

# **Installation manual**

**AU360**

# Installation Manual

AU360




- Installation of automatic door should be entrusted to the appointed distributor or professional installation personnel, or it may be dangerous.
- Installation must be performed by professional installation personnel according to local law.
- This manual must be kept well for maintenance.


# Contents


Safety Precautions .....	1-2
Components of mechanism .....	3
Sectional view of track and cover .....	4
Installation process .....	5
Product features and technical specifications .....	6
Components List .....	7
Track's cutting and installation .....	8
Installation of motor,controller and idler pulley .....	9
Adjustment of idler pulley .....	10
Installation of stopper .....	10
Lock and release(Optional) .....	11-12-13
Installation of sensor .....	14
Connection of motor,controller and power switch .....	14
Terminal details of controller .....	15
Connection of sensor .....	16
Connection of access keypad .....	17-18
Connection of interlock .....	19
Connection of built in photocell .....	20
Connection of normal photocel .....	21
Connection of electronic lock /and ups .....	22
Connection of remote control .....	23
Au360 web (function selector ) .....	24-25
Au360 web( data adjuster ) .....	25-26-27
Au360 web (password setteing ) .....	27-28
Au360 web (production data ) .....	29
Au360 web (working times ) .....	29
Au360 web (Battery backup status ) .....	30
Au360 web (reset ) .....	30
Au360 web (Re-learning travel distance ) .....	31
Au360 web ( Error warning ) .....	31
Description of operation .....	32
Trouble shooting .....	32-33-34

## Safety Precautions

The contents and categories a user must abide by are presented and described by the following graphic expressions.







 **Warning** Misoperation may cause injury even death to the operator.

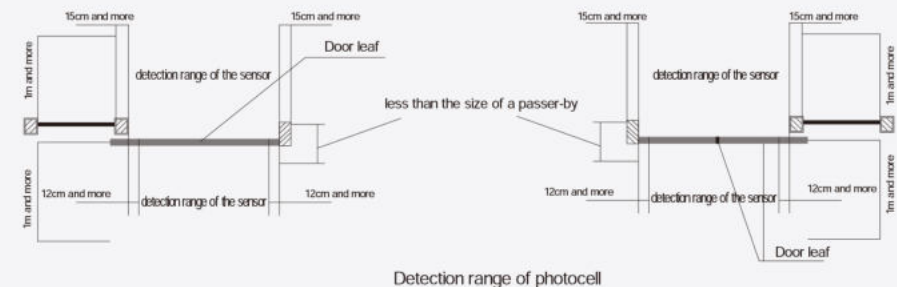
 **Caution** Misoperation may cause injury or physical loss to the operator.

 This stands for the contents prohibited.

 This stands for compulsory contents.

### Warning

-  Installation and adjustment must be carried out according to the Installation Manual. Carelessness in installation and adjustment will lead to such accidents as fire, electric shocks or fall off.
-  During the installation never allow the pedestrians to pass through the automatic door or approach the work site. Because any tools or parts falling off during the installation will cause injury to the pedestrians.
-  Never remodel the parts, otherwise fire, electric shocks or fall will occur.
-  Never use the power beyond the stipulated voltage or frequency, otherwise fire or electric shocks will occur.
-  The sensor should be set and adjusted to make sure that the opening area of the door will fully fall into the range of sensor detection without any blind area. If the detecting range is too small or having blind area, the pedestrians will be collided or squeezed by the door, causing injury.
-  Do fix up photocell to ensure the detecting range for the walking area of the door leaf, otherwise the pedestrians will be collided or squeezed by the door leaf, causing injury.



Detection range of photocell



## Caution

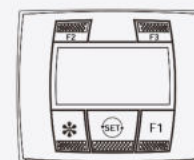
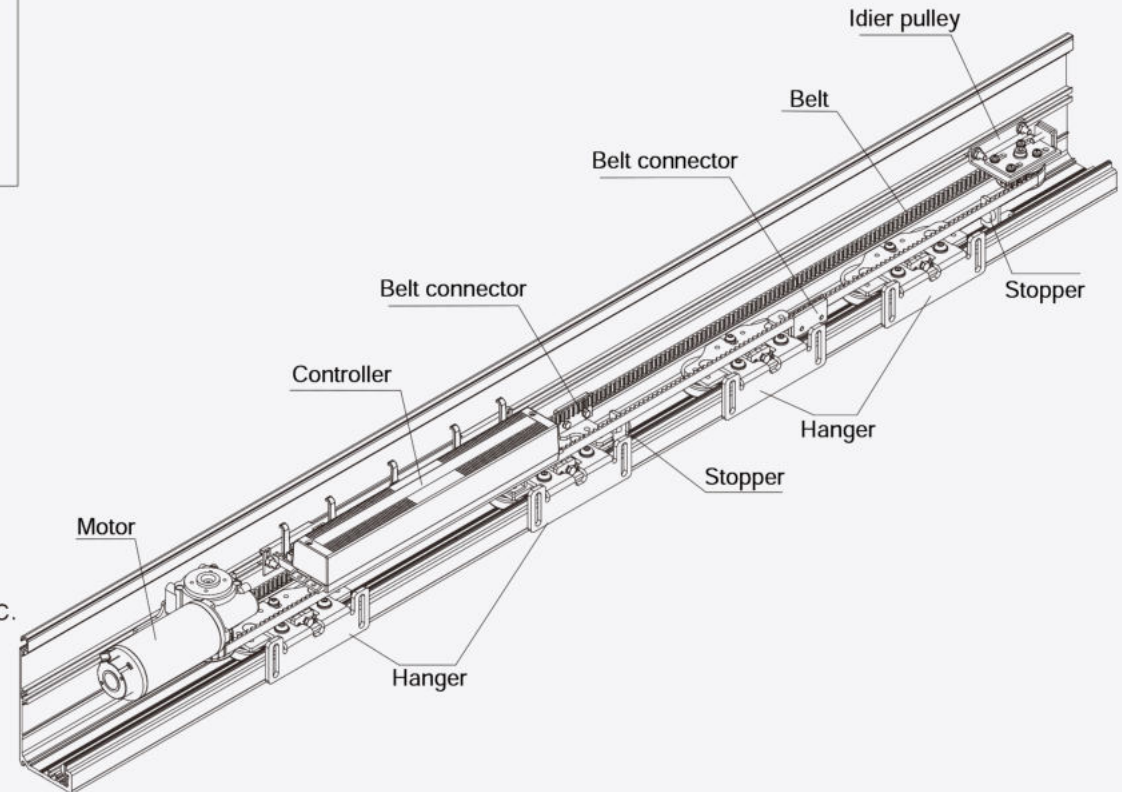
- ⊘ Never use the door in a place subject to dampness, vibration or corrosive gas, otherwise it will cause such accidents as fire, electric shocks or fall.
- ⊘ Make sure that a space of over 30mm should be available when the door is opened, otherwise your fingers may be squeezed by the door leaf and upright column, causing injury.
- ⊘ Never cut off power when the door is in operation, otherwise it will cause injury of the pedestrians.
- ❗ Please use sticker on door leaves. If not, it will cause injury to the passer-by who has lost sight of the door leaf.
- ⊘ Never install an electric device with a capacity of >DC24V 300mA to the controller, otherwise it will cause fire.

## Other precautions

- Never use a door leaf that exceeds the specified weight, otherwise it will cause failure.
- For selection of batteries
  - Please use them after charging for 24 hours.
  - The service life of batteries lasts for 3-5 years at an ambient temperature of 0°C-40 °C. Excessive temperature will shorten the service life of batteries.
  - If after charging 24 hours the battery still doesn't work, it shows the service life has expired. Replace it immediately.
  - Check batteries each half year.
- For selection of electronic lock
  - Never use it in an environment excess an ambient temperature of 0°C-40°C , otherwise it will cause malfunction.
- Using our brand electronic lock, and special installing brackets. If not using our lock, please make sure the quality of lock, or the bad electronic lock will damage.

