

# **SLIDING GATE OPERATOR**

# **INSTRUCTION**

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MODEL : BS-SZ

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

Item number: 7.07.00.5375

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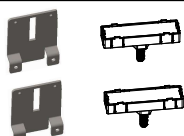

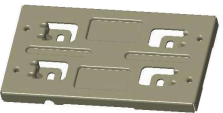
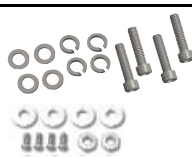
## WARNING TO THE INSTALLER AND USER

- 1) CAUTION! For personal safety it is important to follow all the instructions carefully. Incorrect installation or misuse of the product may cause serious harm to people .
- 2) Keep the instructions in a safe place for future reference.
- 3) This product was designed and manufactured strictly for the use indicated in this document. Any other usage not expressly indicated in this Document, may damage the product and/or be a source of danger.
- 4) BS accepts no responsibility due to improper use of the automatic machine ( opener) or use other than that intended.
- 5) Do not install the machine in an area subject to explosion hazard. Inflammable gasses or fumes are a serious safety hazard.
- 6) BS will not accept responsibility if the rules of good workmanship are disregarded in installing the closing elements to be motorised, if any deformation occurs during use of the said elements.
- 7) Before carrying out any work on the system, turn off the electricity supply.
- 8) The safety devices (e.g. photocells, sensitive edges, etc...) may be used to prevent any potential risk in dangerous areas where the moving mechanism is located , such as crushing, dragging, or shearing.
- 9) BS accepts no responsibility regarding safety and correct operation of the machine, should components made by manufacturers other than we be used in the system.
- 10) Do not make any alterations to the components of the automatic machine ( opener and accessory).
- 11) The installer must supply full information regarding operation manual of the system in the event of any emergency and provide the system user with the "INSTRUCTION" included with the product.
- 12) Do not allow children or other people to stand near any moving part of the opener or door construction while in operation.
- 13) Keep transmitters away from children to prevent the machine from being activated accidentally.
- 14) The user must refrain from attempting to repair or adjust the system personally and should only contact professional personnel .
- 15) 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 installation or an incorrectly balanced door may cause injury.

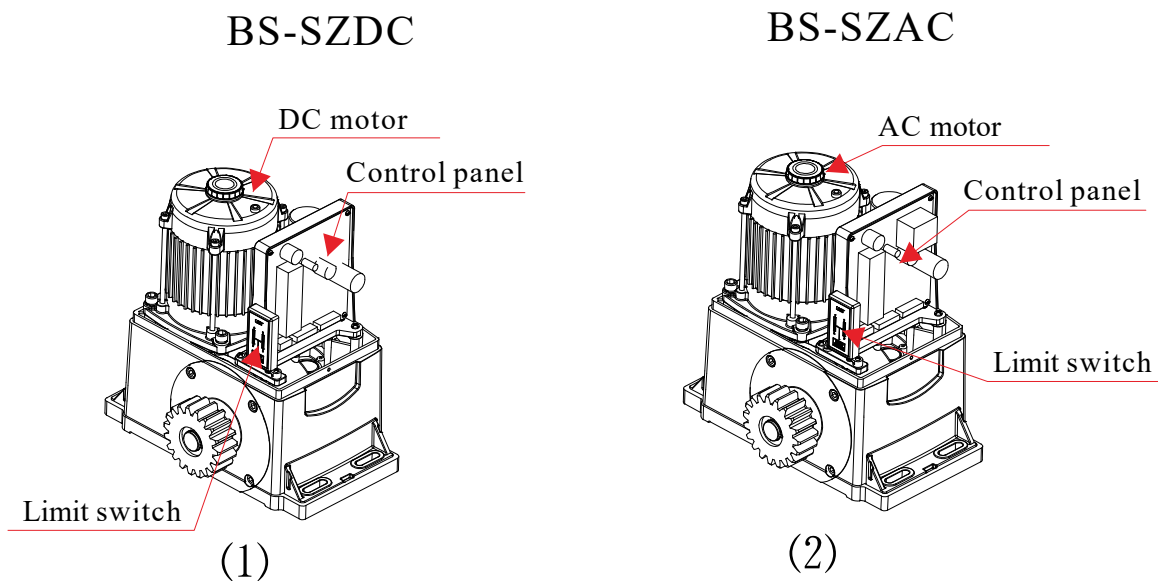
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- 16) This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
  - 17) 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.
  - 18) Disconnect the supply when cleaning or other maintenance is being carried out, if the appliance is automatically controlled.
  - 19) The temperature range marked on the drive should be suitable for the location.
  - 20) The electrical cord plug must plug in indoor outlet or waterproof cover outlet

