KXP 100

Stepper Micropump

Quick Start Guide

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Kamoer Fluid Tech (Shanghai) Co., Ltd.

www.kamoer.com

FCC warning

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

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.

Warranty service

1. Warranty Conditions

The warranty service is only valid for users who have correctly installed, used and maintained in accordance with the manual, and all man-made faults or damages are not covered by the warranty. Please keep the proof of purchase in a safe place so that you can obtain satisfactory after-sales service in a timely manner.

2. Warranty coverage

Within one year from the date of purchase, if there is any damage caused by the manufacturing process or components, the company will provide free warranty service. The free maintenance service provided during the warranty period includes free repair, free replacement of faulty spare parts, and replacement of products that cannot be repaired with products of the same model. Free service does not include shipping costs incurred for product repairs.

3. Non-warranty coverage

The following factors are not covered by the free warranty, and customer repairs are subject to fees.

1) Product appearance (please confirm when purchasing);

2) Improper use, maintenance, or storage (please use, maintain and store correctly according to the user manual);

3) Access to inappropriate power supply;

4) Damage to the components caused by the short circuit of the circuit board caused by the entry of various insects into the machine;

5) Losses caused by accidents;

6) Use inappropriate spare parts (non-company spare parts are not applicable);

7) Persons not authorized by the company negligently handle, modify or repair (please do not dismantle or repair without authorization);

8) Failure or damage caused by use outside the applicable occasion;

9) Damage caused by force majeure, etc.;

10) Consumable and wearing parts (pump tube, connector, connecting tube, etc.);

11) The warranty period has expired.

Know KXP 100

KXP 100 is a stepping peristaltic pump with low flow and high precision. It has the advantages of high precision, screen display, low noise, maintenance free and so on. This product can be operated by buttons and knobs or remotely controlled by mobile phone through Wi-Fi. It is mainly used in liquid laboratory, marine biological culture and other scenes which need high precision peristaltic pump.

1.Display	2.Adjustment Knob	
3.Inlet	4.Outlet	5.DC 24V

Unpacking Preparation

Before opening the packing box, check whether the package is damaged during transportation. After opening the packing box, refer to the packing list in the appendix to confirm that there are no missing parts and check whether there are visible damages. If any defects are found in the process of unpacking, please contact the manufacturer immediately.

Local Control

● **Device menu description**

When the device is stopped, rotate the button to enter the device menu page. Users can use the knob to switch between different options. When the cursor is on an option, press the button to enter the interface corresponding to the option

Manual: Enter manual mode;

Auto: Enter automatic mode;
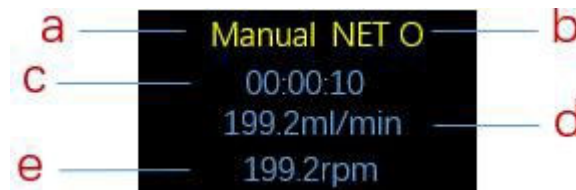
Calibration: Enter the calibration page;

Wi-Fi: Click to enter the device's network distribution function interface. For specific operations, please refer to the App network distribution chapter;

Language: Enter the language change interface;

Set: Display the serial number of the device and the interface for restoring factory settings.

Restart: Enter the restart record interface, you can set whether the pump will record after restart and restore the running state before restart.

● **Manual working mode**

a. Working mode display: the functional position of the display interface is manual;

b. Network connection status display:

NET O: indicates that the network connection is normal, and the device can be connected through the App at this time;
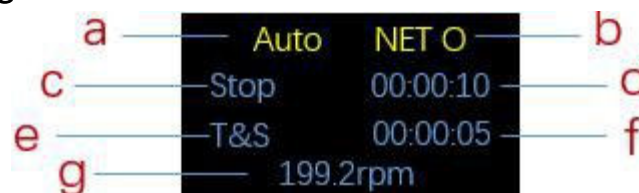
NET S: indicates that the device is in the state of network distribution, and the user needs to complete the network configuration before it can connect to the network normally;

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;
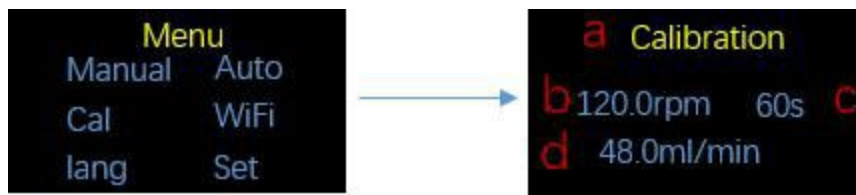
4

c. Running time display: press the knob, the device starts to work, the running time is recorded at the bottom of the screen, and * is displayed on the right side of the time;

d. Flow rate display: the flow rate and speed of the device are running. When the device is running, the flow rate and speed can be adjusted by adjusting the knob;

e. Rotation speed display: display the rotation speed of the device. When the device is running, you can adjust the rotation speed by adjusting the knob.

