

# FX-STP WIFI Calcium Anti-pump

## User Manual

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Kamoer Fluid Tech(Shanghai) Co.,Ltd.

[www.kamoer.net](http://www.kamoer.net)

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**Print document**

This document supports high-quality printing.

## Read the Tips

### Symbol Description



Ban



Important Notes



Action, Use Tips



Vocabulary Interpretation,

Reference Information

### Use Recommendations

Kamoer provides the following documentation for FX-STP WIFI users

1. 《FX-STP WIFI User Manual》
2. 《FX-STP WIFI Quick Start Guide》

It is recommended that users first read the FX-STP WIFI Quick Start Guide to understand the usage process. For more product information, please read the FX-STP WIFI User Manual.

## FCC warning

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by turning the device off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the device and receiver.
- Connect the device into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

**FCC Radiation Exposure Statement** The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located for operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC rules. 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.

## Download the App

1. Scan the QR code for the app download of the following icon.



iOS



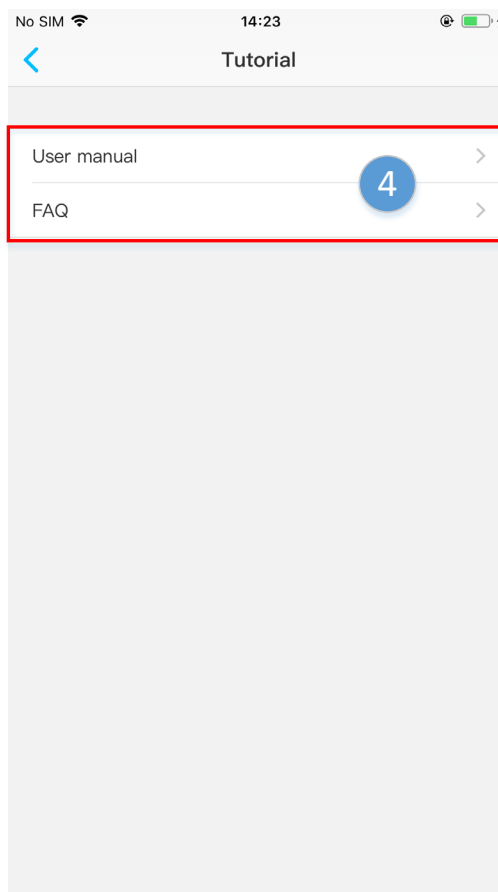
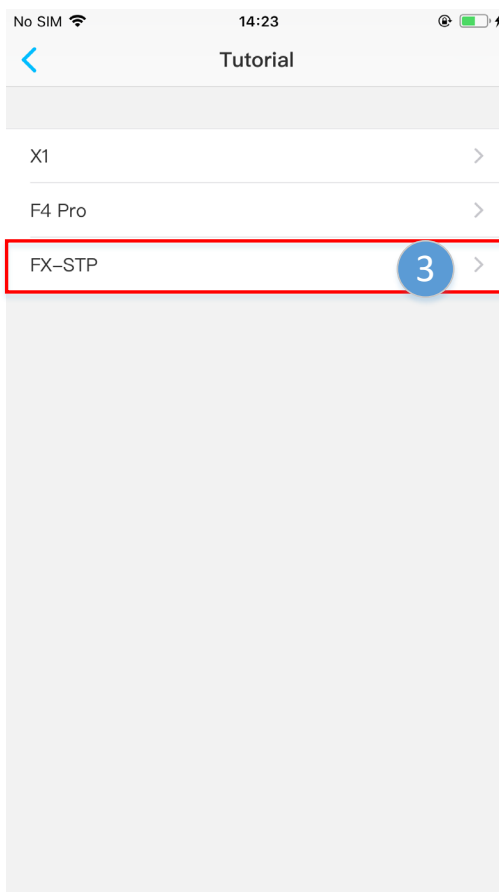
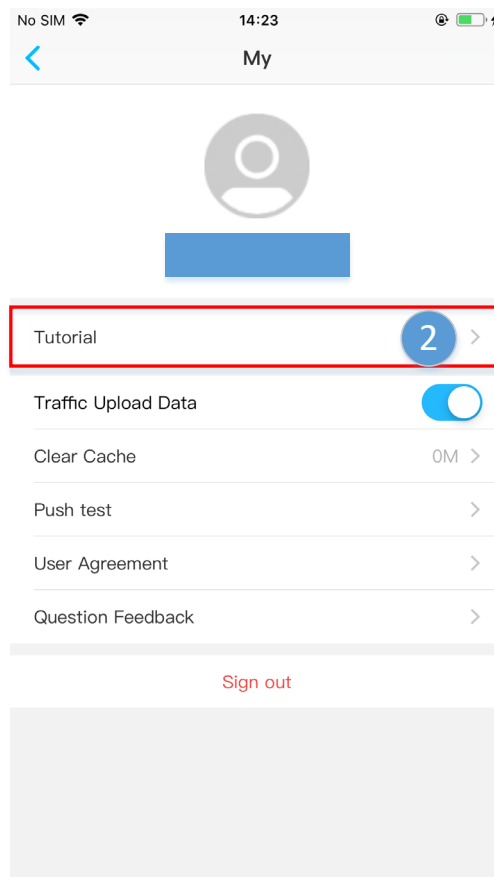
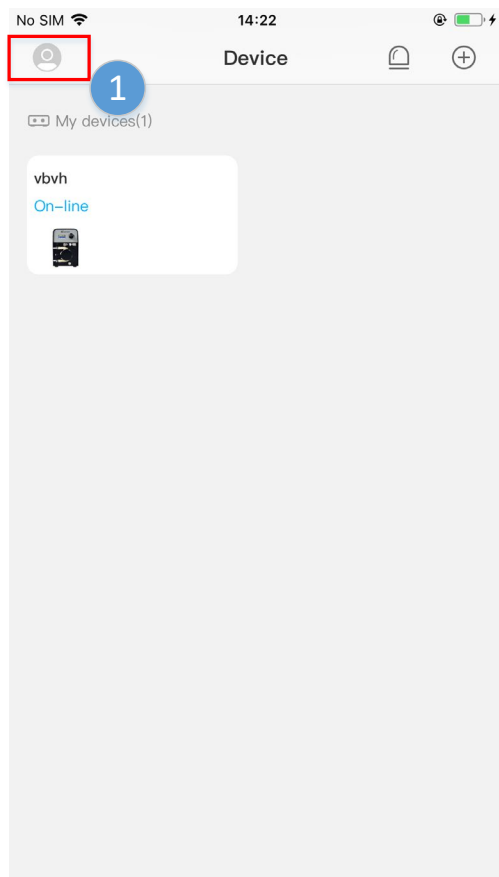
Android

2. Apple users enter the App Store, Android users enter the Baidu App Store, search for "Kamoer Remote", find the corresponding icon of the app download.