## 1. Introduction

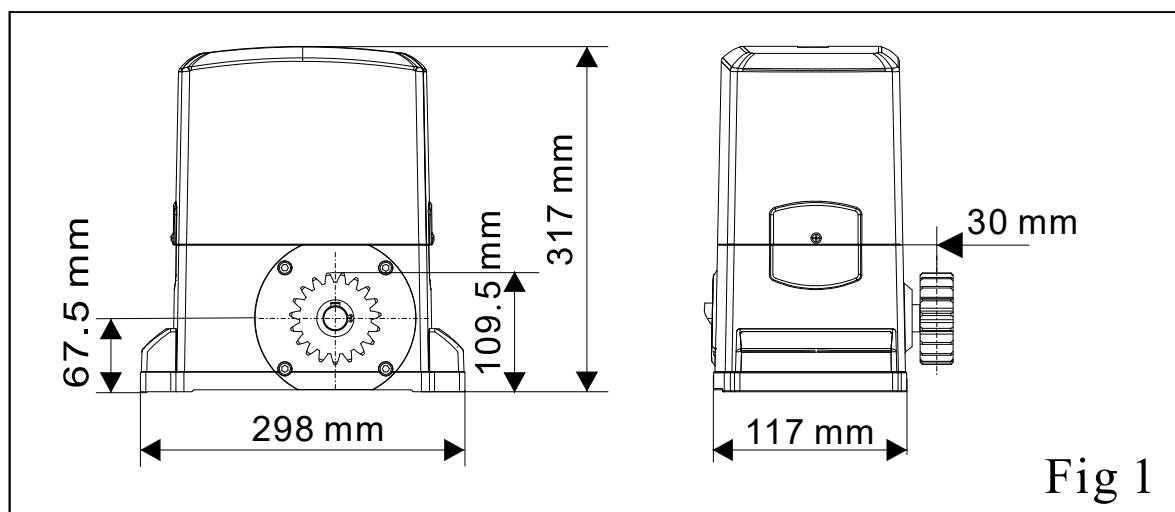
### BS-SZ Complete kit

 <p>Transmitters</p>	 <p>Release key</p>	 <p>Limit magnet/Bracket</p>	 <p>BS-SZ</p>
	 <p>Base plate</p>	 <p>Accessories</p>	

## 1.1 Interior structure



## 1.2 Dimension



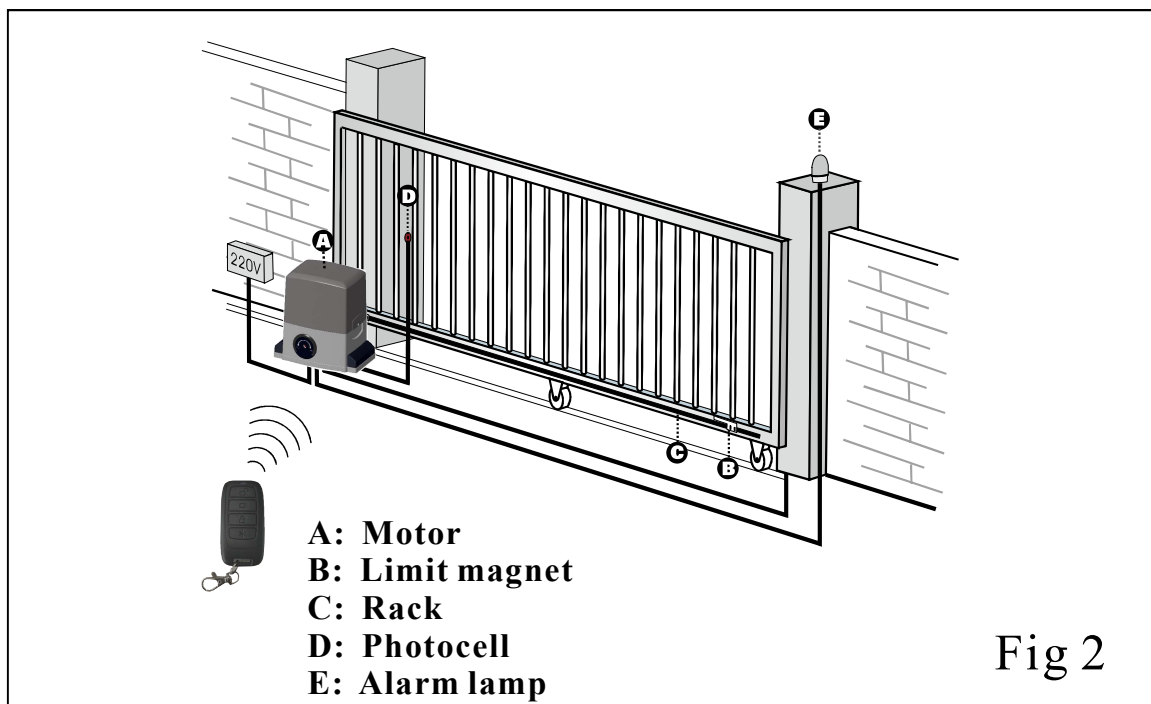
## 1.3 Technical specifications

Description	BS-SZAC	BS-SZDC
Power supply	220V+10% 50HZ	36V
Power of motor	500W	350W
Motor speed	1400r/min	1400r/min
Max weight of gate	<3000Kg	<2000Kg
Motor thermal protection	130℃	/
Working environment	-20℃~55℃	

## 2. Installation

- \* Before using the opener, check power supply, grounding, voltage, etc.
- \* Check whether it is connected according to the demand of wiring diagram.
- \* The gate should be pulled easily and smoothly manually when the worm gears are released.
- \* The worm gears will be coupled before power on.
- \* The product must be installed by professional person.

