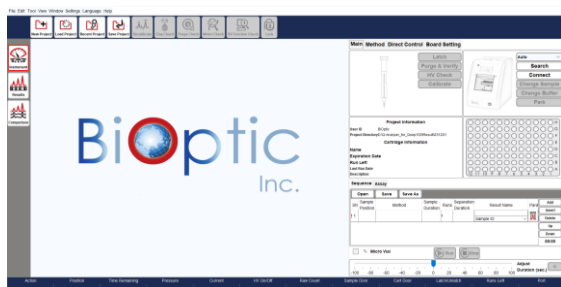


1. Turn on the power.
2. Double-click on the Q-Analyzer icon.



3. Q-Analyzer software user interface will appear:



4. Click "Connect" to link the instrument.



5. Buffer and Alignment Marker preparation:

- A. Add 1X Separation Buffer into the S well and diH<sub>2</sub>O into the others.



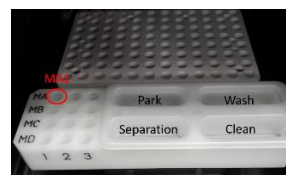
- Ensure the buffer height reaches the groove of wells.

- B. For Alignment Marker preparation: Add  $\geq 20 \mu\text{l}$  Alignment Marker (20 bp & 1000 bp, C109100) into the 0.2 ml tube, and then add 10  $\mu\text{l}$  "Mineral Oil" on top (optional).

6. Click "Change Buffer".



7. Place Alignment Marker tube at MA-1 position and the buffer tray on the tray holder. For other Alignment Markers, please place them in corresponding positions.



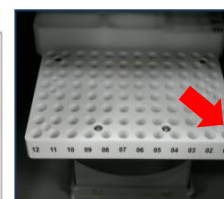
- Ensure the buffer tray is correctly placed on the holder.
- Centrifuge the Alignment Marker to the bottom of the tube and ensure no air bubble appears.

8. Hold the tray holder and use your thumb to press the Alignment Marker tube tightly down into the well.



9. Click "Change Sample" and place the samples ( $\geq 20 \mu\text{l}$ ).

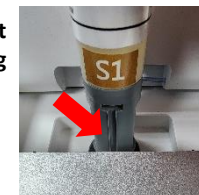
- Centrifuge the samples to the bottom of the tubes and ensure no air bubble appears.



10. Unpack Cartridge:

Follow the steps outlined in "Unpacking Guide" in the cartridge kit.

11. Open the cartridge door and insert the cartridge with the guiding groove facing the front.

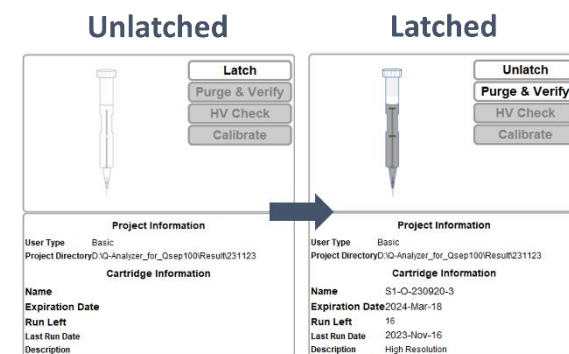


12. Close the cartridge door.

- Ensure you hear the squeeze sound when pressing the door.



13. Click "Latch". The cartridge information will display on the screen after latching.



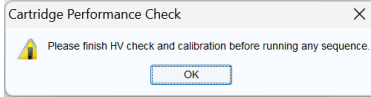
## Components of Cartridge Kit (Cat. C105200)

- Cartridges
- Alignment Markers
- Separation Buffer
- Dilution Buffer
- Mineral Oil
- Buffer Tray
- Droppers
- 0.2 ml tubes



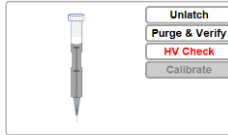
## 14. Cartridge Calibration:

Calibration is necessary before its initial use to ensure the quality of a new cartridge after shipment. Follow the steps below:



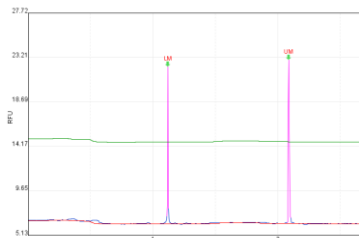
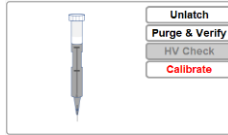
### A. Click "HV Check".

