

1. Remove the protective foam, ensuring no obstructions.
 - Scan the QR code for instructional video, if needed.



2. Switch on Qsep₁. The LED will light up in multiple colors. Wait a few seconds until the instrument and Wi-Fi are initialized, and the green LED will start flashing.



Blue → Sample Tray Detected

Green → Wi-Fi Connectable

Red → HV On

- DO NOT turn the instrument back on immediately after powering off. Wait at least 5 seconds.

A. Ethernet Cable Connection: Proceed to step 3.



B. Wi-Fi Connection: Follow these steps to connect with the Qsep₁ instrument.

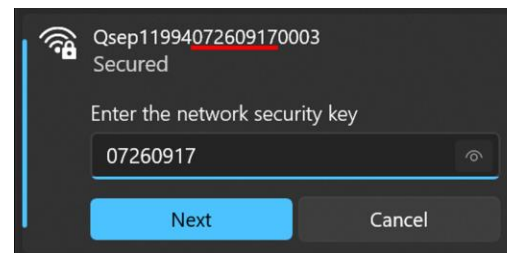


- I. Check if the Wi-Fi network's AP source is available on the computer.



- II. Find the SSID, a combination of Qsep1 and the instrument's serial number (16 digits).

- III. Enter the password, the middle 8 digits of the instrument's serial number, to connect. The password is also available on the information sticker on the back of the instrument.



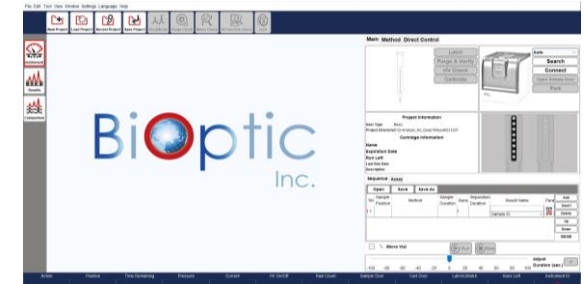
- IV. Once connected, the description will indicate "No internet, secured".

3. Double-click on the Q-Analyzer Icon.



- If the computer cannot find the Qsep₁ SSID, ensure the distance between Qsep₁ and the computer is within 10 meters and start from step 2B again.
- If the computer cannot connect with the Qsep₁,
 - a. Check the Wi-Fi IP assignment is set to "Automatic (DHCP)".
 - b. Initiate the software as administrator.
 - c. Allow Q-Analyzer to pass through the firewall or disable the firewall.

4. Q-Analyzer software user interface will appear:

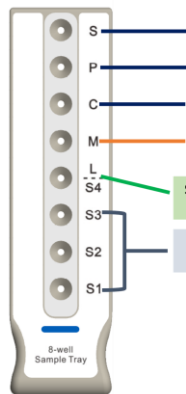


5. Click "Search", and the instrument's serial number will display. Confirm it belongs to the connected instrument.
6. Click "Connect", and the Qsep₁ image will change color to indicate connection, while the green LED will flash for a longer duration.



- Prepare buffers and Alignment Marker, allocating them to the corresponding positions on the sample tray.

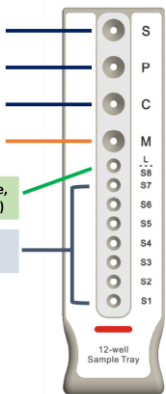
8-well Sample Tray



Separation Buffer, 200 μ L (0.2 mL Tube)
 d_2H_2O , 50 μ L (0.2 mL Tube)
 d_2H_2O , 200 μ L (0.2 mL Tube)
 Alignment Marker, 20 μ L (0.2 mL Tube)

Size Marker/Sample, 20 μ L (0.2 mL Tube)
 Samples, 20 μ L (0.2 mL Tube)

12-well Sample Tray



Size Marker/Sample, 10 μ L (0.1 mL Tube)
 Samples, 10 μ L (0.1 mL Tube)

Refer to the table below to identify the tubes compatible with each sample tray:

	Name	Cat. No.	Volume	Image
8-well Sample Tray	Micro Vial	C104250	$\geq 2 \mu$ L	
	0.1 mL PCR Tube	-	$\geq 10 \mu$ L	
	0.2 mL PCR Tube	-	$\geq 20 \mu$ L	
12-well Sample Tray	0.1 mL Strip Tube	C104252	$\geq 10 \mu$ L	

- Ensure there are no air bubbles in the tubes.

- Hold the tray and press all the tubes tightly down into the wells. Bend the lids of the tubes to the side to avoid damaging the cartridge tip.

- Click "Open Sample Door", and the sample door will open automatically.

- Slide the sample tray into the instrument, ensuring it is pushed to the end until the color bar aligns with the edge of the holder.



- Click "Park", and the sample tray holder will move into the instrument.



- Unpack the cartridge by following the steps outlined in "Unpacking Guide" in the cartridge kit before its initial use.

