

# Edge<sup>ali-Q</sup><sup>®</sup>

## ali-Q<sup>®</sup> Edge

Series Operating Manual



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# Safety Instructions

Read this operating manual completely before using the device for the first time. Also, observe the instructions for use of the accessories. This instrument may sometimes be used with hazardous materials, operations, and equipment. It is beyond the scope of this manual to address all the potential safety risks associated with its use in such applications. It is the responsibility of the user of this instrument to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

**ali-Q®** is an aliquoting pipet controller designed for aspirating and dispensing aqueous solutions with plastic or glass serological pipets in 1 to 100 mL volumes. It is intended for laboratory use. Any use of this instrument in a medical or IVD setting is the sole responsibility of the user.

## **! Read the following carefully!**

1. Every user must read and understand this operating manual before operation.
2. When working with hazardous substances, always adhere to the guidelines outlined in the Safety Data Sheet (SDS) and follow all relevant safety protocols, including the use of appropriate personal protective equipment such as lab coats and safety goggles. Never direct a pipette toward yourself or others.
3. Observe all specifications provided by reagent manufacturers.
4. Never use the instrument in an atmosphere with a danger of explosion. Highly flammable liquids must not be pipetted.
5. Only use the instrument for pipetting liquids, with strict regard to the defined limitations of use. If in doubt, contact VistaLab.
6. Always use the instrument in such a way that neither the user nor any other person is endangered. Avoid splashes. Only use suitable vessels.
7. Never use force on the instrument.
8. Use only VistaLab accessories and spare parts. See Ordering Information on pg 18. Do not attempt to make any technical alterations. Do not dismantle the instrument any further than is described in the operating manual.
9. Always check the instrument for visible damage before use. If there is a sign of a potential malfunction, immediately stop pipetting. Consult the 'Troubleshooting' section of this manual or contact VistaLab if needed.
10. The Power supply must be protected against moisture and must be used only for this instrument.
11. Only authorized service personnel may service the instrument. Unauthorized repair or service may void the units' warranty
12. DO NOT AUTOCLAVE ali-Q. Only approved parts and accessories may be removed from unit for autoclaving. See pg. 15, Cleaning / Decontaminating.
13. Only the original Power supply can be used for recharging of the Lithium-Ion battery. Do not replace with non-rechargeable batteries or rechargeable batteries of other manufacturers.
14. **WARNING!** Improper use of the instrument or the battery (short-circuit, mechanical damage, overheating etc.) may cause the explosion of the battery.

## **Operating Conditions:**

- Operating Temp: 15°C to 40°C (59°F to 104°F)
- Storage Temp: -20°C to + 50°C (-4°F to +122°F)
- Altitude: up to 2000 m
- Relative Humidity: 10% – 95%, non-condensing
- Atmospheric Pressure: 70 – 106 kPa (525 – 795 mmHg)
- Vapor Pressure: up to max. 500 mbar. Aspirate slowly above 300 mbar, to prevent liquid boiling

## **ali-Q® Edge Body Chemical Compatibility for cleaning and decontaminating:**

Water, diluted ethanol or isopropanol. For more information on chemical compatibility, see the support area of our website, [www.vistalab.com/support](http://www.vistalab.com/support)

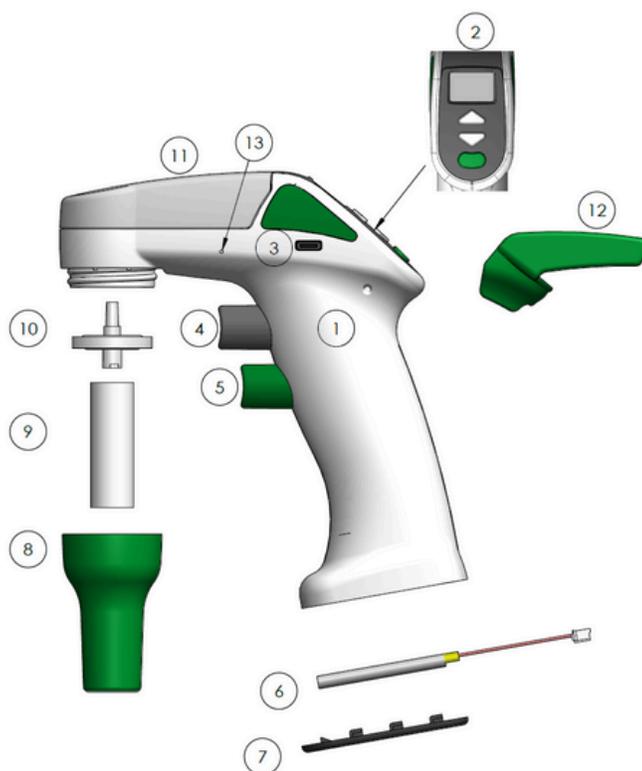
## **Safety Compliance:**

See Declaration of Conformity at end of manual  
EN 61010-1 General Safety Requirements  
EN 61326 EMC Requirements