● **Automatic working mode**

a. Working mode: the functional position of the display interface is automatic;

b. Network connection status display:

NET O: indicates that the network connection is normal, and the device can be connected through the App at this time;

NET S: indicates that the device is in the state of network distribution, and the user needs to complete the network configuration before it can connect to the network normally;

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;

c. Start and stop display: press the knob, the device starts to work, at this time the state is "start", press the knob again, the device stops working, and the state is "stop"

d. Running time: display the running time or volume of the device in the current working mode;

Operation mode display: the operation mode of the equipment operation, "L & V" is the volume circulation mode, "T & S" is the time circulation mode;

e. Interval duration display: the interval duration of each cycle;

g. Rotation / flow rate display: "T & S" mode is the speed set for the current cycle; "L & V" mode is the speed set for the current cycle.
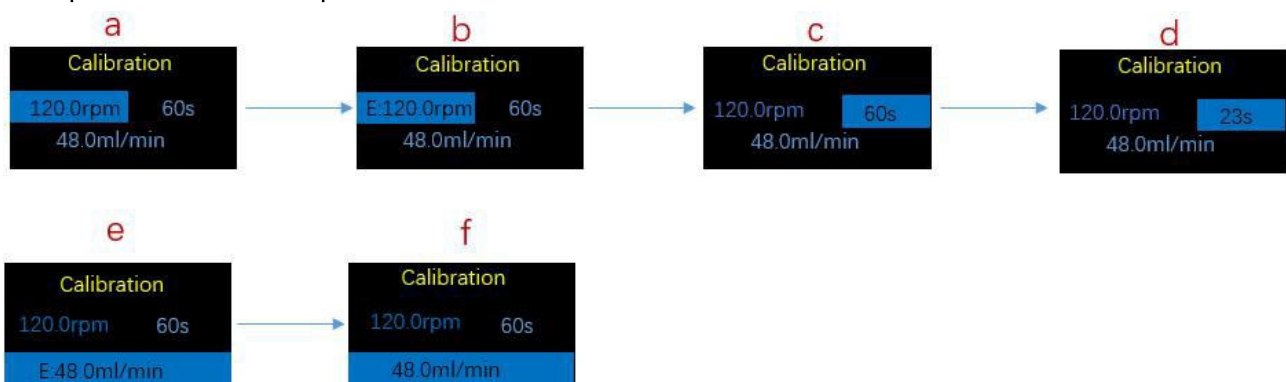
● **Calibration**

a. calibrate: the title bar of the interface, when the cursor is on the title bar, press the button, the device returns to the upper interface;

b. Rotation speed: set the rotation speed during calibration, you can rotate the cursor to the rotation speed by rotating the button, press the button to enter the edit mode, adjust the rotation speed by rotating the button, press the knob again to exit the speed editing mode;

c. Calibration time: the calibration time is fixed at 60 seconds. When the cursor is on the calibration time, press the button to start the calibration. When the 60-second countdown is completed, the user enters the obtained liquid volume into the device to complete the calibration;

d. Flow rate: the flow rate corresponding to the current speed. When the calibration is completed, the user enters the obtained liquid volume to complete the calibration.

The specific calibration process is as follows:

Prepare a graduated cylinder, put the outlet pipe of the equipment into the graduated cylinder, put the water into the water inlet, prepare for calibration;

a. Rotate the button to move the cursor to the speed selection item;

b. Press the button to enter the edit mode, rotate the button to adjust the speed, press the button again after editing to save and exit the edit mode;

c. Rotate the button to the calibration duration item, and press the button to start;

d. Wait for the calibration countdown to finish;

e. When the calibration countdown is completed, enter the calibration result state, enter the volume of the liquid in the measuring cylinder into the interface through the rotary button, press the button to complete the input,

6

f. Press the button again to complete the input.

● **Other**

a. Screen lock state: If the user does not operate the device for a long time, the device screen will enter the screen saver state. Under the screen saver state, an L letter will be displayed on the screen, and it will be dynamically displayed line by line from top to bottom. When using the knob to operate the device, you need to unlock the screen to operate, press the knob to unlock the screen.

b. App control: The interface displayed when the phone is in App control. When the interface is in App control, the knob cannot control the device.