The Kamoer Remote App supports Android 4.4 and above, and iOS 9.1 and above.

## Get the Tutorial

After installing the App and opening, click the button in the upper left corner of my module on the device list page to enter my module, click tutorial in my module, enter the tutorial module, click into the corresponding device model, including user manual and common question syllables.



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## Product Overview

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This chapter mainly introduces the characteristics of FX-STP WIFI calcium anti-pump, application and out-of-box instructions.



## Product Overview

### Brief Introduction

FX-STP WIFI peristaltic pump is a high-flow, high-precision step peristaltic pump, with high precision, screen display, low noise, maintenance-free and other advantages. The appliance can be operated via a button or remotely controlled with your mobile phone via Wi-Fi.

### Feature Highlights

- Small and powerful in size
- Simple structure, easy maintenance, quick replacement of pump tube
- Pharmed BPT imported pump tube with standard, long life, heat, acid and alkali resistance, ozone and UV rays, anti-aging and oxidation.
- With display, intuitive view of status parameters.
- With potential knob situ at the temperature to facilitate the adjustment of pump parameters.
- Support for flow calibration
- Includes real-time clock, runs automatically according to setting parameters, and does not lose power-down parameters.
- Support for iOS and Android devices to control titration pumps via WIFI, and app upgrade titration pump firmware

## Applications

- Marine life breeding

## Out-of-the-Box Preparation

- Before opening the box, check if the outer packaging is damaged during transport.
- After opening the box, refer to the packing list in the appendix to make sure that all parts are not missing and check for visible breakage.
- Contact the manufacturer immediately if any defects are found during the out-of-box process.

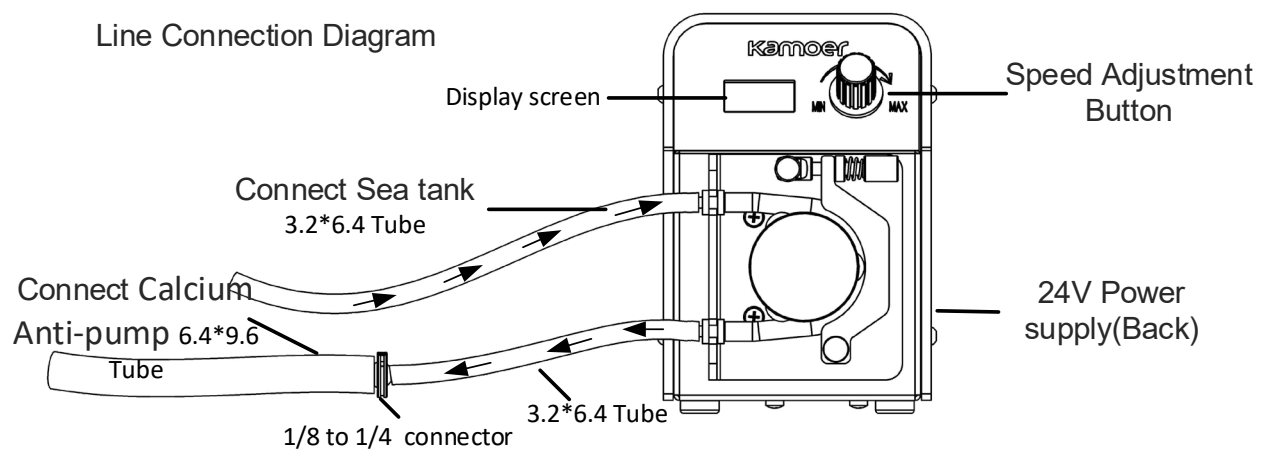
## Part Name and Line Connection



1. Display      2. Adjustment knob  
4. Inlet      5. Outlet



3. Adjusting Screws  
6. DC24V Power Connector




## **Product Installation**

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This chapter focuses on how to install the FX-STP WIFI calcium anti-pump, as well as the precautions during installation.

## Product Installation

 This calcium anti-pump belongs to the self-absorbing pump, when the inlet and outlet drop too much, may produce siphon or return phenomenon.

In order to avoid siphoning and return, the titration pump should be placed in a reasonable position to ensure that the height difference between the inlet and the outlet is within 0.5 meters.

The connection tube of the inlet should be as short as possible, and the drain connection tube should be suspended above the cylinder.

Please carefully check the direction of connection between the inlet and outlet is correct, never back fire.

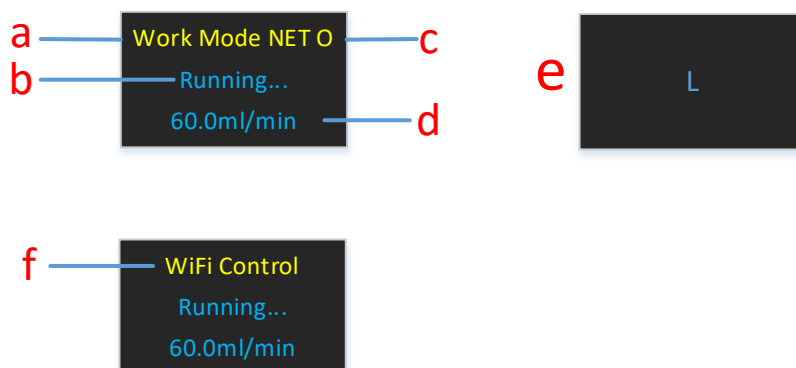
Reference part connection section.

## Operate the device with a knob

This chapter focuses on how to control FX-STP WIFI calcium anti-pump using the knob on the device

## Operate the device with a knob

### Screen Status Description



**a.Work Mode:** indicates the functional position of the interface, and the operating mode indicates that the machine is working on the home page

**b.Work Status Indication:** In the non-lock screen state, press the button, the pump starts to work, at this point the middle of the screen shows the "in operation..." copy, press the button while the pump is working, the pump stops.

#### c.Network Connection Status Indication

NET O: Indicates that the network is normal, at which point the device can be operated via an App connection

NET S: Indicates that the device is in the distribution network state, need the user network to complete before the normal networking

NET F1: Indicates that the device failed to connect to the router

NET F2: Indicates that the device successfully connected to the router, but failed to connect to the cloud

**d.Flow Display:** Shows the flow rate of the pump, which can be adjusted by adjusting the knob while the pump is running.

