

# Swing Gate Operator MANUAL



PKD2.3K

PLEASE READ THE MANUAL CAREFULLY  
BEFORE INSTALL AND USE

## WARNINGS:

- ★ Before starting any work on the controller (connections, maintenance, etc.), always cut off power supply.
- ★ Before installing, read the instruction carefully. Incorrect installation or misuse of the product may cause serious harm on people.
- ★ This product was designed and manufactured strictly for the use indicated in this instruction. Any other not expressly indicated use may damage the product and/or be a source of danger.
- ★ Keep the instruction in a safe place for future reference.
- ★ Frequently examine the installation, in particular check cables, springs and mountings for signs of wear, damage or imbalance. Do not use if repair or adjustment is needed since a fault in the installation or an incorrectly installed gate may cause injury.
- ★ This appliance is not intended for use by persons concluding children with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- ★ If the appliance is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- ★ Before installing the operator, check that the gate is good mechanical condition correctly and opens and closes properly.
- ★ The operator cannot be used with a gate incorporating a wicket door.
- ★ Ensure that entrapment between the gate and the surrounding fixed parts due to the opening movement of the gate is avoided.
- ★ Do not allow children to play with fixed controls. Keep remote controls away from children. After installation, ensure that the mechanism is properly adjusted and that the protection system and manual release function correctly.
- ★ The electrical cord plug must plug in indoor outlet or waterproof cover outlet.

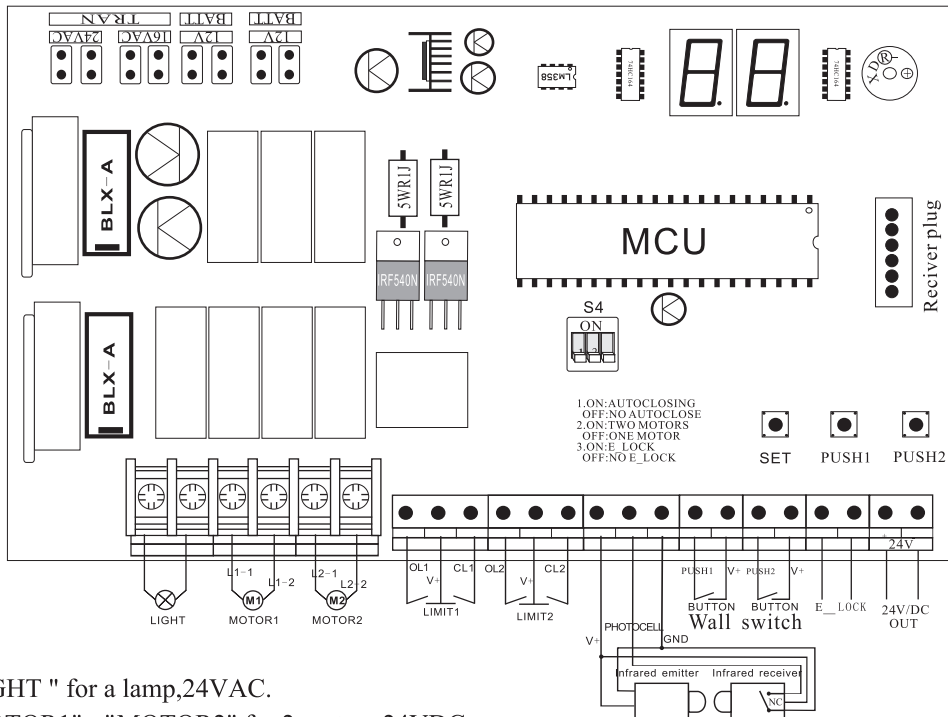
## 1. Technical Specifications:

Power supply	127V 60HZ
Transformer	127V 60HZ
Accessories max loaded	24VDC 500mA
Environment temperature	-20°C ~ +50°C
24V Protection fuse	10A
16V Protection fuse	10A
Auto closing time delay	programmable(0 ~ 99s)

