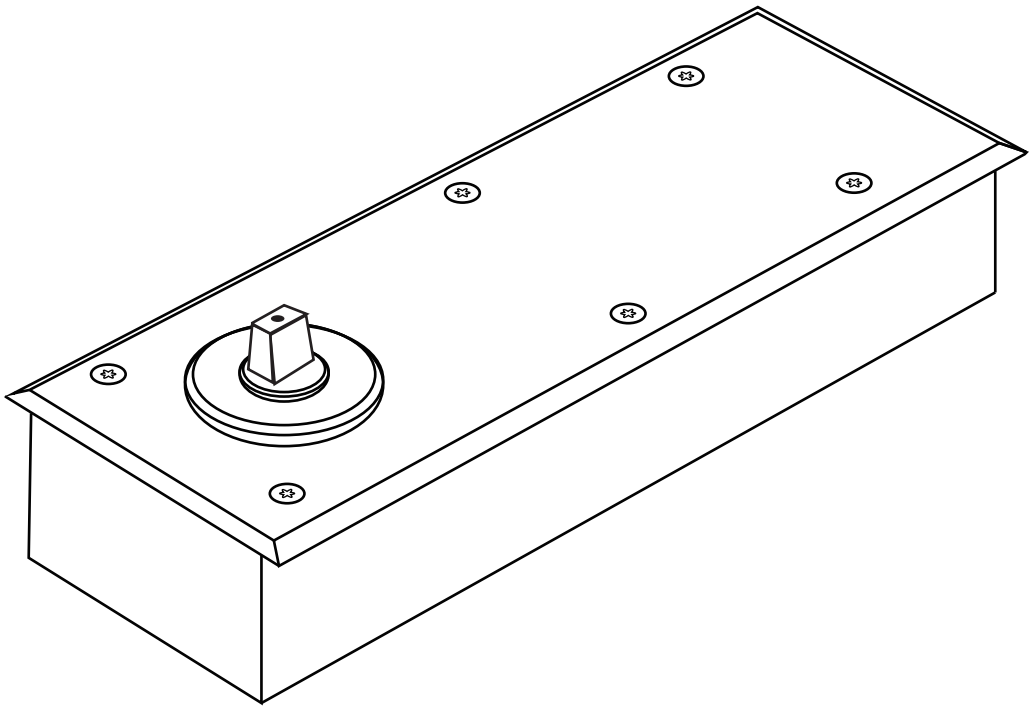
CUMU

INSTALLATION MANUAL

CMD-180S



BURIED TYPE AUTOMATIC SWING DOOR

CUMU AUTOMATIC DOOR (CHANGZHOU) CO., LTD.

Contents

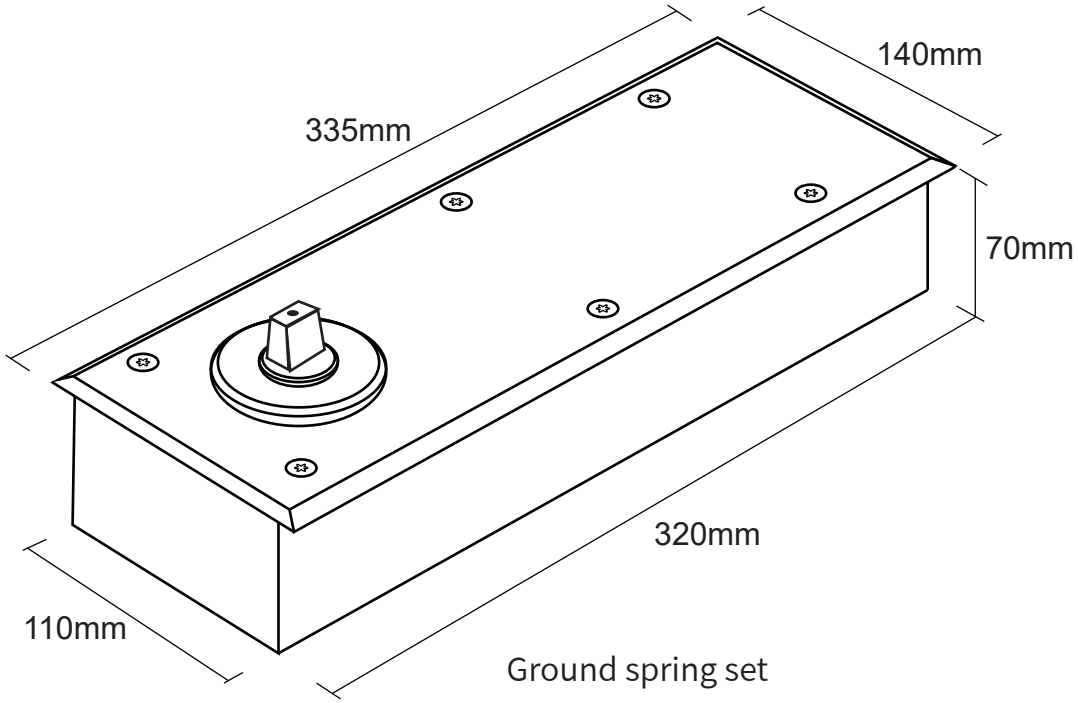
01.Operating instruction and safety notices

