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IL ACL-TOP Maintenance- RO

Document Type: Procedure

I. PURPOSE AND OBJECTIVE:

The purpose of this procedure is to show the steps on how to perform maintenance on IL ACL TOP instruments.

II. ACRONYMS:

- A. Computer Module (CM)
- B. Instrumentation Laboratory (IL)
- C. Quality Control (QC)

III. PROCEDURE:

A. Daily Maintenance:

1. Check all reagents and QC vials have been reconstituted, and that they are time/dated with expiration.
2. Check to make sure all consumables are at acceptable levels. See 'As Needed' section below for replacement.
 - a. Rinse Solution
 - b. Clean Solution
 - c. Cuvettes
3. **Enhance Clean for All Probes:** The time required by the system to perform this maintenance is approximately 5 minutes.
 - a. Place full 10 mL bottles of straight Clean B in the appropriate diluent or reagent rack as indicated in the following chart:

Model	Number of Bottles	Position
ACL TOP 550 CTS	2 Bottles	1st bottle in D1 2nd bottle in R1-R4
ACL TOP 700 CTS	3 Bottles	1st bottle in D1 or D2

		2nd bottle in D3 or R1-R4 3rd in bottle R5 or R6
ACL TOP 750 LAS	4 Bottles	1st bottle in D1 or D2 2nd bottle in D3 or R1-R4 3rd bottle in R5 or R6 4th bottle 20 mL vial of Clean B for LAS Probe

- b. Select **System > Maintenance** in the menu bar.
- c. In the *Maintenance* screen, place a check on the **Enhanced Clean for All Probes** function.

NOTE: The LAS cover is manually operated, but if the LAS cover is opened during normal activities, an emergency stop is performed by the instrument. In the case of this enhanced clean, the cover can be opened without invoking an emergency stop.

- d. Select the **Perform**  icon in the toolbar, or select **Actions > Activity > Perform** in the menu bar.
- e. The enhanced clean for all the probes is performed by the instrument.
- f. When the enhanced clean function is complete, enter your initials in the comment window box. Select **OK**.

NOTE: ACL TOP 750 LAS only:

At the completion of the enhanced clean, a message prompts you to remove the Clean B vial from the LAS cover aspiration point. **Select OK.**

- g. **Important: Remove the Clean B from the analyzer after cleaning is complete.**
4. **Empty Cuvette Waste:**
- a. Select **System > Maintenance** in the menu bar.
 - b. In the *Maintenance* screen, place a check on the **Empty Cuvette Waste** function.
 - c. Select the **Perform**  icon in the toolbar, or select **Actions > Activity > Perform** in the menu bar.
 - d. A message prompts you to *perform the maintenance work first, and then press OK.*
 - e. Remove the cuvette waste container and discard the contents into biohazard waste.
 - f. Replace the cuvette waste container.
 - g. Enter your initials in the comment window box. Select **OK**.

NOTE: The cuvette waste container may be cleaned periodically with 10% bleach or other laboratory approved antimicrobial cleanser, or replaced with a new container. After decontamination with bleach you should always rinse with tap water to remove excess bleach residue on the inner walls of the container. Used containers should be discarded in biohazard waste.



CAUTION Biohazard: Cuvette waste is biohazardous. Use precautions when emptying the cuvette waste drawer. Refer to local and state regulations for disposal of potentially hazardous materials.

5. Load fresh Clean B Diluted:

- a. Clean B diluted must be made up fresh **each day**.
 - i. To make (1) 20 mL vial of Clean B Diluted: dilute 2 mL of Clean B with 14 mL of deionized (DI) water or equivalent. Mix and transfer to 20 mL bottle.
 - ii. To make (3) 20 mL vials of Clean B Diluted: dilute 6 mL of Clean B with 42 mL of DI water or equivalent. Mix and transfer to 20 mL bottles.
- b. Load the barcoded 20 mL vial(s) of Clean B Diluted in appropriate reagent and/or diluent rack(s).
- c. Select **System > Maintenance** in the menu bar.
- d. In the *Maintenance* screen, place a check on the **Replace Clean B Diluted** function.
- e. Click on the Perform Maintenance icon 
- f. A message prompts you to *perform the maintenance work first, and then press OK*.
- g. When the maintenance function is complete, enter your initials in the comment window box and close it.

6. Load fresh Factor Diluent:

- a. Load Factor Diluent and place in white barcoded vial.
- b. Load in D1 or D2 rack.
- c. Select **System > Maintenance** in the menu bar.
- d. In the *Maintenance* screen, place a check on the **Change Factor Diluent** function.
- e. Click on the Perform Maintenance icon 
- f. A message prompts you to *perform the maintenance work first, and then press OK*.
- g. When the maintenance function is complete, enter your initials in the comment window box and close it.