## Components of mechanism

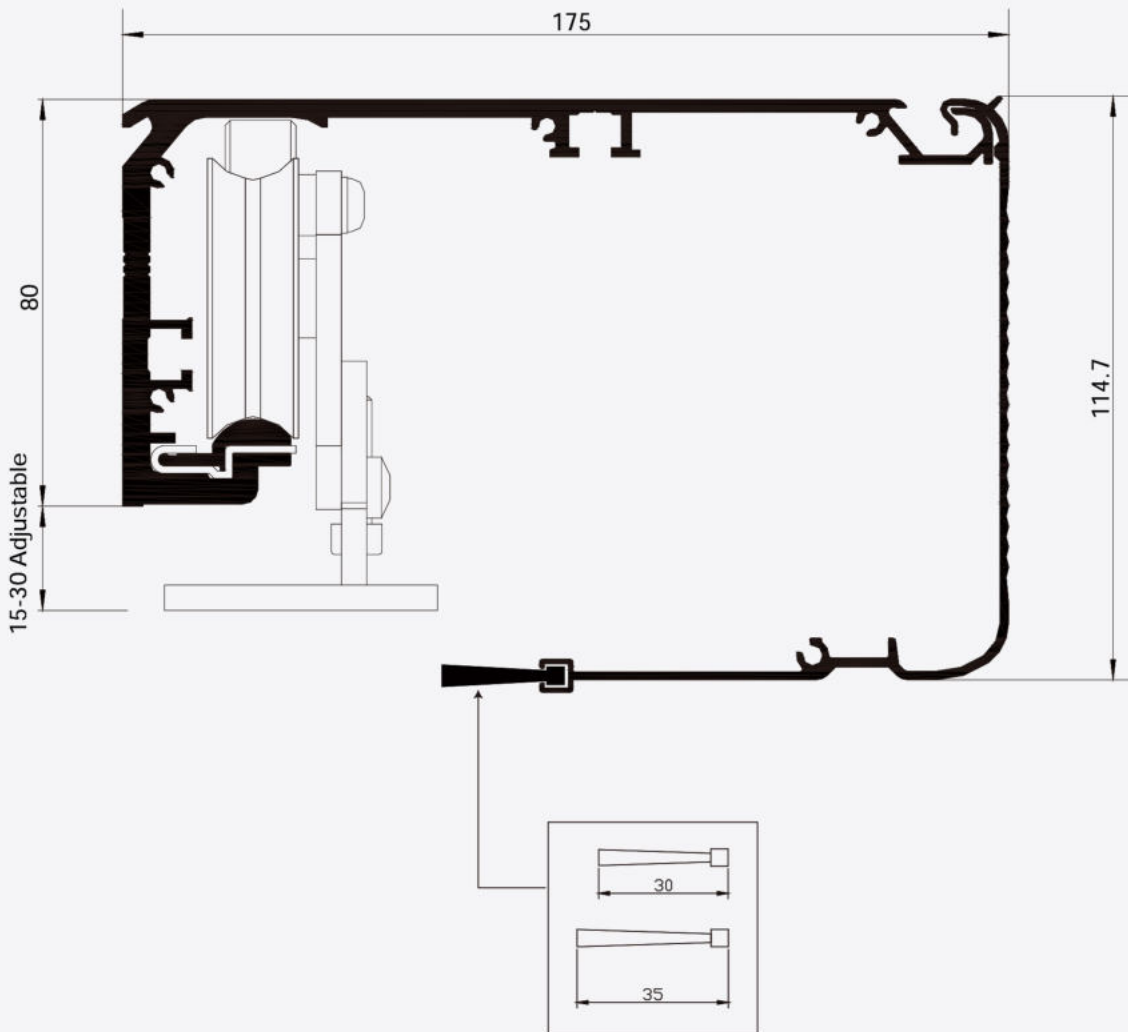
### ● Name of components



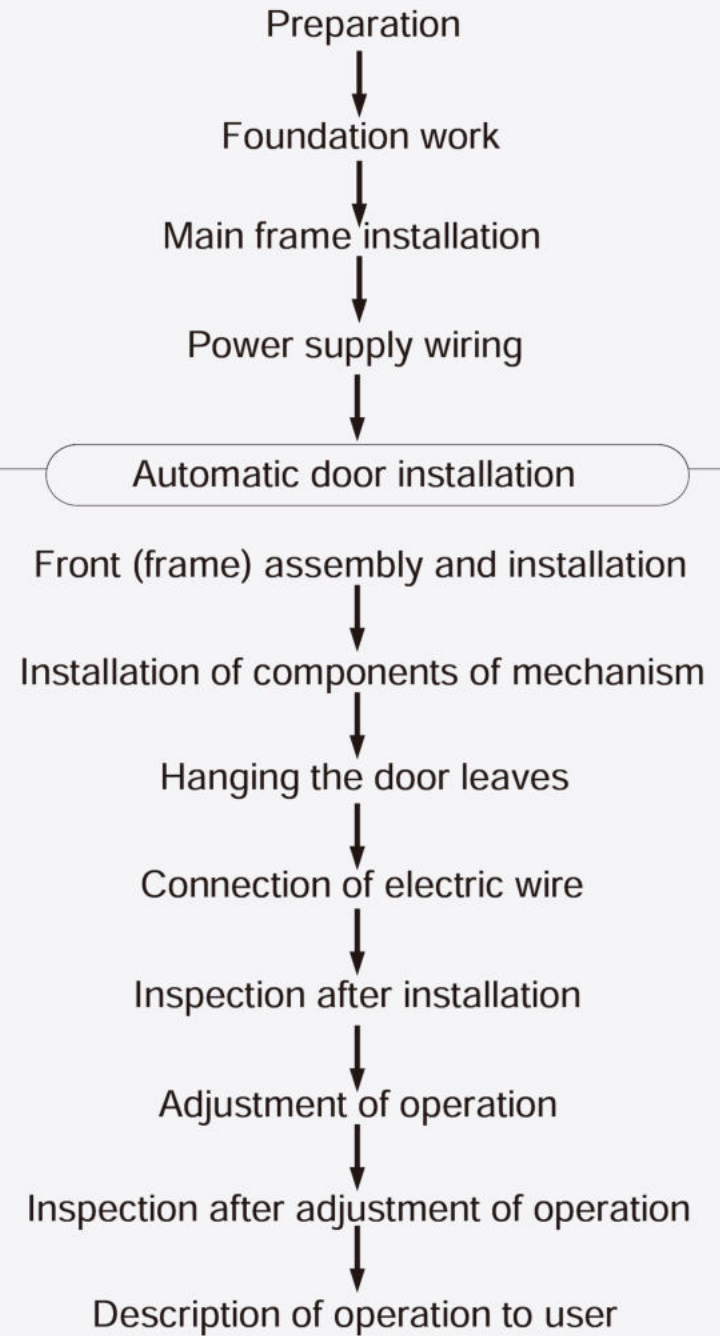
Au360 web

## Sectional view of track and cover

- Sectional view  
Caution: This view is not in a scale of 1:1.



## Installation process

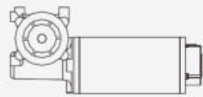


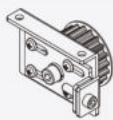


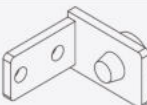
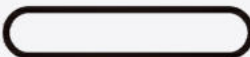


## Product features

- Intelligent micro control and precision machinery manufacturing
- Smart self-learning system
- Double track and rubber design, low noise, open and close smoothly
- Built-in reciver working with learning code remote
- Special track and hanger design to make safe working
- Various terminal, work with access keypad, photcell, UPS,
- interlock, function switch, and so on
- Monitored battery backup with optional opening programs  
Working times limit setting
- Door working cycle memory

Specifications	Au360	
Door leaf mode	Single-opening	Double-opening
Door leaf weight	Max 220kg	Max 2*180kg (360)
Door leaf width	DW=500-1500mm	DW=500-1500mm
Voltage	AC100 -250V 50-60HZ	
Opening speed	17 - 75 cm\s ( adjustable)	
Closing speed	17 - 60 cm\s ( adjustable)	
Opening hold time	0-20second (Adjustable)	
Manual open force	<40N	<100N
Motor	24V,100W brush DC motor	

## Components List

Description	Schematic diagram	Quantity	
		Single-leaf	Double-leaves
Motor		1	1
Controller		1	1
Au360 web		1	1
Idler pulley		1	1
Hanger		2	4
Belt connector		1	2
Stopper		2	2
Toothed Belt		1	1
Fastenings		1	1
Installation Manual		1	1

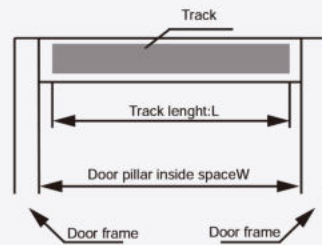
## Track's cutting and installation

### Cutting

Standard length of track :4200mm.