CAN/CSA-C22.2 No 61010-1-12/A1:2019  
UL 61010-1, Edition 3, Revision Date 11/15/2024

# Getting Started

Drawing #	Description	Material (Abbreviated)
1	Body/ Main Housing	PC/ABS
2	LCD Screen	Glass
2	Control Panel	PC/ABS
2	Keypad	Silicone
3	Charging Port, USB-C	N/A
4	Aspirate Button	PC/ABS
5	Dispense Button	PC/ABS
6	Battery	Lithium Polymer
7	Battery Compartment Cover	PC/ABS
8	Nozzle Cover	Nylon
9	Nozzle Insert	Silicone
10	Membrane Filter, 0.22µm	PTFE
11	Air Tank	PC
12	Kickstand	PC/ABS
13	Wake Up Pin	Alloy Metal Steel



## Package Contents:

- ali-Q® pipet controller
- Power supply (with universal outlet adapters)
- USB-C charging cord
- Kickstand
- Variety of Wobble-not™ serological pipet samples
- 1 Wall Mount
- 1 Replacement membrane filter (0.22µm)
- Quick Reference Guide
- Safety Sheet
- Certificate of Calibration
- Wake Up Pin

## Terms and Definitions

Aliquot – (noun) An equal fractional part of a total amount of a solution or suspension;  
(verb) To divide (as a solution) into equal parts.

Aspirate – (verb) to draw by suction

Dispense – (verb) to expel liquid

Serological Pipet (pipet). – (noun) disposable glass or plastic tube with volume graduations used to aspirate and dispense liquid. Sometimes spelled 'pipette'.

Accuracy – How close the measured volume is to the target volume

$$\text{Accuracy (\%)} = \frac{(\text{Target Volume} - \text{Measured Volume})}{\text{Target Volume}} \times 100$$

Precision (Coefficient of Variation (CV)). – How close measurements (aliquots) are close to each other in volume; independent of target volume

$$\text{Coefficient of Variation (\%)} = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

Performance – Another way of referring to the unit's accuracy and precision (repeatability/reproducibility)

# Operation and Use

## **Standard Factory Mode:**

ali-Q® Edge is shipped from the factory in **Shipping mode** for safety and to preserve battery life.

To put the ali-Q® Edge back into **Standard Factory Mode**, set the volume to 5.0mL, turn the unit completely upside down and press and hold the **green dispense/aliquot button** for at least 5 seconds. You will then hear 3 “power down” tones. **Standard Factory Mode** should only be used when shipping or transporting ali-Q® Edge for extended periods of time.

## **Wake Up Unit:**

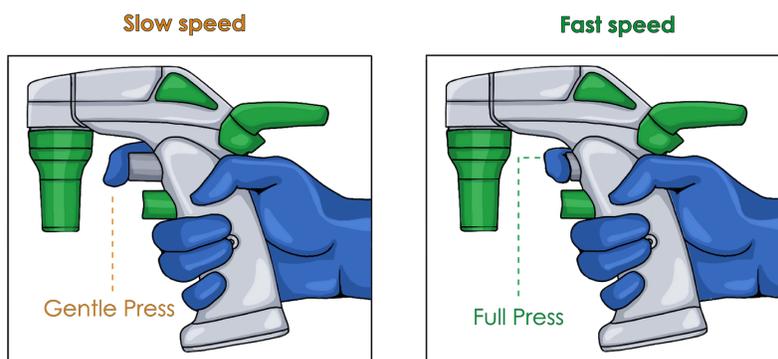
When you first take your ali-Q® Edge out of the box, you must wake it out of **Standard Factory Mode** by using the **Wake-Up Pin** to press the wake-up button on the unit - refer to drawing #13 on page 4 for location.

## **Sleep Mode:**

ali-Q® Edge automatically goes into **Sleep Mode** to preserve battery life after being motionless for 3 minutes. The status LED and LCD screen (see below) will turn off when the unit is in sleep mode. Once the ali-Q® Edge is picked up or moved, it will automatically wake itself up.

## **Pipetting speed control:**

For all modes of operation, the speed that the ali-Q® Edge aspirates and dispenses liquid is controlled by the touch-sensitive aspirate and dispense buttons. The amount of force used to push on the buttons determines the speed that the liquid enters or exits the pipet.



## **LED Indicators:**

**NOTE:** The functions of these LEDs will change when the unit is in Calibration Mode. See the Calibration section for further information on this procedure (Page 12).

**NOTE:** ali-Q® Edge can still be used while connected to a charger. If LED does not light up during charging, see Troubleshooting section (Page 16).

