

# Non Spring-Balanced Roller Door Operator

## USER'S MANUAL

### **WARNING!**

**ONLY QUALIFIED AND EXPERIENCED TECHNICIANS SHOULD ATTEMPT INSTALLATION OR SERVICE TO THIS UNIT, OTHERWISE, SERIOUS PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE MAY OCCUR.**

**PLEASE KEEP THESE INSTRUCTIONS FOR FURTHER REFERENCE.**



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## 1. Important safety information

Carefully read and follow all safety precaution and warnings before attempting to install and use rolling door operator, incorrect installation can lead to severe injury.

- The rolling door operator should be installed by a qualified technician; otherwise, serious personal injury or property damage may occur.
- Locate controller: within sight of door but away from all moving parts of the door and at a height of more than 1.5m above the ground to avoid children reaching it.
- Do not use an extension cord between motor and controller.
- Notify the users that the door operator is never to be operated unless it is in full view.
- Keep remote controls away from children, to prevent the door from being activated involuntarily.
- Before any job on the door operator, cut out electrical power.
- DO NOT in any way modify the components of the rolling door operator, otherwise serious personal injury or property damage may occur. We do not accept responsibility for damage or injury resulting from installing this door operator.
- When opening or closing the door, do not attempt to walk or drive through the door.
- The rolling door operator must be grounded.
- DO NOT pull the hand chain or release lever during opening or closing the door.
- Normally, DO NOT close the door by pulling the release lever. otherwise, serious personal injury or property damage may occur. (It's only an emergency mode)
- Regularly check the rolling door operator. If you have any problem, please contact our sales agent.
- Our company reserves the right to change the design and specification without prior notification.

## 2. Main technical parameters

Table 1

Model	Input power (V)	Motor power (W)	Output torque(N.m)	Rotate speed (r/min)	Max. operating range (high :m)	Roll (inch)	Chain (ANSI standard)
KJ300-E	240V/50Hz	275	168	5.5	6	4"	10A(50)
KJ600-E	240V/50Hz	330	412	5.3	6	5"	10A(50)
KJ800-E	240V/50Hz	550	647	4	9	6"	10A(50)
KJ1000-E	240V/50Hz	550	809	3.5	9	6"	12A(60)
Note: the 'Max. lift' listed above is not the max. door weight, and the door weight should less than 'Max. lift'. Wind load resistance, guide and door resistance and other factors must be taken into account							

## 3. Introduction

### Main features

- Compact design, attractive appearance, safe and reliable performance.
- It has the advantages of light weight, low noise, convenient to install, safe and reliable performance.
- Electronic Limit Controller, stop the gate accurately.

- Adjust the limit position by controller, simple and reliable.
- Manual operation in case of power failure.

Main structure (see Fig.1)

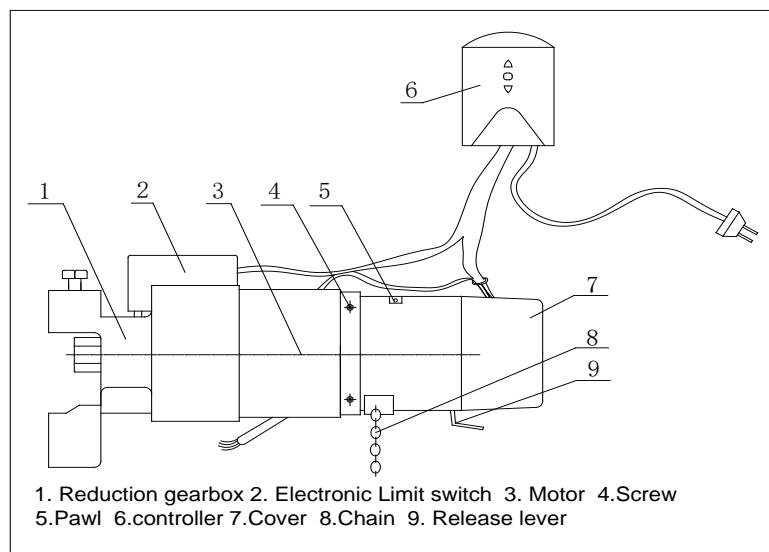


Fig.1

#### 4. Installation and adjustment

##### Right hand and left hand installation

You may install the rolling door operator to left or right side. Operator is normally delivered right hand. (View from inside the opening), If you need to change it to the left proceed as follows: undo the four screws on the housing, then turn the upper housing 180° and ensure the chain hangs vertically, finally tighten the screws. Make sure there is no clearance between upper housing and lower housing. If the operator has pawl, turn the pawl 180° at the same time.

