Utilities** menu
2. Select **Hydraulics Functions**
3. Select **System Wash**
4. Select Number of Cycles: default is 1
5. Select **Start**



Note:
System Washes have been automatically configured in the software.

Processing Quality Control From the Autosampler

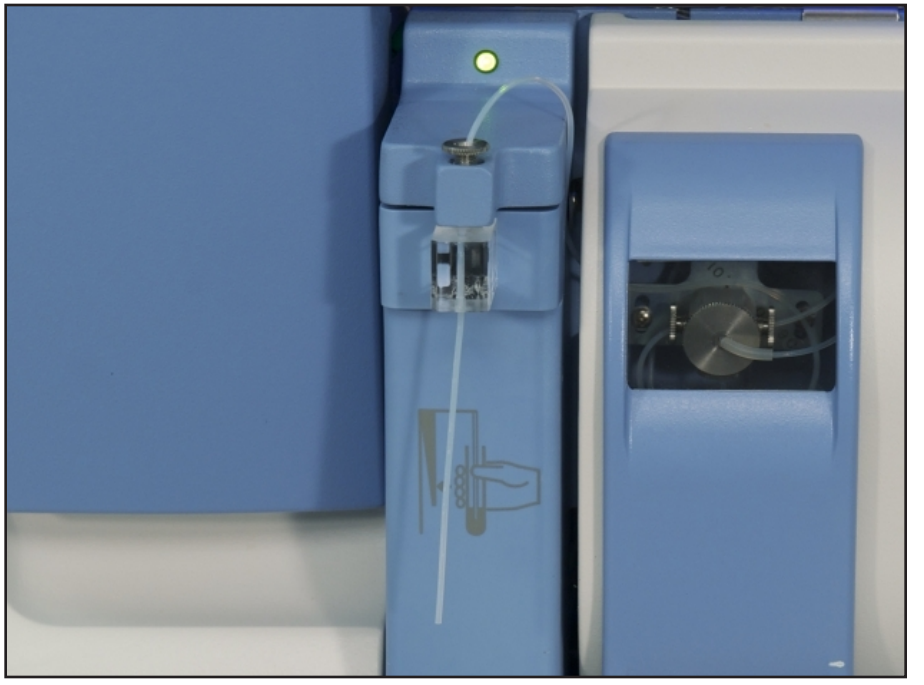
1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Insert tube into rack with the Quality Control product barcode label visible above the rack barcode.
3. Load rack onto input queue with label facing forward.
4. On the touchpad press **Start/Stop Sampler.**

Processing Quality Control From the Manual Closed-Tube Sampler

1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Scan the control product barcode label.
3. Verify the control name is displayed on Status Line 1 before aspirating the sample.
4. Mix control well.
5. Insert tube upside down and push the tube into the manual closed-tube sampler. Hold the tube parallel to the sampler well wall.
6. The control will be automatically aspirated and the sampling light will flash.
7. When the sampling light stops flashing, aspiration is complete. Remove the tube.

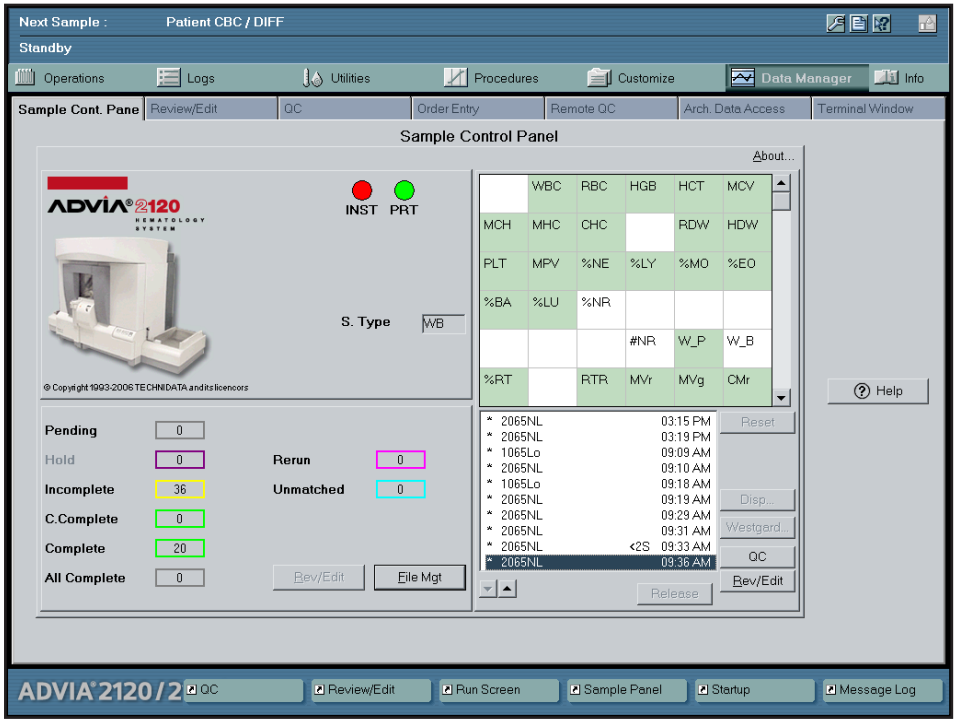
Processing Quality Control From the Manual Open-Tube Sampler

1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Scan the control product barcode label.
3. Verify the control name is displayed on Status Line 1 before aspirating the sample.
4. Mix control well.
5. Position the tube so that the sampler probe is immersed into the sample.
6. Press the aspirate plate.
7. Sampling light will flash during aspiration. When the sample light stops flashing, remove the tube from the probe.



Review / Edit and Validate Quality Control

1. Select **Data Manager** menu
2. Select **Sample Control Panel**
3. Select the **Control** from the Sample List
4. View Test Table Grid
   Green: within +/- 2 SD
   Yellow: > +/- 2 SD, < +/- 3SD
   Red: > +/- 3 SD
5. Select **Rev / Edit**
6. Review results using the scrollbar to display all results.
7. Select **Validate** icon from right side toolbar to validate results.



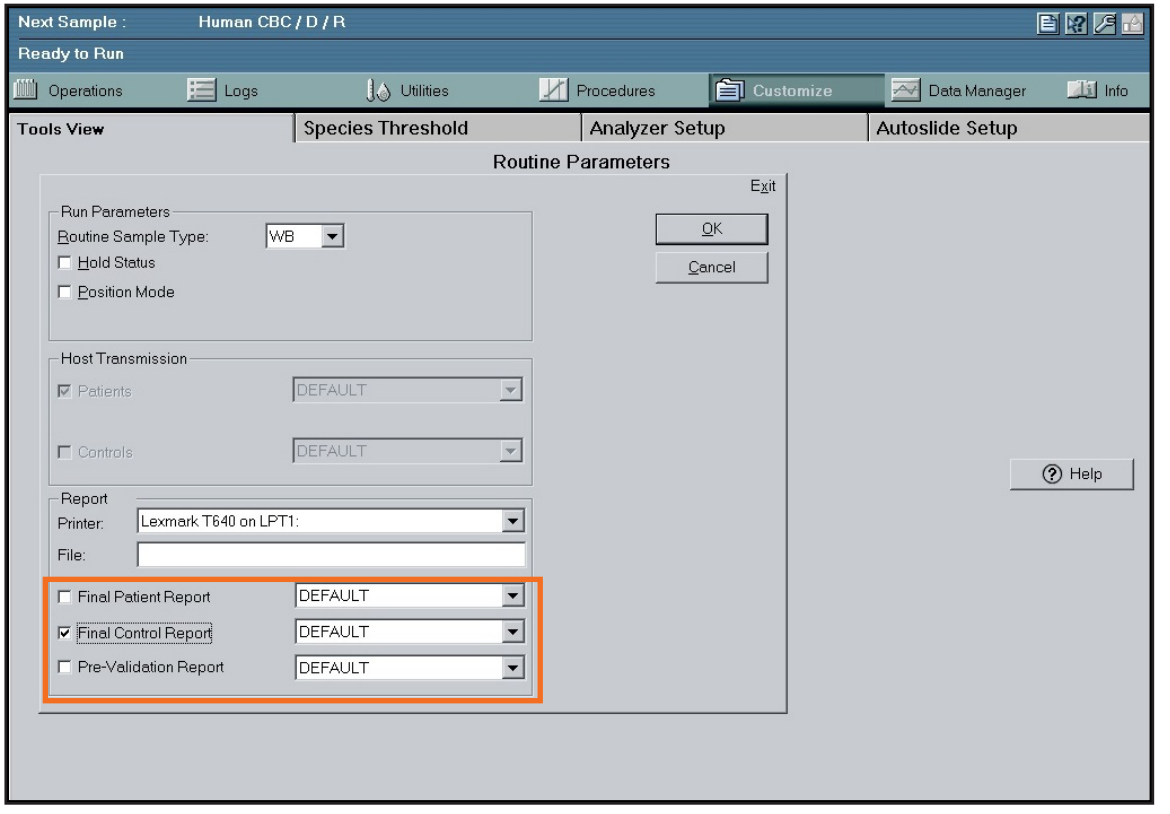
Importing a New Lot of QC

1. Select **Customize** > **System Setup** (or **Analyzer Setup**) > **Tools Modify** > **Control Dictionary**
2. Insert the mini CD into the computer or scan barcoded package insert.
3. Select **Import**
4. A list of controls will display. Select the first control to import by clicking on the control name and select **OK**.
   If a control file already exists with the same name, a window will display. Select **Create**.
5. In the Import Data screen, enter a code name for the control. The code name may be up to 6 characters and must be a unique identifier. Select **OK**.
6. To activate the use of colors as indicators on the Sample Control Panel test panel, place a check mark next **Test Panel**. Select **OK**.
7. Continue process for all remaining controls. When all controls are imported, select **Cancel** to end importing.
8. To view a list of controls already defined in the Control Dictionary, type a **?** In the **Code** box and select **Enter**.

Note:
If scanning barcoded package insert, scan the lot number barcode located in the upper right hand corner first followed by the rest of the parameters.