● Please read the installation debugging instruction carefully before use this product and follow the related safety standards.
● Need confirm the set and controller no damage appearance before installation.
● This product should connect the reliable grounding wire and constructed by the professional electric engineering staffs.
● The power supply should be cut off status before wiring, otherwise, it’ s dangerous at electric shock!
● Confirm whether voltage and frequency are in accordance with the equipment requirements before connect power supply, check whether wiring terminal are firm, whether wiring electric circuit and position are correct.
● The controller elements can’ t be touched by hands after connected power, otherwise, it’ s dangerous at electric shock, should cut off the power supply first when installing and maintaining, wear the gloves well then process operation.
● The manufacturer will not duty for any liabilities for the result which caused by incorrect installation, operation and non-safety use environment.

02.Product instruction

The unit utilizes the output shaft of the unit to drive the rotating arm to achieve automatic operation

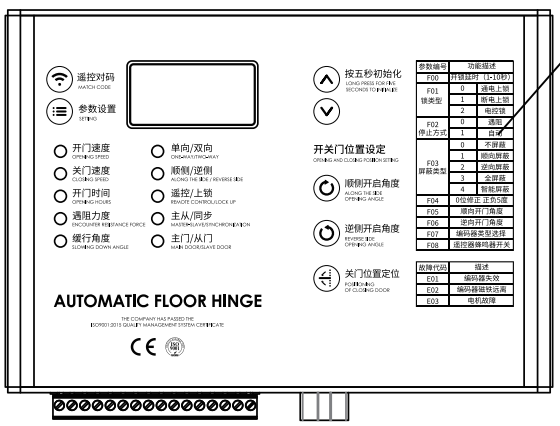
The operation of the door body can be applied both indoors and outdoors.



Ground spring set

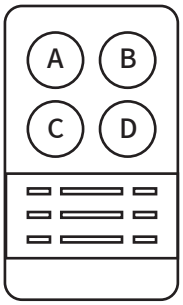
NUMBER	FUNCTION DESCRIPTION	
F00	UNLOCK DELAY (1-10S)	
F01 LOCK TYPE	0	LOCK ON POWER
	1	POWER OFF AND LOCK
	2	ELECTRIC CONTROLL LOCK
F02 STOP MODE	0	RESISTANCE
	1	AUTOMATIC
F03 SHIELDING TYPE	0	UNSHIELDED
	1	FORWARD SHIELDING
	2	REVERSE SHIELDING
	3	FULLY SHIELDED
	4	INTELLIGENT SHIELDING
F04	0 BIT CORRECTION PLUS OR MINUS 5 DEGREES	
F05	CLOCKWISE OPENING ANGLE	
F06	REVERSE DOOR OPENING ANGLE	
F07	ENCODER TYPE SELECTION	
F08	REMOTE CONTROL BUZZER SWITCH	

