SLIDING GATE OPERATOR

INSTRUCTION

BS-ET(2.48K)

PLEASE READ THE MANUAL CAREFULLY
BEFORE INSTALL AND USE

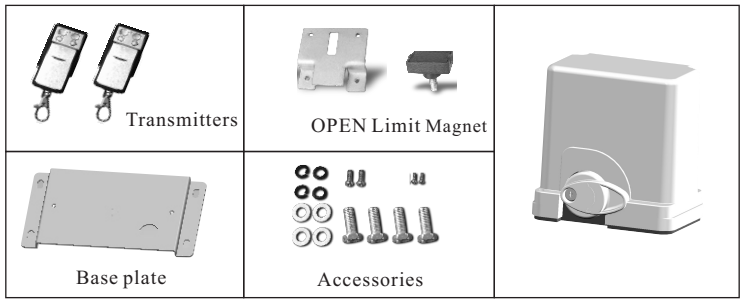
WARNING TO THE INSTALLER AND USER

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 motorized, 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 to 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 person.

1. Introduction

1.1 Package:

BS-ET
Complete kit



1.2 Technical Specifications:

Model	BS-ET
Power supply	230V+10% 50HZ,120V/60HZ
Power of Motor	24VDC 50W
Current	10A
Battery(Optional)	24V/3.5AMP
Motor rotational speed	2200r/min
Max weight of gate	400kg
IP class	Ip45
Working environment	-10℃~55℃

1.3 Description of components:

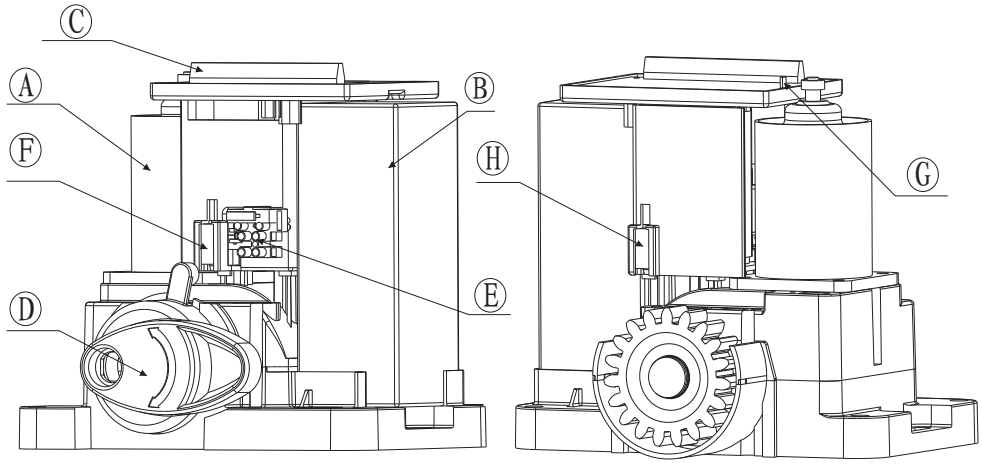


Fig1

Ⓐ MOTOR
Ⓑ BATTERY(optional)
Ⓒ CONTROL BOARD
Ⓓ RELEASE HANDLE
Ⓔ FUSE(1A)
Ⓕ RELEASE SENSOR
Ⓖ HALL SENSOR
Ⓗ OPEN LIMIT SENSOR

2. Layout of PCB and wiring diagram

2.1 24VDC control board:

