

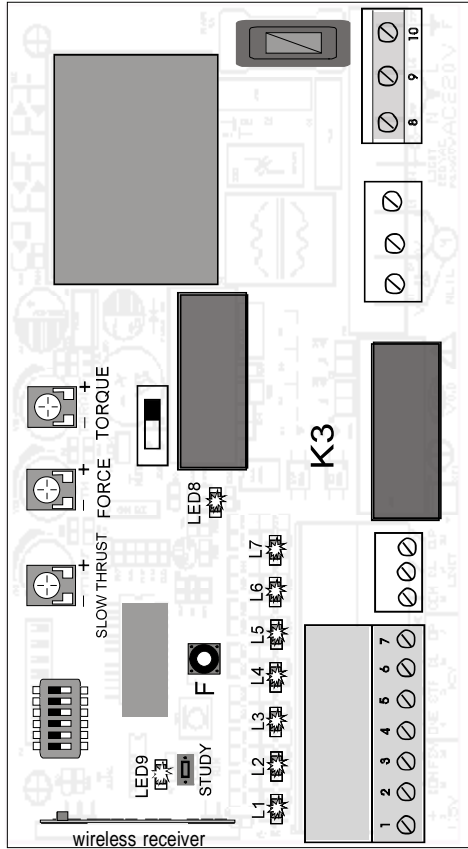
Sliding Gate Operator SP ACM SG 4000

# Install usage the manual K3

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# K3

## Manual of electronic control board



### ■ ■ ■ Catalogue ■ ■ ■

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Wire connection</li> <li>2. Check motor steering</li> <li>3. Wiring diagram</li> <li>4. Programming — automatic programming</li> <li>5. Other programmable functions             <ul style="list-style-type: none"> <li>5.1. Automatic closing</li> <li>5.2. Learning remote control code</li> <li>5.3. Delete the learning remote control code</li> </ul> </li> <li>6. Operation mode             <ul style="list-style-type: none"> <li>6.1. Half-open mode</li> </ul> </li> </ol> | <ol style="list-style-type: none"> <li>7. Other functions             <ul style="list-style-type: none"> <li>7.1. Full power to start</li> <li>7.2. External timer input</li> <li>7.3. Infrared sensor</li> <li>7.4. Adjust torque</li> </ul> </li> </ol> |
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### ■ ■ ■ Description ■ ■ ■

Designed K3 controller is used to sliding gate operator ,with fully functional programmable.Equipped with travel switch input terminals,torque adjust and two-way slow position independent setting etc.

### ■ ■ ■ Warning ■ ■ ■

Please read the intruction before installation ,incorrect installation or misuse of the product may cause serious harm to people.Before starting any work on the system ,turn off the electricity supply.

## 6. Operation mode

### 6.1 Half-open mode

Usually used for ajar gate, convenient for pedestrians, bicycles, etc.

## 7. Other functions

### 7.1. Full power to start

Dial the switch "5" to position "ON", mean to cancel the function of soft start, start with maximum force. This function is mainly used for large and heavy gate.

### 7.2. External timer input

External timers can control system according to the needs of the users to set the time to open and close the gate automatically. Connect the open contacts of external timer to terminal 2 and 7 on control board.

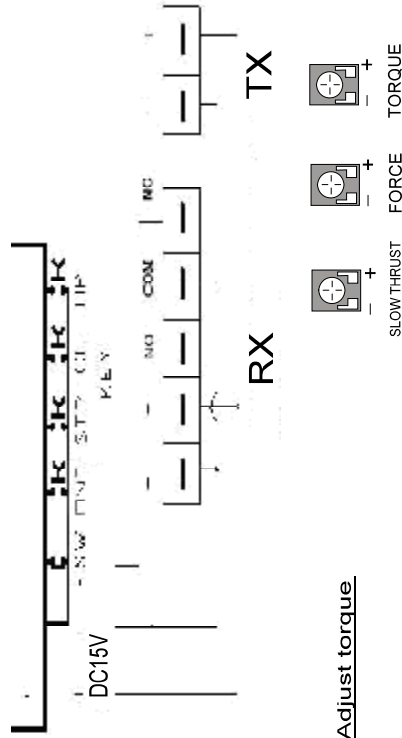
Open the gate in setting time by external timer, after the gate close automatically in setting time, the input signal can make the gate open.

### 7.3. Infrared sensor

Connect any of the safety equipment's normally-closed switch to terminal 2 and 3 on control board.

If the terminal 2 and 3 is in state of open circuit when it close, the gate will stop and This group of terminal is in state of open circuit (LED1 is turn off), close command will not work.

