



Atellica® HEMA 580 / SMS

Quick Reference Guide

SIEMENS
Healthineers

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HEMA 580 Hardware Overview

1. Touchscreen
2. STAT Sample Door
3. Rack Loading Tray
4. Rack Ejection Tray
5. Light Indicator
 - Green: Analyses currently in progress or analyzer ready for the next analysis
 - Orange: Warning flag
 - Red: Error Flag
 - Flashing: System failure or error
 - Flashing every 5 seconds: System busy
6. Atellica HEMA RET/PLTO Reagent
7. Atellica HEMA Cleaner Reagent
8. Atellica HEMA Diff Reagent
9. Atellica HEMA HGB Reagent
10. Power Button
11. USB Port



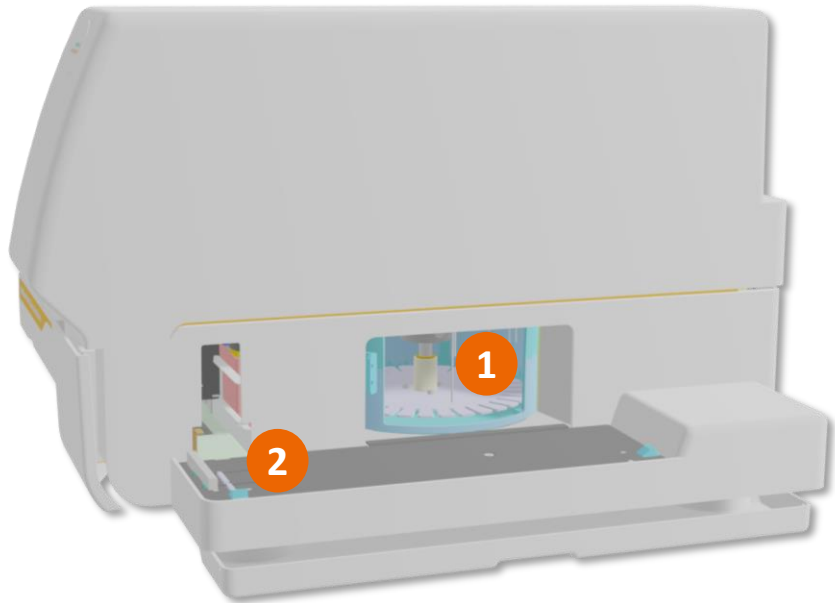
SMS Hardware Overview

1. Slide dispenser
2. Rack loader



SMS Hardware Overview

1. Stainer assembly
2. Rack reception station



HEMA 580 Software Overview

Analyzer Home Screen

1. Title Bar (Emergency Stop, Breadcrumb trail, Current screen title, Help)
2. Central Panel (Startup, Shutdown, Reagents and Consumables, Quality Assurance, Settings, Logs, Management of tubes and patients, Maintenance)
3. Status Bar (Reagent and QC alarms, Number of sample tubes, Analyzer and SMS status)
4. Right Vertical Bar (Home, Start/Pause, Eject racks, STAT mode, Eject slides, Stain slide, Back)



Software Overview

Virtual Keyboard

1. Close the Virtual Keyboard
2. Move to the next field (similar to Tab)
3. Ok and Cancel – Accept or reject information entered on the current screen



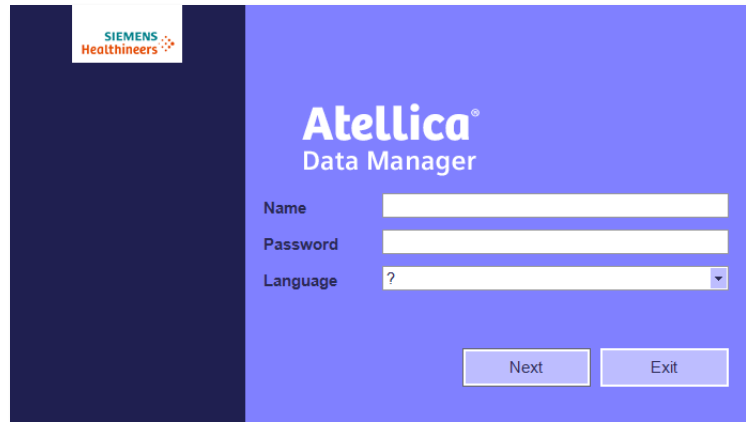
Signing On and Off

Log in

1. From the ADM workstation computer, select the Atellica DM desktop icon  or locate the program from the Windows Apps screen
2. Enter your Name and Password
3. Select **Next**

Log Out

1. Select the Sign Out icon  or select the **X** in the upper right corner of the system
2. Select **Exit**

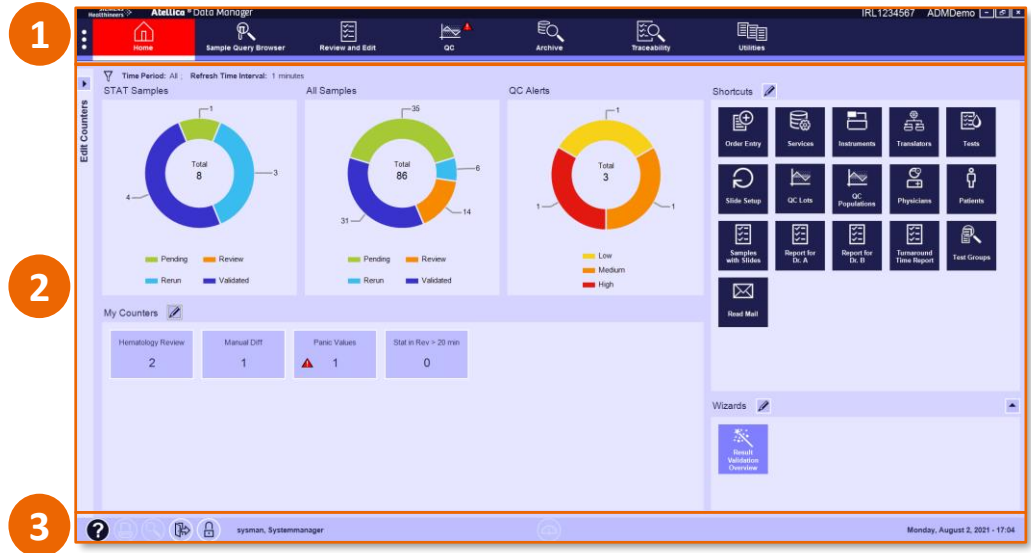


The login screen for Atellica Data Manager features a dark blue header with the Siemens Healthineers logo. The main area is light blue and contains the text 'Atellica® Data Manager'. Below this, there are three input fields: 'Name', 'Password', and 'Language' (which is a dropdown menu). At the bottom right, there are two buttons: 'Next' and 'Exit'.

Note: If you do not interact with the system within the 15-minute timeout period, your session expires and you must log back in. The timeout period can be configured.

Atellica Data Manager Software Overview

1. Command Bar: Navigate and perform/manage laboratory activities
2. Workspace: Contains task buttons and displays sample and system information
3. Status Bar: Reports current system information and has selectable icons for quick access to system functions



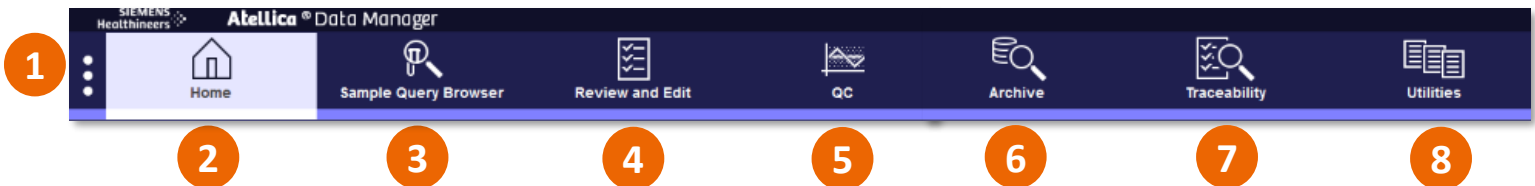
Atellica Data Manager Software Overview: Home Tab

1. STAT Samples, All Samples, and QC Alerts charts: Select a portion of the chart, its label, or chart legend to open details for that group of samples
2. Shortcuts: Operator-defined and configurable
3. My Counters: Operator-defined and configurable, when a sample count exceeds its threshold the Home tab turns red and the relevant counter is flagged
4. Wizards: Launches pre-defined and operator-defined tasks and applications
5. Edit Counters: Provides access to configuration settings



Atellica Data Manager Software Overview: Command Bar

1. Menu: Provides access to additional menus and screens
2. Home: Displays graphical data on samples and alerts, shortcuts to other screens, task wizards and operator-defined sample counters
3. Sample Query Browser: Enables operators to view sample information on a single sample or multiple groups of samples
4. Review and Edit: Enables operators to review, edit and disposition test results from connected systems
5. QC: Enables operators to view and act on the control and patient-based QC data collected from all connected analyzers
6. Archive: Enables operators to archive patient results for long-term storage, by moving patient results from the live database to the archive database
7. Traceability: Enables the capture of consumable information for reagents, calibrations, QC lots and other consumables associated with the generation of a patient result and maintains traceability for auditing purposes
8. Utilities: Provides an additional workspace for viewing and performing system management and configuration related information and activities selected from the Menu icon



Atellica Data Manager Software Overview: Status Bar

1. Help: Displays the Operator's Guide in PDF format
2. Print: Prints the workstation screen
3. Quick Find: Searches for an item on the current screen
4. Sign Out
5. Lock: Locks the operator out of the application. The current session remains active
6. ID of the active operator
7. Dashboard