## **LED Color Guide**

- **Green** – Aliquot Mode
- **Purple** – Performing Aliquot
- **Blue** – Charging
- **Flashing Red** – Battery Critically Low
- **Solid Yellow** – Internal Error, contact support

## Standard Mode:

**1. Attach serological pipet** - Hold the pipet as near to its upper end as possible and carefully insert it into the nozzle until it fits tightly. **NOTE: ali-Q® Edge is compatible with all brands and sizes of pipets!**

### **WARNING!**

Using excessive force when inserting pipets risks breakage and injury. If you are having difficulty inserting pipets fully, try using VistaLab Wobble-not™ low insertion force pipets.

**2. Aspirate liquid** - Immerse the pipet's tip into the liquid. Press and hold the gray aspirate button and fill the pipet so that the meniscus is above the volume of graduation desired. Then press the bottom **GREEN** dispense button until bottom of the meniscus is at the desired volume of graduation.

### **ATTENTION!**

Do not fill the serological pipet over the max volume! Severe damage can occur if any liquid enters ali-Q® Edge! Decrease pressure on aspirate button when reaching max volume to slow down aspiration.

**3. Dispense liquid** - Carefully position the tip of the full pipet over the receiving vessel. Press and hold the **GREEN** dispense button until meniscus reaches desired volume graduation or when pipet is completely empty.

### **ATTENTION!**

NEVER invert ali-Q® Edge or lay it on a bench when filled with liquid.

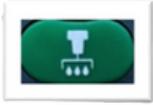


### NOTE:

The motor will activate at seemingly random times when pressing the aspirate or dispense buttons.

**Don't worry. It's normal!**

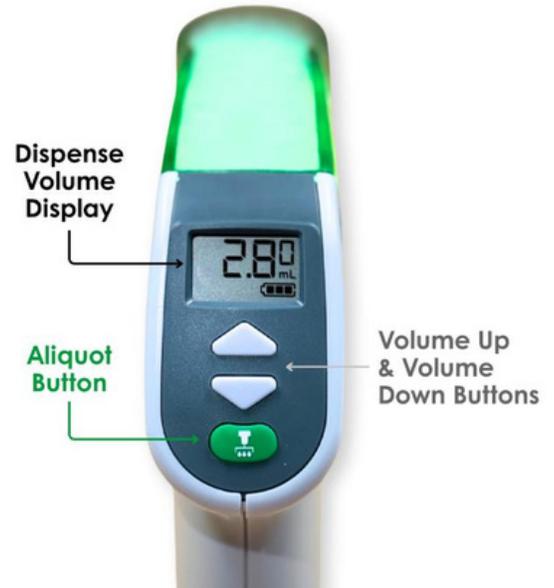
For more information on ali-Q® Edge's **Intelligent Measuring System**, see pg. 9.



### **Aliquot Mode (Green Button):**

1. **Attach a serological pipet.**
2. **Select the green aliquot mode button**
3. **Set the desired aliquot volume using the up and down buttons**
4. **Aspirate** enough liquid to dispense as many aliquots as you will need.

*Ex: If you need to dispense 10 aliquots of 2mL, you will need to aspirate at least 20 mL of liquid.*



### **5. Aliquot**

Carefully position the tip of the full pipet over the first receiving vessel. Press and HOLD the **GREEN** aliquot/dispense button until you hear the pump turn on or see the indicator lights stop pulsing **PURPLE**. Then, carefully transfer to the next vessel and repeat for each aliquot.

To cancel an aliquot in progress (the lights are pulsing **PURPLE**), press the volume up, volume down, or aliquot button.

**CAUTION: Do not press the aspirate button while an aliquot is being performed, as this may affect the accuracy of that aliquot.**

**NOTE: Discard first aliquot for optimal precision.**

**NOTE: If you release the aliquot button too soon, i.e. before the full aliquot volume has dispensed, the unit will pause (Pulse Purple) the aliquot until you resume pressing the GREEN aliquot/dispense button. The unit will stay paused for up to 1 minute, after which the dispense will be automatically cancelled.**

**Intelligent Measuring System:** ali-Q® Edge's **aliquot mode** utilizes a state-of-the-art measuring system that incorporates information and feedback from multiple sensors to give real-time monitoring and parameter adjustment for different variables that affect the accuracy and precision when in **aliquot mode**.

- **Varying environmental conditions:** Temperature, humidity and pressure all have significant effects on the performance of any liquid handling device.... **EXCEPT for the ali-Q® Edge!** ali-Q® Edge can sense changes in ambient conditions and compensate as necessary to ensure accurate aliquoting whether you're in the deserts of Arizona, or the mountains of Colorado!
- **Varying pipet angle:** One of the most useful (and ergonomic!) features of the ali-Q® Edge is its ability to adjust the dispensed aliquots for varying pipet angles. This is especially useful in a hood, where space and maneuverability are limited. Whether you hold the pipette completely vertical or tilted, you can be confident that the accuracy and repeatability of the aliquots will not be affected.
- **Varying brands/sizes serological pipets:** Every brand of pipet has different sizes and geometries. These geometric differences contribute to changes in the physical characteristics of the system. ali-Q® Edge can sense the effect of these differences and will automatically compensate accordingly to optimize performance.