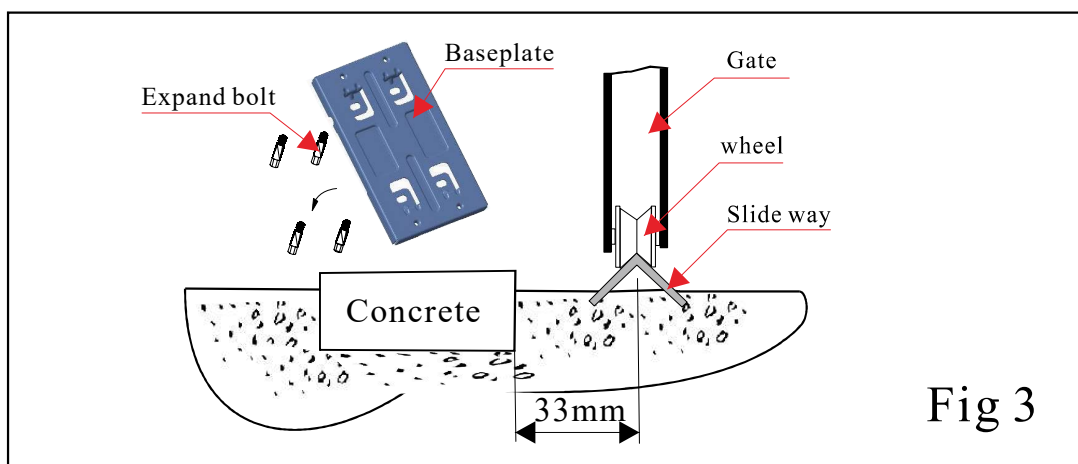
### 2.1 Example of an installed automatic sliding gate



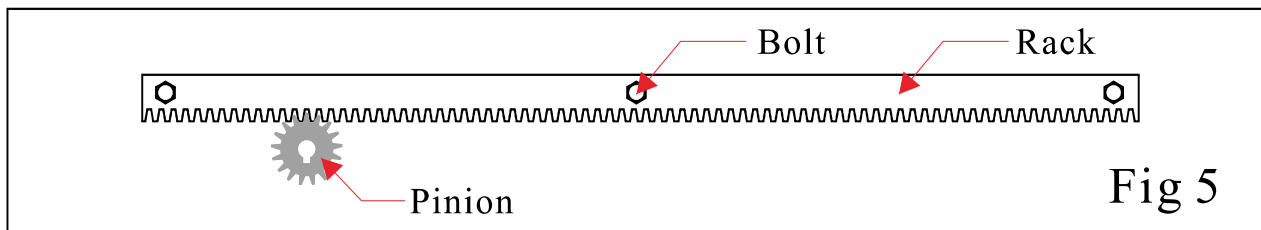
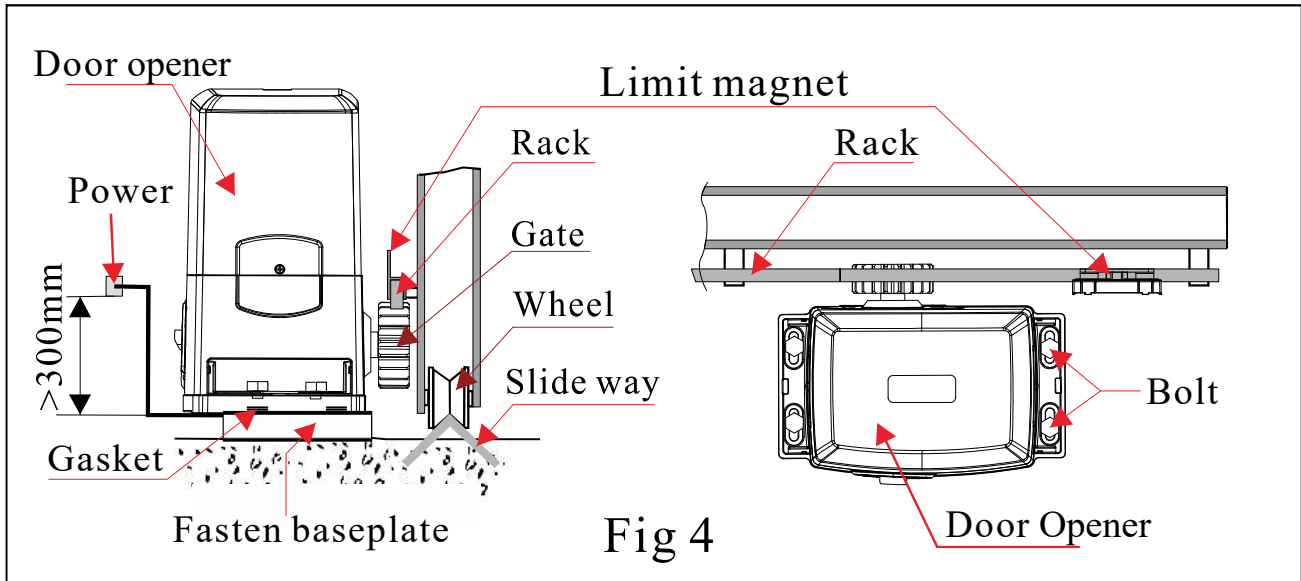
### 2.2 Installation and adjustment

