

AU680 Every Other Week or Every 3,000 Samples (ISE) Maintenance

Step	Action
1	Perform the Manually Clean the Mix Bar, Liquid Level Sensors, Sample Pot and Sample Pot Tubing procedure

AU680 Weekly (Analyzer and ISE) Maintenance

Step	Action
1	Perform the W2, Photocal, and Enhanced Cleaning of Electrode Line (ISE option only) procedure
2	Check Photocal results
3	Perform the Selectivity Check for the Na and K Electrodes (ISE option only) procedure
4	Perform the Clean the Sample Probe and Mix Bars procedure
5	Perform the Clean the Pre-dilution Bottle procedure

For Training Purposes Only

These job aids are shortened versions of the procedures found in the source below. The procedures are listed in the order to perform in the most efficient manner. Where it is possible, procedures have been combined for efficiency. Information in the job aid is correct as of the date published. Verify you have the correct information.

Source: AU680 Chemistry Analyzer Instructions for Use B04779AB (June 2015)

AU680 Chemistry Analyzer

WARNINGS AND PRECAUTIONS

Read all product manuals and consult with Beckman Coulter-trained personnel before attempting to operate the instrument.

Beckman Coulter, Inc. urges its customers and employees to comply with all national health and safety standards such as the use of barrier protection. This may include, but is not limited to, protective eyewear, gloves, suitable laboratory attire when operating or maintaining this or any other automated laboratory equipment.

INTENTION FOR USE

This document is not intended to replace the information in your Instructions for Use or Reference Manual. Information in the Instructions for Use and Reference Manual supersedes information in any other manual.

REVISION STATUS

Version 1.0 (September 2016)

Based on:

- AU680 Chemistry Analyzer Software version 4.0
 - AU680 Chemistry Analyzer Instructions for Use B04779AB
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TRADEMARKS

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Every Other Week or Every 3,000 Samples (ISE) Maintenance

Manually Clean the ISE Mix Bar, Liquid Level Sensors, Sample Pot and Sample Pot Tubing

Supplies Required:

- Alcohol prep pads (70% isopropyl alcohol)
- Clean, dry, lint-free absorbent tissue
- Freshly prepared 1% Wash solution (1 part Wash solution added to 99 parts DI water)
- Sonicator
- Beaker
- Disposable pipette tip attached to a squeeze bottle or syringe

Confirm the system is in *Warm Up* or *Standby* mode

Select **Home > Analyzer Maintenance > ISE Maintenance**

Place a ✓ in the **ISE Maintenance** check box

Select the **Drain Flowcell** button, select **OK**

Press the green **TABLE ROTATION/DIAG** button to drain the flowcell

Lift the upper cover of the analyzer, then open the ISE cover

Disconnect the liquid level sensor connector 714 and mixing motor connector 706 of the mixing component

Loosen the knob securing the mixing component and gently lift to unseat it

Use an alcohol prep pad to wipe the two nozzles, two liquid level sensors, and the mix bar

