

UIOT/QR4120

# Manual for Intelligent Roller Shade Motor

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File Identification:	UIOT-YFB-DETAILDOC
Application Division:	R&D Department
Storage Life:	

## Record for revision of document

Date	Version	Description	Editor	Approver
01/01/2019	V1.0.0	First edition	Zhang Haoyu	
14/01/2019	V1.1.0	1. The host is changed to the smart server in the network access instructions  2. Steps 6 and 7 of the network access instructions are modified  3. The figure in step 7 of the network access instructions is replaced	Zhao Xiaojuan	

# Intelligent Roller Shade Motor

# **1 Product Functions**

## **1.1. Description**

### **1. Network Access to Zigbee**

First of all, make sure that the home smart server allows access to the network and the device is within an effective communication distance, and then operate the device to access the network. After successfully accessing the network, the device is displayed in the APP. At this time, you can operate the device via the APP.

### **2. Settings for stopping at any point**

The device can set the stop point through the method of operation setting.

### **3. Strong current control**

The motor can be controlled by a strong current controller.

### **4. Intelligence constant speed**

The motor can keep constant speed during normal operation and will not be affected by the weight of curtain.

### **5. Direction Changing Settings**

When the opening and closing direction of the curtain is different from the expected direction, you can adjust it through this function.

### **6. Factory Reset**

All functions of the motor can be reset to the factory default state by factory reset function after abnormal conditions or chaotic settings of the motor.

## **1.2. Specific Operating Mode of Functions**

1. Power on: The buzzer will sound. If the new version of the protocol has been accessed to the network, the buzzer will sound once and then sound three times (in random time).

2. Access to network: Long press the settings button for about 3 seconds until you hear the buzzer, then release it. If the new version

of the protocol has been successfully accessed to the network, the buzzer will sound three times. If the older version of the protocol has been successfully accessed to the network, the buzzer will sound three times. If the access to network failed, the buzzer sounded 10 times in quick succession.

3. Exit the network: Long press the settings button for 6-8 seconds until you hear the buzzer, then release it. If the exit of network succeeds, the buzzer will sound long. A moment later, the buzzer will sound again.

4. Match Code: Press the settings button three times, the buzzer will sound three times, and the motor will go down three times to enter the setting state; then press the up direction key on the remote control, the buzzer will sound three times and the motor will go up three times, and the code is successfully matched. If there is no operation within 10 seconds, the device will automatically exit the setting state.

5. Clear Code: First let the motor enter the setting state (operation is same as above); then press the setting button three times, the buzzer will sound three times, then the motor will go up three times, after the pause for a while, the buzzer will sound again. At this time, you can clear the code successfully and restart the system. If there is no operation within 10 seconds, the device will automatically exit the setting state.

6. Change the direction: First let the motor enter the setting state (operation is same as above); then press the down direction key of the remote control or the settings button, the buzzer will sound three times and the motor will go up three times, and the direction will be changed successfully. If there is no operation within 10 seconds, the device will automatically exit the setting state.

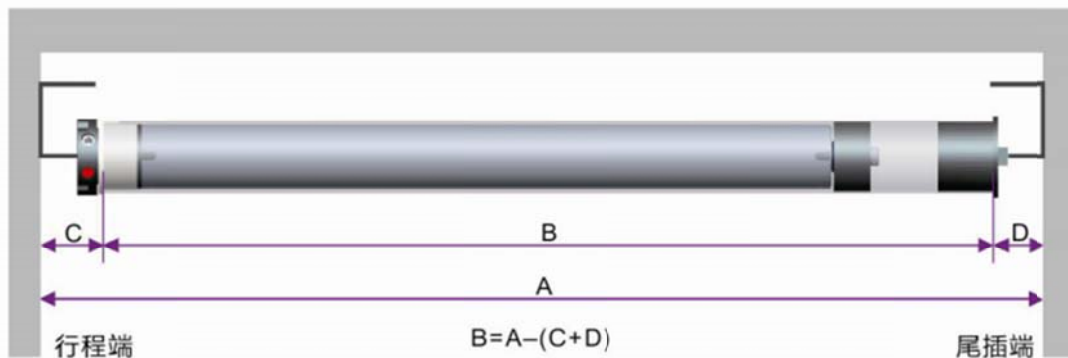
7. Operation setting: Press the setting button four times, after the buzzer sounds three times, and then press the setting button, the motor will automatically go up; After the motor goes to the appropriate position, and then press the setting button, the motor will go down; then press the setting button again when the motor goes to the appropriate position, and the motor stops at this position and the buzzer will sound once. The endpoints of the two movements up and down are set for process of operation.

