Combined Daily Start Up Power Link, AU680, and DxI

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For Training Purposes Only

These job aids are shortened versions of the procedures found in the sources below. Information in the job aid is correct as of the date published. Verify you have the correct information.

Source:
- Power Link Instructions for Use P/N B15239AA (August 2012)
- AU680 Quick Response Guide P/N B06655AA (April 2011)
- DxI Instructions for Use P/N 387261M (August 2011)
Document Disclaimers

This document is not intended to replace the information in your AU680 User’s Guide, AU680 Quick Response Guide, Power Link Instructions for Use Manual, DxI Instructions for Use Manual or DxI Online Help.


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, and 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), Users Guide and Quick Response Guide. Information in the User’s Guide and Instructions for Use supersedes information in any other manual.

Revision Status

Rev. A (September, 2013)
Software version Power Link 1.00-R03
Software version AU680 3.70
Software version DxI 600 4.4
Software version DxI 800 4.6

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Combined Daily Start Up for Power Link, AU680 and DxI

Objective
To use the Power Link, AU680, DxI Daily Start Up Process Job Aid to complete all daily start up procedures on all three components of the Power Link system simultaneously.

Flow charts
The following flowcharts provide the operator of the Power Link system a process for completing a daily start up on all three components, Power Link, AU680, and DxI.

Process for using the flowcharts:
• Use the Power Link, AU680, DxI Daily Start Up Process flowchart for the order of performing each procedure.
• Use the AU680 Daily Start Up flowchart to perform daily start up on the AU680. Refer back to the Process flow chart for the next step.
• Use the DxI Daily Start Up flow chart to perform daily start up on the DxI. Refer back to the process flow chart for the next step.
• Use the Power Link Daily Start Up flow chart to perform daily start up on the Power Link. Refer back to the process flow chart for the next step.

For More Information
For detailed procedures and additional information, refer to the:
• AU680 User’s Guide
• AU680 Quick Response Guide
• DxI Instructions For Use Manual
• DxI Online Help
• Power Link Instructions for Use Manual
• Power Link In-Lab Training Manual
If the Power Link is operating, wait for all samples to be processed and sorted to Outlet Racks.

Remove any sample tubes sorted to Outlet Racks:
- Press the **Rack Load** button under the Inlet/Outlet drawer
- Select **Alarm** from the Operational Panel
- Open the Inlet/Outlet drawer and remove the Outlet racks containing samples
- Place empty racks back into the Outlet
- Close the drawer
- Select **Resume** from the Operational Panel

Put the Inlet/Outlet-AU680 and Decapper-DxI units in Manual mode:
- Select **Auto** under the Inlet/Outlet-AU680 unit
- Select **Manual** from the Operation Panel
- Select **OK**
- Select **Exit**
- Repeat steps above, selecting **Auto** under Decapper-DxI for the 1st bullet

Shut down the software:
- Select **System Operation** from the menu bar and select **Shutdown**
- Select **OK**
- Confirm the System Status is **STOP**
- Select **Exit**
- Select **OK**

Shut down the track by pressing the Power button on the front-right side of the Inlet/Outlet module.

**Select Feeder Stop** at the AU
**Select OK**

Perform DxI Daily Start Up
Use the DxI Daily Start Up Flowchart

Perform AU680 Daily Start Up
Use the AU680 Daily Start Up Flowchart

Perform Daily Maintenance and Daily Start Up on the Power Link while performing AU680 and DxI Daily Maintenance and Start Up
AU680 Daily Start Up with Laboratory Automation

Place AU680 into Standby
Select Feeder Stop to place the AU680 into Standby

Set a New Data Index
1. Select Home > Start Condition
2. Select Edit F1
3. At “Current Index,” select New Index
4. Select the “Group of Tests” for the days run
5. (Optional) Enter or “Select” an “Operator Name”
6. Select Confirm F1, Select OK
7. Select Home

Confirm the Analyzer Status
1. Select Analyzer Status from the Home window and investigate any yellow or red display colors