**e.Lock Screen Status:** the user does not operate the device for a long time, the device screen will enter the screen protection state, screen protection state will show an L letter on the screen, from top to bottom line dynamic display, to use the knob to operate the device, you need to unlock the screen to operate, press the knob to unlock the screen.

**f.App Control:** The interface displayed when the phone app controls, when the interface is in the app control, the knob can not control the device.

### Pump Operation Control



a. Pump Stop Mode

b. Pump Work

**Control the start of the pump stop:** in the pump screen display operating mode state, by pressing the knob on the pump, to switch the operating state of the pump, in the case of pump rest, press the knob, the pump into work, in the pump running state, press the knob, the pump stop;

**Control the speed of the pump:** in the state of pump operation, the rotary button can adjust the flow rate of the pump, the speed of the rotary button pump increases, the counterclockwise rotary button reduces the flow rate, the speed of the rotary button can control the speed of the adjustment flow rate.

### Pump Menu Description



In the operating mode pump stop state, the rotary button into the device menu interface, menu interface, by rotating the button to switch different menu options, when the cursor on a certain option, press the button into the corresponding interface of this option;

**Menu:** menu interface title, when the cursor is on the menu, press the button, back to the next level of the interface;



**Language:** the language of the pump;

**Bid:** click to enter the pump's bid interface;

**WiFi:** click to enter the pump distribution network function interface, the specific operation refers to the app distribution network chapter;

**Settings:** Click on the serial number of the entry pump to display and restore the factory settings interface.

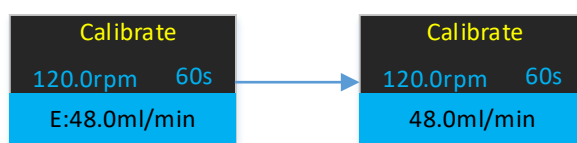
## Calibration



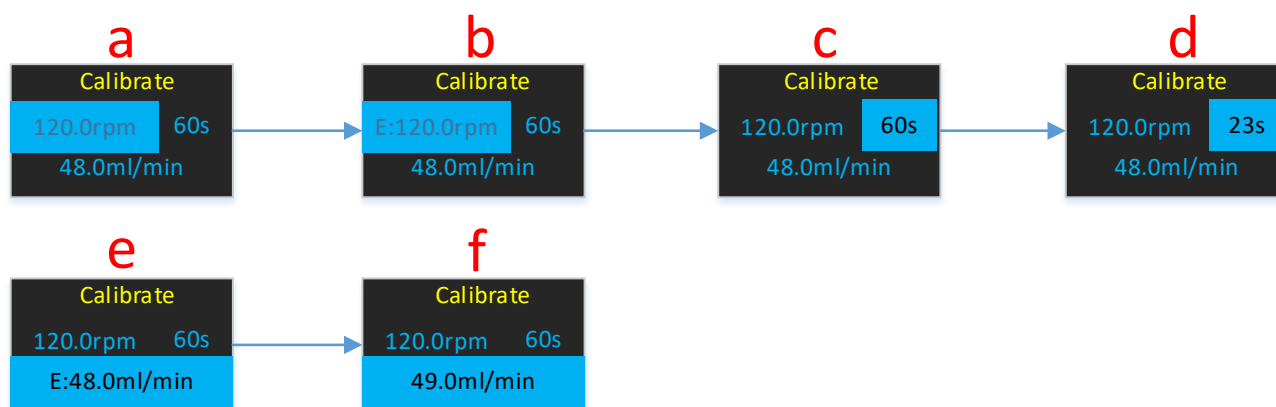
- a. **Bid:** calibration interface title bar, when the cursor in the title bar, press the button, the pump into the superior interface;
- b. **Speed:** calibration speed, adjustable, through the rotary button to rotate the cursor to the speed, press the button into the speed editing state, through the rotary button to modify the speed, press the knob again, exit the speed editing state;



- c. **Calibration time:** calibration time, fixed to 60 seconds, when the cursor on the calibration time, press the button, the pump starts to run, when the 60 seconds countdown is complete, the user will get the liquid volume input into the pump to complete the calibration;
- d. **Flow rate:** The current speed corresponds to the flow rate, where the user will get the liquid volume input to complete the calibration when the calibration is complete.



The specific calibration process is as follows



Prepare a measuring tube, put the pump pipe out of the pipe into the measuring tube, into the water, ready to set the standard;

- Rotate the button to move the cursor to the speed selection item;
- Press the button to enter the speed editing, the speed editor under the spin button edit the speed, after editing, press the button again to complete the editing;
- Rotate the button to the calibration time item and press the button to start the calibration;
- Waiting for the countdown to the calibration to be completed;
- When the countdown to the calibration is complete, enter the input calibration result state, the volume of the liquid in the measuring tube is entered into the interface by the rotary button, press the button to complete the input, the calibration is completed.