#### **Wall Mount:**

ali-Q® Edge may be stored in the wall mount (included in the box) to avoid damage from accidental drops and chemical spills (and save precious bench space!). ali-Q® Edge may also be placed in the wall mount with pipets up to 100 mL inserted. The wall mount will firmly adhere to any **smooth, clean, non-painted** surface, such as the inside of a hood, using the 3M Command strips included. Clean the surface with alcohol before applying the wall mount. Remove the stickers on the adhesive backs and immediately press onto the surface and keep applying moderate pressure for about 30 seconds. DO NOT place ali-Q® Edge into the wall mount for about 30 minutes to allow the adhesive to set.

#### **Kickstand:**

ali-Q® Edge can be used with the removable kickstand (included in the box) even with an empty serological pipet inserted. The kickstand attaches securely in one orientation only. Be sure to attach so that the curved ends point up. Simply snap the pins on the kickstand into the round dimples on the sides of the ali-Q® Edge. To remove, gently pinch the curved ends and pull kickstand away from body.



# Technical Specifications

## **Conventional pipetting mode:**

Accuracy and precision (CV) is determined by the graduations on the serological pipet used (typically  $\pm 2\%$ , see manufacturer's spec) as well as the user's ability to consistently eyeball and control the liquid meniscus.

## **Aliquot mode:**

ali-Q® Edge is calibrated to perform within the following performance specifications, under controlled environmental conditions with Grade 3 purified water:

**ali-Q: 0.5-5.0mL with Wobble-not™**  
Serological Pipet (any size):

Volume	Accuracy	Precision (CV)
5.0mL	$\pm 2\%$	$\pm 1\%$
0.5mL	$\pm 2\%$	$\pm 2\%$

**Dimensions:** 6.3" x 7.0" x 2.2" (18.3 cm x 17.8 cm x 5.6 cm)

**Weight:** 250g

**Volume Capacity:** Accepts 1 to 100 mL serological pipets

**Pipet Compatibility:** Compatible with ANY size and ANY brand serological pipet. Optimal performance when using VistaLab Wobble-not™ Serological Pipets. Not for use with Pasteur pipets, or other aspirating pipets.

# Technical Specifications

## **Mains/ power supply:**

Input Voltage = 100-240 VAC +10% Normal voltage fluctuations

Frequency = 50-60 Hz

Input Current = 190-320 mA

Output Voltage = 5V

Output Current = 2A

Overvoltage Category II

## **Rechargeable Battery:**

Type = Lithium-Polymer Voltage = 3.7V

Capacity = 1000 mAh Charging Time = ~ 3 hr

Number of Dispenses = ~2000 dispenses (with a 25mL pipet)

## **Ambient Conditions:**

Ambience = For indoor use only Ambient Temperature = 15 - 40°C (59 - 104°F)

Relative Humidity = 10% - 95%, non-condensing

Atmospheric pressure = 70 – 106 kPa (525 - 795 mmHg)

## **Pollution Degree:**

Pollution degree 2 - Typical for Laboratory and Office Environments

# Calibration

ali-Q®'s **aliquot** volume dispense is factory calibrated to aliquot the volume set on the LED screen to the factory specs, as listed on Technical Specifications section, in a state-of-the-art ISO 17025 accredited calibration lab under the following conditions:

- Temperature: 20°C - 22°C (68°F - 71.6°F)
- Relative humidity: 45% - 75%
- Using **Wobble-not™** Serological Pipet
- Using ISO 3696 Grade 3 purified water

**NOTE:** Using ali-Q® Edge with different liquids more/less dense than water may *slightly* affect the **accuracy** of the dispensed aliquots. However, **precision** is always maintained with the ali-Q® Edge thanks to its Intelligent Measuring System. To adjust the accuracy of your unit, see page 14.

## **Calibration Verification:**

VistaLab recommends sending ali-Q® Edge to VistaLab for calibration, or performing verification, at least once a year or whenever conditions and equipment change.

## **In-lab Verification / Adjustment:**

Users can verify the accuracy of the dispensed aliquots in four ways:

1. **Gravimetric** - Use a digital scale and water, determine the weight (in grams) of the dispensed aliquot. See the Performance Verification document for gravimetric procedure at [www.celltreat.com](http://www.celltreat.com)
2. **Colorimetric** - Use a spectrophotometer to measure the absorbance value of diluted dye in a solvent of controlled volume. Absorbance value is then converted into a volume (µL).
3. **Visual** - Use an approved graduated cylinder (Class A, To Contain, calibration certified).
4. **Visual** (least reliable\*) - Use the volume graduations on the serological pipet as a reference of how much liquid is being dispensed.