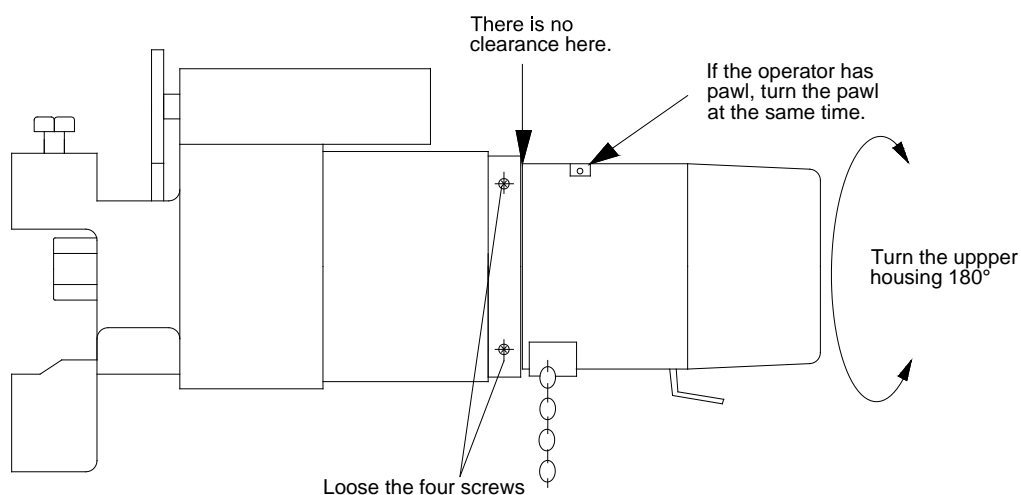


Fig.2

# Install the rolling door operator to right side.

## Right side sprocket bracket

Install the sprocket bracket on the wall or wall bracket horizontally, if the distance is not sufficient the bracket angle may need to be adjusted (The installation angle can be adjusted to between 0° and 45°, ensure the chain hangs vertically.)

Mounting size (see Fig.3 and table 2)

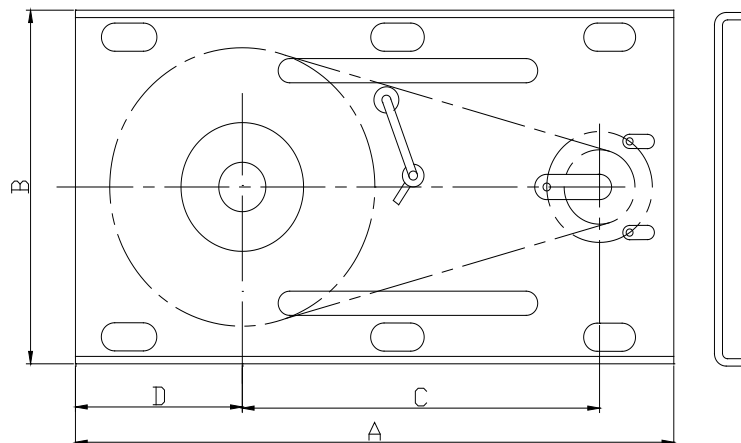
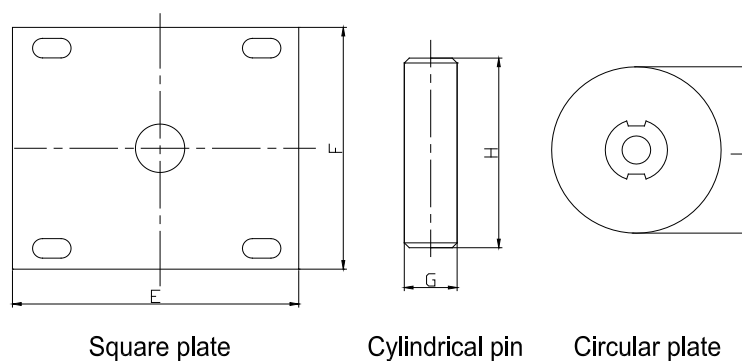


