



CASA-MH

Frequency Conversion Series

Sliding Door Opener



Instruction Manual

I .Safety Precautions And Precautions

CASA-MH series door opener needs professional installation

1. Pay attention! Please follow the instructions carefully, which is very important for personal safety; Improper installation or improper use of the product may cause serious damage to persons and property;
2. Please read the instructions carefully before installing the product;
3. The installation must strictly abide by the relevant national standards, mechanical parts must meet the relevant national standards;
4. The voltage of the power supply should meet the requirements of the machine, and have good grounding, the power supply should be equipped with leakage and short circuit protection;
5. Before system maintenance, the power supply should be cut off to check whether the grounding system is correct;
6. It is strongly recommended to install safety devices (such as infrared beam protection), and should be regularly checked to ensure normal operation;
7. The company is not responsible for the consequences caused by improper or beyond the prescribed scope of use;
8. If the process requirements of precision components are ignored during construction or the problems caused by deformation of these components, the company will not be responsible;
9. The product is designed and manufactured in strict accordance with the use guidelines shown in this document, and any use or operation not in accordance with the guidelines may damage the product or cause danger;
10. The company is not responsible for safety problems or abnormal operation caused by parts not produced by the company;
11. Do not make any changes to the components of the system;
12. The installer must introduce the operation method and the relevant provisions under the emergency state to the user in detail, and provide the user with the product manual;

13. When installing the product, children and other irrelevant personnel are strictly prohibited near, and the surrounding environment should be free of safety factors;

14. Before electric control operation, obstacles within the operating range of the door body should be removed, and vehicles and pedestrians are prohibited during operation;

15. The installation position and height should be appropriate, the environment should be ventilated, avoid rain, sun, children play, operate the remote control and control board switch;

16. If it is necessary to install the outer box, it should be considered that the outer box (metal products) has a shielding effect on the remote control reception, so as not to affect the function of the product to inconvenience you;

17. The remote control is placed in the place where children can not get, in case of accidents;

18. Users are strictly prohibited to try to repair or adjust the system, should contact professionals;

19. Keep the instructions for future use.

II. Main Functions And Working Conditions:

This door opening machine is used in the sliding door, its running speed is AC 12~24 meters per minute, CASA-MH-frequency conversion series sliding door opener suitable for AC 120V-240V, it has the characteristics of strong current when starting and bearing overload in a short time. When the current overload, the door machine has the role of protecting the current and the motor, in order to prevent the inconvenience caused by power failure, you can also use the manual hand on the motor to release the motor, and the door can be opened after release. Moreover, the motor is easy to install, less heat, large effect and simple operation.

III. Main Specifications And Technical:

Technical parameter			
Model	CASA-300MH	CASA-350MH	CASA-500MH
Input power supply	AC 120V/220V-240V		
Max.gate weight	3000KG	3500KG	5000KG
Rated power	1200W	1500W	2000W
Temperature	-45(°C)~+65(°C)		
Noise	≤56dB		
Certificate	CCC/CE		
Dimension	275×235×350mm		
Colour	black		

IV. Working Principle And Main Structure, Performance:

The dimensions of the door engine are shown in Figure 1. The door engine is composed of high-strength aluminum alloy housing, iron housing, high-quality single-phase motor, overrunning friction clutch, worm gear reducer, tooth clutch and output gear. When working, the motor spindle drives the reducer and the output gear through the transcendent friction clutch, and then the output gear drives the special rack installed on the translation door, so that the door body moves horizontally to realize the electric opening and closing of the door.