Over-length track can be customized

$L=W-10\text{mm}$

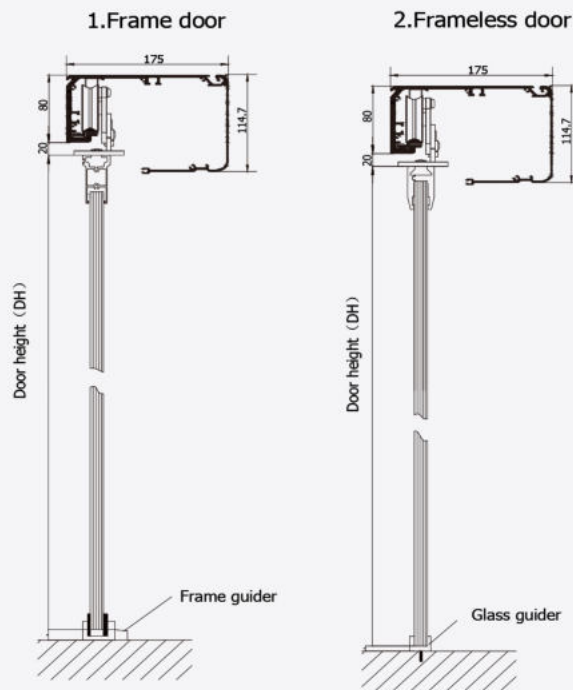


### Installation

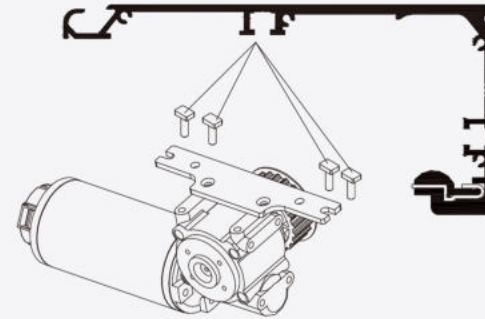
(1)Drill holes in aluminum track.

(2)Fix one end of aluminum track, check the level by gradienter, then fix another end of track.

(3)Fix the aluminum track to steel stucture firml.

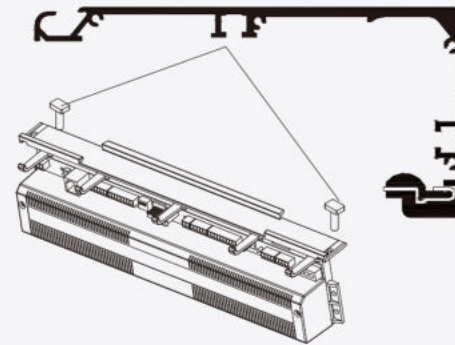


## Installation of motor



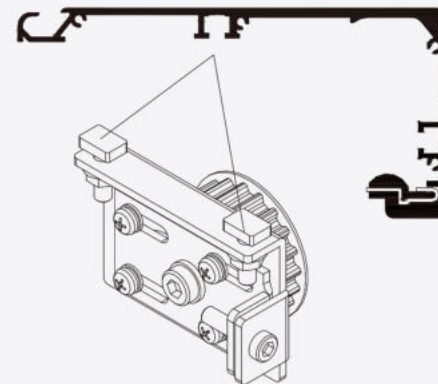
- 1.Put the square-head bolt into groove
- 2.Fix the motor as the left fig showing.

## Installation of controller



- 1.Put square-head bolts into groove.
- 2.Fix it as the left fig showing.
- 3.The sqecific installation position please refer to page3.

## Installation of idler pulley



- 1.Put square-head bolte into groove.
- 2.Fix it as the left fig showing.

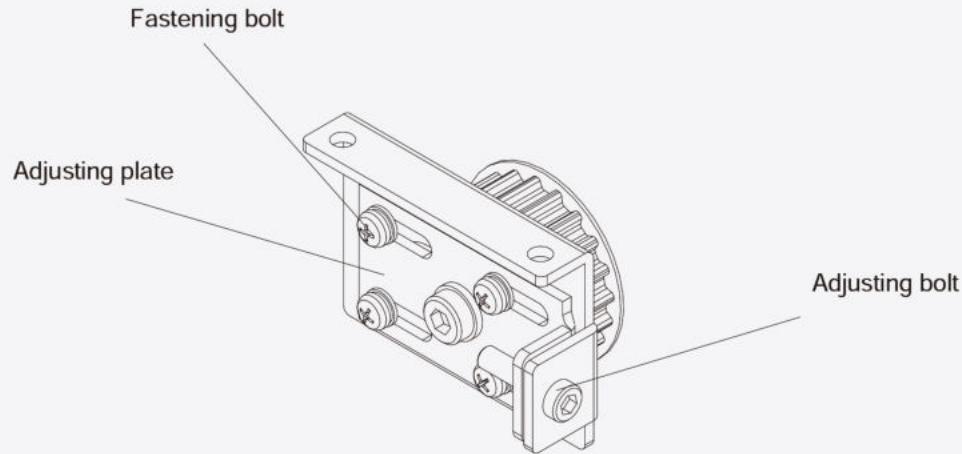
### Caution

(1)The track must be level.

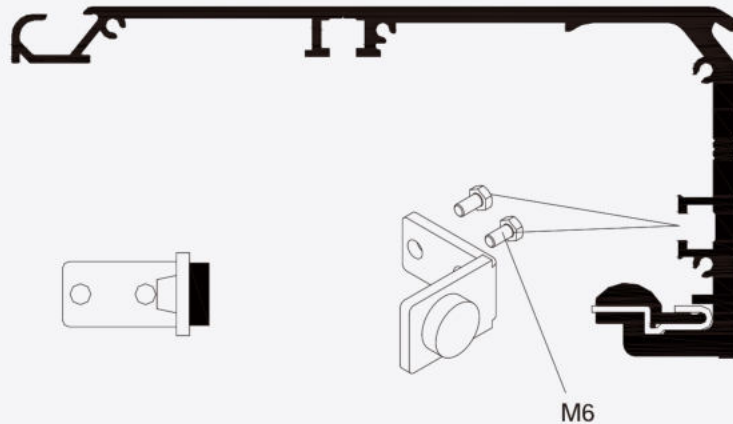
(2)The height of movable door leaf is DH

## Adjustment of idler pulley

1. Loosen 4 pieces fastening bolt, and screw the adjusting bolt to move adjusting plate at the left position.
2. Put the belt on pulley and screw adjusting bolt to fasten the belt.
3. Fix the 4 pieces fastening bolt.



## Installation of stopper



## Lock and release(Optional)

- Manual should be read carefully before application,
  1. Check component according to manual
  2. Check the lock working condition refer to circuit diagram before installing to door system
- Operational principle: Power on -release Power off -lock  
Working Voltage: DC12V
- Main component : 1. Lock 2. Stop plate 3. Interior manual release 4. Outdoor manual release(optional)

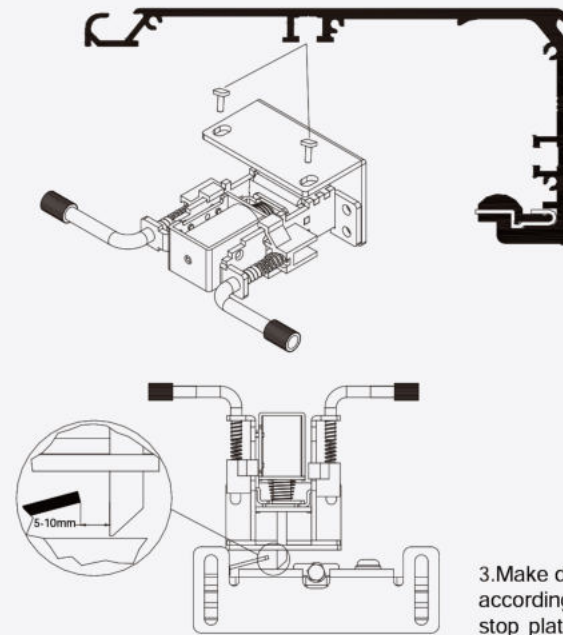
### Interior Manual release electric lock