Fig.3



Square plate

Cylindrical pin

Circular plate

Fig.4

Table 2

Model	Sprocket bracket				Square		Circular plate	Cylindrical pin		Bearing
	A	B	C	D	E	F	L	G	H	
KJ300-E	495	290	288	135	280	240	Ø104	Ø30	200	6206
KJ600-E	515	290	305	135	300	240	Ø129	Ø35	200	6207
KJ800-E	600	320	320	150	300	300	Ø154	Ø35	200	6207
KJ1000-E	640	360	350	165	300	300	Ø154	Ø45	200	UCF209

### Left side square plate

Solder the bearing bracket on the square plate as shown in Fig.5. Fix the square plate on the wall or wall bracket.

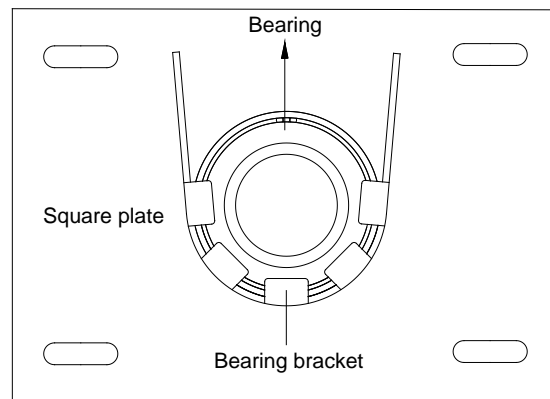


Fig.5

### Roller installation

Install the roller as shown in Fig.6.

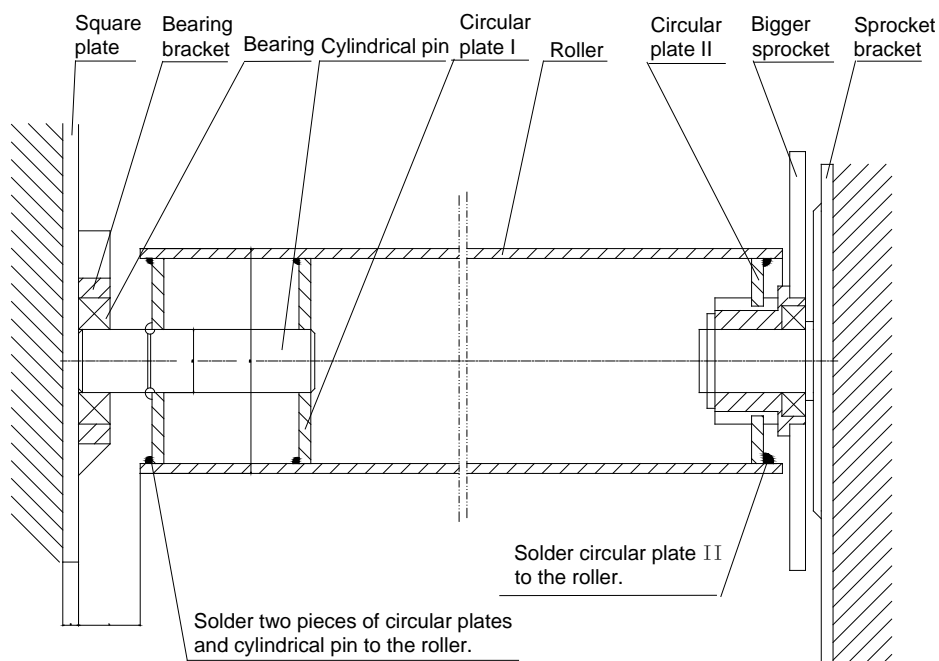


Fig.6

### Door operator

Fix the door operator to the sprocket bracket. Make sure that the nuts securely tightened and chain hangs vertically.