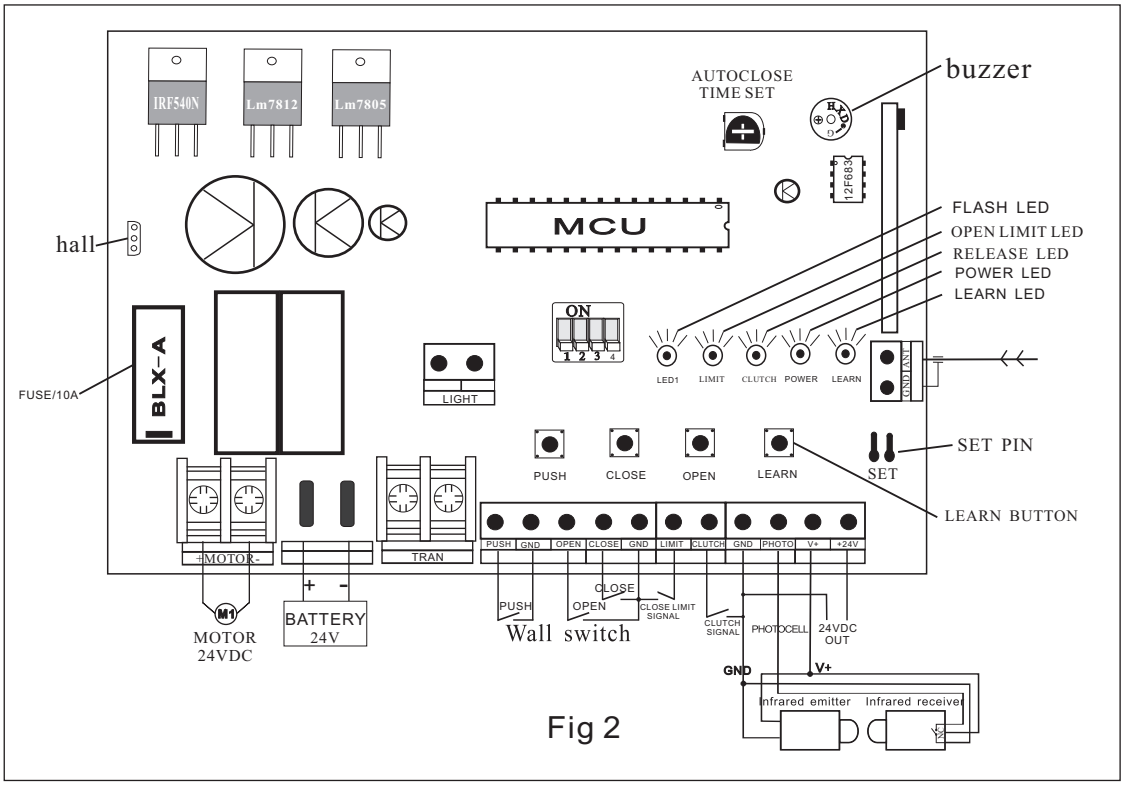


Fig 2

2.2DIP-Switch setting:

ON 1 2 3 4 OFF	Force level 1	ON 1 2 3 4 OFF	open to left
ON 1 2 3 4 OFF	Force level 2	ON 1 2 3 4 OFF	open to right
ON 1 2 3 4 OFF	Force level 3	ON 1 2 3 4 OFF	Autoclose function is invalid
ON 1 2 3 4 OFF	Force level 4	ON 1 2 3 4 OFF	Autoclose function is available

The running force can be adjusted by DIP1, DIP2, As the above show, the level goes up from 1 to 4.

3. Installation

* Before using the Operator, 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 before installing Operator
* The product must be installed by professional person.

3.1 Example of an installed sliding gate:

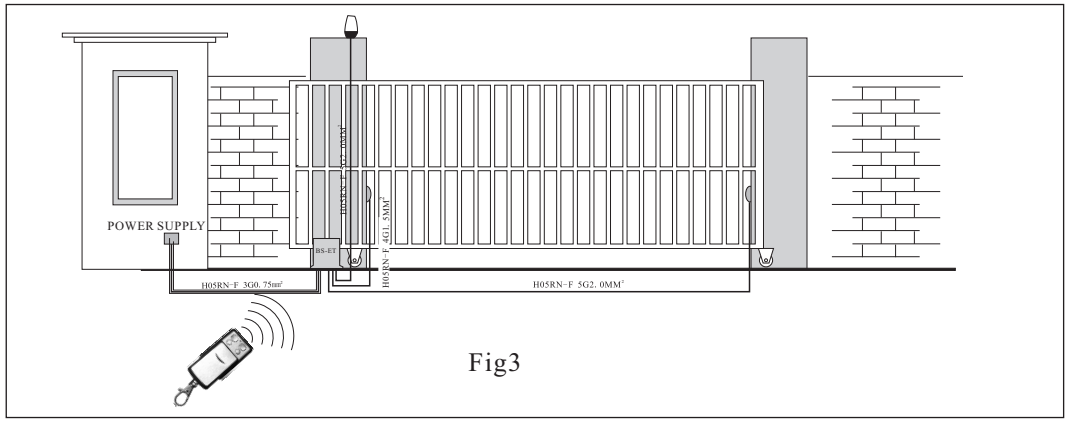


Fig3

3.2 Installation and adjustment:

3.2.1 Install baseplate on the ground.

Key: Ensure baseplate on level position.