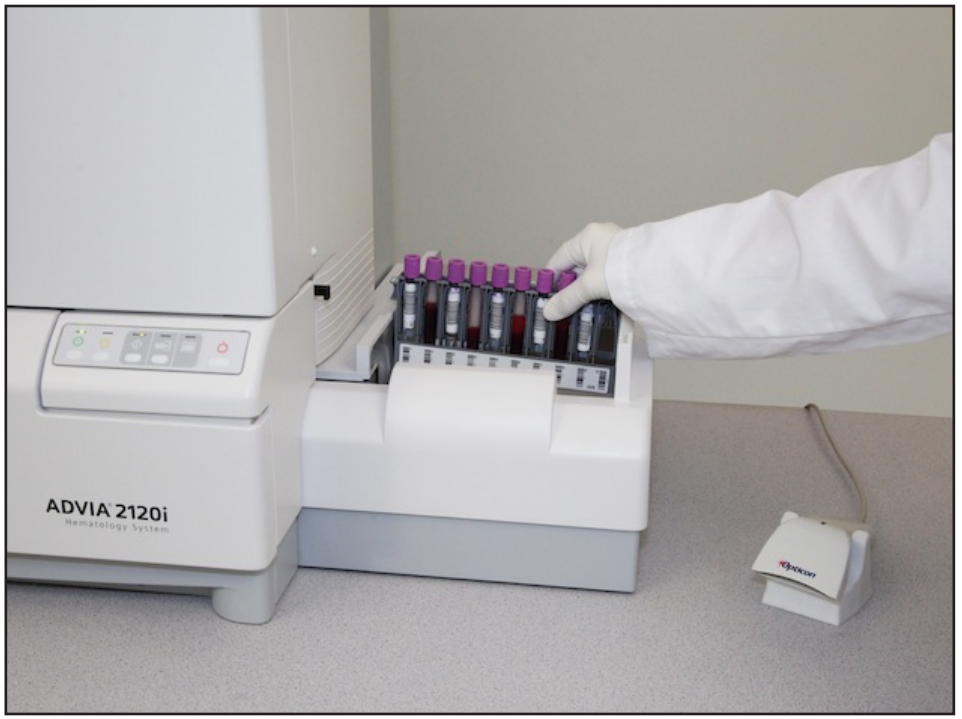
Configuring the System to Print Final Control Reports

1. Select **Customize** menu
2. Select **Tools View**
3. Select **Routine Parameter**
4. Select **Final Control Report**
5. Select **OK**



Sample Processing From the Autosampler

1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Insert tube into rack with the barcode label visible above the rack barcode.
3. Load rack onto input queue with label facing forward.
4. On the touchpad press **Start/Stop Sampler.**

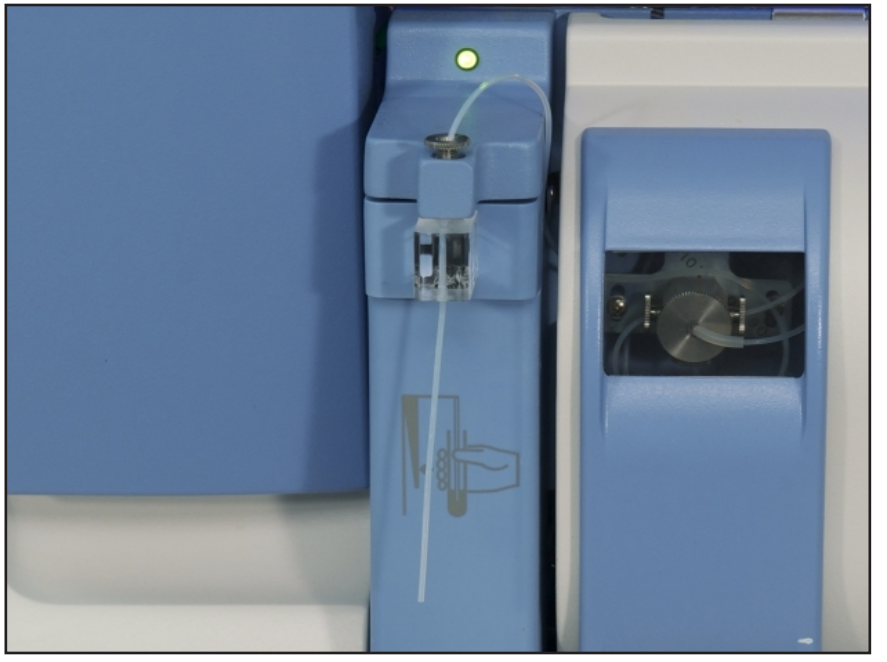


Sample Processing From the Manual Closed-Tube Sampler

1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Scan the sample barcode label or enter the sample ID in Manual Sample ID.
3. Verify the correct Sample ID and Selectivity are displayed on Status Line 1 before aspirating the sample.
4. Mix sample well.
5. Insert tube upside down and push the tube into the manual closed-tube sampler. Hold the tube parallel to the sampler well wall.
6. Sample will be automatically aspirated and the sampling light will flash.
7. When the sampling light stops flashing, aspiration is complete. Remove the tube.

Sample Processing From the Manual Open-Tube Sampler

1. Analyzer Mode: Ready to Run.
   If the Standby indicator is lit, press Standby on the touchpad to bring analyzer out of standby.
2. Scan the sample barcode label or enter Sample ID in Manual Sample ID.
3. Verify the correct Sample ID and Selectivity are displayed on Status Line 1 before aspirating the sample.
4. Mix sample well.
5. Position the tube so that the sampler probe is immersed into the sample.
6. Press the aspirate plate.
7. Sampling light will flash during aspiration. When the sample light stops flashing, remove the tube from the probe.



Processing a Sample in Manual Sample ID

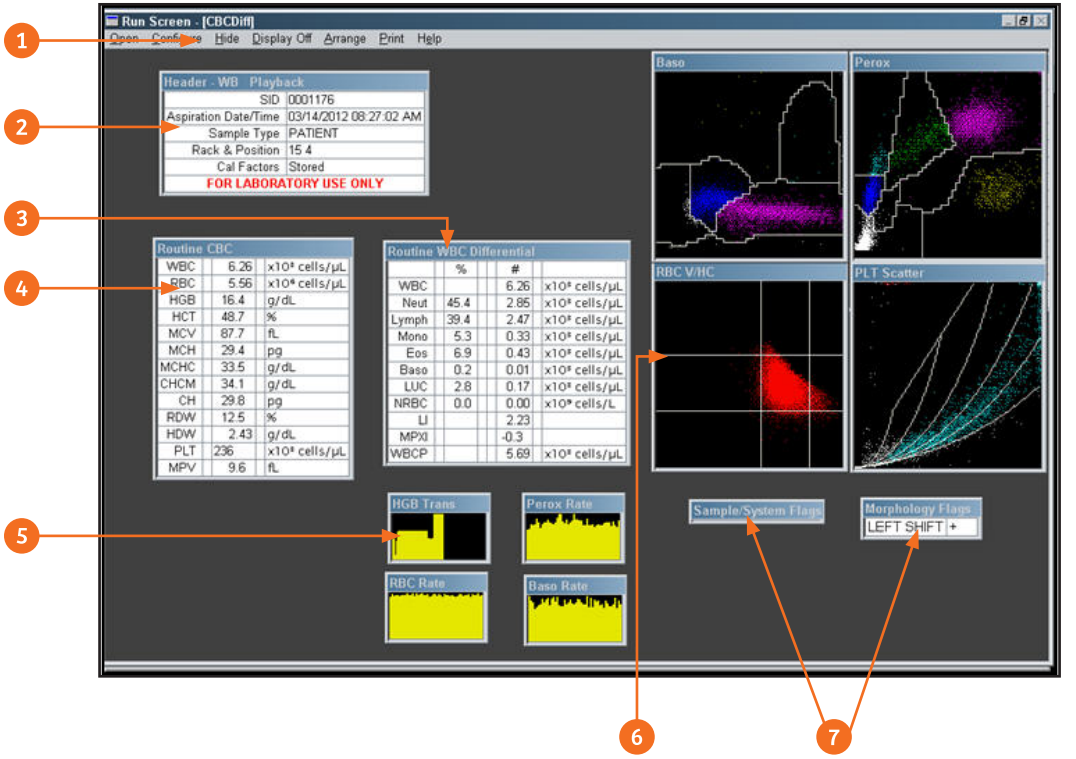
1. Select **Operations > Manual Sample ID**
2. Enter Sample ID Number in Next Sample ID field.
3. Select **Sample Type**
4. Select **Selectivity**
5. Select **Species** (if applicable)
6. Select **OK**
7. Process sample in Manual Closed-Tube Sampler or Manual Open-Tube Sampler mode.

Creating Sample Workorder using Order Entry

1. Select **Data Manager > Order Entry > Access**
2. Enter **SID #** (additional sample identifier and demographics may be entered if desired).
3. Select Tests to be processed.
4. Select **OK**
5. Select **Cancel** to complete Order Entry.
6. Barcoded sample can be scanned and processed. Non barcoded sample will need to be processed using Manual Sample ID.