\* Serological pipets in general have  $\pm 2\%$  accuracy (at full scale) of their volume graduations, so this is the **least accurate way of verifying**.

## ali-Q<sup>®</sup> In-lab Calibration Protocol

The ali-Q<sup>®</sup> series pipet controllers include calibration software which allows users to perform in-lab calibration adjustments as needed.

### Initial Performance Verification:

In order to calibrate the ali-Q<sup>®</sup>, gravimetric measurements from the unit will first need to be obtained. Follow the instructions for a Performance Verification below to determine the initial/current % error at 0.5 and 5.0 mL and record the 2 numbers to use in the following calibration procedure.

### Worksheet

Determine the current accuracy of your ali-Q<sup>®</sup> by taking the average of 4 gravimetric measurements at 5.0mL and 0.5mL (100% and 10%). Use this table to record the values, then calculate the average (avg.) at each volume.

\_\_\_\_\_ Measurements (mg) \_\_\_\_\_

Volume	1	2	3	4	avg.	% error	high or low
5.0mL	±2%	±1%					
0.5mL	±2%	±2%					

Then calculate the % error

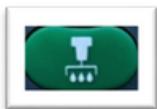
$$\text{at 0.5 mL: } \frac{(\text{avg.} - 0.5)}{0.5} \times 100$$

$$\text{at 5.0 mL: } \frac{(\text{avg.} - 5.0)}{5.0} \times 100$$

Use the % error numbers for Steps 2 and 3 on the next page.

## Calibration Mode

- ● **One LED Blinking Blue, One LED Solid Blue** – Waiting for 0.5mL dispense offset, calibration will be adjusted from factory defaults
- ● **One LED Blinking Slowly Blue, One LED Solid Blue** – Waiting for 0.5mL dispense offset, calibration will be adjusted from factory defaults
- ○ **One LED Blinking Blue, One LED Solid White** – Waiting for 0.5mL dispense offset, calibration will be adjusted from existing customer calibration adjustments
- ○ **One LED Blinking Slowly Blue, One LED Solid White** – Waiting for 0.5mL dispense offset, calibration will be adjusted from existing customer calibration adjustments
- **Blinking Red** – Cancelling calibration session
- **Blinking Green** – Resetting to factory calibration or adjusting calibration based on user entered values
- **One LED Blinking Yellow** – Calibration adjustment is out of range and will not be applied, call customer service



### Step 1 - Enter Calibration Mode

1. Put the unit into Aliquot Mode (Green button on display panel)
2. Set the volume to 0.0mL by pushing down arrow.
3. Hold the ali-Q® upside down.
4. Press and hold the aliquot button for 5 seconds. Three tones will sound to indicate entry into calibration mode and the left half of the LED will be quickly blinking blue.
5. Release the button and return the unit to upright orientation.

NOTE: Calibration mode can be exited, without saving changes, during step 2 or step 3 by quickly pressing and releasing the aliquot button. The unit will play the cancellation tone and go back to aliquot mode.

### Step 2 - Enter the % error at 0.5mL

After entering calibration mode, the left half of the LED will be **quickly blinking blue**. This indicates that the unit is ready to accept the calculated error at 0.5 mL.

1. Enter the 0.5 mL % error value, from the previously performed Verification Procedure by setting the volume. **For example, if the mean error is 1.5%, set the volume to 1.5.**
2. Press the aliquot/dispense button.



### Step 3 - Enter the % error at 5 mL

The lower LED will now be **slowly** blinking **blue**, indicating that the unit is ready to accept the calculated error at 5 mL. Repeat the process outlined in Step 2 with the previously obtained 5 mL % error value. If the LEDs blink GREEN, the unit has been successfully calibrated. The unit will now return to normal operation.

**A post-calibration Verification should always be performed to confirm the changes were successful and the ali-Q<sup>®</sup> accuracy should now be within spec.**

### Reset to Factory Calibration:

The ali-Q<sup>®</sup> Edge has been calibrated from the factory to  $\pm$  %2 at 0.5 mL and 5 mL. The user can easily revert to the factory calibration at any time. To reset the unit:

1. Enter calibration mode using Step 1 in the Calibration Mode section.
2. Turn the ali-Q<sup>®</sup> Edge upright.
3. Press and hold the aliquoting button for about 5 seconds, until the LEDs begin to blink **green**.
4. Release the button. Unit will resume normal operation after brief delay.