Perform Analyzer Daily Maintenance
1. Inspect syringes for leaks or condensation
2. Inspect the wash solution roller pump tubing for leaks
3. Inspect, clean and prime the Sample Probe, Reagent Probes, and Mix Bars
   - Verify probes are not bent or damaged and mix bars are not bent, scratched, or chipped
   - Wipe exterior surface with an alcohol prep pad (70% Isopropyl alcohol) if crystals or debris seen
   - Verify proper operation of the probes and mix bars, select Home > Analyzer Maintenance
      - Select the “Analyzer Maintenance” checkbox
      - Select Prime Washing-line
      - Select OK
      - Press the TABLE ROTATION/DIAG button
         - Verify a thin, straight stream of water is dispensed from probes
         - Observe mix units and wash nozzle unit and verify wash wells filled with fluid
         - Deselect “Analyzer Maintenance” check box
         - Select Home
4. Check/Replenish the concentrated Wash Solution
5. Verify the printer is on. Add paper if necessary
6. Replace DI water in the pre-dilution bottle (61 Diluent/W2)
7. Inspect the stability of the Upper Cover
8. Prepare the Sample Probe Wash Solutions
   - Normal Analysis: fill 64 Det-1/W2 and 65 Det-2 with 2% wash solution
   - High Volume Analysis: fill 64 Det-1/W2 with 2% wash solution and 65 Det-2 with 1% NaClO (Sodium Hypochlorite solution)

Reagent Check
1. Select Home > Reagent Management
2. Select Reagent Check F5 > Check All Positions > Start
3. View reagent information
   - From the Main Tab, view shots/volume available
   - From the Details Tab, view reagent stability and verify fixed reagents are in correct positions
   - Repeat for each sample type
4. Load new reagents if needed
   - Open the main cover
   - Lift and remove the appropriate refrigerator lid
   - Place the reagent bottles in an empty position. Use an adapter or partition plate as needed
   - “Fix” reagents without barcodes
5. Select Reagent Check F5 > Check All Positions > Start
6. View reagent information to verify reagents have adequate stability and volume

Continued on the next page
AU680 Daily Start Up with Laboratory Automation, Continued

### ISE Start Up (as required)
1. Verify the ISE reagents are in date (90 day open bottle stability) and have adequate volume
2. Load reagents as needed, and prime.
3. If ISE clean is performed as part of an End Process, proceed to Reagent Check. If 24 hour a day facility, perform an ISE clean
   - Select Home > Analyzer Maintenance > ISE Maintenance
   - Place a cup with 1.0 mL ISE Cleaning Solution in the “CLEAN” position on Stat table and close lid.
   - Select Cleaning F5 > OK
   - Select the “ISE Maintenance” check box when cleaning is complete
   - Select Total Prime, OK. Press the TABLE ROTATION/DIAG button
   - Deselect “ISE Maintenance” check box.
   - Select Home

### ISE Calibration (as required)
1. Calibrate the ISE
   - Select Home > Analyzer Maintenance > ISE Maintenance
   - Select the Calibration tab
   - Load serum and/or urine standards on the Stat table in labeled positions (S-H, S-L, U-H, U-L). Press the TABLE ROTATION/DIAG button to rotate the table
   - Select Serum Start, Urine Start or Serum/Urine Start
   - Select OK
   - When ISE calibration is done, verify Slope & MID Solution factor results are in range for sample types calibrated
2. Select Home

### Perform RB/Calibrations (Calibrators are barcoded)
1. Select Home > STAT Status jump button > Calibration button
2. Select sample type requiring calibration from the Type drop-down
3. Select Auto CAL/Requisition F3 to requisition the automatic analyzer calibration
   - (Optional) Select Start Entry F1 to make changes. Repeat for each sample type. Select Entry F1
5. Select Display Cup Set F5 to view calibrators and volume required
6. Open small STAT table cover. Load the required calibrators in any position on the stat table with barcodes facing out. Use the TABLE ROTATION/DIAG button to rotate the table, if necessary
7. Select Close
8. Place the reagent blank DI water in position RB1 on the stat table. Close small STAT table cover

