## UniCel DxC 600/800 Monthly Maintenance

<table>
<thead>
<tr>
<th>Page</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Replace Alkaline Buffer Reagent and In-Line Filter</td>
</tr>
<tr>
<td>5</td>
<td>Perform Clean Chloride Electrode Tip and Flow Cell Port</td>
</tr>
<tr>
<td>6</td>
<td>Perform Clean All Cup Modules procedure</td>
</tr>
<tr>
<td>7</td>
<td>Perform BUNm/UREAm Electrode Maintenance (DxC 800 Only)</td>
</tr>
<tr>
<td>8</td>
<td>Perform the Calibrate Lamps &amp; Sensor procedure</td>
</tr>
<tr>
<td>9</td>
<td>Perform the Clean Mixers procedure</td>
</tr>
<tr>
<td>10</td>
<td>Initial and Date Electronic Maintenance Log</td>
</tr>
</tbody>
</table>

### For Training Purposes Only
These job aids are shortened versions of procedures found in the references below. Information in the job aid is correct as of the date published. Verify you have the correct information.

References:
- UniCel® DxC Synchron Systems Instructions for Use PN A93719AC (March 2014)
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 Instrument Instructions for Use Manual (IFU). Information in the Instructions for Use Manual supersedes information in any other manual.

REVISION STATUS

Rev. E (September 2014)
Based on DxC software version 5.4

TRADEMARKS

Beckman Coulter, the stylized logo, Access, Microtube, Synchron, and UniCel are trademarks of Beckman Coulter, Inc., and are registered with the USPTO. All other trademarks are the property of their respective owners.
Replace Alkaline Buffer

Remove screws on ISE module cover, remove the cover and raise the ISE module

Unscrew the cap and position the cap and straw of the Alkaline Buffer bottle over a container that will catch residual fluid from line #33

Select **Utils**

Select **1 Prime**

Select **MC F4**

Select **ISE CO2 Alkaline Buffer**

Enter 10 in the **Number of primes to repeat** field

Select **Start Prime**

When priming is complete:
- Remove reagent line #30 from in-line filter
- Twist off in-line filter and replace
- Reattach line #30 to filter
- Verify arrow on filter points to damper

Select **Rgts/Cal**

Select **MC Rgts**

Select **Load F1**

Place new bottle of CO2 Alkaline Buffer on system and replace bottle cap

Scan Alkaline Buffer reagent with MC bar code wand

Select **Done F10**

Observe for leaks while reagent primes

Procedure continued on next page
Replace Alkaline Buffer, cont’d

Verify damper fluid level is between MIN and MAX lines

Above the MAX line

Remove line #30 from top of damper

Use transfer pipette to remove alkaline buffer until damper fluid level is between MIN and MAX lines

Reconnect line #30 to top of damper

Select Util

Select 1 Prime

Select MC F4

Select ISE CO2 Alkaline Buffer

Enter 3 in the Number of primes to repeat field

Select Start Prime

Lower ISE module and replace cover and screws

Initial and date the electronic Scheduled Maintenance Log

Below the MIN line

Remove damper from holding clip and hold in a horizontal position so line #29 is on top

Select Util

Select 1 Prime

Select MC F4

Select ISE CO2 Alkaline Buffer

Enter 5 in the Number of primes to repeat field

Select Start Prime

Return damper to upright position when fluid level is between the MIN and MAX lines and place in holding clip
Clean Chloride Electrode Tip and Flow Cell Port

Remove screws on ISE module cover, remove the cover and raise the ISE module

Select Utilities

Select 2 Maintenance

Select 3 ISE Service

Select 1 Electrode MaintenanceDrain

Select Continue

Loosen the flow cell retaining screw. Pull flow cell assembly forward and upward

Remove chloride electrode by turning the electrode retaining nut counter-clockwise

Remove the quad ring from the tip of the electrode or from the electrode port. Clean the quad ring and the electrode retaining nut

Gently wipe the face of the chloride electrode with a lint free tissue moistened with DI water. Wipe dry with a lint free tissue

Inspect the chloride electrode flow cell port. Clean with a cotton-tipped applicator moistened with DI water. Dry the port with a dry cotton-tipped applicator