Logging In

1. Select a user from the dropdown list
2. Enter the password
3. Select the option **New Session** if you want to start a new worklist. This option will:
 - Delete the non-treated orders of the previous session
 - Delete acknowledged alarms
 - Archive the previous session's results
4. Select **OK**

Emergency Stop Log-in 123456

Atellica® HEMA 580

1 User Select a user

2 Password

3 ☒ New session
clears all the orders not carried out
archives transferred results

Switch off Shutdown Reset OK

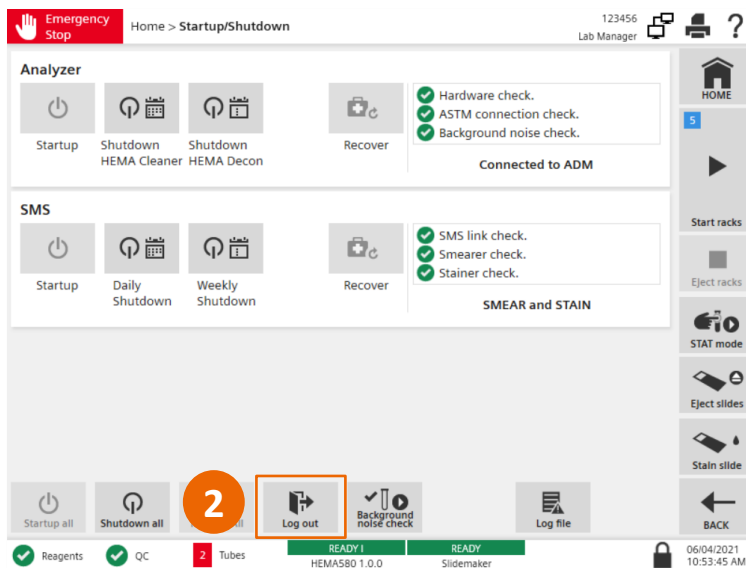
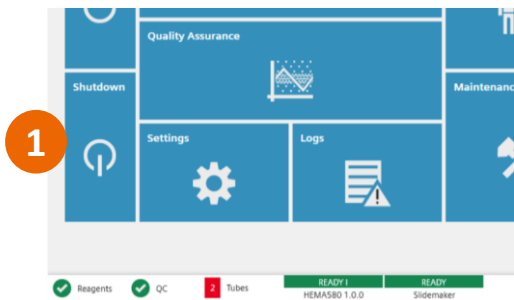
Information

Reagents QC 2 Tubes INITIALIZED I HEMA580 1.0.0 OFF Slidemaker 06/04/2021 10:42:06 AM

Logging Out

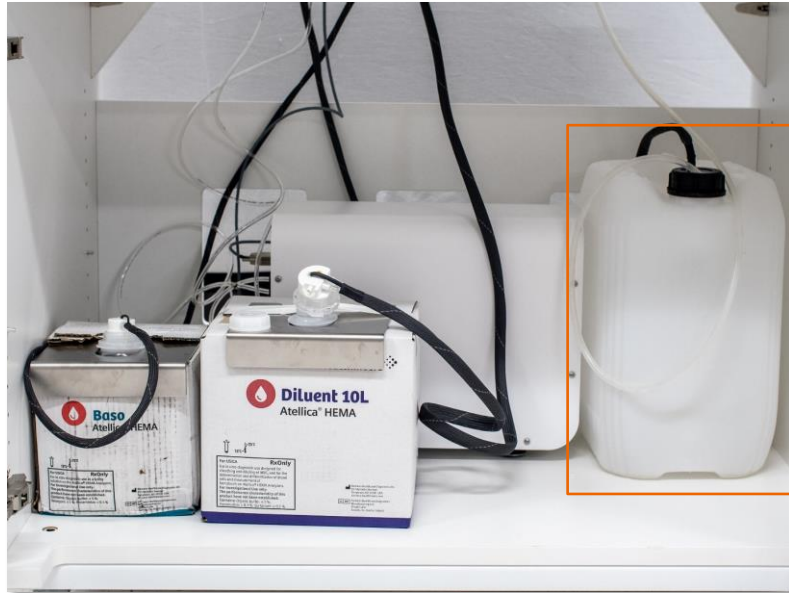
1. From the Home screen, select **Shutdown**
2. Select **Log out**
3. The login screen is displayed

Note: To switch the analyzer off, you must first run a shutdown cycle.



Empty the Waste Container

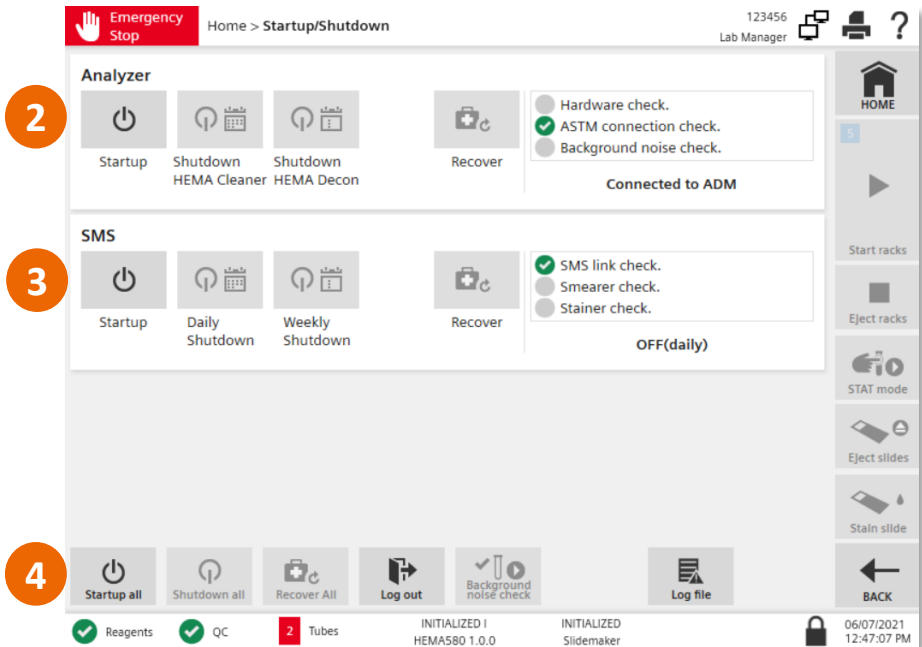
1. Ensure the analyzer is stopped
2. Unscrew the waste straw assembly of the waste container and screw it on to a new waste container
3. Close the old waste container with the new waste container's cap
4. Follow your local and/or national guidelines for biohazard waste disposal
5. *Check the level of the staining waste in the Atellica HEMA SlideMaker Stainer container and perform the same procedure if it needs to be emptied



*SMS only

Startup

1. From the home screen, select **Startup**
2. To start the analyzer only, select **Startup** in the Analyzer section of the screen
3. To start the SMS only*, select **Startup** in the SMS section of the screen
4. To start all modules*, select **Startup all** at the bottom of the screen



*SMS only

Atellica HEMA Connect Startup†

Note: The Atellica HEMA Connect is intended to be turned on continuously. The Atellica HEMA Connect turns on automatically when connected to the analyzer.

Note: If the Atellica HEMA Connect was not manually turned off and the Laboratory Automation System sent the Atellica HEMA Connect to Sleep Mode, instead access the Atellica HEMA Connect Home screen, select the Menu bar and then select **Wake Up**.

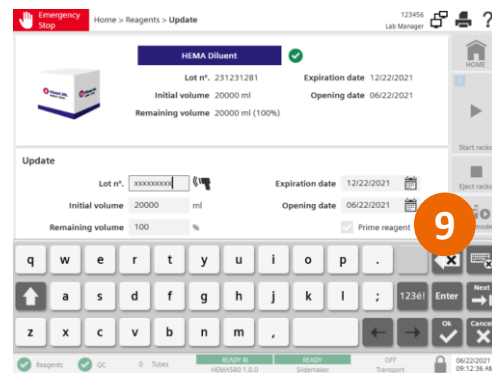
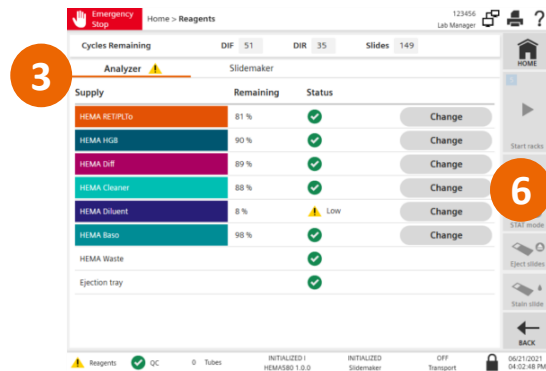
1. In the cabinet under the analyzer, press the Atellica HEMA Connect power button to the ON position (the button's green light illuminates)
2. Visually inspect the Atellica HEMA Connect covers for proper fit
3. On the Laboratory Automation System user interface, set the Atellica HEMA Connect status to Online to ready the Atellica HEMA Connect to resume operation
4. On the analyzer screen, access **Home > Atellica HEMA Connect**
5. Ensure Memory-Card, Pressure, Barcode Reader, Analyzer, and Automation all display a green OK checkmark status
6. Under Load/Unload sample, ensure the appropriate mode is selected
7. Ensure 3 racks are loaded into the Atellica HEMA Connect
8. Select the **Play** button to initiate Atellica HEMA Connect sample transfer activities