- 2.2.1 Install baseplate on the ground, then, fasten the sliding motor on the baseplate

**Key: Ensure baseplate on level position.**

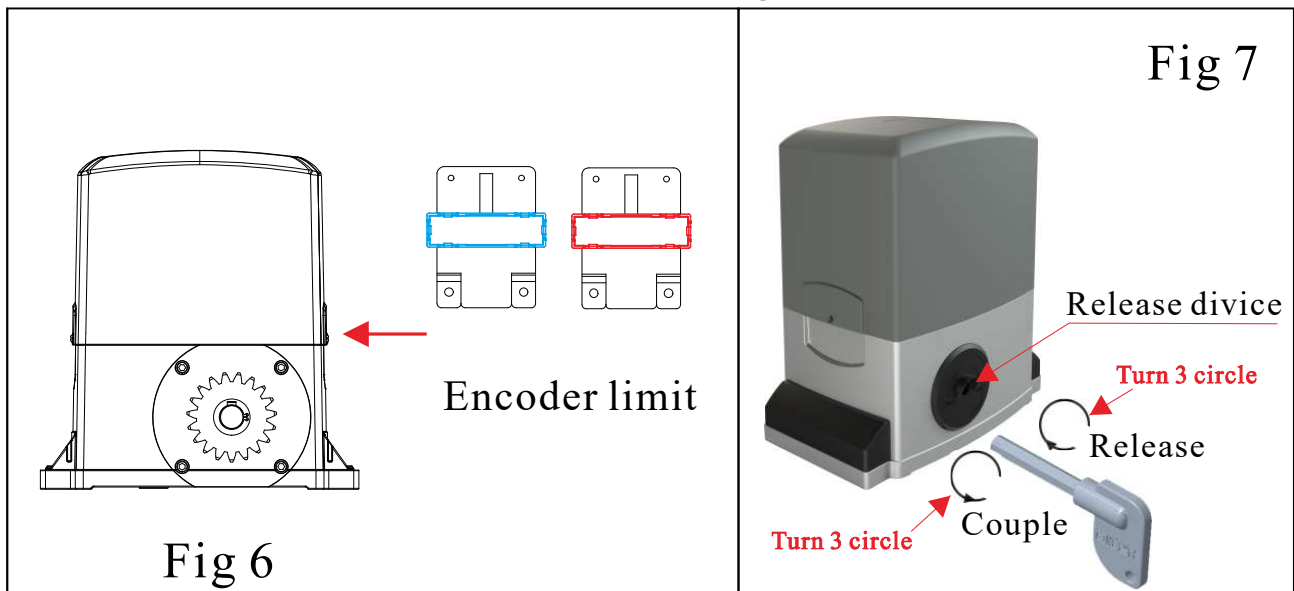


## 2.2.2 Install the limit magnet at proper position on the steel rack



Before place the limit magnet on the rack, the gear box of the operator must be released. As per Fig 4 or fig 7, use the key turn clockwise to release the gear.

Magnet



Move the gate manually to the open limit and close limit, mark the points on the rack, then, fix the limit magnets at the limit points on the rack,

Note: when clutch key rotates clockwise, if it cannot be rotated, it shall not be rotated forcibly;

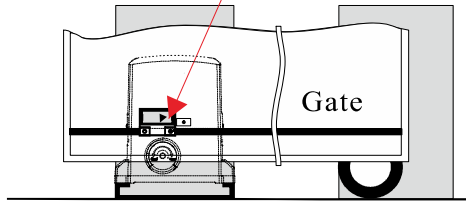
### 3. BS-SZAC Magnetic limit debugging

When the door opener is installed on the left side.

