Agilent Bioanalyzer 2100

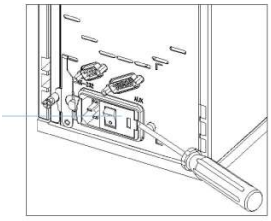
Lens cleaning

1) Switch off the instrument (backside of instrument)
2) Open the lid of the instrument
3) Dampen a lens tissue with isopropanol and gently wipe the surface of the lens. Repeat several times with clean tissues and isopropanol.

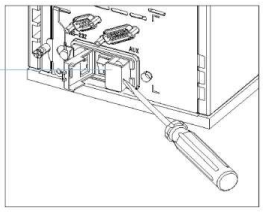
Caution: Do not allow to drip isopropanol into the instrument!

Fuses

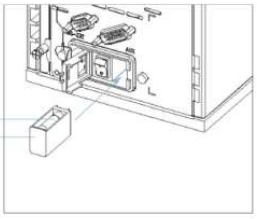
1) Switch off the instrument (backside of instrument)
2) Disconnect the power cable from the power input socket
3) Gently lift the outer plastic housing of the power inlet socket using a screw driver (A)
4) Pull out the fuse drawer (B)
5) Replace the two fuses. Only use 1A/250V fuses (PN 2110-0007)
6) Slide in the fuse drawer and push till it fits tightly (C)
7) Close the fuse drawer housing, reconnect the instrument to the power line and switch it on



A



B



C

Electrode cartridge

DNA or Protein

When assay is complete, immediately remove the used chip and dispose it. Then perform cleaning

1) Fill the wells of the electrode cleaner with 350µl (don't use more water as it causes leak currents between electrodes) deionized water.
2) Open the lid and place electrode cleaner in the instrument
3) Close lid and leave it closed for about 10 seconds
4) Open the lid and remove the electrode cleaner
5) Wait another 10 seconds for the water on the electrode to evaporate before closing the lid

RNA Nano (CAUTION: not for RNA pico)

The RNA assays require thorough cleaning before and after each chip run.

Before

1) Slowly fill one of the wells of an electrode cleaner with 350µl RNase ZAP. Use a new cleaner with a new kit.

2) Open the lid and place the electrode cleaner in the instrument
3) Close the lid and leave it for about 1 minute
4) Open the lid and remove the electrode cleaner – label the electrode cleaner and keep it for future use, you can reuse it for all chips in one kit
5) Slowly fill another electrode cleaner with 350µl RNase free water. Use a new electrode cleaner with each new kit
6) Place electrode cleaner in the instrument
7) Close the lid and leave it closed for about 10 seconds
8) Open the lid and remove the electrode cleaner. Label it and keep it for further use
9) Wait another 10 seconds for the water on the electrode to evaporate before closing the lid

After

When the assay is complete immediately remove the used chip and dispose it. Then perform cleaning

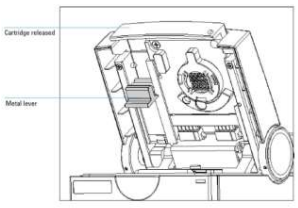
1) Fill the wells of the electrode cleaner with 350µl (don't use more water as it causes leak currents between electrodes) deionized water.
2) Open the lid and place electrode cleaner in the instrument
3) Close lid and leave it closed for about 10 seconds
4) Open the lid and remove the electrode cleaner
5) Wait another 10 seconds for the water on the electrode to evaporate before closing the lid

RNA Pico or Small RNA

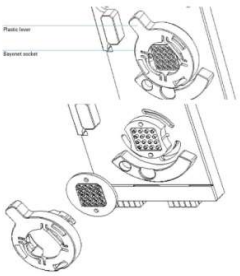
Do NOT use RNase ZAP for cleaning before runs because an additional peak might show up in the electropherogram. To prevent contamination it is strongly recommended to use a dedicated cartridge for RNA Pico and Small RNA assays.