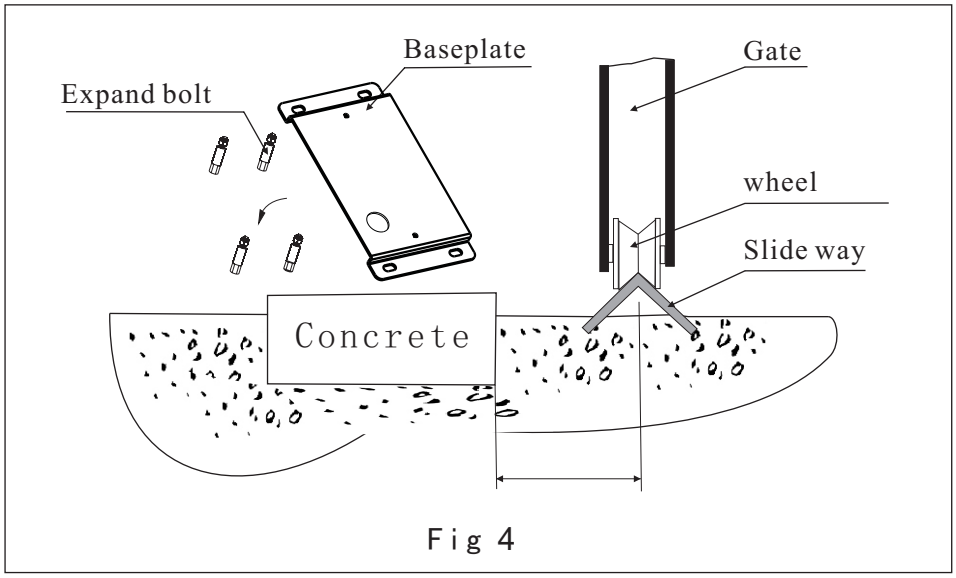
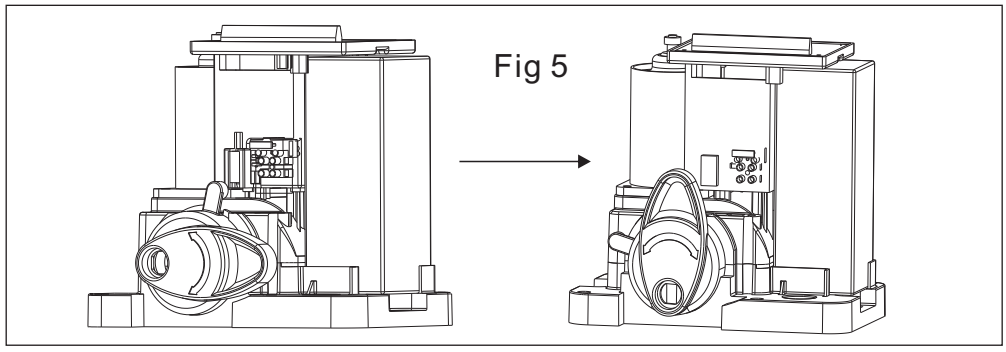


Fig 4

3.2.2 Fasten the sliding motor on the base-plate.

Before fasten the sliding motor on the base-plate, the gear box of the operator must be released. As per Fig5, Use the key to turn clock wisely, then turn the release handle anticlockwise to unlock the gear.



As the fig6,fasten the sliding motor on the base-plate.