## 2. Main function:

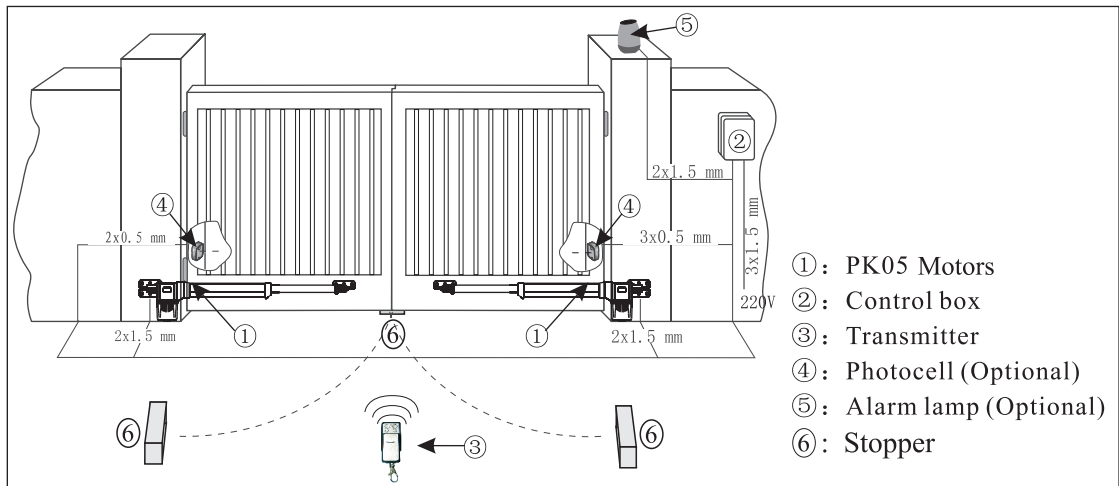
- 2.1 Auto-closing time delay can be programmed from 0 to 99s. This function is pre-set OFF in factory, which means this function is unavailable.**
- 2.2 It can stop when the running gate meet with resistance.**
- 2.3 It is selectable to control single-leaf or double-leaf.**
- 2.4 It can be connected with Battery, Photocell, Flash Lamp, E-Lock, Push Button.**

### 3.Diagram:

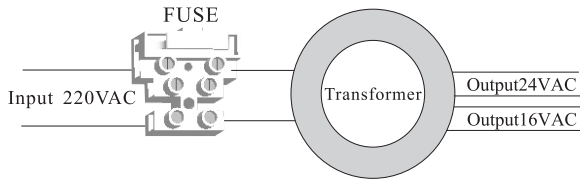


- ◎ "LIGHT " for a lamp,24VAC.
- ◎ "MOTOR1", "MOTOR2" for 2 motors 24VDC.
- ◎ "LIMIT1", "LIMIT2" for the magnetic limit switch on motor1,motor2. (It is useful only for the motors with magnetic limit switch.)
- ◎ "PHOTOCELL "for infrared protect device.
- ◎ "BUTTON " for wall switch."PUSH1" controls double-leaf gate with "step-by-step ". "PUSH2 "controls single leaf gate which must be the priority of opening one with "step-by-step ".
- ◎ "E\_LOCK " for electric lock, It can be connected with electric lock which power is 24VAC or 24VDC.

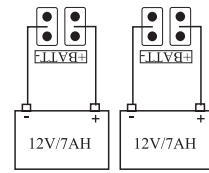
### 4.Standard installation layout:



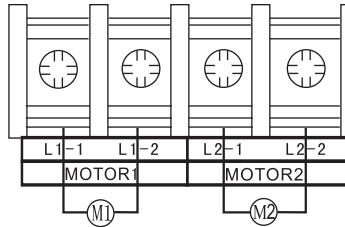
### 4.1.1 Connecting power



### 4.1.2 Connecting Battery



## 4.2 Connecting Motors



### 4.2.1 Connecting motor for single-leaf gate:

If the gate is 1 leaf, first, it must be connected with "Motor1", and the "dip2" on "S4" must be "OFF".

