

# 3730/3730x/ DNA Analyzer

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This document includes checklists to help you prepare your 3730/3730x/ DNA Analyzer for use after an extended shut down.

The checklists vary, depending on whether the instrument was shut down using the long-term shutdown procedure or the short-term shutdown procedure. We encourage you to follow the checklist that applies to your situation, then retain the completed checklist with the instrument service records.

- **Restart the 3730/3730x/ DNA Analyzer after a long-term shutdown (Instrument Shutdown Wizard):** Use this checklist if you followed the long-term shutdown procedure in the instrument guide (see page 4). The long-term shutdown procedure uses the **Instrument Shutdown Wizard** and includes removing the capillary array and reagents from the instrument.
- **Restart the 3730/3730x/ DNA Analyzer after an extended short-term shutdown:** Use this checklist if you followed the short-term shutdown procedure in the instrument guide (see page 4) or if you did not perform any shutdown procedure. That is, the capillary array and reagents were left on the instrument, with the system powered on.

Also, we recommend that you review the maintenance procedures in the instrument guide (see page 4), and ensure that you perform these tasks when and as instructed.

## Resources

I need ...	Resource
Step-by-step instructions for tasks in this checklist	See "Instrument user and maintenance guides" on page 4.
A list of instrument consumables and reagents	See "Catalog numbers" on page 4.
To access more 3730/3730x/ DNA Analyzer tools, documentation, or troubleshooting content	Visit the <b>Applied Biosystems™ 3730/3730x/ DNA Analyzers Support Center</b> .
General product support	Visit <a href="http://thermofisher.com/support">thermofisher.com/support</a> .
To request technical support or a service call	Visit <a href="http://thermofisher.com/contactus">thermofisher.com/contactus</a> .

Instrument serial number:

Instrument location:

Instrument owner:

## Restart the 3730/3730xl DNA Analyzer after a long-term shutdown (Instrument Shutdown Wizard)

✓	Task
<b>Prepare to set up the instrument</b>	
<input type="checkbox"/>	Clean the buffer, water, and waste reservoirs.
<input type="checkbox"/>	Start the system: <ul style="list-style-type: none"> <li>Power on the instrument computer, then sign in as INSTR-ADMIN.</li> <li>Power on the instrument.</li> <li>Wait for the green light.</li> <li>Start the data collection software.</li> </ul>
<input type="checkbox"/>	Back up the data folder that contains the .ab1, .fsa, or .hid files to an external hard drive. After backing up, contents can be deleted to increase storage space on the data drive.
<input type="checkbox"/>	Open the <b>Database Manager</b> . If more than 300 runs are present, then click <b>Cleanup Processed Plate</b> to remove processed plates. This utility deletes only processed plate records and run history; it does not delete any extracted data files (e.g. .ab1, .fsa, .hid), pending plates or spectral plates.
<input type="checkbox"/>	Remove the polymer from the refrigerator, loosen the cap, then leave at ambient temperature for 30 to 60 minutes.
<input type="checkbox"/>	Prepare the 1X running buffer from the 10x running buffer concentrate (20 mL concentrated buffer combined with purified water for a total of 200 mL).
<input type="checkbox"/>	Add 3 mL distilled water to a 10 mL luer lock syringe, then flush the water pump trap.
<input type="checkbox"/>	Carefully open the capillary array box and inspect the new array for damage (e.g. broken capillary). If damaged, contact Technical Support.
<input type="checkbox"/>	Prepare the spectral calibration standards per the product inserts that are shipped with the standard. You can also download product inserts from the <b>Applied Biosystems™ 3730/3730xl DNA Analyzers Support Center</b> .
<b>Set up the instrument</b>	
<input type="checkbox"/>	In the tree pane of the data collection software, click the instrument name, then click <b>Wizards ▶ Install Array Wizard</b> . Follow the wizard prompts to install the capillary array, polymer, and running buffer.
<input type="checkbox"/>	In the tree pane of the data collection software, click the instrument name, then click <b>Spatial Run Scheduler</b> . Perform spatial calibration with fill. If the spatial calibration passes, then click <b>Accept</b> . If it does not pass, then see the instrument guide (see page 4) for help.
<input type="checkbox"/>	Follow the instructions in the instrument guide (see page 4) to perform the spectral calibrations (required after installing the capillary array and to ensure instrument performance).  After the run completes, open the <b>Spectral Viewer</b> to ensure that >80% of the capillaries passed and that if borrowing occurred, it was from a neighboring capillary.