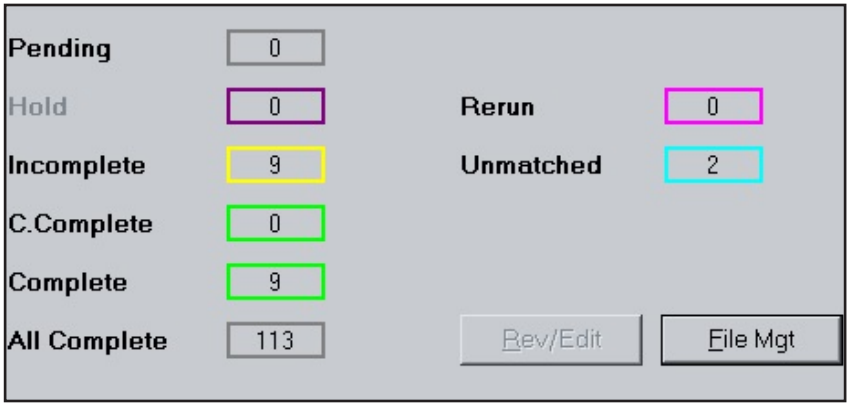
Run Screen Overview

1. **Run Screen Menu Bar**
   Open, Configure, Hide, Display Off, Arrange, Print and Help
2. **Run Screen Header**
   Sample and Patient Identification
3. **Routine WBC Differential**
   Including 6 Part Differential, nRBC, and WBC Perox Count
4. **Routine CBC Results**
   Complete Blood Count results
5. **Histograms**
   Displays the uniformity of the cell-counting rate
6. **Cytograms**
   Graphic representation of two light scatter measurements plotted along x axis and y axis
7. **Sample / System Flags and Morphology Flags**



Sample Control Panel: Sample Status

1. **Pending**: A workorder has been created but has not been resulted
2. **Incomplete**: Samples with no workorder, no Sample ID, or results waiting to validated
3. **C. Complete** (Current Complete): Results not yet printed or sent to the LIS
4. **Complete**: Validated sample records that the system has printed and/or transmitted to the host computer
5. **All Complete**: Sample ID numbers released by the SID Reset in the End of Day window
6. **Unmatched**: Sample records with test results which are not matched to a workorder

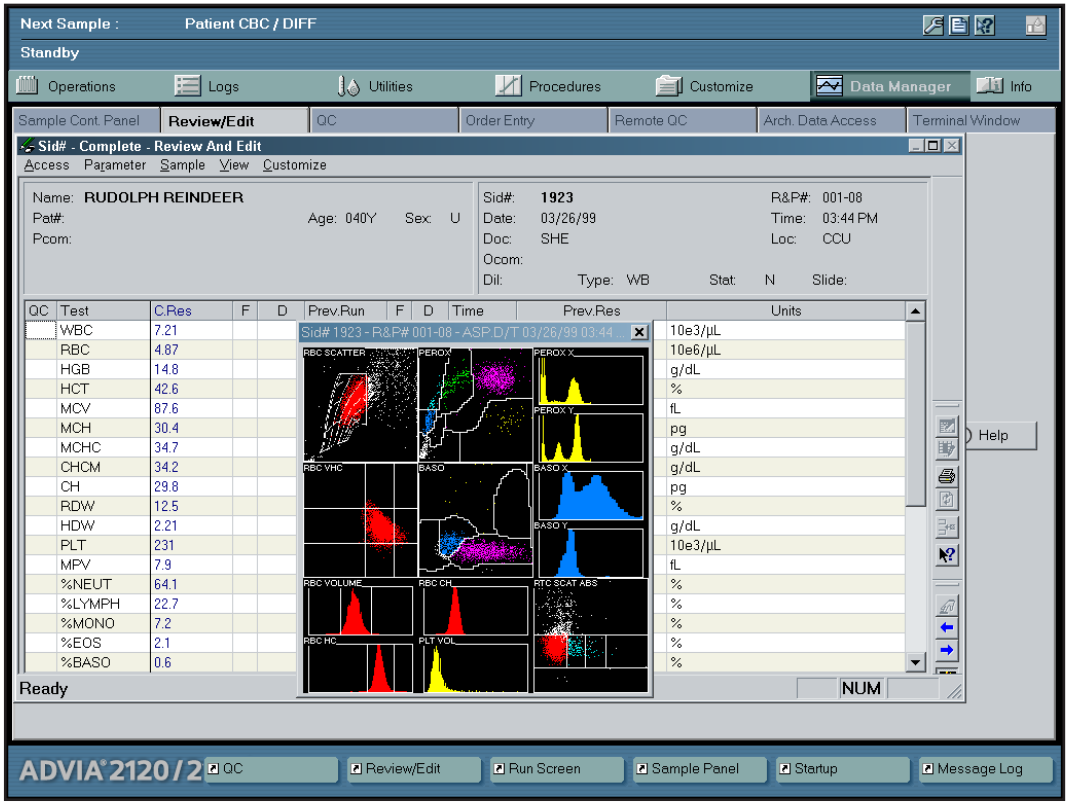


To Perform an SID Reset:

1. Select **Customize** > **Tools View** > **End of Day**
2. Select **Yes** to confirm workload is finished.
3. Select or verify the SID Reset checkbox is checked.
4. Select or verify the Moving Average Close Out check box is checked if desired.
5. **DO NOT** select the QC Closeout checkbox unless directed by laboratory policy.
6. Select **OK** to confirm and start SID Reset.

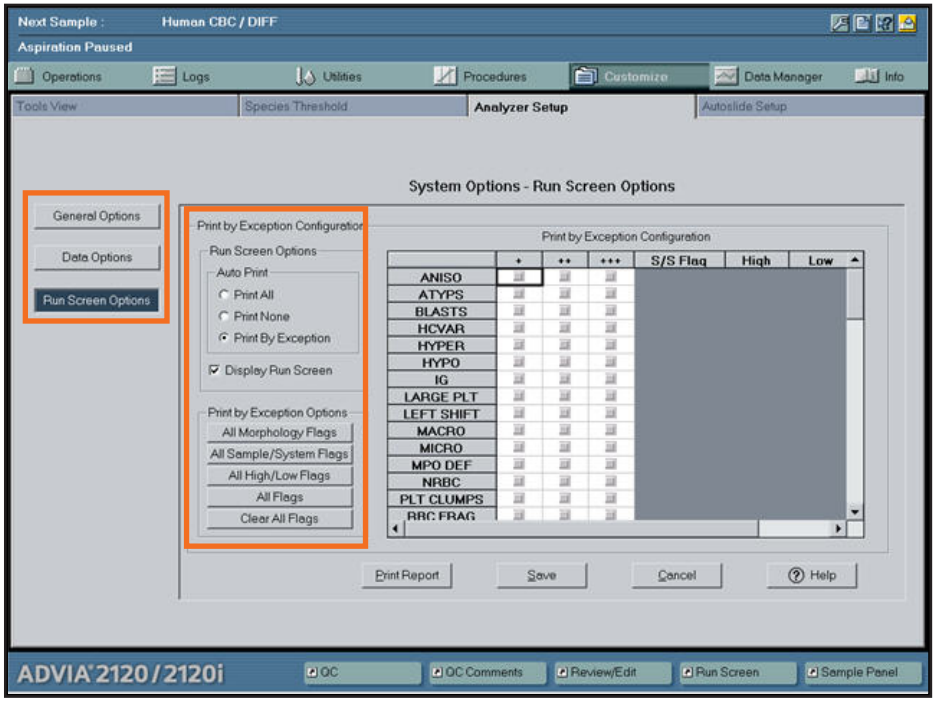
Review / Edit and Validate Sample Results

1. Select **Data Manager** menu
2. Select **Sample Control Panel**
3. Select **Sample ID Number**
4. Select **Rev / Edit**
5. Review results using the scrollbar to display all results.
6. Select **Validate** icon from right side tool bar to validate results.



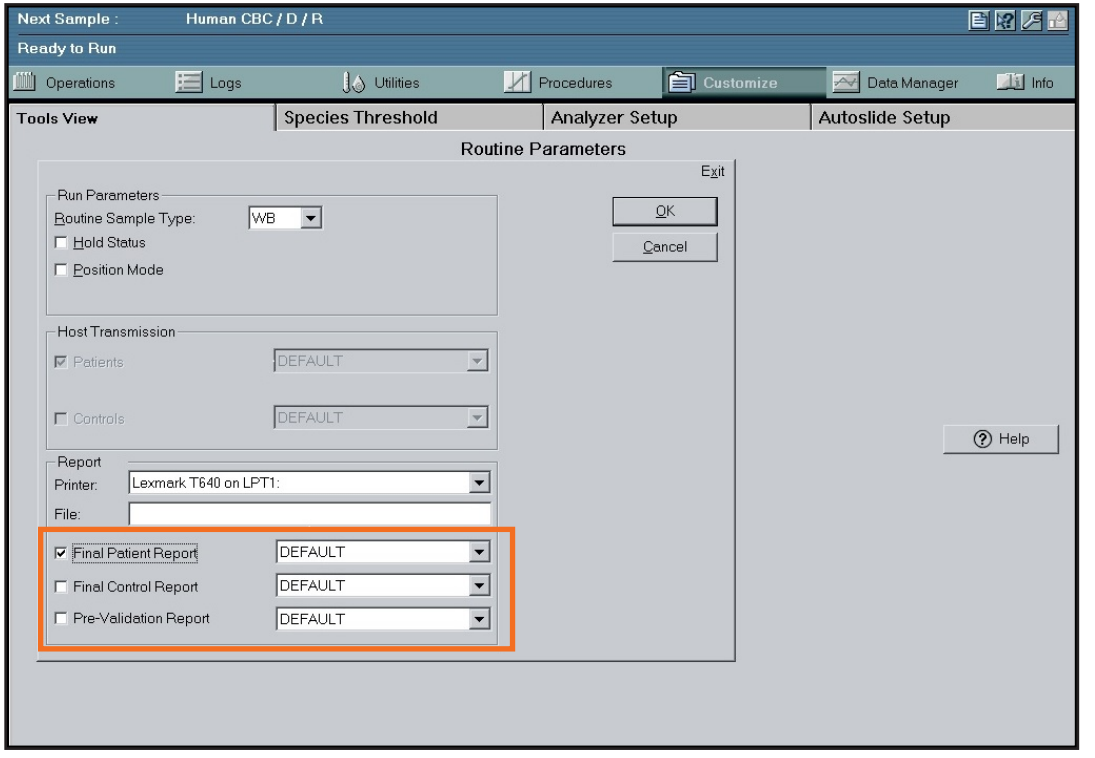
Configuring Run Screen Report Options

1. Select **Customize** menu
2. Select **System Setup** (or **Analyzer Setup**)
3. Select **System Options**
4. Select **Run Screen Options**
5. Select Auto Print option
   - **Print All**
   - **Print None**
   - **Print by Exception**
6. Select Print by Exception option
   - **All Morphology Flags**
   - **All Sample / System Flags**
   - **All High / Low Flags**
   - **All Flags**
7. Select **Save**