FAULT CODES	DESCRIBE
E01	ENCODER FAILURE
E02	ENCODER MAGNET AWAY
E03	MOTOR FAULT



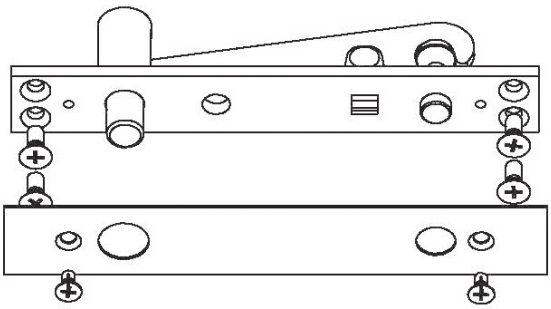
160x116x50（mm）

Controller

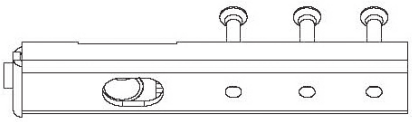


Remote controller

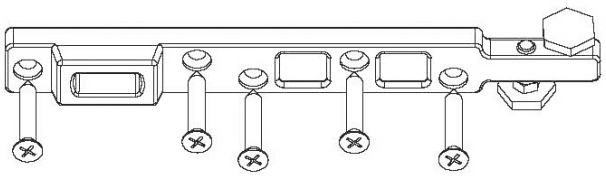
Installation fittings



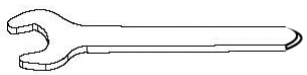
Up fitting of support



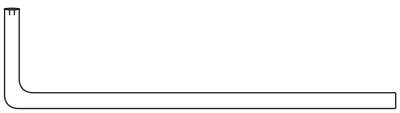
Down fitting of support



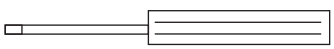
Rotating arm rod



Spanner



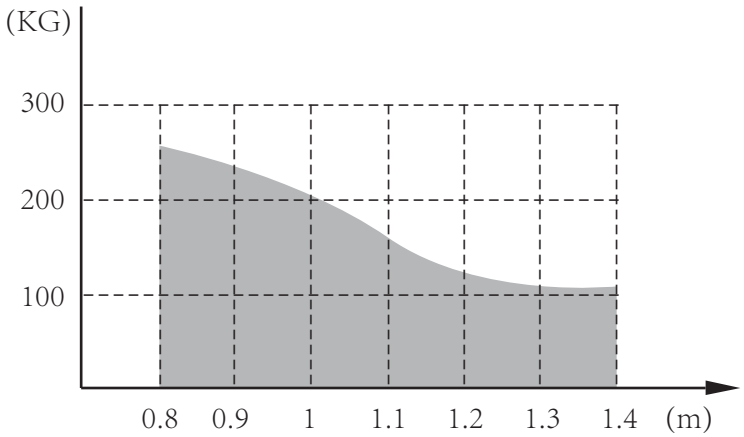
Flow type inner hexagon spanner



Straight screw driver

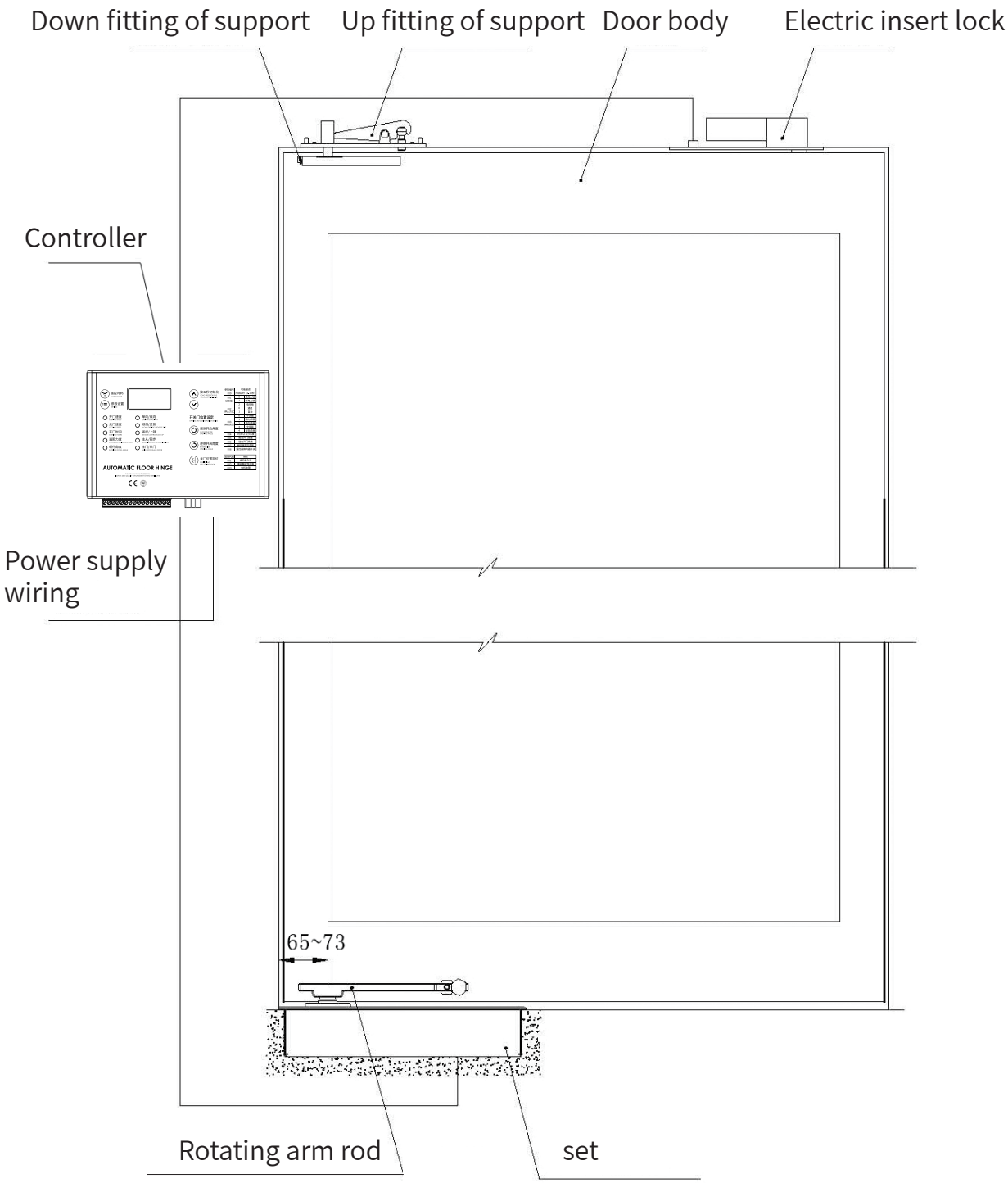
03.Technical parameters

Door weight (KG)
Door width (m)
Suitable atmosphere



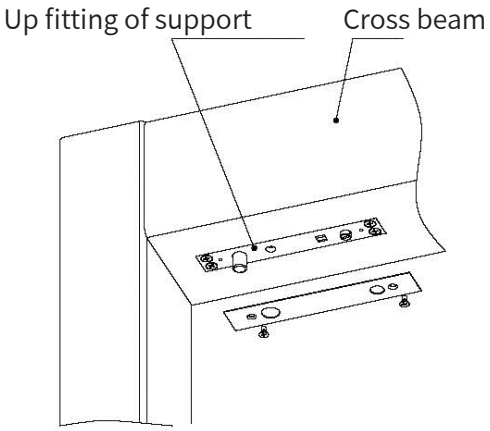
The max door weight	200kg
The max door width	1200mm
The max torque	165Nm
Set weight	5.5kg
Installation method	Ground buried
Noise	<60dB
Electric lock output	DC12V normally open/normally close contactor
Open-close time	6-12S
Start range	86°-175°
Power supply	AC220V±10% 50.60Hz
Rated power	55w
Standby time	<2W