### Perform Quality Control (Controls are barcoded)
1. Select Home > STAT Status > QC
2. Select sample type from the Type drop-down menu
3. Select Start Entry F1 to requisition QC. Repeat for each sample type. Select Entry F1
3. Select Display Cup Set F5 to view QC material and volume required
4. Load required QC in any position on the stat table with barcodes facing out. Use the TABLE ROTATION/DIAG button to rotate the table, if necessary
5. Select Close

### Select STAT Status > STAT Start F1. Select Start
- Review the printed reports to verify that all RB/Calibrations/QC meet your laboratory requirements.
- De-select LoadingPaused at the PrepLink
- Place AU Connection Unit back to AUTO
- Select AU Feeder Pause to change system mode to Standby
- Select Start Condition jump button and select Edit F1
- At Start Sample No., enter “0500” in the Routine box, select Confirm F1
- Select Measure Start to place instrument into Measure 1
Dxl Daily Start Up

Load Supplies
All supplies can be loaded while the Dxl is in Running or in Ready Mode. From the Main Menu select Supplies F3 to view both Bulk Supplies F1 or Reagent Supplies F2.

1. Check Reagent Packs on board:
   - Select from the Main Menu, Supplies F3
   - Select Reagent Supplies F2
   - Invert new reagent packs five times
   - Load reagent packs when the In-Use reagent load light is off

2. Check Wash Buffer and load if empty:
   - Select from the Main Menu, Supplies F3
   - Select Bulk Supplies F1
   - Pull out the wash buffer supply drawer
   - Remove the perforated panels from a new container
   - Extend the neck of the new container and remove the cap and inner seal
   - Press the disconnect button on the empty container
   - Remove the empty container from the drawer and replace it with the new container
   - Remove the cap/draw tube assembly from the empty container and insert it into the new container
   - Connect the tubing to the new container and close the drawer

3. Check the Substrate and load if empty:
   - Open the substrate load door and release the load tray
   - Remove the empty or expired bottle and discard
   - Remove a new bottle from the substrate equilibration area verifying it has been at room temp. for a minimum of 18 hours and a maximum of 14 days
   - Remove the cap from the new bottle and place the bottle in the load tray with the bar code facing out
   - Push in the load tray until it locks in place and the system closes the door
   - Scan the bar code label
   - Place a new bottle from refrigerator storage in the substrate equilibration area for the next substrate load

4. Check Reaction Vessels and replace if needed:
   - Open the vessel hopper door
   - Open a bag of RV's and pour the contents into the vessel hopper
   - Close the vessel hopper door

5. Check the Liquid Waste if not plumbed to a drain and empty contents:
   - Pull out the liquid waste drawer
   - Press the disconnect button on the full container to release the tubing
   - Remove the full container and replace it with an empty container
   - Connect the tubing to the empty container and close the drawer
   - Decontaminate the contents of the full container and dispose of the waste per laboratory procedure
   - Rinse the container thoroughly and store for future use

6. Check the Solid Waste and empty if needed or shake down as part of daily maintenance:
   - Pull down on the solid waste drawer handle
   - Slide the container out of the area and seal the waste bag
   - Press the green reset button and close the door
   - Place new waste bag in bin

Perform Analyzer Daily Maintenance
1. Verify the Back Up of System was successful:
   - Select Configure F8
   - Select PC Admin F7

2. Shake down the solid waste container:
   - Open the solid waste drawer
   - Pull out the container and shake the container to flatten the waste
   - Push the solid waste container back into the drawer and close the door

3. Perform Maintenance Routine:
   - Select Sample Manager F1
   - Select New Request F3
   - Select Maintenance F3
   - With the Utility enabled select either the Daily Clean or Special Clean if Vitamin B12 has been run in the last 24 hours.
   - Select OK F1
   - In Maintenance Requests, enter the rack for calibration
   - Rack ID at the Enter ID box
   - Press Enter
   - Load the samples in the rack
   - Open the cover of the SPU (sample presentation unit) when the In-Use light is off
   - Place the rack on the right side of the SPU with the bar code of the rack facing right
   - Close the cover of the SPU