1) Fill the wells of the electrode cleaner with 350µl (don't use more water as it causes leak currents between electrodes) RNase-free water. Don't use RNAseZAP
2) Open the lid and place electrode cleaner in the instrument
3) Close lid and leave it closed for about 5 minutes
4) Open the lid and remove the electrode cleaner
5) Wait another 30 seconds for the water on the electrode to evaporate before closing the lid

Clean pin set

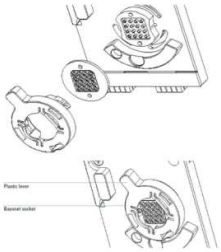


1) Switch off the instrument (backside of instrument)
2) Open the lid and pull the metal lever on the inside left of the lid to the vertical position. When the lever is in the vertical position, the cartridge is released

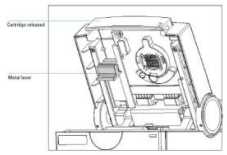


3) Gently pull the cartridge out of the lid
4) Open the bayonet socket of the pinset by turning the plastic lever to the left

5) Remove the cover of the bayonet socket by gently pulling the plastic lever. The pinset may stick to the electrode base. Remove it by pulling it off
6) Gently brush the pinset with a soft brush in deionized water or isopropanol. In case of RNase contamination use RNase ZAP
   CAUTION: be careful not to bend the pins!
7) In case of highly contaminated or dirty pins the pinset may be autoclaved or sonicated, following standard procedures
8) Rinse pinset thoroughly with deionized water when running DNA or protein assays, or RNase free water when running RNA assays
9) Let the pinset completely dry in a desiccator overnight or use oil-free compressed air
   CAUTION: don't use an oven because heat can permanently damage the cartridge.
   Make sure that the pinset is fully dry before placing it back into the electrode base. Even small amounts of liquid on the pinset can damage the high voltage power supply



10) Place the pinset on the cartridge base and the bayonet cover over the pinset
11) Lock the pinset to the electrode base by turning the plastic lever of the bayonet cover to the right



12) Slide the electrode cartridge with the pinset into the instrument and move the metal lever to the flat (closed) position
13) To verify that the electrodes are completely dry perform the Short diagnostic test from the Diagnostics tab in the Instrument context. This takes approx. 3 minutes.
14) If the test fails the electrode assembly may still be wet. Take it out of the instrument and let it dry, then repeat the test.

Chip priming station

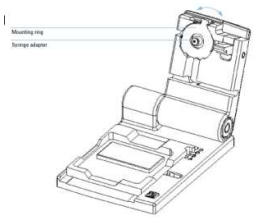
Replace syringe

Necessary as soon as pressure can't be reached or whenever it is clogged.

1) Unscrew old syringe from the top of the chip priming station
2) Remove clip from the old syringe and dispose syringe properly
3) Slide new syringe into the clip and ensure that they are flushed together
4) Screw syringe tight into the luer lock adapter
5) Check the priming station for proper performance

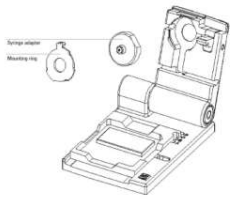
Clean/replace adapter

If necessary



1) Open priming station and move the mounting ring, holding the adapter in place, to the left. The ring will come off

2) Press the syringe adapter out of its mount



3) Remove dried gel at the opening of the adapter/ replace adapter
4) Screw on syringe and flush water through adapter several times
5) Flush syringe with isopropanol
6) Allow adapter to dry fully
7) Insert the syringe adapter
8) Reassemble the priming station
9) Close the chip priming station
10) Screw a dry syringe tight into the luer lock adapter
11) Check the priming station for proper performance

Replace gasket

If necessary

1) Open priming station and move the mounting ring, holding the adapter in place, to the left. The ring will come off
2) Press the syringe adapter out of its mount
3) Pull out the old silicone gasket with your fingers or tweezers
4) Insert an new silicone gasket and gently push into place
5) Insert the syringe adapter into the chip priming station
6) Check the priming station for proper performance