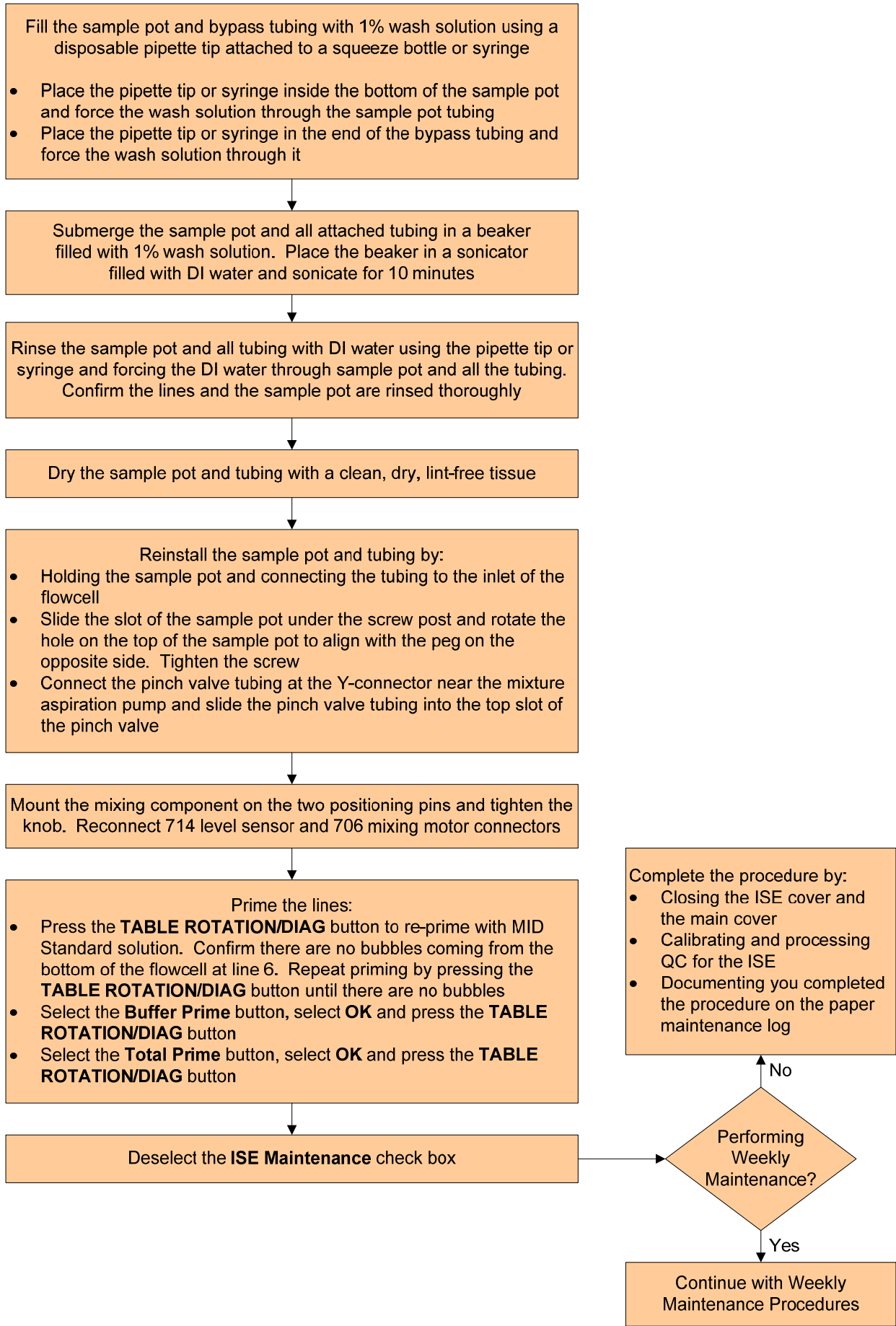
Place the mixing component on the mixing component holder

Loosen the retaining knob securing the sample pot and lift the pot off the peg

Hold the sample pot in one hand and remove:

- Sample pot tubing from the inlet of the flow cell
- Bypass tubing labeled 5 from the pinch valve
- Bypass tubing labeled 5 at the Y-connector near the mixture aspiration roller pump

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Weekly (Analyzer and ISE) Maintenance

W2, Photocal and Enhanced Cleaning of Electrode Line (ISE option)

Supplies Required:

- Three 60 mL bottles
- Cleaning Solutions:
1 N HCL **or**
0.5% sodium hypochlorite solution
(5% Sodium Hypochlorite Solution diluted 1:10)
- ISE option supplies:
 - ISE Cleaning Solution
 - 1 Hitachi cup

Confirm the system is in *Standby* mode

Fill the 60 mL bottles (do not fill in the neck of the bottle) with cleaning solutions (1 N HCL or diluted sodium hypochlorite solution. Never combine cleaning solutions and alternate the cleaning solutions each week)

Lift the upper cover of the analyzer and place the bottles in the appropriately labeled W2 positions on the analyzer.
Close the upper cover

(ISE option only)
Fill the Hitachi cup with at least 1.5 mL of ISE Cleaning Solution. Open the STAT table cover and place the cup in the **CLEAN** position (press the green **TABLE ROTATION/DIAG** button as required to rotate the STAT table). Close the STAT table cover