## APP Use

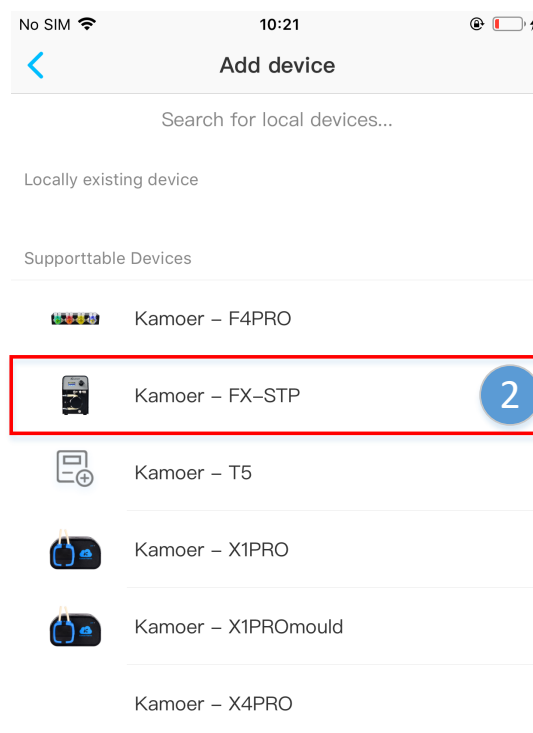
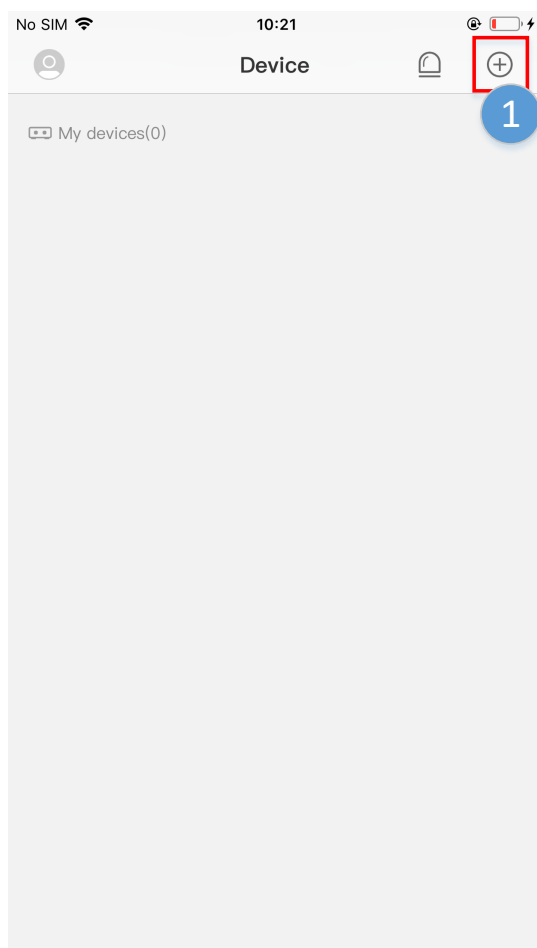
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This chapter focuses on how to use the App to control FX-STP WIFI calcium anti-pump.

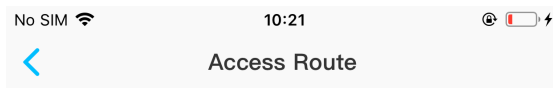
## APP Use

### Connect Titration Pumps to the Cloud

This device supports mobile phone app remote operation, through the mobile phone app remote operation first of all, the device configuration to connect to the network, the specific operation steps are as follows:



1-2. Open the app, click the "button" button in the upper right corner of the device to add the device, select "Add device" to enter the add device interface, select "Kamoer-FX-STP" in the list of supported devices and click Enter;

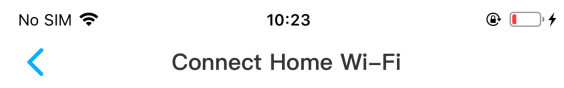


### Ensure Wi-Fi is connected


If you are not connected to Wi-Fi, go to the system settings to connect to your home Wi-Fi.



[Wi-Fi is not connected. Go to set](#)



TP-LINK\_AquaCloud2

Password 

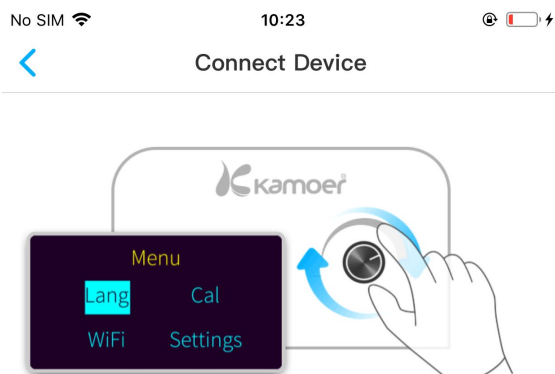
Next

4

3

I have connected Wi-Fi

3. Make sure your phone connection requires Wi-Fi with a network, and make sure that the Wi-Fi can be connected to the extranet (the device does not support 5G Wi-Fi and cannot use 5G Wi-Fi hot spots);
4. Enter the Wi-Fi password, pay attention not to lose the wrong password, click "next" into the device network operation;



### FX-STP

1. Make sure the device is plugged in;
2. When the pump is stop, please rotate the knob to enter "menu"—Turn to "Wi-Fi" and press the knob —Turn to "Network" and enter "Setting..."



### Make sure in network connection

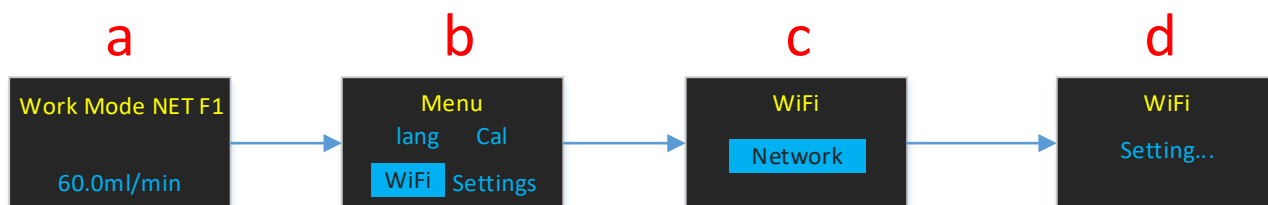
- The device is on-line
- Home Wi-Fi network Signal is normal.