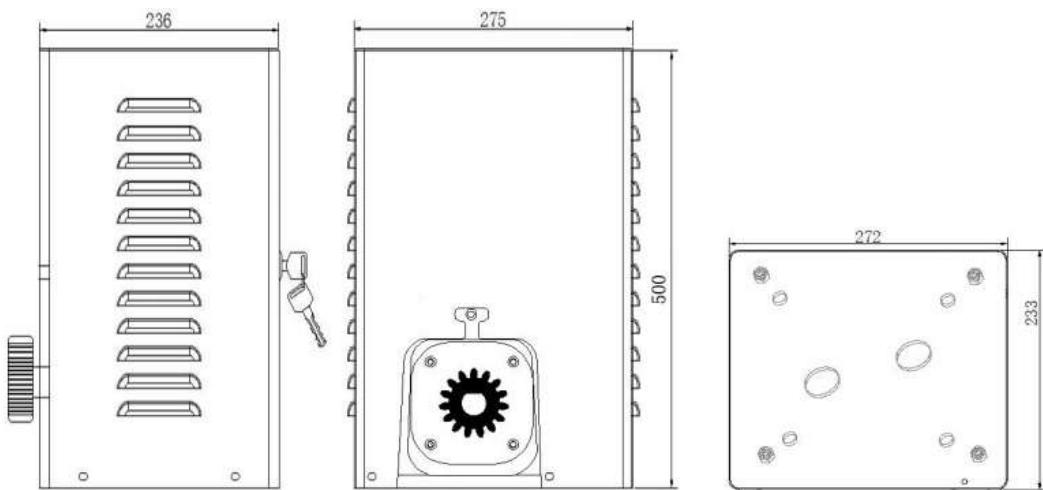


Figure 1

V. Installation And Commissioning:

1. The door opening machine and sliding door installation can be referred to Figure 2, and can be controlled by remote control to ensure safety, we recommend the installation of a limiting device to prevent the door from falling off the track when moving. The rails must be mounted horizontally and straight.

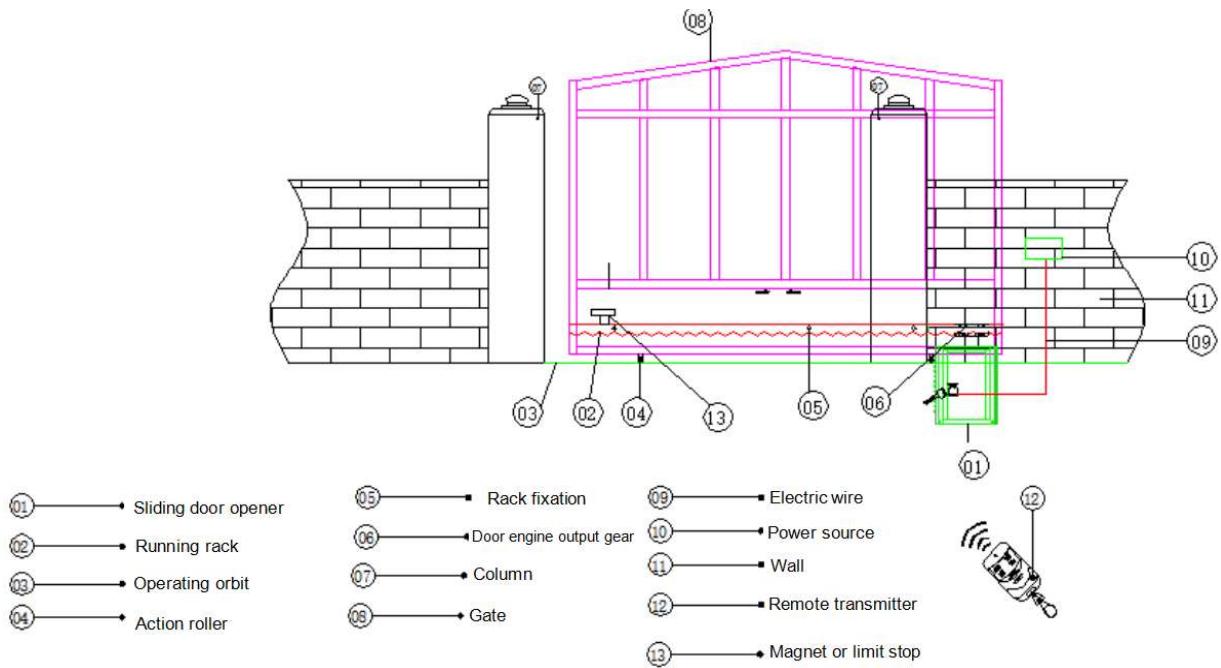


Figure 2

2. Installation of door opening machine:

The basic installation of the door opener is shown in Figure 3, there are two limits, you can choose. The position relationship between the door opener and the sliding door is shown in Figure 4. After the cement is solidified, place the door opener on the installation base plate. The installation base plate should be horizontal and adjusted to the appropriate position according to the direction shown in Figure 4. Then tighten the nut on the installation foot to make the door opener firmly connected to the base.