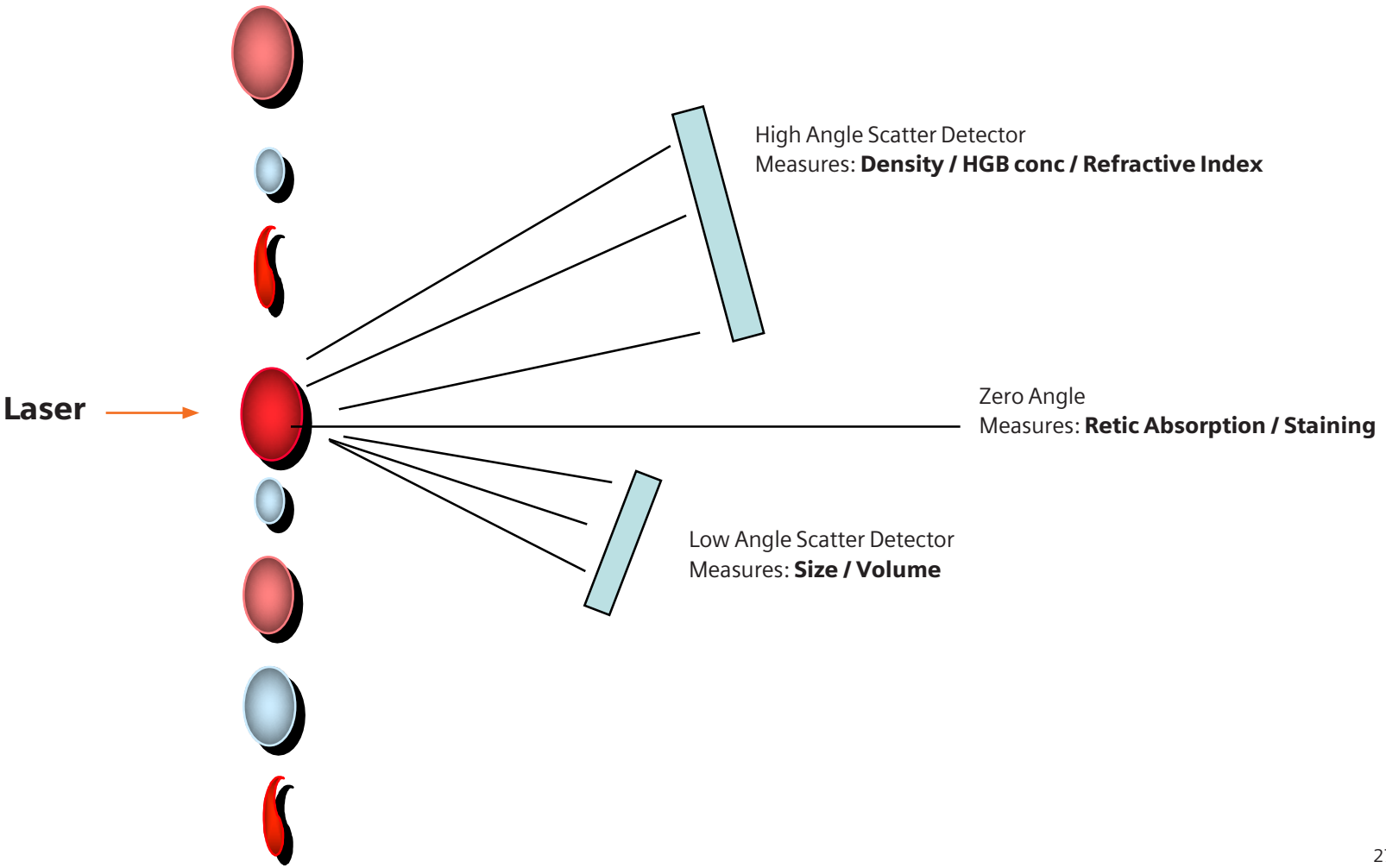


Configuring the System to Print Final Patient Reports

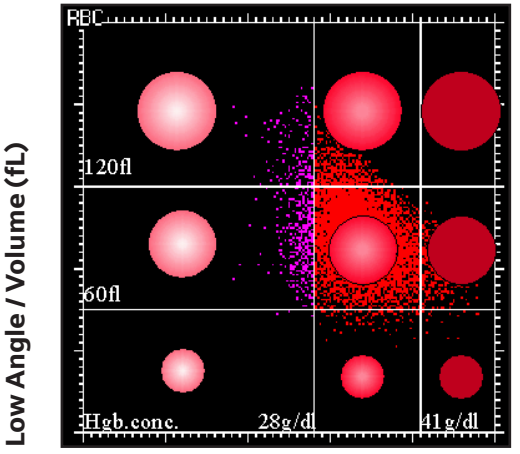
1. Select **Customize** menu
2. Select **Tools View**
3. Select **Routine Parameter**
4. Select **Final Patient Report**
5. Select **OK**



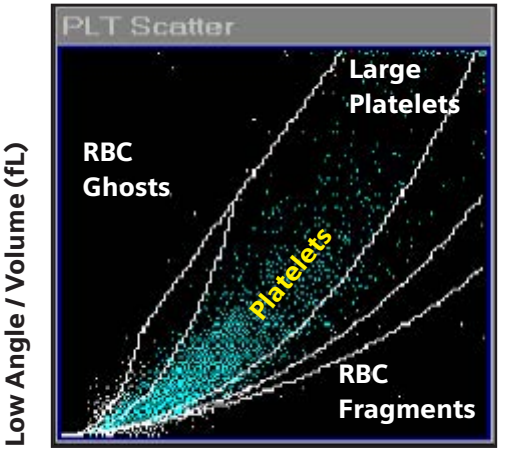
RBC / Plt / Retic Methods



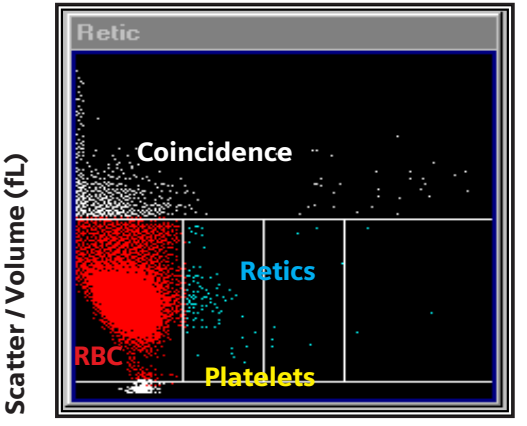
RBC / PLT/ Retic Methods



High Angle / Hgb Concentration



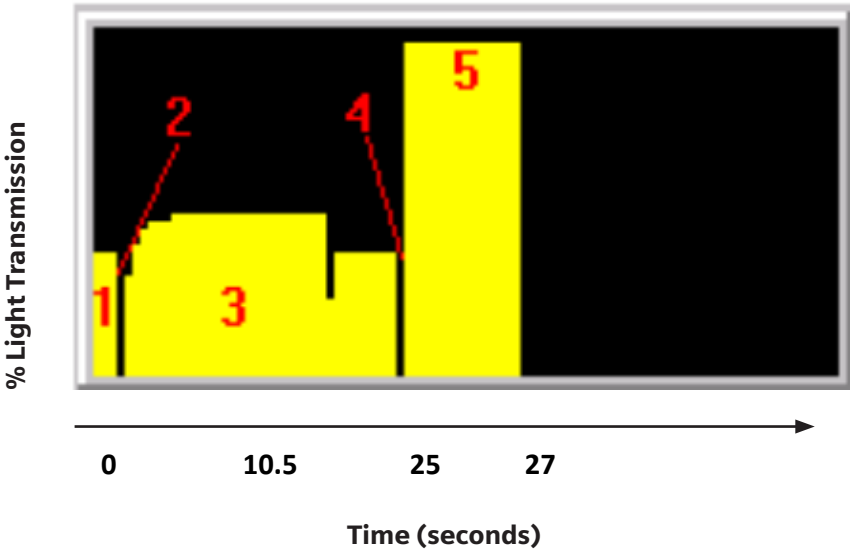
High Angle / Refractive Index



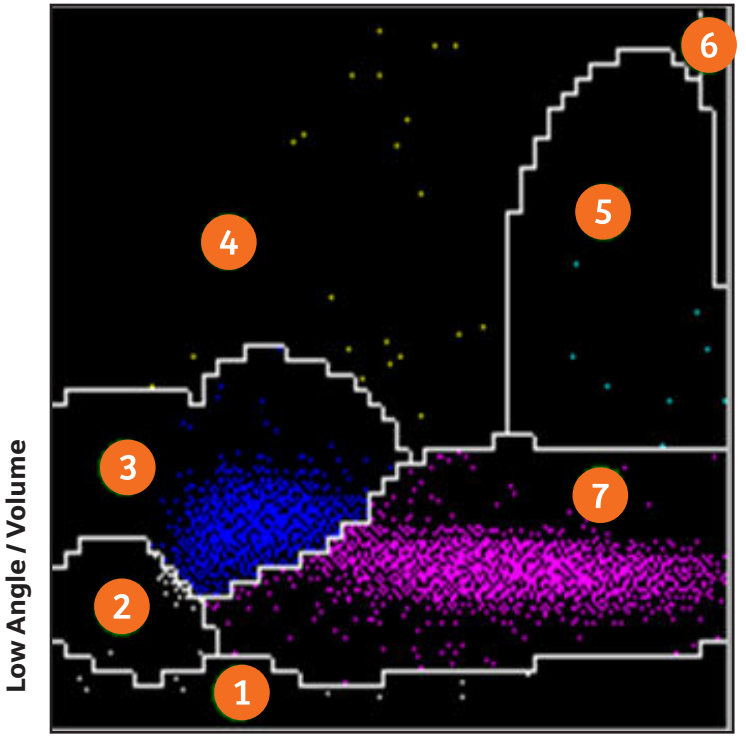
Absorption / Staining

Hgb Transmission

1. Sheath / Rinse from previous cycle
2. Draining and refilling with sample and HGB reagent
3. Sample reading
4. Draining and refilling with Sheath/Rinse
5. Sheath / Rinse Baseline reading

