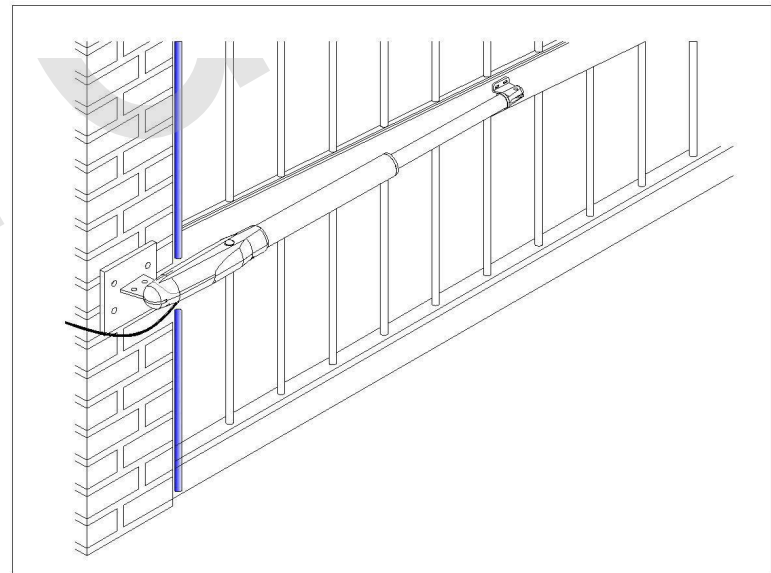


SWING GATE OPERATOR

MANUAL



SWING GATE OPERATOR

Brief Introduction

CATALOGUE

1. Diagram and Technique Data
2. Packing list for swing gate operator
3. Standard wire installation
4. Installation guide

1. Diagram and Technique Data

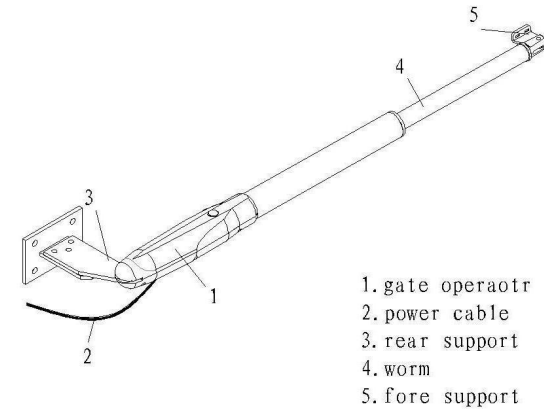
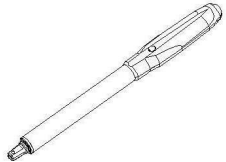
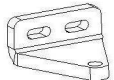
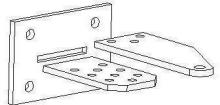
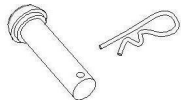
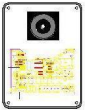




Diagram 1

Technical specification

Power input	220V
Motor voltage	24V DC
Rated current (A)	3A
Max.actuator pull (N)	350
Max.actuator travel (mm)	305
Actuator speed (mm/s)	15
Ambient Temperature	-20—+55°
Actuator weight (KGS)	5
Max.Width of the gate (m)	3m
Max.Weight of the gate (KG)	300KG
Protection class	IP44

2. Packing list for swing gate operator

		single	double
A.		gate operator.....1pc.....	2pcs
B.		fore support1pc.....	2pcs
C.		rear support.....1pc.....	2pcs
D.		bolt.....1pc.....	2pcs
E.		control device.....1pc.....	1pc
F.		backup battery (optional).....2pcs.....	2pcs
F.		photo cell (optional).....1pc.....	1pc