Components of Cartridge Kit (Cat. C105200)

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

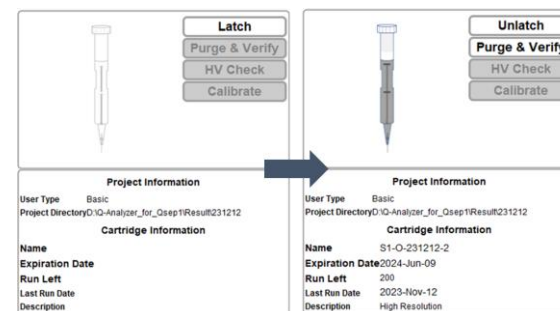


- Open the cartridge door by pressing the white button and insert the cartridge with the guiding groove facing the front.

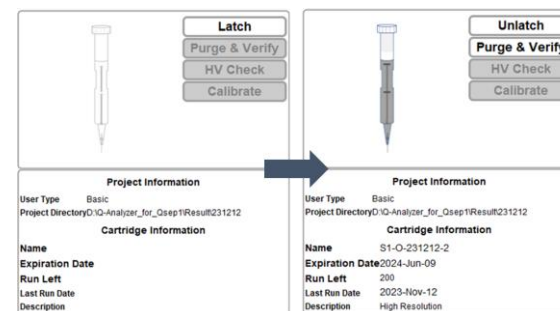


- Close the cartridge door and click "Latch". The cartridge information will display on the screen after latching.

Unlatched



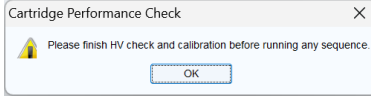
Latched



- Please wait a few second before you open the cartridge door.

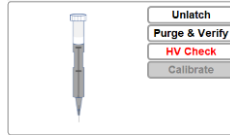
15. Cartridge Calibration:

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



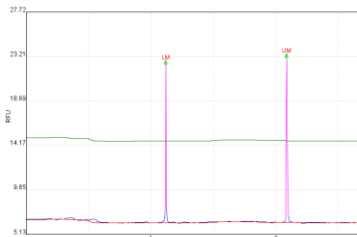
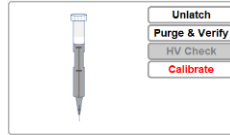
A. Click "HV Check".

- 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.

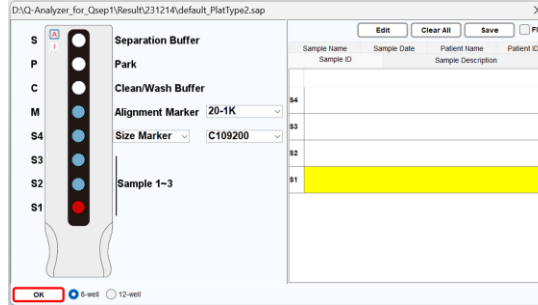
16. Designate ① the sample positions, ② test method, sample duration, runs, ③ result name and ④ parameters. Click on the blank column and follow these steps:

Open	Save	Save As					Add
SN	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name	Para
1	S1	M-4-10-06-300	10	1	300	Test Sample ID	▼

① ② ③ ④

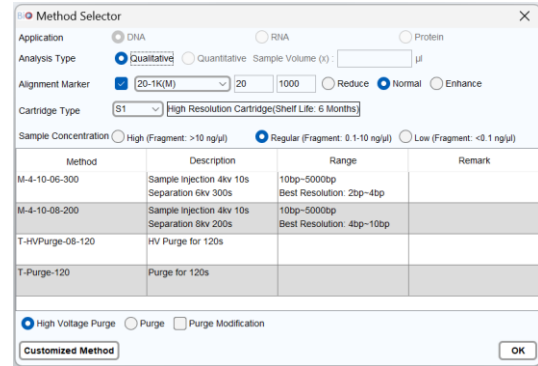
Micro Vial Run Stop

① Click "Sample Position" to mark the sample positions on the sample tray, and then select the appropriate markers before pressing "OK".



• Choose the appropriate Size Marker if creating a size marker run for calculation, and then place the tube on the corresponding position.

② Click "Method" to select the analysis method.

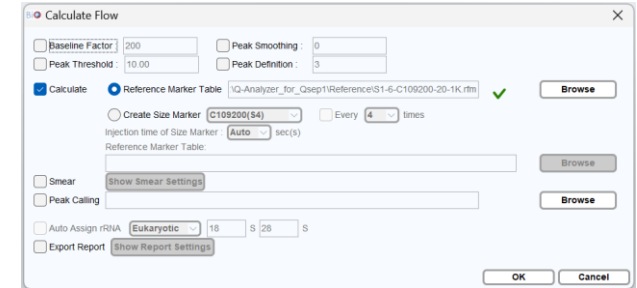


③ Enter the result name.