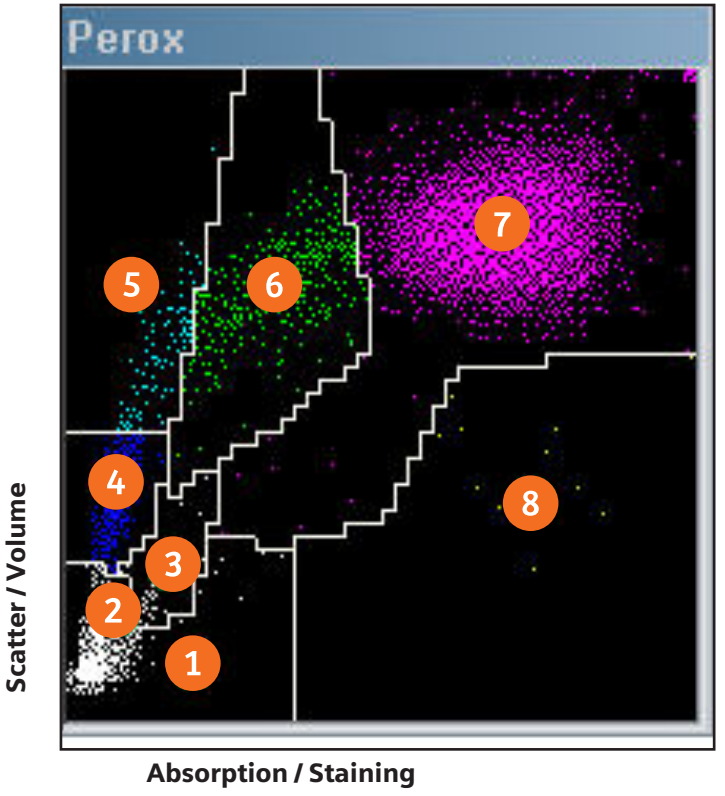


Baso Lobularity



1. Noise
2. Blast Cells
3. Mononuclear WBCs: Monocytes and Lymphocytes
4. Basophils
5. Baso Suspect
6. Saturation
7. Polymorphonuclear WBCs: Neutrophils and Eosinophils

Perox Method



1. Noise
2. Nucleated Red Blood Cells
3. Platelets Clumps
4. Lymphocytes and Basophils
5. Large Unstained Cells (LUCs)
6. Monocytes
7. Neutrophils
8. Eosinophils

Scheduled Maintenance

Weekly Maintenance

- Turn off the system.
- Wipe the outside of shear valve.
- Automatic Hydraulic Pathways Wash.
- Inspect Autosampler Centering Collar, clean if necessary.

Two Weeks Maintenance

- Clean Autosampler Centering Collar.

Monthly Maintenance

- Semi-automatic Vent Line Wash.

Two Months Maintenance

- Replace the RBC/Baso and Perox Sheath Filters.

6 Months Maintenance

- Clean the air-circulation filter.

Important:

In addition to these scheduled procedures, periodic inspections of the UFC pathways, vacuum shuttle, and reaction chambers are essential. If you find buildup or dirt in any of the lines or chambers, clean the line or chamber in question.

Weekly Maintenance

Turn Off the System

1. Select the **Operations** menu
2. Select **Log On / Off**
3. Select **Shut Down PC**; computer will automatically power down.
4. On the ADVIA touchpad, press **OFF**.
5. Power Off the printer.

Turn On the System (after maintenance performed)

1. Restart system by powering on the computer first.
2. At the Windows Log On screen, enter the User Name and Password. Select **OK**
3. The system opens the ADVIA 2120/2120i shell; select **ADVIA 2120**
4. On the ADVIA touchpad, press **ON**.
5. At the Log On/Off screen, enter the User Code and Password. Select **Log On**
6. Power On the printer.

Wipe the Outside of Shear Valve

1. Analyzer Mode: Off
2. Place paper towels under shear valve to catch dripping water.
3. Rinse the outside of shear valve with squirt bottle filled with DI water.
4. Using a soft lint-free tissue, gently wipe outside of shear valve.
5. Remove paper towels and proceed with next weekly maintenance task.

Weekly Maintenance

Automatic Hydraulic Pathways Wash

1. Let two vials of ADVIA 2120/2120i RBC Flow Cell Wash and five vials of ADVIA 2120/2120i Aspiration Pathway Wash stand for 15–20 minutes to come to room temperature.
2. Analyzer mode: Ready to Run
3. Load five vials of ADVIA 2120/2120i Aspiration Pathway Wash onto the sampler rack.
4. Load two vials of ADVIA 2120/2120i RBC Flow Cell Wash onto the sampler rack.
5. Load two vials of ADVIA 2120/2120i Perox Flow Cell Wash onto the sampler rack.
6. Ensure the barcode labels on each tube are facing out and are accessible to the autosampler barcode reader.
7. Press **Start/Stop Sampler** on the touchpad.
8. The system will automatically advance the sample rack and begin the automated pathway washes.
9. Sample rack will be ejected out of the system.
10. Run QC as per laboratory policy.

Weekly / Two Weeks Maintenance

Weekly Maintenance: Inspect Autosampler Centering Collar, clean if necessary

Two Weeks Maintenance: Clean Autosampler Centering Collar

Warning: The analyzer must be off; otherwise, personal injury from the needle may occur. To avoid personal injury and exposure to a potential biohazard, cover the needle with the red needle cover immediately after it is removed from the centering collar. Be careful not to bend the needle.

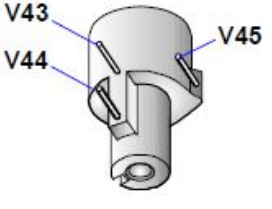
1. Analyzer Mode: Off
2. Inspect autosampler centering collar for debris and salt buildup.
3. Tilt the front cover down and remove the sample line from the bottom of the selector valve.
4. Loosen the thumb screws and tilt the autosampler aspirator assembly forward.
5. Pull up the spring-loaded knob, turn it a ¼ turn, then remove the centering collar by pulling it up and out.
6. Place the red needle cover over the needle.
7. Remove V43, V44 and V45 tubing from centering collar.
8. Place centering collar in 25% solution of 6% sodium hypochlorite and DI water for five minutes.
9. Remove any remaining residue with cotton swab and rinse with DI water.
10. Using a stylet, clean the fittings and the center bore of autosampler centering collar. Flush each port of the centering collar using DI water in a syringe with 0.030 inch tubing attached.

(continue on next page)

Weekly / Two Weeks Maintenance

Clean Autosampler Centering Collar (continued)

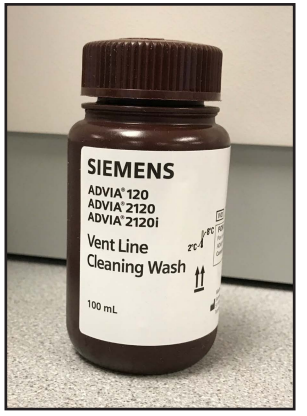
11. Reconnect V43, V44, and V45 tubing to centering collar.
12. Apply a small amount of Parker Super O-lube to the bottom of the centering collar taking care not to apply to ports or needle base.
13. Remove the needle cover and carefully replace the collar over the needle. On the autosampler centering collar, be sure to turn the spring-loaded knob back to its original position.
14. On the autosampler, reposition the autosampler aspirator. Make sure that it drops firmly in place over the guide pins.
15. Finger-tighten the thumb screws and then reconnect the sample line to the selector valve.
16. Close the analyzer cover.
17. Turn analyzer power on, verify Background Counts, and run whole blood primers to verify system performance.

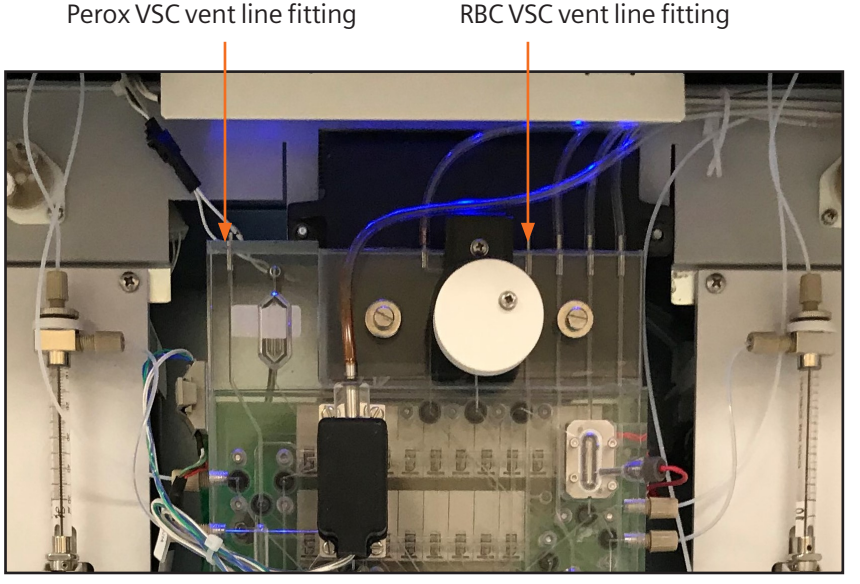


Monthly Maintenance

Semi-Automatic Vent Line Cleaning Wash

1. Allow one bottle of ADVIA 120/2120/2120i Vent Line Wash to stand for 15-20 minutes to come to room temperature.
2. Open the bottle of ADVIA 120/2120/2120i Vent Line Wash and remove the vent overflow tubing from overflow bottle.
3. Insert two pieces of 12 inch (300.5 mm), 0.081-ID tubing onto the RBC and Perox shuttle chamber vent line fittings.
4. Fully immerse each vent line tubing into the ADVIA 120/2120/2120i Vent Line Wash bottle.
5. Select **Utilities > Hydraulic Functions > Clean UFC Vent Lines and Chambers**
6. Select **All**
7. Select **Start**
8. When the cleaning event is completed, place the tubing into a container with 100 mL of DI water then select **Start**
9. Remove the tubing from the RBC and Perox shuttle chamber vent line fittings.
10. Place all other tubing back into the overflow bottle then select **Start**
11. Perform a background counts by selecting **Operations > Startup > Refresh**. Verify background counts are within range (green).
12. Run QC as per laboratory policy.