## 2 Product Structure

## 3 Installation Steps

### 3.1. Coil preparation

1. Prepare the coil according to the length of B and you need to take into account the total width of A, the thickness C of the clearance of motor top including the top of the motor and the motor bracket and the thickness D of the clearance of motor end including the end plate and the end bracket. (refer to figure 1)

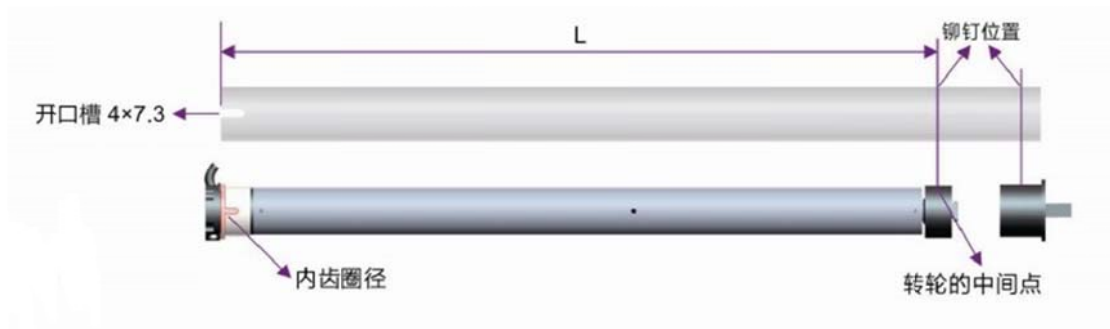


行程端 The Top(Process):

尾插端 The End(End Plug):

2. When using slotless circular tube, you need to measure the position of the running wheel pin of the drive tube (L) and also drill two M4 countersunk head screw holes symmetrically in the pin of the drive tube. Meanwhile, you need to drill two M4 countersunk head screw holes in the appropriate position symmetrically to fix the drive tube and the end plug. (refer to figure 2)

3. Under the premise of using slotless circular tube without crown, a slot should be punched at the other end of the drive tube, so that the drive tube slot is stuck into the inner gear ring diameter. The size of the open slot is determined by the diameter of the inner gear ring of different motor. (refer to figure 2)



开口槽 Open slot      内齿圈径 Inner gear ring diameter      铆钉位置 Rivet position  
 转轮的中间点 Middle point of the running wheel

4. Octagonal tube and slot tube don't need the pin.

5. Clear the drive tube inside burr so as not to affect installation.

### 3.2. Assembly Diagram of Parts

Installation steps:

Put the crown into the motor so that it can be used with the inner gear sleeve. Install the running wheel and the spring. (refer to figure 3)



内齿圈：inner gear ring  
 卡簧：spring

皇冠：crown

转轮：running wheel

Assemble the drive tube and end plug. (refer to figure 4)



传动管：drive tube

尾插：end plug

Assemble the top of the motor to the motor bracket, and install the end plug to the end plug bracket. (refer to figure 5)



