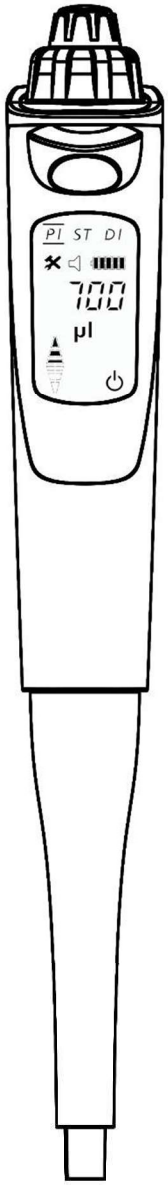
Multi-functional Electronic Pipette
User Manual



Part Number:
PPD01-25XX

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1.Product Overview

As a versatile, motor-driven pipetting instrument, the electronic pipette delivers accurate and precise performance in liquid handling. Its design and operation are based on the principle of air displacement and use disposable pipette tips.

Frequency,Voltage： 5W/4.2V

The electronic pipette has been tested according to ISO8655 quality management standards. In compliance with the quality control requirements of ISO8655-6 / DIN 12650, each and every electronic pipette, fitted with original tip of the manufacturer, has been tested by gravimetric method with distilled water (DIN / ISO3696, grade 3) at 22℃.

Specifications

This series of pipettes cover a wide range of volume: 0.5 - 10μL； 5 - 50 μL； 20-200 μL； 30 - 300μL； 100 - 1000μL.

Channels	Volume Range	Increment	Tips
1	0.5-10 μL	0.01 μL	10 μL
1	5-50 μL	0.1 μL	200;300;350 μL

1	30-300 μL	1 μL	300;350 μL
1	100-1000 μL	5 μL	1000μL

Pipette Tip

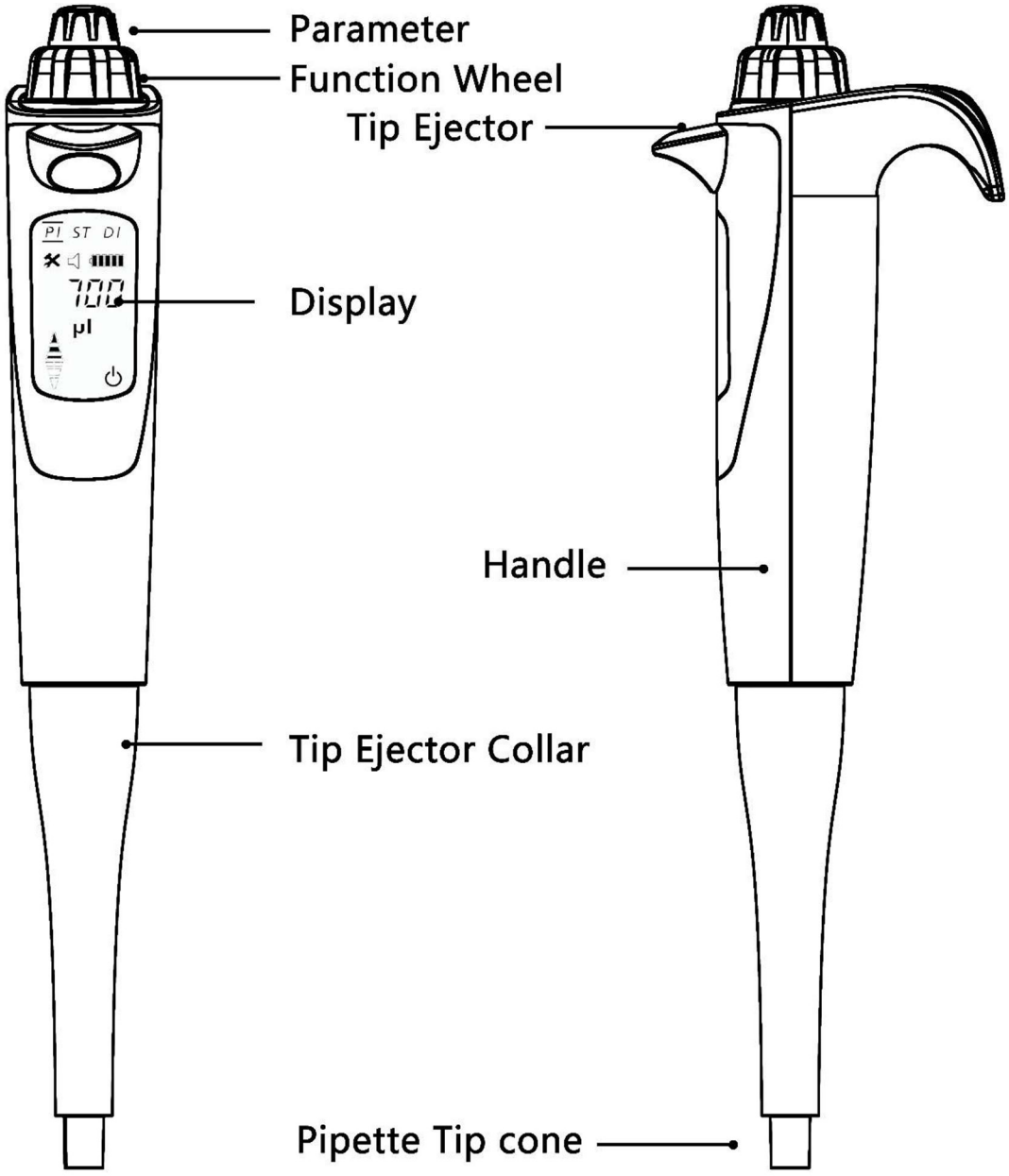
The multi-functional electronic pipette is compatible with most universal tip brands covering full volume range.

