

# AU5800 Every Other Week and Weekly Maintenance Job Aids



## **For Training Purposes Only**

These job aids are shortened versions of the procedures found in the source below. The procedures are written as standalone procedures to ensure they can be performed in any order. 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<sup>®</sup> Chemistry Analyzer User's Guide PN A98352AB (October 2012)

## Document Disclaimers

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<b>Document Disclaimers</b>	This document is not intended to replace the information in your User's Guides, Quick Response Guide or other product documentation. Information in the User's Guide and Quick Response Guide supersedes information in any other manual.
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<b>Trademarks</b>	AU5800® Chemistry Analyzer

## 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 (70% isopropyl alcohol)
- 1% wash solution (1 part wash solution added to 99 parts DI water)
- Beaker
- Disposable pipette tip
- Sonicator
- Squeeze bottle or syringe
- Clean, dry lint-free cloth

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

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

Select the **ISE Maintenance** tab, place a ✓ in the **ISE Maintenance** check box

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

Press the green **DIAG** button to move the ISE sample probe over the ISE CLEAN cup position. Press the green **DIAG** button a second time to drain the flowcell

Open the front main cover of the ISE unit, then open the ISE cover

Disconnect the mixing unit liquid level sensors connector (638=cell 1 and 654=cell 2) and mixing motor connector (648=cell 1 and 663=cell 2)

Loosen the knob securing the mixing unit and gently lift to unseat it (perform this step for both cells)

Use an alcohol prep to wipe the two nozzles, two liquid level sensors, and the mix bar (perform this step for both cells)

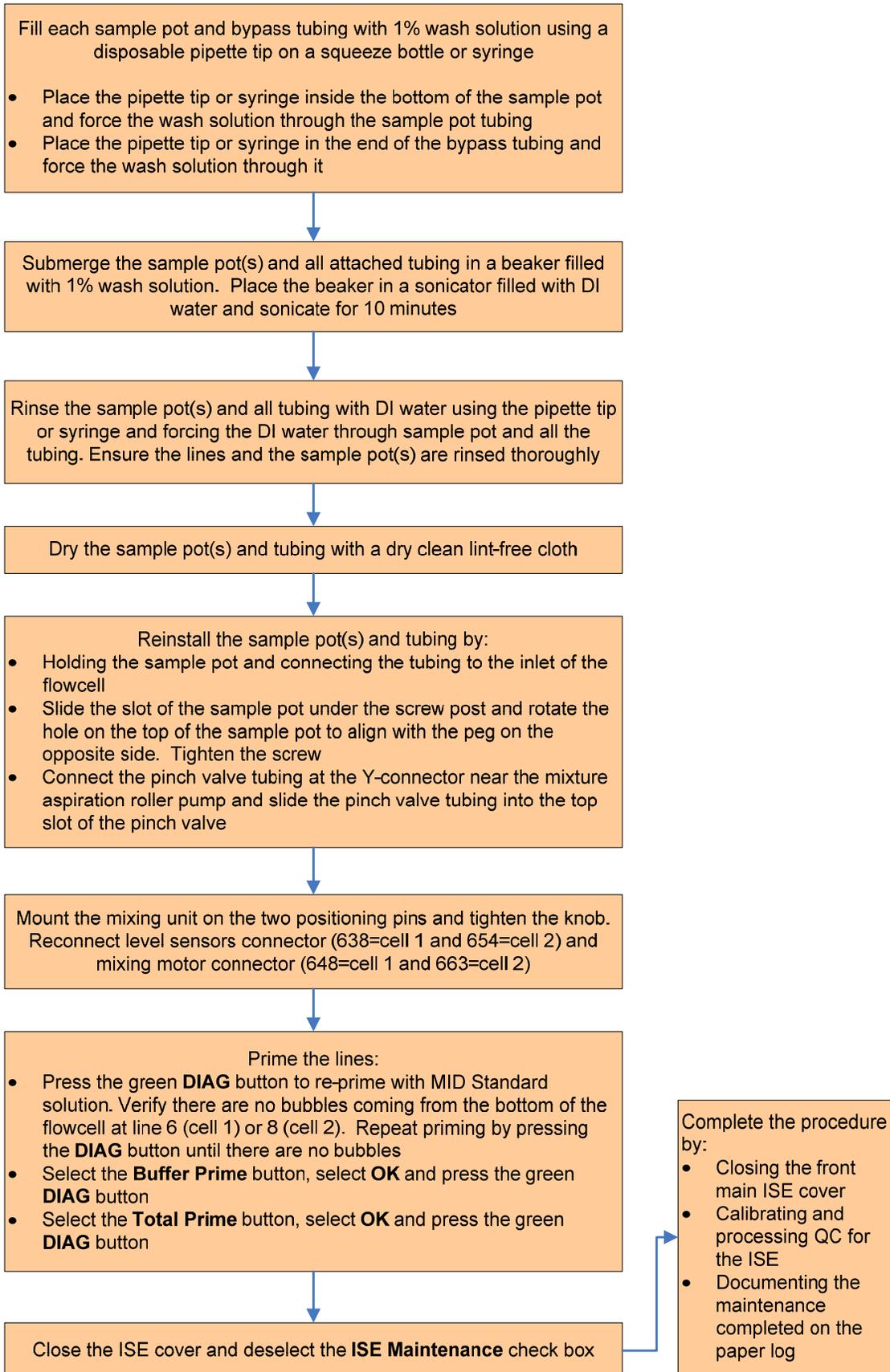
Place the mixing unit on the mixing unit holder (perform this step for both cells)