3. standard wire installation

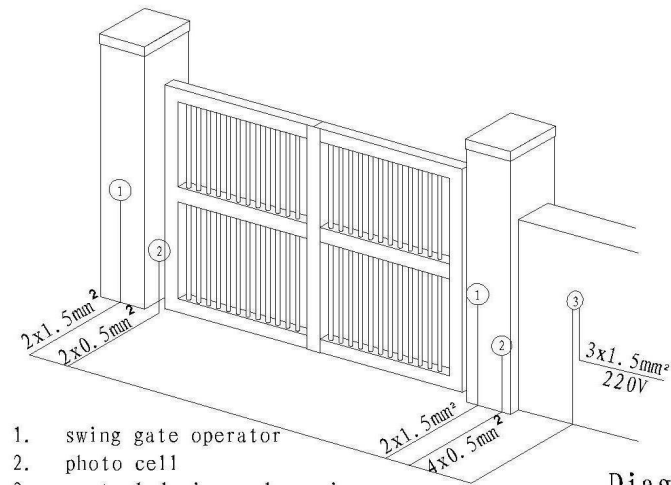


Diagram2

1. swing gate operator
2. photo cell
3. control device and receiver

- Please prepare the tough tube for cables.
- Please keep the low voltage cable away from 220V power cable, don't mix the wires together, to avoid the interferece.

4. Installation guide

4.1 Primary Survey

In order to have smooth installation, please make sure the gate (ready or be installed already) as follows:

- the gate
- the gate can work manually, without obstacle
- hinges in good condition
- Mechanical stroke limit

Please make sure everything is ready, before installing the swing gate operator.

The gate installation in good or bad condition will affect the stability and safety of swing gate operator directly.

4.2 Swing gate operator installation

1) According to the diagram A, please fix the rear support on the gate post. if necessary, please adjust the support length.

Warn: Please install the gate opener, according to the size on the diagram, to make sure the control device work properly.

Diagram A

Installation size

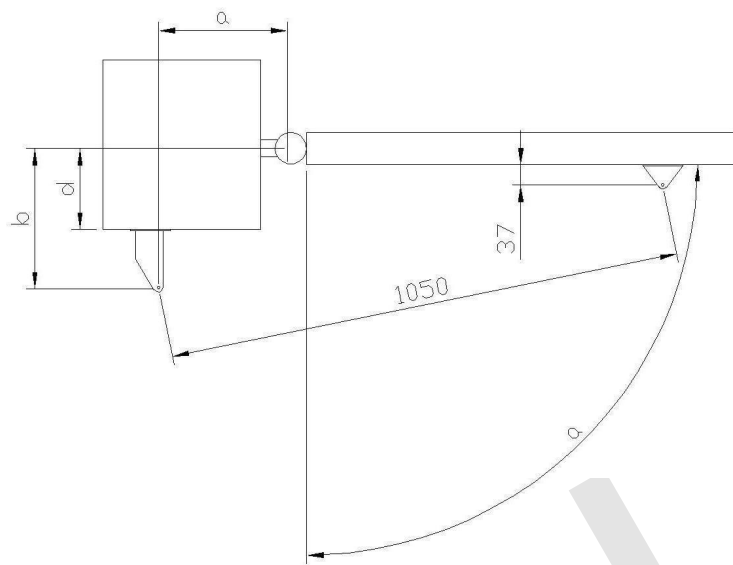


Diagram A:

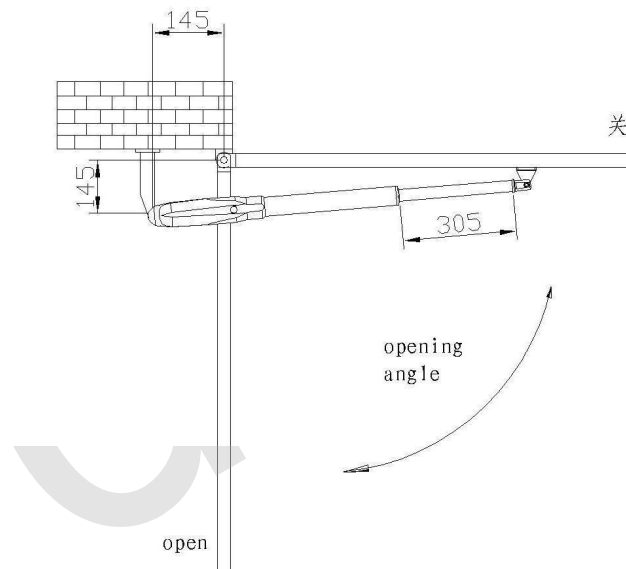
Recommended size for gate

opening angle "a"	a (mm)	b (mm)	c(*) (mm)	d(**) (mm)
90°	145	145	305	35
110°	132	132	305	35

(*)Max. actuator travel (**) Max size

Diagram B

Installation diagram, Opening angle is 90°



If the size on the diagram A changed, then the opening angle will be changed (90° -110°) .