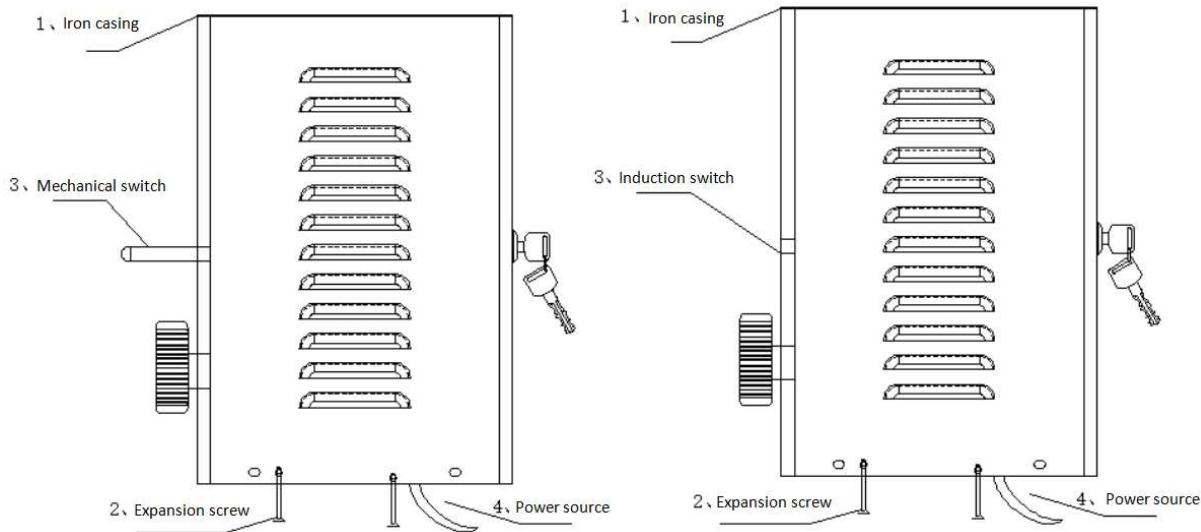


Figure 3

3. Installation of bracket:

- (1) In the position where the output gear and rack can be reliably meshed, the cylindrical nut is welded in the appropriate position at the lower part of the translation door and then the rack is bolted on the round bolt nut.
- (2) Adjust the position of the rack to ensure the engagement between the rack and the gear gap, and the engagement gap should be maintained at 1 mm.
- (3) Install the magnetic switch as shown in Figure 4 and Figure 5. The main engine is equipped with a magnetic induction (or spring) switch. Control the correct position for opening and closing doors. Use the special key to open the clutch control compartment, and then use the clutch handle to unload the clutch of the door opener (turn the handle straight to 90 degrees); Push the sliding door to the appropriate limit position at both ends manually, and preliminarily fix the assembled translation door limiter on the rack at both ends; (As shown in Figure 5) Please refer to the circuit board manual for details of the circuit installation and debugging.