†Atellica HEMA Connect only

Replacing the Atellica HEMA Baso or Diluent Container

1. Before replacing any reagent, you must stop the analyses by selecting **Pause racks** on the right vertical bar
2. From the home screen, navigate to **Reagents and consumables**
3. Select the **Analyzer** tab
4. Remove the straw from the empty container
5. Remove the reagent straw plate from the empty container
6. Select the **Change** button corresponding to the reagent
7. Scan the barcode label of the new container
8. The reagent information fields are automatically filled (lot number, opening date, expiration date, initial volume, and remaining volume)
9. Select the **Prime reagent** checkbox
10. Select **OK**
11. Continued on next page



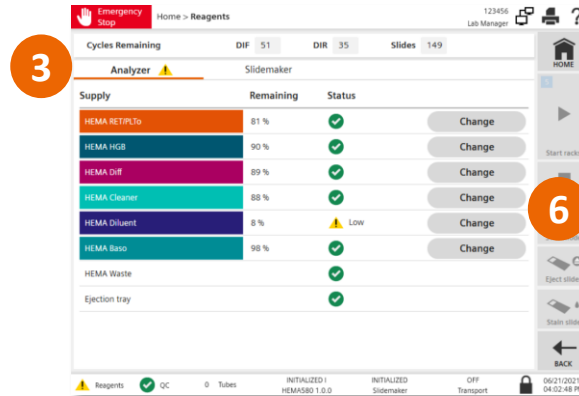
Replacing the Atellica HEMA Baso or Diluent Container

12. Screw the straw on the new container, careful not to bend the tubing
13. Install the reagent straw plate on the new container
14. Select **Back**
15. Select **OK**
16. The analyzer primes the reagents
17. Select **Start racks** from the vertical bar



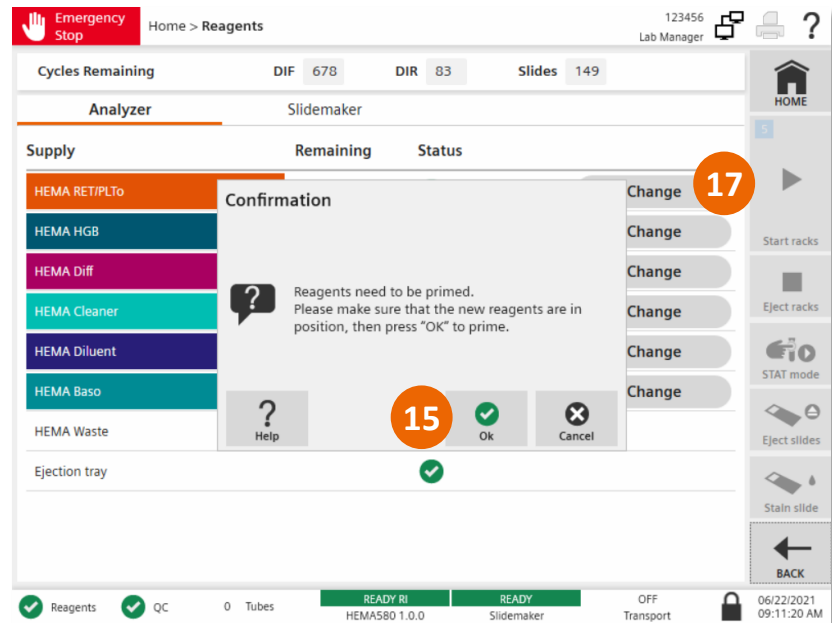
Replacing a Reagent Bottle – Analyzer

1. Before replacing any reagent, you must stop the analyses by selecting **Pause racks** on the right vertical bar
2. From the home screen, navigate to **Reagents and consumables**
3. Select the **Analyzer** tab
4. Open the compartment door of the empty bottle (push in and release)
5. Unplug the reagent bottle
6. Select the **Change** button corresponding to the reagent
7. Scan the barcode label of the new container
8. The reagent information fields are automatically filled (lot number, opening date, expiration date, initial volume, and remaining volume)
9. Select the **Prime reagent** checkbox
10. Select **OK**
11. Continued on next page



Replacing a Reagent Bottle – Analyzer

12. Insert the new bottle into the compartment and press down on it to ensure it is seated properly
13. Shut the reagent compartment
14. Select **Back**
15. Select **OK**
16. The analyzer primes the reagents
17. Select **Start racks** from the vertical bar



Replacing a Reagent Bottle – SMS*

1. Before replacing any reagent, you must stop the analyses by selecting **Pause racks** on the right vertical bar
2. From the home screen, navigate to **Reagents and consumables**
3. Select the **Slidemaker** tab
4. Unscrew the cap of the empty bottle to remove it (with air filter and straw)
5. Select the **Change** button corresponding to the reagent
6. Scan the barcode label of the new container
7. The reagent information fields are automatically filled (lot number, opening date, expiration date, initial volume, and remaining volume)
8. Select the **Prime reagent** checkbox
9. Select **OK**
10. Install the cap (with air filter and straw) on the new bottle
11. Select **Back**
12. Select **OK**
13. Select **Start racks** from the vertical bar

Emergency Stop Home > Reagents

Cycles Remaining DIF 710 DIR 82 Slid

Analyzer **3** Slidemaker ⚠

Supply	Remaining	Status
HEMA Diluent	99 %	✓
HEMA Buffer	100 %	✓
HEMA Methanol	100 %	✓
HEMA May-Grünwald Stain	1 %	⚠ Low
HEMA Giemsa Stain	100 %	✓



*SMS only

Preparing for Calibration

Ensure the Analyzer Passes the Startup

1. Run a startup cycle (refer to the Start of Day tab)
2. Perform a HEMA Decon cleaning procedure (refer to the As-Needed Maintenance tab)
3. Run a Startup Background noise check cycle

Check the Repeatability of the Analyzer

1. Run a normal fresh whole blood specimen 11 times with no alarms
2. Discard the first result and calculate the %CV on the 10 remaining runs
3. Compare the %CV with the precision claims
4. Run a control sample and check whether the results are within acceptable limits
5. Continue to next page for instructions

Preparing for Calibration: Repeatability

To Perform a Repeatability Test in Rack Mode

1. From the Home screen, select **Quality Assurance**
2. Select **Repeatability**
3. Select **New**
4. Enter the sample ID
5. Select the automatic mode
6. Select the number of runs to perform (it is recommended to run the sample at least 11 times, and to discard the results of the first sampling)
7. Select **Confirm**
8. Place the tube with a visible barcode in a rack
9. Load the rack on the analyzer
10. Select **Start**
11. The analyzer calculates the statistics for each parameter
12. Check the standard deviation to make sure the repeatability is successful
13. The CV is automatically displayed in red if it is higher than the CV defined in Settings

To Perform a Repeatability Test in STAT Mode

1. From the Home screen, select **Quality Assurance**
2. Select **Repeatability**
3. Select **New**
4. Enter the sample ID
5. Select the test to perform between DIF and DIR
6. Select the manual mode
7. Select **Confirm**
8. Gently mix the blood sample
9. Place the tube in the tube holder and close the door
10. Select **Start**
11. Run the blood sample 11 times to obtain reliable results
12. The analyzer calculates the statistics for each parameter
13. Check the standard deviation to make sure the repeatability is successful
14. The CV is automatically displayed in red if it is higher than the CV defined in Settings

Processing Calibration: Rack Mode

1. From the Home screen, select **Quality Assurance**
2. Select **Calibration**
3. Select **New**
4. Enter the calibrator ID
5. Select the automatic mode
6. Select the number of runs to perform (it is recommended to run the calibrator at least 5 times)
7. Enter the target values for each parameter
8. Select **Confirm**
9. Prepare the calibrator according to the instructions detailed in the calibrator package insert
10. Place the calibrator tube with a visible barcode in a rack
11. Place the rack on the analyzer
12. Select **Start**
13. Deselect result(s) to obtain more reliable test results
14. If the factors are valid, select **Confirm**

Note: The new calibration factors are shown in green if the percentage difference between the target and mean values is less than 20% and the coefficients of variation are within parameter limits.

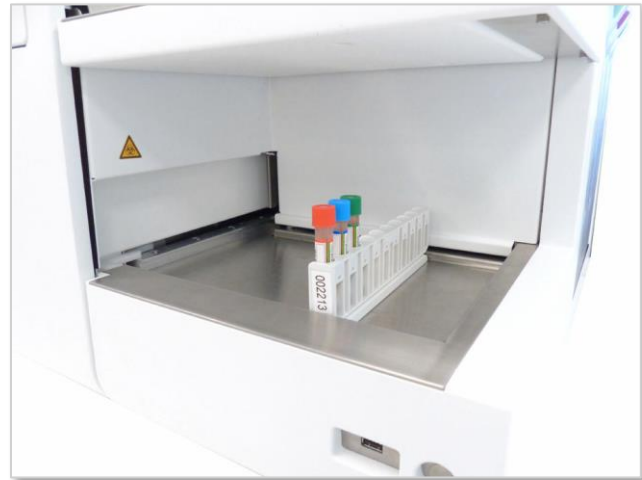
Processing Calibration: STAT Mode

1. From the Home screen, select **Quality Assurance**
2. Select **Calibration**
3. Select **New**
4. Enter the calibrator ID
5. Select the manual mode
6. Enter the target values for each parameter
7. Select **Confirm**
8. Prepare the calibrator according to the instructions detailed in the calibrator package insert
9. Gently mix the calibrator
10. Place the calibrator tube in the tube holder and close the door
11. Select **Start**
12. Run the calibrator at least 4 more times
13. Select **Stop**
14. Select **OK**
15. Deselect result(s) to obtain more reliable test results
16. If the factors are valid, select **Confirm**

Note: The new calibration factors are shown in green if the percentage difference between the target and mean values is less than 20% and the coefficients of variation are within parameter limits.