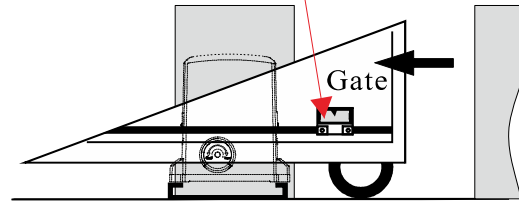
Fig 8

Close limit magnet

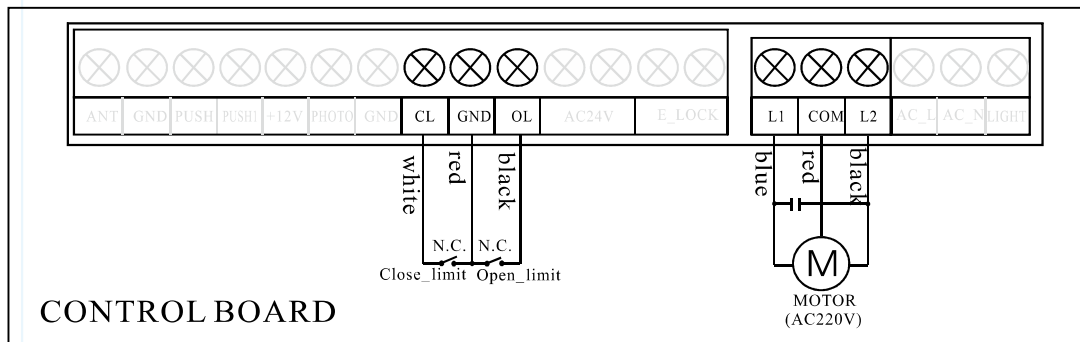
Open limit magnet



Closed state



Open state

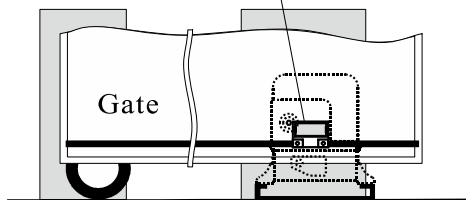


When the Operator is installed on Right side.

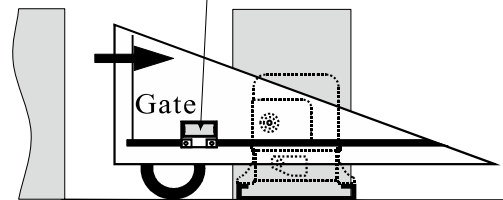
Fig 9

Close limit magnet

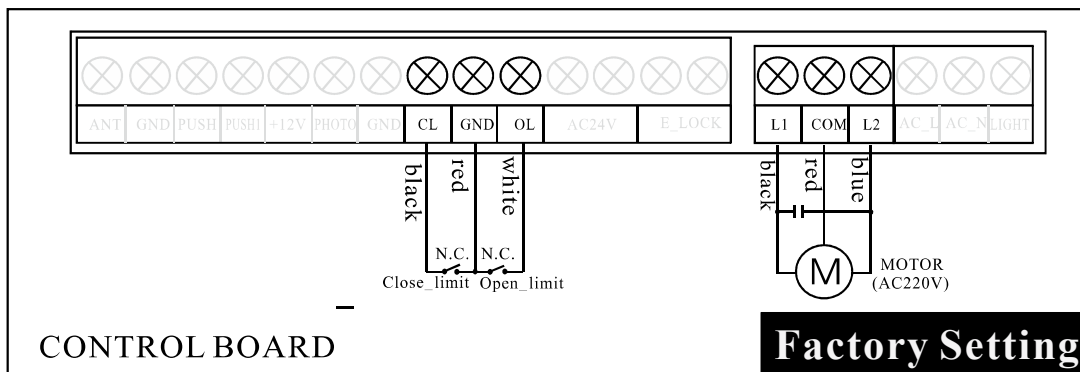
Open limit magnet



Closed state



Open state



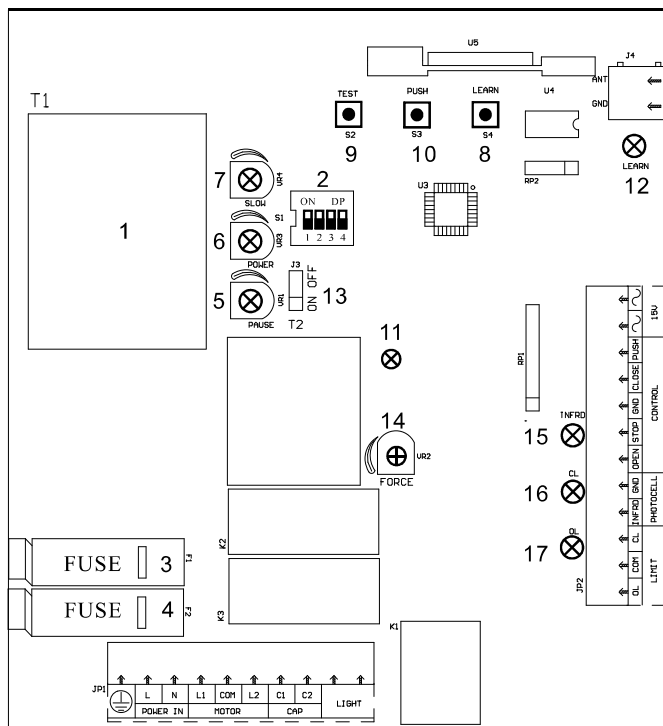
**NOTE: Magnet must be 10mm~20mm space from the operator, and must be same height with the Magnetic switch inside of the Operator.**

## 4、AC Controller(BS-SZAC)

### 1) Technical Specifications

voltage	230V 50/60HZ
peripheral power	AC15V 3W MAX
temperature	-20℃ ~ +55℃
pause time	0 ~ 100S
remote frequency	433MHZ

### 2) controller layout and definition



- 2.Dip-switch
- 3.fuse(0.2A)
- 4.fuse(10A)
- 5.pause adjust knob
- 6.power adjust knob
- 7.slow-down adjust knob
- 8.learn button
- 9.test button
- 10.cycle button
- 12. learn LED
- 13.force return jumper  
(ON: available)
- 14. force adjust knob
- 15. photocell LED
- 16.close limit LED
- 17.open limit LED