### Controller

Fix the controller on the wall beside the door operator.

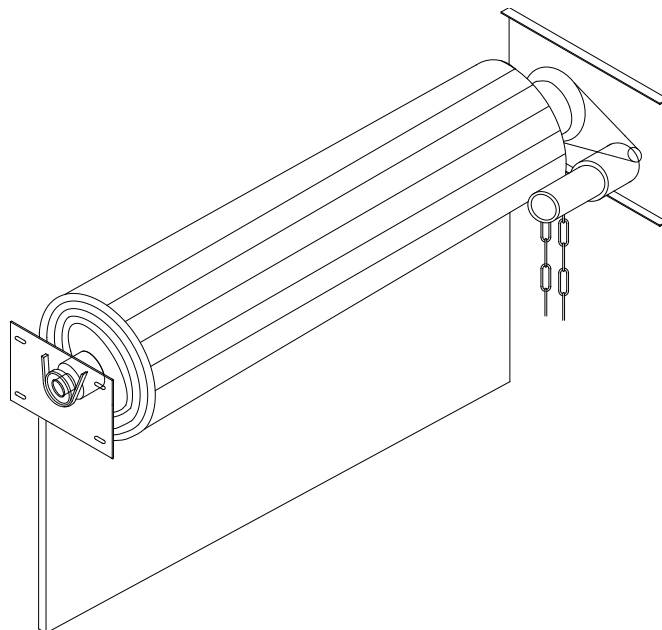


Fig.7

## 5. Electronic Limit Controller

Control box see Fig.8.

Remote control frequency is 350MHz, rolling code.

▲ : UP ▼ : DOWN ■ : STOP ●/🔒 : LOCK

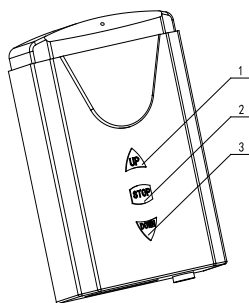


Fig.8 Control box

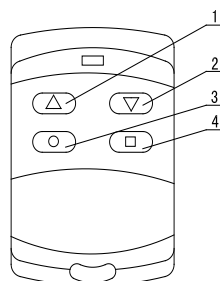


Fig.9 Remote control and Wall switch

Set open&close position by control box

- With power on, press and hold STOP button which on the control box about 8s, the beeper will ring.
- **Set open position:** inch press the **UP** button until the door has reached the opened position, (You also can press **DOWN** to move the door downward)
- Press STOP button to confirm the open position, 'beep-beep' of beeper can clearly be heard.
- **Set close position:** inch press the **DOWN** button until the door has reached the desired closed position. (You also can press **UP** to move the door upward, **UP** and **DOWN** can be used to fine adjust the door position.)

- Press the STOP button to confirm the close position, 'beep-beep-beep' can be heard.

Note :

If there is no any operation within 8 seconds, the controller will quit the program automatically.

If the beeper rings repeatedly every 3 seconds, please check the electronic limit wire.

If the electronic limit switch is damaged, press and hold the STOP button on controller about 8s or remote control STOP button about 5s, the beeper will ring, inch press corresponding 'open' or 'close' button in emergency.

