3130/3130*xl* Genetic Analyzer

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This document includes checklists to help you prepare your 3130/3130*xl* Genetic 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 3130/3130xl Genetic 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 3130/3130xl Genetic 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 3130/3130*xl* Genetic Analyzer tools, documentation, or troubleshooting content	Visit the Applied Biosystems™ 3130/3130*xl* DNA Analyzers Support Center.
General product support	Visit thermofisher.com/support.
To request technical support or a service call	Visit thermofisher.com/contactus.

Instrument serial number:

Instrument location:

Instrument owner:

Restart the 3130/3130*xl* Genetic Analyzer after a long-term shutdown (Instrument Shutdown Wizard)

✓	Task
Prepare to set up the instrument	
☐	Clean the buffer, water, and waste reservoirs.
☐	Start the system: • Power on the instrument computer, then sign in as INSTR-ADMIN. • Power on the instrument. • Wait for the green light. • Start the data collection software.
☐	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.
☐	Open the **Database Manager**. If more than 300 runs are present, then click **Cleanup Processed Plate** 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.
☐	Remove the polymer from the refrigerator, loosen the cap, then leave at ambient temperature for 30 to 60 minutes.
☐	Prepare the 1X running buffer from the 10x running buffer concentrate (5 mL concentrated buffer combined with purified water for a total of 50 mL).
☐	Add 3 mL distilled water to a 10 mL luer lock syringe, then flush the water pump trap.
☐	Carefully open the capillary array box and inspect the new array for damage (e.g. broken capillary). If damaged, contact Technical Support.
☐	Prepare the spectral calibration standards per the product inserts that are shipped with the standard. You can also download product inserts from the Applied Biosystems™ 3130/3130*xl* DNA Analyzers Support Center.
Set up the instrument	
☐	In the tree pane of the data collection software, click the instrument name, then click **Wizards ▸ Install Array Wizard**. Follow the wizard prompts to install the capillary array, polymer, and running buffer.
☐	In the tree pane of the data collection software, click the instrument name, then click **Spatial Run Scheduler**. Perform spatial calibration with fill. If the spatial calibration passes, then click **Accept**. If it does not pass, then see the instrument guide (see page 4) for help.
☐	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 **Spectral Viewer** to ensure that >80% of the capillaries passed and that if borrowing occurred, it was from a neighboring capillary.

Restart the 3130/3130*xl* Genetic Analyzer after an extended short-term shutdown

✓	Task
Prepare to set up the instrument	
☐	Inspect the instrument. Check for: • Polymer crystals in the pump, polymer tubing, interconnect tubing, pump and lower block channels. If crystals are present, contact Support. • Dried polymer on the capillary array tips. If present, replace the capillary array. • Buffer levels that are below the fill line.
☐	Shut down the instrument and computer for at least two minutes.
☐	Start the system: • Power on the instrument computer, then sign in as INSTR-ADMIN. • Power on the instrument. • Wait for the green light. • Start the data collection software.
☐	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.
☐	Open the **Database Manager**. If more than 300 runs are present, then click **Cleanup Processed Plate** 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.
☐	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.
☐	Remove the polymer from the refrigerator, loosen the cap, then leave at ambient temperature for 30 to 60 minutes.
☐	Prepare the 1X running buffer from the 10x running buffer concentrate (5 mL concentrated buffer combined with purified water for a total of 50 mL).
☐	Warm 25 mL nuclease-free, molecular biology grade water to 37 - 40°C, then pour into water bottle (old polymer bottle).
☐	Add 3 mL distilled water to a 10 mL luer lock syringe, then flush the water trap.
☐	***If replacing the capillary array:*** Carefully open the capillary array box and inspect the new array for damage (e.g. broken capillary). If damaged, contact Technical Support.
☐	Prepare the spectral calibration standards per the product inserts that are shipped with the standard. You can also download product inserts from the Applied Biosystems™ 3130/3130*xl* DNA Analyzers Support Center.
Set up the instrument	
☐	In the tree pane of the data collection software, click the instrument name, then click **Wizards ▸ Water Wash Wizard**. 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.
☐	***If replacing the capillary array:*** In the tree pane of the data collection software, click the instrument name, then click **Wizards ▸ Install Array Wizard**. 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.
☐	In the tree pane of the data collection software, click the instrument name, then click **Spatial Run Scheduler**. Perform spatial calibration with fill. If the spatial calibration passes, then click **Accept**. If it does not pass, then see the instrument guide (see page 4) for help.
☐	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 **Spectral Viewer** 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 the document)	Publication number
DC v4.*x*	*Applied Biosystems™ 3130/3130xl Genetic Analyzer with 3130 Series Data Collection Software 4 Getting Started Guide*	4477796
	Applied Biosystems™ 3130/3130xl Genetic Analyzer with 3130 Series Data Collection Software 4 Maintenance, Troubleshooting, and Reference Guide	4477854
DC v3.*x*	*3130/3130xl Genetic Analyzers Getting Started Guide*	4352715
	3130/3130xl Genetic Analyzers Maintenance, Troubleshooting, and Reference Guide	4352716

Catalog numbers

Part description	Cat. No.
Arrays	
Capillary array, 4-Capillary, 50 cm	4333466
Capillary array, 4-Capillary, 36 cm	4333464
Capillary array, 16-Capillary, 50 cm	4315930
Capillary array, 16-Capillary, 36 cm	4315931
Array ferrule knob	6283730
Ferrule sleeves	6280165
Polymers	
POP-7™ Polymer (7,000 µL)	4352759
POP-7™ Polymer (3,500 µL)	4363785
POP-6™ Polymer (7,000 µL)	4352757
POP-6™ Polymer (3,500 µL)	4363783
POP-4™ Polymer (7,000 µL)	4352755
POP-4™ Polymer (3,500 µL)	4363752
Polymer tubing and cap	6283732
Running buffer	
310 and 310xx Running Buffer, 10X	402824
Spectral calibration standards	
Sequencing. 310/31xx Genetic Analyzer Sequencing Standards, BigDye™ Terminator v3.1	4336935
Sequencing. 310/31xx Genetic Analyzer Sequencing Standards, BigDye™ Terminator v1.1	4336791
Fragment analysis. DS-33 Matrix Standard Kit (Dye Set G5)	4345833
Hi-Di™ Formamide	
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**.

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.