### 3) Diagram

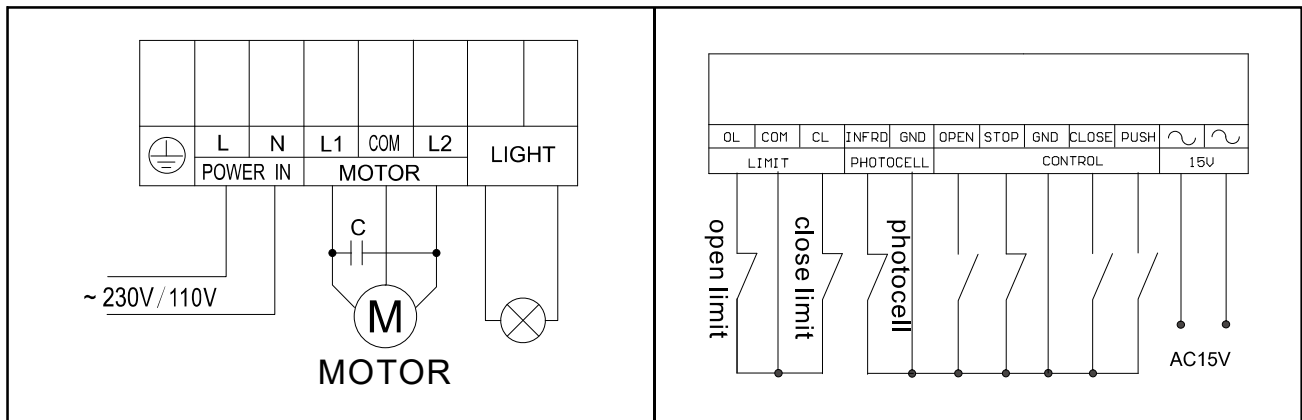


diagram1

diagram2

### 4) Dip-switch setting and knob



- switch1: ON: Auto-close function available  
OFF: Auto-close function invalid
- switch2: ON: Soft start function available  
OFF: Soft start function invalid
- switch3: ON: Slow-down available  
OFF: Slow-down invalid
- switch4: ON: Single step cycle mode  
OFF: reserve



Vr4: Motor power adjust



Vr3: Auto-close time adjust

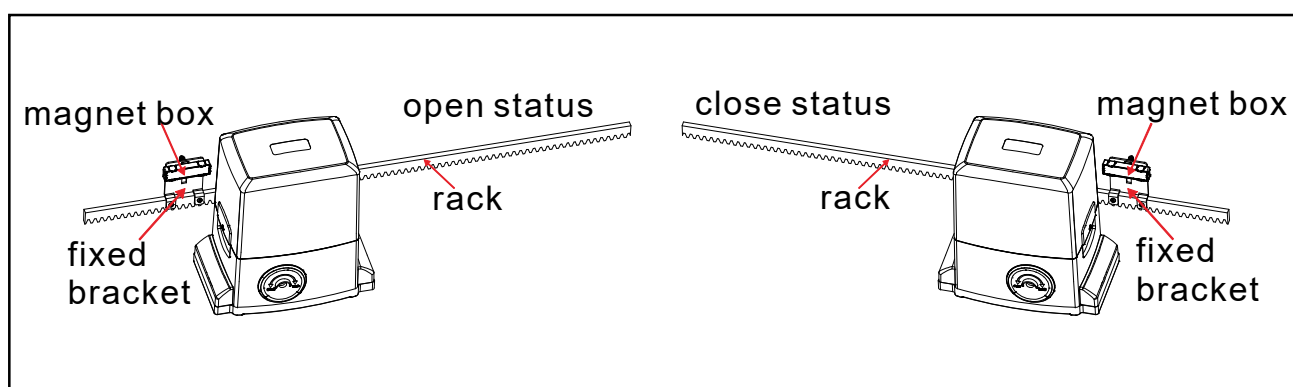


Vr1: Slow-down adjust

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## 5) Regulation process

When installing the limit magnet box, first use the clutch key (attached) to release the clutch, push the sliding door to the required initial opening position, and then fix the fixed bracket of the installed magnet box on the rack with screws; then close the clutch, and run the door to the required closing position by electric drive, Another fixed bracket with a magnet box is fixed on the rack with screws; the door is opened and closed by moving the door electrically, and the front and rear position of the fixed bracket is adjusted to achieve the best opening and closing effect.