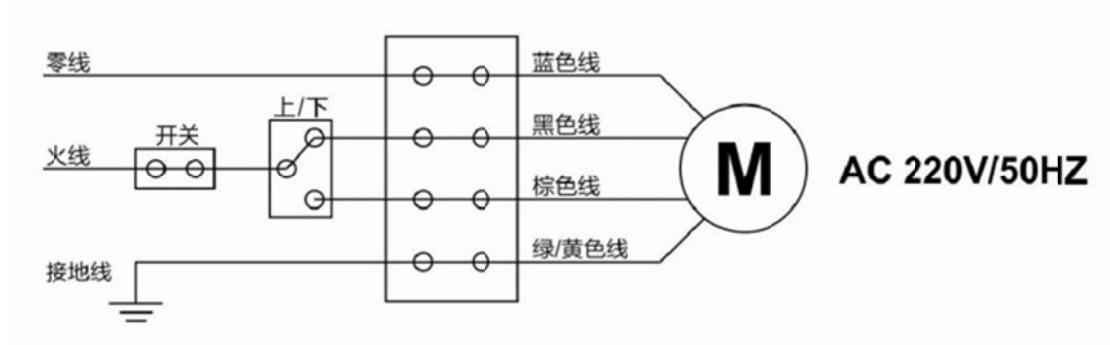
墙体支架 wall bracket

马达支架 motor bracket

尾插支架 end plug bracket

注意：请勿在皇冠和内齿套上打螺丝 ATTENTION: DO NOT screw the crown and inner gear sleeve

### 3.3. Schematic Diagram and Wiring Method

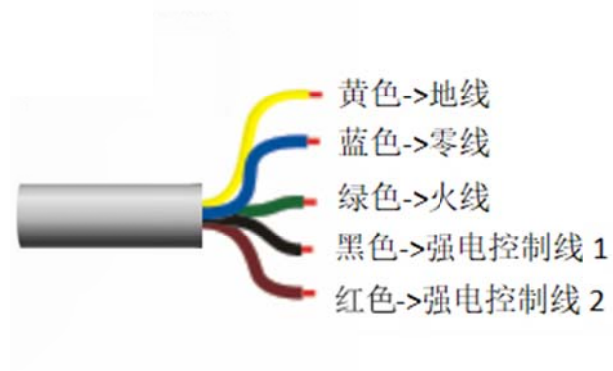


零线 null line      火线 firewire      接地线 ground wire      开关 switch

上/下 up/down      蓝色线 blue wire      黑色线 black wire      棕色线 brown wire

绿/黄色线 green/yellow wire

#### Wiring Diagram:



黄色-地线 Yellow – ground wire      蓝色-零线 Blue - null line      绿色-火线 Green - firewire

黑色-强电控制线 1 Black - strong current control wire 1      红色-强电控制线 2 Red - strong current control wire 2

## 4 Network Access Instructions

### 4.1. Network Access Instructions

1. After the normal power supply of the device, connect the device to the smart server, register and log in the APP "Smart Home". As shown below: click "About me" in the area shown by the arrow in the lower right corner.