### 7.4. Connect the Infrared sensor



### 7.5. Adjust torque

- SLOW THRUST: Adjust motor's thrust after the gate is installed.
- FORCE: Rebound resistance function, turn to max. force (clockwise) to cancel this function.
- TORQUE: Adjust motor's power. (clockwise is bigger)

## 5. Other programmable functions

### 5.1. Automatic closing

Automatic closing of time programming (Delay self closing)



#### Procedure setting

Dial the switch "3", "6" to position "ON". (Note: If there is other switches in position "ON", pls follow the setting by figure.) Dial the switch "6" to position "OFF" after finish setting.



Press key F ,a buzzer will sound once, it means set 1 second; how many times you press that means how many seconds for delay self closing. Dial the switch "6" to position "OFF" after finish setting.

#### Cancel the function of automatic closing



Dial the switch "3" to position "OFF"

### 5.2. Learning remote control code



Remote control 3 keys function, switch "1" in position "OFF".

A - close B - open C - lock D - stop

- Press Learning key more than 1 second , LED9 is turns on.
- Press the same key on remote control 2 times uninterrupted.
- LED9 flashes 3 times with a sound. Use the same way to learn other keys on remote control. (up to 30pcs remote control.)

#### Additional function

- The keys of the remote control will be automatically locked after 30 seconds of using. Press the key "D" to unlock , then you can use other key. (Remote control have the function of lock external controller.)

#### Cancel additional function

- A Cancel the automatic locking function: to learn key "D" again.
- B Cancel the function of lock external controller: learn the key "C" again. (Press key "D" to unlock firstly) Or dial the switch "2" to position "ON" to cancel this function.



Single function ("open", "stop", "close", "stop" cycle), switch "1" in position "OFF"

- Press Learning key more than 1 second , LED9 is turn on.
- Press the key which you want to use on remote control 2 times uninterrupted.
- LED9 flashes 3 times with a sound. (up to 30pcs remote control.)

#### Additional function

- A Need the functions of lock the remote control keyboard. Dial the switch "2" to position "ON" (Press key "D" to unlock firstly)

### 5.3. Delete the learning remote control code

- Press Learning key more than 6 seconds , LED9 turn out with a sound. Delete all learned remote controls.

## 1. Wire connection

Using the appropriate cable. According the wiring diagram to connect all cables.

**1** **2** 15 V AC – 100 mA power output

**2** **3** Infrared safety electric eye (Closing direction) input terminal, normal close. If the device is blocked when closed, the gate stops immediately, then the gate opened.

**2** **4** Manual switch, code keyboard , wireless receiver's input terminal, normal open.

**2** **5** Manual stop switch, Normal open, control the gate stop

**2** **6** Manual stop switch, Normal open, control the gate close

**2** **7** Manual stop switch, Normal open, control the gate open

## P 2 Terminal , Limit switch

**C.L** **COM** Limit switch input terminal, normal open, (Closing direction)

**O.P** **COM** Limit switch input terminal, normal open, (Open direction)

## P 3 Terminal , Motor

**L1** **COM** Motor close output  Motor direction

**L2** **COM** Motor open output  Motor direction


**8** **9** 220V AC 60W flashing lamp output.

**9** **10** 220V AC power input. Use 3x1.5 square line.

In the figure of the cable specification is a minimum requirement, pls choose the thick cables for far distance. Pipe installed separately for strong current (220V AC) cable and low current cable , to prevent interference with each other, low current available telephone lines. If not connect the safety device and its corresponding input terminal should be short circuit.

## 2. Check motor steering

After connect the wires correctly, follow next step one by one.

- Check whether the motor switch position is as shown in figure.  Motor direction


- Open the clutch on the motor and push the gate to the middle position.

- Close the clutch on the motor.