### 4.2.2 Connecting motors for double-leaf gate:

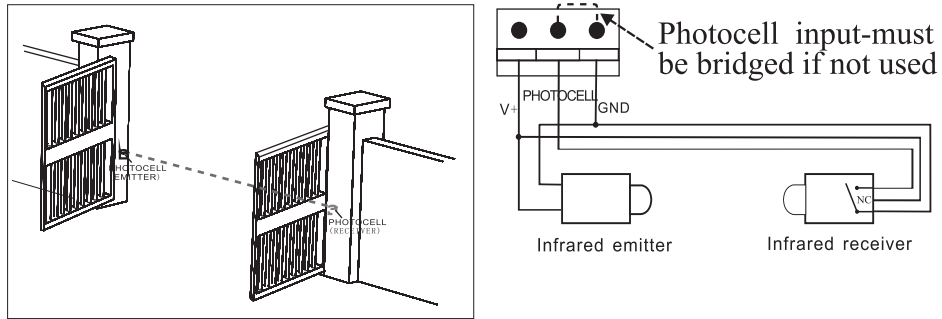
If the gate is 2 leaves, the priority opening leaf must be connected with "MOTOR1", the other one is connected with "MOTOR2", and the "dip2" on "S4" must be "ON". See "Parameter setting".

## 4.3 Connecting Magnetic limit switch

<p>If no limit switch, the terminals must be short connected</p>	<p>Terminal block diagram showing connections for OL1, CL1, OL2, and CL2. OL1 and CL1 are shorted together, and OL2 and CL2 are shorted together. The terminals are labeled LIMIT1 (N. C.) and LIMIT2 (N. C.) with a V+ symbol below each.</p>
<p>For only closing limit switch</p>	<p>Terminal block diagram showing connections for OL1, CL1, OL2, and CL2. OL1 and OL2 are shorted together and connected to V+. CL1 and CL2 are shorted together and connected to ground. The terminals are labeled LIMIT1 (N. C.) and LIMIT2 (N. C.) with a V+ symbol below each.</p>
<p>For opening and closing limit switch</p>	<p>Terminal block diagram showing connections for OL1, CL1, OL2, and CL2. OL1 and CL1 are shorted together and connected to V+. OL2 and CL2 are shorted together and connected to ground. The terminals are labeled LIMIT1 (N. C.) and LIMIT2 (N. C.) with a V+ symbol below each.</p>

Opening limit OL1, OL2: Yellow wire  
 Concentration V+: Red wire  
 Closing limit CL1, CL2: Black wire

## 4.4 Connecting Photocell



## 5. Definition of Dip-switch and Button

### 5.1 Dip-switch

<p>ON 1 2 3 OFF</p>	Automatic closing function is canceled	<p>ON 1 2 3 OFF</p>	For Double-leaf gate
<p>ON 1 2 3 OFF</p>	Automatic closing function is available.	<p>ON 1 2 3 OFF</p>	E-LOCK function is canceled .
<p>ON 1 2 3 OFF</p>	For Single-leaf gate	<p>ON 1 2 3 OFF</p>	E-LOCK function is available.