Open	Save	Save As					Add
SN	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name	Para
1	S1	M-4-10-06-300	10	1	300	Test Sample ID	▼

Micro Vial Run Stop

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

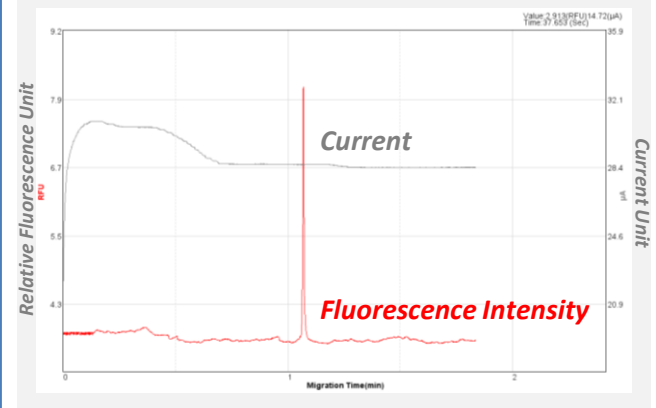


17. Click "Run" to start the analysis.

Open	Save	Save As					Add
SN	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name	Para
1	S1	M-4-10-06-300	10	1	300	Test Sample ID	▼

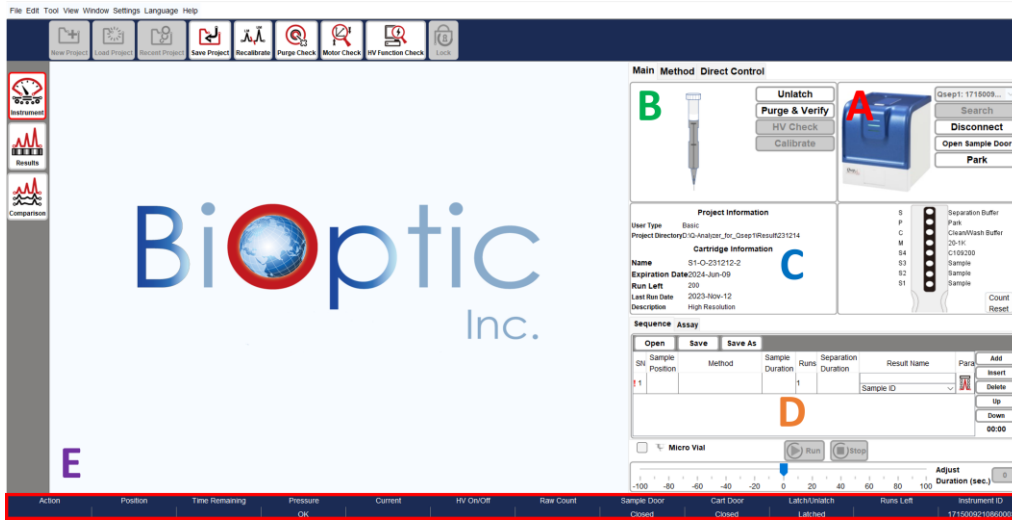
Micro Vial Run Stop

Brief introduction of the Signal Chart:

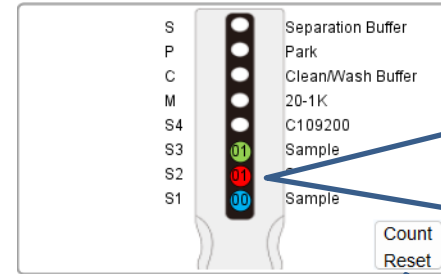


Please refer to the Qsep₁ Bio-Fragment Analyzer User Manual for detailed information.

Introduction of the Control Panel



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



- Pending**
Number: Remaining runs
- Proceeding**
Number: Remaining runs
- Finished**

Count Reset: If the buffers are changed before it reaches the recommended 20 runs, click "Count Reset" to start over.

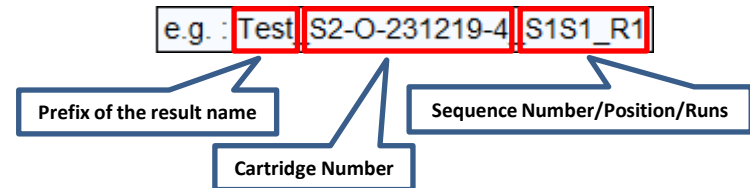
Sequence Assay

Open	Save	Save As					Para	Add
SN	Sample Position	Method	Sample Duration	Runs	Separation Duration	Result Name		Insert
1	S1,S2,S3M-4-10-08-160		10	1	160	Test	Sample ID	Delete
						None	Sample ID	Up
						Sample Name	Time	Down
						Cartridge Number	00:12	
						User Definition		

Prefix of the result name: Tool tip will show up the previewing of the result name.

Micro Vial Run Stop

Adjust Duration (sec.) 0



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