

AU680 Every Other Week and Weekly Maintenance Job Aid



For Training Purposes Only

These job aids are shortened versions of the procedures found in the source below. Each procedure is written as a standalone procedure to allow the procedures to be performed in any order. 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

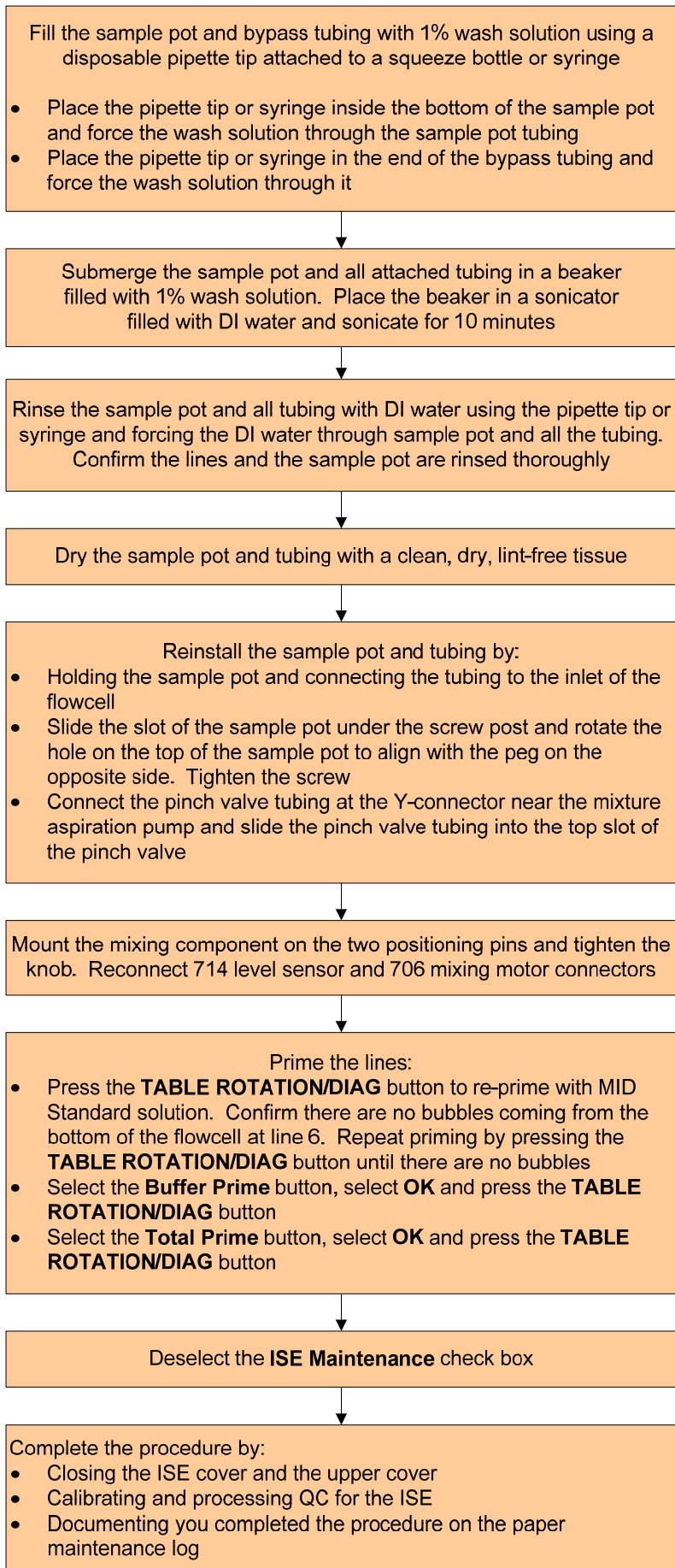
Place the mixing component on the mixing component holder