B. Weekly Maintenance:

1. Clean Deep Wash and Clean Cup Area Only for 550 and 700 model:

- a. Select **System > Maintenance** in the menu bar.
- b. Select the **activity** to run in the *Maintenance List*.
- c. Select the **Perform**  icon in the toolbar, or select **Actions > Activity > Perform** in the menu bar.
- d. A message prompts you to *perform the maintenance work first, and then press OK*.
- e. Open the appropriate cover as indicated by the message prompt. Unlocking the instrument cover may take a few seconds.
- f. Clean the deep wash and clean cup with a lint-free cotton swab, then rinse both areas with deionized water to remove any debris before removing the filter to prevent loose debris from falling into unprotected areas. Use the filter to collect debris around the clean area. Use a maximum of 10 mL of deionized water. More than that may cause the accumulator to overflow.

- g. Wipe excess deionized water that may have splashed onto the covers or the clean cup/deep wash area with a lint-free cotton swab. Close the covers. Select **OK**.

2. Wipe Down Sample probes :

- a. Select **System > Maintenance** in the menu bar.
- b. Select the **activity** to run in the *Maintenance List*.
- c. Select the **Perform**  icon in the toolbar, or select **Actions > Activity > Perform** in the menu bar.
- d. A message prompts you to open the cover. Select **OK**.
- e. Open the covers indicated by the message prompt. Unlocking the instrument cover may take a few seconds.
- f. **NOTE:** When you open the cover to perform a maintenance activity, tracking information for the onboard materials is maintained for one hour, as long as you remove the racks before you open the cover. The maintenance activity must finish and the racks re-inserted into the instrument within one hour to maintain the tracking of on-board materials.
- g. Using an alcohol pad, wipe clean the probe exterior and tip. Close the covers. Select **OK**.
- h. At the completion of the activity, the Maintenance Activity Execution dialog box opens where you can enter your initials. Select **OK**.

C. Monthly Maintenance:

1. **Cleaning racks:** For cleaning racks and adapters, IL recommends that you use any of the following:
 - a. 10% bleach
 - b. 0.1N HCl
 - c. Mild soap
2. After decontamination with bleach you should always rinse with tap water to remove excess bleach residue on the inner walls of the container.
3. **DO NOT SOAK RACKS IN ANY SOLUTION.** Soaking may corrode racks or remove labels.
4. **Perform System Back-up and Shutdown CM:**
 - a. Nothing can be running on the analyzer when backing up the system
 - b. Exit the ACL TOP Family software by choosing Instrument and Exit.
 - c. Click on the Windows task bar at the lower left corner. Choose All Programs > ACLTOP > ACLTOP Database Backup and Restore.
 - d. **DO NOT** enable multi-volume backup.
 - e. Choose 'Delete patient information from backup' and select Backup from the Database Backup and Restore window. Use the dropdown box to choose Documents folder in the Save location field. Verify the serial number and date is in the file name field. (Do not rename file.) SAVE.
 - f. Choose OK at the 'database backup has been executed successfully' prompt.
 - g. Close and open up the ACL TOP Family Software.
 - h. Log on with username and password

- i. Choose Instrument and Recovery.

D. As Needed

1. Load Cuvettes:

- a. Wait until a Material Warning indicates that cuvettes are getting low. **Load no less than a full brick of cuvettes at a time.**
- b. **Do not load partial bricks. 1 brick contains 400 cuvettes.**
- c. Follow instructions on top of cuvette box. Remove edge of box then insert cuvette brick into loader.
- d. Lastly, remove strip paper all the way off the brick of cuvettes.

2. Replace Rinse and/or Cleaning Solution:

- a. Wait until a Material Error has occurred and the Analyzer status is in Error before replacing solutions. **The system MUST NOT be running samples when replacing Rinse or Clean.**
- b. Remove the cap/foil from the new bottle. Transfer the cap with the tubing from the old bottle to the new bottle while the new bottle is off the instrument.
- c. Remove the old bottle and replace it with the new bottle. **DO NOT POOL** or reuse residual rinse from the old bottle!
- d. Check tubing for large bubbles or blockage, remove if necessary.
- e. Once the new bottle of rinse is placed, the instrument will detect it and perform an automatic priming cycle to remove any air bubbles from the rinse lines.

3. Replace CTS Filter:

- a. Go to System Menu on the Menu Bar
- b. Click on Maintenance
- c. Place a check on the Replace CTS Filter and clean Cup area
- d. Click on the Perform Maintenance icon (Tool man).
- e. Open front cover.
- f. Clean the deep wash and clean cup with a lint free cotton swab before removing the filter to prevent loose debris from falling into unprotected areas. (See procedure above under 'Weekly' maintenance.)

IV. REFERENCE:

ACL TOP Online Operator's Manual, Version 2.2, 06/2017.

Attachments

No Attachments

Approval Signatures

Step Description	Approver	Date
	Ann Marie Blenc: System Med Dir, Hematopath	6/24/2021
Coagulation Medical Director Designee	Marc Smith: System Med Dir, Coagulation	6/9/2021
Policy and Forms Steering Committee Approval (if needed)	Gail Juleff: Project Mgr Policy	6/4/2021
Policy and Forms Steering Committee Approval (if needed)	Tamara Sabih: Medical Technologist Lead	6/4/2021
System Manager	Rebecca Bacarella: Mgr Laboratory	6/4/2021
	Tamara Sabih: Medical Technologist Lead	6/1/2021

Applicability

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