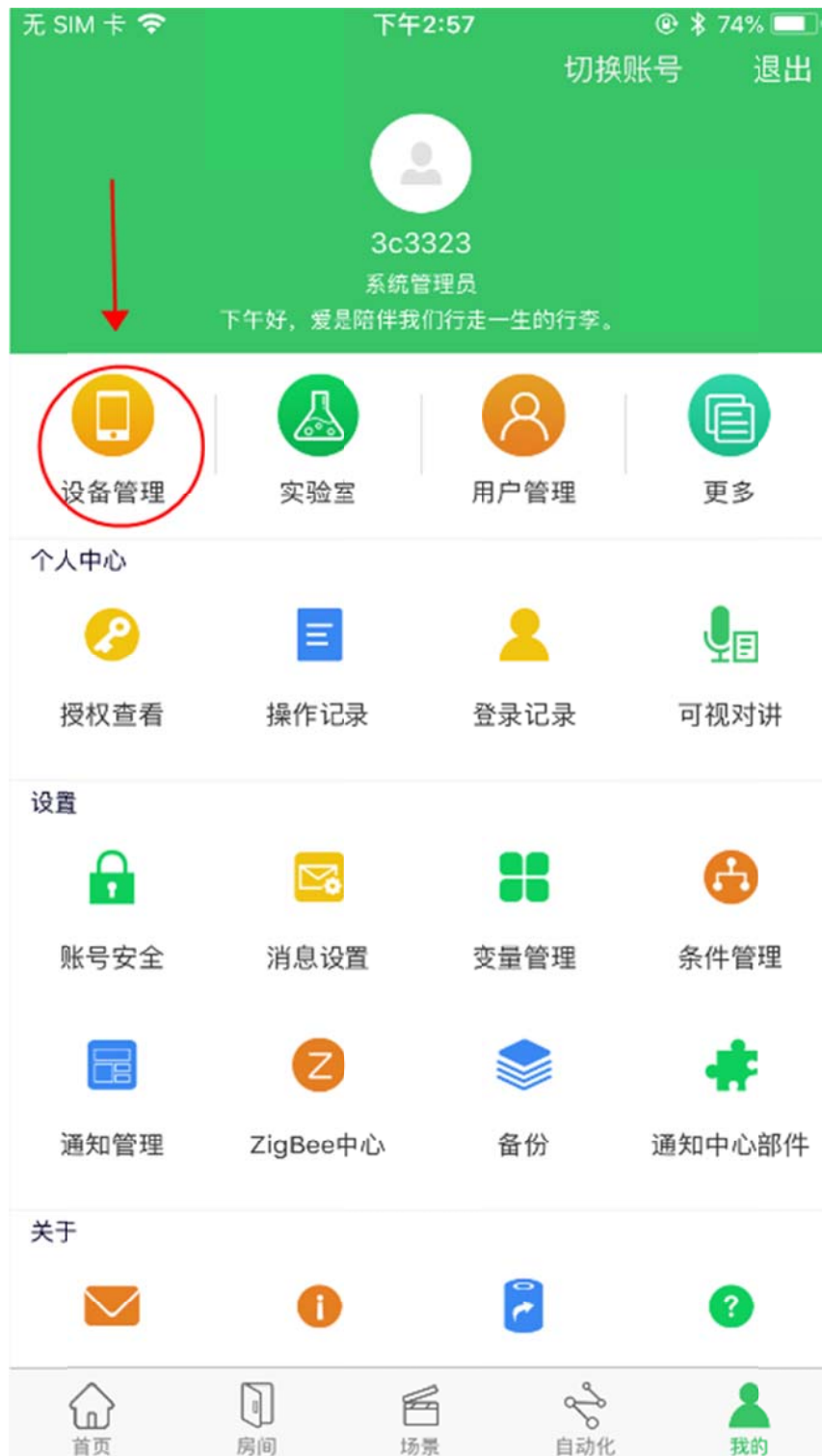


您还未给首页添加数据哦



2. Enter the interface shown below and click "Device Management" in the area shown by the red arrow in the upper left corner of the interface.





3. Enter the device management interface shown below and click the "+" shown by the red arrow in the upper right corner of the interface to add the device.



4. After entering the device type selection interface, find the "Door and Window" shown by the red arrow in the figure below and click to enter the next step.



5. In the "device type selection" interface, find the "intelligent roller shade motor" icon marked in the figure below and click to enter the next step.

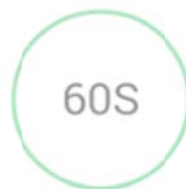


- After clicking, enter the "add intelligent roller shade motor" interface as shown in the figure below, and connect to the network according to the interface prompt; Before the device is connected to the network, a room must be created. After the device is connected to the network, the device can be put into the room that

has been created, and the device can be named for convenient operation and management.



接通电源，轻点图示按钮后松手



7. After the room is created, you can find the room you created and the device after the access to network in the room as shown in the following figure.  
You can turn on, pause and turn off the motor in the room.

