AU5800 Every Other Week or Every 3,000 Samples

(ISE) Maintenance

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

AU5800 Weekly (Analyzer and ISE) Maintenance

Step	Action
1	Perform the **W2, Photocal and Enhanced Cleaning of the ISE Electrode Line** (optional module) procedure
2	**View the Photocal** results
3	Perform the **Check the Selectivity of the Na/K Electrodes** procedure
4	Perform the **Clean the Sample Probe and Mix Bars** procedure
5	Perform the **Clean the Pre-dilution Bottles** 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. The optional ISE module has references for two flow cells. Information in the job aid is correct as of the date published. Verify you have the correct information.

Source: AU5800® Chemistry Analyzer User's Guide PN A98352AB (October 2012)

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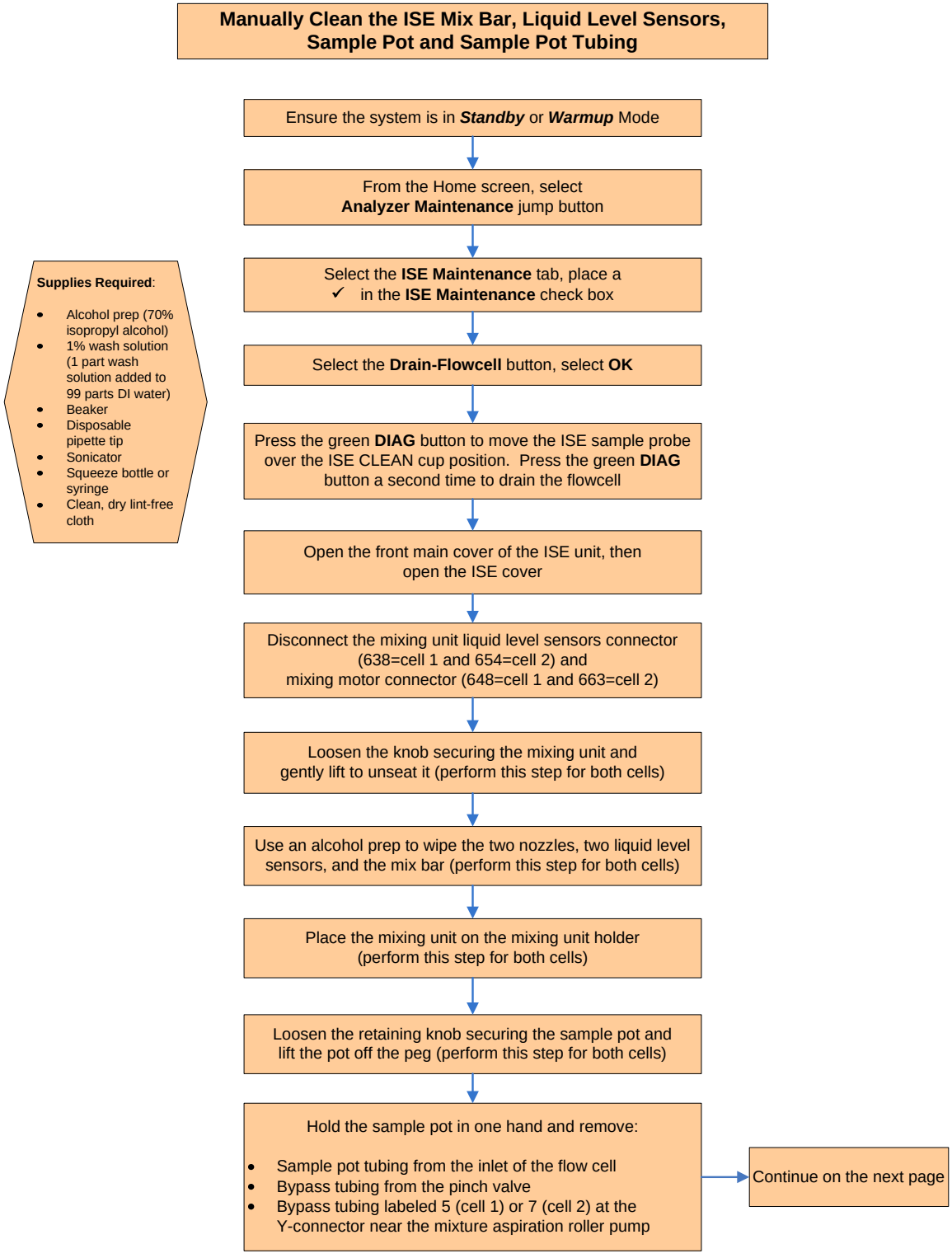
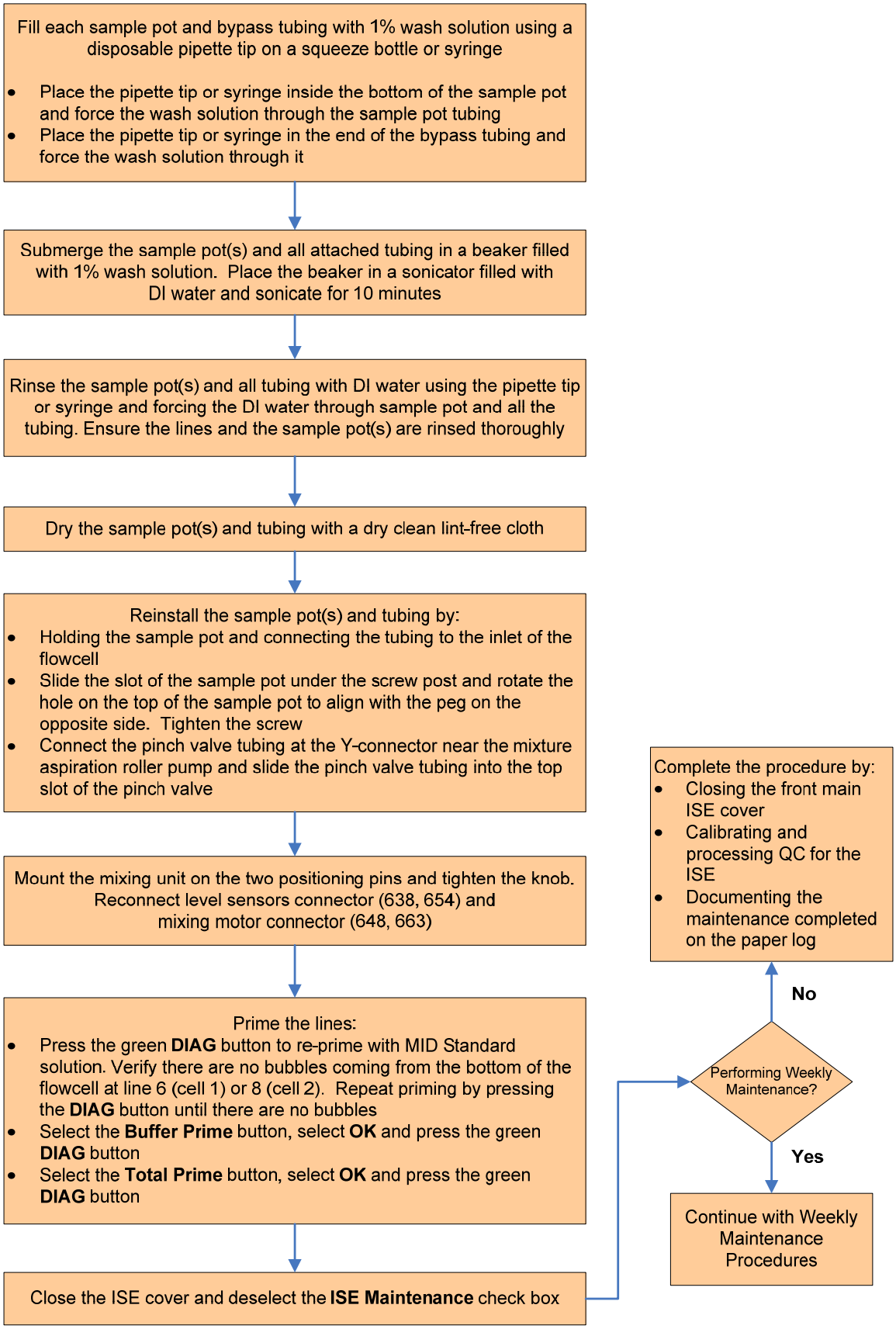
Trademarks	AU5800® Chemistry Analyzer