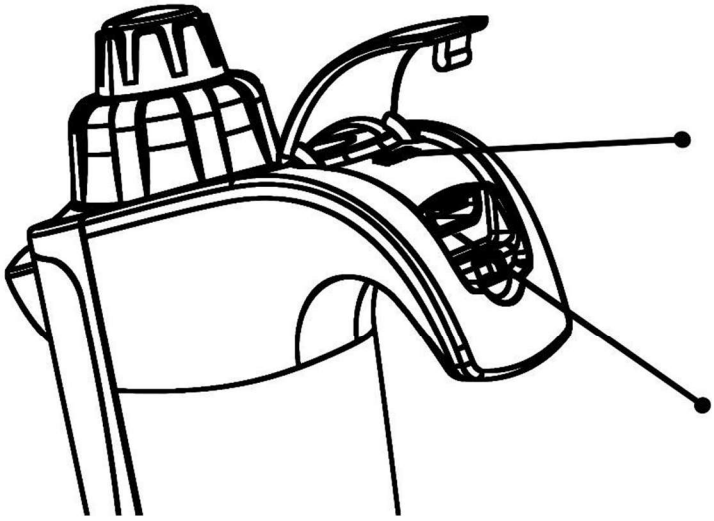
Note: Never use the pipette without a tip attached.

Contents of Package

- Multi-functional Electronic Pipette X 1
- AC Adapter X 1
- USB Cable X 1
- Stand X 1
- User Manual X 1
- Calibration Card（ISO8655-6 / DIN12650）X 1