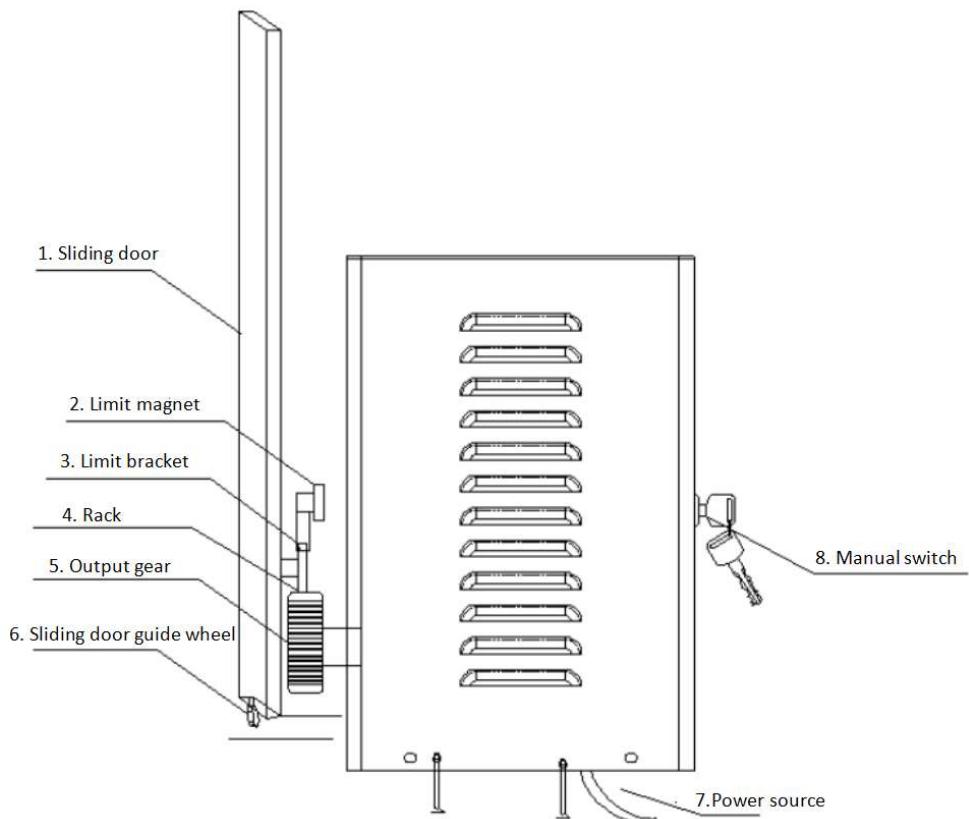


Figure 4

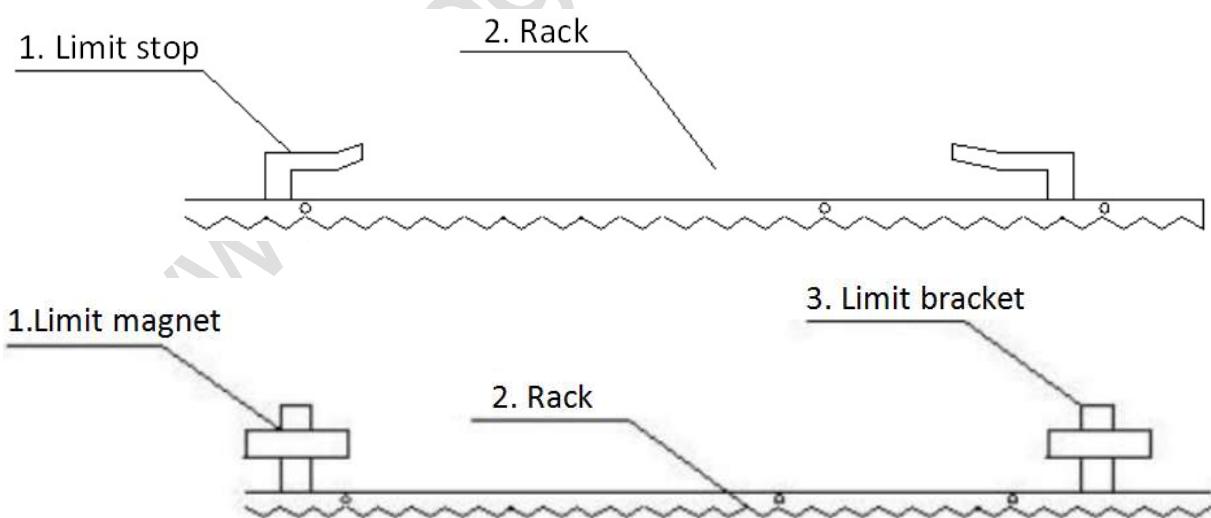


Figure 5

Note: 1. The direction of opening and closing the door is reversed, and two of the three lines of the motor U, V and W can be adjusted.

2. Open or close in place non-stop switching OP, CL

VI. Operation:

1. Before use, should carefully check whether the power supply voltage, frequency and other data meet the requirements, check whether the grounding is good, electrical wiring is correct;
2. First use the random special key to unlock, and then turn the handle straight to release the clutch, push the sliding door, so that the door opener idling, if the door opening machine is running normally, and then reset the handle to close the clutch.
3. Turn on the power, start the door opener, observe the operation of the sliding door;
4. Adjust the magnet or limit block position until the door opens and closes in accordance with the setting.

VII. Maintenance And Maintenance:

1. The connection between the special ejecting rod and the shaft should be covered with a small amount of anti-rust grease to prevent rust;
2. Often check whether the electrical grounding is good;
3. The machine adopts advanced lubrication grease, no need to replace or add lubricant.

VIII. Possible Obstacles And Elimination:

1. After opening or closing the door opener, the sliding door fails to return to the original position;
 - (1) Please check whether there are obstacles on the gear or door rail.
 - (2) Check whether the position of the magnetic switch is correct.
 - (3) Open the manual clutch, push the door back to the original position or adjust the position of the magnetic switch.
2. The door cannot be moved under the operation of the control board and remote control: when the limit is reached.
 - (1) Lift the door away from the output gear and push the door back.
 - (2) Use special tools to unload the fixed motor screws, remove the motor, and push the door back.
 - (3) After a period of use, rebound appears as if the door body is abnormal, and the resistance on the circuit board can be adjusted to improve.

CASA MH Intelligent Variable-Frequency Electric Control Board

1. Warning:

Important notice: Before any operation (wiring, repair) on the electric control board, the power must be turned off.

Install an appropriate circuit breaker at the incoming line position.

Connect the ground wire to the corresponding terminal of J1 on the electric control board (see Figure 2). The power cord and control cables (buttons, receivers, infrared safety protection, etc.) must be separated. To avoid electrical interference, it is recommended to use shielded cables.