### 5.2 Button

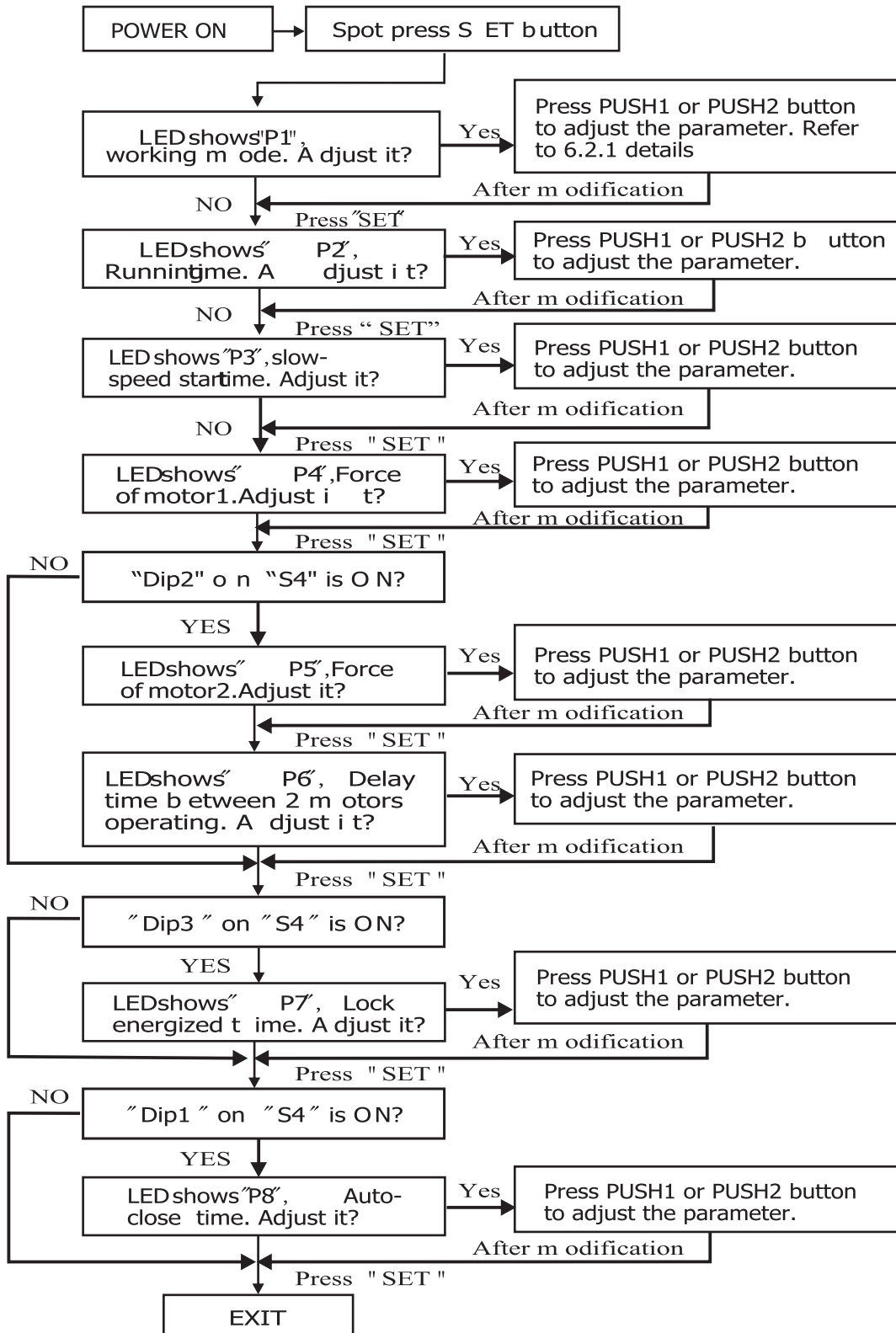
<p>LEARN</p>	Coding/Erasing transmitter codes	<p>PUSH1</p>	Operating double-leaves with "step-by-step" or Increasing number displayed on LED.
<p>SET</p>	Choosing program process	<p>PUSH2</p>	Operating single-leaf with "step-by-step" or decreasing the number displayed on LED.

## 6. Programming:

### 6.1 Definition of parameters

P1: Working mode	P6: Delay time between the Leading leaf and the slave leaf's act
P2: Running time	P7: E-Lock energized time
P3: Slow-down starting time	P8: Auto-closing time
P4: Force of Motor 1	
P5: Force of Motor 2	

## 6.2 Setting Parameters :



## 6.2.1 Decryption of P1 Details :

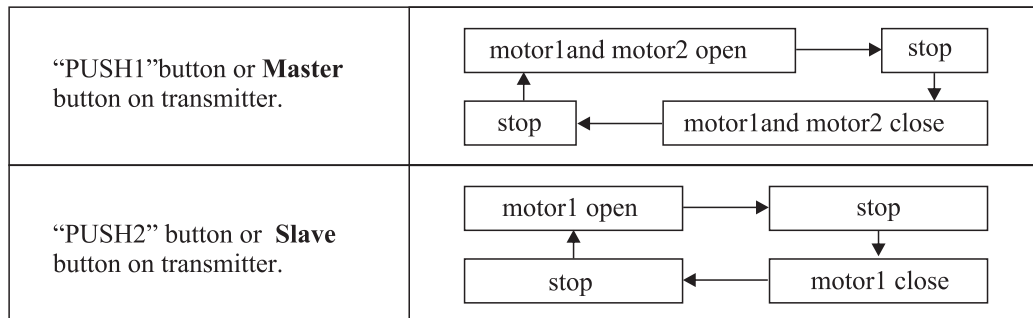
⊙ Spot press the **SET** button, the buzzer "Bi, Bi ",LED shows "**P1**".