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

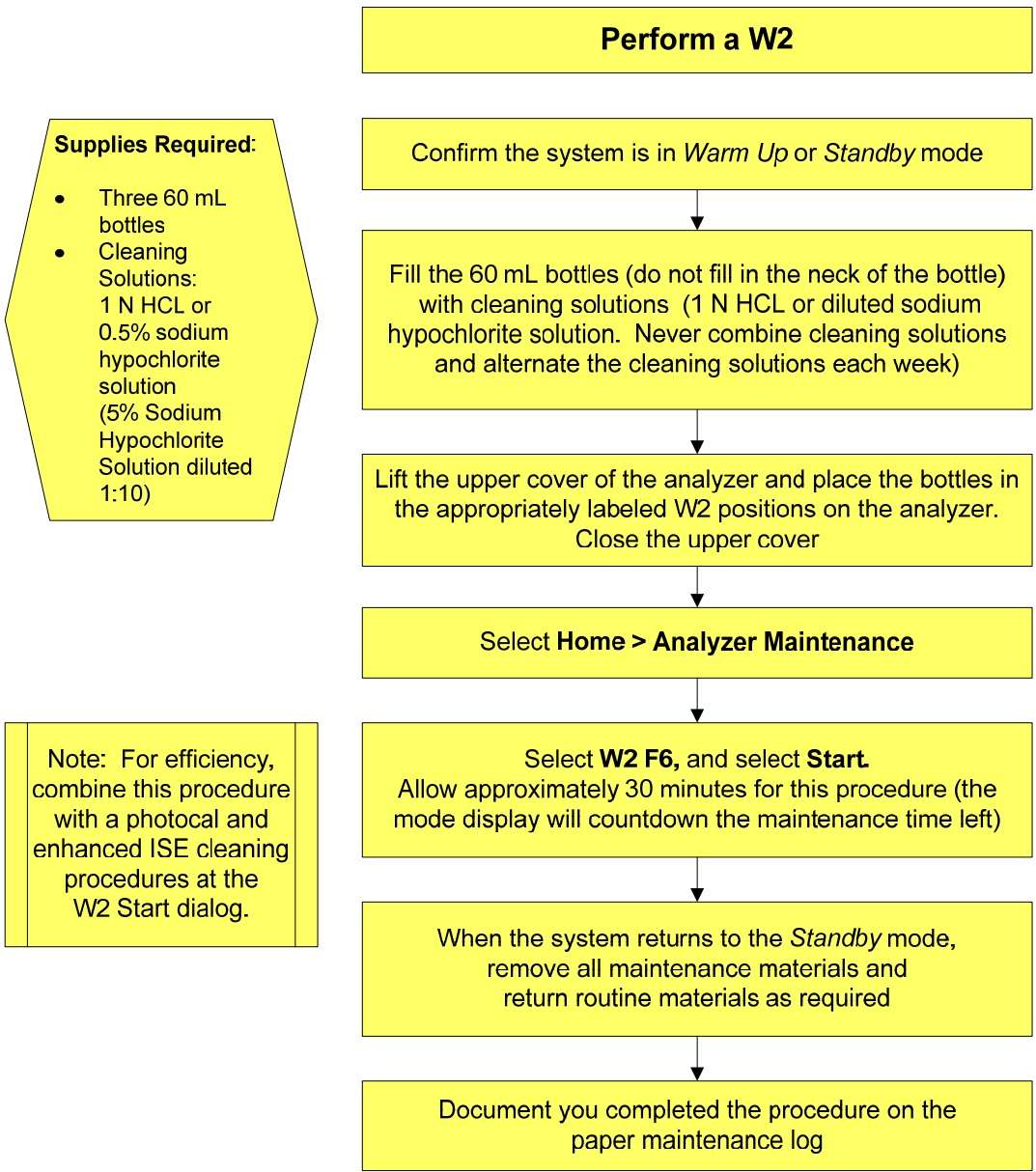
Hold the sample pot in one hand and remove:

- 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

Continue on the next page



Weekly (Analyzer and ISE) Maintenance



Perform a Photocal

Confirm the system is in *Standby* mode

Confirm that the upper cover is closed

Select **Home > Analyzer Maintenance**

Select **Photocal F7**

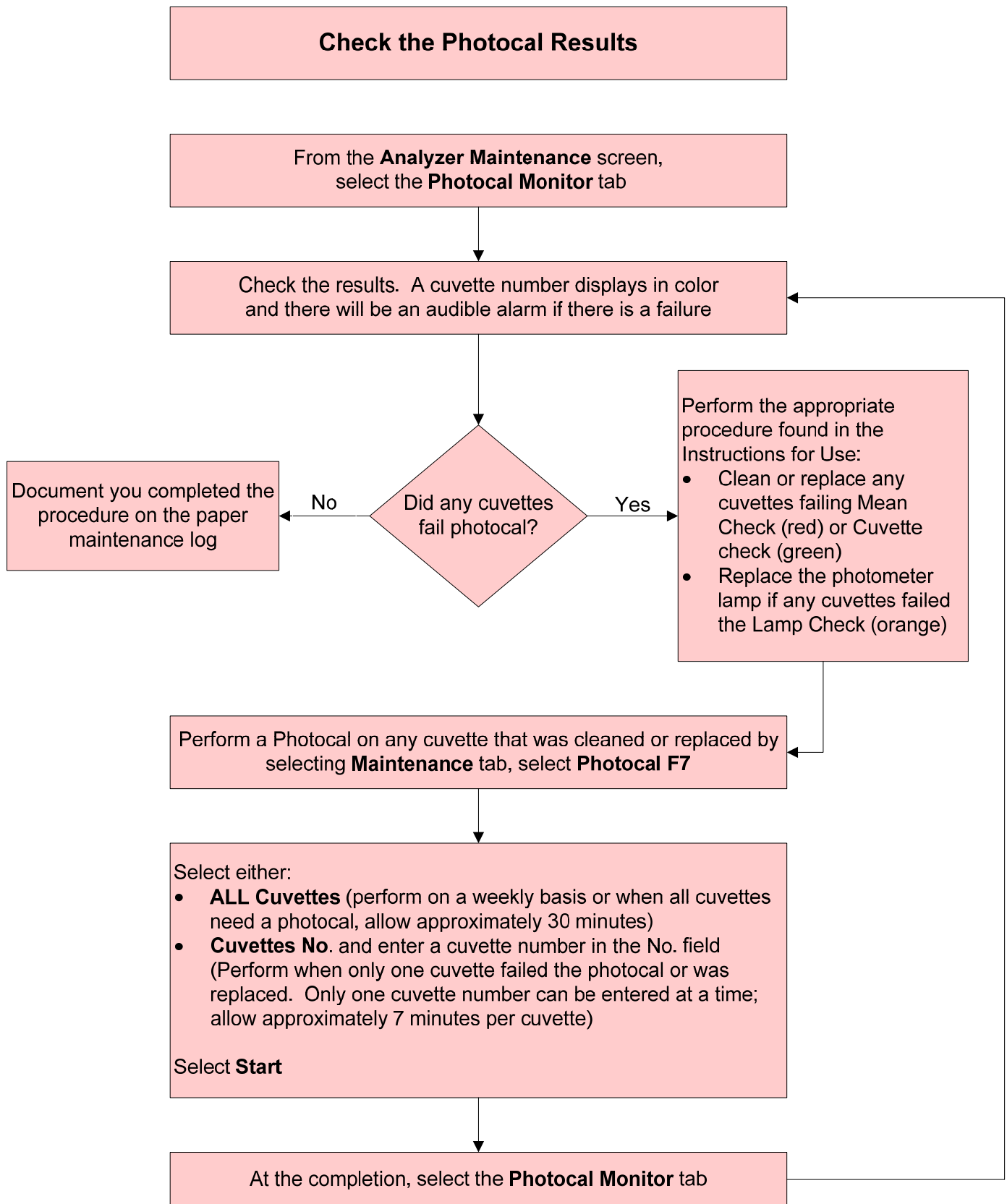
Select either:

- **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 (Perform when only one cuvette failed the photocal or was replaced. Only one cuvette number can be entered at a time; allow approximately 7 minutes per cuvette)

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

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

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



Enhanced Cleaning of Electrode Line (ISE option only)

Supplies Required:

- ISE Cleaning Solution
- 1 Hitachi cup

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

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

Open the STAT table cover and use the **TABLE ROTATION/DIAG** button to place a Hitachi cup with at least 1.5 mL of ISE Cleaning Solution in the **CLEAN** position on the STAT table

Close the STAT table cover

Select **Cleaning (Enhanced) F6**, select **OK**

When the system returns to the *Standby* mode, remove and discard the Hitachi cup from the STAT table

Document you completed the procedure on the paper maintenance log

Note: This procedure can be combined with the W2 and photocal procedures at the W2 Start dialog

Selectivity Check for the Na and K Electrodes

Supplies Required:

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

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

Fill the Hitachi cups with at least 500 μ L of Na and K Selectivity Check Solutions

Open the STAT table cover and place the cups in the **SEL-Na**, and **SEL-K** positions (use the green **TABLE ROTATION/DIAG** button as required to rotate the STAT table). Close the STAT table cover

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

Select **Selectivity Check** tab, select **Check Start**, select **OK**

When the procedure completes, check the results

Select the **Maintenance** tab, place a **✓** in the **ISE Maintenance** box, select the **MID/REF Prime** button, select **OK**

Press the green **TABLE ROTATION/DIAG** button to prime.
Repeat 3 times
(a prime is complete when green light turns on)

Document you completed the procedure on the paper maintenance log

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

Document you completed the procedure on the paper maintenance log

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 you completed the procedure on the paper maintenance log