6

5

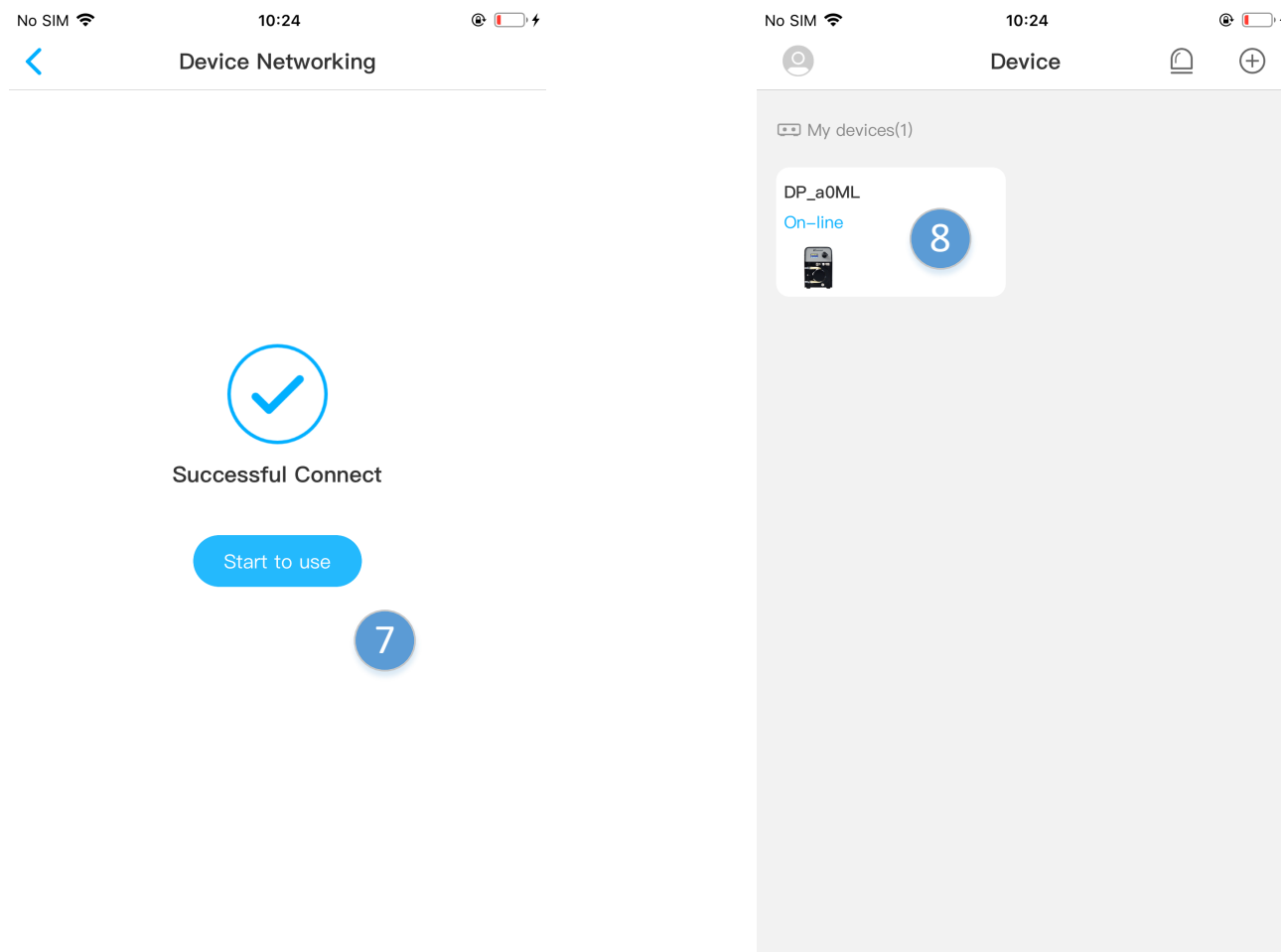
Screen shows "Setting..."

5. Operating equipment into the distribution network state, the device into the distribution network state, in the device distribution network state, click on the App "light in flashing" button to start the distribution network;



- In the pump stop running state, the rotary button enters the menu;
- Rotate the button to WiFi and press the button to enter the distribution network interface;
- Rotate the button to the distribution network option and press the button;
- Enter the distribution network state, continue the mobile phone app distribution network operation.

6. Wait for the network connection success, after the successful connection, the app will pop up the interface of the connection success;

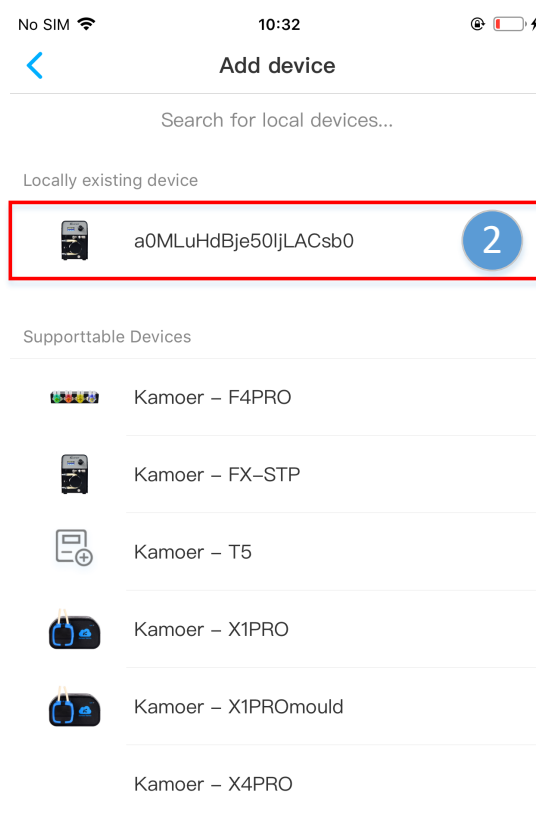
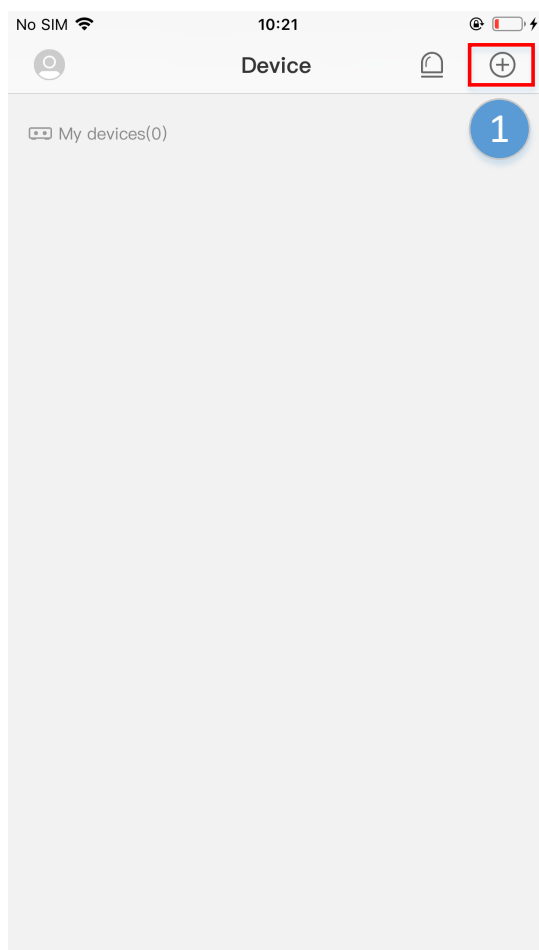


7. In this interface click "Start to use" to enter the device list interface, at which point red light is long, representing the titration pump has been connected to the cloud, the user has also completed the binding to the titration pump.

- i** a. Configure the device to connect to Wi-Fi only once, and once the configuration is successful, as long as the app can be connected to the network, open the app and find the device in the device list.
- b. If the device configuration fails to connect to Wi-Fi, start over from the first step.