⊙ Parameter 1: Working mode. There are six kinds of working modes. from "00" to "05", It is "00" in factory.

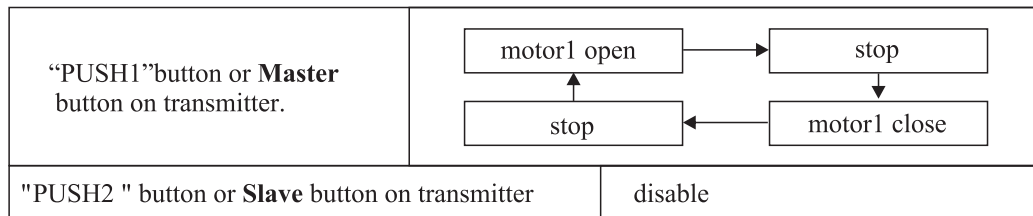
### ● "00":Normal working mode.

When the gate hits an obstacle, the gate opener stops.

⊙ If the gate is double leaf:



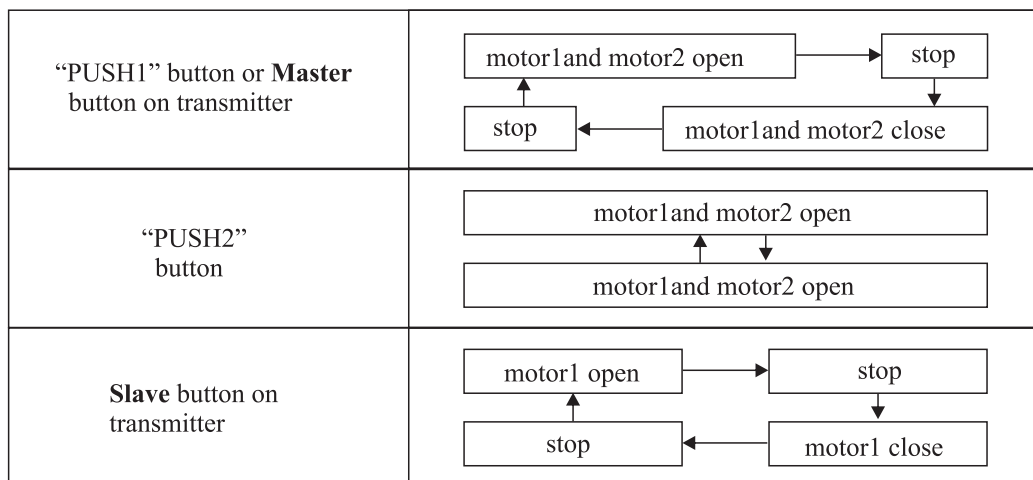
⊙ If the gate is single leaf :



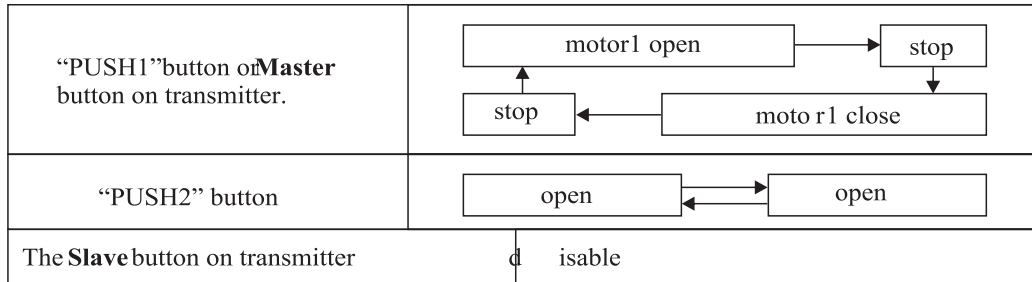
### ● "01":Access Control System working mode.

When the gate hits an obstacle, the gate opener stop.