## Troubleshooting

Problem	Possible Cause	Suggested Fix
Slow aspiration	<ul style="list-style-type: none"> <li>• Membrane filter clogged</li> <li>• Not enough force on aspirate button</li> </ul>	<ul style="list-style-type: none"> <li>• Replace membrane filter</li> <li>• Press aspirate button with more force to increase aspirate speed</li> </ul>
Aspirating air bubbles	<ul style="list-style-type: none"> <li>• Pipet tip not fully immersed in liquid while aspirating</li> <li>• Pipet not fully inserted into nozzle insert</li> <li>• Aspirating too fast for solution (ex: detergents)</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure pipet tip is fully immersed in liquid throughout aspiration</li> <li>• Insert pipet more</li> <li>• Lightly press the aspirate button to slow aspirate speed</li> </ul>
Pipette drips liquid	<ul style="list-style-type: none"> <li>• Pipet not fully inserted into nozzle insert</li> <li>• Crack in serological pipet</li> <li>• Membrane filter not properly positioned or upside down</li> <li>• Nozzle insert worn or damaged</li> <li>• Valve not shutting properly</li> </ul>	<ul style="list-style-type: none"> <li>• Try Wobble-not™ low insertion force, less drip serological pipets</li> <li>• Get a new pipet</li> <li>• Insert filter properly (see pg. 4)</li> <li>• Replace nozzle insert</li> <li>• Send ali-Q® Edge in for repair service</li> </ul>
Pipet does not stay in ali-Q Edge®	<ul style="list-style-type: none"> <li>• Nozzle insert worn or damaged</li> </ul>	<ul style="list-style-type: none"> <li>• Replace nozzle insert</li> </ul> <p>NOTE: Using Wobble-not™ pipets will significantly <b>decrease</b> damage to the nozzle insert.</p>
Out-of-Calibration	<ul style="list-style-type: none"> <li>• Using different equipment or different density liquid, varying environmental conditions</li> <li>• Membrane filter clogged</li> </ul>	<ul style="list-style-type: none"> <li>• See In-lab Calibration on page 13.</li> <li>• Replace membrane filter</li> </ul>
LED blinks or does not light up when connected to charger	<ul style="list-style-type: none"> <li>• Battery not properly installed</li> <li>• Wrong Power supply</li> <li>• Battery / Power supply damaged</li> </ul>	<ul style="list-style-type: none"> <li>• Firmly push in battery connector</li> <li>• Only use Power supply Cat. #9030-9005</li> <li>• Replace battery/ replace Power supply</li> </ul>
Battery does not hold charge	<ul style="list-style-type: none"> <li>• Charger not inserted fully</li> <li>• Battery defective or drained</li> </ul>	<ul style="list-style-type: none"> <li>• Check the charger connection. Replace charging cord</li> <li>• Replace battery</li> </ul>
ali-Q® Edge is unresponsive	<ul style="list-style-type: none"> <li>• Dead battery</li> </ul>	<ul style="list-style-type: none"> <li>• Recharge battery</li> <li>• Restart unit by unplugging battery for 10 seconds and plug battery back in.</li> <li>• Wake up pin/reset unit</li> </ul>

If problem still occurs, contact VistaLab Technical Support at (914) 244-4068 or [techservice@celltreat.com](mailto:techservice@celltreat.com)

# Maintenance

[www.vistalab.com/services](http://www.vistalab.com/services)

**Routine Maintenance:** ali-Q® Edge will require minimal, if any, maintenance, if used as intended. VistaLab recommends performing routine maintenance and calibration verification at least once a year. Routine maintenance includes:

- Cleaning and disinfecting outer body, nozzle cover, nozzle insert and filter
- Replacing the membrane filter
- Replacing nozzle insert (as needed)
- Aliquot mode calibration verification

## **Cleaning / Decontaminating:**

- Chemical - Occasionally wipe outer housing of the ali-Q® Edge and the nozzle cover with a damp cloth of soapy water or diluted alcohol solutions (e.g. 70% isopropanol).

### **WARNING!**

ALWAYS use protective gloves and eye protection. Avoid the risk of contamination!

- UV Sanitizing - The complete ali-Q® Edge unit (outer housing) can withstand typical output (254 nm wavelength) from UV sterilization lamps.

NOTE: The effects of the UV exposure will likely cause discoloration over time.

NOTE: Care should be taken to not allow excess cleaning solution to enter the charging port.

## **Autoclaving:**

**NEVER AUTOCLAVE ALI-Q®!** Only the nozzle cover, nozzle insert and membrane filter can be **detached from the unit** and separately autoclaved at:

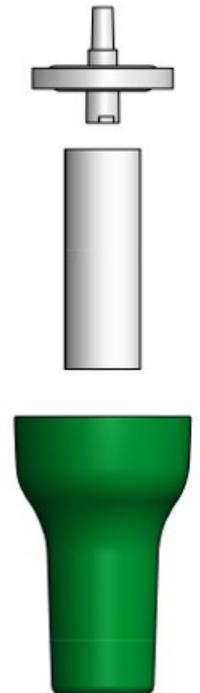
- 121°C (250°F); 30 psi (2 bar absolute) with a holding time of at least 15 minutes.

## **Replacing the Membrane Filter:**

1. Unscrew the **green** nozzle cover.
2. Remove the membrane filter.
3. Place new membrane filter with the thicker end facing downwards into the silicone nozzle insert and thinner end into ali-Q® Edge.
4. Screw the nozzle cover assembly back onto the ali-Q® Edge.