Every Other Week or Every 3,000 Sample ISE Maintenance




Fill each sample pot and bypass tubing with 1% wash solution using a disposable pipette tip on a squeeze bottle or syringe
• Place the pipette tip or syringe inside the bottom of the sample pot and force the wash solution through the sample pot tubing
• Place the pipette tip or syringe in the end of the bypass tubing and force the wash solution through it
Submerge the sample pot(s) and all attached tubing in a beaker filled with 1% wash solution. Place the beaker in a sonicator filled with DI water and sonicate for 10 minutes
Rinse the sample pot(s) and all tubing with DI water using the pipette tip or syringe and forcing the DI water through sample pot and all the tubing. Ensure the lines and the sample pot(s) are rinsed thoroughly
Dry the sample pot(s) and tubing with a dry clean lint-free cloth
Reinstall the sample pot(s) and tubing by:
• Holding the sample pot and connecting the tubing to the inlet of the flowcell
• Slide the slot of the sample pot under the screw post and rotate the hole on the top of the sample pot to align with the peg on the opposite side. Tighten the screw
• Connect the pinch valve tubing at the Y-connector near the mixture aspiration roller pump and slide the pinch valve tubing into the top slot of the pinch valve
Mount the mixing unit on the two positioning pins and tighten the knob. Reconnect level sensors connector (638, 654) and mixing motor connector (648, 663)
Prime the lines:
• Press the green DIAG button to re-prime with MID Standard solution. Verify there are no bubbles coming from the bottom of the flowcell at line 6 (cell 1) or 8 (cell 2). Repeat priming by pressing the DIAG button until there are no bubbles
• Select the Buffer Prime button, select OK and press the green DIAG button
• Select the Total Prime button, select OK and press the green DIAG button
Close the ISE cover and deselect the ISE Maintenance check box
Performing Weekly Maintenance?
No
Complete the procedure by:
• Closing the front main ISE cover
• Calibrating and processing QC for the ISE
• Documenting the maintenance completed on the paper log
Yes
Continue with Weekly Maintenance Procedures

Weekly Analyzer and ISE Maintenance

W2, Photocal and Enhanced Cleaning of the ISE Electrode Line (optional unit)

Supplies Required:

- 60 mL reagent bottles
  - 6 per analyzer unit
  - 1 for the ISE unit
- Cleaning Solution: 1 N HCL or 10% Bleach (Beckman Sodium Hypochlorite (5%) diluted 1:10. Prepare by adding 10 parts bleach to 90 parts DI water)
- ISE Cleaning Solution (optional ISE unit)
- 1 ISE sample cup (optional ISE unit)

Ensure the system is in ***Standby*** Mode

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From the Home screen, select **Analyzer Maintenance** jump button

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Fill the 60 mL bottles (do not fill up into the neck of the bottle) with cleaning solution (1 N HCL or 10% Bleach). Never combine cleaning solutions and alternate the cleaning solutions each week)

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Open the front and rear main covers of each analyzer and ISE unit. Place the bottles in the appropriately labeled W2 positions on the analyzer and ISE

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(Step for labs with an optional ISE unit)
Fill the ISE sample cup with at least 1.5 mL of ISE Cleaning Solution. Place the cup in the ISE CLEAN cup position

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Close all the covers

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Select **W2 F6,** make the following selections:

- After W2 ends, perform the Photocal
- ISE Cleaning (Enhanced) for systems with an ISE unit
- Select each analyzer unit (available for multiple unit systems)

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Select **OK.** The system will perform the W2 and the ISE Cleaning(if selected) simultaneously and immediately start 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