⊙ If the gate is double leaves:



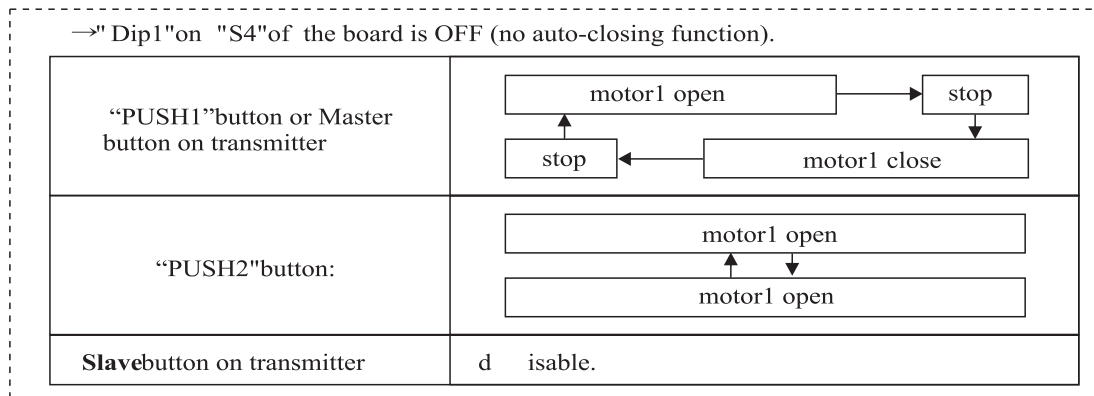
⊙If the gate is single leaf:



●"02":Many vehicles on queue working mode.

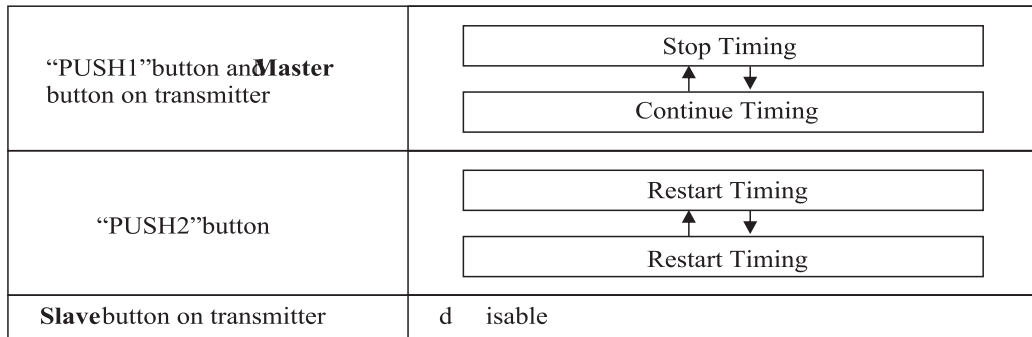
When the gate hits an obstacle, the gate opener stop.

⊙If the gate is single leaf:

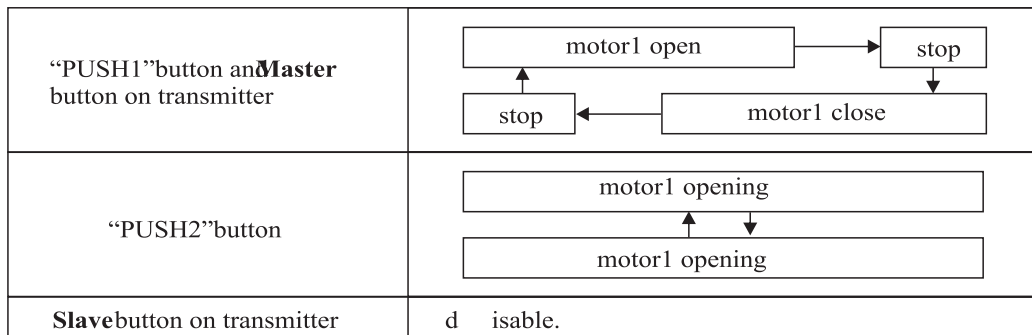


→“Dip1”on “S4”of the board is ON (auto-closing function).