Please change the size, according to the following rules:

- 132mm<a<145mm, 132mm<b<145mm
- If the opening angle more than 90° : a+b<c
- the smaller value a and b, the faster speed the gate work.

If the size of the gate post or hing is not the same as "a" , please dig according to diagram C.

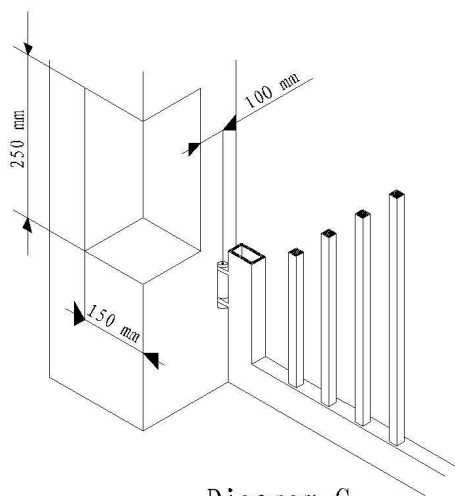


Diagram C

if the iron gate post, please weld the support on the gate post. if the brick or concrete post, please install the support on the brick or concrete post and weld.

2) Please fix the gate operator on the rear support by bolts. (diagram 3)

1. the metal parts recede 20mm and weld, then fix it on the second level, opening angle is 110° .

2. the metal parts recede 27mm and weld, then fix it on the second level, opening angle is 90° .

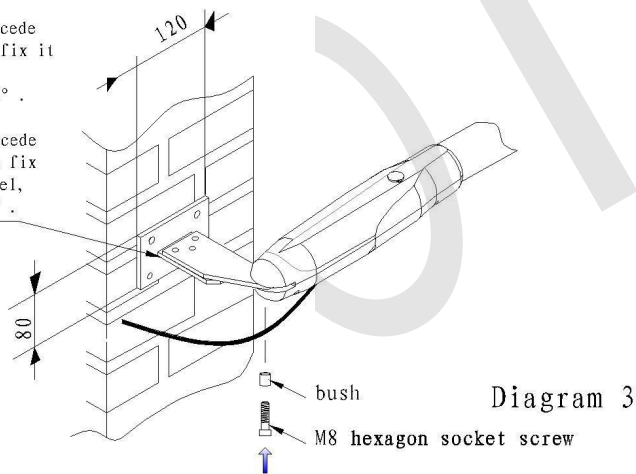


Diagram 3

Note: full set of operator has of forms of left opening and right opening.

Please install operators correctly, as to the fixed position, please refer to diagram 3.

3) Release the swing gate operator.

4) Please extend the lever arm to 305mm, refer to diagram 4.

5) Lock the gate operator.

6) Please rotate the swing gate operator double turn clockwise.

7) Please fix the fore support to the lever arm.

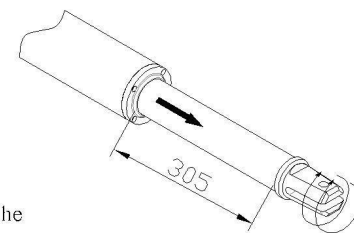


Diagram 4

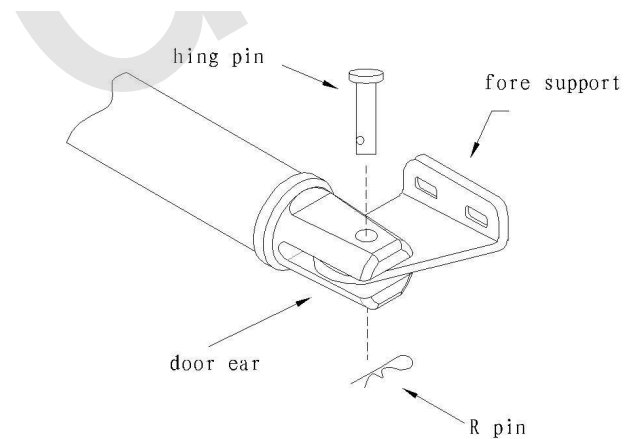


Diagram 5

- 8) Please close the gate, keeping the control device totally horizontal, please locate the gate on the position of fore support (diagram 6).
- 9) Fix the fore support on the door by welding spot temporarily.
Please note: if the support can't be installed safely on the gate, please add the mounting plate.