2. Parts Description



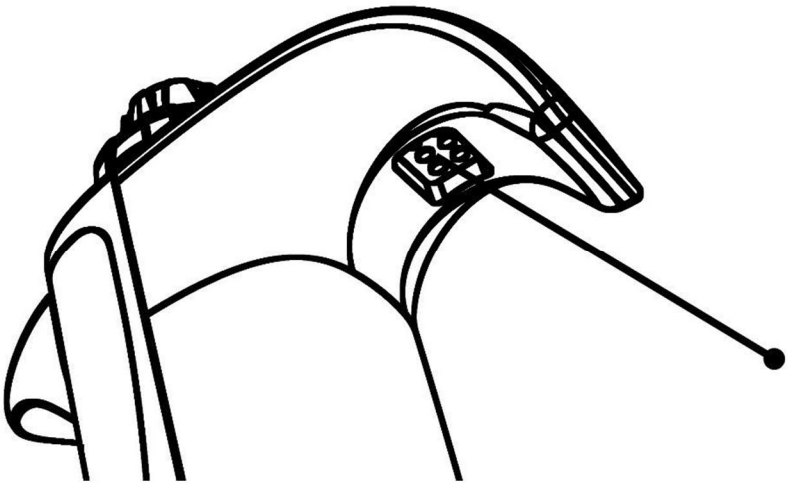


Reset Slot

Poke here with a pointed tool to restart the pipette

USB-charging Port

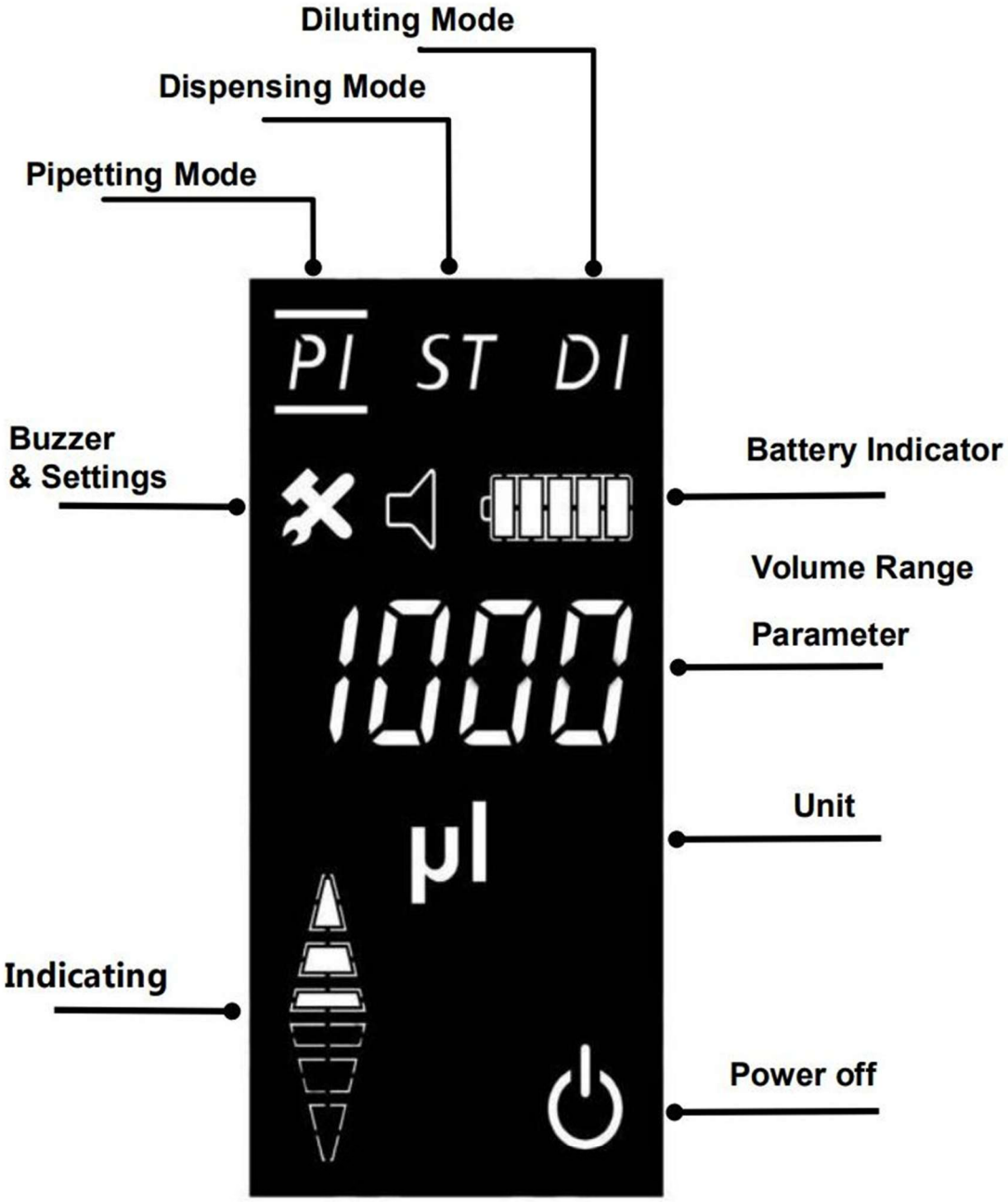
Fully charge in approximate 4 hours.