Working temperature	-20°C to 55°C
Protection grade	IP68 (Only limit at motor)
Set size	320×110×70(mm)
Control cabinet size	160×116×50(mm)

04.Automatic door installation diagram

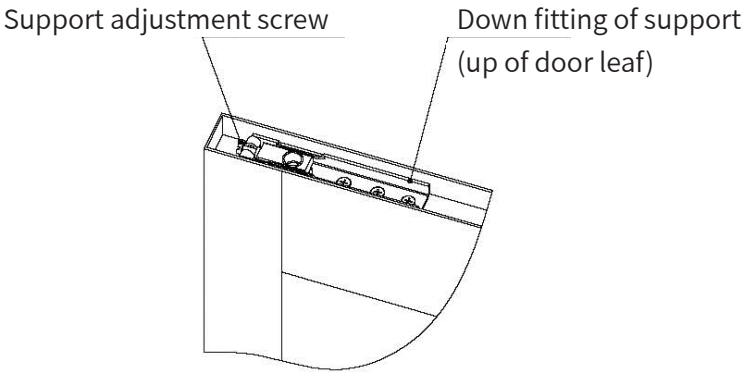


05.Installation process

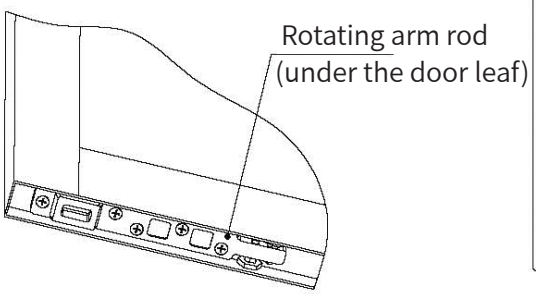
1. Confirmed the installation position well, produce the corresponding side slot on the ground according to set size, wire lay out according to requirements.
2. Connect the set output wire, controller and electric insert lock to do power on test before fix the set.
3. Install the up fitting of support (Picture a) on the cross beam, install the down fitting of support (Picture b) and rotating arm rod (Picture c) on the corresponding position of door leaf.
4. Install the door leaf after set fix position, adjust the opposite position between door leaf and door frame well through the adjustment screw of set and support, fix the set well through casting the concrete or tighten support (Picture d)



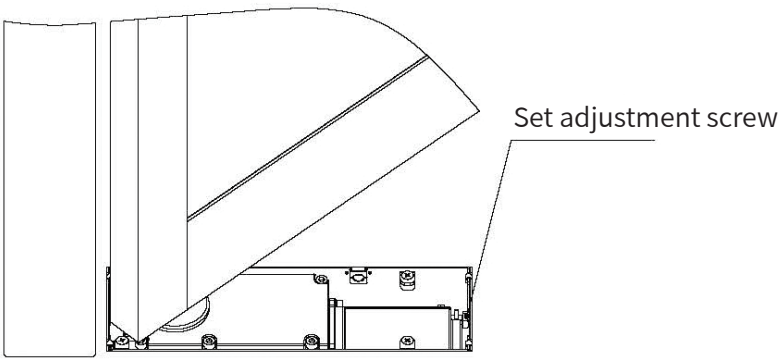
(Picture a)



(Picture b)