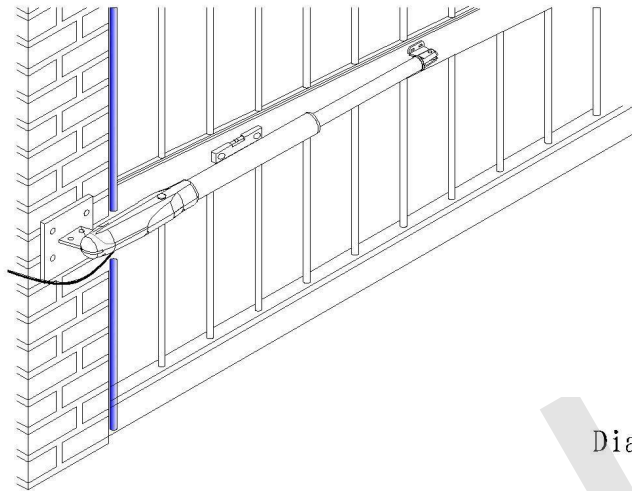


Diagram 6

- 10) Release the gate operator, making sure the gate can be open smoothly. the gate will stop, once touch the mechanical stroke.
- 11) Please weld the fore support on the gate, please remove the swing gate operator from the support, to prevent the swing gate operator from damage.
- 12) Please install the second swing gate operator, as above mentioned.
- 13) Connect with the control device
- 14) Please adjust the main parameters, according to gate and requirement.

4.3 Check the automated parts

After installation, please check the operator's operation and connection between all the accessories.

Please advise clients how to operate the gate operator, and figure out the potential dangerous area related to automated parts.

4.4 manual operation

If power failure or stoppage, please open the waterproof cover on the operator, and release by key manually, refer to Diagram 7.

If you want to release the operator, please rotate clockwise. Open or close the gate manually.

4.5 Return to the standard operation

Please power off, if you want to relock the gate operator, to avoid misaction. Please rotate anticlockwise by key. (Diagram 7)

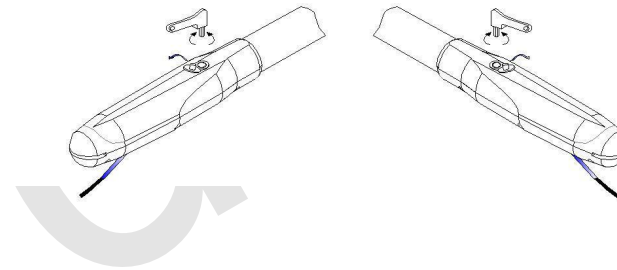


Diagram 7

4.6 Special function no special function

4.7 Maintenance

Please check the gate body regularly, especial for gate hinges.

Please check the electronic anti collision system regularly, to make sure it be adjusted correctly, and the manual release is normally (please refer to the relevant chapter).

Please check the safety device on the spot per six months.

24VDC Swing Gate Operator
CONTROLLER
USER'S GUIDE



**PLEASE READ THE MANUAL CAREFULLY
BEFORE INSTALL AND USE**

WARNINGS:

- Before starting any work on the controller(connections,maintenance,etc.),always cut off power.
- 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 balanced door may cause injury.
- This appliance is not intended for use by persons including 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 supply cord 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 drive, check that the door is good mechanical conditioncorrectly balanced and opens and closes properly.
- The drive cannot be used with a door incorporating a wicket door.
- Ensure that entrapment between the door and the surrounding fixed parts due to the opening movement of the door 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	~220V(10%)50HZ
Transformer	~220V/24V/120W
Accessories max loaded	500mA
Environment temperature	-20 C~50 C
Protection fuse	8AX2
24V out protect fuse	2A
Open/Close running time	Programmable(0~99)
Auto close time delay	Programmable(0~99)
Continual run time	5min

2. Main function:

- 2.1 Opening/Closing Gate, the running time protection for motor can be programmed from 0 to 99s.