< 设备 场景 + :

办公室 系统实验室 摄像头 茶水间 研



撤防



测试间智能门磁

撤防

撤防



智能卷帘电机

打开百分比100%



打开



暂停



关闭



测试间灯

开灯



开灯



关灯



可视对讲

可用

# 5 Instructions

## 5.1. Instructions

1. After the device is connected to the network, you can control the turning on, pause and turning off of the motor in the APP, or manually drag the button to control the percentage of curtain opening.



2. Click the upper right button on the device control interface to view more functions:





### 5.1.1. Device Details

Click “device details” to view device details:

- (1) Device information: device name, room to belong, control mode
- (2) Status: online/offline
- (3) Signal strength: the signal strength of the product

- (4) Power supply mode: the power supply mode of the product
- (5) Software version: software version information of the product
- (6) Hardware version: hardware version information for the product
- (7) Address: product identification number

1 KB/s VoLTE 15:27 67%	
智能卷帘电机	
设备信息	
状态	在线
信号强度	
供电方式	电源
软件版本	V3.51
硬件版本	V5.1
地址	d08d887c

### 5.1.2. Device Settings

You can set the direction and speed of the movement of the device.  
E.X.: Set the movement direction of the device: Forward



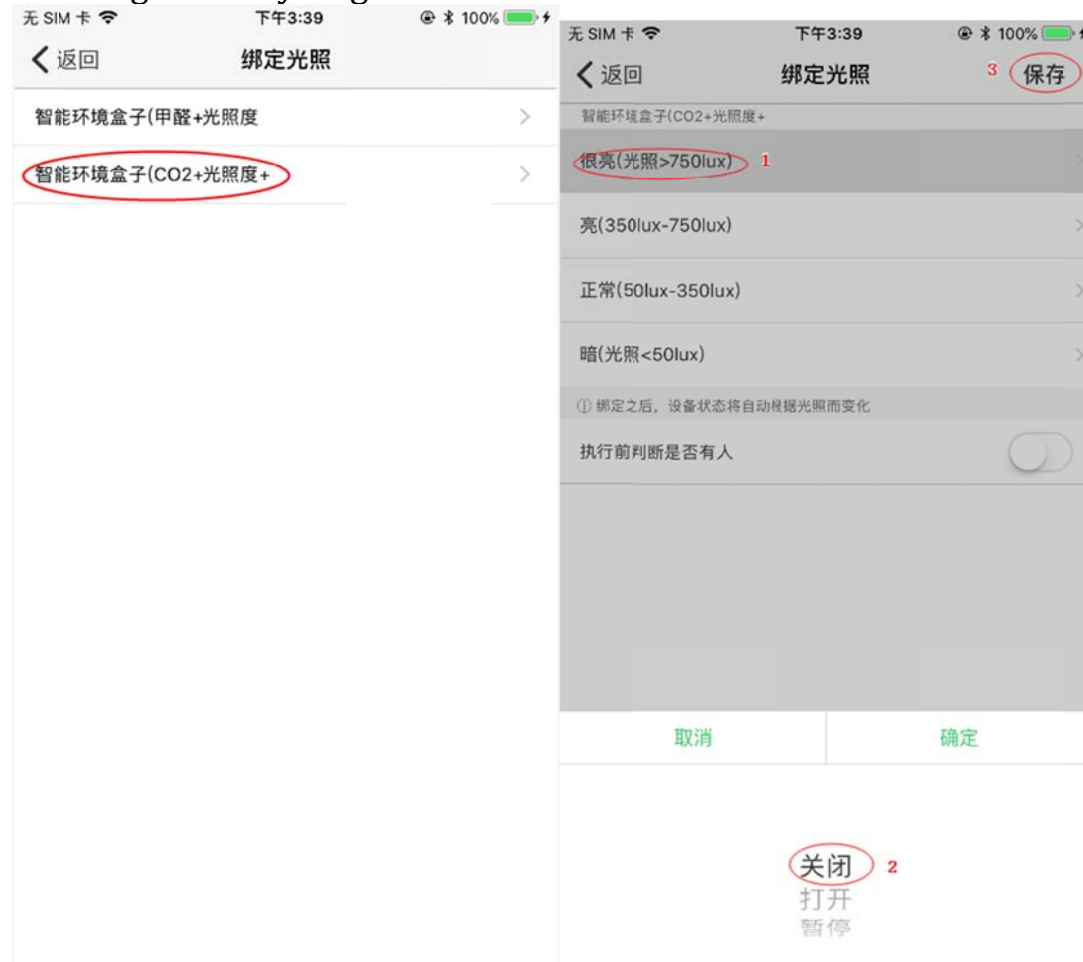
反向  
正向

### 5.1.3. Bind light brightness

Once you bind the light brightness, you can let the motor operate according to the action you specified based on the brightness of the light.