2. Technical Specifications

Model:CASA-MH

Power Supply (+6% - 10%):230V

Absorbed Power (W) :10

Maximum Motor Load (W) : 750W

Maximum Accessory Load (A) : 0.3A

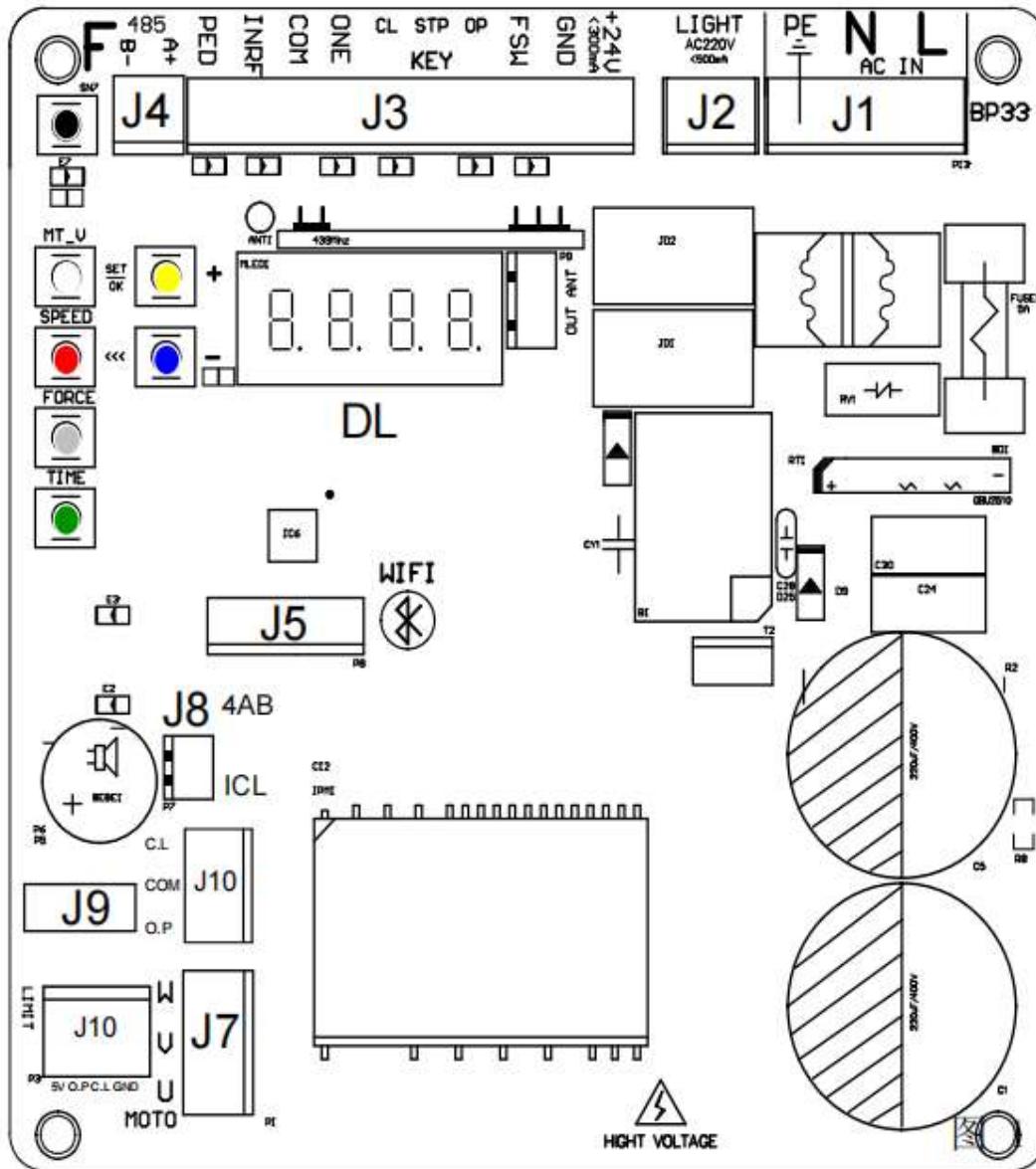
Operating Environment Temperature:-20°C - +50°C

Fuse :5A

Basic Setting Functions : See Table 1

Advanced Setting Functions :See Table 2

3. Circuit Layout and Components



DL	On the display screen, "O" represents opening the door and "C" represents closing the door.
LED	Input signal status indicator
J1	Power connection terminal (AC230V)
J2	Flashing light connection terminal (AC230V <60W)
J3	Low-voltage connection terminal
J4	485 communication connection terminal
J5	Bluetooth/WIFI module interface
J6	Motor Hall sensor interface
J7	Motor interface
J8	LED lamp interface
J9	Limit switch interface
J10	External stroke interface
F1	Motor/Transformer fuse (230V = 5A)
F(Black)	Manual single-key cycle/Function setting quick exit button
MT_V	Quick setting button for motor slow speed (15 - 35)
SET(White)	Long-press for 3 seconds to enter the function menu setting