Stand Charging Port

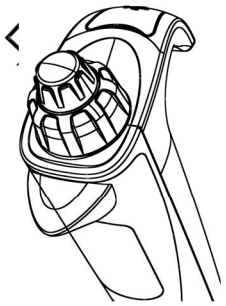
Fully charge in approximate 4 hours.

3. Display

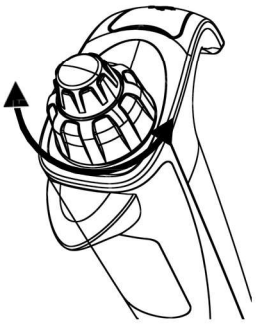

Diluting Mode
Dispensing Mode
Pipetting Mode
PI ST DI
Buzzer
& Settings
Battery Indicator
Volume Range
Parameter
1000
Unit
µl
Indicating
Power off

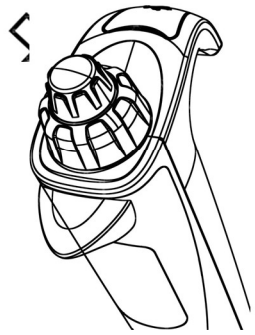
4. Operation

4.1 Power On

Press the Parameter Knob for about 2 seconds.	

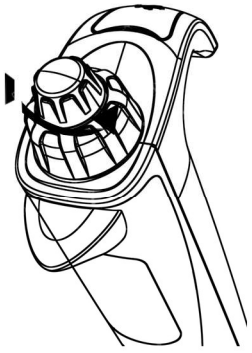
4.2 Function Selection

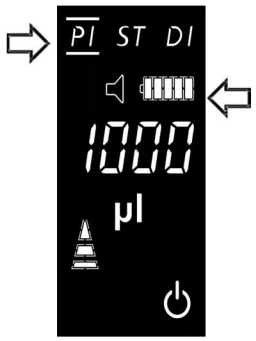
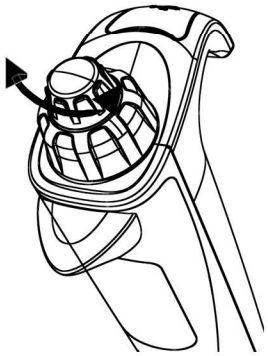
① Fast turn the Function wheel right or left, then turn the Parameter Knob to do the function Selecting form the blowing item: 1. Pipetting (PI) 2. Dispensing (ST) 3. Diluting (DI) 4. Settings	

② Click Parameter Knob to confirm after selecting the item.	

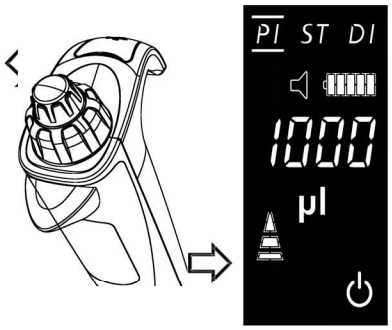
4.3 Pipetting (PI)

4.3.1 Volume Setting

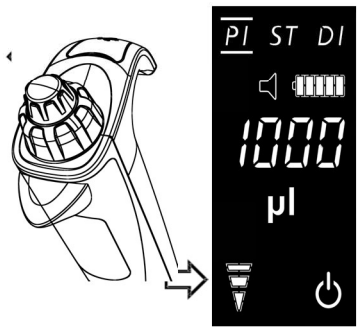
①Fast turn the Parameter Knob.	

②’ PI’ and volume parameter will blink.	
③ Turn the Parameter Knob counterclockwise to increase or clockwise to decrease. Press Parameter Knob to confirm. **Note:** You can setup volume range in Aspirating mode only.	