2.2 Auto-closing function can be selected. Time delay can be programmed from 0 to 99s. This function is pre-set off.

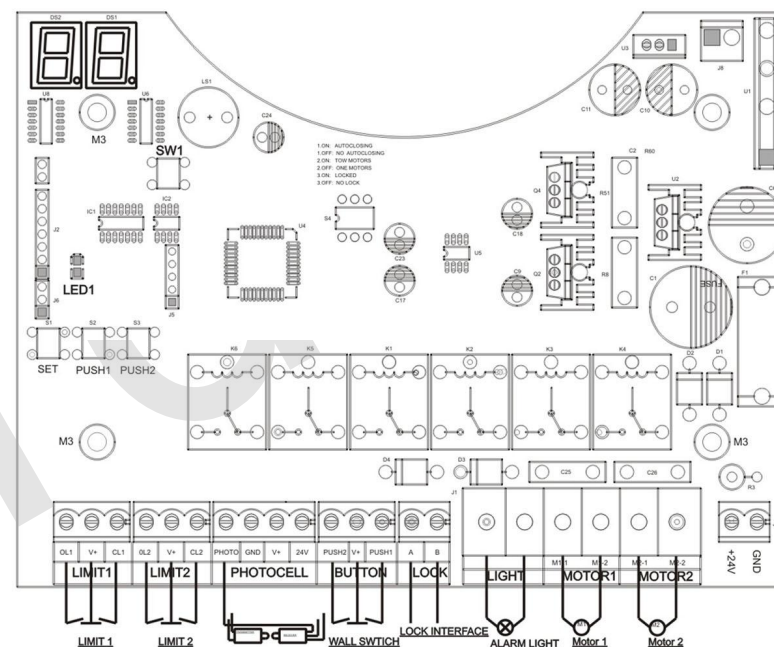
2.3 Auto stop when the running gate meet with resistance.

2.4 The force of motor can be programmed.

2.5 It is selectable to control single leaf or double-leaf.

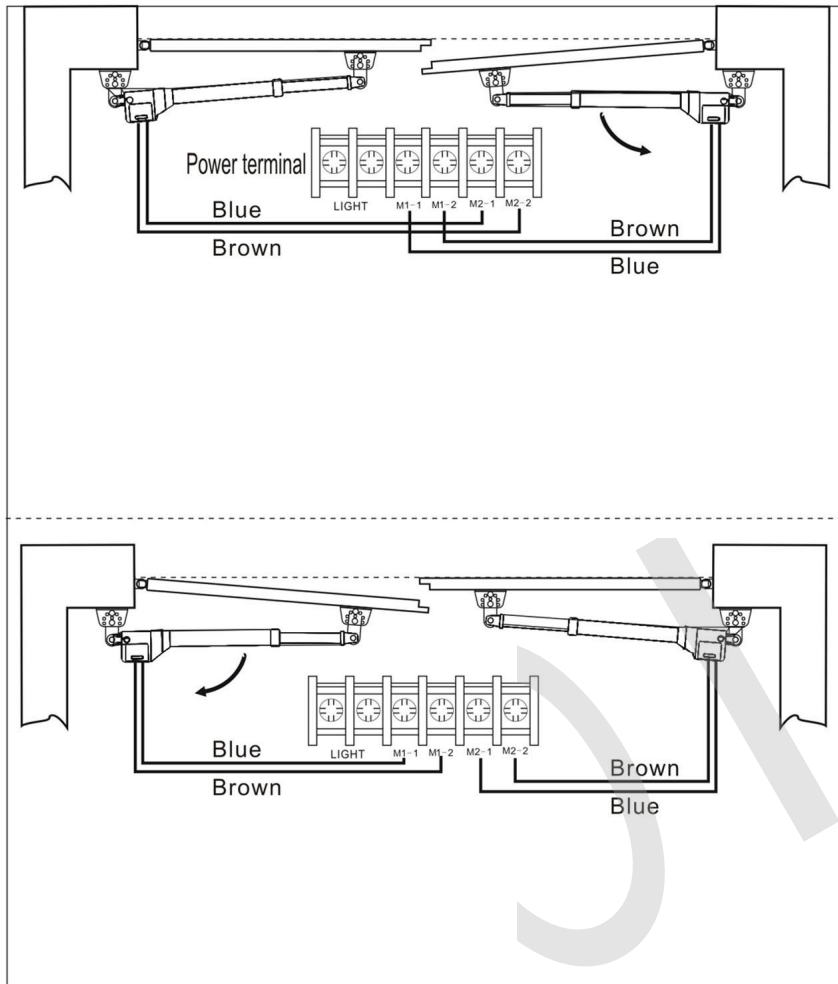
2.6 It can be connected with 24V Back-up battery, Photocell, Flash Lamp, E-Lock, Push Button.