## Restart the 3730/3730xl DNA Analyzer after an extended short-term shutdown

✓	Task
<b>Prepare to set up the instrument</b>	
<input type="checkbox"/>	Inspect the instrument. Check for: <ul style="list-style-type: none"> <li>• Polymer crystals in the pump, polymer tubing, interconnect tubing, pump and lower block channels. If crystals are present, contact Support.</li> <li>• Dried polymer on the capillary array tips. If present, replace the capillary array.</li> <li>• Buffer levels that are below the fill line.</li> </ul>
<input type="checkbox"/>	Shut down the instrument and computer for at least two minutes.
<input type="checkbox"/>	Start the system: <ul style="list-style-type: none"> <li>• Power on the instrument computer, then sign in as INSTR-ADMIN.</li> <li>• Power on the instrument.</li> <li>• Wait for the green light.</li> <li>• Start the data collection software.</li> </ul>
<input type="checkbox"/>	Back up the data folder that contains the .ab1, .fsa, or .hid files to an external hard drive. After backing up, contents can be deleted to increase storage space on the data drive.
<input type="checkbox"/>	Open the <b>Database Manager</b> . If more than 300 runs are present, then click <b>Cleanup Processed Plate</b> to remove processed plates. This utility deletes only processed plate records and run history; it does not delete any extracted data files (e.g. .ab1, .fsa, .hid), pending plates or spectral plates.
<input type="checkbox"/>	Clean the buffer, water, and waste reservoirs, then fill all three reservoirs with nuclease-free, molecular biology grade water and place them in the instrument.
<input type="checkbox"/>	Remove the polymer from the refrigerator, loosen the cap, then leave at ambient temperature for 30 to 60 minutes.
<input type="checkbox"/>	Prepare the 1X running buffer from the 10x running buffer concentrate (20 mL concentrated buffer combined with purified water for a total of 200 mL).
<input type="checkbox"/>	Warm 25 mL nuclease-free, molecular biology grade water to 37 - 40°C, then pour into water bottle (old polymer bottle).
<input type="checkbox"/>	Add 3 mL distilled water to a 10 mL luer lock syringe, then flush the water trap.
<input type="checkbox"/>	<b>If replacing the capillary array:</b> Carefully open the capillary array box and inspect the new array for damage (e.g. broken capillary). If damaged, contact Technical Support.
<input type="checkbox"/>	Prepare the spectral calibration standards per the product inserts that are shipped with the standard. You can also download product inserts from the <b>Applied Biosystems™ 3730/3730xl DNA Analyzers Support Center</b> .
<b>Set up the instrument</b>	
<input type="checkbox"/>	In the tree pane of the data collection software, click the instrument name, then click <b>Wizards ▶ Water Wash Wizard</b> . Follow the prompts to run the wizard, using the warm water to clean the pumps and channels. Polymer will be placed on the instrument during this wizard.
<input type="checkbox"/>	<b>If replacing the capillary array:</b> In the tree pane of the data collection software, click the instrument name, then click <b>Wizards ▶ Install Array Wizard</b> . Follow the wizard prompts to install the capillary array, polymer, and running buffer. Empty the anode and cathode buffer reservoirs, then add fresh 1X buffer to the fill line.
<input type="checkbox"/>	In the tree pane of the data collection software, click the instrument name, then click <b>Spatial Run Scheduler</b> . Perform spatial calibration with fill. If the spatial calibration passes, then click <b>Accept</b> . If it does not pass, then see the instrument guide (see page 4) for help.
<input type="checkbox"/>	Follow the instructions in the instrument guide (see page 4) to perform the spectral calibrations (required after installing the capillary array and to ensure instrument performance).  After the run completes, open the <b>Spectral Viewer</b> to ensure that >80% of the capillaries passed and that if borrowing occurred, it was from a neighboring capillary.

## Instrument user and maintenance guides

Data collection version	Document title (click title to open link to document)	Pub. No.
3730xl Data Collection Software 5	<i>3730xl DNA Analyzer with 3730xl Data Collection Software 5 User Guide</i>	100077621
Data Collection Software 4.x	<i>Applied Biosystems™ 3730/3730xl DNA Analyzer Getting Started Guide</i>	4477796
Data Collection Software v3.x	<i>Applied Biosystems™ 3730/3730xl DNA Analyzer User Guide</i>	4331468
	<i>Applied Biosystems™ 3730/3730xl DNA Analyzer Maintenance and Troubleshooting Guide</i>	4359473

## Catalog numbers

Part description	Cat. No.
<b>Arrays</b>	
Capillary array, 48-Capillary, 50 cm	4331250
Capillary array, 48-Capillary, 36 cm	4331247
Capillary array, 96-Capillary, 50 cm	4331246
Capillary array, 96-Capillary, 36 cm	4331244
Array ferrule knob	6283730
Ferrule sleeves	6280165
<b>Polymers</b>	
POP-7™ Polymer (1 x 28 mL)	4363929
Polymer tubing and cap	6252043
<b>Running buffer</b>	
3730 Running Buffer (10X)	4335613
<b>Spectral calibration standards</b>	
<b>Sequencing.</b> 3730/3730xl DNA Analyzer Sequencing Standards, BigDye™ Terminator v3.1	4336943
<b>Sequencing.</b> 3730/3730xl DNA Analyzer Sequencing Standards, BigDye™ Terminator v1.1	4336799
<b>Fragment analysis.</b> DS-33 Matrix Standard Kit (Dye Set G5)	4345833
<b>Hi-Di™ Formamide</b>	
Hi-Di™ Formamide (25 mL)	4311320
Hi-Di™ Formamide (4 x 5 mL)	4440753
Hi-Di™ Formamide (5 mL)	4401457



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For descriptions of symbols on product labels or product documents, go to [thermofisher.com/symbols-definition](https://thermofisher.com/symbols-definition).

The information in this guide is subject to change without notice.

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Revision	Date	Description
A.0	22 May 2020	New document.

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