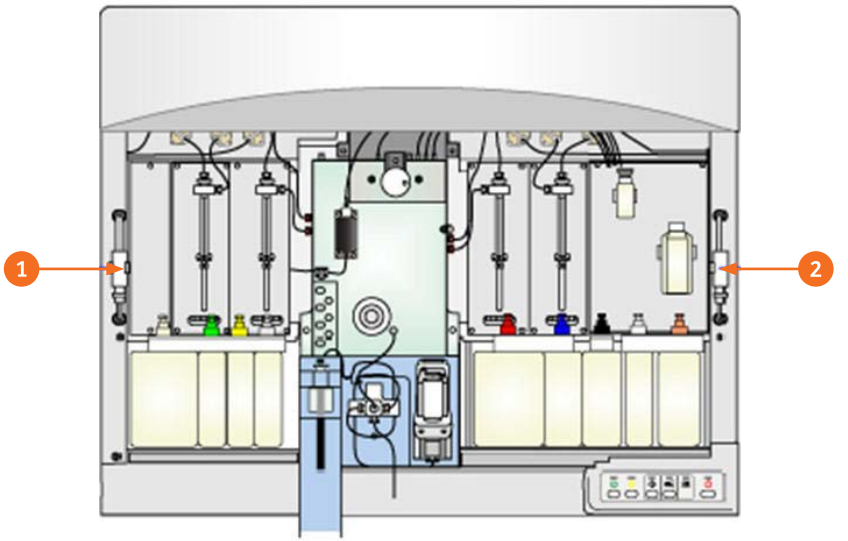


Two Months Maintenance

Replace Sheath Filters

1. Analyzer Mode: Ready to Run
   Locate filters by opening the system's doors and refer to image on the right.
2. Remove the sheath filter from the mounting clip. Place paper towels under the filter to absorb fluid from filter.
3. Disconnect the reagent line attached to the barbed fitting and the input (top) port on top of filter.
4. Disconnect the luer fitting from the connector at the output (bottom) port .
5. Hold the replacement filter by body and attach the luer fitting connector at output port.
6. Connect the reagent line to the barbed fitting of input port
7. Insert the sheath filter into the mounting clip with the input port up.
8. Prime the reagent lines by selecting **Utilities > Hydraulic Functions > Reagent Prime**.
9. Select the **Perox Sheath** and **Sheath/Rinse** checkboxes.
10. Change Number of Cycles to **5**
11. Verify filter is approximately 90% full; run two additional prime cycles if needed.
12. Perform a background count by selecting **Operations > Startup > Refresh**. Verify background counts are within range (green).

Location of the perox (1) and the RBC/baso (2) sheath filters



Six Months Maintenance

Clean the Air-Circulation Filter

1. Remove the filter by sliding the filter out of the frame.
2. Remove excess dust or lint from the filter by tapping it against a clean, hard surface or by vacuuming.
3. Flush each side of the filter with a strong stream of water.
4. If the filter remains dirty, rinse the filter in a container filled with warm water and mild detergent.
5. Rinse the filter with clean water, then allow it to air dry.
6. Replace the filter by sliding it back into its frame.

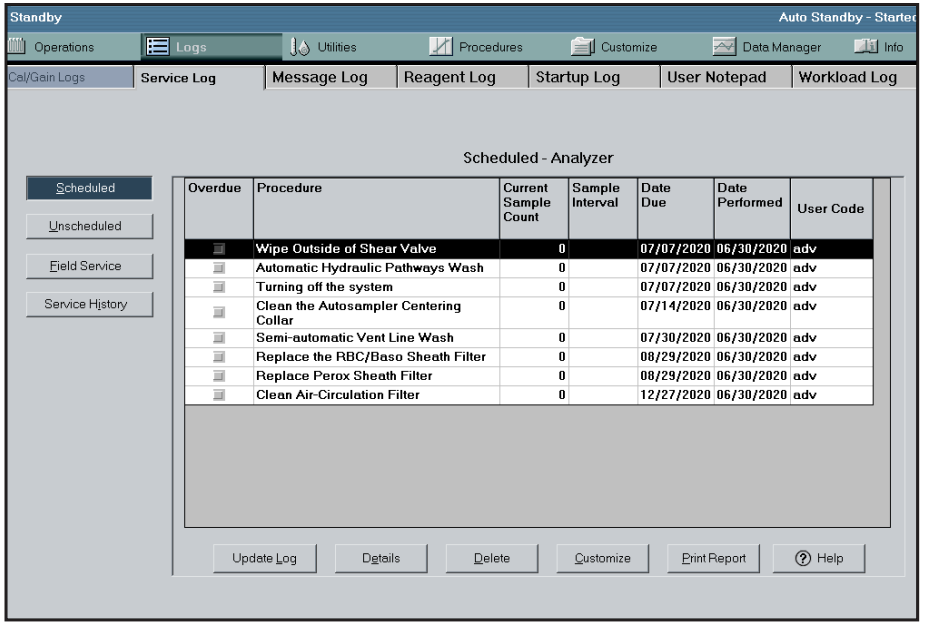
Document Scheduled Maintenance

Update the Service Log

1. Select **Logs > Service Log** or select 
2. Select the procedure performed.
3. Select **Update Log**
4. Review the information in dialog box.
5. Type User Code and/or add comments if desired.
6. Select **OK**

Export Service History

1. Select **Logs > Service Log > Service History**
2. Enter the Start Date and End Date from dropdowns.
3. At Intervention Type dropdown, select **Scheduled**
4. At Category dropdown, verify **All** is selected.
5. Select **OK**
6. Select **Export**
7. At the Export window, select a drive followed by **Start**



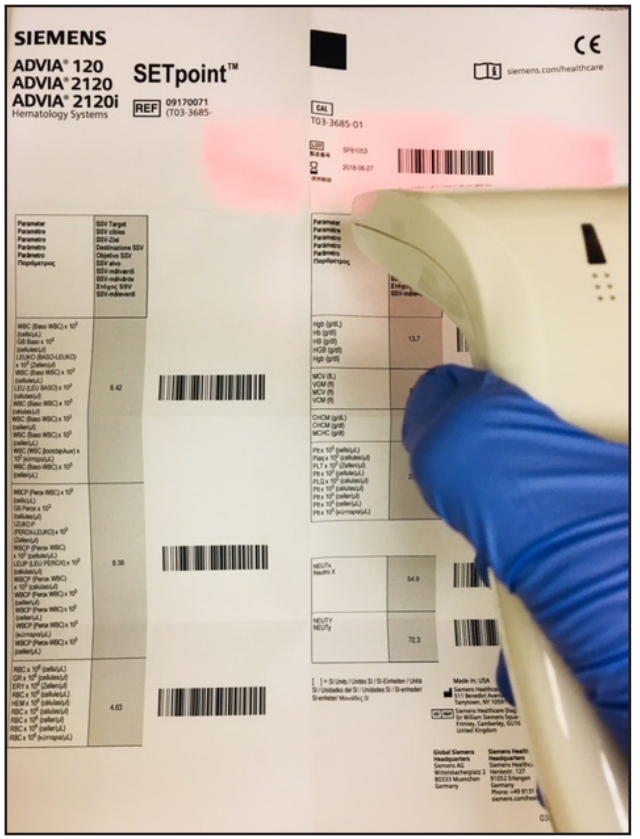
Note:
Do not attempt to export a log while the system is processing samples.

Calibration Wizard

Important:
Perform weekly maintenance before calibration procedure.

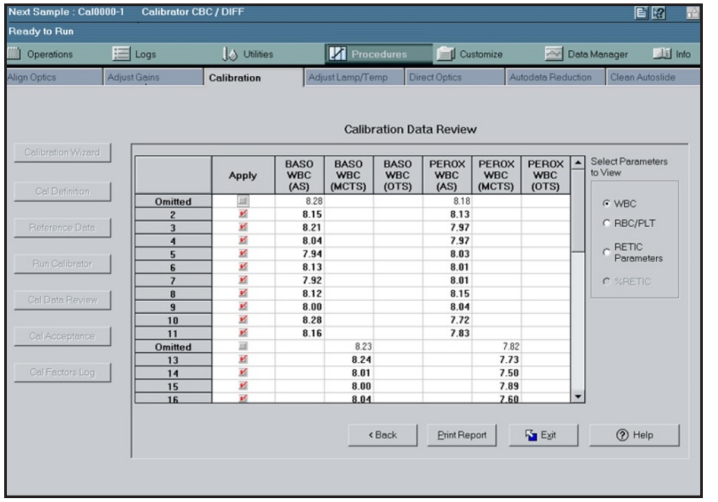
1. Select **Procedures > Calibration > Calibration Wizard**
2. Enter password and select **OK** (if required).
3. On Calibration Definition screen verify:
   Type of Calibration
   Primary Sampler Type
   Calibration Parameters
4. Select **Next** and verify materials required.
5. Select **Next** and scan **SETpoint™ Calibrator** package insert, beginning with the lot number barcode.
6. Select **Import Barcode**
7. Select **Next** and follow instructions on screen.
   For Autosampler: Place rack on input queue and press **Start/ Stop**
8. When Autosampler is complete select **Next**
9. Follow directions on screen:
   - Run calibrator 11 times with MCTS mode.
   - Run calibrator 11 times with MOTS mode
10. Select **Next** to proceed to Calibration Acceptance screen.