Processing Quality Control: Rack Mode

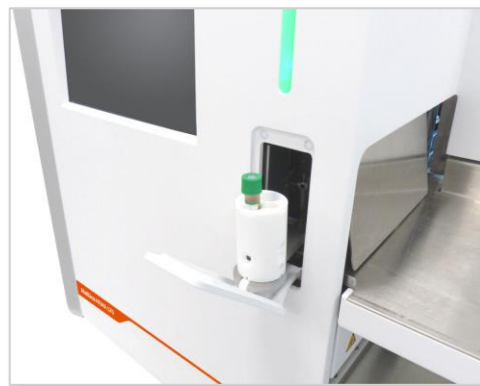
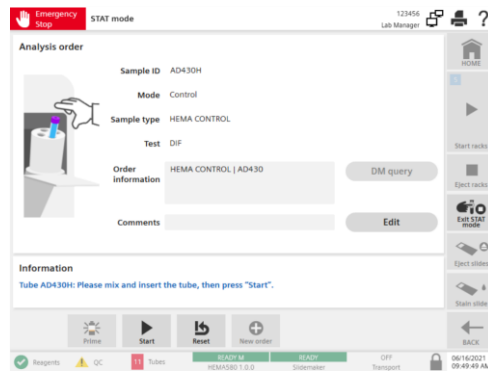
1. Prepare your control blood according to the specific instructions detailed in the control blood leaflet (temperature, mixing, etc.)
2. Place the tubes in a rack with barcode facing out
3. Place the rack on the loading tray of the analyzer
4. Press **Start** (The analyzer automatically runs a second sampling for the PLTOPT test)



Processing Quality Control STAT Mode

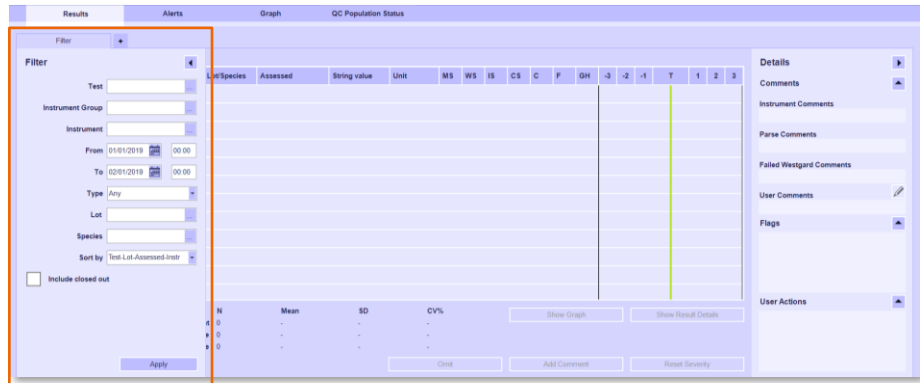
1. Prepare your control blood according to the specific instructions detailed in the control blood leaflet (temperature, mixing, etc.)
2. From the vertical bar, select **STAT mode**
3. Use the keyboard or barcode scanner to enter the lot number in the Sample ID box
4. Select the **DM query** button
5. Gently mix the control sample
6. Place the tube in the tube holder and rotate the tube holder so the tube is in the front position closest to you
7. Remove cap if needed and close the door
8. If running a body fluid control, select **Prime**
9. Select **Start**
10. When the door opens, remove the tube from the tube holder and recap it if needed
11. Select **New order** if you need to rerun the same control sample or a new sample
12. Select **Exit STAT mode** when the analysis is completed

Note: When running an Atellica HEMA Control BF sample type after a prolonged stop, the prime cycle may fail due to a background noise check error. If so, try to run another prime cycle to solve the problem. If the problem persists, please contact your local Siemens Healthineers representative.



View QC Results

1. From the Command bar, select **QC**
2. Select the **Results** tab
3. Select  to expand the Filter slide-out panel
4. Enter parameters to narrow the search
5. Select **Apply**



Test	Instrument	Lot/Species	Assessed	String value	Unit	MS	WS	IS	CS	C	F	GH
MIC%	HEMA580_01	AD430N	07/12/2021 16:25:01	1.0	%	0	0	0	0			
MON#	HEMA580_01	AD430H	07/12/2021 16:25:25	0.31	1E09/L	1	0	1	0	✓	✓	
MON#	HEMA580_01	AD430L	07/12/2021 16:19:08	0.36	1E09/L	1	0	1	0	✓	✓	

Column Header Descriptions

MS: Method severity
WS: Westgard severity
IS: Instrument severity
CS: Choice severity

C: Checkmark appears if there are comments
F: Checkmark appears if there are flags
GH: Indicates whether any test has had the severity set by the current result

Reset QC Severity

Note: After the assay QC severity of a given QC result exceeds the assay QC severity limit, the Test, Instrument, and String value columns of all subsequent QC results remain red until the QC problem is addressed, and operator performs the Reset Severity function.

1. From the Command bar, select **QC**
2. Select the **Alerts** tab
3. Select the QC result associated with the assay that needs resetting
4. Select **Reset Severity**
5. Select the **Enable Test After Reset** checkbox, if appropriate
6. Enter a comment
7. Select **OK**
8. Select F5 on your keyboard to refresh the window to display the reset severity change, if appropriate

The screenshot shows the 'QC Results' window with the 'Alerts' tab selected. A list of QC results is displayed, with the first result highlighted. The 'Reset Severity' button is circled in red.

Test	Instrument	Lot/Spec	Assessed	String value	Unit	MS	WS	IS	-3	-2	-1	T	1	2	3
Test_QCAlert_1	QCAAlertInstrument	LOT_QCAle...	14/11/2018 07:17:59	+	?	5	0	0							
Test_QCAlert_1	QCAAlertInstrument	LOT_QCAle...	14/11/2018 07:16:54	++	?	5	0	0							
Test_QCAlert_1	QCAAlertInstrument	LOT_QCAle...	14/11/2018 07:15:49	+++	?	5	0	0							
Test_QCAlert_1	QCAAlertInstrument	LOT_QCAle...	14/11/2018 07:14:44	++++	?	5	0	0							
Test_QCAlert_1	QCAAlertInstrument	LOT_QCAle...	14/11/2018 07:13:38	+++++	?	5	0	0							

The screenshot shows the 'Reset QC Severity' dialog box. The 'Enable Test After Reset' checkbox is checked. The 'Instrument' and 'Test' fields are populated with 'Advia1650_1' and 'ALB' respectively. The 'Reset Related Methods' checkbox is unchecked. The 'Comment' field is empty. The 'OK' button is circled in red.

Reset QC Severity

☒ Enable Test After Reset

The following tests will have QC Severity reset and comment appended:

Instrument	Test	Disabled by Reagent Change
Advia1650_1	ALB	

Related Blocked Methods:

Instrument	Test

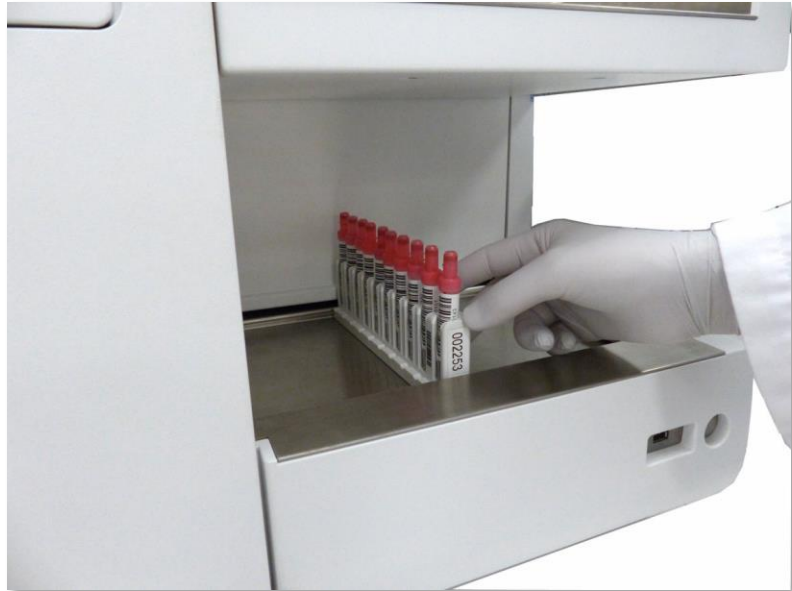
☐ Reset Related Methods

Comment:

OK **Cancel**

Sample Processing in Rack Mode

1. Place the tube in any rack. Ensure the barcode label is visible
2. Load the rack into the middle of the input tray
3. Slide the rack along the tray until it touches the left end of the tray (or any other racks already loaded)
4. If the analyzer is not already processing racks, select **Start racks** on the Vertical bar
5. The rack will be moved into the analyzer and analysis will begin



Sample Processing in STAT Mode

1. On the Vertical bar, select **STAT mode**
2. If rack samples are processing, you will be prompted to stop them before STAT mode can continue
3. The STAT sample door opens
4. Use the keyboard or barcode reader to enter the Sample ID
5. Select the **DM Query** button
 - If the sample ID is present in ADM, the rest of the information will be filled in automatically
 - If the sample ID is not found in ADM, a message will prompt you to enter the rest of the information manually
6. Continued on next page

Emergency Stop STAT mode 123456 Lab Manager

Analysis order

Sample ID HEMA00001

Mode Blood

Sample type STANDARD

Test CBC

Order information P | Blood | | CBC | Andy Grove | M | 07/07/1943 | 77 Years | |

Comments

5 DM query

Edit

Information

Tube HEMA00001: Please mix and insert the tube, then press "Start".