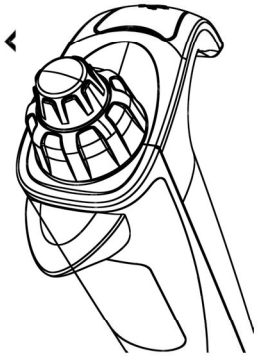
4.3.2 Aspiration

When upward arrow blinks, press Parameter Knob for Aspiration.	

4.3.3 Dispensing

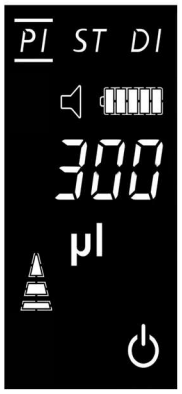
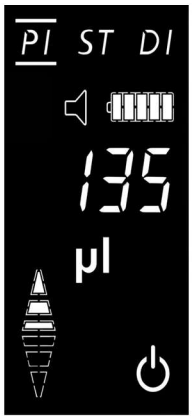
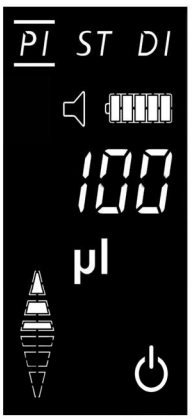
When downward arrow blinks, press Parameter Knob to dispense.	

4.3.4 Mixing

Press Parameter Knob until mixing activity begins. Release Parameter Knob at any time during the process of mixing to exit the mixing mode.	

Note! Take pipette (10-1000µL) for an example to demonstrate below.

There are three mixing volume modes:

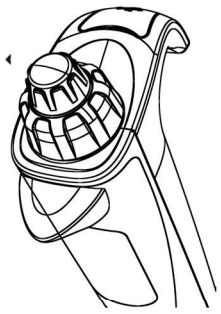
① If the pipetting volume is set larger than 30% of the total volume range of the pipette, 30% of the maximum volume of the pipette will be mixed. e.g. set volume: 700μL actual mixing volume: 300μL	
② If the pipetting volume is set less than 30% of the total volume range of the pipette, and more than its minimum volume range, 50% of the set volume will be mixed. e.g. set volume: 270μL actual mixing volume: 135μL	
③ If 50% of the set volume is less than the minimum volume range of the pipette, the minimum volume will be mixed. e.g. set volume: 150μL actual mixing volume: 100μL	

4.4 Dispensing (ST)

4.4.1Dispensing Volume Setting

① Left and right turn Parameter Knob to set the one-time dispensing volume. Press Parameter Knob to confirm. ② Left and right turn Parameter Knob to set the one-time dispensing frequency. (The image shows, dispensing frequency is 5 times and each volume is 200μL)	

4.4.2Dispensing

Pressing Parameter Knob to do liquid dispensing. Pressing the Parameter Knob again after dispensing the final step liquid had been dispensing that use to drain the liquid which left in the Tip possible. the pipette will return to the aspiration conditions.	

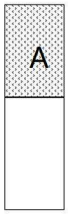
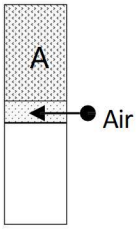
4.5 Diluting (DI)

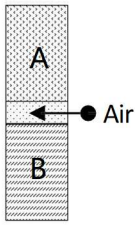
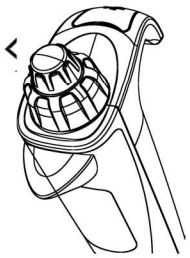
Volume Setting

① Left and right turn Parameter Knob to set the volume of target A. Press Parameter Knob to confirm.

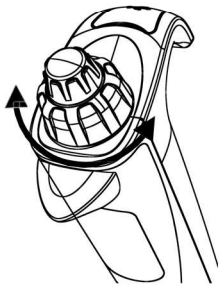
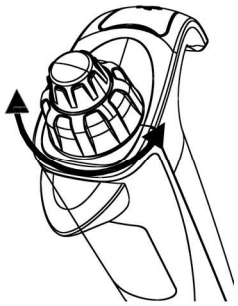
② Left and right turn Parameter Knob to set the volume of target B. Press Parameter Knob to confirm.