(continue on next page)



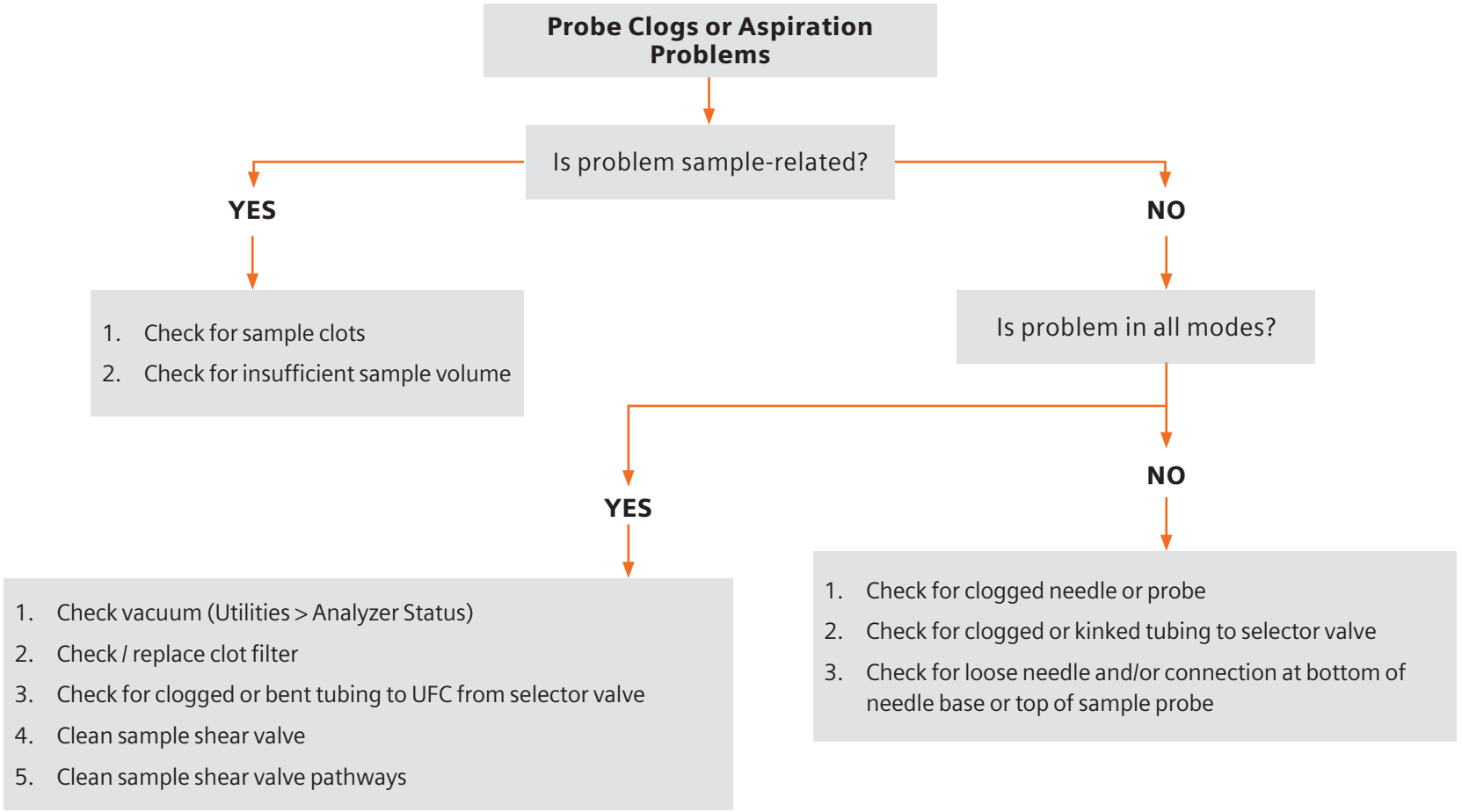
Calibration Data Review and Acceptance

1. The Calibration Acceptance screen will display **Passed** or **Failed**
2. For a **Failed** calibration, select grey box under Reason column.
3. Select **Cal Data Review** to review data and print reports
4. Select radio button to review each parameter:
   - WBC
   - RBC/PLT
   - Retic
5. ***If calibration Passed***, review Statistical Summary for each parameter. Select **Print Report** for each parameter.
6. Select **Back** then select **Accept Calibration**
7. ***If calibration Failed***, review and omit data points for parameter(s) that failed in Cal Data Review screen. Omit outliers by removing red checkmark. A minimum of 8 data points must be used in order to pass a calibration.
8. Select **Back** to view if calibration is **Passed**. Repeat omitting outlier data point(s) if necessary.
9. If **Passed**, select **Cal Data Review**. Select **Print Report** for each parameter.
10. Select **Back** then select **Accept Calibration**
11. Run QC as per laboratory policy.



Note:
Print Report for all parameters before selecting Accept Calibration.

Troubleshooting Probe Clog / Aspiration Failure Messages

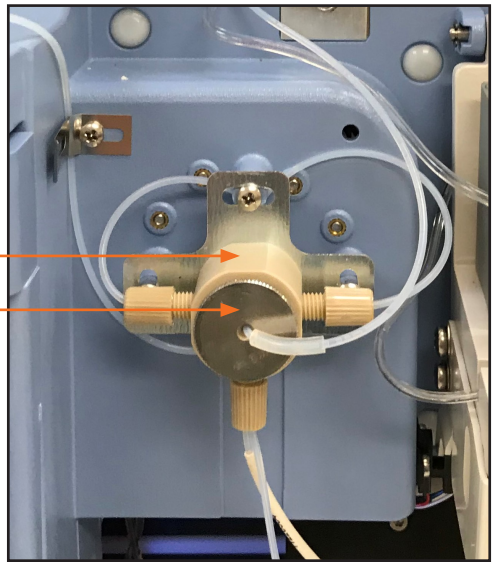


Replace Clot Filter

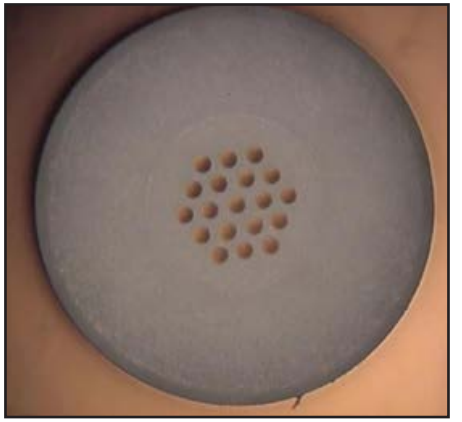
1. Analyzer Mode: Standby
2. Unscrew the filter tube fitting and tube assembly from the front of the selector valve.
3. Gently push the silicone sleeve to release the clot filter from the filter adapter fitting.
4. Visually check the filter adapter fitting and the input port of the selector assembly for any debris or small particles.
5. If you find some debris, use a piece of lens tissue moistened with water to remove it.
6. Wet the new clot filter with water and place it into the filter adapter fitting.
7. Orientation of the filter is not important.
8. Reconnect the filter adapter fitting to the selector valve. Finger tighten.

Important: Be very careful not to misthread the fitting. Misthreading could strip the valve which will prevent proper operation.

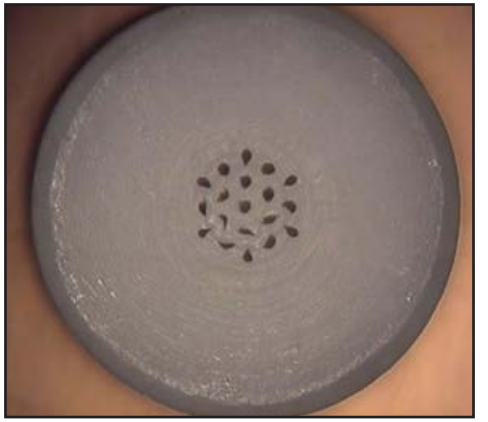
9. Press **Standby** to return analyzer to Ready to Run mode.
10. Run a sample and visually check for air bubbles in the sample line between the selector valve and the UFC block.