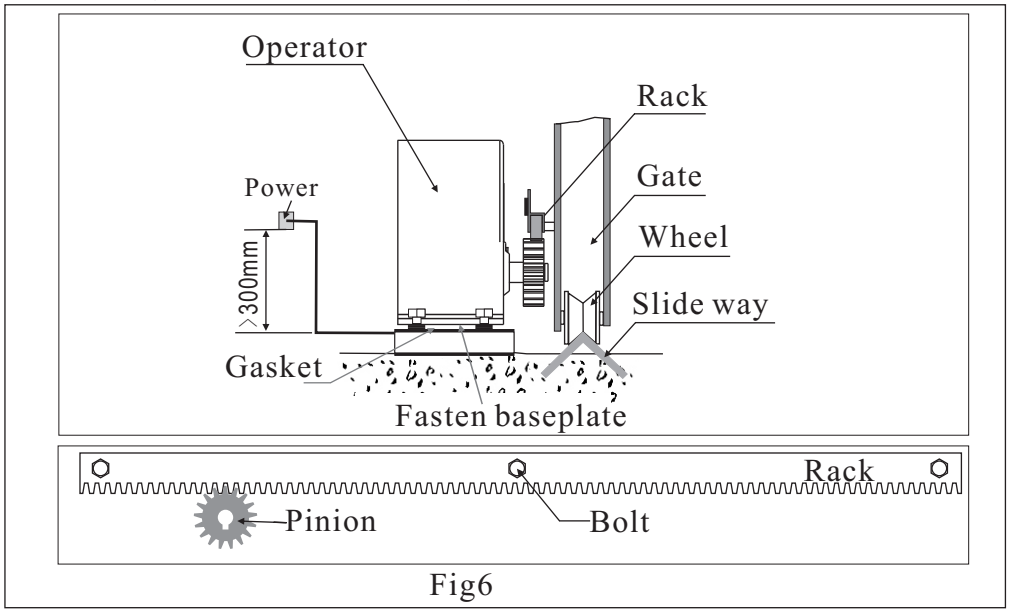
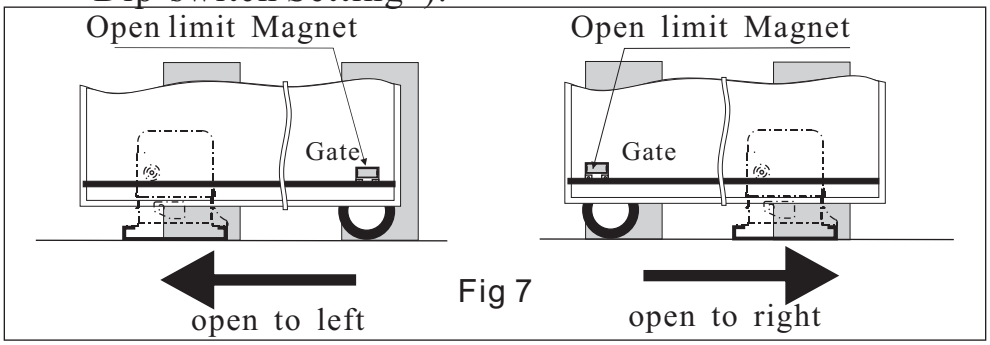


Fig6

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

3.2.3 Set the dip-switch 3 to choose working mode(see "2.2 Dip-switch Setting").



3.2.4 Connection of power(E):

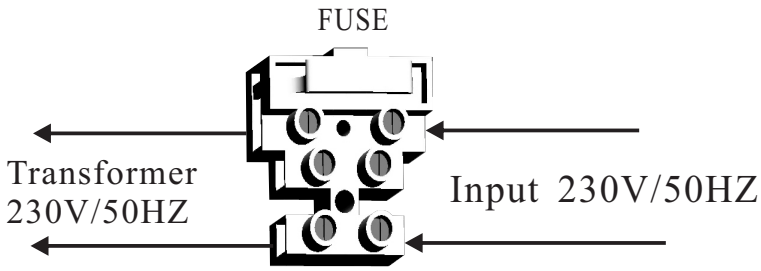


Fig 8

3.2.5 Install the Open Limit magnet at proper position on the steel rack.

Open the gate manually totally , mark the point on the Rack when the "LIMIT LED" is ON, then, tightly fix the limit Magnet at the limit point on the Rack.

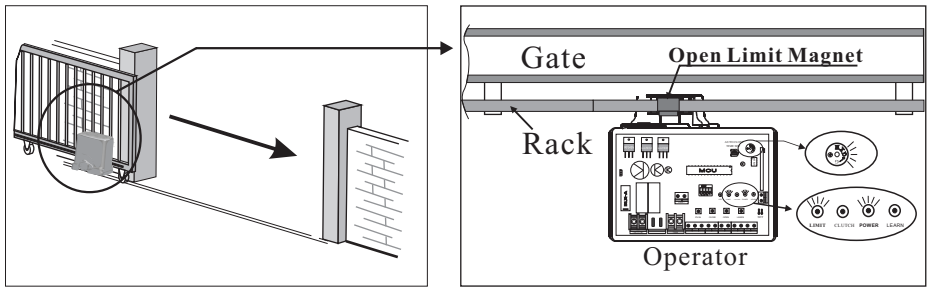


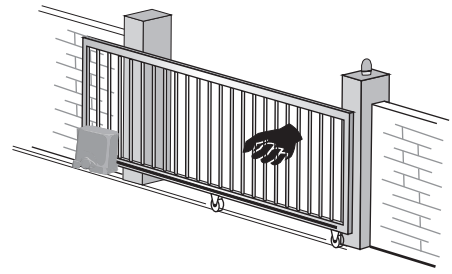
Fig9

Now, the buzzer continue "Bi...",and the "Limit LED" is ON.