- Check if the current is stable after HV Check. Repeat 2-3 times if the current remains unstable.



### B. Click "Calibrate".

- Ensure the Alignment Marker is placed correctly. DO NOT use Size Marker or DNA sample for calibration.

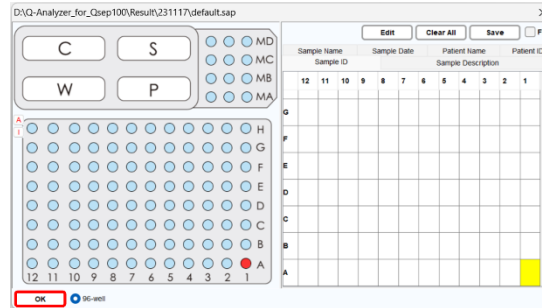


For troubleshooting, please refer to cartridge unpacking guide for more detailed instructions.

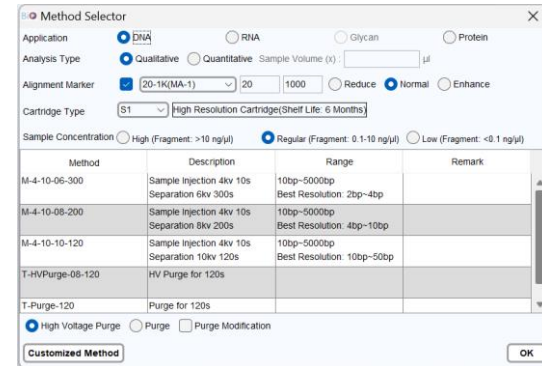
15. Designate ① the sample positions, ② test method, sample duration, runs, ③ result name and ④ parameters. Click on the blank column and follow these steps:

Open	Save	Save As	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name	Para	Add
1			A-01	M-4-10-06-300	10	1	300	Test Sample ID		

① Click "Sample Position" to mark the sample positions on the plate and press "OK".



② Click "Method" to select the analysis method.

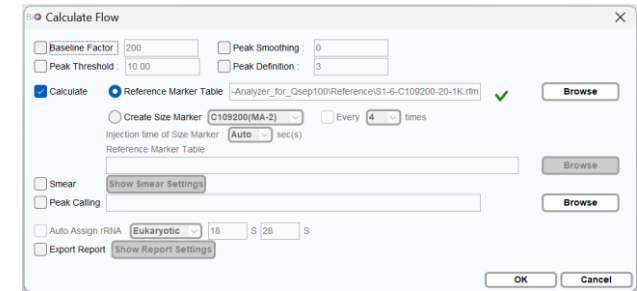


- Choose the appropriate Alignment Marker if analyzing samples with it, and then place it on the corresponding position (Check ✓ the box).

③ Enter the result name.

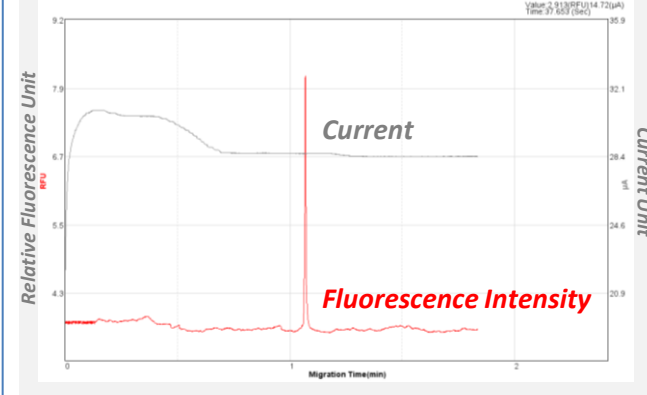
Open	Save	Save As	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name	Para	Add
1			A-01	M-4-10-06-300	10	1	300	Test Sample ID		

④ Click the "Para" icon to set parameters (Baseline Factor, Peak Threshold, Calculate, etc.).



