Monthly maintenance

Cleaning the turntable interiors (STT/CTT and RTT)

Materials required:

- Phillips screwdriver
- Lint-free towels

Time: 10 minutes Analyzer mode: READY



Wear personal protective equipment. Use universal precautions.

NOTE

Use the 2 procedures that follow to clean inside the STT/CTT housing and the RTT1 and RTT2 refrigerated housing to remove accumulated sample, reagent, dust, and other materials.

Cleaning the inside of the STT/CTT housing

- 1. Remove the Calibrator/Control Tray loader (CTT):
 - a. Lift the standard cover from the loaders..
 - b. Pull up on the two Nylatch fasteners (3) securing the CTT Tray loader in place.
 - c. Lift out tray loader by the center handle (4).
- 2. Remove the Sample Tray loader (STT):
 - a. Lift the Sample Tray evaporation cover.
 - b. Pull up the two fasteners (5) securing the STT Tray loader in place.
 - c. Lift out the STT tray by the two metal handles.
- 3. Using lint-free towels, wipe the interior of the STT and CTT housings.



- 1 CTT Tray
- 2 STT Tray
- 3 CTT Nylatch Fasteners 2 places
- 4 CTT Handle
- 5 STT Nylatch Fasteners 2 places
- 6 STT Handles 2 places
- 7 Locator Screw

Figure 5-16. Components of CTT and STT trays

- 4. Replace the CTT and STT tray and covers.
 - a. Orient each tray loader to the locator screw (7).
 - b. Ensure the tray loaders are securely in position, then push the fasteners (3 and 5) in place.
 - c. Replace the STT evaporation cover.
 - d. Replace the CTT cover.

Cleaning the inside of the reagent tray refrigerated housing

- 1. Remove Reagent tray loader 1 (RTT1):
 - a. Lift and remove the cover from the reagent tray.
 - b. Loosen the white knob by turning it counterclockwise.
 - c. Lift the loader out of the refrigerated housing.
- 2. Using lint-free towels, wipe the interior of the refrigerated housing and clean the glass window of the reagent bar code reader.
- 3. Replace the reagent tray loader.
 - a. Ensure that it is securely in position.
 - b. Tighten the white center knob.
 - c. Replace the covers, aligning the hole in the cover with the locating pin.
- 4. Repeat steps 1-3 for RTT2.

Cleaning or replacing the wash solution reagent containers (47 – 50)

Materials required:

- 5 reagent wedges, empty, 70-mL (optional)
- Probe Wash 1
- Probe Wash 2
- 10% Cuvette Wash solution
- 5% Probe Wash solution

Time: 10 minutes

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Analyzer mode: READY

- 1. Remove the wash solution reagent containers from RTT1 and RTT2, positions 47 - 50.
- 2. Replace the containers with new ones or clean the old containers with DI water.
- 3. Refill the containers with fresh solutions as specified in the table below.

RTT1/2 Position	Wash Solution
47	Probe Wash 1
48	Probe Wash 2
49	10% Cuvette Wash
50	DI Water



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Wear personal protective equipment. Use universal precautions.

Cuvette wash and cuvette conditioner usage

CTT and RTT

Solution	Approximate Volume Used During Wash 2	Number of Aspirations	Total number of WUD cycles for Wash2
10% Cuvette Wash	DPP = 3.6 mL	DPP = 0.36 mL	1220 (approx)
	RPP1 = 29 mL	RPP1 = 2.9 mL	
	RPP2 = 29 mL	RPP2 = 2.9 mL	

System solutions

Solution	Dilution by system	Volume dispensed per WUD cycle	Volume of undiluted solution used per WUD cycle	Total volume used for Wash2 undiluted
Cuvette Wash	1:10 with water	600 µL	60 µL	44 ml
Cuvette Conditioner	1:40 with water	600 µL	15 µL	11 ml

NOTE

The total volume of cuvette wash and cuvette conditioner used by the system can vary slightly from the volumes provided in the tables above. This is normal behavior.