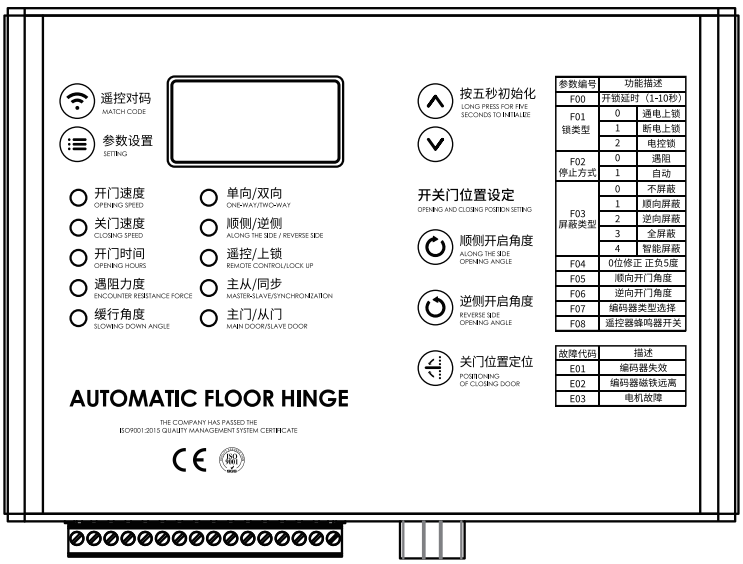
(Picture c)



(Picture d)

06.Introduction to the control interface

(Note: button operation can be set when the door is stopped)



参数编号		功能描述
F00		开锁延时（1-10秒）
F01 锁类型	0	通电上锁
	1	断电上锁
	2	电控锁
F02 停止方式	0	遇阻
	1	自动
F03 屏蔽类型	0	不屏蔽
	1	顺向屏蔽
	2	逆向屏蔽
	3	全屏蔽
	4	智能屏蔽
F04		0位修正 正负5度
F05		顺向开门角度
F06		逆向开门角度
F07		编码器类型选择
F08		遥控器蜂鸣器开关

故障代码	描述
E01	编码器失效
E02	编码器磁铁远离
E03	电机故障

NUMBER		FUNCTION DESCRIPTION
F00		UNLOCK DELAY (1-10S)
F01 LOCK TYPE	0	LOCK ON POWER
	1	POWER OFF AND LOCK
	2	ELECTRIC CONTROL LOCK
F02 STOP MODE	0	RESISTANCE
	1	AUTOMATIC
F03 SHIELDING TYPE	0	UNSHIELDED
	1	FORWARD SHIELDING
	2	REVERSE SHIELDING
	3	FULLY SHIELDED
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F04		0 BIT CORRECTION PLUS OR MINUS 5 DEGREES
F05		CLOCKWISE OPENING ANGLE
F06		REVERSE DOOR OPENING ANGLE
F07		ENCODER TYPE SELECTION
F08		REMOTE CONTROL BUZZER SWITCH

FAULT CODES	DESCRIBE
E01	ENCODER FAILURE
E02	ENCODER MAGNET AWAY
E03	MOTOR FAULT

06-1. "Parameter setting" button

In standby mode ("---"), short press "Parameter setting " button to enter the common parameter setting mode. Set the parameters below the digital tube, adjust the parameters with the "up " and " down " arrow buttons. When the parameter adjustment is complete, press and hold the "parameter setting " button to finish the setting.

Parameter name	Parameter range	Description
Opening speed	1-10	Opening speed adjustable in 10 steps
Closing speed	1-10	10 adjustable closing speeds
Opening hours	1-30	Door opening holding time, in seconds
Encounter resistance force	1-5	Five adjustable levels of encounter resistance force
Slowing down angle	10-60	Slowing down angle for opening and closing doors
One way/ Two way	0/1	0 One way, 1 Two way
Along the side/reverse side	0/1	0 opening the door along the side, 1 opening reverse side
Remote control/locking	0/1	0 remote locking, 1 locking per closing
Master-Slave/synchronization	0/1	0 master-slave opening in double door mode, 1 double door simultaneous opening
Main door/slave door	0/1	0 Master door mode, 1 Slave mode (when the door is set to master)

06-2. Zero setting for closing doors

Press and hold the "Close position positioning" button, release the button when the digital tube lights up "---", the digital tube shows "SLU". Manually adjust the position of the door to the closing position, and then long press the button of "closing position positioning" until the digital tube shows "OK" and the closing position is set successfully. If "OK" is not displayed, the setting is unsuccessful.
If the closing position is found to be inaccurate during normal operation,
the zero position can be set again.
When the door has stopped, operate as above.

06-3. Setting of the opening angle in the forward direction

First make sure that the zero position is set successfully, then press the button "SQUARE OPEN" briefly, the digital tube shows "SSU". Then manually adjust the door to the actual required forward opening Angle, long press the "forward opening Angle" button, until the digital tube shows "OK", the forward opening Angle setting is complete. If the nixie tube shows "Er", the setting is not successful, it may be the wrong direction to manually adjust the door (forward is the top view of the ground spring, clockwise rotation direction, vice versa).

06-4. Reverse opening angle setting

The operation is the same as for the opening angle in the forward direction, with the "Reverse opening angle" button being operated.
The default opening angle for both forward and reverse is 90 degrees.