4.5.2Diluting

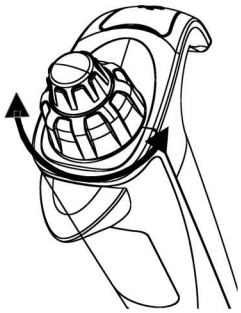
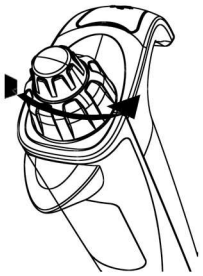
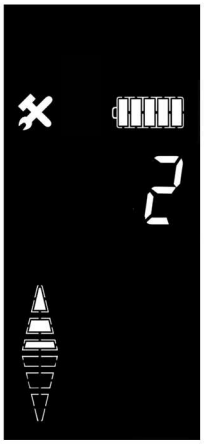
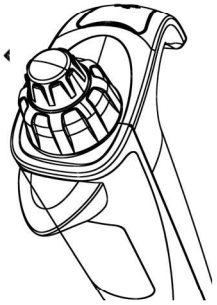
① Pressing Parameter Knob to aspirating target A.	
② Remove the Tips from the liquid and Pressing Parameter Knob to aspirating a bit of air.	

③ Pressing Parameter Knob to aspirating target B.	
④ Pressing Parameter Knob to dispensing target A and B.	

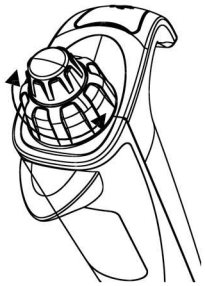
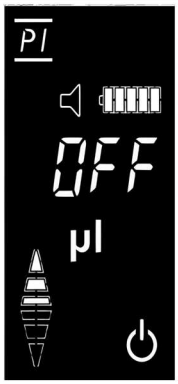
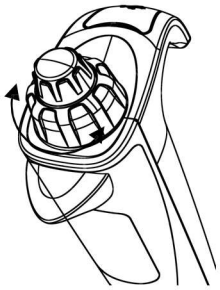
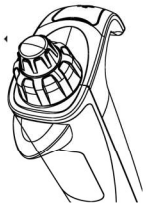
5. Setup

Turn Function wheel right or left for various settings. Double press of Parameter Knob at any time can exit the settings.	
Turn Function wheel to change settings Include: ① Aspiration speed setting (three speeds) ② Dispensing speed setting (three speeds) ③ Buzzer status (ON/OFF) ④ Power off	

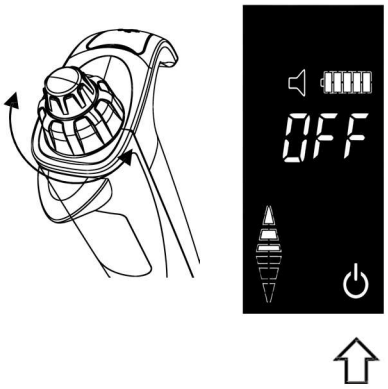
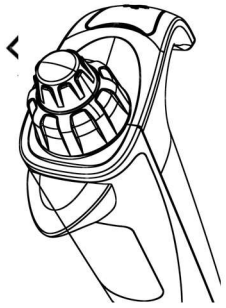
5.1 Adjustment of Aspiration / Dispensing Speed

① Use Function Wheel to select aspiration or dispensing speed when corresponding signs and parameters start to blink.	
② Turn Parameter Knob right or left to select among three speeds(1,2,3). e.g. Speed 2 is set in the right diagram.	 
③ Press Parameter Knob to confirm.	

5.2 Buzzer Status

① Use Function wheel to select Buzzer when the corresponding sign starts to blink displaying current status as ON/OFF.	 
② Turn Parameter Knob to the right or left to select between ON and OFF.	 
③ Press Parameter Knob to confirm.	

5.3 Power Off

① Use Function wheel to select Power when the corresponding sign starts to blink.	
② Press Parameter Knob to switch the pipette off. The pipette will automatically switch off after idle for 8 minutes.	

6. Storage

①We recommend to rest the electronic pipette on the stand in vertical position when not in use.

②Please charge the electronic pipette every month even if you do not use it in long time and make sure there are 50% power in battery at least.