Perform QC
1. From the Main Menu:
   - Select Sample Manager F1
   - Select New Request F3
   - Select Patient/QC Request F1
   - Select Request QC F5
   - Select quality controls

2. At the Test Requests, enter the Rack ID, then Enter

3. At Test Requests, select tests for each quality control

4. Place the samples in the rack

5. Open the cover of the SPU (sample presentation unit) when the In-Use light is off

6. Place the rack on the right side of the SPU with the bar code of the rack facing right

Check and Perform Calibrations
1. Check calibration status of reagents:
   - From the Main Menu, select Supplies F3
   - Select Reagent Supplies F2
   - Select Reagent Inventory F8

2. Request a calibration:
   - From the Main Menu, select Sample Manager F1
   - Select New Request F3
   - Select Calibration F2

3. In the Request Calibration screen, select the calibrator lot number of the calibrator(s) that will be used for calibration

4. Select OK F1

5. In the Test Requests screen, enter the Rack ID and Enter (repeat as needed)

6. Place the samples in the racks and exit the Test Requests screen

7. Open the cover of the SPU (sample presentation unit) when the In-Use light is off

8. Place the rack on the right side of the SPU with the bar code of the rack facing right

9. Close the cover of the SPU
Power Link Daily Maintenance and Start Up

Remove the Rear Inlet/Outlet Module Cover:
- Remove the allen screw securing the rear Inlet/Outlet cover using a 2.5 mm allen wrench. (Note: the screw is located at the center of the cover under the bottom lip.)
- Lift off the cover

Inspect the track for foreign objects. Remove any caps, tubes or other objects. Make sure the conveyor belts are free from obstructions.

Inspect and clean the bar code spinners and the area around the bar code spinners using a non-abrasive lint free swab/gauze pad moistened with 70% isopropyl alcohol.

Replace the Rear Inlet/Outlet Module Cover:
- Lift the cover back in place ensuring that all areas where the cover meets the Inlet/Outlet are flush
- Replace the Allen screw securing the rear Inlet/Outlet cover using a 2.5 mm Allen Wrench. (Note: the screw is located at the center of the cover under the bottom lip.)

Open the Decapper front door:
Push the green unlock button on the lower right front of the Decapper module. Release the cover by pushing in the top of the clear area, then pulling forward.

Place a cap in the Decapper Module biohazard chute and verify it falls freely into the biohazard container.

Empty the Decapper Module biohazard container.

Clean the Decapper cap grippers and tube holder:
- Open the Decapper door
- Clean the Decapper cap grippers with a gauze pad moistened with 10% bleach or biohazard cleaning solution:
- Clean the Decapper tube holder with a non-abrasive lint-free swab moistened with 70% isopropyl alcohol
- Close the Decapper door

Perform a System Start Up
Power Link System Start Up

1. Turn on the track by pressing the Power button on the front-right side of the Inlet/Outlet module

2. At the Inlet/Outlet and Decapper modules, verify the cover sensor light is on

3. Turn on the Line Control Computer by sliding the power switch down on the top right side of the tablet computer

4. The computer is ready when the Line Control Main Menu screen appears. Verify the track diagram is blue. Note: if the track diagram is magenta, there is a communication error and the track must be restarted.

5. Select System Operation from the Line Control Menu bar.

6. Select Startup.

7. Select one of the following options:
   - Do not Delete (Saves all data in the Line Controller)
   - Delete all Sample Data (Deletes all data in the Line Controller)

8. Select OK

9. Verify the System Status is RUN

10. Review the printed reports to verify that RB/Calibrations/QC meet lab requirements. Select Start and verify the AU680 is in Measure 1

11. Install loaded Inlet Racks into the Inlet/Outlet Module:
   - Press the Rack Load button under the Inlet/Outlet drawer
   - Select Alarm from the Operation Panel
   - Open the Inlet/Outlet drawer and place racks loaded with tubes in the Inlet Rack position(s)
   - Close the Inlet/Outlet door
   - Select Resume from the Operational Panel

12. Verify the track diagram is blue. Note: if the track diagram is magenta, there is a communication error and the track must be restarted.