Select **Home > Analyzer Maintenance**

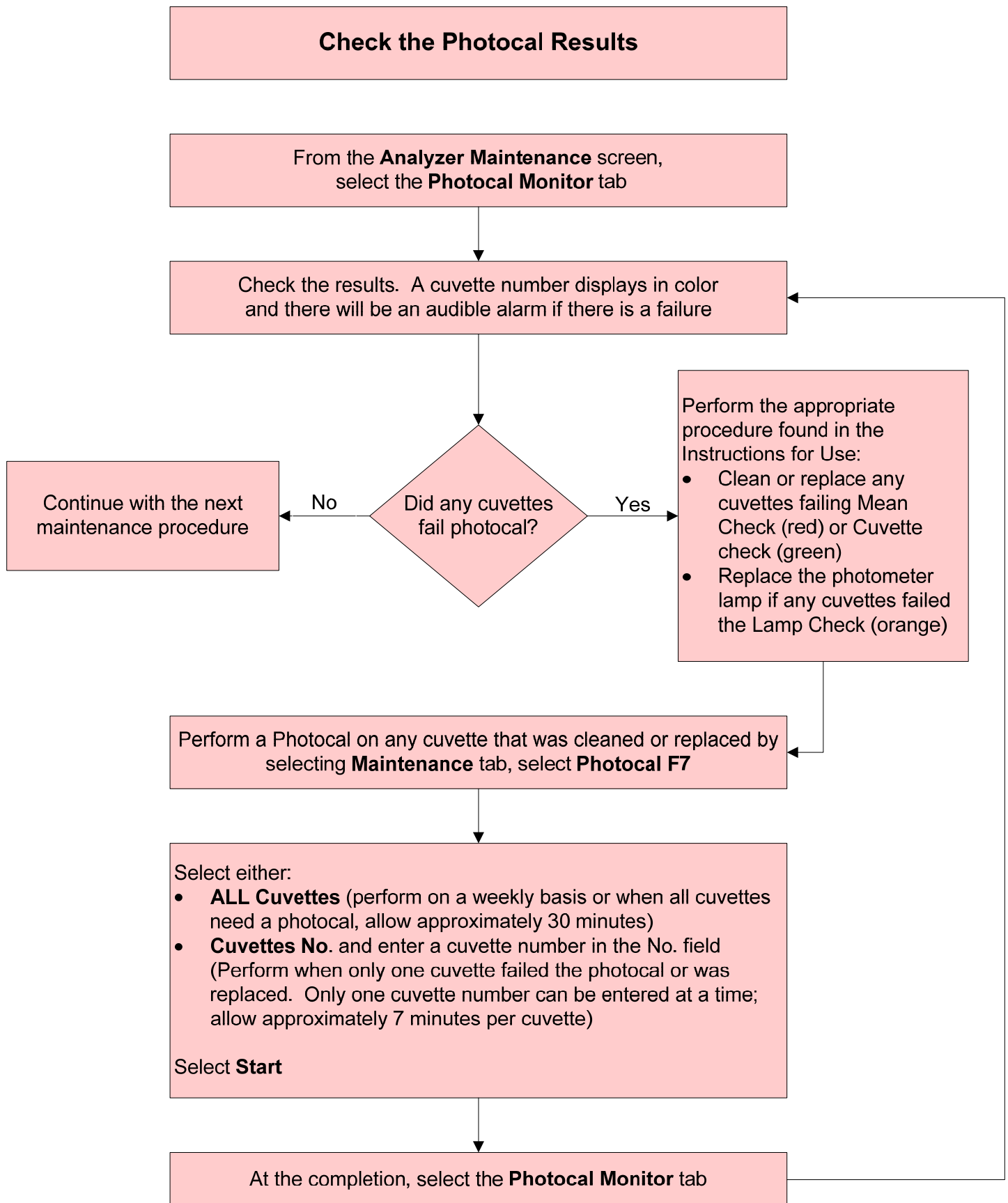
Select **W2 F6** and select the check boxes for:

- **After W2 ends, perform the photocal**
- **ISE Cleaning (Enhanced)** (ISE option only)

Select **Start**.
The system performs the W2 and the ISE Cleaning (Enhanced) (if selected) simultaneously and automatically performs the Photocal procedure at the completion of the W2. Allow approximately 30 minutes for each procedure (total of 60 minutes for all three selections).
The mode display will countdown the maintenance time left

When the system returns to the *Standby* mode, remove all maintenance materials and return routine materials as required