Prime Start Reset New order

Reagents QC 2 Tubes READY M HEMA580 1.0.0 READY Slidemaker

06/07/2021 05:14:06 PM

Sample Processing in STAT Mode

7. Gently mix the specimen
8. Place the tube in the tube holder
9. The tube must be placed in the tube holder hole closest to you. You may need to rotate the tube holder
10. Select the **Start** button
11. When the results are displayed, select **New order** in the contextual toolbar to run a new specimen or select **Exit STAT mode** in the vertical toolbar
12. Select **Start racks** to resume normal operation



Create a Manual Patient Order

1. At your ADM computer, select **Sample Query Browser**
2. Select **New**
3. Enter **Sample ID** and **Requesting LIS**
4. Select a **priority** option from the dropdown list
5. Enter the **Collection Date/Time**
6. Use the **Requests** box to choose tests and/or panels

Note: To select tests, either -

- Enter the codes or mnemonics, separated by commas (no extra spaces) in the box, then press **Enter** on your keyboard
- Double click the box to select from a list of tests. Select the appropriate tests, then select the **Select** button

7. Select **OK**

Order Entry

Sample ID: [?] [icon]

Requesting LIS: Site default LISChannel

Priority: Routine Status: ?

Collection D/T: [?] [?]

Main LAS More

Sample type: ?

Container type: ?

Cap type: ?

Patient ID: ?

Patient last name: ?

Patient first name: ?

Sex: ?

Birth date: []

Species: Human

Patient status: ?

Location: ?

Encounter: ?

Physician ID: ?

Physician last name: ?

Physician first name: ?

Requests... [6]

Duplicate

Cut

Copy

Paste

Clear

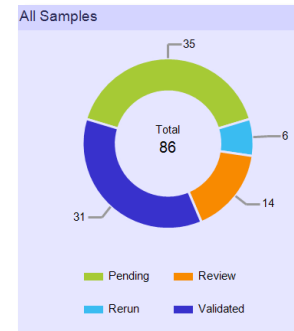
Advanced

Custom Actions

Merge OK Cancel

Status Definitions

Status	Definition
PND Pending	Created and downloaded from the LIS
RRN Rerun	Rerun automatically or manually
SCH Scheduled	Test request has been sent to the analyzer
REV Review	Test result needs to be manually reviewed
VAL Validated	Request is validated by the operator or through automatic validation
UPL Upload	Result has been uploaded to the LIS
OMT Omitted	Omitted test. Will not be uploaded to the LIS



Collection Date/Time	Physician ID	Status	LA S general area
08/26/2016 15:00	JF	PND	?
06/07/2021 02:35	POH	PND	?
08/17/2016 08:00	?	REV	?
08/24/2016 14:23	POH	RRN	?
08/25/2016 07:30	JF	PND	?
08/04/2014 06:23	MM	VAL	?
08/06/2014 20:36	MM	REV	?
08/07/2014 23:45	ZH	REV	?
07/16/2014 07:32	JF	REV	?
?	?	RRN	?
07/22/2014 03:45	JB	SCH	?
?	JB	SCH	?
?	JB	REV	?

Sample Search: Sample Query Browser

1. From the Command bar, select **Sample Query Browser**
2. Enter or select the appropriate parameters to narrow the search
3. Select **OK**

Note: Selecting **OK** without entering any Sample Query information displays all samples in the database (not recommended)

4. The sample list displays the query results
5. To show additional order details, double click a record in the samples list
6. Continued on next page

The screenshot shows the 'Sample Query' window with the following fields and options:

- Sample ID**: Text input field.
- Related Sample Requests**: Dropdown menu.
- LIS Channel**: Text input field.
- LAS Flag Reject Results**: Dropdown menu.
- ☐ At least one request in status
- Minimal Status**: Dropdown menu (selected: Review).
- Maximal Status**: Dropdown menu (selected: Review).
- Minimal Priority**: Dropdown menu.
- Test Group**: Text input field.
- Test**: Text input field.
- Collected From**: Text input field.
- Collected To**: Text input field.
- Species**: Text input field.
- Patient Identifier**: Text input field.
- Patient Last Name**: Text input field.
- Type**: Text input field.
- Instrument Group**: Text input field.
- Instrument**: Text input field.
- ☐ Only search targeted samples
- Minimal Status Minutes**: Text input field.
- Maximal Status Minutes**: Text input field.
- Physician Identifier**: Text input field.
- Physician Last Name**: Text input field.
- Patient Location**: Text input field.
- Slide Request**: Dropdown menu (selected: Not required).
- Aspirated From**: Text input field.
- Aspirated To**: Text input field.
- Last Instrument Rack**: Text input field.
- LAS Status Needs Upload**: Dropdown menu.
- ☐ Check LAS Update Required
- LAS Channel**: Text input field.
- ☐ Not Reported
- Entering Organization**: Text input field.
- Filter**: Text input field.
- Max Sample Count**: Text input field.
- Sort Criterion**: Dropdown menu (selected: Sample ID).

Buttons: OK, Cancel

Sample Query Browser

Close a sample query

Open another sample query in a new tab

Open the search criteria for the current samples list

Choose which columns to display

Samples that match query (double-click to display order details)

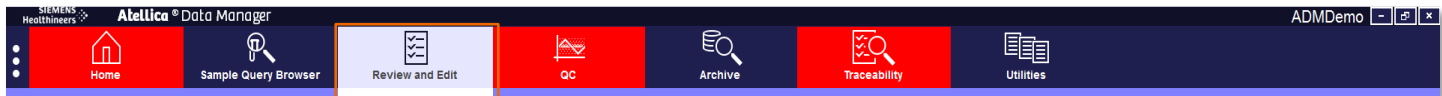
Navigate samples in the list (can also use arrow keys)

The interface shows a tabbed window titled "Sample Query Browser". The active tab displays a list of samples. The table has columns: Sample ID, Priority, Patient ID, and Patient name. The data rows are as follows:

Sample ID	Priority	Patient ID	Patient name
DMS002	Routine	?	?
DMS003	Routine	?	?
DMS004	Stat	NeonateID	Black, John
HEMA00001	Stat	335	Grove, Andy
NextGen001	Routine	MM	Mandela, Margret
NextGen002	Routine	MJ	Jones, Margaret
NextGen003	Routine	MR	Rod, Michael
Rule6SID1	Routine	ZZ	Zahary, Zack

At the bottom of the interface, there is a navigation bar with icons for help, print, search, export, and lock. To the right of the table, there are navigation buttons: a double left arrow, a single left arrow, a single right arrow, and a double right arrow.

Review & Edit



1. From the Command bar, select **Review and Edit**
2. Enter the appropriate search parameters
3. Select **OK**
4. Continued on next page

Sample Query

Sample ID		Minimal Status Minutes	
Related Sample Requests		Maximal Status Minutes	
LIS Channel		Physician Identifier	
LAS Flag Reject Results		Physician Last Name	
☐ At least one request in status		Patient Location	
Minimal Status		Slide Request	
Maximal Status		Aspirated From	
Minimal Priority		Aspirated To	
Test Group		Last Instrument Rack	
Test		LAS Status Needs Upload	
Collected From		☐ Check LAS Update Required	
Collected To		LAS Channel	
Species		☐ Not Reported	
Patient Identifier		Entering Organization	
Patient Last Name		Filter	
Type		Max Sample Count	
Instrument Group		Sort Criterion	
Instrument			

☐ Only search targeted samples

OK Cancel

Review & Edit

Sample and patient details

Review and Edit

Sample Query: Samples with Minimal status 'Review', Maximal status 'Review' Request Options: From 'Pending', To 'Unloaded'

Basic Advanced LAS

Sample ID RuleOSL02 DOB 07/07/1989 Priority Routine Sample Comment
 Patient ID ZZ Sex Male Collection Time 08/06/2014 20:36:00
 Patient Name Zahary, Zack Age 25 Patient Location Patient Comment

CBC DIFF

Test	Sts	Current	Unit	Norm	Current D/T	F	Previous Run	Previous D/T	NS	DS	QS	IS	Instrument	TAT
CHCM	REV	36.4	g/dL	33.0-37.0	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...
RDW	REV	11.8	%	11.5-14.5	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...
CH	REV	32.9	pg	27.0-31.0	08/06/2014 21:10	?	?	?	1				Advia2120_1	6Y10M2d1...
HDW	REV	2.65	g/dL	2.20-3.20	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...
WBC	REV	2.47	1E09/L	4.80-10.8	08/06/2014 21:10	?	?	?	-1	-2	1		Advia2120_1	6Y10M2d1...
RBC	REV	4.58	1E12/L	?	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...
HGB	REV	15.1	g/L	?	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...
HCT	REV	41.1284	L/L	37.0-52.0	08/06/2014 21:10	?	?	?					?	6Y10M2d1...
MPV	REV	88.8	f	?	08/06/2014 21:10	?	?	?					Advia2120_1	6Y10M2d1...