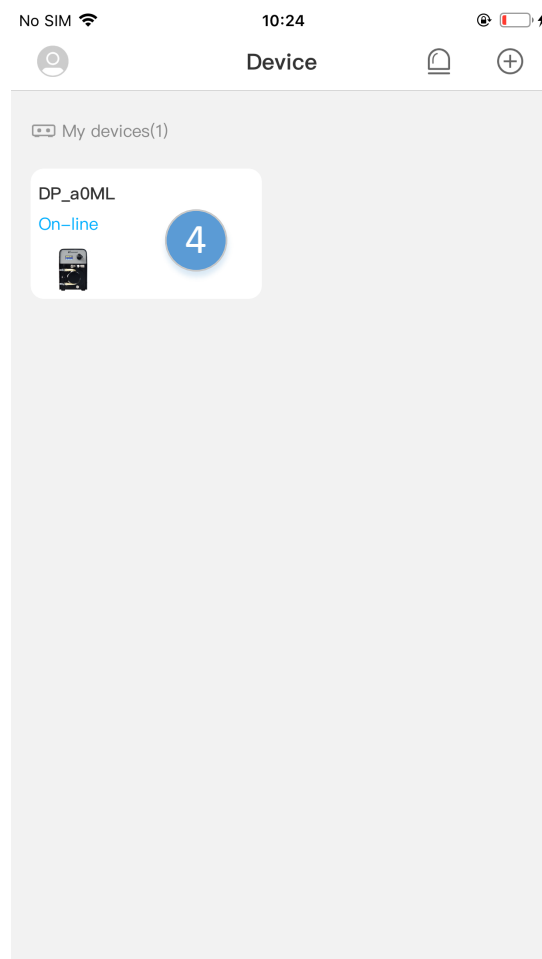
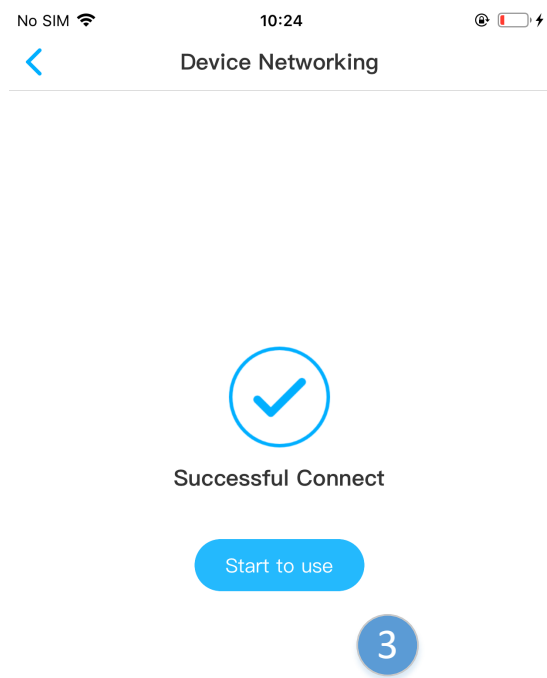
## Binding Titration Pump

There are two ways for a user to bind a device, the first is to bind the device through the redistribution network above, and the second way is that the device is already connected to the cloud via a wireless router, where the phone can be connected to the wireless router and the app will be available locally. Users can click on the corresponding device in the list of devices scanned by the local available device, and bind it as follows:



1-2. Open the app, click the "+" button in the upper right corner of the device to add the device, select "Add device" to enter the add device interface, select the device to bind in the list of locally available devices, and click to enter;

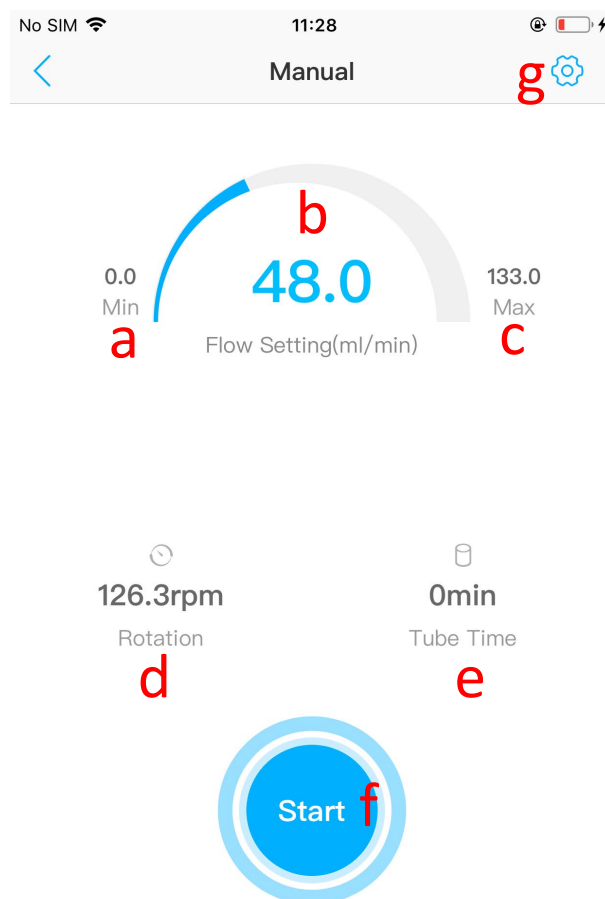




3. After the success of the binding will pop up the binding success prompt, click to start, back to the list of devices;

## Overview of Calcium Anti-pump Control Interface

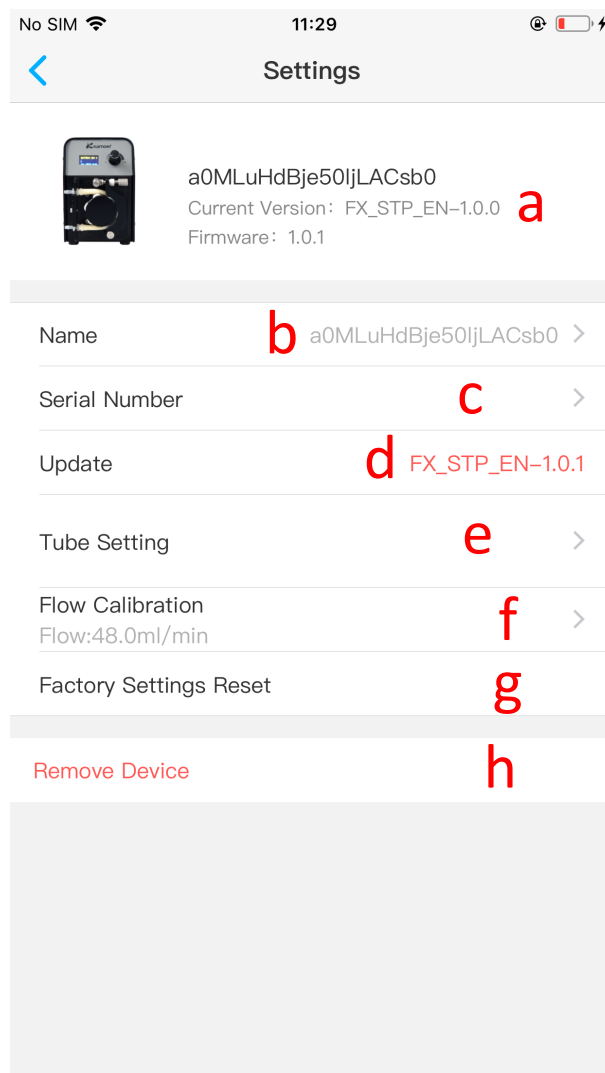
Open the app and click on the calcium anti-pump in the device list to enter the calcium anti-pump operator interface:



- a. **Flow rate minimum:**
- b. **Current flow rate:** the current flow rate of this machine, you can click on the settings.
- c. **Maximum flow rate:** The maximum flow rate of this machine.
- d. **Current speed:** Change according to the set flow rate.
- e. **Pump tube use time:** record the length of use of the pump tube, in the setting can be set the life of the pump tube.
- f. **Start/Stop:** Pump Start Stop button.
- g. **Settings:** Click to enter the pump information settings and view the interface.

## Setting Up the Interface

In the list of planned channels, we can see the basic information of each pump operation:



- a. **Firmware version:** indicates which pump head, the name of the pump head is set in the settings module;
- b. **Device name:** device name, user can modify as needed;
- c. **Serial number:** device serial number;
- d. **Firmware Update:** If the device has a new firmware, you can click on the update here;
- e. **Pump tube settings:** set the life of the pump tube here and view the length of

use of the pump tube;

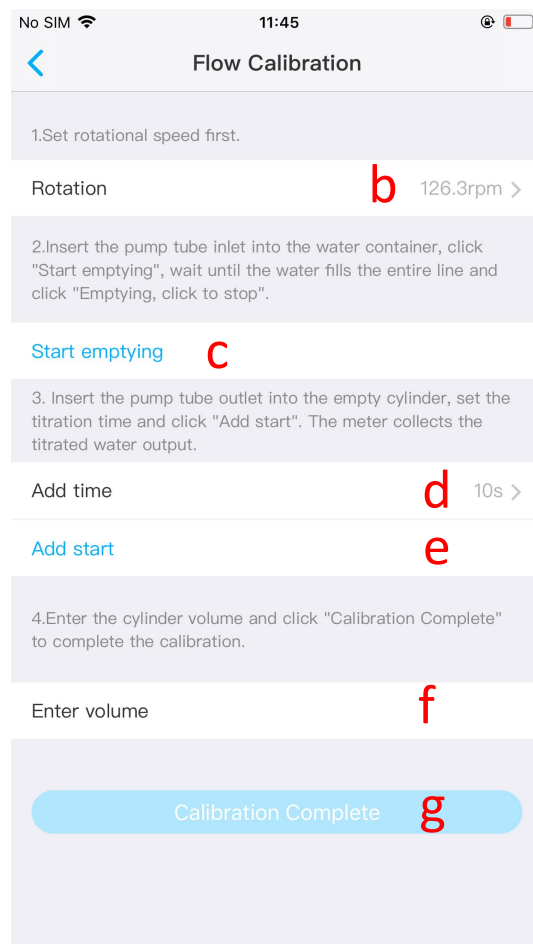
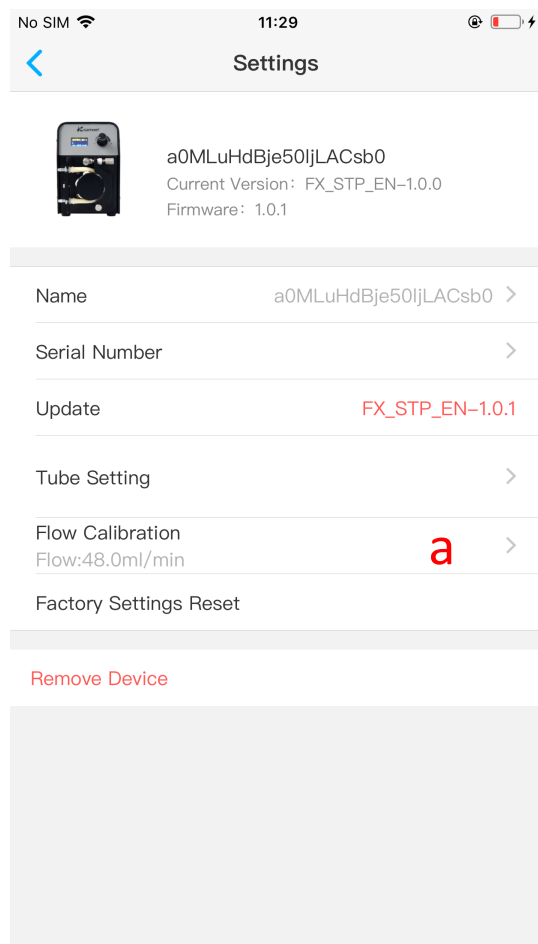
- f. **Flow calibration:** the flow calibration of the equipment is performed here;
- g. **Factory reset:** after clicking the device parameters restored to the factory default settings;
- h. **Delete devices:** Click untie the app and the device's binding.

## Flow Calibration

The purpose of calibration is to improve the accuracy of the added elements;

Click "Flow Rate Calibration" in the setup interface to enter the calibration pump head selection interface, select the pump head that needs to be calibrated, and enter the flow calibration interface.