### Interior and Outdoor manual release Electric lock



### ● Installation of Electric lock



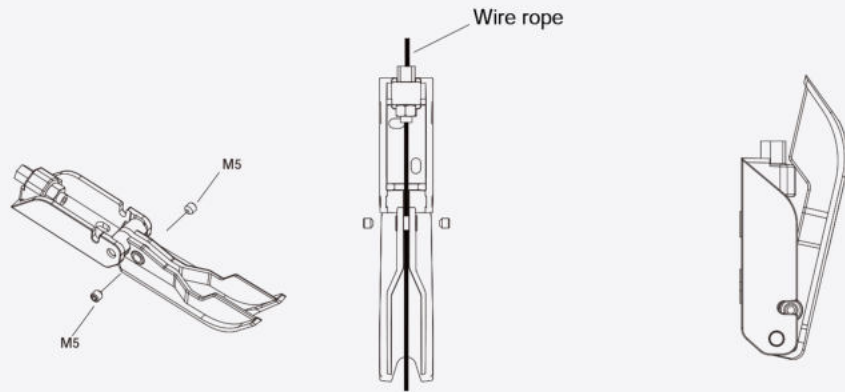
1. Install the lock onto the rail according to picture
2. Install the stop plate onto the hanger (The one need to locked)

3. Make door at fully close position, Move the lock to the position according to the picture. The distance between lock tongue and stop plate should be 5-10mm



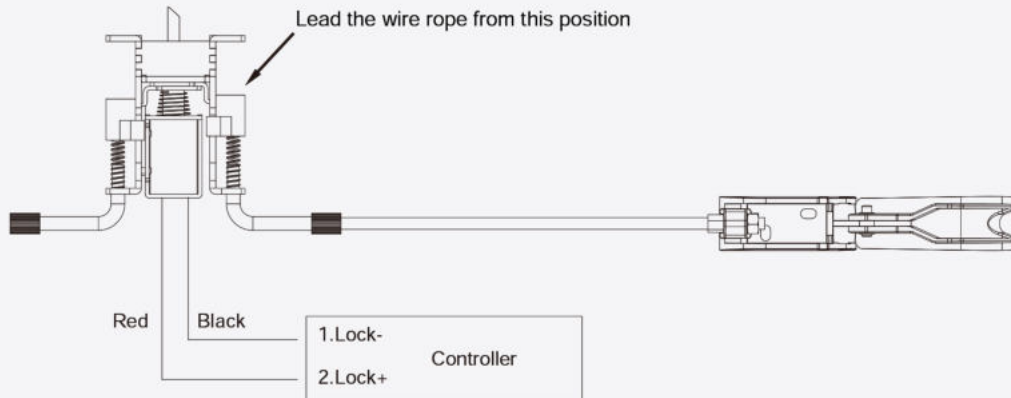
## Lock and release(Optional)

### ● Installation of interior manual release



lead the wire rope into the manual release according to picture

Adjust the angle of manual release according to picture, Strain the wire rope and tighten the M5 screw

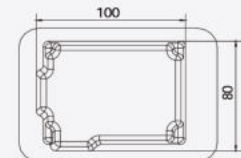
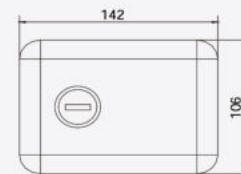
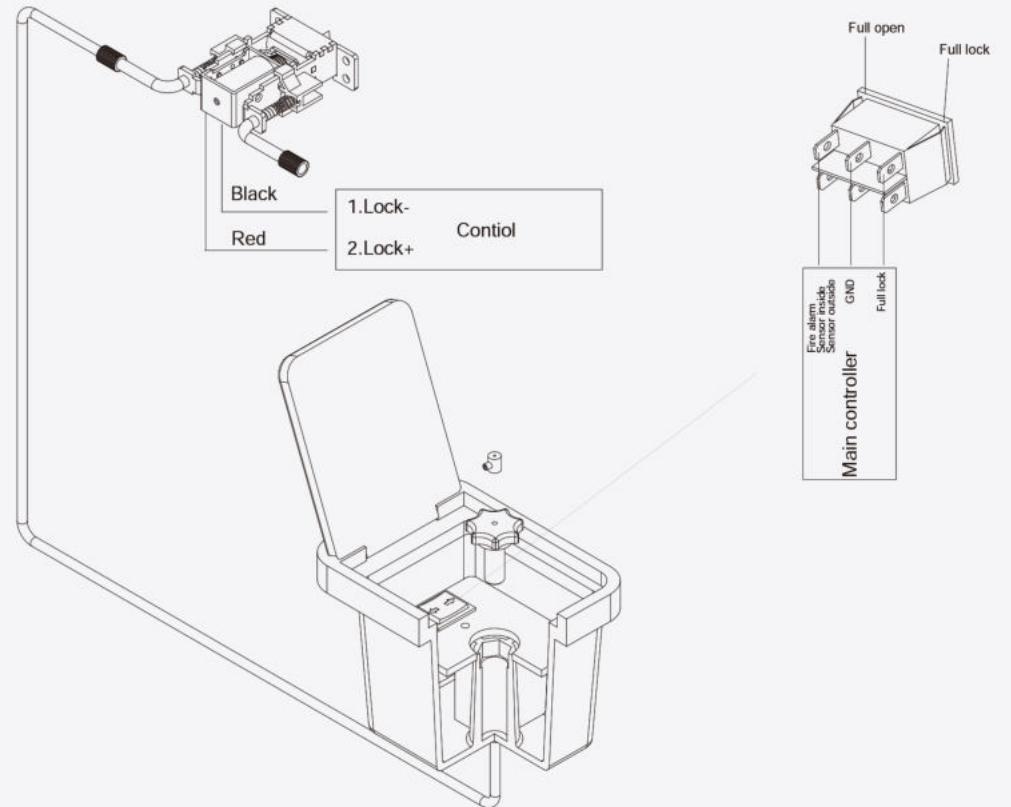


### ● Main technical parameters

Working Voltage: DC12V  
 RED: Positive+  
 BLACK: Negative-  
 Current: Start Current 0.9A, Working Current 0.3A

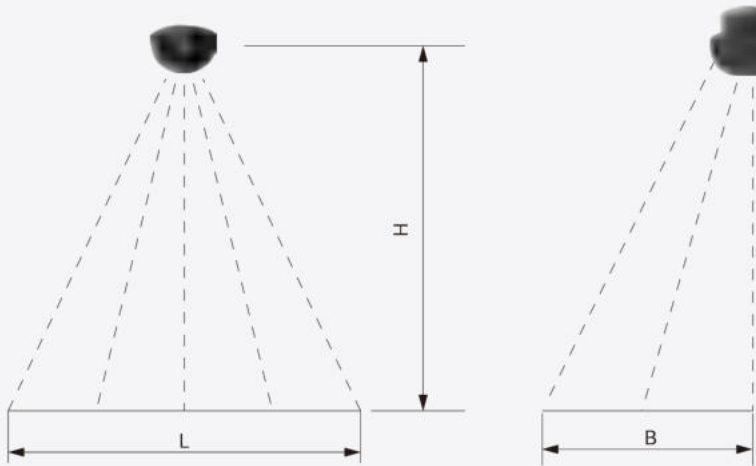
## Lock and release(Optional)

### ● Installation of outdoor manual release



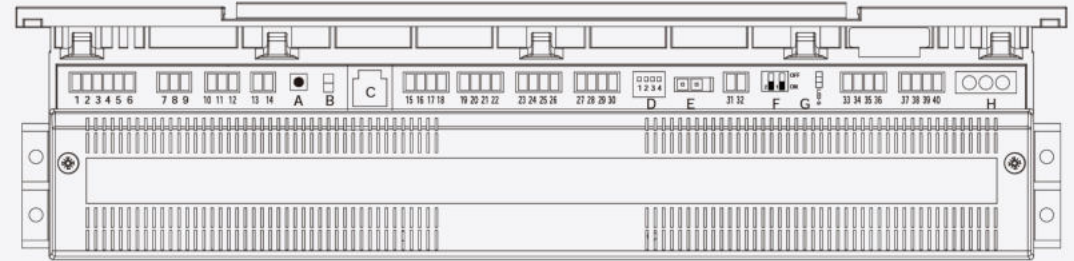
## Installation of sensor

The sensor should be installed at the center of the door leaf.  
The max installing height of sensor is 3m.



Caution: Please use our brand sensor. If not, please choose good quality sensor.