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## 5. Remote

### 5.1 Remote control learning

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#### 1. Single key loop control key learning:

Click the “LEARN” button once, the indicator “LEARN LED” will light up, and then press and hold the button on the remote control One button until the “LEARN LED” flashes off and is released;

#### 2. Door button learning:

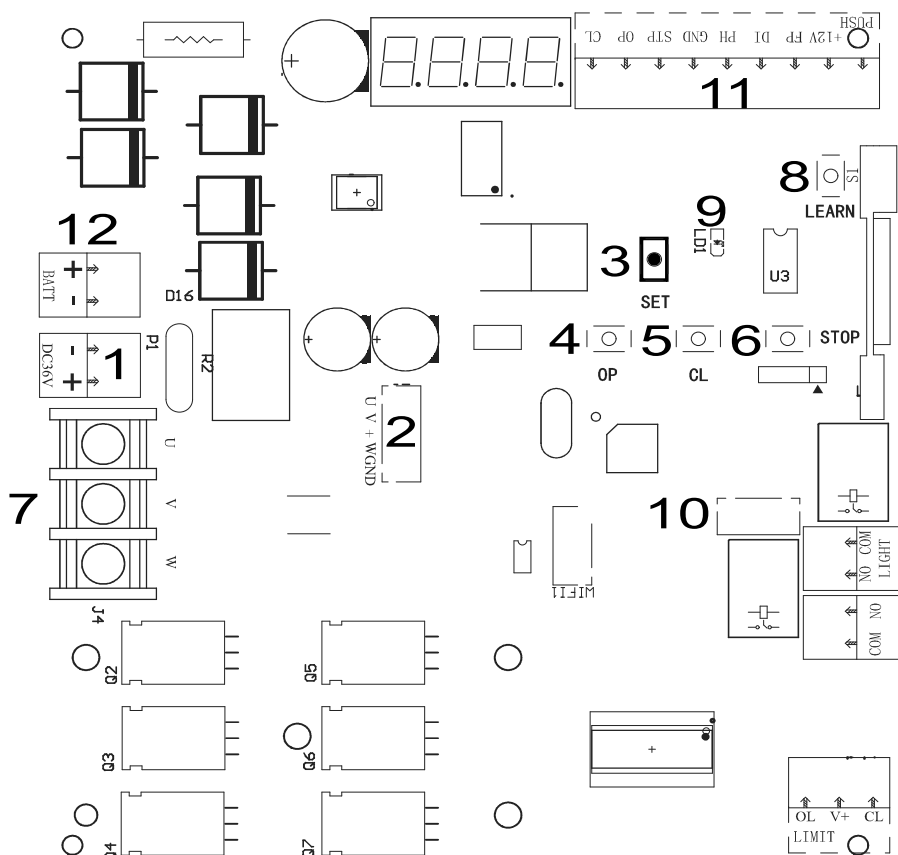
Click the “LEARN” button for two consecutive times, and the indicator “LEARN LED” flashes twice and lights up, then press and hold the button on the remote control Another button, until the “LEARN LED” flashes and goes off;

## 6、DC Controller(BS-SZDC)

### 1) Technical Specifications

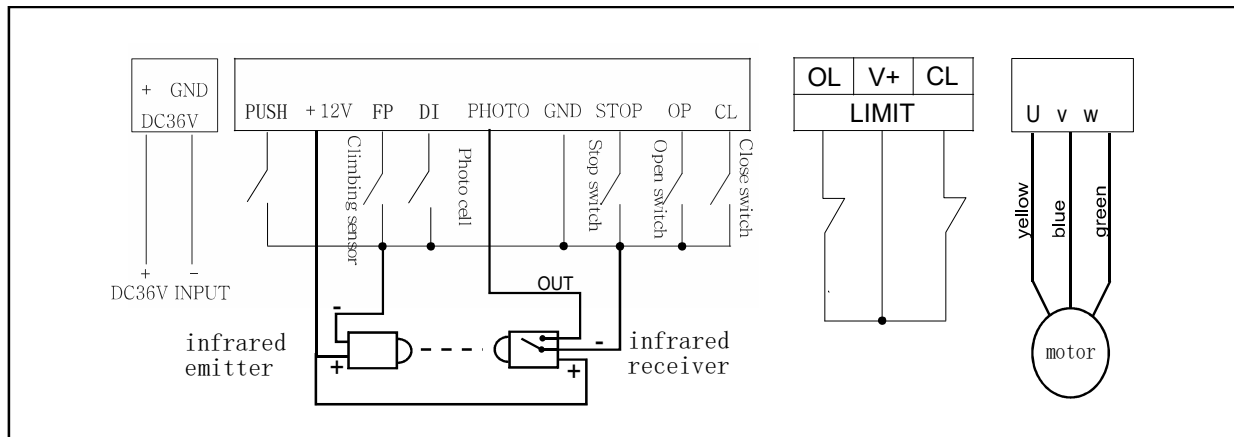
voltage	DC36V
static power	<2w
temperature	-20℃ ~ +55℃
pause time	0 ~ 99S
motor power	350W
peripheral power	DC12V 5W MAX

### 2) controller layout and definition



- |                         |                        |
|-------------------------|------------------------|
| 1.DC36V input           | 6.stop button          |
| 2.hall interface        | 7.motor interface      |
| 3.SET button            | 8.remote learn button  |
| 4.open button           | 9.remote LED           |
| 5.close button          | 10.Encoder interface   |
| 11.peripheral interface | 12.battery power input |