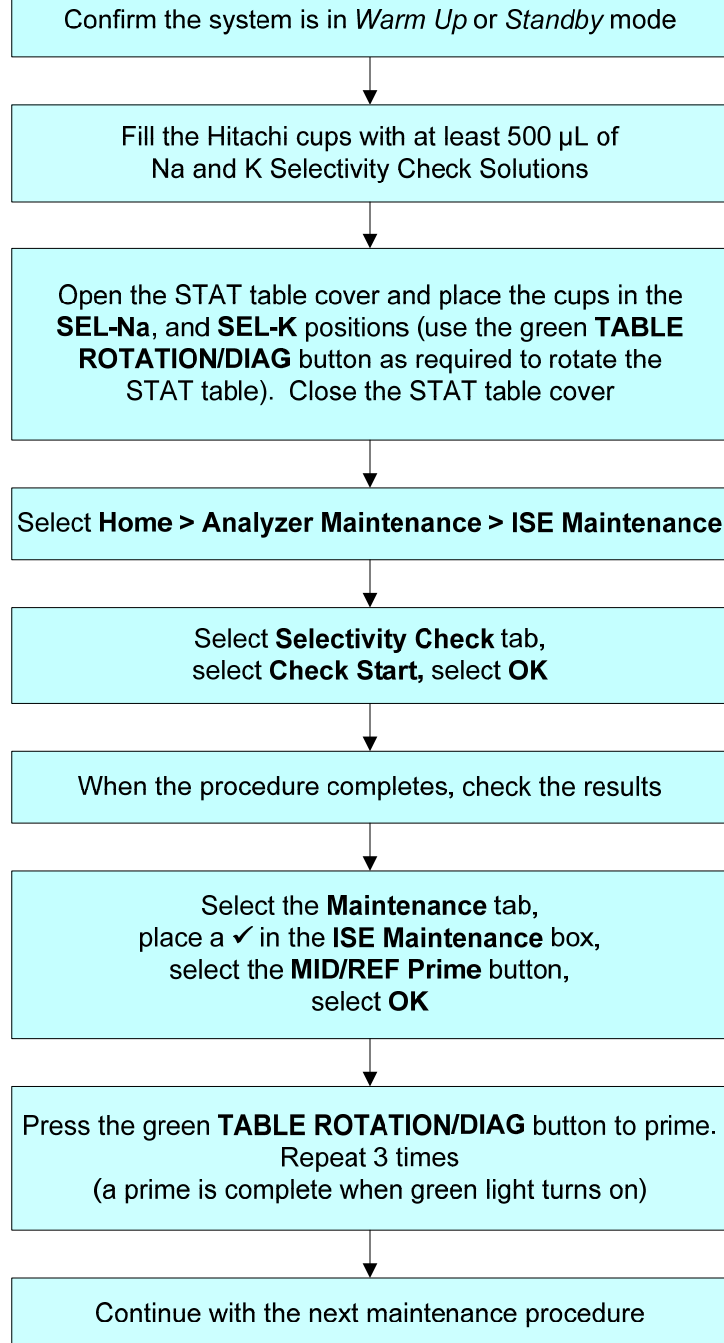
Proceed to the "Check the Photocal Results" flowchart



Selectivity Check for the Na and K Electrodes (ISE option)

Supplies Required:

- ISE Na and K Selectivity Check Solutions
- 2 Hitachi cups



Failures will be displayed in yellow. Replace the electrode that failed.

Clean the Sample Probe and Mix Bars

Supplies Required:

- Alcohol prep pad (70% Isopropyl alcohol)
- Stylet 0.2 φ diameter (included in the startup kit)

Confirm the system is in *Warm Up* or *Standby* mode

Lift the upper cover of the analyzer

Unscrew the silver connector above the sample probe and allow the fluid to drip from the probe

Lift the probe out from the arm and wipe the tip with an alcohol prep pad

Insert the stylet into the probe to remove any blockage

Return the probe to its arm and tighten the silver connector on the top

Remove mix bars individually and wipe each with an alcohol prep pad. Return spiral-shaped mix bars to R1/S positions and L-shaped mix bars to R2 positions

Select **Home > Analyzer Maintenance**

Place a ✓ in the check box at **Analyzer Maintenance**, select **Replacing Sample Probe**, enter 3 in the Start dialog, select **OK**

Press the green **TABLE ROTATION/DIAG** button and confirm the probe dispenses fluid in a straight stream

Replace the probe if it appears bent, damaged or does not dispense a straight stream of fluid

Select **Replacing Mixing Bar**, select **The First Mixer** and enter 3 in the Start dialog, select **OK**

Press the green **TABLE ROTATION/DIAG** button and watch the R1/S mix component perform a sequence

Replace mix bars if they appear bent, scratched or make unusual noise during sequence

Select **Replacing Mixing Bar**, select **The Second Mixer** and enter 3 in the Start dialog, select **OK**

Press the green **TABLE ROTATION/DIAG** button and watch the R2 mix component perform a sequence

Continue with the next maintenance procedure

Clean the Pre-dilution Bottle

Supplies Required:

- Extra 60 mL bottle (optional)
- 0.5% sodium hypochlorite solution (5% Sodium Hypochlorite Solution diluted 1:10)

Confirm the system is in *Warm Up* or *Standby* mode

Lift the upper cover of the analyzer

Remove the pre-dilution bottle and discard the DI water (located outside the R1 refrigerator in the position labeled 61.Diluent/W2)

Wash the pre-dilution bottle by filling it with the diluted sodium hypochlorite solution

Thoroughly rinse the pre-dilution bottle with DI water to remove any sodium hypochlorite residue

Fill the pre-dilution bottle with DI water
or
If an extra bottle is available, allow the cleaned bottle to air dry, and fill the extra 60 mL pre-dilution bottle with DI water

Place the the pre-dilution bottle filled with DI water on the analyzer

Close the upper cover

Document the completion of all procedures on the paper maintenance log