⊙If the gate is at open position



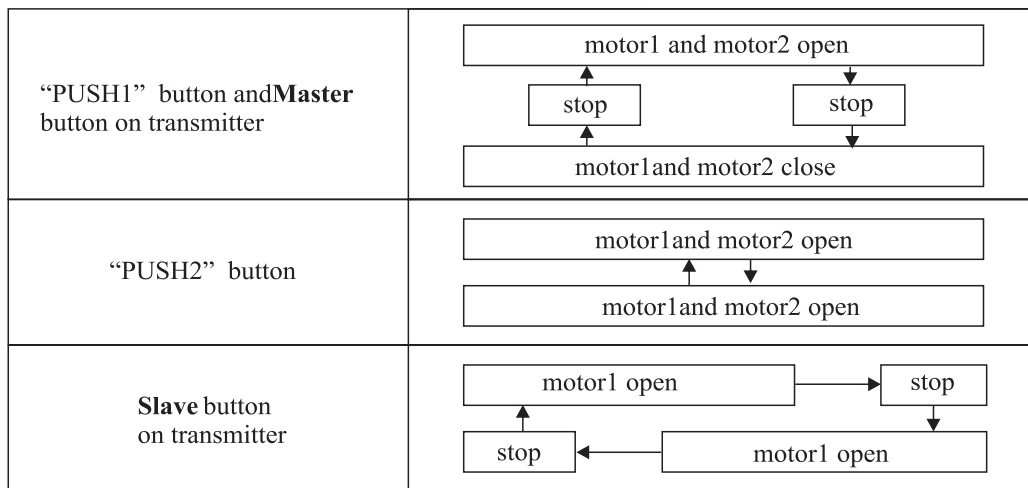
⊙If the gate is at other position





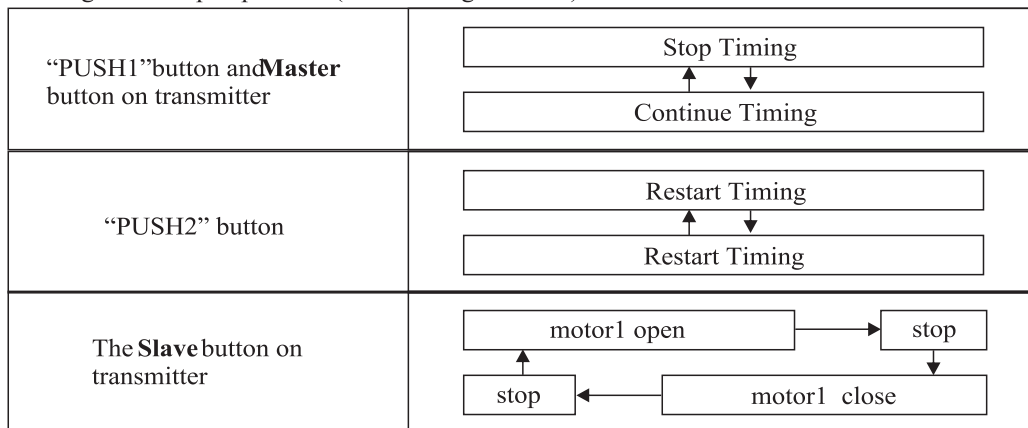
◎If the gate is double-leaves

→"Dip1"on "S4"of the board is OFF (no auto-closing function).

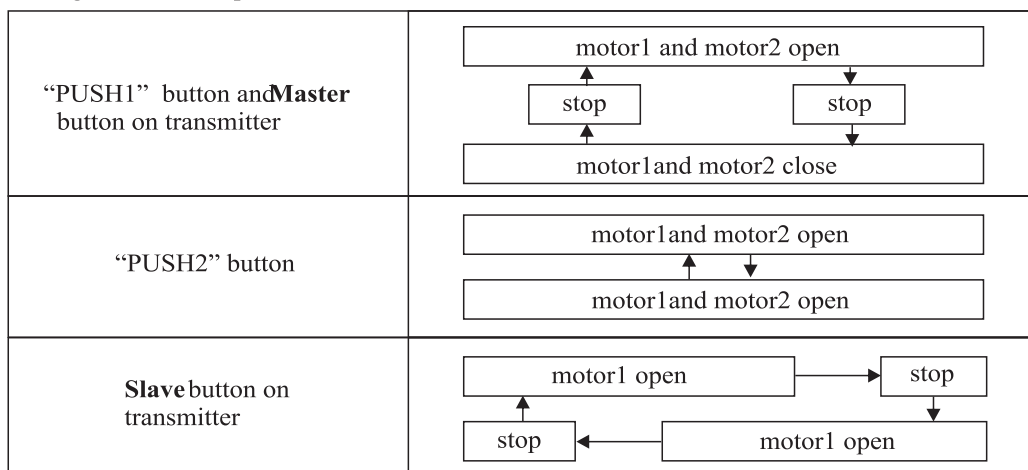


→The “dip1”on the “S4”on the board is ON:

◎If the gate is at open position (auto-closing function).