Select Review Scroll Rerun Revert Rerun All

Edit Mode Samples meeting criteria 47 Diff Pad View Previous Upload All

sysman, Systemmanager Wednesday, June 9, 2021 - 8:51

Details

Images

Hemorrhage

Comments and Flags

Display Per Single Test

Result Comments

Flags

Additional sample and test information including images, comments, and flags

Navigate through sample results

Use to view all results, then the **Scroll** button becomes the **Validate** button used to validate results

Rerun selected test(s)

Review & Edit

		Test	Sts	Current	Unit	Norm	Current D/T	F	Previous Run	Previous D/T	NS	DS	QS	IS	Instrument	TAT
		WBC	REV	10.11	1E09/L	4.80-10.8	06/08/2021 11:16		?	?					HEMA580_01	1h5m...
		RBC	REV	4.16	1E12/L	?	06/08/2021 11:16	✓	?	?				1	HEMA580_01	1h5m...
		HGB	REV	159	g/L	?	06/08/2021 11:16	✓	?	?				1	HEMA580_01	1h5m...
		MCV	REV	93.6	fL	?	06/08/2021 11:16		?	?					HEMA580_01	1h5m...
		RDWSD	REV	38.9	fL	?	06/08/2021 11:16		?	?					HEMA580_01	1h5m...
		RDWCV	REV	15.0	%	?	06/08/2021 11:16		?	?					HEMA580_01	1h5m...
		MIC%	REV	1.0	%	?	06/08/2021 11:16		?	?					HEMA580_01	1h5m...



Comment

☒ Display

Result Cor

MPV
WBC NRB
Reagent: 2
UCR 2442

Column Header Descriptions

Norm: Normal range

Current D/T: Date and time of current result value

F: Checkmark appears when a flag is available

Previous Run: Result value of previous run

Previous D/T: Date and time of previous result value

NS: Normal severity

DS: Delta norm severity

QS: QC severity

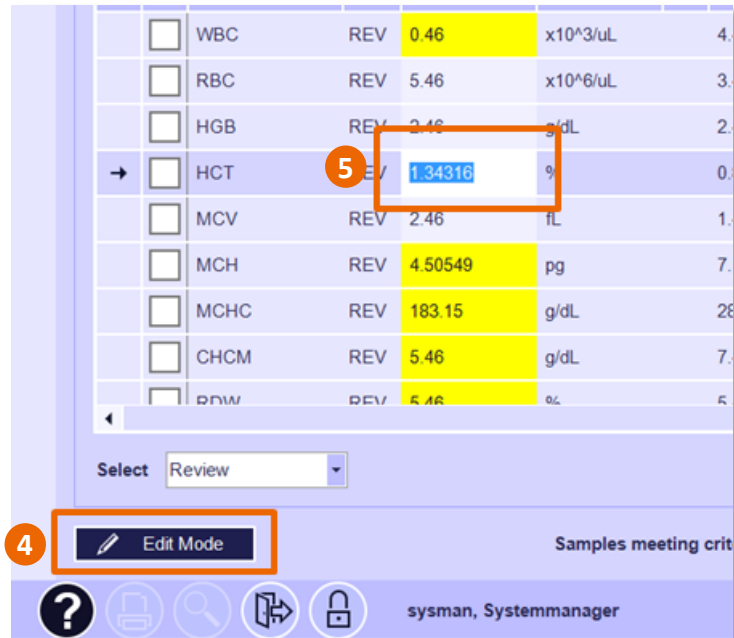
IS: Instrument severity

TAT: Turnaround time

Manually Enter a Result

1. From the Command bar, select **Review and Edit**
2. Enter the appropriate search parameters
3. Select **OK**
4. In the Review and Edit request browser, select **Edit Mode**
5. In the Current column, enter or select a value for the appropriate test(s)
6. Press Enter to save the results
7. To save and exit edit mode, select **Edit Mode**

Note: Manually changing a result using this method will replace the Instrument column entry with a "?". Auto validation is not applied.



Entering New Lots of Quality Control

Download QC Targets Files

1. On a computer with Internet access, navigate to Siemens Healthineers Document Library at <https://doclib.siemens-healthineers.com/home>
2. Download the latest version of the following files to a USB flash drive:
 - HEMA Control file, Siemens Material Number SMN 11527035
 - HEMA Control Reticulocyte file, SMN 11527045
 - HEMA Control Body Fluids file, SMN 11527053
3. Unzip the files and store the contents on the USB flash drive

Note: Microsoft Excel settings may change the format of the date within the .csv file, which could cause the import to fail. Do not open the .csv file(s) in Microsoft Excel.

4. Continued on next page

Entering New Lots of Quality Control

Verify QC Targets Files

5. Open each checksum (.txt) file and perform the following check on each corresponding .csv file:

Windows

- i. Open cmd.exe
- ii. Enter certutil -hashfile "<file location>\<file name.csv>" SHA256

Linux

- i. Open a terminal
- ii. Enter sha256sum "<file name.csv>"

Mac

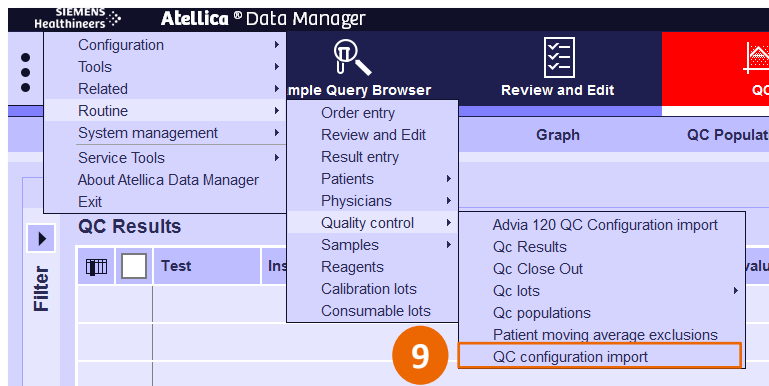
- i. Open System Preferences
- ii. Select Shortcuts > Services
- iii. Ensure New Terminal at Folder and New Terminal Tab at Folder are selected
- iv. Navigate to the folder containing the .csv file
- v. Right-select the folder and select New Terminal at Folder
- vi. Enter shasum -a 256 "<file name.csv>"

6. Check the SHA256 hash string generated against the applicable Checksum in the (.txt) file. If they match, QC import can proceed. If they do not match, contact Siemens Healthineers for support.
7. Continued on next page

Entering New Lots of Quality Control

Import QC Configuration Files into ADM

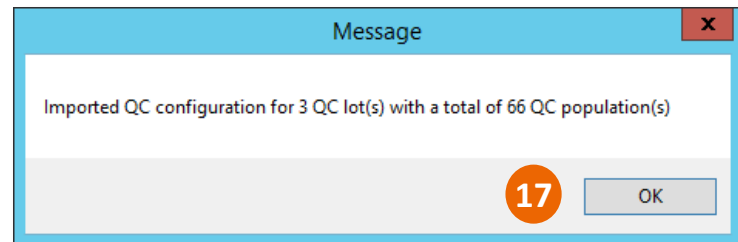
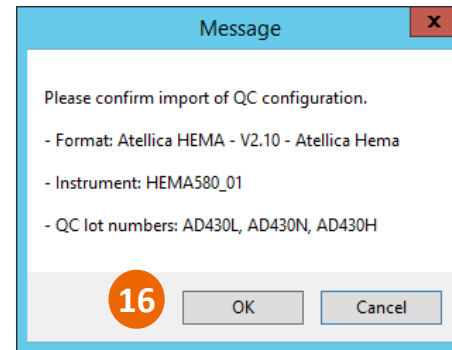
8. Insert the USB drive into the Atellica Data Manager (ADM) computer
9. In ADM, navigate to **Start menu > Routine > Quality Control > QC configuration import**
10. Select the appropriate QC import format from the QC import format drop-down
 - V2.10 format for HEMA Control and HEMA Control Reticulocyte configurations
 - V2.11 format for HEMA Control Body Fluid configuration
11. Double-click the **Data file** box. Navigate to the .csv file stored on your USB flash drive
12. Double-click the **Instrument** field and select from the list
13. The QC lot level and QC lot name entry fields are disabled when importing Atellica HEMA QC data
14. Select **OK**
15. Continued on next page



Entering New Lots of Quality Control

Import QC Configuration Files into ADM (continued)

16. A window appears showing the type of data in the file - confirm the information by selecting the **OK** button
17. A window appears explaining that the lot information has been imported - select **OK**
18. Remove the USB flash drive from the computer
19. Continued on next page



Entering New Lots of Quality Control

Import QC Configuration Files into the Analyzer

20. Insert the USB flash drive into the analyzer's USB port
21. From the home screen, navigate to **Quality Assurance > QC lots Management**
22. Select the **New** button
23. Close the virtual keyboard
24. Select the **Import** button
25. Select the .csv file in the the selection box
26. Select **OK**
27. Confirm the lot information then select **OK**
28. The values from the import are displayed – select **OK**
29. Continued on next page



Quality Control import

File: E:\HEMA QC AD430.csv

ID	Control type	Expiration date	Information
AD430L	Control L	09/05/2021	Lysebio
AD430N	Control N	09/05/2021	Lysebio
AD430H	Control H	09/05/2021	Lysebio

27

 Ok
 Cancel

123456
Lab Manager

Home > Quality Assurance > QC lots management > New

Control tube identification

Lot n°. Status Pending

Type Expiration date

QC levels

	Test	Inter QC time limit
Level 3 / High		No limit
Level 2 / Normal		No limit
Level 1 / Low		No limit

Target values

Level 1 / Low
Target ± Tolerance
Level 2 / Normal
Target ± Tolerance
Level 3 / High
Target ± Tolerance

HOME
Start racks
Eject racks
STAT mode
Eject slides
Stain slide

24

 Import
 Activate
 Deactivate
 See results
 Edit
 Ok
 Cancel
 BACK

Reagents QC Tubes INITIALIZED | HEMAS80 1.0.0 OFF Slidemaker OFF Transport 06/15/2021 01:33:59 PM

Entering New Lots of Quality Control

Activate the QC Lot on the Analyzer

30. Select **Activate**

Note: The analyzer can store more than one control lot for each level (H, N, L) but only one can be active at a time.