③During storage periods the recommended temperature range is from 0-40℃ and the humidity is no more than 80%.

7. Care and Maintenance

By cleaning your electronic pipette before and after each use, tip connector in particular, its functionality and performance can be ensured.

Note: Check the performance of the pipette every three months. Performance test is recommended to be carried out after each in-house care and maintenance.

7.1 Cleaning the Outer Surface

Spay the outer surface with a dedicated pipette detergent or 75% ethanol. Wipe with lint-free cloth.

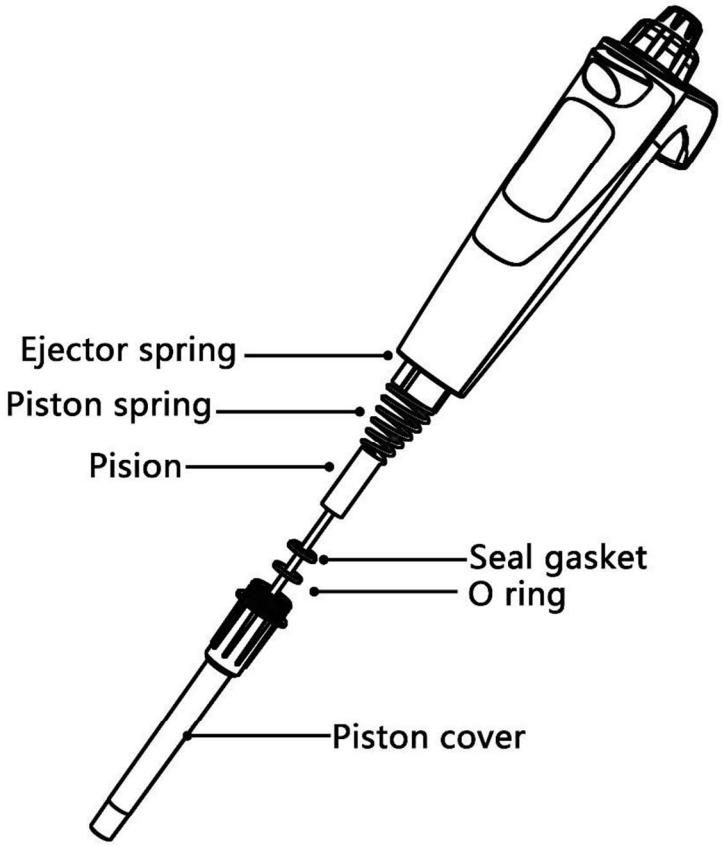
Note! Please consult with your nearest distributor for the cleaning with other detergent or liquids.

ANY WARRANTY WILL, HOWEVER, BE DEEMED AS VOID IF THE FAULT IS

FOUND TO HAVE BEEN CAUSED BYUNAUTHORIZED CLEANING.

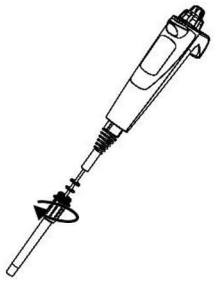
7.2 Sterilizing the Inner Parts

The electronic pipette cannot be autoclaved as a whole piece. The autoclavable parts include:



Note: The unidentified parts can never be autoclaved or disassembled prior to authorization.

7.3 Disassembly Procedures

① Unscrew the tip ejector collar anticlockwise and remove it. NOTE! THIS PART CANNOT BE AUTOCLAVED.	
② Remove the ejector spring. Unscrew the piston cover anticlockwise and remove it.	
③Separate the remaining piston from piston spring. NOTE! MINOR PARTS FOR SAFE KEEPING PLEASE.	

④ Clean the above-mentioned parts with 75% ethanol, or sterilize the parts at 121℃, 1 bar overpressure for 20 minutes.

⑤ Apply an appropriate layer of silicone grease to the O ring, seal gasket and piston. Reassembling.

Note:

① After autoclaving and reassembling, leave the pipette to rest for 12 hours before reuse.

② Calibration is needed after each inner-part sterilization.

For more information, please refer to section "8.Calibration and Performance Tests".

