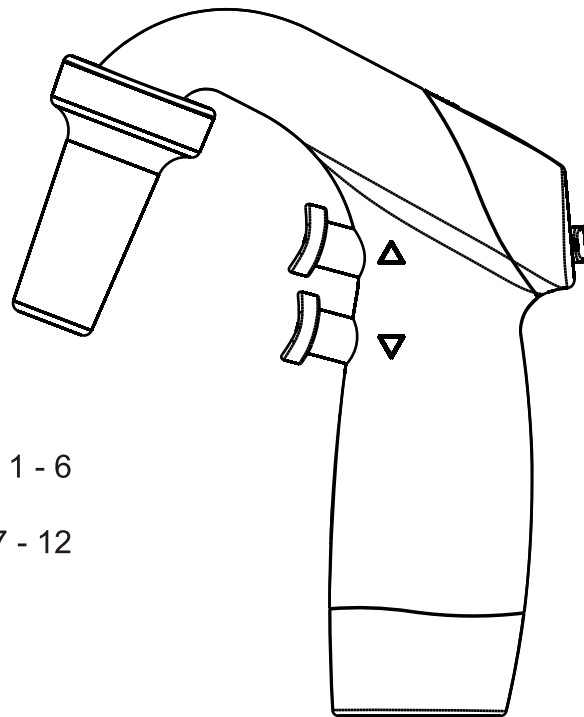


# Pipette Controller

## Index

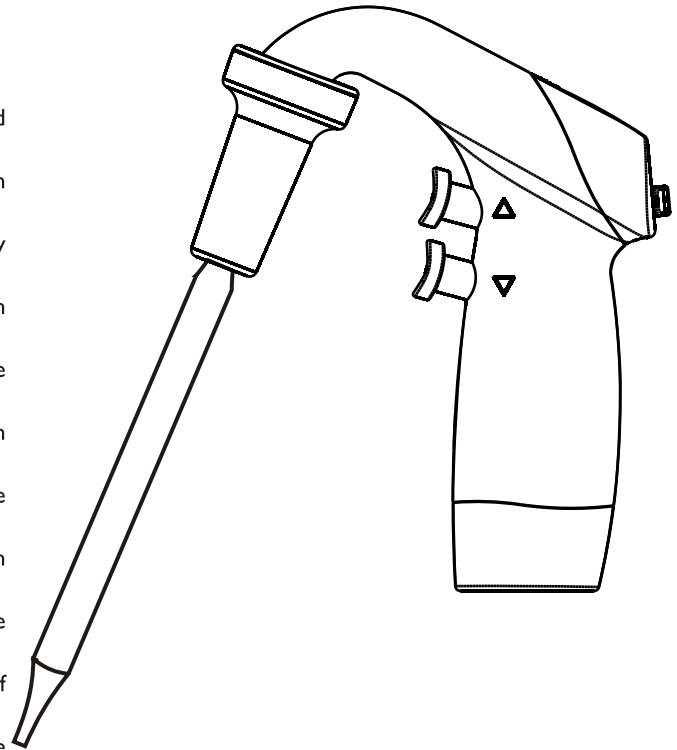
Instruction Manual ..... Page 1 - 6

Manual de instrucción ..... Página 7 - 12



## Introduction:

This Pipette Controller is an engine powered pipetting aid designed for cordless work with glass or plastic pipettes in 0.1 - 100 ml range. Ergonomically shaped and carefully modeled light weight handle, together with smooth push buttons and conveniently located slide switch ensure effortless pipetting even during extensive use. It has high performance micro pump with a powerful but quite engine with 3 speed modes. It is equipped with replaceable membrane filter, which protect the mechanism of device from contamination by vapors of solutions being drawn into the pipette. It has autoclavable nosepiece and a continuous working limit of 10 hours.



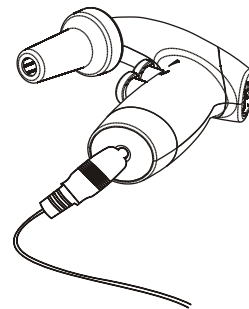
## Safety Precautions:

Before operating Pipette Controller, it recommended to read the operating instructions carefully.

- Protective clothing, goggles and globes should be worn.
- Observe the reagent manufacturer's safety instructions.
- Never use with highly flammable liquids.
- The Pipette Controller may not be used for some liquids, the vapors of which damage the plastics such as ABS, PA, Silicon, POM etc.
- Never use the instrument in an atmosphere with danger of explosion.
- Only the original charger supplied by the manufacturer should be used for charging battery.
- Only original spare parts and accessories shall be used.
- In case of incorrect functioning of Pipette Controller, follow the trouble shooting procedures in this manual.
- Store on wall bracket when Pipette Controller is not in use. Do not store Pipette Controller with a filled pipette.

## Charging:

The Pipette Controller has a low battery LED indicator. If the LED lamp lights up, it means that the batteries are discharged and they should be charged. The original charger supplied along with is having protection against over charging, short circuit & over tempered. The mains voltage must conform to the specification of charger. Use of different chargers may damage the batteries.