Cleaning and replenishing the dilution bottle

Materials required:

- Deionized Water
- Physiological saline (0.9% NaCl)

Time: 10 minutes

Analyzer mode: READY

NOTE

Wear personal protective equipment. Use universal precautions.

The dilution bottle may be cleaned when it is refilled, but must be cleaned at least once a month.



- 1 ISE buffer bottle
- 2 RRV (Reaction) bath oil
- **3** Isotonic saline diluent bottle
- 4 Cuvette detergent bottle
- 5 Cell conditioner bottle

Figure 5-17. Isotonic Saline diluent bottle

1. Lift the cover from the saline diluent bottle (3), and remove the bottle.

Note the bottle position on the shelf, to avoid mixing up the fluid bottles.

- 2. Empty the remaining contents of the bottle.
- 3. Rinse the bottle with deionized water and drain well.
- 4. Refill the bottle with 0.9% saline diluent.
- 5. Replace the bottle in the same position on the shelf in the cabinet.
- 6. Replace the cover of the diluent bottle.

NOTE

Make sure that the Teflon tube and filter holder are located at the bottom of the dilution bottle.

7. Prime the fluid lines:

NOTE

If you are cleaning the detergent or cell conditioner bottles at this time, you can prime all the fluid lines at once.

- a. At the Operation Panel, select Prime.
- b. At the PRIME Settings dialog box, select **Prime 2**, then type **10** or more in each of the number of times fields.
- c. Select Execute.

Cleaning and replenishing the cuvette wash bottle

Materials required:

- Deionized water
- Cuvette detergent (wash solution)

Time: 10 minutes Analyzer mode: READY 🙈 BIOHAZARD

Wear personal protective equipment. Use universal precautions.



- 1 ISE buffer bottle
- 2 RRV (Reaction) bath oil
- 3 Isotonic saline diluent bottle
- 4 Cuvette detergent bottle
- 5 Cell conditioner bottle

Figure 5-18. Cuvette wash bottle

NOTE

The cuvette wash bottle may be cleaned when it is refilled, but must be cleaned at least once a month.

- 1. Unscrew the filter cap at the front top of the cuvette wash bottle (4), then pull up the tube with the filter.
- 2. Disconnect the cuvette wash bottle level sensor connector, then turn it counterclockwise and pull it out.
- 3. Remove the bottle.



Make a note of the bottle position on the shelf, to avoid mixing up the fluid bottles.

- 4. Empty the remaining contents of the bottle.
- 5. Rinse the bottle with deionized water and drain well.

Ensure that the level sensor connector does not get wet, to avoid damaging it.

- 6. Refill the bottle with cuvette wash solution.
- 7. Return the bottle to the same position on the shelf in the cabinet.
- 8. Connect the cuvette wash bottle level sensor connector, then push the connector in and turn it clockwise.
- 9. Insert the filter and hose, then fasten the cap.

NOTE

Make sure that the filter holder is located at the bottom of the bottle.

10. Prime the fluid lines:

NOTE

If you are cleaning other bottles, wait to perform this step for all fluid lines.

- a. At the Operation Panel, select the **Prime** button.
- b. At the PRIME Settings dialog box, select **Prime 2** and then type **10** or more for the number of times in all fields.
- c. Select Execute.

Cleaning the chiller filter

Materials required:

• Vacuum cleaner Time: 10 minutes Analyzer mode: READY



Wear personal protective equipment. Use universal precautions.

NOTE

Access the chiller filter (located on the right inside bottom shelf of the analyzer cabinet) through the panel door on the right side of the analyzer.

- 1. On the right side of the analyzer, push and release the panel door to gain access to the chiller unit.
- 2. Locate the filter and slide it out of the analyzer.
- 3. Using a vacuum cleaner, remove the dust from the filter.
- 4. If the filter requires further cleaning, perform the following steps:
 - a. Wash the filter under running water.
 - b. Dry the filter before replacing it.
- 5. Slide the filter back in place and close the panel on the right side of the cabinet.