## **Replacing the Nozzle Insert:**

1. Unscrew the **green** nozzle cover.
2. Remove the membrane filter and silicone nozzle insert from nozzle cover.
3. Insert new silicone nozzle insert into nozzle cover. Place membrane filter with the thicker end inserted into the silicone nozzle insert and thinner end into ali-Q® Edge.
4. Screw the nozzle cover assembly back into the ali-Q® Edge.



### **Recharging Battery Instructions:**

Only use VistaLab Lithium Polymer battery (Cat # 9030-4001). The battery must not be replaced by non-rechargeable batteries from other manufacturers.

**WARNING:** Use of other manufacturer's batteries or improper use of the instrument (e.g., short circuit, mechanical damage, overheating, etc.) may cause the battery to explode.

- Charge time = approx. 3 hours (from 0% to 100% battery)
- Battery life = approx. 4 hours (dependent on frequency and intensity of use)
- Conditions for recharging = 0°C to 40°C (32°F to 104°F), 20% to 80% relative humidity

### **Recharging Procedure:**

1. Attach the proper outlet adapter to the power supply pack and insert into wall outlet.
2. Attach the wide end of the USB-C charging cord to the power supply pack.
3. Plug the USB-C end of the charging cord into the charging port on the side of the ali-Q®.
4. ali-Q® Edge can be used while plugged into the charger.

### **Replacing the Battery/ Removing Battery (Hard reset):**

1. **Remove battery cover:** On the bottom of the ali-Q® Edge,
2. **Remove battery:** Grip the battery in one hand and the white connector in the other hand and gently pull apart. **Do not pull by the leads!**
3. **Replace battery:** Plug (new) battery into white connector until it snaps-in. Insert battery into compartment. Slide battery cover back into place.

## Warranty

VistaLab guarantees the functionality of ali-Q® Edge for **2 years** from the Date of Purchase (original proof of purchase required).

VistaLab shall not be liable for the consequences of improper handling, use, servicing, operating or unauthorized repairs of the instrument or the consequences of normal wear and tear especially of wearing parts such as pistons, seals, valves and the breakage of glass as well as the failure to follow the instructions of the operating manual. We are not liable for damage resulting from any actions not described in the operating manual or if non-original spare parts or components have been used.

For warranty claims, please contact Technical Support (techservice@celltreat.com) to receive Return Authorization. Unit will be inspected for defects and repaired/replaced as necessary at the sole discretion of VistaLab. Customer will be responsible for service charges for non-warranty damage.

To validate warranty, register your ali-Q® Edge at [www.vistalab.com/register-your-pipette](http://www.vistalab.com/register-your-pipette)

### **Send-in Service:**

To send your ali-Q® Edge in for routine calibration and maintenance or repairs, go to [www.vistalab.com/service](http://www.vistalab.com/service) to create a service order and pre-pay using Purchase Order or Credit Card. Follow instructions on website and email confirmation to send-in for service. Be sure to decontaminate the unit before packaging. For safety, put ali-Q® Edge into Shipping Mode (see page 6) by setting the volume to 5.0mL, holding it completely upside-down, and pressing and holding the **green** aliquot button for at least 5 seconds until a confirmation tone is heard. The LED will flash **teal**.

## Ordering Information

Catalog Number	Description
2300-3005	<b>ali-Q® Edge aliquoting pipet controller</b> Includes power supply, wall mount, 1 spare 0.22µm membrane filter (non-sterile), Kickstand, Wobble-not™ pipet samples

### Accessories and Parts:

Catalog Number	Description	Quantity
9030-4001	Replacement Rechargeable Lithium Polymer Battery	1/pack
9030-4002	Replacement Battery Cover	1/pack
9030-4003	Replacement Membrane Filter, 0.22µm, non-sterile	5/pack
9030-4004	Replacement Membrane Filter, 0.22µm, sterile	5/pack
9030-4005	Replacement Membrane Filter, 0.45µm, non-sterile	5/pack
9030-4006	Replacement Membrane Filter, 0.45µm, sterile	5/pack
9030-4008	Replacement Silicone Nozzle Insert	2/pack
9030-4010	Replacement Nozzle Cover	1/pack
9030-4011	Replacement Kickstand	1/pack
9030-9005	Replacement Power Supply w/ Universal outlet adapters	1/pack
9030-9008	Wall Mount	1/pack