8. Calibration and Performance Tests

Calibration should take place at 20-25℃, kept constant within ±0.5℃. A dedicated calibration software will write calibration values in your electronic pipette, after the distilled water has been repeatedly weighed at least five times.

Hardware needed:

- Electronic balance with readability of 0.01 mg
- Distilled water
- Pipette tip compatible with the volume range of your pipette
- X86 or X64 architecture PC pre-loaded with Windows

- (XP/Vista / 7/8/10 operating system

Software needed:

- Dedicated calibration software of the electronic pipette

(For more information, please contact with your nearest distributor)

- Electronic pipette driver program

Note! If the electronic pipette cannot work properly after calibration, please contact your nearest distributor for assistance.

9. TroubleshootingGuide

Problem	**Possible cause**	**Solution**
Remaining droplets	Incompatible tip	Use original tip
	Plastic self-lubrication of the tip is not even	
Leakage or inadequate aspiration	Tip is loose	Attach the tip firmly
	Foreign objects between tip and connector	Clean the tip cone and replace the tip

Problem	Possible cause	Solution
	Pipette is contaminated	Clean and grease O ring, piston and clean tip cone
	Inadequate application of silicone grease to piston or O ring	Apply silicone grease
	O ring and piston is unlocked or broken	Replace O ring
	Inappropriate operation	Follow the instructions in the User Manual
Leakage or inadequate aspiration	Calibration needed or huge difference of density compared with water	Recalibrate according to the instructions in the User Manual
	Pipette is broken	Send the pipette for service
Inadequate aspiration due to jammed pipette	liquids leak into the tip connector and dry.	Clean and grease O ring and piston; clean tip cone

Problem	Possible cause	Solution
Ejector is jammed or cannot work properly	Tip connector and ejector are contaminated	Clean tip connector and ejector

10. Warranty

The multi-functional electronic pipettes are covered by one-year warranty against defects in workmanship and materials. Please contact us or your nearest distributor.

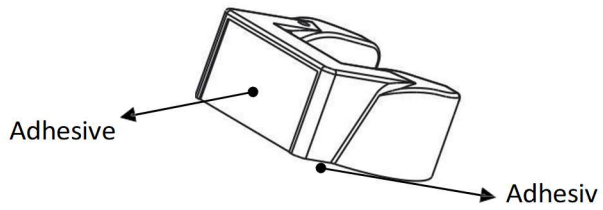
ANY WARRANTY WILL, HOWEVER, BE DEEMED AS VOID DUE TO NORMAL WEAR AND TEAR OR FOR OPERATIONS CONTRARY TO THE INSTRUCTIONS GIVEN IN THIS MANUAL.

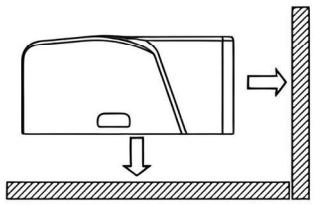
Each and every electronic pipette has been calibrated and tested in compliance with ISO8655-6 / DIN12650 (calibration card included in the contents of delivery package) when manufactured, ensuring safe and comfortable pipetting.

11. Accessory

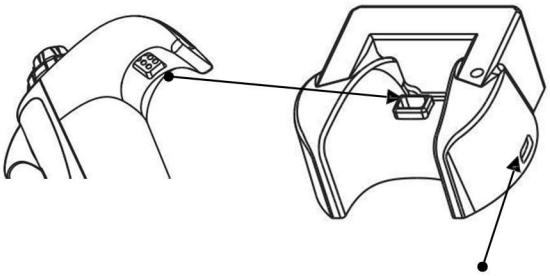
Stander

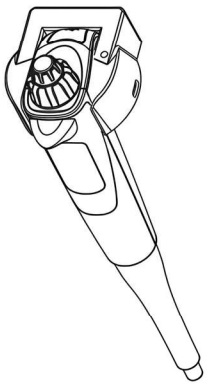
Step 1 ： There are two pieces of adhesive tape on the stander surface. Peel off the release paper of from the adhesive which one you want to use and paste the stander on the flat and clean surface where you want to set up the stander.





Step2 : Insert the electronic pipette stander charging port contact the stander. Connecting USB cable





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