- Plug the charger jack in to the Pipette Controller.
- Plug the charger in to a suitable wall socket. The red indication on charger will light up indicating charging process has started.
- Allow unit to charge for approx 5 hours (as this is a quick charger) for getting fully charged.
- Once batteries are fully charged, the charger automatically stops charging and the red indicator will turn in to green.
- This device has 2 Numbers of 1000 mAH NiMH type rechargeable batteries.

Note: Even during charging process, use of pipette controller is possible.

## Pipetting:

First check the pipette to be used to ensure it is not damaged and has no dents or sharp edges in the upper part. Check whether the upper gripping part is dry. Carefully hold the pipette and insert it securely in to the silicon holder inside the nose cone. Once the pipette has been securely attached, always hold the instrument in a vertical position, tip down.

**Speed Control** : Set the pump speed using H / L / G Switch.

H : High Position - Fast aspirating and fast dispensing

L : Low Position - Slow aspirating and slow dispensing

G : Gravity Position - Slow aspirating and dispensing by gravity force only

It is recommended to choose L position for less volume pipettes up to 5 ml & H position for volumes greater than 5 ml.

The speed of aspirating & dispensing can also be controlled manually by controlling the finger pressure on trigger buttons. Deeper the button is pressed, faster the liquid will aspirate or dispense.

**Aspirating (Filling the pipette)** : Slowly press the upper pipetting trigger, the liquid will start aspirating. Fill the pipette slightly above the mark desired, adjusting the aspiration speed by finger pressure, particularly in the final stage, so as not to over fill the pipette. After filling pipette above desired volume Press the lower trigger gently, dispense excessive liquid from the pipette until the meniscus of liquid aligns exactly with the required volume mark on the pipette.

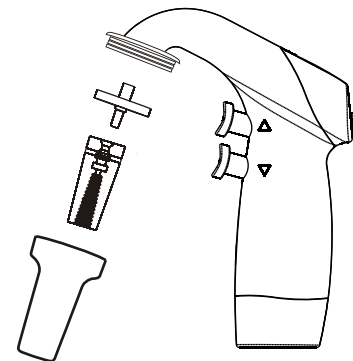
**Dispensing** : Slowly press the lower pipetting trigger. The liquid will start dispensing.

Note : It may happen that during gravitational force dispensing the pipette is not completely emptied due to the characteristics of pipettes used with the pipette controller:

## Replacing the filter:

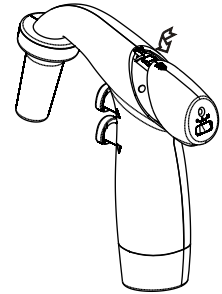
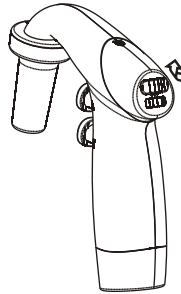
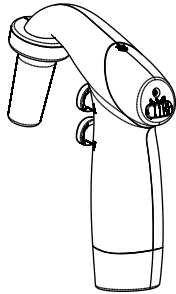
- Unscrew the nosepiece.
- Pull out the membrane filter and the silicon pipette holder.
- Rinse the silicon holder containing safety valve using a wash bottle.
- Blow liquid out of the silicon holder and leave it until it is completely dry.
- Place the new membrane filter, assemble the device in reverse order and carry out leak test.

Note : Only use genuine manufacturer recommended filters and accessories.



## Battery Replacement:

Unlike most of the other common Pipette Controller the change of batteries is very simple with this instrument and can be carried out without exposing the inner mechanism and circuit. For replacing batteries first pull out 3 mode switch cover as shown in the figure by applying the pressure from its lower side. Now remove the batteries compartment cover pressing by embossed arrow and simultaneously sliding it back. Remove the batteries. Insert new batteries and reverse the above procedure. Put the batteries compartment & switch cover back in to their original place.



## Pipette Controller Kit Comprises:

- Pipette Controller
- Charger
- Wall mount bracket
- Two spare membrane filters
  1. 0.2  $\mu\text{m}$
  2. 0.45  $\mu\text{m}$
- Instruction Manual
- Warranty Card

## Trouble Shooting:

Trouble	Possible Cause	Remedy
Suction capacity is low or No aspiration	Low motor speed is selected	Increase motor speed
	Check valve is blocked	Clean the valve by flooding. If it is wet – rinse it and dry.
		If it is displaced try to set it in the right position.
	Filter is dirty or wetted	Replace filter
	Batteries discharged	Charge batteries
	Pipette Holder is damaged	Replace it.
	Battery defective	Replace batteries
	Battery wrongly inserted	Insert correctly
Pipette Drips	Sterile nose cone not tightly screwed	Tighten the nose cone.
	Pipette not securely positioned in silicon pipette holder	Reattach firmly.
Reduced Operating time with fully charged batteries.	Pipette holder is damaged	Replace
	Wrong battery type	Use only original batteries.

Note: If recommendations in the trouble shooting section do not solve current problems, contact your authorised dealer or the manufacturer directly.