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

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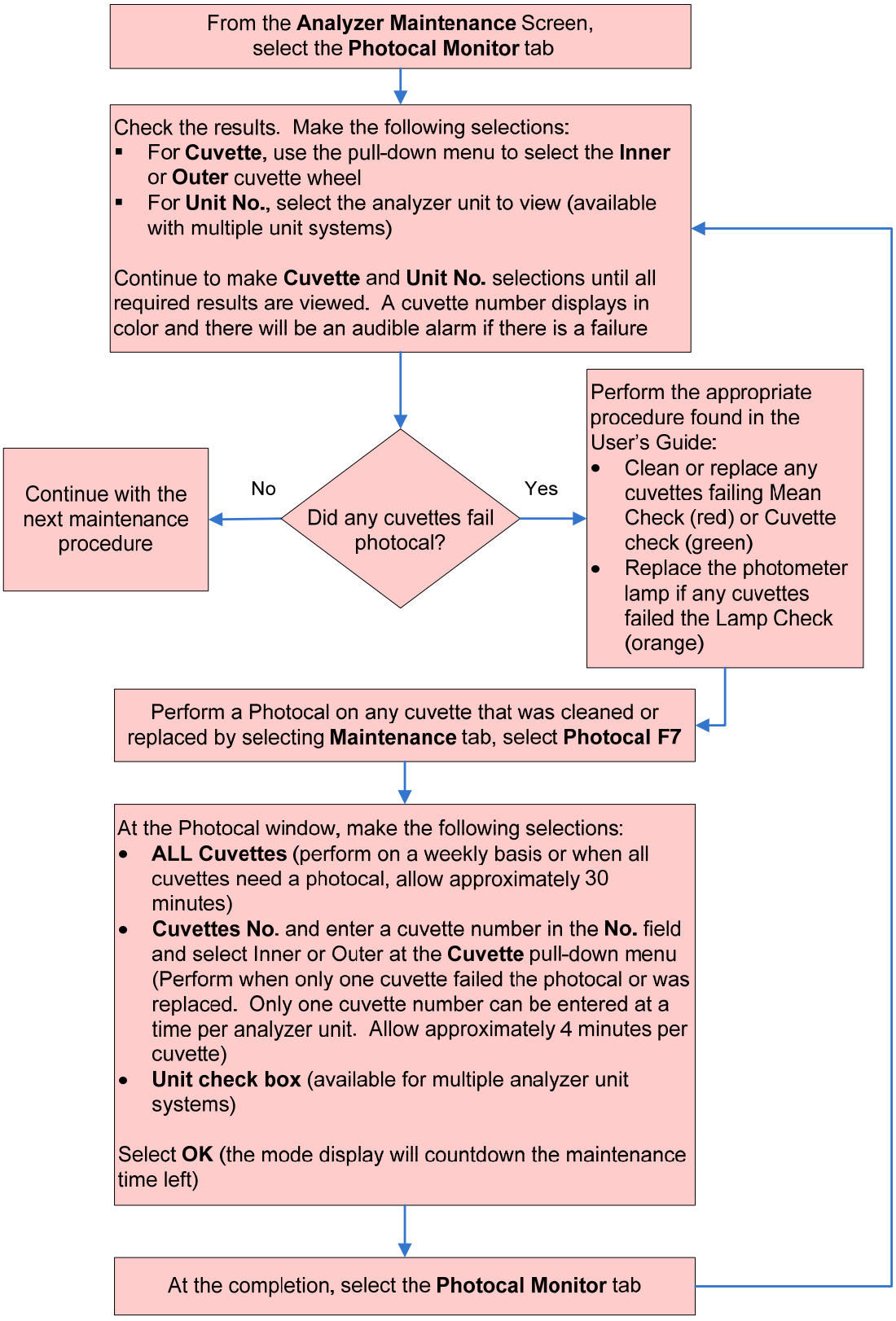
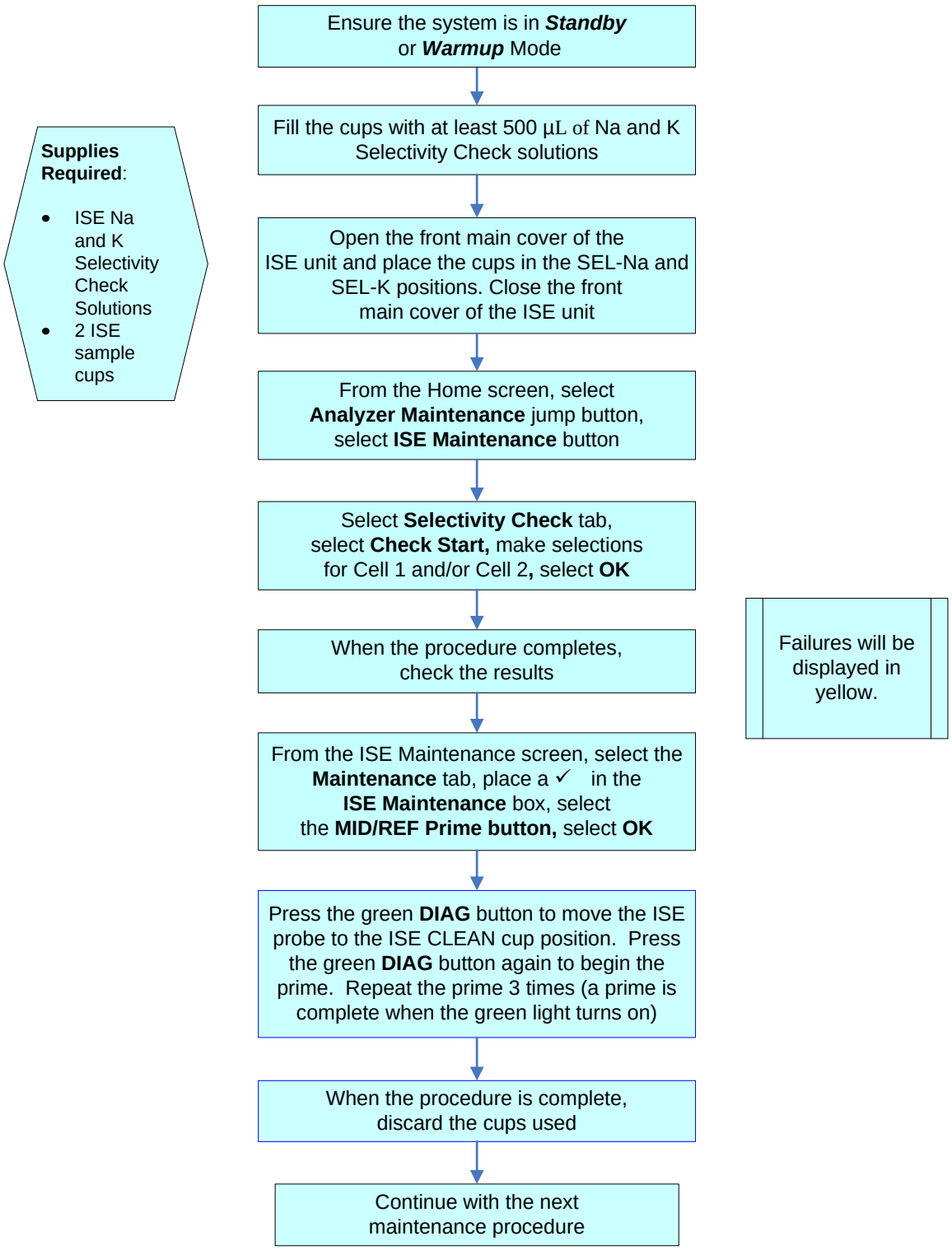
Proceed to **View the Photocal Results** procedure