SPEED	Quick setting button for motor fast speed (15 - 100)
<<<(Red)	Digit shift key
+(Yellow)	function setting increase button
- (Blue)	function setting decrease button
FORCE (gray)	Adjust the force when the electric door encounters an obstacle during closing. The larger the value, the greater the resistance force.
TIME (green)	Motor slow position adjustment/Quick slow learning function

4. Adding and Deleting Remotes

Adding Remotes:

Long press the + key (yellow) for 3 seconds. After "5XXX" is displayed, release the key. Immediately press and hold any button on the remote control. A beep indicates successful learning. Repeat the operation to continue learning. A maximum of 250 remotes can be learned.

Deleting Remotes:

Long press the + key (yellow) for 3 seconds. After "5XXX" is displayed, release the key. Immediately press and hold the - key (blue) for more than 5 seconds. A long beep will sound and "DELO" will be displayed.

5. Slow Position Setting (Motor Protection Time)

A. Automatic Mode

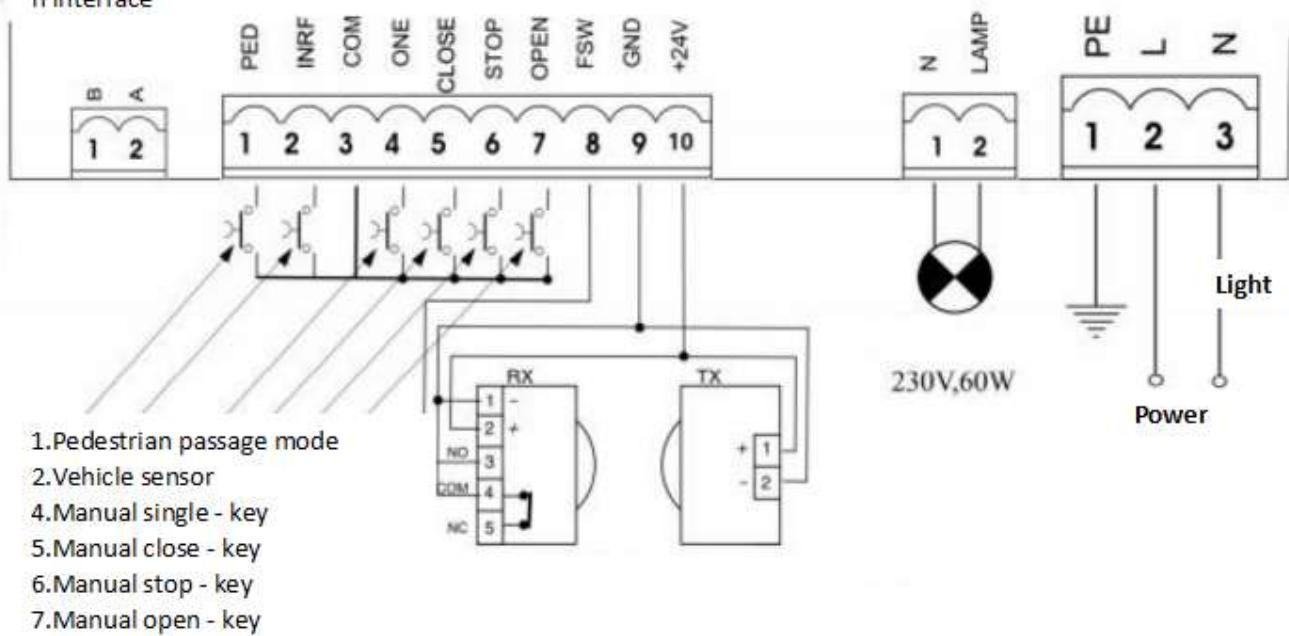
When powering on, let the door open and close once. The distance can be set through the TIME button.

B. Manual Mode

With the door in the closed position, long press the TIME button. After 5 seconds, release the button when the door starts to move. The door will first open and then close, and the setting is completed. The slow speed distance can be set through the TIME button.

Note: The speed displayed on the LED screen during motor operation is the actual running speed of the motor (for example, the value * 30 means the actual rotation of the motor). If the set speed value is too large or the door is too heavy, the actual speed will not reach the set speed value, indicating that the set value is too large or the door weight exceeds the thrust range of the motor. The appropriate speed of the motor is 50 (50 * 30 = 1500 rotations).