06-5. Remote learning

Long press the "Remote code matching" button for 2 seconds, then the buzzer will sound, take out the remote control required for code matching and press any key, then the buzzer will sound "beep", and the learning of the remote control will be completed. Long press the "remote control code" button for about 10 seconds to clear all learned remote controls. At this time, the buzzer will sound "beep beep beep", and the code clearing will be completed.

07. Parameter group settings (uncommon parameters)

In standby mode (digital display "---"), long press the "parameter setting  "

button to enter the F parameter setting interface.

Afterwards, adjust the desired parameter via the "up  " and "down  "

buttons to switch and set the F01-F12 parameters.

If the current digital tube shows "F00" -> short press "parameter setting  "->

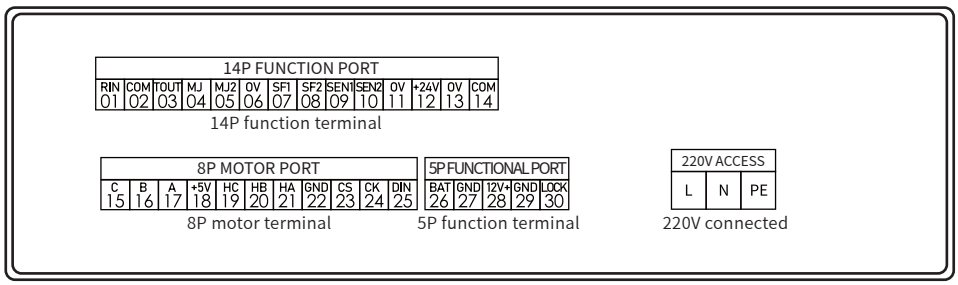
display the parameter corresponding to F00, adjust the parameter via the arrow buttons,

short press "  " to return to F00, long press "  " to save and exit,

and F parameter setting is complete.

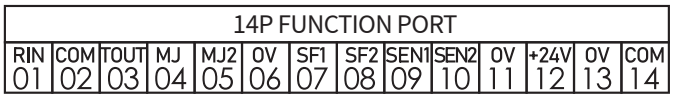
Parameter No.	Function	Scope	Description
F00	Unlocking delay	0-10	Delayed opening of the door after unlocking.
F01	Lock type	0-2	0 long unlocking, 1 long closing, 2 electric control lock
F02	Stopping method	1	Automatic mode (this parameter is not adjustable)
F03	Type of shielding	0-4	0 not shield 1 Forwarde shield 2 Reverse shielding 3 Fully shielded 4 Intelligent shield
F04	Zero correction	0.0-5.0	Fine fine adjustment of the closing zero position is possible
F05	Opening angle in the forward direction	45-175	This parameter allows you to adjust the opening angle in the forward direction
F06	Reverse opening angle	45-175	This parameter allows you to adjust the opening angle in the reverse direction
F07	Encoder type	0	Encoder type (this parameter is not adjustable)
F08	Buzzer switch	0-1	0 off, 1 on
F09	Special modes	0-2	0 Normal mode, door is closed in position, no force (default) 1 Boost mode, door opens automatically by pushing, force is influenced by F10 2 windproof mode, anti-push when door is closed, force is influenced by F10
F10	Closing force	0-3	Adjustment of the tightening force after closing the door.
F11	Light doors/heavy doors	0-1	Door type selection (default 0 light door)
F12	Windproof correction delay	5-60	In windproof mode (F09=2), if the door is pushed open, it closes automatically after a certain time delay, in seconds

08. Description of the terminal block

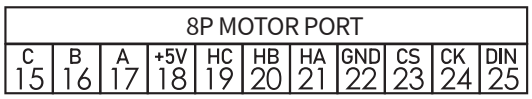


Serial number	Coding	Description
01	RIN	Double door signal input
02	COM	Common terminal
03	TOUT	Double door signal output
04	MJ1	Access control 1 signal
05	MJ2	Access control 2 signal
06	0V	Common terminal
07	SF1	Safety light 1 signal
08	SF2	Safety light 2 signal
09	SEN1	Sensor 1 signal
10	SEN2	Sensor 2 signal
11	0V	Ground line
12	+24V	24V output
13	0V	Ground line
14	COM	Ground line
15	C	Motor phase line C
16	B	Motor phase line B
17	A	Motor phase line A
18	+5V	Hall power supplies
19	HC	Hall C
20	HB	Hall B
21	HA	Hall A
22	GND	Ground line
23	CS	Encoder line CS
24	CK	Encoder wire CK
25	DIN	Encoder wire DIN
26	BAT	Positive input for back-up power (24V)
27	GND	Back-up power ground
28	+12V	+12V output
29	GND	Ground line
30	LOCK	Electric locks