E.X.: The light in the home is too strong, setting binding light brightness can make the curtain close automatically. Steps are as follows.

Bind light brightness - click the smart air box - close the curtain when light is very bright



#### 5.1.4. Timing Tasks

Timing tasks allow the device to execute one action for a certain amount of time before executing another action.

E.X.: Set a timing task: "open" for 30min and "close". After opening curtain through the manual or remote control, the curtain will automatically close after 30min.

You can allow the task execution notification, set the content of the notification and notify the user. It will notify the user when the timing task is executed.

无 SIM 卡

下午2:02

74%

< 返回

计时任务

保存



如果设置开始动作



就执行结束动作



并且设置一个时间

设置开始动作



设置时间

0min >

设置结束动作



任务执行通知



通知内容



通知用户



语音播报



① 打开语音播报后，云音箱将语音为您播报通知内容

5.1.5. Focus

By focusing on the device, you can know how other users control the device.

E.X.: Parents can monitor their child's operation and receive notifications on their phones when the child controls the device.

无 SIM 卡 下午2:26 77%		
< 返回	关注	保存
182-9586	女儿	<input checked="" type="radio"/>
176-0392	备注	<input type="radio"/>
150-4750	备注	<input type="radio"/>
6-3	备注	<input type="radio"/>
171-5918	备注	<input type="radio"/>
系统控制		<input type="radio"/>