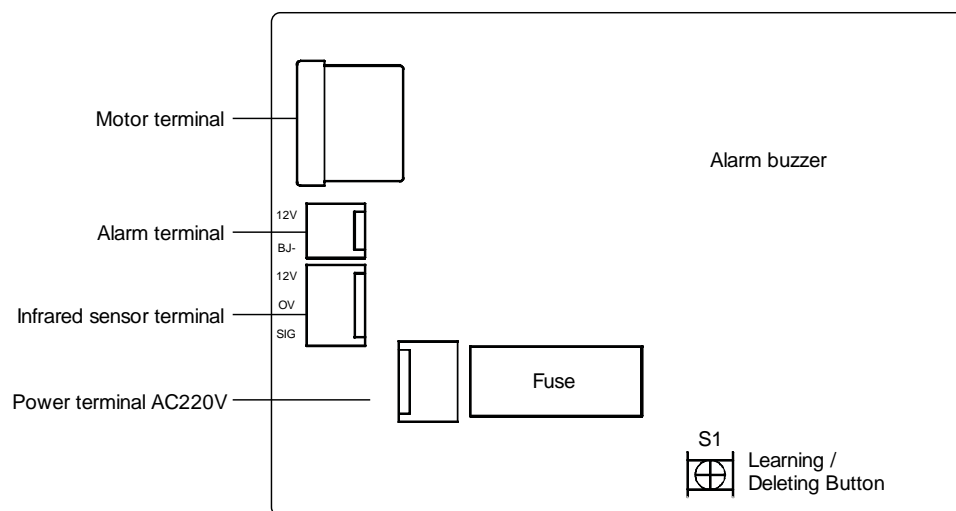


Fig.10

### **Adding extra remote control (learn) see Fig.9 and Fig.10**

Method I :Loose the screws, open the cover of control box. With power on, press and hold 'S1' on the control board about 1second until the beeper rings, press remote control button which you want to use about 1.5s, the beeper rings again, The learning process is finished.

Or you can add extra remote control by as following:

Method II :Press and hold '●' lock button and '▼' down button of mother remote control about 3s at the same time, the beeper will ring, press any button of new remote control about 1.5s, the beeper ring again, the learning process is finished.

Note: the two remote controls which supplied by the company are mother remote control.

### **To erase all remote controls**

Press and hold the 'S1' button on the control board about 8s until beeper rings. This indicates that all the remote controls(include mother remote control) have been erased completely.

Please learn the two mother remote controls first if you want to use remote control.

### **Left hand or right hand installation conversion**

If the gate does not move in the desired direction, then you will need to reverse the motor operating direction, press and hold '▲' and '▼' button of the remote control about 3 seconds simultaneously, 'beep' means left installation, 'beep-beep-beep' means right installation.

### **Remote control lock &unlock**

Press the STOP button and LOCK button of remote control about 3 seconds simultaneously, 'beep-beep' means the remote control locked. Press and hold the same two buttons 3 seconds again, one 'beep' means the remote control unlocked.

### **Wireless wall switch** see Fig.9

The switch can be used to open & close the door.

It also can be used to set password, set or change the password as following:

- Loose the screws, open the plastic cover of wall switch, remove the jumper cap which on the back side of the control board.
- Set the password after stopping the door more than 1 minute.
- Press the UP button.
- Press and hold STOP button and DOWN button simultaneously about 3s until the indicator light illuminates.
- Input the new password, UP button-1, STOP button-2, DOWN button-3, (preset password: 222).
- The indicator light flash, this means the password has been changed.

Short the terminal which on the back side of the control board with the jumper cap (in middle two pins), press any button of wall switch, the password recovery for '222'.

Open the door: press UP button, input the password, the indicator light flashes, and the door open.

Stop the door: press STOP button, the door stop.

Close the door: press DOWN button, input the password, the indicator light flashes, and the door close.

### **Optional function**

Auto reverse function: Equipped with wireless safety edge can be realized

Alarm function: Equipped with wireless safety edge and alarm system can be realized

Infrared sensor function: Equipped with infrared sensor can be realized.

Lock function: Equipped with motor lock can be realized

### **Chain**

In case of power failure, you can open or close the door manually by pulling the hand chain. It is important to ensure that the chain is not fitted twisted. If the chain is twisted, malfunctions may occur when the hand chain is used.

Please do not pull the chain during closing or opening the door, otherwise, serious personal injury or property damage may occur. Do not pull the chain too hard, otherwise the chain components will be damaged.

If the operator have pawl see Fig.1, the chain can only be pulled in one direction to open the door, pull the release lever to disengage the door quickly (**warning: when pulling the release lever to disengage the door, do not attempt to go through the gate**). If the operator is not equipped with a pawl, the chain can be pulled in two directions to open or close the door.