App Control

● **Download the app**

1. Scan the box or the QR Code below to find the application download with the following icon.

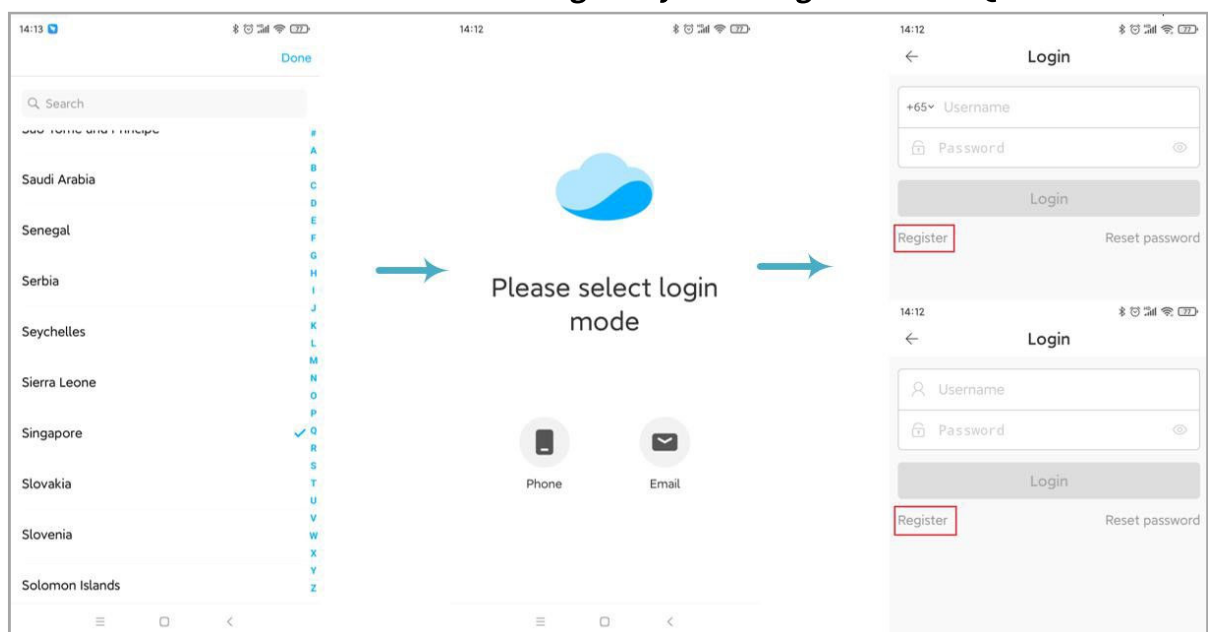iOS   Android

2. Apple users enter the App Store application store, Android users enter the Google Play application store, search for "Kamoer Remote", find the application download corresponding to the icon.

Note: This App supports Apple devices with iOS9.1 and above, and Android devices with Android4.4 and above.
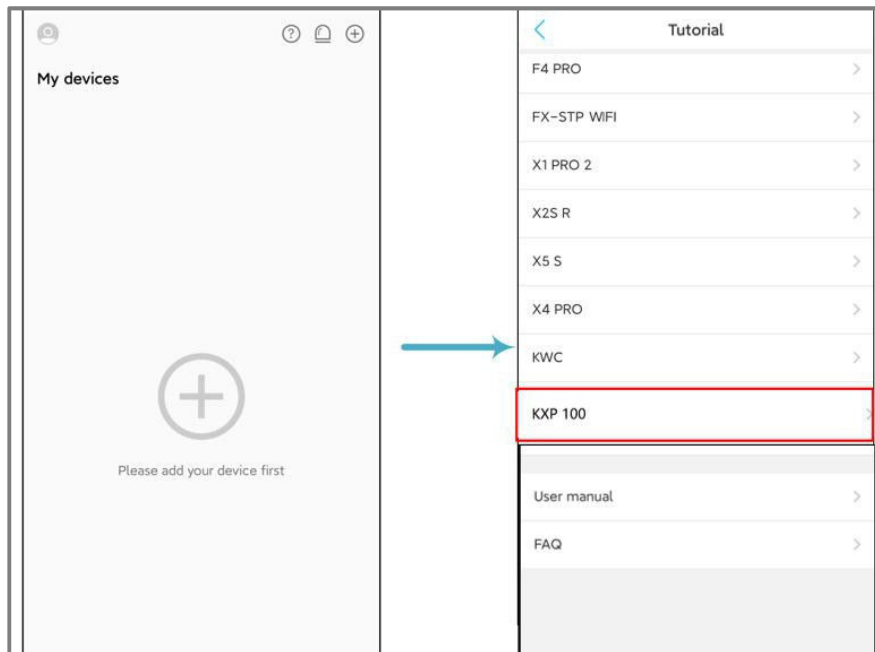
● **Register account**

Open the App, select the phone registration or email registration method, and follow the App guidelines to complete the account registration.