		Target values					
		Level 1 / Low Target $\pm$ Tolerance		Level 2 / Normal Target $\pm$ Tolerance			
WBC	$10^9/L$	2.40	0.40	6.85	1.00	17	
RBC	$10^{12}/L$	2.24	0.16	4.65	0.20	5.2	
HGB	g/L	56	4	135	5	16	

 Import

30  **Activate**

 Deactivate

 See results

 Edit

 Reagents

 QC

 11 Tubes

INITIALIZED I
HEMA580 1.0.0

OFF
Slidemaker

Daily Maintenance

If < **1000 analyses per day**: Shutdown HEMA Cleaner

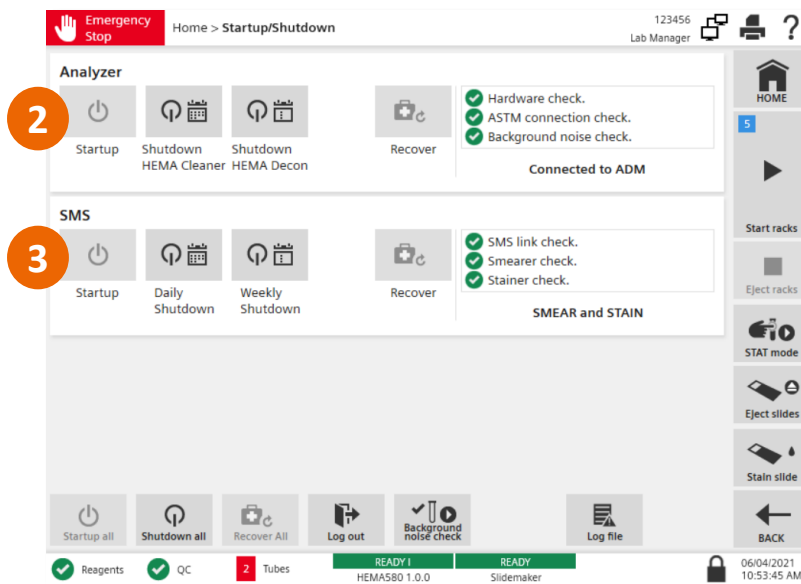
If > **1000 analyses per day**: Shutdown HEMA Decon/HEMA Decon Cleaning (Refer to the As-Needed Maintenance tab)

Shutdown HEMA Cleaner

1. From the home screen, select **Shutdown**
2. To shut down the analyzer only, select **Shutdown HEMA Cleaner** in the Analyzer section of the screen

Note: Depending on how many analyses have been performed since the last shutdown, you may be requested to perform a **Shutdown Decon**, which is a different procedure (Refer to HEMA Decon Cleaning in the As-Needed Maintenance tab for how to set up the system)

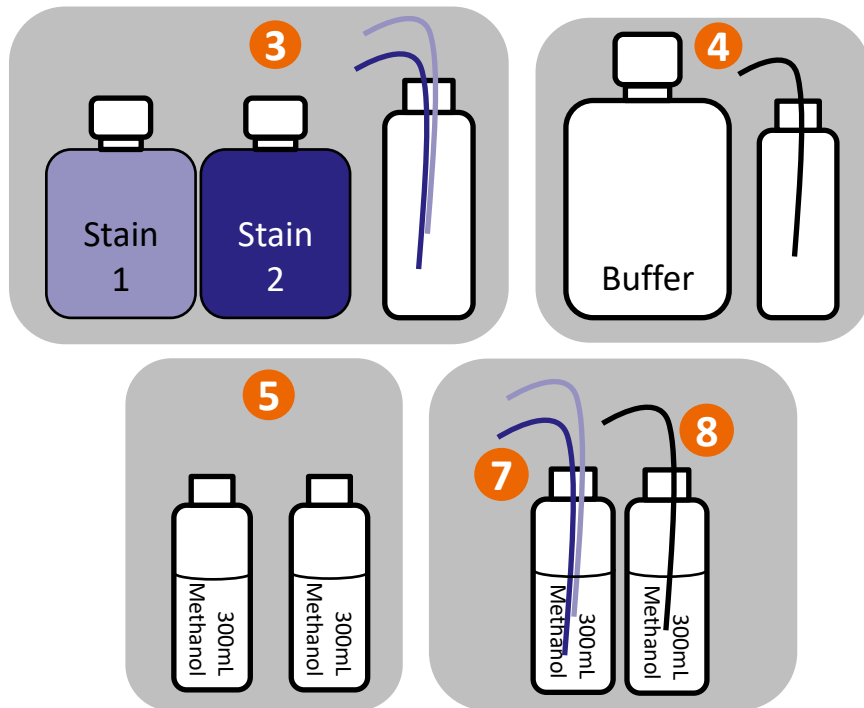
3. To shut down the SMS*, select **Daily Shutdown** in the SMS section of the screen



*SMS only

Weekly Shutdown and Startup*

1. From the home screen, navigate to **Shutdown**
2. In the SMS section, select **Weekly Shutdown**
3. Remove both staining straws from the staining bottles and place them in one empty bottle. Close the staining bottles
4. Remove the buffer straw and place it in the other empty bottle. Close the buffer bottle
5. Pour approximately 300mL of methanol into each of the other two bottles
6. Select **Next**
7. Place both staining straws into one of the prepared bottles containing methanol
8. Place the buffer straw into the other prepared bottle containing methanol
9. Select **Next**
10. Continued on next page

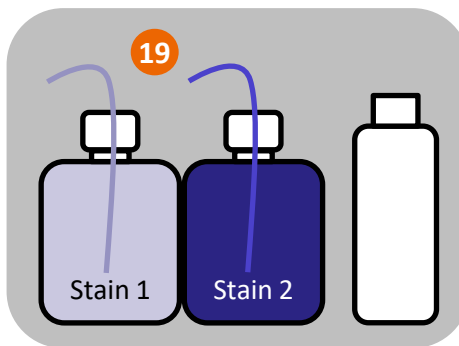
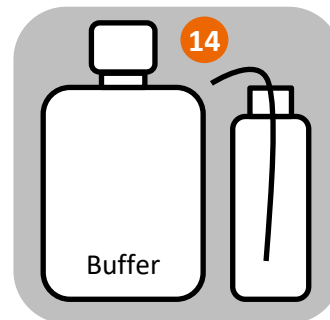
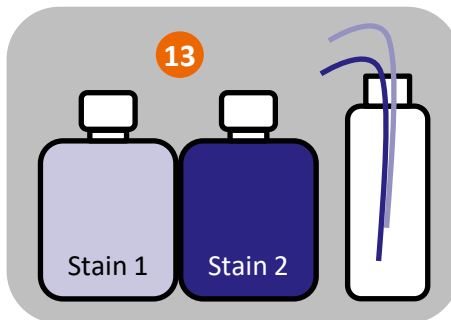


Note: The weekly shutdown automatically fills the 32 staining wells with methanol. Leave the straws as they are until the next weekly startup.

*SMS only

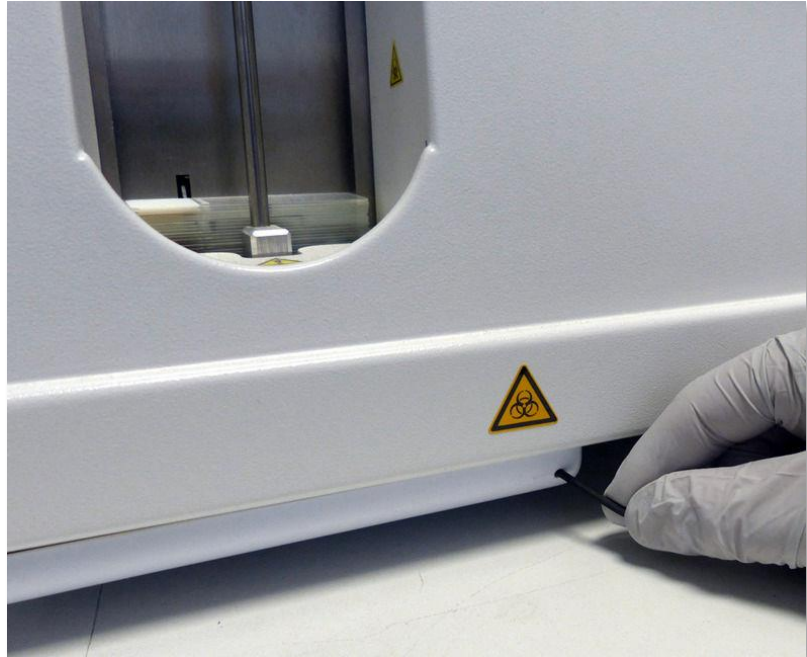
Weekly Shutdown and Startup*

11. From the home screen, navigate to **Startup**
12. In the SMS section, select **Startup**
13. Both staining straws should be in one bottle from the weekly shutdown procedure. Remove them and place them into one empty bottle
14. The buffer straw should be in a bottle from the weekly shutdown procedure. Remove it and place it into another empty bottle
15. Close the bottles that formerly contained methanol from the weekly shutdown procedure
16. Select **Next**
17. The analyzer carries out a startup cycle on air to prevent contamination of staining reagents
18. When the startup cycle on air has completed, you will be prompted to continue
19. Place both staining straws into their appropriate stain bottles
20. Place the buffer straw back into the buffer bottle
21. Select **Next**
22. A priming cycle of the stains and the buffer is run