## Terminal details of controller

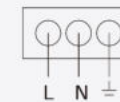


1.Partial open	10.Alarm	19.+24V	27.+24V	33.T1+
2.Fullopen	11.COM	20.GND	28.GND	34.T1-
3.Lock outside	12.Inter	21.COM	29.COM	35.R1+
4.Full Lock	13.Stop+	22.Outside sensor	30.Presence sensor	36.R1-
5.GND	14.Stop-	23.+24V	31.UPS-	37.T2+
6.+24V	15.+24V	24.GND	32.UPS+	38.T2-
7.ELE-	16.GND	25.COM		39.R2+
8.ELE+	17.COM	26.Potel cell		40.R2-
9.+12V	18.Outside sensor			

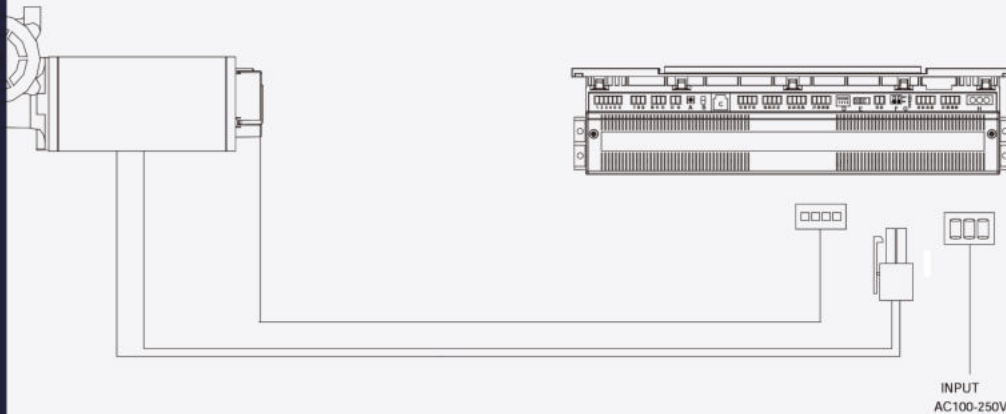
- A.TEST
- B.LED4
- C.Adjust plug
- D.Encoder
- E.Motor

- F.DIP switch
- OFF: 1.One 2.Far
- NO:1.Tow 2.Near

- G.LED-S
- H.Power supplier (AC100V~250V)

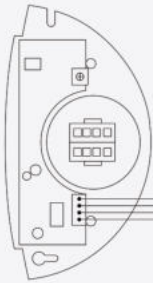


## Connection of motor,controller and power switch



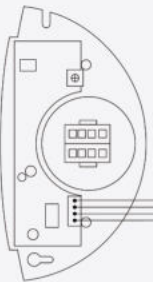
## Connection of sensor

### Outdoor sensor

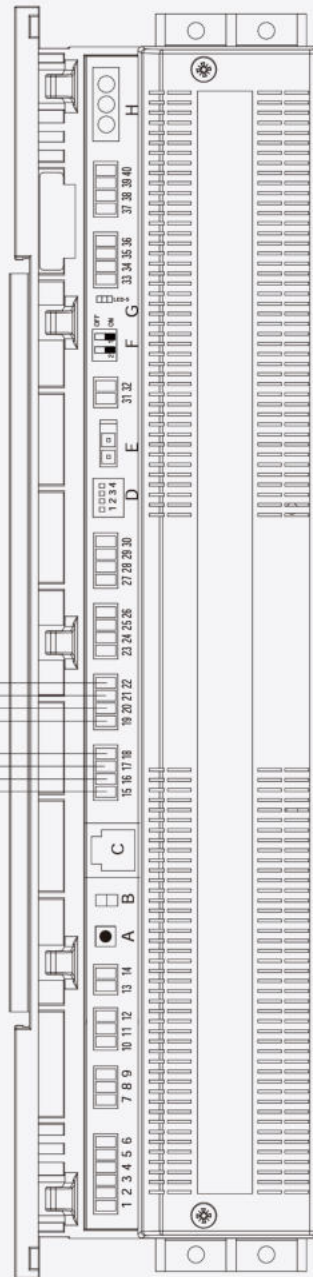


- 1. Red DC12-36V
- 2. Black GND
- 3. Green Relay (NO)
- 4. Yellow Relay (COM)

### Interior sensor

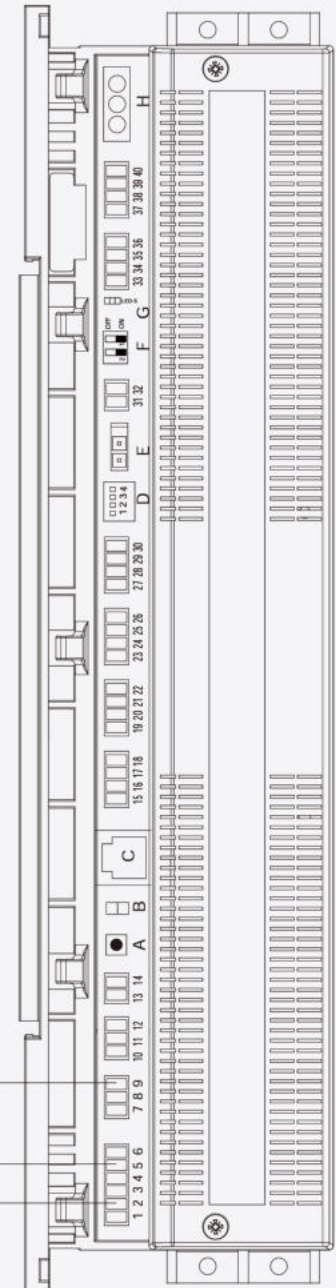
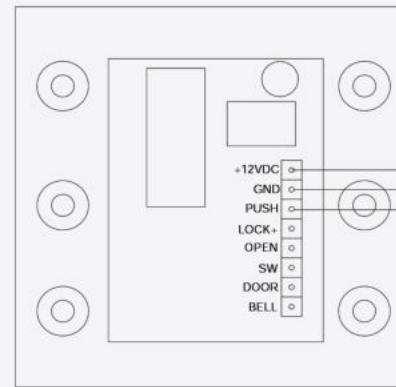


- 1. Red DC12-36V
- 2. Black GND
- 3. Green Relay (NO)
- 4. Yellow Relay (COM)



## Connection of access keypad

### ● AK02

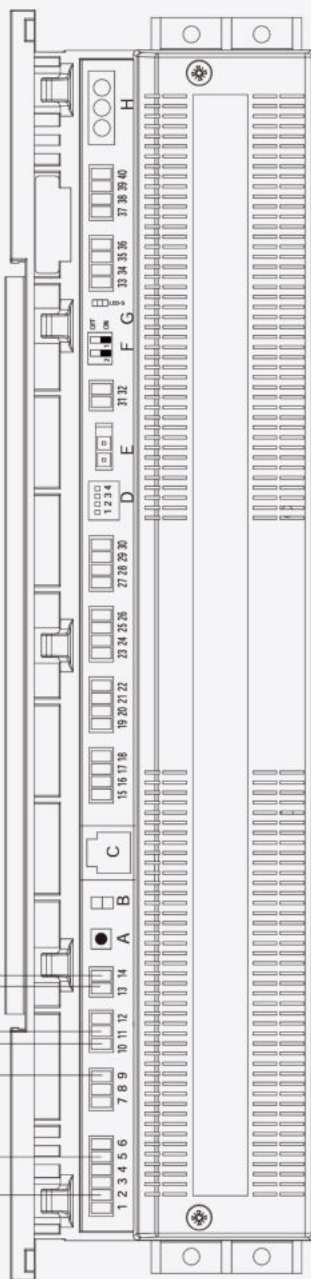
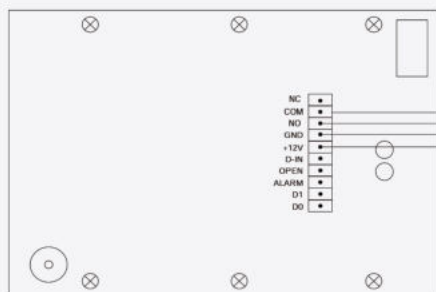