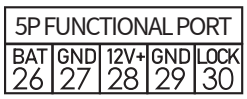
09. Wiring Instructions



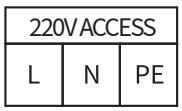
14P function terminal



8P motor terminal



5P function terminal

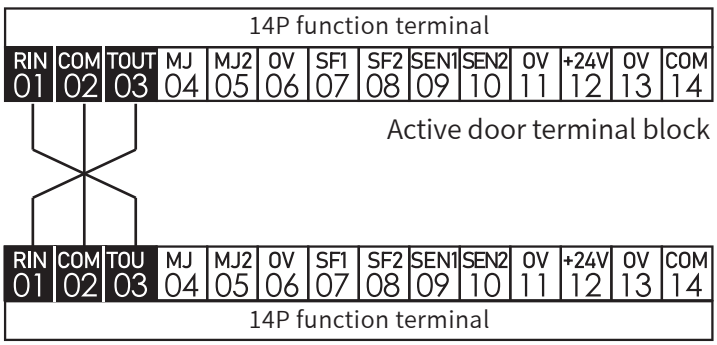


220V connected

01 RIN Double door signal input
02 COM Common terminal
03 TOUT Double door signal output
04 MJ1 Access control 1 signal
05 MJ2 Access control 2 signal
06 0V Common terminal
07 SF1 Safety light 1 signal
08 SF2 Safety light 2 signal
09 SEN1 Sensor 1 signal
10 SEN2 Sensor 2 signal
11 0V Ground
12 +24V 24V output
13 0V Ground
14 COM Ground

15 C Motor phase line C
16 B Motor phase line B
17 A Motor phase line A 18 +5V Hall power supply
19 HC Hall C
20 HB Hall B
21 HA Hall A
22 GND Earth wire
23 CS Encoder line CS
24 CK Encoder wire CK
25 DIN Encoder wire DIN
26 BAT Back-up power positive input (24V)
27 GND Back-up power ground
28 +12V +12V output
29 GND Earth wire
30 LOCK Electric lock

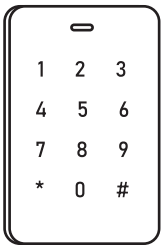
Synchronised connection of two doors

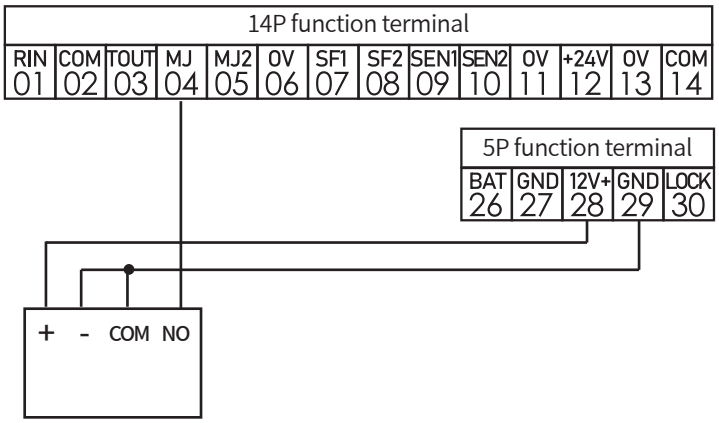


Active door terminal block

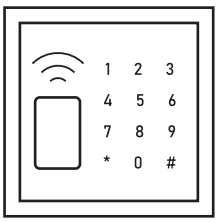
Slave door terminal block

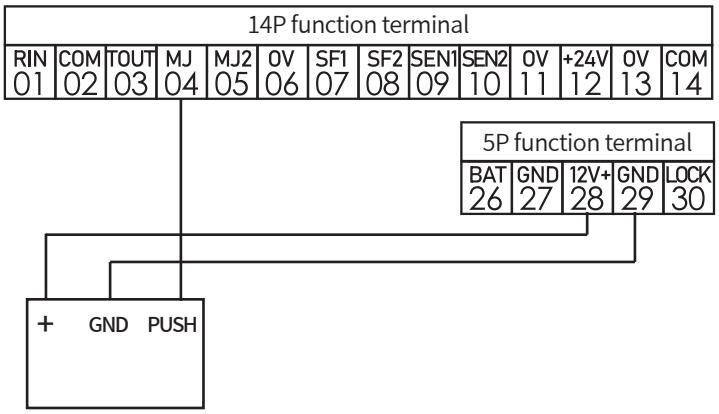
Connection to access control machine (4-wire)



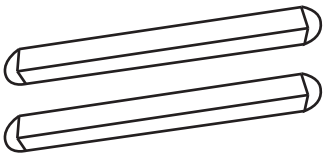


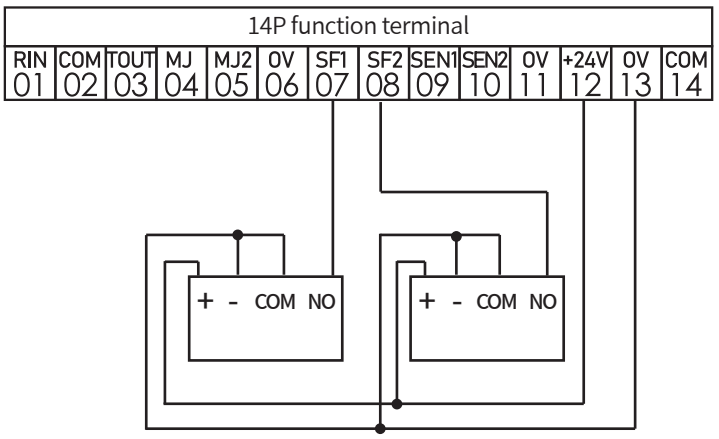
Connection to access control machine (3-wire)