Catalog Number	Description	Quantity
4090-0005	Wobble-not™ Serological Pipets, 5mL	200/case, Indiv. wrapped
4090-0010	Wobble-not™ Serological Pipets, 10mL	200/case, Indiv. wrapped
4090-0025	Wobble-not™ Serological Pipets, 25mL	200/case, Indiv. wrapped
4090-0050	Wobble-not™ Serological Pipets, 50mL	100/case, Indiv. wrapped
4190-0005	Wobble-not™ Serological Pipets, 5mL	200/case, Indiv. plastic wrapped
4190-0010	Wobble-not™ Serological Pipets, 10mL	200/case, Indiv. plastic wrapped
4190-0025	Wobble-not™ Serological Pipets, 25mL	200/case, Indiv. plastic wrapped
4190-0050	Wobble-not™ Serological Pipets, 50mL	100/case, Indiv. plastic wrapped
4190-0100	Shorty Wobble-not™ Serological Pipets, 10mL	50/case, Indiv. plastic wrapped

**Wobble-not™ Serological Pipets** (all Wobble-nots are sterile, RNase/DNase free, and non-pyrogenic:

### Distributors:

Visit [www.celltreat.com/distributors](http://www.celltreat.com/distributors) to find your local distributor.

## Ordering Information, continued

Catalog Number	Description	Quantity
4290-0005	Wobble-not™ Serological Pipets, 5mL	500/case, Bulk pack
4290-0010	Wobble-not™ Serological Pipets, 10mL	400/case, Bulk pack
4290-0025	Wobble-not™ Serological Pipets, 25mL	150/case, Bulk pack
4290-0050	Wobble-not™ Serological Pipets, 50mL	100/case, Bulk pack
4290-0100	Wobble-not™ Serological Pipets, 100mL	60/case, Bulk pack
5090-0010	Shorty Wobble-not™ Serological Pipets, 10mL	200/case, Indiv. wrapped
5090-0025	Shorty Wobble-not™ Serological Pipets, 25mL	100/case, Indiv. wrapped

**Wobble-not™ Serological Pipets** (all Wobble-nots are sterile, RNase/DNase free, and non-pyrogenic:

**Distributors:**

Visit [www.celltreat.com/distributors](http://www.celltreat.com/distributors) to find your local distributor.

# Transport, Storage, and Disposal

## **Transport:**

Before sending the ali-Q® Edge into an authorized service center, you must **decontaminate** the controller per instructions on page 17. Please note the following:

	Air Temperature	Relative Humidity	Atmospheric
General Transport	-20°C – +50°C	10% - 95%	30 kPa – 106 kPa
Air Freight	-5°C – +45°C	10% - 95%	30 kPa – 106 kPa

## **Storage:**

	Air Temperature	Relative Humidity	Atmospheric
General Transport	-20°C – +50°C	10% - 95%	70 kPa – 106 kPa
Air Freight	-5°C – +45°C	10% - 95%	70 kPa – 106 kPa

## **Disposal:**



The adjoining symbol means that storage batteries and electronic devices must be disposed of separately from household trash (mixed municipal waste) at the end of their service life.

- According to the Directive 2002/96/EC of the European parliament and of the Council on Waste Electrical Equipment (WEE) of 27 January 2003, electronic equipment requires disposal according to the relevant national disposal regulations.
- Batteries contain substances that can have harmful effects on the environment and human health. Therefore, according to the Directive 2006/66/EC of the European Parliament and the Council on Waste Batteries of 6 September 2006 batteries require disposal according to the relevant national disposal regulations. Dispose of batteries only when completely discharged.

**WARNING! Do not short circuit battery to discharge it! Risk of explosion and fire due to overheated rechargeable batteries. Do not heat to over 80°C and do not throw into fire.**

### **VistaLab Technologies**

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Patterson, NY 12563  
(914) 244-6226  
(888) 652-6520

### **CELLTREAT Scientific Products**

3 Nemco Way  
Ayer, MA 01432  
(978) 650-1320

[www.celltreat.com](http://www.celltreat.com)

# Declaration of Conformity



VistaLab Technologies declares on its own responsibility that the device  
**ali-Q® Edge Aliquoting Pipet Controller, Model 2300-3005**

*Complies with:*

## **Green/Ecodesign Regulations**

- Meet CEC, DoE Level VI, Energy Star, ErP Stage
- 2 NRCan & GEMS
- No Load Power Consumption Less 0.075W

## **Standards for EU**

- Safety requirements for electrical equipment for measurement, control and laboratory use-General Requirements (EN 61010-1:2010)
- Electrical equipment for measurement, control and laboratory use-EMC requirements (EN 61326-1:2013)
- Information Technology Equipment Safety General Requirements (EN60950-1:2006 / A2:2013)

## **Standards for Canada and USA**

- Safety requirements for electrical equipment for measurement, control and laboratory use-General Requirements (CAN/CSA-C22.2 No. 61010-1-12/A1:2019)
- Safety requirements for electrical equipment for measurement, control and laboratory use-General Requirements (UL 61010-1, Edition 3, Revision Date 11/15/2024)
- Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. (Part 15 of the FCC Rules Class A)



President



Vice President, Product Development



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U.S Patents are listed on [www.vistalab.com/about/quality-management](http://www.vistalab.com/about/quality-management)

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