Clean the Glass Particles Tray*

1. Switch off Atellica HEMA SlideMaker Stainer
2. Insert a thin, blunt tool (such as a thin hex wrench) into the hole on the right side of the tray
3. Pull the tray towards you to open it
4. Empty the particles of glass
5. Insert the tray back into its location



*SMS only

Clean the Staining Wells and Stainer Plate*

1. Make sure all the staining operations have been completed and the wells are empty
2. Switch off the SlideMaker Stainer
3. Slide the stainer door to the left to open it
4. Pull out all the wells from the stainer assembly and rinse them abundantly with tap water
5. Immerse the wells in a large container that seals with one liter of Atellica HEMA Decon or bleach with 1.3% of active chlorine
6. Seal the container and shake it
7. Leave the wells in the container for the amount of time it takes you to clean the stainer plate
8. Use a cloth to clean the plate
9. When the stainer plate cleaning is complete, rinse the wells abundantly and let them dry before placing them back into the stainer assembly
10. Close the stainer assembly door

*SMS only



Clean the Atellica HEMA Connect Covers†

1. On the Laboratory Automation System user interface, set the Atellica HEMA Connect status to Going Off-line to flush all tubes from the buffer lane
2. On the analyzer user interface, access **Home > Atellica HEMA Connect**
3. Select the Menu bar in the upper right corner of the screen
4. Select **Shutdown**. A pop-up message displays and the Atellica HEMA Connect light pole turns off
5. Access the enclosed electronics assembly in the cabinet under the analyzer and press the green power button
6. On the analyzer, select **Ok**
7. Using a lint free cloth dampened with 10% bleach clean the exterior surfaces of the Atellica HEMA Connect
8. In the cabinet under the analyzer, set the Atellica HEMA Connect power switch to the ON position
9. On the Laboratory Automation System, set the Atellica HEMA Connect status to Online
10. Log into the analyzer and access **Home > Atellica HEMA Connect**
11. Select the Play button to resume operation.



†Atellica HEMA Connect only

HEMA Decon Cleaning

1. From the home screen, select **Maintenance**
2. Select **Troubleshooting**
3. Select **HEMA Decon cleaning** and wait for the STAT sample door to open automatically
4. Remove the tube holder and replace with the Decon Cup Holder
5. Press down on the Decon Cup Holder firmly to ensure it is properly seated
6. Fill the Atellica HEMA Decon cup with 20 mL of Atellica HEMA Decon and place it inside the Atellica HEMA Decon cup holder
7. Follow the instructions on the screen
8. When the cycle is finished (~15 minutes), remove the Atellica HEMA Decon cup holder and put the tube holder back in its place
9. Press down on the tube holder firmly to ensure it is properly seated
10. Empty the Decon cup and wash it carefully



External Decontamination

1. In case of liquid spillage, power off the analyzer
2. Wipe all dirty surfaces thoroughly and dry all stainless-steel parts with a soft cloth
3. Wipe the touch screen gently and dry with a soft cloth

Note: Do not use alcohol or bleach.



Replace the Smearing Ribbon and Cleaning the Wedge*

1. From the Home screen, navigate to **Reagents and Consumables**
2. Select the SlideMaker tab
3. Verify the HEMA SlideMaker Stainer Smearing ribbon indicator shows a status of LOW or EMPTY
4. Make sure all smearing operations have completed
5. Select **Change**
6. Continued on next page

Emergency Stop Home > Reagents 123456 Lab Manager

Cycles Remaining DIF 711 DIR 100 Slides 60

Analyzer 2 Slidemaker ⚠

Supply	Remaining	Status	
HEMA Diluent	100 %	✓	Change
HEMA Buffer	100 %	✓	Change
HEMA Methanol	100 %	✓	Change
HEMA May-Grünwald Stain	100 %	✓	Change
HEMA Giemsa Stain	100 %	✓	Change
H2O		✓	
HEMA Slidemaker Stainer Smearing ribbon	60	⚠ Low	5 Change
HEMA Slidemaker Stainer Rack		✓	
HEMA Slidemaker Stainer Slide		✓	
HEMA Slidemaker Stainer Waste		✓	

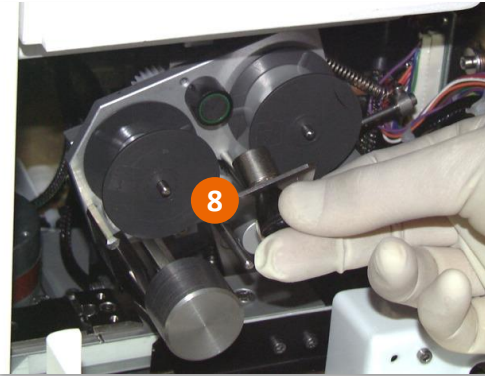
⚠ Reagents ✓ QC 0 Tubes INITIALIZED I HEMA580 1.0.0 INITIALIZED Slidemaker OFF Transport 06/18/2021 02:55:13 PM

HOME Start racks Eject racks STAT mode Eject slides Stain slide BACK

*SMS only

Replace the Smearing Ribbon and Cleaning the Wedge*

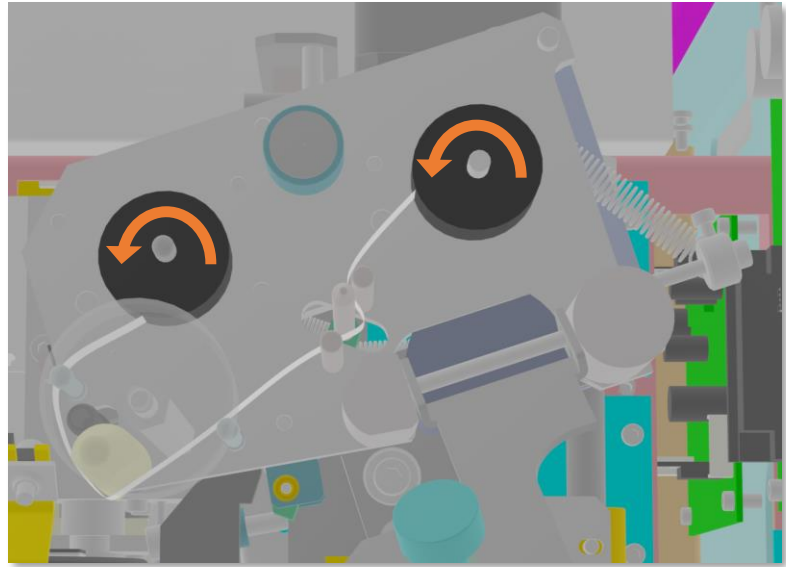
7. Pull the top of the front cover door towards you to open it
8. Pull the knob on the tape holder plate towards you to open it
9. Gently pull the bobbins off of the spindles and remove any remaining smearing tape from the assembly
10. Clean the wedge with a soft paper
11. Enter the lot number of the new smearing tape but do not select Tighten tape or OK at this point
12. Continued on next page



*SMS only

Replace the Smearing Ribbon and Cleaning the Wedge*

13. Unroll the new bobbins so there is enough ribbon to thread through the assembly
14. Place the new bobbins on the spindles and thread the ribbon through the assembly as shown in the diagram
15. Close the tape holder assembly
16. Close the front cover
17. Select **Tighten tape**
18. Select **OK**

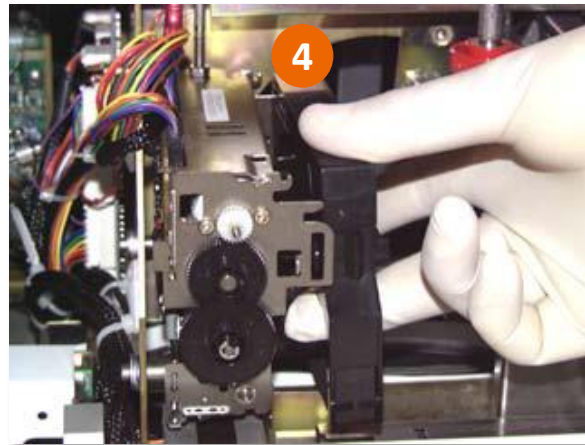
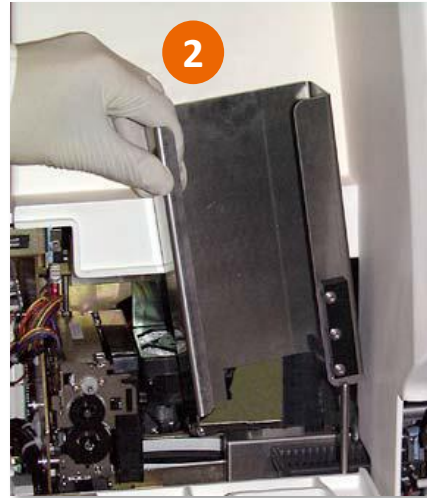


*SMS only

Replace the Printer Ribbon*

1. Lift the SlideMaker Stainer top cover to open it
2. Lift and remove the rack dispenser
3. Grab the top and bottom of the print cartridge and push it towards the rear of the SlideMaker Stainer
4. Pull the cartridge out of its holder slots
5. Be careful not to tangle the ribbon
6. Position the rear tab of the new ribbon into its slot
7. Press the front tab into its slot. It will click into place
8. Replace the rack dispenser
9. Close the cover

*SMS only



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