6. Circuit Connection



7. Circuit Connection

7.1 J1 Terminal - Power Supply (Figure 1)

Power Supply (Terminals PE - N - L)

PE: Ground Wire

N: Power Supply (Neutral Wire)

L: Power Supply (Live Wire)

Note: The system must be connected to the ground wire and a suitable air - switch should be installed at the incoming line position.

7.1 J2 Terminal - Flashing Light (Figure 1)

Flashing Light - (Terminal J2): AC230V flashing light output

7.1 J3 Terminal - Accessories (Figure 1)

INRF - (Terminal 1) Vehicle sensor input

When the door is closing and a vehicle sensor signal is input, the door will first perform an opening action for 5 seconds. If there is no signal input at this time, the door will first stop and then continue to perform the closing action. If there is always a signal input, the door will open to the limit position and stop. When there is no signal, the closing action will be executed.

ONE -Single key cycle button input. When there is a signal input, the actions of open - stop - close - stop are executed respectively.

CL - Door closing button input. When there is a signal input, only the door closing action is executed.

STP - Stop button input. When there is a signal input, only the stop action is executed.

OP- Door opening button input. When there is a signal input, only the door - opening action is executed.

FSW - Door closing safety protection device contact : To prevent collisions in the moving area of the door during closing. When the door is closing and the safety protection device is triggered, the door will move in the opposite direction until it stops at the limit position.

GND - -

+24V- 24V DC power supply

Important reminder: The maximum load of the accessories is 300mA.

7.1 J4 Terminal - 485 communication interface (Figure 1)

B - A+ : Used for two machine communication (connected with twisted -pair wires) to achieve functions such as two machine synchronization and AB door function. For specific function settings, refer to the F4 function in the advanced settings section.

7.1 J5 Terminal - External manual control interface (Figure 1)

This interface can be inserted with wifi module or Bluetooth module to achieve mobile phone control functions.

Quick Function Settings (O represents door opening, C represents door - closing)

Set Slow Speed:

Short press the white key (display shows O.15) -> Short press the yellow or blue key to set the value -> Short press the white key to save (display shows C.15)

Set Fast Speed:

Short press the red key (display shows O.15) -> Short press the yellow or blue key to set the value -> Short press the red key to save (display shows C.15)

Set Anti - jam Return Force:

Short press the gray key (display shows value) -> Short press the yellow or blue key to adjust the value (the smaller the value, the more sensitive) -> Short -press the gray key to save.

Set the Positions of Door opening and Door closing at Slow Speed:

Short press the green key (display shows O.20) -> Short press the yellow or blue key to set the value -> Short - press the green key to save (display shows C.20).

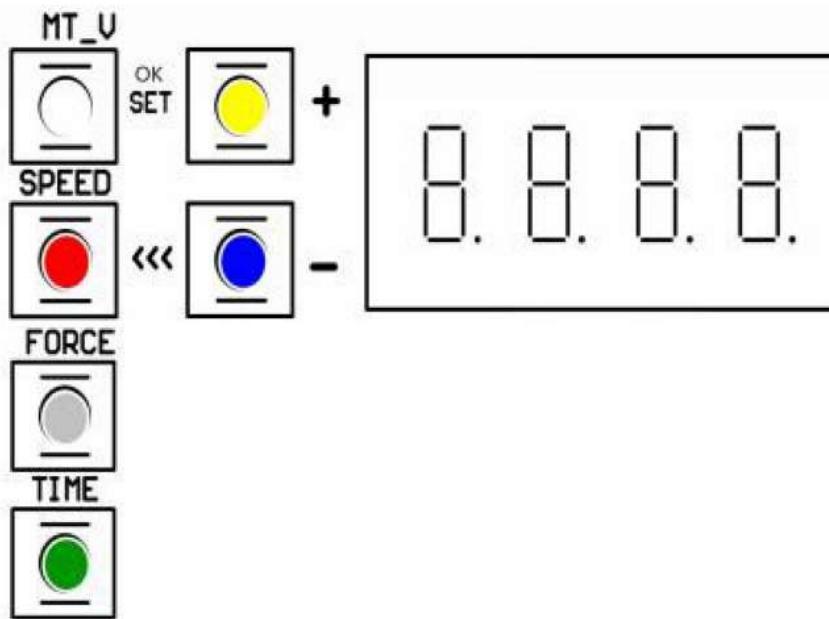
Set Motor Operation Time:

Close the door to the close limit , press green button for more than 7 seconds,when motor have action release your hand, door will open to the open position, and then close to the close position to complete the stoke setting.