## Connection of access keypad

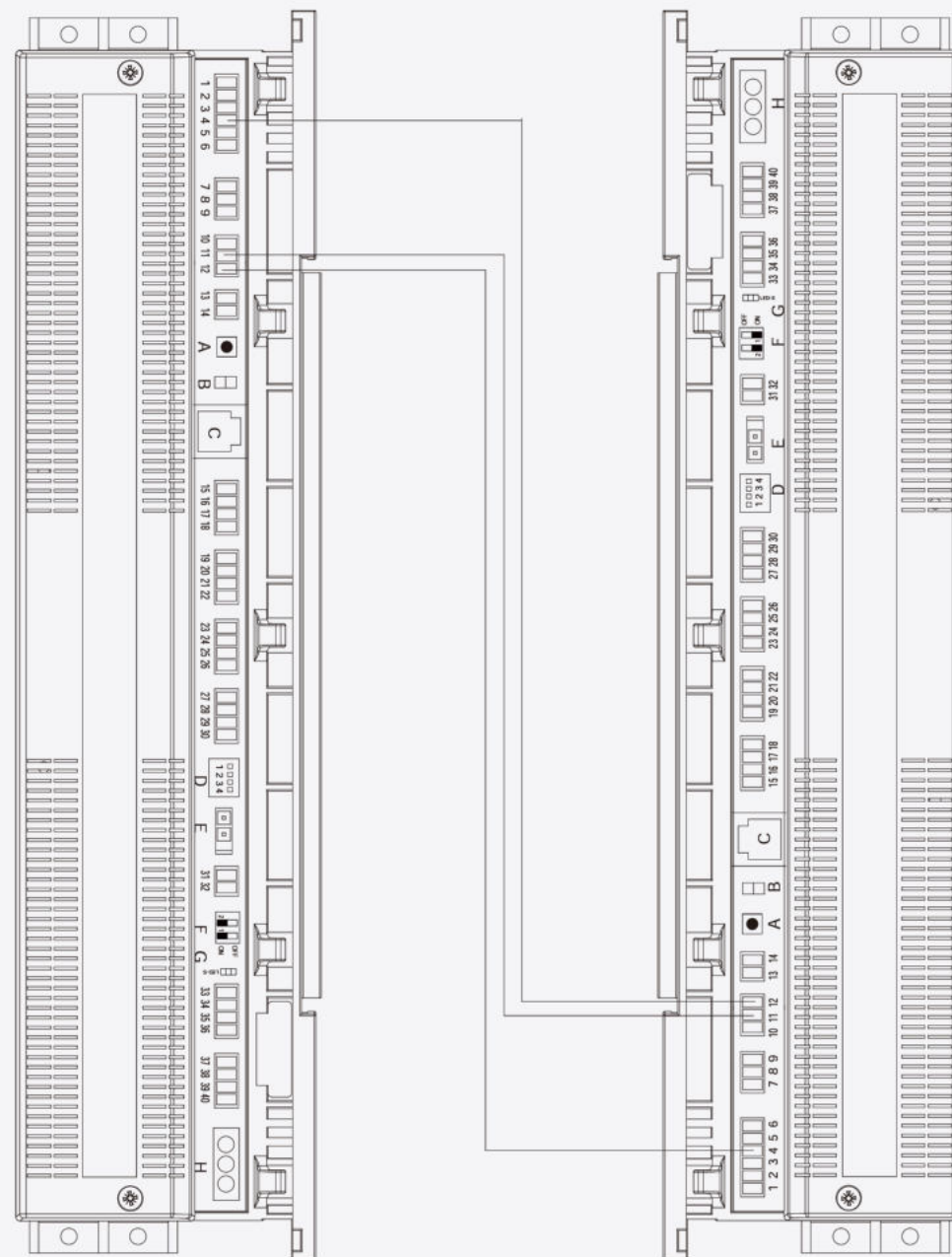
Connection of fire alarm:



Connection of Emergency:

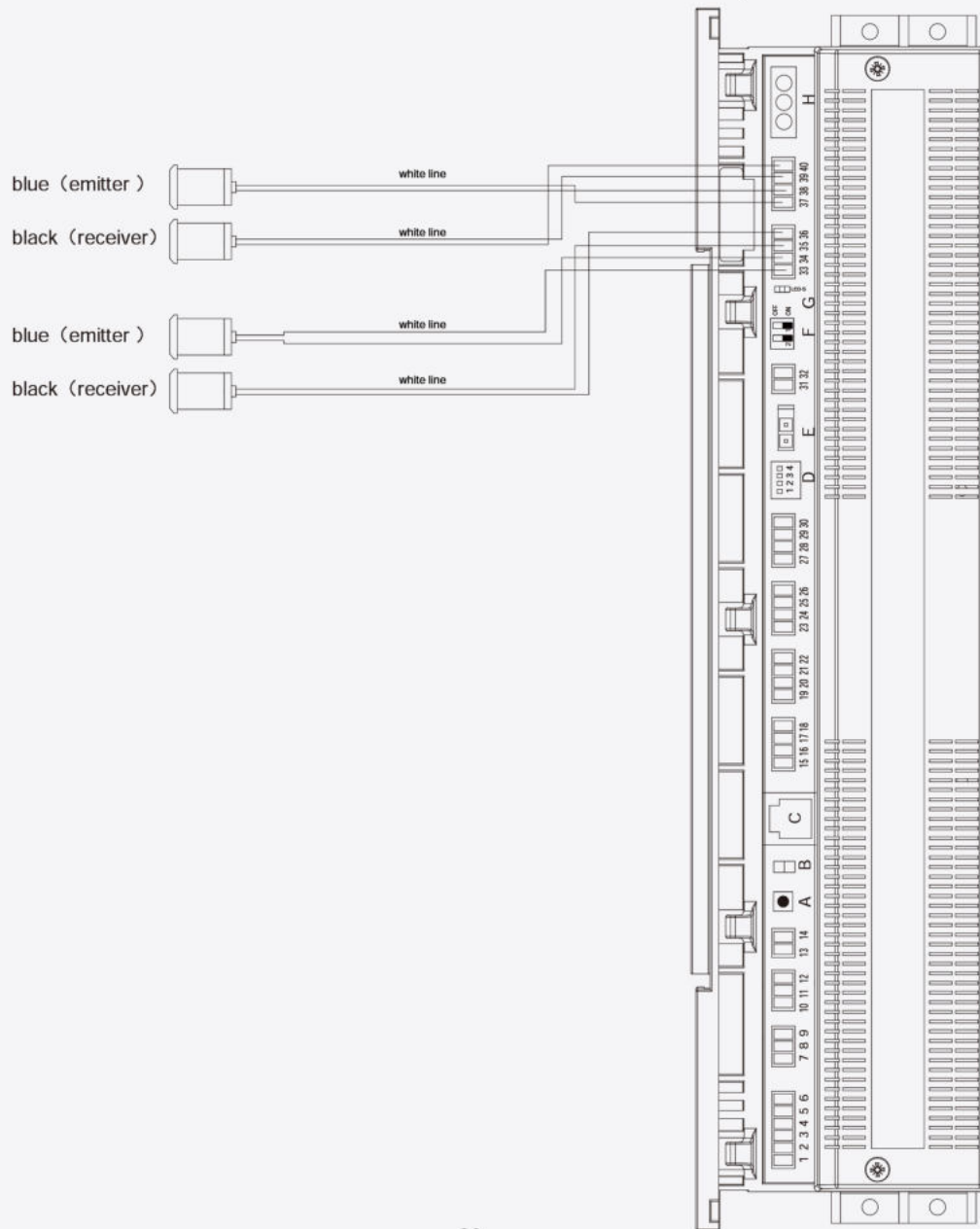


## Connection of interlock

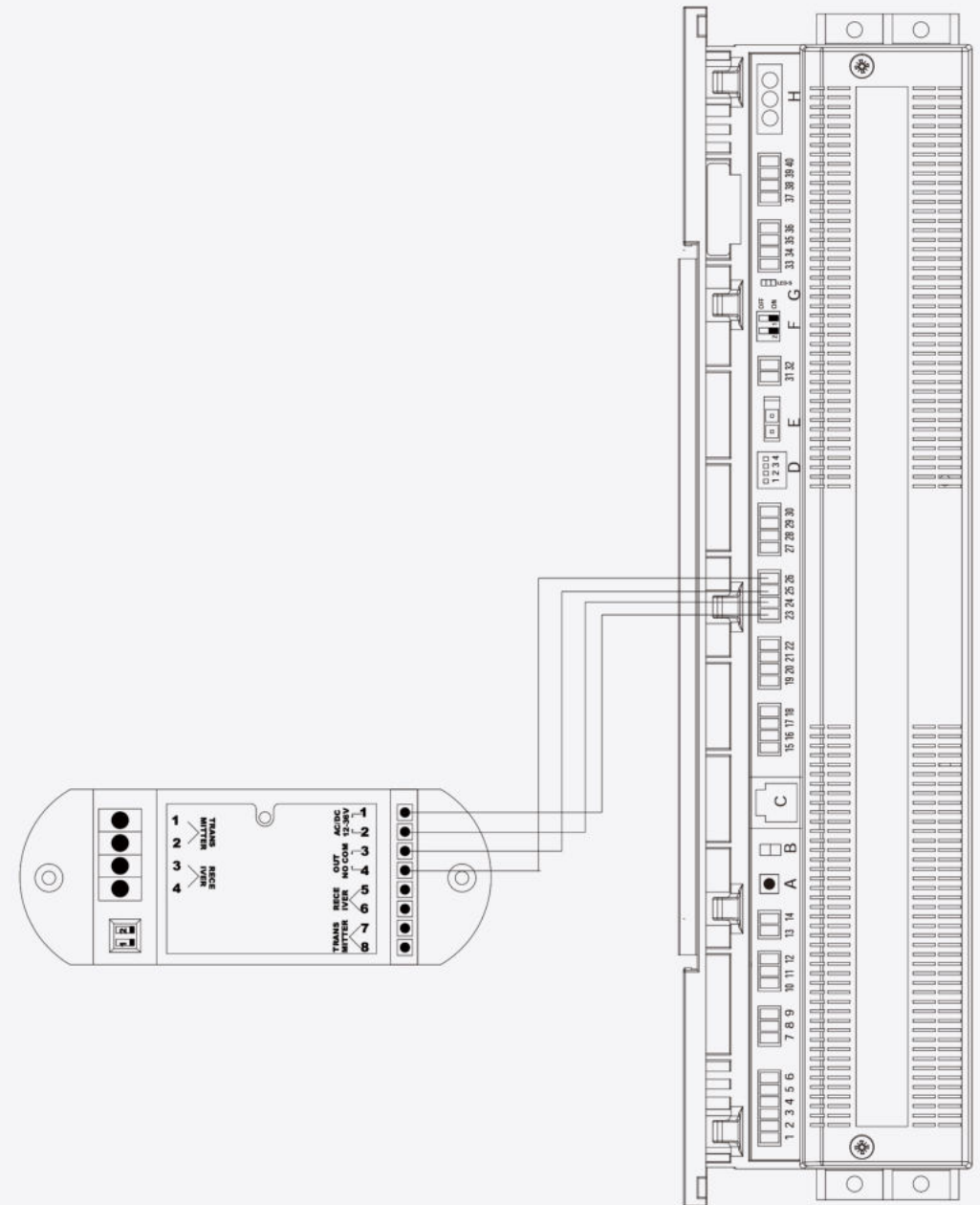


## Connection of built in photocell

1.Connection of built in photocell:

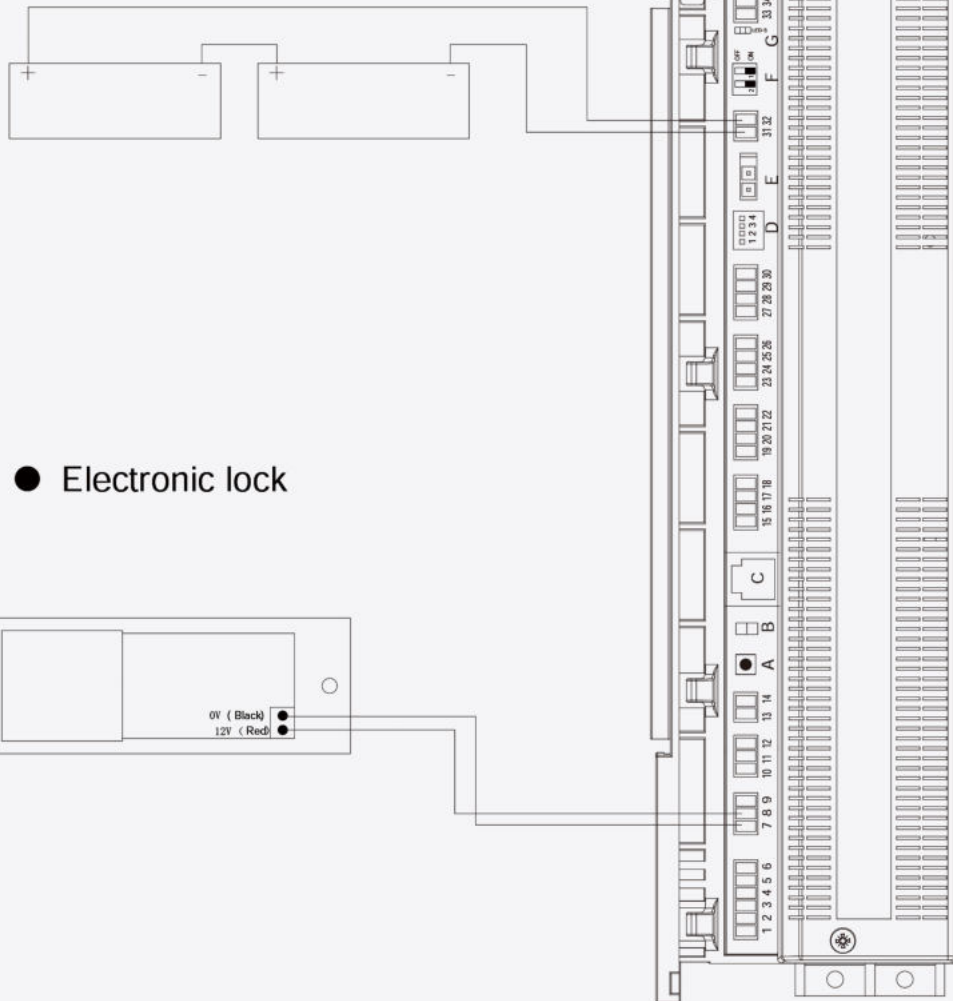


## Connection of normal photocell

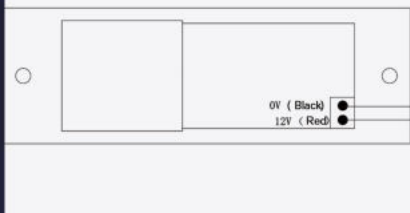


## Connection of electronic lock /and ups

### ● UPS

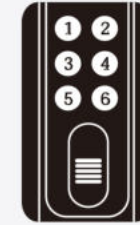


### ● Electronic lock



## Connection of remote control

### ● Built-in remote receiver



- FC05: 1. Automatic 2. Lock  
3. Open 4. Exit only  
5. Half open 6. Open and close one time

### Standard type

- Add the remote : press the learning button(S3) on controller till the indicator turn to red, then release the learning button and press 1 button on remote, beep time and led flash 3times learning successful
- delete the remote: press and hold the learning button, after 6seconds Led flash 6times and bip at same time

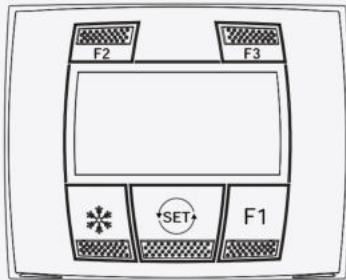
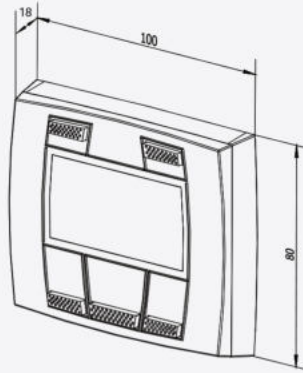


Please check the DIP switch if it's same as the image shown (during setting process) .

Wireless push button : Added and deleted wireless push button is same as remote.

## AU360 web (function selector)

The technical data of spider can only be adjusted by AU360 web. It works as function selector and data adjuster.



**SET** Function selector button / confirm button. press 8 seconds, it will become to data adjuster; press 8 seconds again, it will return to function selector.

**F1** Select technical item when working as data adjuster / code setting meaning number 2

**F2** Code setting meaning number 4

**F3** Code setting meaning number 3

**\*** Partial open when function selector / select technical item when data adjuster / code setting meaning number 1

## AU360 web (function selector)

The door is closed and the sensors not active. The door may only be opened with the Emergency opening button.



The door's automatic mode is deactivated and the leaves can be moved manually.



**\*** After changing mode "Manual" to other mode the door will close automatically.



Press the button **\*** to reduce the passage opening. The percentage of partial opening can be set. If you don't want to partial opening function, please press the button **\*** again.

The door opens by activating any installed opening control.



The external sensor is deactivated, all other opening controls remain active.



The internal sensor is deactivated, all other opening controls remain active.

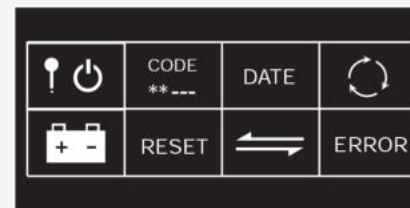


The door opens and remains open permanently.