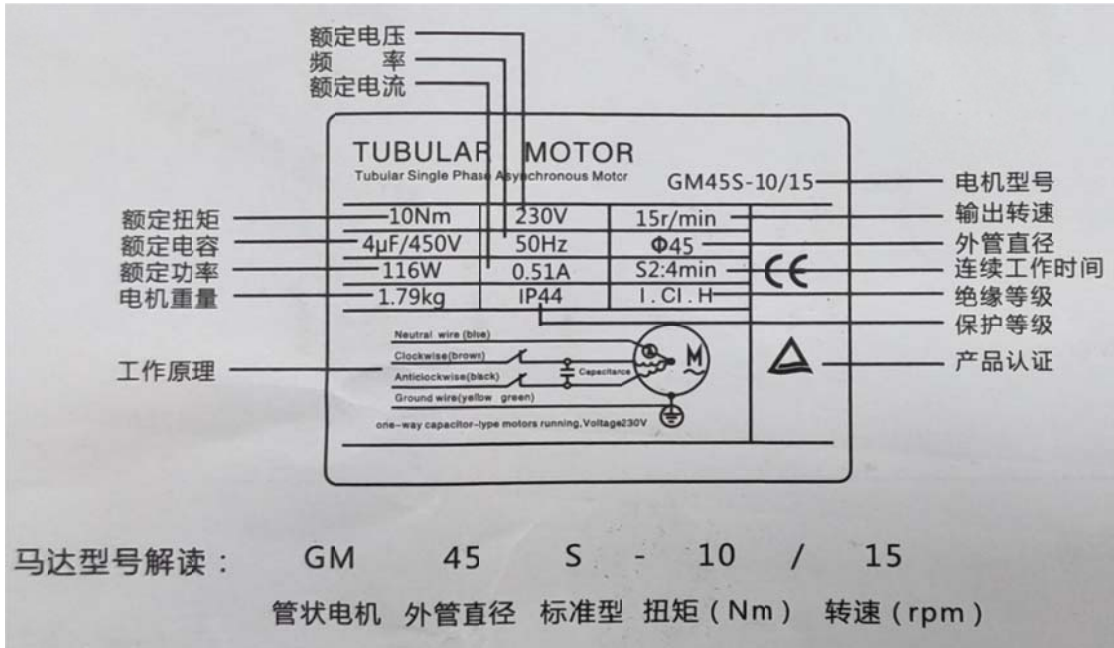
5.1.6. Operation Record

In this interface, you can view the record of the operation of the device.



# 6 Product Parameters

## 6.1. Product Parameters



额定扭矩 rated torque      额定电容 rated capacitance      额定功率 rated power  
电机重量 motor weight      工作原理 operating principle  
额定电压 rated voltage      频率 frequency      额定电流 rated current  
电机型号 motor model      输出转速 output revolving speed  
外管直径 outside tube diameter      连续工作时间 continuous operating hours  
绝缘等级 insulation grade      保护等级 protection grade      产品认证 product certification  
马达型号解读 Motor model interpretation      管状电机 tubular motor      外管直径 outside tube diameter  
标准型 standard      扭矩 torque      转速 revolving speed

# 7 FAQ

## 7.1. Common Troubleshooting Methods

NO.	PROBLEMS	CAUSES	SOLUTIONS
1	Press the controller up button, but the roller shade runs downward	Controller internal wiring error	Switch the black and brown wires positions of the single outgoing line



2	When the motor is powered on, it can only operate in one direction	The process switch in the motor isn't turned on	Rotate the crown 1 to 2 times in the opposite direction of current operation
3	After the motor is connected to the power supply, the motor doesn't operate or starts slowly	<ol style="list-style-type: none"> <li>1. The power supply is inconsistent with the rated voltage of the motor</li> <li>2. Overload</li> <li>3. Improper assembly of parts leads to motor failure</li> <li>4. The two process switches in the motor are not turned on</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the motor matching the power supply voltage</li> <li>2. Replace the motor matching the load</li> <li>3. Check whether all parts are assembled correctly</li> <li>4. Rotate the crown 1 to 2 times in any direction</li> </ol>
4	The motor stopped suddenly while it was operating	<ol style="list-style-type: none"> <li>1. The motor has entered the overheat protection state</li> <li>2. Power outage</li> <li>3. Motor has reached the set destination</li> </ol>	<ol style="list-style-type: none"> <li>1. After the motor is cooled for about 20 minutes, it will automatically return to normal operating state</li> <li>2. Switch on the power and return to normal operation</li> <li>3. Adjust the process button as needed</li> </ol>
5	There is abnormal sound when operating	The drive tube is too long resulting in too tight brackets at both ends	If the end plug is movable, cut the outside tube appropriately short

## 8 Precautions

### 8.1. Precautions for use

1. Prevent water from seeping into the motor;
2. Prevent rainwater from seeping into the motor along the wire;
3. DO NOT strike the motor and outside tube;
4. DO NOT contact with corrosive chemicals
5. Often unnecessarily turning on the motor or loading it will shorten the motor life;

6. Keep properly the nameplate of the motor.

Note: The contents of this manual and specifications of this product are subject to change without prior notice.

### **RF exposure statement**

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

This equipment meets the exemption from the routine evaluation limits in section 2.5 of RSS-102. It should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

### **IC WARNING**

This device contains licence-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## **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.

NOTE 1: This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment 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 equipment and receiver.
- Connect the equipment 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.