Note: region selection is very important, and selection errors will cause network allocation. It is recommended to select the region by scanning the device QR code.
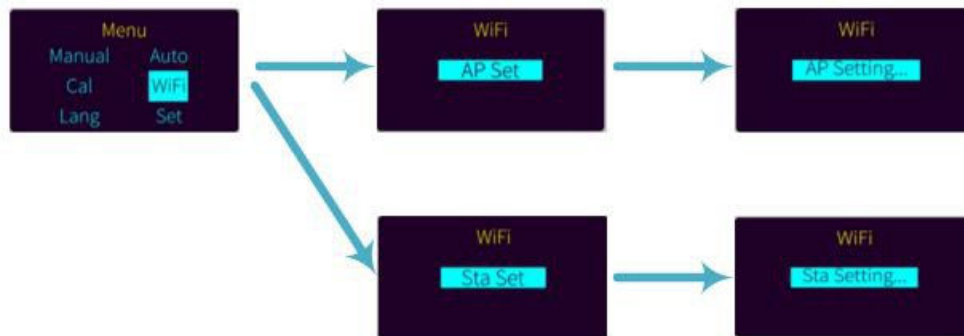

8

- **View the Tutorial**

On the device list page, click the "?" icon in the upper right corner to enter the "Tutorial" page, and select "KXP 100" to view the tutorial. The tutorial includes the user manual and frequently asked questions.

- **Connect the Device to The Cloud**

This device supports knob operation and remote control by mobile phone App. If you want to control by mobile phone app, you need to configure the device to connect to Wi-Fi network first.

The wireless router has been connected to the Internet, and the mobile phone is connected to the 2.4G Wi-Fi hotspot of the wireless router (the device does not support 5G Wi-Fi and cannot use 5G Wi Fi hotspot).

Open the Kamoer Remote App, log in with the registered account, click the "+" icon in the upper right corner, select "Add device", and select "KXP 100" in the list of supported devices to add.

After inputting the Wi-Fi password, select the device as shown in the figure above by operating the device knob to make the device enter the network configuration state, and complete the network configuration according to the interface prompt.

If select configure network by router, the device will display Sta Setting, and switch to By Router in the upper right corner of the corresponding mobile App interface. Click the ""Sat Setting..."is on display" button to enter the configure network by router. Wait for the network configuration to complete.

If you select configure network by AP, the device will display AP Setting, select Connect by AP in the App interface of the corresponding mobile phone, and click the ""AP Setting..."is on display" button to enter configure network by AP. Complete the network configuration according to the interface prompt.

After the connection is successful, the App will prompt that the connection is successful. At this time, the device will return to the home page, and net o will be displayed in the upper right corner, which means that the device has been connected to the cloud. At this time, the user has also completed the binding of App and device.

- **Unbind**

Long press the device icon on the device list page, click the "Delete" icon at the bottom to unbind the device.

10

Note

- Please use the product's own power adapter and work in the specified working environment.
- This product only supports 2.4G Wi-Fi, not 5G Wi-Fi.
- The equipment should be placed in a reasonable position to ensure that the height difference between the liquid inlet and the liquid outlet is within 0.5 meters.
- The connecting pipe for liquid inlet should be as short as possible, and the connecting pipe for liquid outlet should be suspended above the tank.
- Please carefully check whether the connection direction of the liquid inlet and liquid outlet is correct, and must not be reversed

Technical Parameters

Dimensions (L* W * H)	93*99.3*107.2 mm
Weight	534g (power adapter is not included)
Power Adapter	Input: 100VAC -240VAC Output: DC24V 1.9A
Pump Parameter	Pump Head: KPAS100 Flow: <=110 ml/min Precision: <±2%
Interface	Adjustment knob/Wi-Fi
Working Environment	Temperatures: 0 - 70 ° C Humidity: 10% - 90% (non-condensation)
Storage Environment	Temperature: -20°C – 85°C Humidity: 10% - 90% (non-condensation)

Packing List

No	Name	Model	Unit	Qty
01	Controller	KXP 100	pcs	1
02	Power adapter body	DC24V 1.9A	pcs	1
03	Power adapter plug	□US □UK □EU □AU	pcs	1
04	Connecting tube	Silica Gel	meter	2
05	Grease	FT-2;10g	pcs	1
06	Quick Start Guide	English	pcs	1

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