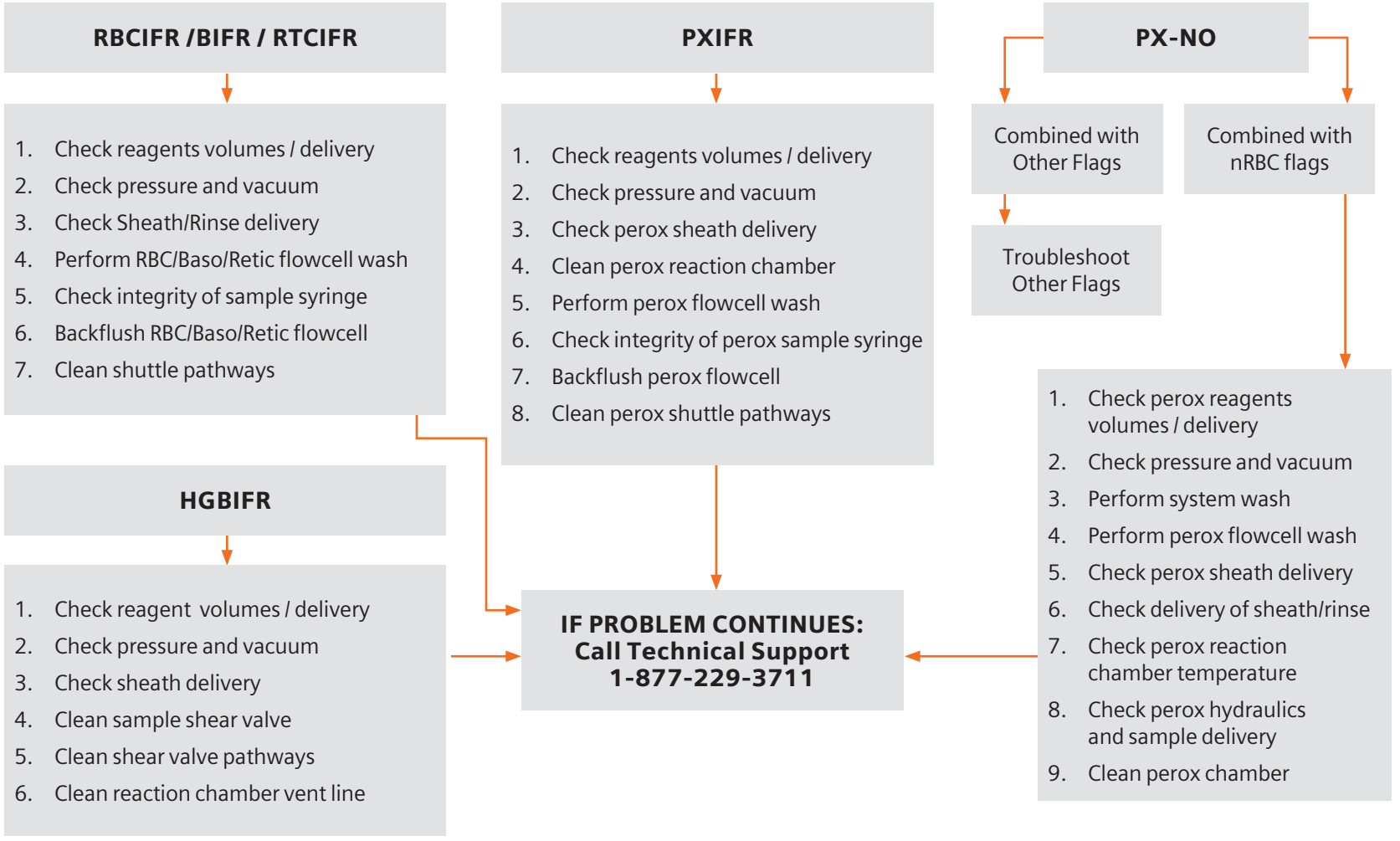
Normal Clot Filter



Overtightened Clot Filter

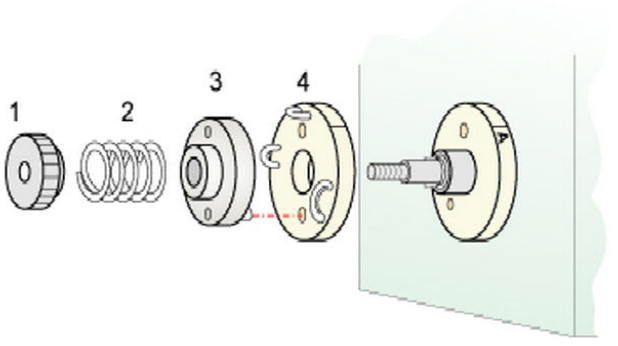


System Flags Troubleshooting Chart



Clean the Shear Valve

1. Analyzer mode: Off
   Important: Place paper towels directly under the shear valve to prevent fluid from dripping down into the analyzer.
2. Remove the knurled nut by turning counter-clockwise (1).
3. Remove the compression spring (2).
4. Remove the rotor (3).
5. Separate and remove shear face (4) by gently rotating front shear face.
   Caution: Do not loosen or remove with sharp object
6. Place the front shear face in 6% sodium hypochlorite solution and soak ten minutes. Rinse with DI water.
7. Rinse the rear shear face using a wash bottle filled with distilled water.
   Caution: Do not use paper towel, gauze or cotton swabs on shear faces
8. Reassemble the shear valve with the faces wet. Verify the black line on the front face aligns with the black line and A on back face. Smaller loops are at 9 and 11 o'clock and the large loop is at 5 o'clock.
9. Install the rotor by installing the drive pin in the hole on the right side of the front face.
10. Replace the spring and knurled nut.
11. Hand tighten nut.
12. Turn analyzer power on and verify Background Counts.
13. Run a whole blood primer and QC as per laboratory policy.



Adjust Gains Wizard

Important:
Perform weekly maintenance before Adjust Gains procedure.

1. Select **Procedures > Adjust Gains**
2. Select **Gains Wizard**
3. Enter password and select **OK** (if required).
4. Select the radio button for the procedure to be performed. Perox and Baso can done with or without the Autosampler.
5. The software will default to the required number of aspirations.
6. Select **Next**
7. Verify materials required to perform gain adjustment.

   Perox: ADVIA SETpoint™ Calibrator or TESTpoint™ Normal Control

   RBC/Retic: ADVIA OPTIpoint™

   Baso: Five Whole Blood Samples (less than 8 hours and must be from different donors)

   Multispecies Users Only: Must select Dog or Human radio button for donor blood species used. MNx and MNy default values will display later on Gain Reference Data screen.
8. Select **Next**
9. Gain Reference Data screen: For Perox and RBC/Retic, scan package insert barcode and select **Import Barcode**
10. Select **Next**
11. On the Run / Data Review screen, begin processing until the required number of aspirations are displayed.
12. Select **Next**

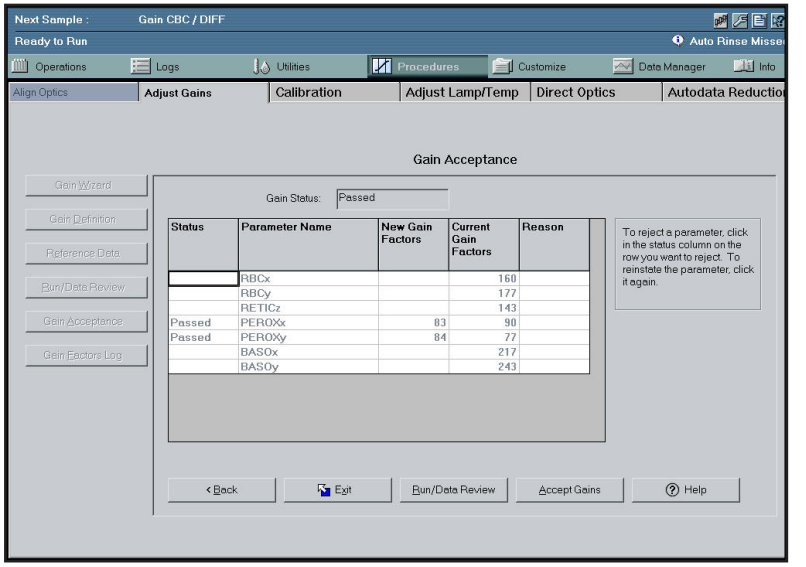
Accept/Reject Gain Factors

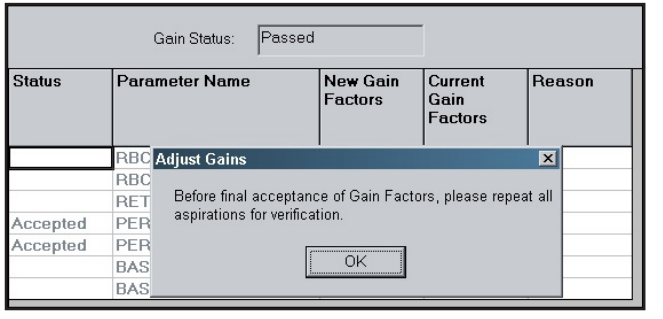
1. On the Run/Data Review screen result. A red check mark in the Apply column will display on each row of data included in the statistical analysis; to omit data, deselect box.

   For manual modes only, run additional samples by selecting Run More and following instructions on screen.

2. Select **Next** and review information on the Gain Acceptance screen. To proceed, select **Accept Gains**
3. Before final gain acceptance, a final verification is required; perform the required verification run.
4. Review Verification Run data. For final acceptance select **Next** and **Finish**.
5. Select **Gain Factor Log** to view and print gain factors.
6. Select **Exit** to close.
7. Run QC as per laboratory policy.

Note:
For documentation, print all raw data from Run / Data Review screen



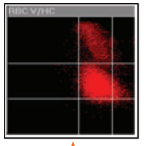


Troubleshooting CHCMCE Sample / System Flag

Is CHCMCE occurring on only one sample?

YES

Investigate **SAMPLE** related cause of flag



Lipemia?

↑ Hgb ↑ MCV ↑ MCHC

Follow laboratory procedure

Hemolysis?

↓ RBC ↑ MCHC

RBC parameters are not valid.
Follow laboratory procedure

Cold Agglutinin?

↓ RBC ↑ MCV ↑ MCHC

Warm sample and rerun

NO

Investigate **SYSTEM** related cause of flag

- Was a maintenance procedure just performed?
- What was the last thing done on the instrument?
- If other flags appear with CHCMCE flag troubleshoot other flags first

Run controls to isolate the problem

Hgb

Low Results

Clean sample shear valve

High Results
with bumpy mattress

Prime HGB reagent line with
1. EZ Wash
2. DI water
3. Hgb reagent

RBC

Clean sample shear valve

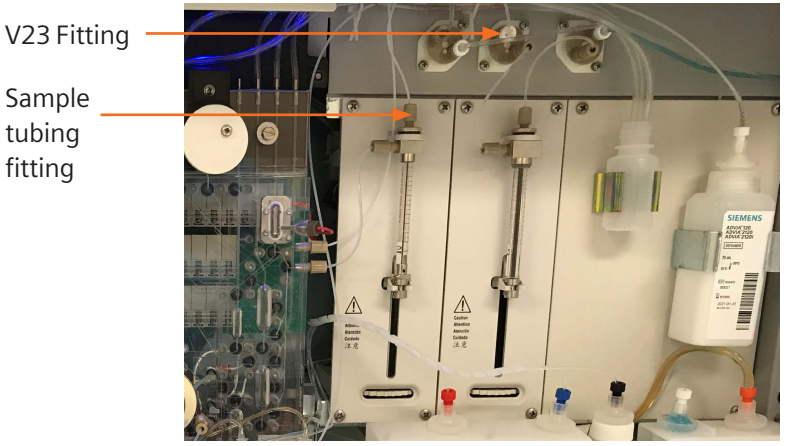
MCV, CHCM

Backflush the RBC/Baso/Retic flowcell
Clean Shuttle and Reaction Chamber Pathways
(see next page)

Troubleshooting CHCMCE Sample / System Flag

Backflushing the RBC/Baso/Retic Flowcell

1. Select **Utilities > Exerciser > Valves**
2. Unscrew the white fitting of **Valve 23** (upper middle valve above the RBC syringe).
3. Attach the white fitting to a flowcell cleaning syringe filled with a 25% solution of 6% sodium hypochlorite and DI water.
4. Disconnect the sample tubing fitting from top of sample syringe and place into a beaker to catch the fluid.
5. Gently push the plunger on the syringe to flush the 25% solution through the flowcell.
6. Repeat with DI water.
7. Reattach the sample tubing fitting and the Valve 23 white fitting.



Clean the Shuttle Pathways and Reaction Chamber

1. Select **Utilities > Exerciser > Valves**
2. Unscrew the white fitting of **Valve 23**
3. Open **V9** and then push the syringe to fill the **RBC chamber** with 25% solution of 6% sodium hypochlorite and DI water; open **V10** to drain.
4. Close **V9** and **V10**.
5. Repeat steps 3 and 4 with DI water.
6. Refill the syringe with the 25% solution.
7. To flush the **RBC Vacuum Shuttle Chamber (VSC)**, open **V20** and **V22**. Fill the chamber then empty the chamber by opening **V21**. Close **V21**.
8. Repeat step 7 with DI water.
9. Reattach the Valve 23 white fitting.
10. Select the **Analyzer Status** tab to exit Exerciser.
11. Perform one System Wash and run QC as per lab policy.

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