Loosen the retaining knob securing the sample pot and lift the pot off the peg (perform this step for both cells)

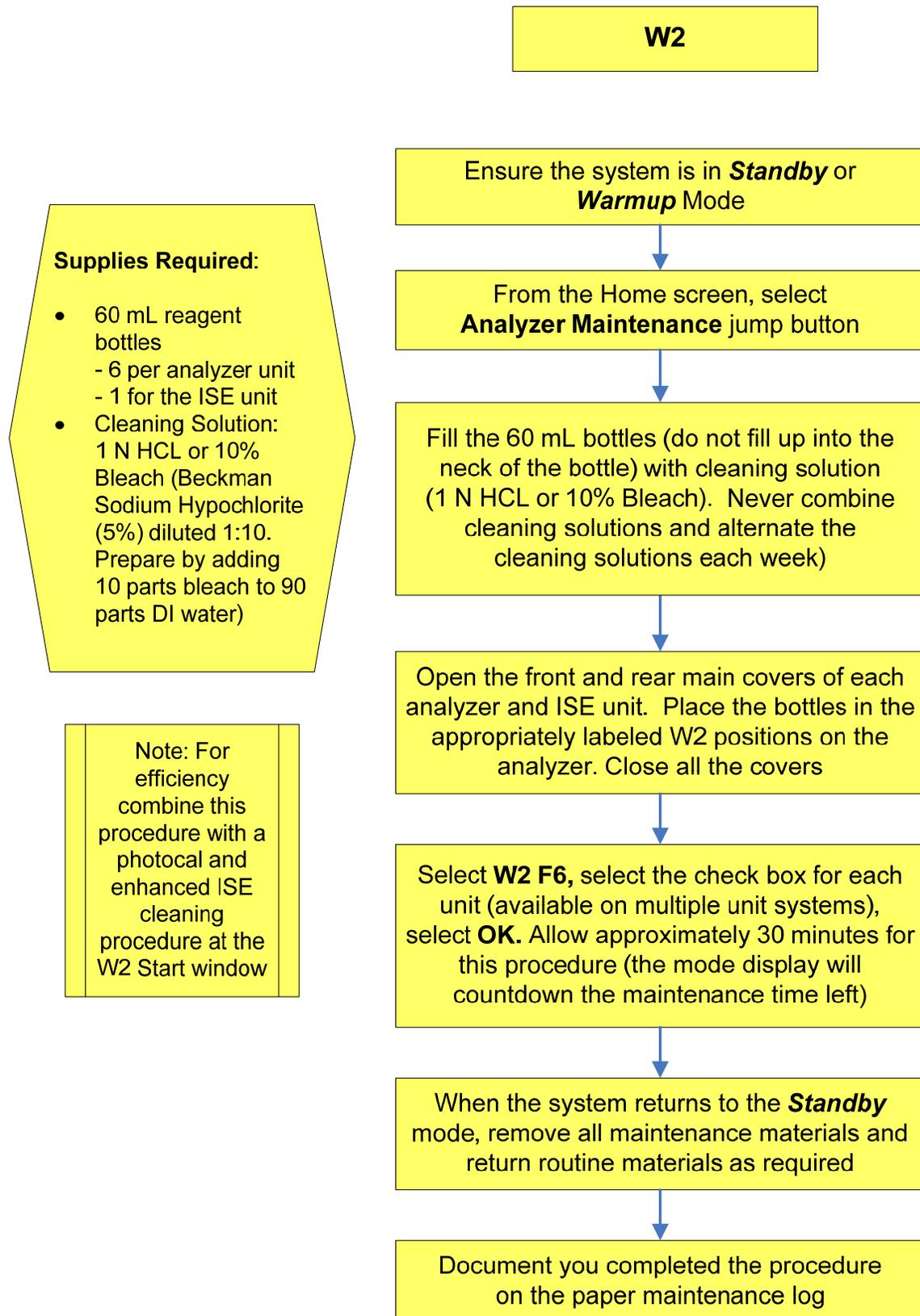
Hold the sample pot in one hand and remove:

- Sample pot tubing from the inlet of the flow cell
- Bypass tubing from the pinch valve
- Bypass tubing labeled 5 (cell 1) or 7 (cell 2) at the Y-connector near the mixture aspiration roller pump

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## Weekly Analyzer and ISE Maintenance



## Photocal

Ensure the system is in **Standby** Mode

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

Select **Photocal F7**

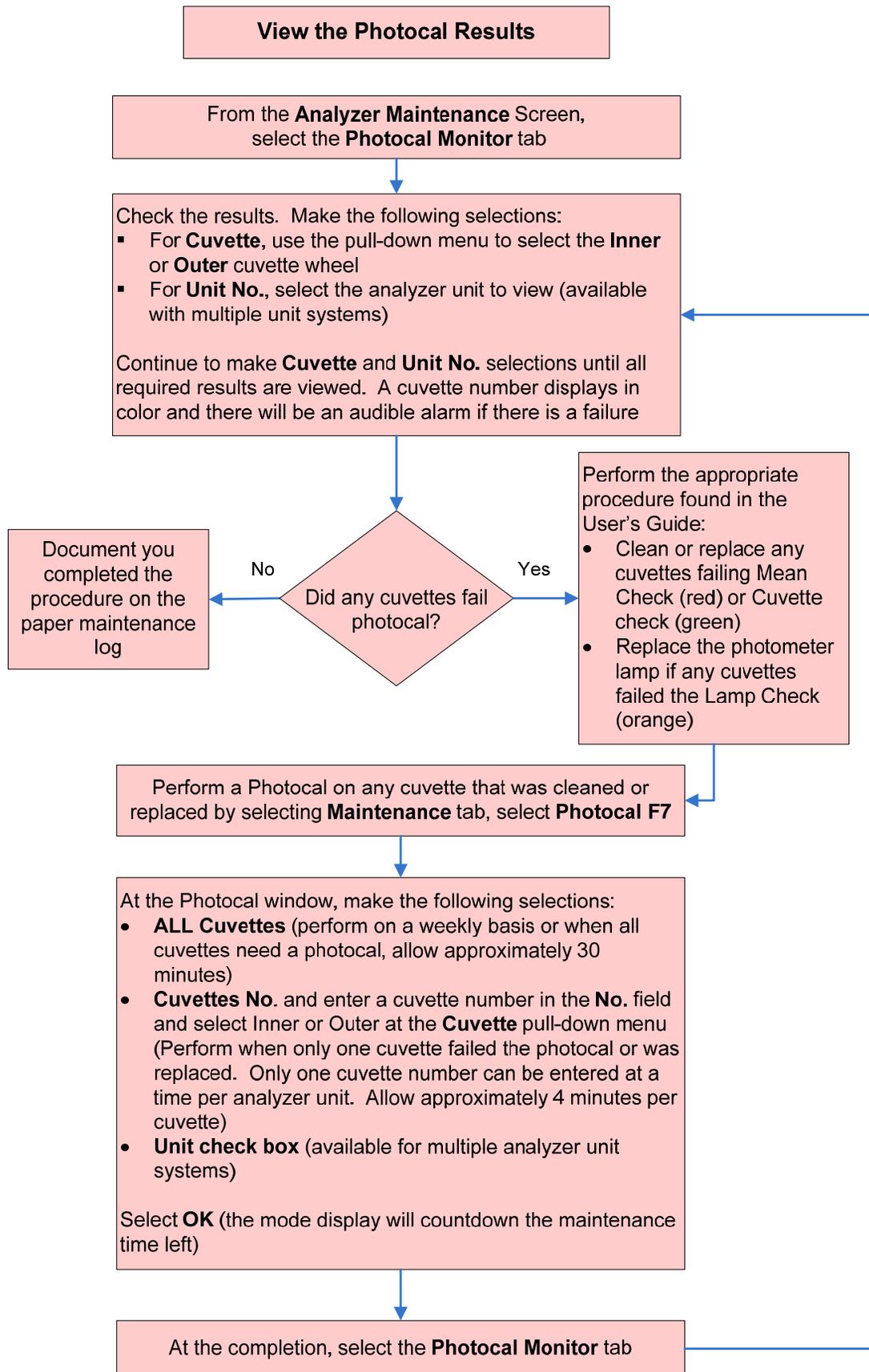
At the Photocal window, make the following selections:

- **ALL Cuvettes** (perform on a weekly basis or when all cuvettes need a photocal, allow approximately 30 minutes)
- **Cuvettes No.** and enter a cuvette number in the **No.** field and select Inner or Outer at the **Cuvette** pull-down menu (Perform when only one cuvette failed the photocal or was replaced. Only one cuvette number can be entered at a time per analyzer unit. Allow approximately 4 minutes per cuvette)
- **Unit check box** (available for multiple analyzer unit systems)

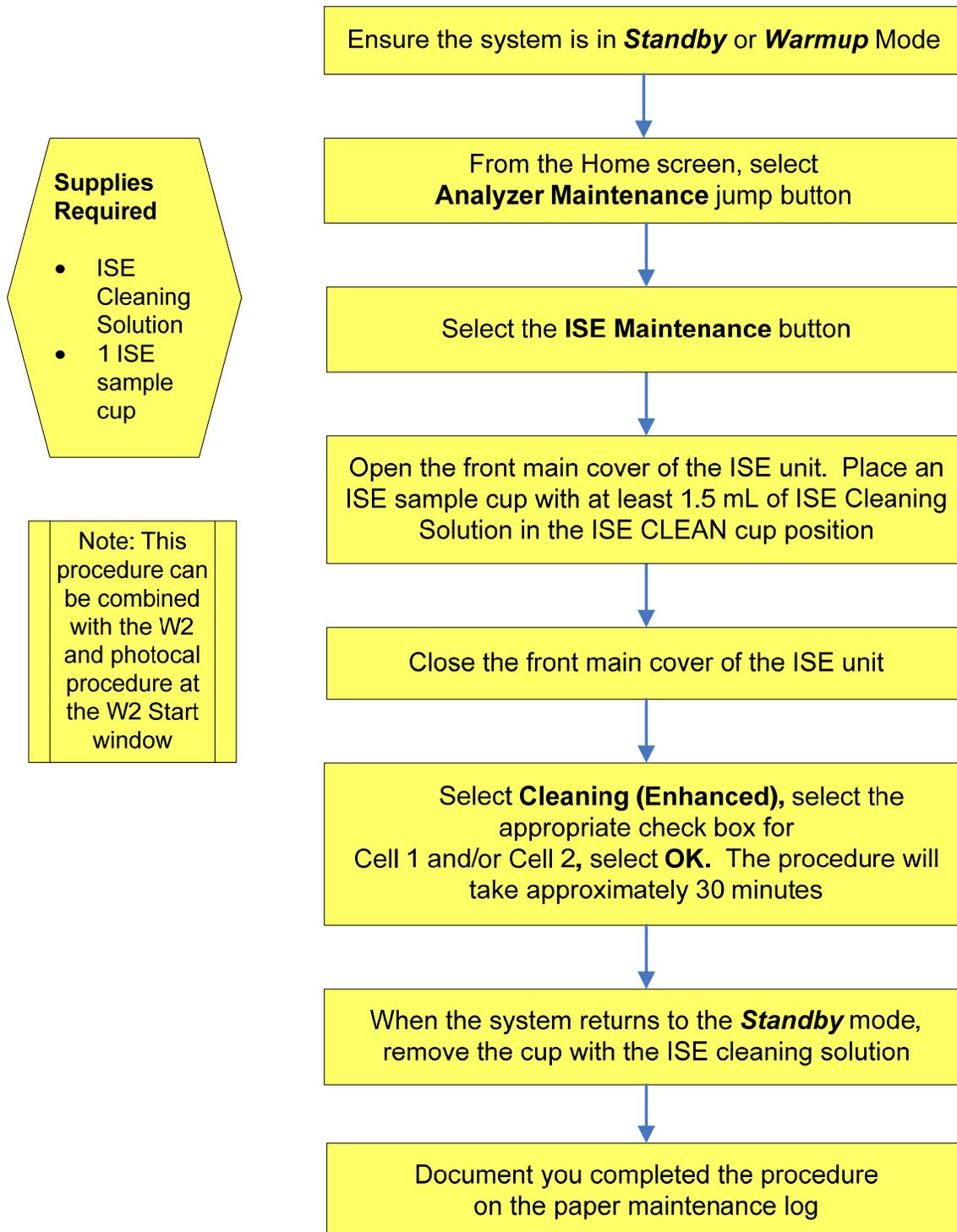
Select **OK** (the mode display will countdown the maintenance time left)

When the system returns to the **Standby** mode, continue with the  
**View the Photocal Results** procedure

Note: This procedure can be combined with W2 and enhanced ISE cleaning procedures at the W2 Start window



## Enhanced Cleaning of the ISE Electrode Line (optional module)



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

- Supplies Required:**
- ISE Na and K Selectivity Check Solutions
  - 2 ISE sample cups

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

Fill the cups with at least 500  $\mu\text{L}$  of Na and K Selectivity Check solutions

Open the front main cover of the ISE unit and place the cups in the SEL-Na and SEL-K positions. Close the front main cover of the ISE unit

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

Select **Selectivity Check** tab, select **Check Start**, make selections for Cell 1 and/or Cell 2, select **OK**

When the procedure completes, check the results

From the ISE Maintenance screen, select the **Maintenance** tab, place a  $\checkmark$  in the **ISE Maintenance** box, select the **MID/REF Prime** button, select **OK**

Press the green **DIAG** button to move the ISE probe to the ISE CLEAN cup position. Press the green **DIAG** button again to begin the prime. Repeat the prime 3 times (a prime is complete when the green light turns on)

When the procedure is complete, discard the cups used

Document you completed the procedure on the paper maintenance log

Failures will be displayed in yellow

## 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

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

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:

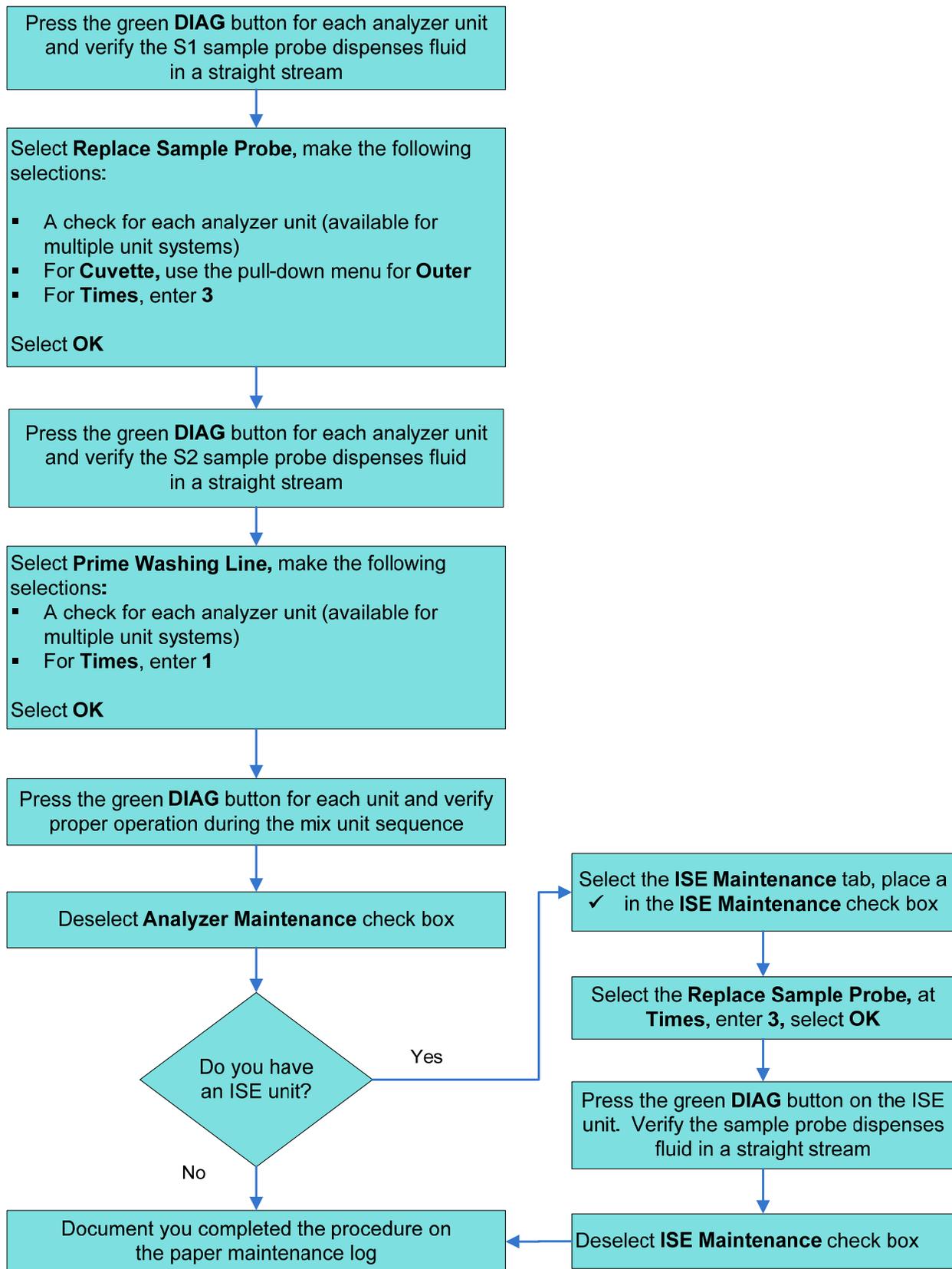
- A check for each analyzer unit (available for multiple unit systems)
- For **Cuvette**, use the pull-down menu for **Inner**
- For **Times**, enter **3**

Select **OK**

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

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

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## 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)

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

Open the front main cover of each analyzer unit

Remove the pre-dilution bottles located outside the R1 reagent compartment

Wash the pre-dilution bottles by filling them with the 10% bleach solution

Rinse the pre-dilution bottles with DI water until the scent of bleach is rinsed away

Fill the pre-dilution bottles with DI water **or** allow the bottles to air dry and fill the alternate pre-dilution bottles with DI water

Place the the pre-dilution bottles filled with DI water in the appropriate positions outside the R1 reagent compartment on each analyzer unit

Close the front main cover(s)

Document you completed the procedure on the paper maintenance log