3. Diagram:

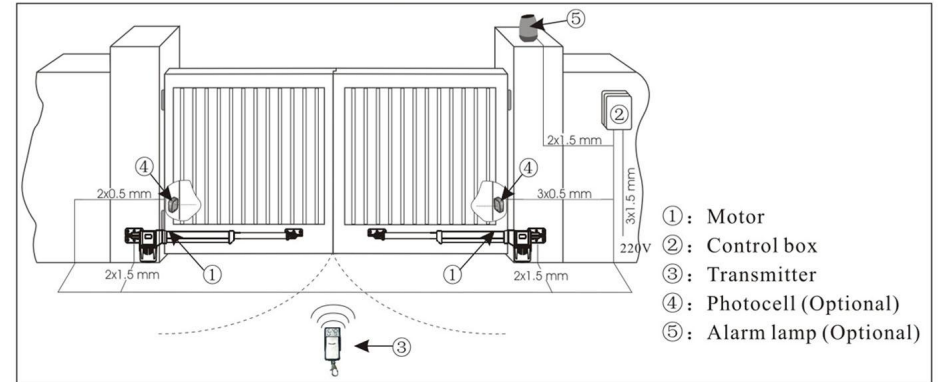


- (1) "LIGHT" for a Flash lamp,24VDC.
- (2) "MOTOR1", "MOTOR2" for 2 motors 24VDC.
- (3) "LIMIT1", "LIMIT2" for the magnetic limit switch on motor1,motor2.
(It is useful only for the motors with magnetic limit switch.)
- (4) "PHOTOCELL" for infrared protect device.
- (5) "BUTTON"for wall switch."PUSH1"control double-leaf gate, step-by-step "PUSH2" control single leaf gate which must be the priority of opening one step-by-step.
- (6) "E_LOCK" for electronic lock, It can be connected with electronic lock which power is 24VDC.

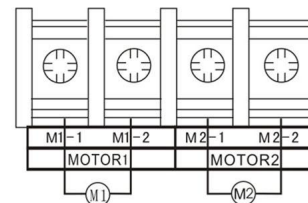
Connection diagram for motor and controller



4. Standard installation layout



4.1 Connection of motors



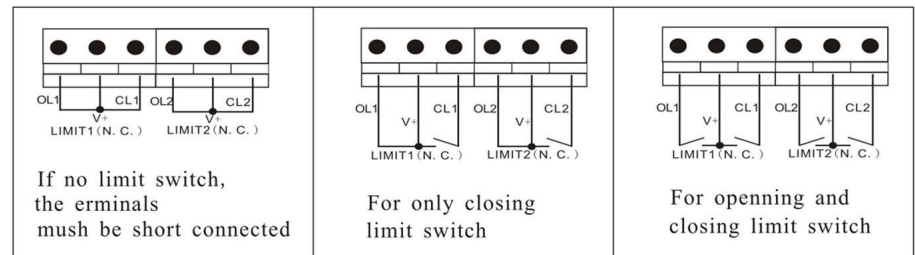
4.1.1 Connection of motor for single-leaf:

If the gate is only 1 leaf, the motor must be connected with "Motor1", and the "dip 2" on "S5" must be "OFF".