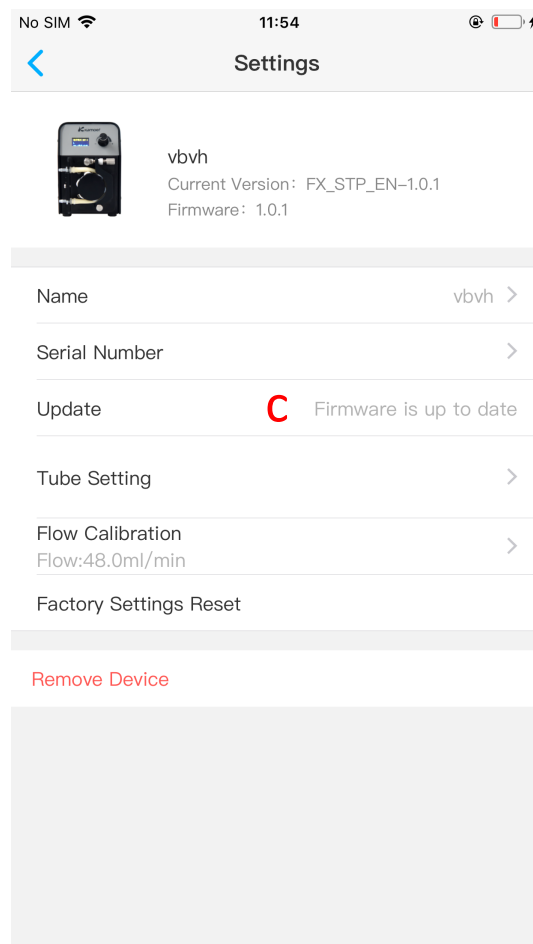
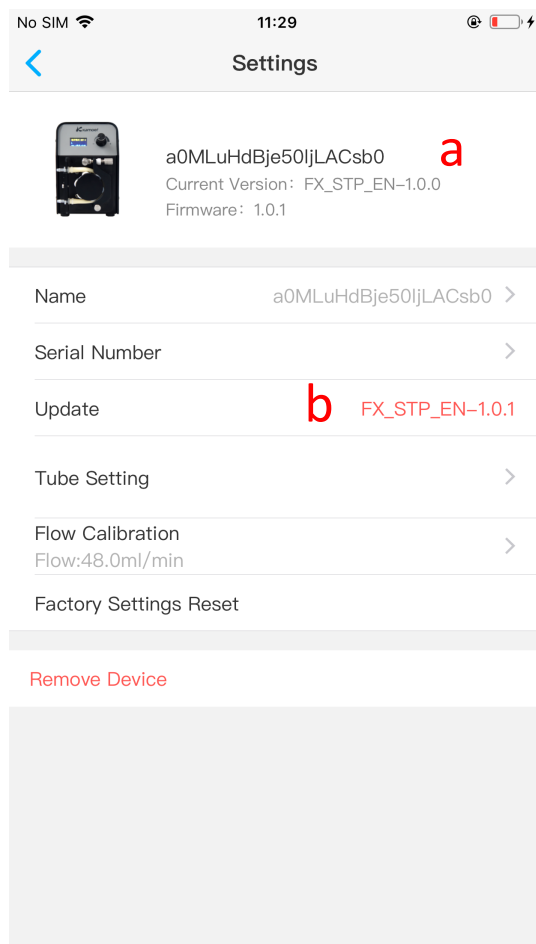
Calibration needs to use the barrel, the pump factory has been equipped with a 10ML measuring tube, taking into account the pump tube titration concentration is different, the degree of aging of the pump tube is different, the first use needs to be calibrated, suspected titration is not accurate when it is timely calibration.



- a. **Flow rate calibration:** click on the flow rate calibration in the setting s --coma interface, and bring out the flow rate calibration channel selection interface;
- b. **Speed setting:** set the speed of calibration;
- c. **Start emptying:** the purpose of emptying is to let the air in the pump tube drain, so that the accuracy of the rear calibration will not be affected;
- d. **Long drip timing:** set the running time of the pump during calibration;  
Before proceeding to the next step, make sure that the pump pipe inlet has been immersed in water, the pump pipe outlet is placed in the measuring tube;
- e. **Start titration:** click the titration button and the pump will stop after running the duration of the previous set;
- f. **Input volume:** after reading the volume of liquid in the barrel input, in ml;
- g. **Calibration complete:** Click the "Calibration complete" button to complete the flow calibration.

## Firmware Upgrades

When the pump's firmware program is updated, the user needs to upgrade the firmware to use.



- The current version of the firmware;**
- New version prompt:** If there is a new version, this will have a new version prompt;
- The status of the firmware update is completed:** the display status after the firmware update is completed;

The steps for the upgrade are as follows:

Enter the App settings interface, if found that a new version of the firmware appears, click b update button to update the firmware, this time do not do other operations, do not exit the app or re-enter the app, wait until the upgrade is complete, The upgrade is complete and the device-side screen is restarted.

After the device upgrade is complete, it can be performed normally, and if the upgrade

fails, repeat the upgrade step.

**Note:** You cannot power down during the upgrade and the app does not take any other action during the upgrade process.

**Attached**

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## Attached

### Technical Parameters

Dimensions (Lx W x H)	136x87x124 mm
Weight	1163g (No power adapter included)
Power Adapter	Input: 100VAC-240VAC Output: DC24V 1.9A
Titration Parameters	Pump Head:6 Rotor KCS Flow: <120ml/min Precision: <±2%
Interface	WiFi Rotating Encoder/WiFi
Working Environment	Temperatures 0 - 70 degrees C, humidity 10% - 90% (non-condensation)
Storage Environment	Temperature -20C - 85C, humidity 10% - 90% (non-condensation)

### After-sales Warranty Information

#### 1. Warranty Conditions

Warranty free service is limited to the user manual under normal use and maintenance is effective, all person for failure or damage is not covered by the warranty. Users please take good care of the purchase of machine invoices, user manuals, so that you can get satisfactory after-sales service in a timely manner.

#### 2. Warranty Coverage

Within one year from the date of purchase, the Company will provide free warranty service in the event of any damage caused by manufacturing processes or components. Free repair services provided during the warranty period include free repairs, free and replacement of faulty spare parts, and products that cannot be repaired are replaced



with the same model (the model has been discontinued, with a similar model). The free service does not include the cost of shipping the product as a result of the repair.

### **3. Non-warranty Coverage**

The following factors are not covered by the free warranty and customer repairs are subject to a fee

1) Appearance of the product (please confirm at the time of purchase);

Improper use, maintenance or storage (use, maintain and keep properly in accordance with the user manual);

2) Inadequate power supply;

3) All kinds of insects into the machine and cause the circuit board short caused by the damage of components;

4) Loss caused by accident;

5) Use of inappropriate spare parts (non-company spare parts not applicable);

6) Non-authorized personnel negligence handling, modification or repair (Please don't dismantle and decorate without permission.);

7) Failure or damage caused by use outside the applicable setting;

8) Damage caused by force majeure, etc.

9) Consumable consumables (e.g. pH electrode, ORP electrode, etc.);

10) The warranty period expires.

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