Motor Direction:

Long press the white key for 5 seconds (display shows F.01) -> Short press the yellow key to F08 -> Short press the white key -> Short press the yellow or blue key to select the opposite number, and press the white key to save.

8. Function Settings



Display Screen

O represents door - opening.

C represents door - closing.

The actual motor speed is the value displayed on the LED multiplied by 30.

Quick Function Settings (After setting the value, press the same function key to save the value)

Button	Function
MT_V (White)	Set the slow speed for door opening and door closing. O: 5 - 35 C: 5 - 35
SPEED (Red)	Set the fast speed for door opening and door closing. O: 15 - 100 C: 15 - 100
FORCE (Gray)	Set the rebound force when the door encounters an obstacle during closing. The larger the value, the lower the obstacle - sensitivity.
TIME (Green)	Set the positions for door opening and door closing at slow speed. O: 0 - 100 C: 0 - 100

Motor Direction: Press the white key for 5 seconds, press the yellow key to F08, press the white key, press the yellow or blue key to select the opposite number, and press the white key to save.

Advanced Function Settings:

Press and hold the white key for 5 seconds to display F01. Switch functions through the yellow and blue keys, and press the white key to enter detailed function settings and confirm. Press the black key to quickly exit the settings, but the set data will not be saved.

Display	Function	Default Value	Remarks
F01	Remote - control mode 1. Remote control single key cycle 3. Remote control three - key cycle 4. Four key same single key cycle	3	When set to single key function 1, the operation key is the key used during learning.
F02	Stroke , Infrared, Loop detector	0	000 indicates all are NO

	0 :Function off 1 : NC Set by <<<		100 indicates only the stroke is NC 010 indicates only the infrared is NC 001 indicates only the loop detector is NC
F03	Automatic door closing function 0 :Function off Auto close time can be set from 1-250s	0	For example: 3 means the door will close automatically after 3 seconds.
F04	Two motor communication function 0. Function off 1. Dual - motor synchronous and asynchronous function 2. AB door function 3. Communication control function 4. 4 - motor AB door function	0	Dual - motor synchronous operation: The master machine enters F4, selects 1, SET, 0.000, presses +, 0.001, SET, C, 0.000, SET to save. The slave machine enters F4, selects 1, SET, 0.000, SET, C, 0.000, SET. Dual - motor asynchronous operation: The master machine enters F4, selects 1, SET, 0.000, presses +, 0.002 (door - opening for 2 seconds), SET, C, 0.000, presses +, C, 0.003 (door - closing for 3 seconds), presses SET. The slave machine enters F4, selects 1, SET, 0.000, SET, C, 0.000, presses SET. AB function: Set both motors to 2.
F05	Motor Protection Time Function 0. Function off 1 - 9999. Function on	2700	Operating speed is 50ms at a unit of 50Hz
F06	Remote control Lock Function 00: Lock function off 01: Turn on the remote - control lock function 10: Set the remote control lock as a pedestrian passage function	00	Lock function off
F07	Set the width of the pedestrian passageway 0-9999	150	Approximately 1.5 meters
F08	Motor Running Direction 0: Motor reverse rotation 1: Motor forward rotation	1	The motor direction and the stroke direction change simultaneously

F09	Motor Slow speed Mode 0: 2 magnet input mode 1: 4 magnet input mode	0	In the four - magnet mode, the first magnet decelerates and stops at the second magnet
F10	Bus Voltage Detection 0: Function off 1: Protection function on	1	Protection function on If less than AC85V, the motor stops working and reports Er04
F20	High - speed Operation Speed for Door Opening	050	High - speed operation speed for door opening: 15 - 100
F21	High - speed Operation Speed for Door Closing	050	High - speed operation speed for door closing: 15 - 100
F22	Low - speed Operation for Door Closing	015	High - speed operation speed for door opening: 15 - 50
F23	Low - speed Operation Speed for Door Closing	015	High - speed operation speed for door closing: 15 - 50
F24	Low - speed Position for Door Opening	015	Low - speed position for door opening: 0 - xxx
F25	Low - speed Position for Door Closing	015	Low - speed position for door closing: 0 - xxx
F26	Obstacle - sensitivity Setting	200	For a range of 0 - 1000, the smaller the value, the higher the sensitivity.
F27	Remote - control Locking Indicator	0	0: Unlocked; 1: Locked. It can be manually set to 0 for unlocking.
F28	Engineering Mode (Requires Password to Enter)	****	
F29	Restore Factory Settings		
F30	Check the Number of Remotes		
F31	Check Debugging Data		
F32	Check Software Version		