3.3 Programming:

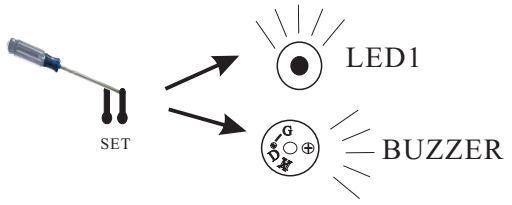
Note: Before programming, make sure the Open Limit Magnet is on correct position.

3.3.1 Close the gate completely.

Close the gate to correct position manually. then, turn the release handle clockwise to lock the gear.	

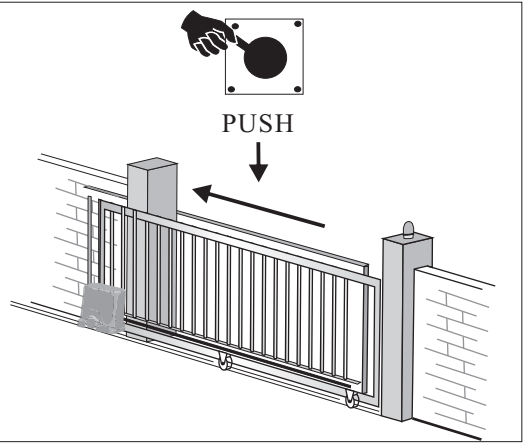
3.3.2 Clear the Original memory of limit

Short connect the “SET” and hold on to make "LED1" flashing and buzzer Bi, Bi, Bi.



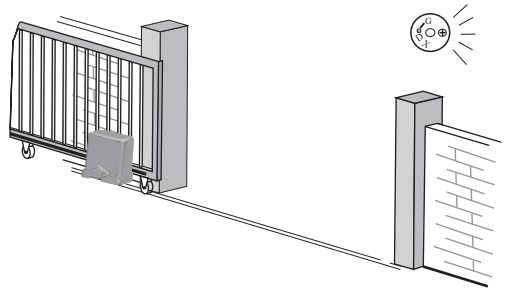
3.3.3 Program the New Limit

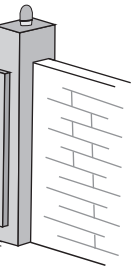
Press " PUSH " button on the control panel, the gate starts opening slowly.



3.3.4 Find the Open Limit automaticly

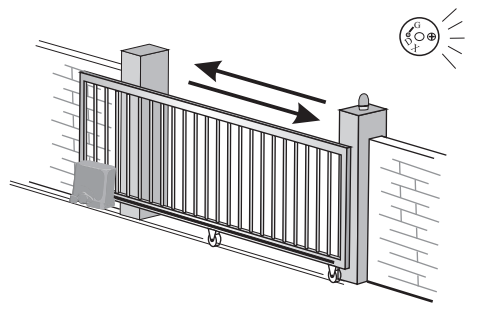
When the gate opens completely, it stops at the point of Open Limit Magnet. At this moment,"LED1" flashes and BUZZER "Bi"





3.3.5 Program the force leverl

After that, the gate closes and opens a cycle automatically to test the force automatically. “LED1" flashes and BUZZER Bi, Bi, Bi. Programming is over.



3.4 Coding transmitter

1.**Control motor step-by-step**:

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.

2.**Full opening 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.

3.5 Erasing 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 erased.

4.Trouble shooting:

Number	Trouble	Cause	Shooting
1	motor can not work	*No power supply *Break fuse *Surpass load *Clutch is released	*Check power supply *Change fuse *Check if any barrier on track *Engage the worm gears
2	Can open but can not close and the gate running slowly	*No correct programming	*Reset the programming step-by-step according to page 7.
3	The distance of remote control is too short	*The battery in transmitter is weak *The receiver is damaged *There is magnetic field or high-frequency to interfere	*Replace it with a new one *Change the receiver *Replace the receiver and transmitter in different frequency
4	Release device	*Operating handle is broken *Worm gears are jammed	*Change the handle *Rotate the pinion
5	Push the “open” button but the gate close	*Wires of motor are connected wrong *The dip-switch(mode mode) is set wrong	*Connect correctly according to wiring diagram. *Change the dip-switch “open to left” or “open to right”.
6	Motor can turn but can not work	*Compression spring of clutch is dead *Gear box is released	*Change the spring *Couple the worm gear
7	Two beeps alarm before the gate run.	*Low power in Battery	*Change a new 24V3.5AMP battery

Specification maybe changed without a prior notification.