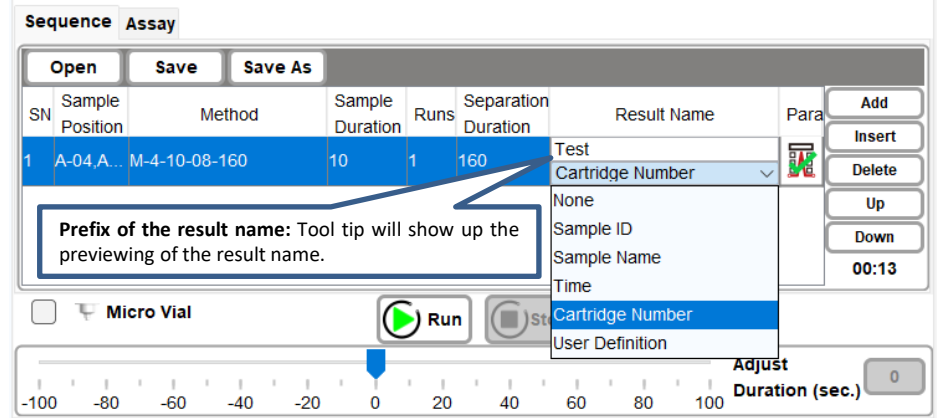
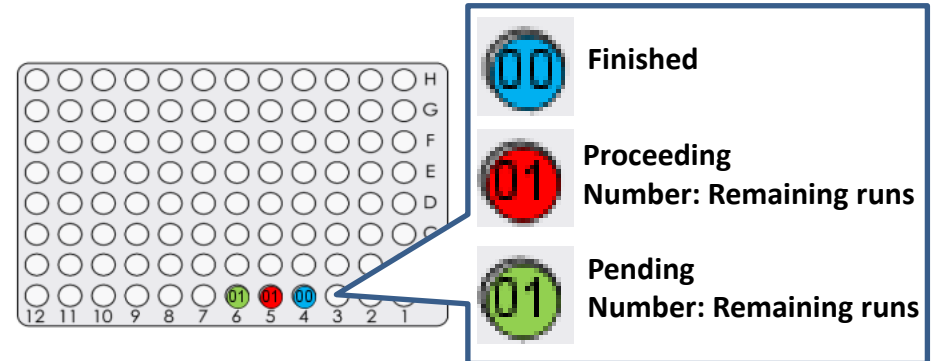
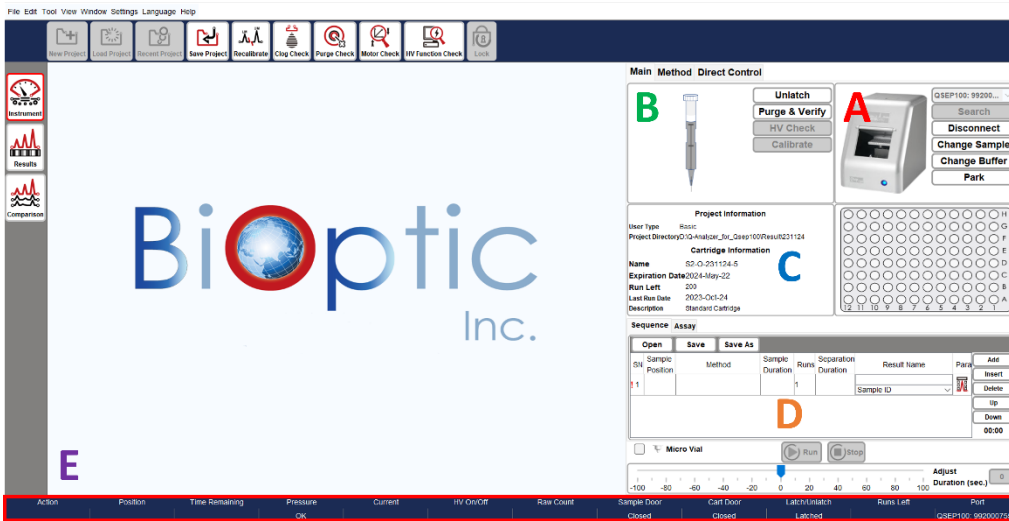
16. Click "Run" to start the analysis.

## Brief introduction of the Signal Chart:

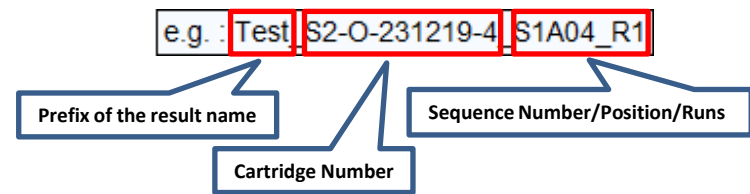


Please refer to the Qsep<sub>100</sub> Bio-Fragment Analyzer User Manual for detailed information.

## Introduction of the Control Panel



- A:** Instrument Control
- B:** Cartridge Control
- C:** Project and Cartridge Information
- D:** Sequence Setup
- E:** Status Bar



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