Install the quad ring on the electrode and insert the electrode into the port. Tighten the electrode retainer nut

Replace the flow cell on the mounting panel and tighten the retaining screw

Select OK

While the system is priming, observe the flow cell for leaks

Select Close

Lower ISE module and replace cover and screws

Select Exit F10 to exit the Maintenance mode

Initial and date the electronic Scheduled Maintenance Log

CAUTION:
Wear the ESD wrist ground strap when performing this procedure.
Clean All Cup Modules

Prepare cleaning solutions:
- 10% Cleaning Solution (1 part Wash Concentrate II and 9 parts DI water)
- 1N HCl (1 part 6N HCl and 5 parts DI water)

Select
Utils

Select 2 Maintenance

Select 4 Cup Maintenance

Select desired chemistries

Select Rinse
Note: Do not close the Result pop-up window that appears at this time

When rinsing is complete, transfer 1 mL of:
- 10% Cleaning Solution to BUNm, GLUCm, PHOSm, and ALBm cups
- 1N HCl to CREm and TPm cups

Let cleaning solutions sit in cups for 10 minutes

Select Close

Select Rinse

After rinsing is complete, select Close

Select Drain

After draining is complete, select OK

After priming is complete, select Close

Select Cancel

Select Exit F10 to exit the Maintenance mode

Initial and date the electronic Scheduled Maintenance Log
BUNm/UREAm Electrode Maintenance (DxC 800 Only)

Drain the BUNm cup module:
- Select Util
- Select 2 Maintenance
- Select 4 Cup Maintenance
- Select BUNm
- Select Drain
  Note: Do not close the Maintenance confirmation window that displays once the cup module is drained and ready for maintenance

Remove screws on the ISE module cover and front MC cover; remove the covers

Disconnect electrode pin lead by pressing on connector latch

Unscrew the retainer nut and withdraw the electrode

Remove quad-ring from electrode, rinse in DI water and dry with lintless tissue

Clean electrode face with lintless tissue moistened with DI water (rub parallel to gap) until face is bright and dry

Apply thin coating of silicone compound to electrode tip. Rub parallel to gap with lintless tissue until no evidence of silicone remains

Clean mounting port with lintless tissue moistened with DI water and wipe dry

Reinstall quad-ring on tip of electrode

Rotate electrode until key aligns with keyway on retainer. Align keyway on retainer to key in electrode port. Finger tighten retainer nut

Reconnect the pin lead to connector panel

Prime the BUNm cup module:
- Select OK in the Maintenance confirmation window to prime the cup
- Select Close
- Select Prime 5; check for leaks and verify stir bar rotation
- Select Close
- Select Drain
- Select OK in the Maintenance confirmation window to prime the cup
- Select Close
- Select Cancel

Replace ISE and MC covers and screws

Select Exit F10 to exit the Maintenance mode

Initial and date the electronic Scheduled Maintenance Log

Prior to BUNm calibration:
- Wait 15-20 minutes to allow for thermal equilibration
- Ensure there are no bubbles by carefully swabbing the electrode in the BUNm cup using the tip of an applicator stick wrapped with lint-free tissue
Calibrate Lamps & Sensor

Select Utils

Select 2 Maintenance

Select 8 CUPs Lamp/Sensor Calibration

Select ALBm, CREm, PHOSm, TPm and/or GLUCm

Select Start

Verify that the calibration passed for each cup or sensor

Select Close

Select Exit F10 to exit the Maintenance mode

Initial and date the electronic Scheduled Maintenance Log
Clean Mixers

**CAUTION:** Wear the ESD wrist ground strap when performing this procedure.

Wipe the outside of both mixers with an alcohol pad saturated with 70% isopropyl alcohol

Inspect mixers for scratches or nicks. Replace, if necessary

Initial and date the electronic Scheduled Maintenance Log
Initial and Date Electronic Maintenance Log

Select Utils

Select 2 Maintenance

Select Log F2

Select the desired frequency tab

Select Initial & Date

Enter your initials

Select OK

View superscripts for each procedure performed to determine further action required

Select Done