### **Release lever**

Pull the release lever to disengage the door quickly.

**WARNING: When pulling the release lever to disengage the door, do not attempt to walk or drive through the door. Otherwise, serious personal injury or property damage may occur.**

## 6. Maintenance

Check the door once a month. The door must be in good working order.

Regularly check the limit switch.

For service, call an experienced technician.

Our company reserves the right to change the design and specification without prior notification.

## 7. Troubleshooting

Table 3

Problem	Possible causes	Remedy
Motor fails to run.	<ol style="list-style-type: none"><li>1. Check the circuit.</li><li>2. Capacitor(single phase motor)</li><li>3. Motor coil.</li><li>4. Bridge rectifier.</li><li>5. Magnetic coil.</li><li>6. Low voltage.</li></ol>	<ol style="list-style-type: none"><li>1. Reconnection.</li><li>2. Replace capacitor.</li><li>3. Change motor.</li><li>4. Replace bridge rectifier.</li><li>5. Replace the magnetic coil.</li><li>6. Adjust the voltage.</li></ol>
Can not brake firmly	<ol style="list-style-type: none"><li>1. Oil on the brake plate.</li><li>2. Spring</li><li>3. Pawl wears.</li><li>4. Magnetic steel.</li><li>5. Brake plate wears.</li></ol>	<ol style="list-style-type: none"><li>1. Clean the oil.</li><li>2. Replace the spring</li><li>3. Replace the pawl.</li><li>4. Reinstall the magnetic steel.</li><li>5. Add washer, make sure the clearance of brake plate is about 0.60mm.</li></ol>
The door fails to descent down.	<ol style="list-style-type: none"><li>1. Release lever.</li><li>2. Poor lubrication of gear box or motor.</li><li>3. Door is too light.</li><li>4.The door or guild rail deformation occurred.</li></ol>	<ol style="list-style-type: none"><li>1. Change the release lever.</li><li>2. Add lubricating oil.</li><li>3. Add weighting bar on the door curtain.</li><li>4. Rectified the door or guild rail.</li></ol>

## 8. Packing list

After receiving the control box, you should make an unpack-inspection, in which you should check whether the product was damaged. If you have any problem please contact our sales agent. You should find the following items in our standard packing:

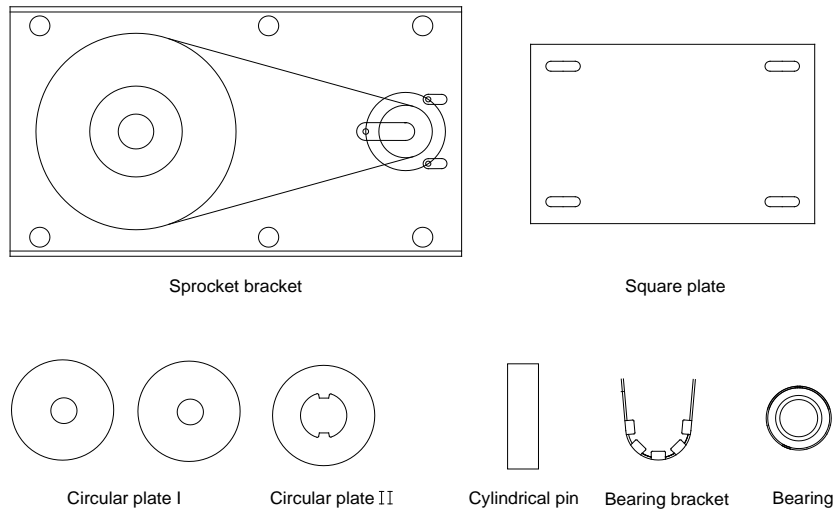


Fig.11

Table 4 packing list

NO.	Item	Quantity
1	Motor	1
2	Control box	1
3	Sprocket and bracket	1
4	Square plate	1
5	Circular I	2
6	Circular II	1
7	Cylindrical pin	1
8	Bearing bracket	1
9	Bearing	1
10	Remote control	2
11	Wall switch	1
12	User's manual	1