### 3) Diagram



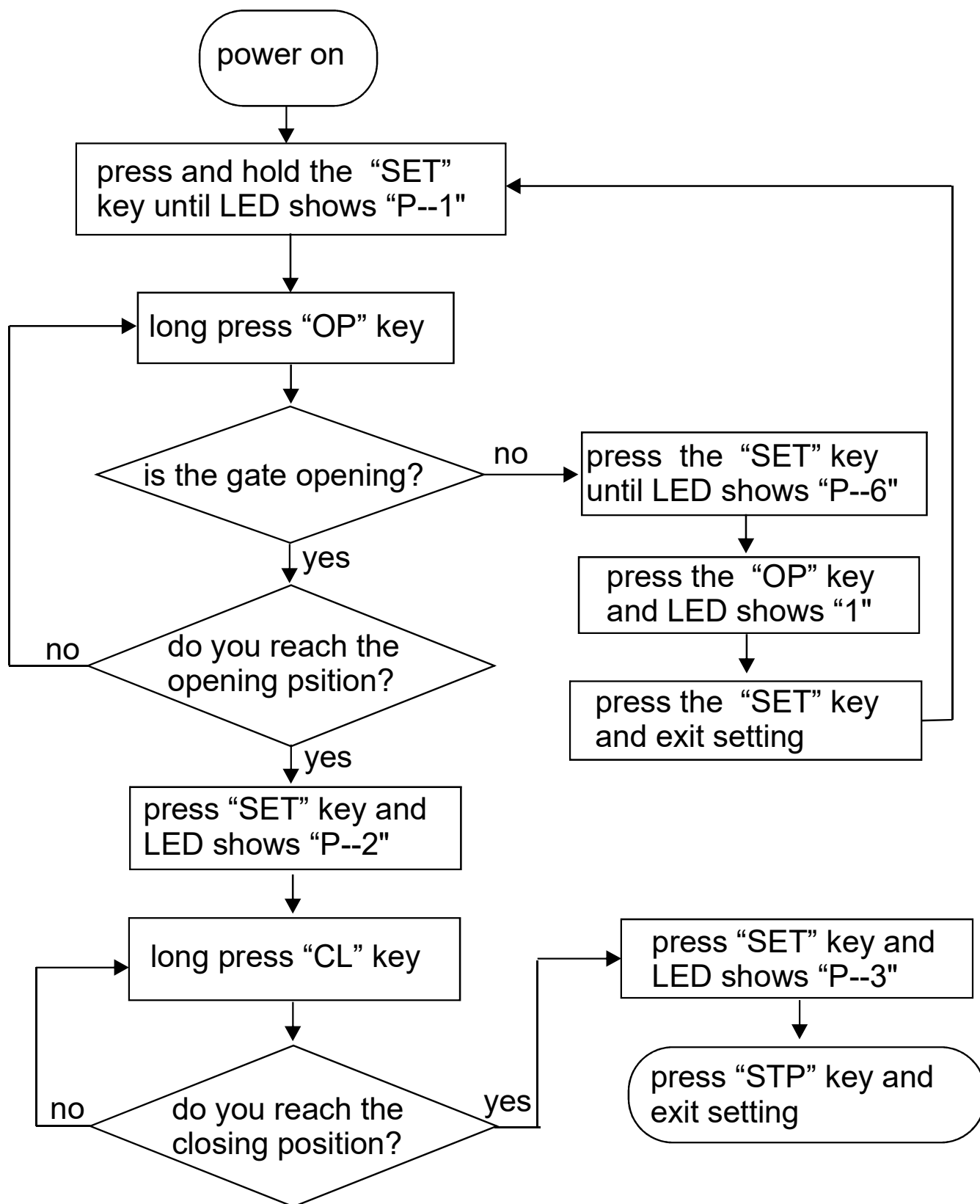
### 4) Meaning of display

P--1	Open limit setting.
P--2	Close limit setting.
P--3	Motor power adjust. the higher value, the higher power
P--4	Force adjust. the higher value, the higher force.
P--5	Auto-close time adjust. Default 0.
P--6	Motor running direction setting. Default 0. Change motor running direction set to 1.
P--7	0: Single key mode      1: Three key mode
P--8	0: Normally open photocell      1: Normally closed photocell
P--9	Motor power slowdown adjust
P--10	0: Magnetic limit      1: Encoder limit
P--11	Deceleration length adjust

Note: The P--1 and P--2 needs to be set in magnetic limit mode for deceleration. See next page for setting method.

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\* Setup steps



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## 6)、Coding transmittte

### 1) Transmitter's code setting

Press "LEARN BUTTON",the "LEARN LED" light, then, press the button which you choose on the transmitter till the "LEARN LED " flash and go out, Now, the transmitter is coded. Other transmitters can be coded as this way

**Specification maybe changed without a prior notification.**

### 2) Erasing the transmitter's code

Erasing transmitter codes: Press" LEARN BUTTON"and hold on to make the "LEARN LED"light till go out. Now, all codes of transmitters which had been learnt are cleared.

## 7) Trouble Shooting

Trouble	Cause	Shooting
no display after power on	no power	check power
motor doesn't work	motor wiring error	check the circuit
	parameter setting error	set parameter
remote doesn't work	battery runs out	change battery
	remote broken	change remote
	remote weak signal	avoid obstacles or interference source
motor work but door don't work	clutch release	check clutch

## APPENDIX: 36 VDC power supply wiring diagram