View the Photocal Results



Check the Selectivity of the Na/K Electrodes
(optional module)



Clean the Sample Probe and Mix Bars

Supplies Required:

- Alcohol Prep (70% Isopropyl alcohol)
- Clean lint free cloth
- Stylet (included in the start up kit)

Ensure the system is in ***Standby*** or ***Warmup*** Mode

Open the rear main cover of each analyzer unit and the ISE unit

Unscrew the silver connector above the sample probes (S1, S2 and ISE) and allow the fluid to drip from the probes into the wash wells

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

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

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. Return spiral-shaped mix bars to R1/S (blue dot on the mix unit) positions and L-shaped mix bars to R2 (yellow dot on the mix unit) positions

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

From the Home screen, select the **Analyzer Maintenance** jump button

Place a ✓ in the check box at Analyzer Maintenance, select **Replace Sample Probe**

At the Replace Sample Probe window, make the following selections:

- A check for each analyzer unit (available for multiple unit systems)
- For **Cuvette,** use the pull-down menu for **Inner**
- For **Times**, enter **3**

Select **OK**

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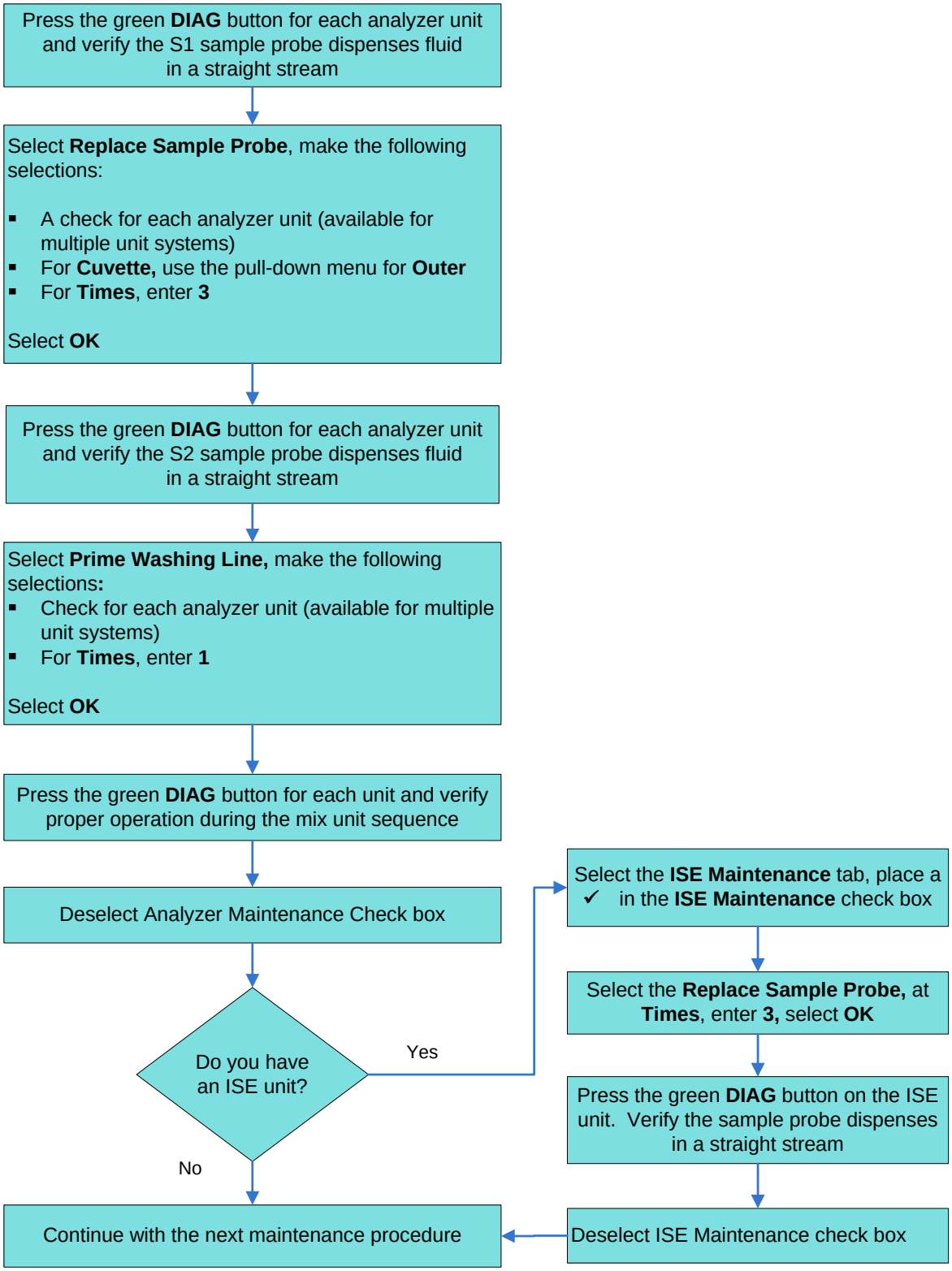
Press the green **DIAG** button for each analyzer unit and verify the S1 sample probe dispenses fluid in a straight stream
Select **Replace Sample Probe**, make the following selections:
A check for each analyzer unit (available for multiple unit systems)
For **Cuvette,** use the pull-down menu for **Outer**
For **Times**, enter **3**
Select **OK**
Press the green **DIAG** button for each analyzer unit and verify the S2 sample probe dispenses fluid in a straight stream
Select **Prime Washing Line,** make the following selections**:**
Check for each analyzer unit (available for multiple unit systems)
For **Times**, enter **1**
Select **OK**
Press the green **DIAG** button for each unit and verify proper operation during the mix unit sequence
Deselect Analyzer Maintenance Check box
Do you have an ISE unit?
Yes
No
Select the **ISE Maintenance** tab, place a ✓ in the **ISE Maintenance** check box
Select the **Replace Sample Probe,** at **Times**, enter **3,** select **OK**
Press the green **DIAG** button on the ISE unit. Verify the sample probe dispenses in a straight stream
Deselect ISE Maintenance check box
Continue with the next maintenance procedure

Clean the Pre-dilution Bottles

Supplies Required:

- Optional: Two 60 mL reagent bottles per analyzer unit (if alternating weekly
- 10% Bleach (Beckman Sodium Hypochlorite (5%) diluted 1:10. Prepare by adding 10 parts bleach to 90 parts DI water)