◎If the gate is at other position



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● **"03":Base on "00" the Normal working mode:**

While opening, the gate opener stops when it hits an obstacle.

While closing, the gate opener reverses when it hits an obstacle.

● **"04":Base on "01" Access Control System working mode:**

While opening, the gate opener stops when it hits an obstacle.

While closing, the gate opener should reverse when it hits an obstacle.

● **"05":Base on "02" the Many Vehicles on queue working mode:**

While opening the door, the gate opener stop when it hits an obstacle.

While closing the door, the gate opener should reverse direction when it hits an obstacle.

## 7. Coding transmitter

### 7.1 Coding Master transmitter

Press "LEARN" button on control board three times shortly, "LEARN LED" flashes three times and lights on, and the BUZZER "Bi", then press a button or two buttons which are selected on the transmitter and hold on till the "LEARN LED" flashes and lights off, and the BUZZER "Bi..." continuously. Now, this transmitter is the Mother Transmitter. Note: We suggest to choose the one or two buttons which are seldom to be used on the transmitter as the Mother button.

■ **Now, you have two ways to set up transmitter's codes.**

#### 7.1.1 Transmitter's coding by "LEARN" button on Control Board

◎ Learning a Master button on transmitter for Full opening operation:

Shortly press "LEARN" button on Control board, "LEARN LED" lights on, then press and hold on the required button on transmitter till the "LEARN LED" flashes and goes out.

◎ Learning a Slave button on transmitter for pedestrian operation:

Shortly press "LEARN" button twice on Control Board, "LEARN LED" flashes twice and lights on, then press another required button on transmitter till "LEARN LED" flashes and goes out.

■ This way, more transmitters can be learned.

#### 7.1.2 Transmitter's coding by a Mother transmitter

◎ Learning a Master button on transmitter for Full opening operation:

Press and hold the Mother button till the buzzer "Bi..." continually, then press and hold the required button till the buzzer "Bi, Bi".

◎ Learning a Slave button on transmitter for Pedestrian Operation Press and hold the Mother button till the buzzer starts a long "Bi..." and two short "Bi, Bi", then press and hold the other required button till the buzzer "Bi, Bi".

### 7.2 Erasing transmitter's code

Erasing transmitter codes: Press "LEARN BUTTON" and hold on to make the "LEARN LED" light till go out, all codes have been erased.

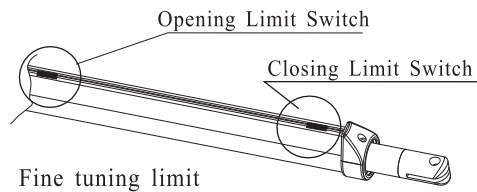
## 8. Meaning of display:

	Normal display		Auto-close timing
	ELECTRIC-LOCK Working		Workingmode
	Opening		Runningtime
	Closing		Slow speed start time
	Open limit of Motor1 broken		Force of motor 1
	Close limit of Motor1 broken		Force of motor 2
	Open limit of Motor2 broken		Delay time between 2 motors operating
	Close limit of Motor2 broken		Lock energized time
	1. Photocell is not connected properly. 2. Photocell team is block off. 3. Photocell is broken.		Auto-close time

## 9. Adjust the Limit Switch

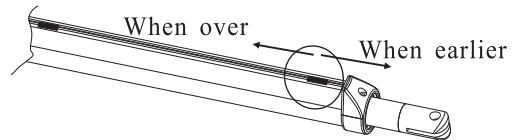
### The Sensor Switch for Limit

See the right picture, there are two sensors inside the trough, one is for Opening limit, the other is for Closing limit. The sensors can glide.



### Adjust the Closing Limit

See the right picture, if the Closing limit time is earlier than needed, the Closing limit sensor should be glided to right a modicum, if the Closing limit sensor should be glided to left a modicum.



### Adjust the Opening Limit

See the right picture, if the Opening limit time is earlier than needed, the Opening limit sensor should be glided to left a modicum, if the Opening limit time is over than needed, the Opening limit sensor should be glided to right a modicum.