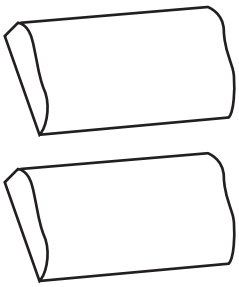


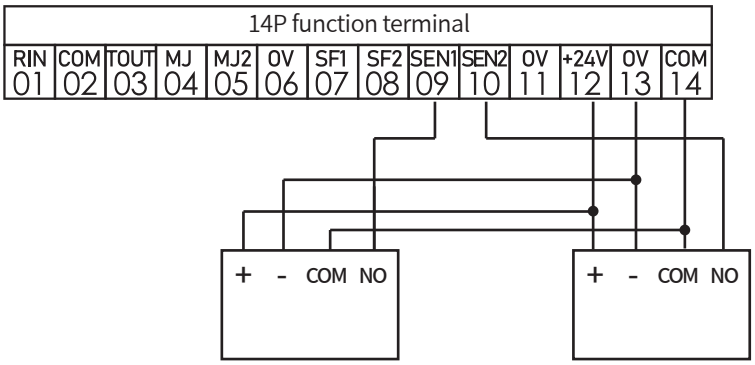
Connection to safety light curtains





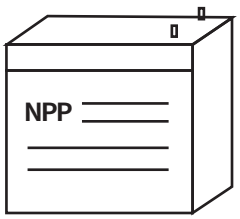
Connection to sensors

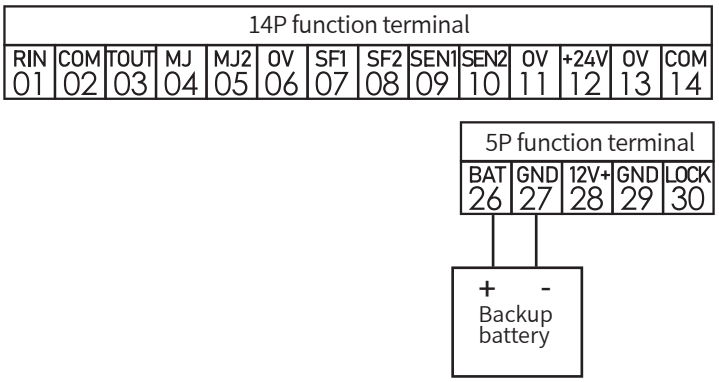




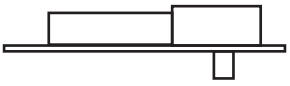
The direction of the sensor installation is determined according to the opening direction of the door, inside and outside, the direction of the door opening is the same as the direction of the sensor, swap 09 and 10

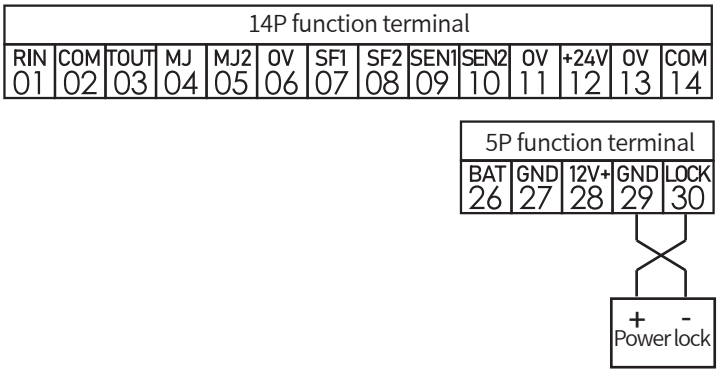
Connection to back-up power supply



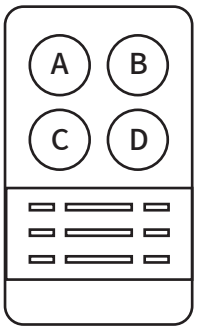


Connection to electric lock





10. Remote control instructions



Instructions for coding the remote control to the controller:

1. Reset: long time press the pair button above 12s, loosen the button after heard continue 6 DI-DI sound, clear all remote control
2. Pair: press the pair button of controller 2s, loosen it after buzzer sounding. Now press down any key on the remote controller, buzzer sounding 3 times then mean pair successfully. The buzzer will sounding when use remote controller.
3. Note: buzzer no sound when use remote controller, this means remote controller and controller fail to pair, please repeat term 2.

Note: all wiring must be processed under that power supply cut off

A Reverse (normally open)

B Forward(normally open)

C Locking door

D Normal

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