4.1.2 Connection of motors for double-leaf:

If the gate is 2 leaves, first, it must be confirmed which one leaf is the priority opening one. Then, the priority opening leaf must be connected with "MOTOR1", the other one is connected with "MOTOR2". And the "dip2" on "S5" must be "ON". See "Parameter setting".

4.2 Connection of Magnetic limit switch



If no limit switch, the terminals must be short connected

For only closing limit switch

For opening and closing limit switch

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

4.3 Setting transmitter code

Sw1 and LED1 on the controller, A and B on the remote

SW1: learning code

LED1: learning code lamp

A: single gate

B: double gate

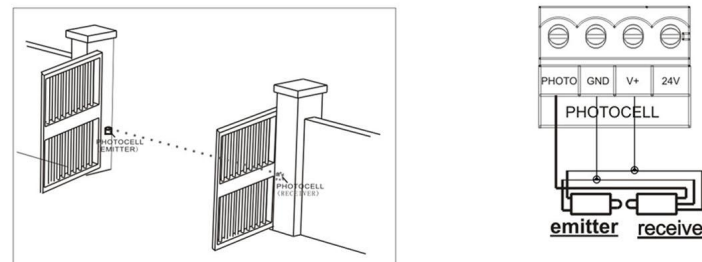
Learning process for adding the remote:

Please press Sw1 (learning code) on the controller, then LED1 (learning code lamp) will light on, then release the Sw1 (learning code), then press any key on the remote. If the LED1 (learning code lamp), turn on again, which means you add the remote successfully. If no, which means you don't add the remote successfully.

Erasing the transmitter codes:

Press Sw1 (learning code) about 10 seconds, during this 10 seconds. LED1 (learning code lamp) will light on, then LED1 (learning code lamp) will off. Then release the Sw1 (learning code, then LED1 (learning code lamp) will off, which means, you erase the remote.

4.4 Connection of Photocell:



Please note: If don't install photocell, the interfaces of photocell and GND must be short connected.

5. Setting

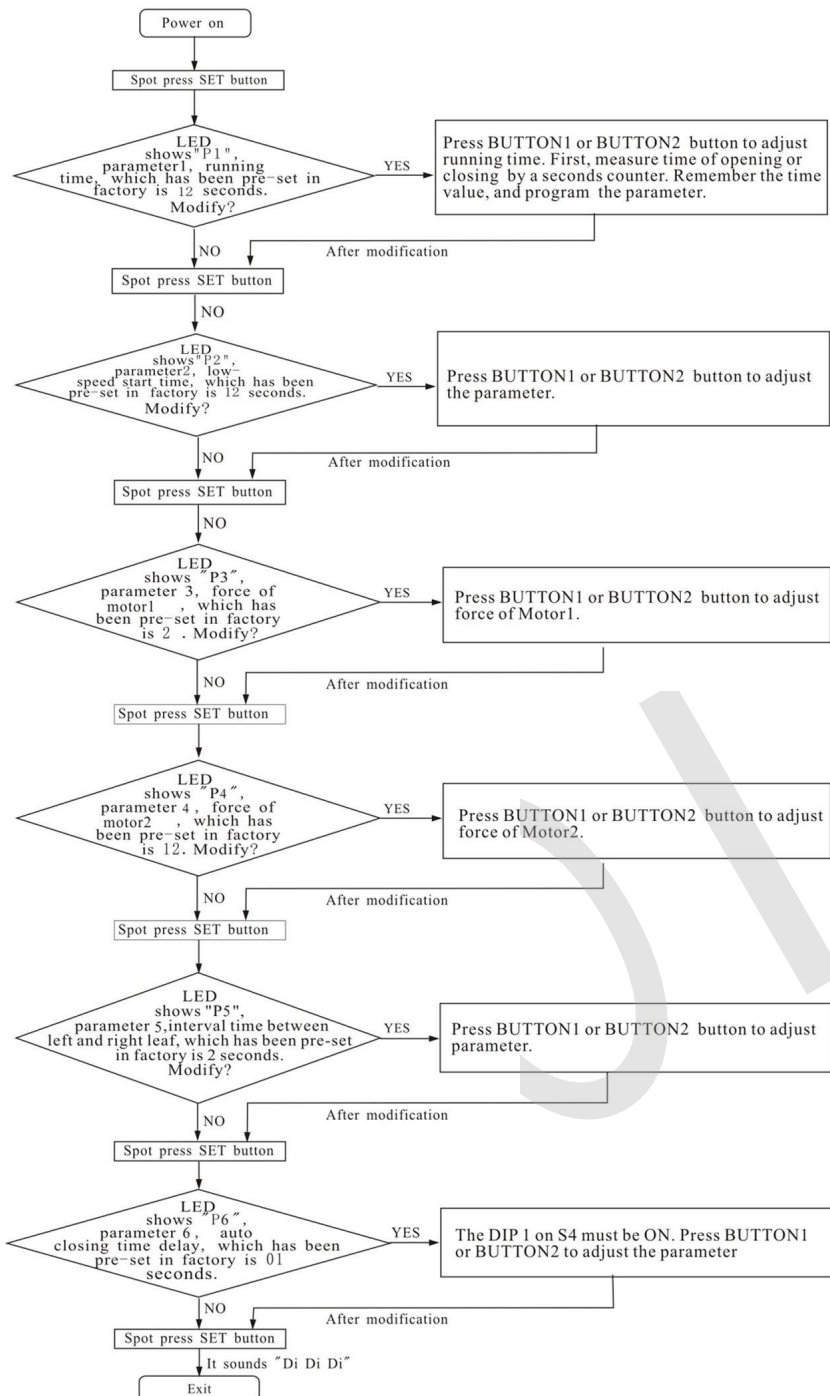
5.1 Dip-switch (S4) setting:

	<p>Single-leaf, No automatic closing function "PUSH1" control single-leaf gate, step-by-step, open-stop-close-stop. "PUSH2" control single-leaf gate "open"</p>
	<p>Single-leaf, with automatic closing function "PUSH1" control single-leaf gate, step-by-step, open-stop-close-stop. "PUSH2" control single-leaf gate "open"</p>
	<p>Double-leaf, No automatic closing function "PUSH1" control double-leaf gate, step-by-step, open-stop-close-stop. "PUSH2" control double-leaf gate "open".</p>
	<p>Double-leaf, with automatic closing function "PUSH1" control double-leaf gate, step-by-step, open-stop-close-stop. "PUSH2" control double-leaf gate "open".</p>
	<p>ELECTRO-LOCK function is available.</p>
	<p>ELECTRO-LOCK function is canceled.</p>

5.2 Parameter setting:

"BUTTON1": The numerical value displayed on LED will increase 1 every once push.

"BUTTON2": The numerical value displayed on LED will decrease 1 every one push.



6. Meaning of display:

	Normal display		Running time
	ELECTRIC-LOCK working		Slow speed start time of motor
	Opening		Force of motor 1
	Closing		Force of motor 2
	1. Photocell is not connected properly. 2. Photocell team is block off. 3. Photocell is broken.		Delay time between 2 motors operating
	Auto-close timing		Auto-close time

7. Trouble Shooting

Number	Trouble	Cause	Shooting
1	motor can not work	*No power supply *Break fuse *Motor is damaged	*Check power supply *Change fuse *Change the motor
2	Can open but can not close	*Photocell is not connected properly *Photocell team is block off. *Photocell is broken.	*Connect the photocell properly *Clear out obstacle *Change a new device
3	Can open (close) but can not close (open)	*Position of limit switch is not correct *Limit switch is damaged	*Adjust position *Change limit switch
4	can not locate accurately	*Distance of limit switch is too large *Limit switch is wrong *Magnetic- steel's position is wrong	*Adjust position of limit switch *Change limit switch *Re-adjust the position
5	Release device	*Operating handle is broken *Worm gears are jammed	*Change the handle *Rotate the pinion
6	Led view "OP", but the gate close, or Led view "CL", but the gate open	*Whether "+MOTOR-" wires are connected wrong	*Connect correctly according to wiring diagram
7	Motor can turn but can not work	*Clutch is released	*Use the key to couple the clutch