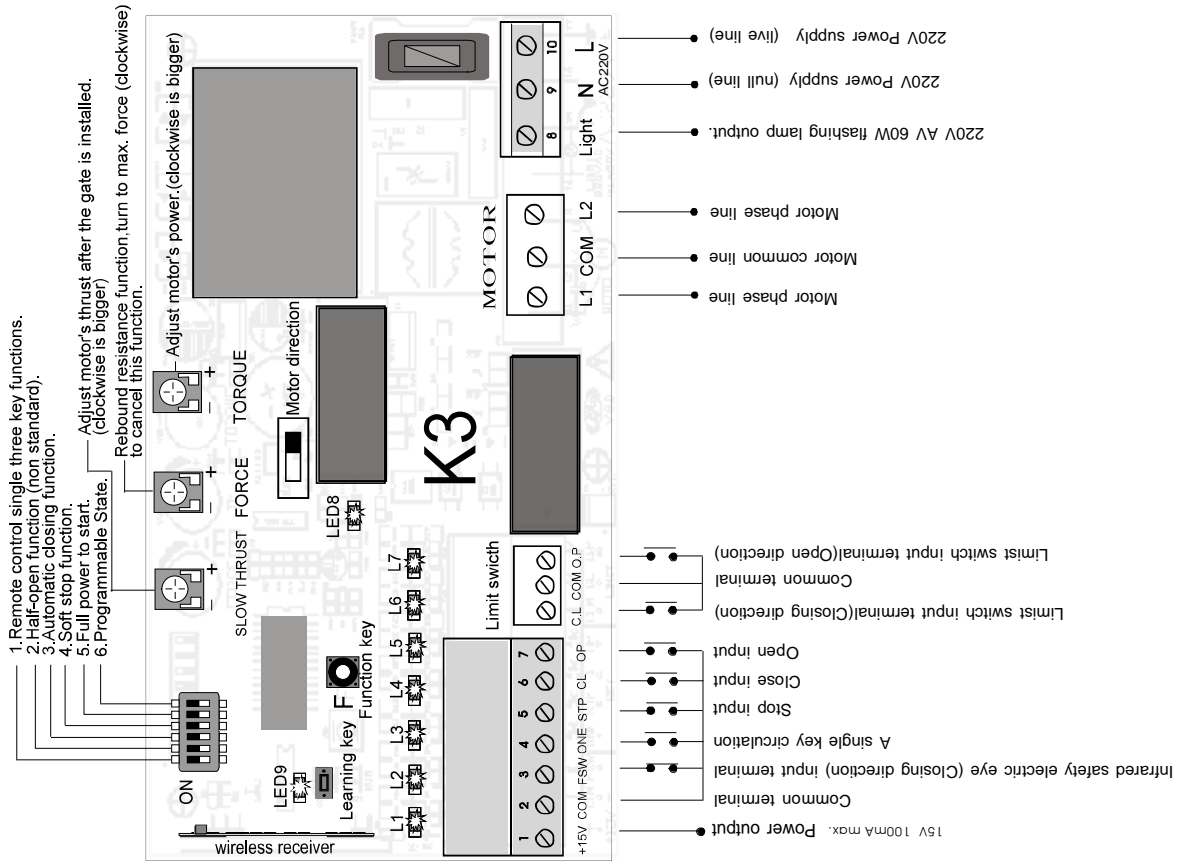
- Connect the power supply, check the status of lights.

L6 and L7 should be off. If L6 and L7 is on , check the limit switch is damaged or not.

- Press ONE, the gate should be open. If the gate is still closed, change the motor phase line (dial the switch to left).

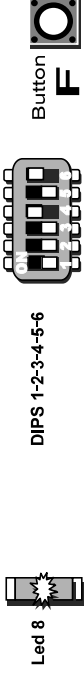
- Open the clutch and close the gate absolutely, then close the clutch. Power-on. 

### 3. Wiring diagram



### 4. Motor slow run function programming

Through button "F" in programming, assist LED8 and dip switch.



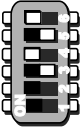
Each of the programming steps, is displayed in the figure.

The gate can't in the limit state before programming, three seconds again electrify power outages.

This is set to automatic programming, make sure the limiting magnet has been installed.  
 Check the motor turning  
 Check the direction of the magnet: Travel light LED6 and LED7 is off

#### 4.1. Automatic programming (motor low run setting)

L6 and L7 should be off, (the gate is in middle position)

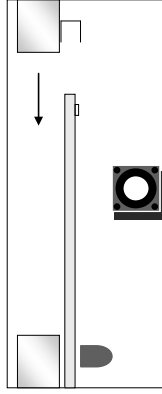


Procedure setting

Dial the switch "4"; "6" to position "ON". (Note: if there is other switches in position "ON", pls follow the setting by figure.) Dial the switch "6" to position "OFF" after finish setting.

#### 1 Open

Press key "F" more than 5 seconds, the gate starts to open, then loosen the key "F".



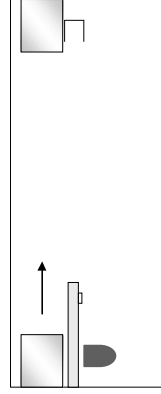
#### 2 Stop opening

The gate will stop moving at the position on limit switch.



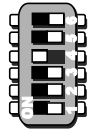
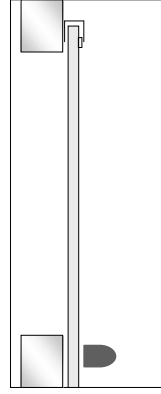
#### 3 Close

The gate automatically closed after 1 second of the gate stop moving.



#### 4 Stop closing

The gate will stop moving at the position on limit switch.



Procedure checking

Dial the switch "6" to position "OFF".  
 Press F, Check whether the program works normally.