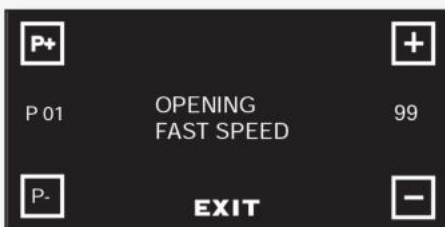
## AU360 web (data adjuster)

Press button "SET" more than 8 seconds, SPIDER WEB become to data adjuster



	Data setting		working times		Re-learning travel distance
	Code setting		Battery mode		Error warning
	date setting		Data reset		

## AU360 web (data adjuster )



Data setting: press button F2 and \* to select code no. P01 to P25. There are 25 items can be setted as customer requested. And press button F1 and F3 to set the value of each code.



Code no.	Value range	Default value	Details
P01	30-99	80	Opening speed
P02	30-99	65	Closing speed
P03	01-30	05	Buffer speed when opening
P04	01-30	05	Buffer speed when closing
P05	05-50	30	Buffer distance when door opening
P06	05-50	30	Buffer speed when door closing
P07	01-03	02	Auto reverse force when opening (03 : Sensitive weak 01: Most sensitive)
P08	01-03	02	Auto reverse force when closing (03 : Sensitive weak 01: Most sensitive)
P09	01-03	02	Holding force-close (01: Weak 02: middle 03: strong)
P10	20-80	60	Partial opening
P11	00-60	06	Door hold time 0-60s
P12	00-01	00	Aux lock type (00: Lock with power 01: Lock without power)
P13	00-01	00	Battery monitoring(00: disabled 01: enabled)
P14	00-02	00	Battery mode(00:open 01:closed 02:automatic)
P15	00-01	00	Fire alarm mode (00:open 01:closed)
P16	00-01	00	Fire alarm equipment signal (00: NO 01:NC)

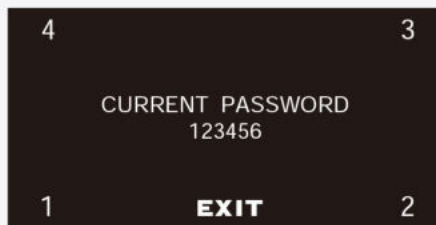
## AU360 web (data adjuster )

P17	00-01	00	Photocell signal (00:NO 01:NC)
P18	00-04	01	00:Open direction:left 01:Open direction:right 02:Open direction:left 03:Open direction:right encoder direction:left encoder direction:right encoder direction:right encoder direction:left
P19	00-01	00	Door working mode (00:Normal 01:Toggle)
P20	00-01	00	Aux Lock way (00: lock with signal 01:Auto lock every time when close)
P21	00-01	00	Emergency signal (01:NC 00:NO)
P22	00-01	00	Anti-collision (01:NC 00:NO)
P23	00-01	00	Setting of inside sensor and outside sensor (01:NC 00:NO)
P24	00-01	00	Built-in photocell (01:Working 00:Built-in photocell function disable)
P25	00-02	00	Working times (00: No limit 01:10000 2:100000)

## AU360 web (Password setting )



- 1.Select Password mode
- 2.Press SET enter the setting mode

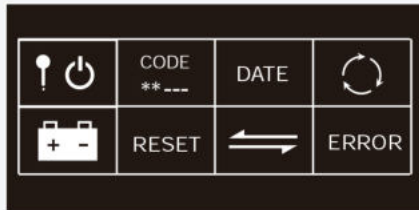


- 3.Enter password 111111

## AU360 web (Password setting )



4.Active password setting: "OFF" "ON"



5.Press "OFF", return to password setting



6.press "ON",enter new password



7 .Enter new password again

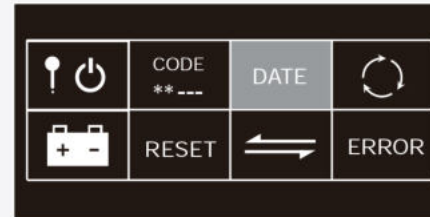


8.New password setting is done

9 .Press SET exit the password

Attention: Default password is 111111

## AU360 web (Production data )



1.Select Date mode

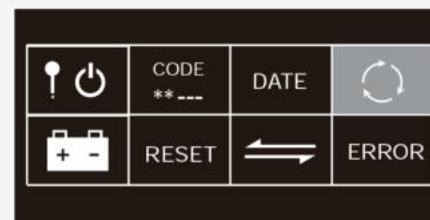
2.Press SET enter the date mode



3.Date display

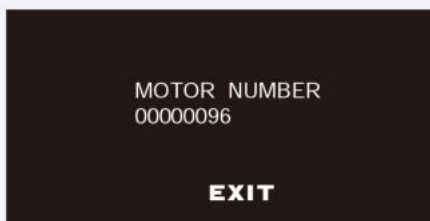
4.Press SET exit date mode

## AU360 web (Working times )



1.Select Operate times setting mode

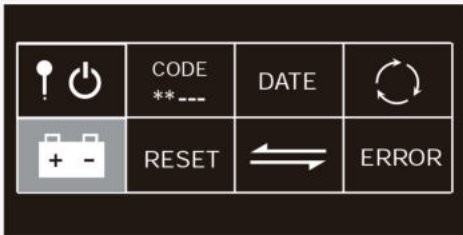
2.Press SET to check operate times



3.Display the operate times

4.Press SET to exit operate times mode

## AU360 web (Battery backup status )

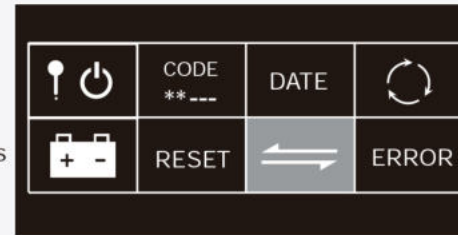


1. Select Back up battery status mode
2. Press SET to check the battery status



3. Battery status display
4. Press SET to exit battery status mode

## AU360 web (Re - learning travel distance )

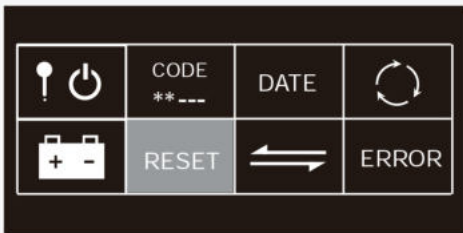


Select Re-learning travel distance mode  
Press Set button enter the Re-learning travel distance mode

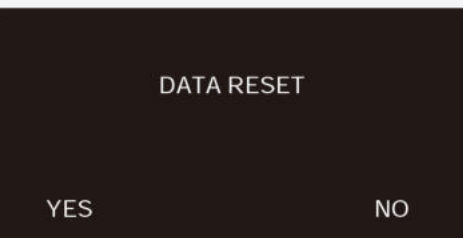


Press Yes button re-learning opening and closing position  
Press No button exit the re-learning travel distance mode

## AU360 web (reset )

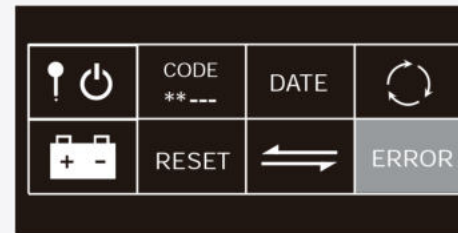


Select data reset mode  
Press SET button enter the reset page

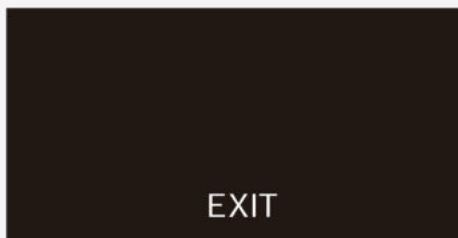


Press YES reset to default setting  
Press No button exit reset mode

## AU360 web (Error warning )



Select error warning mode  
Press SET button enter the Error warning page

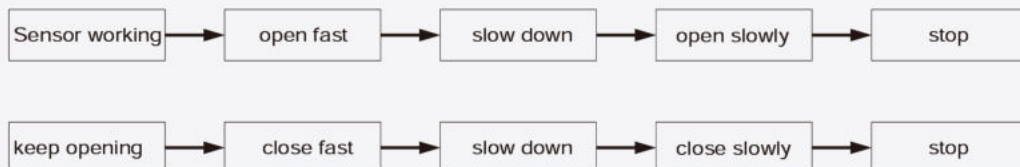


Display the error  
Press Set button exit the error warning mode

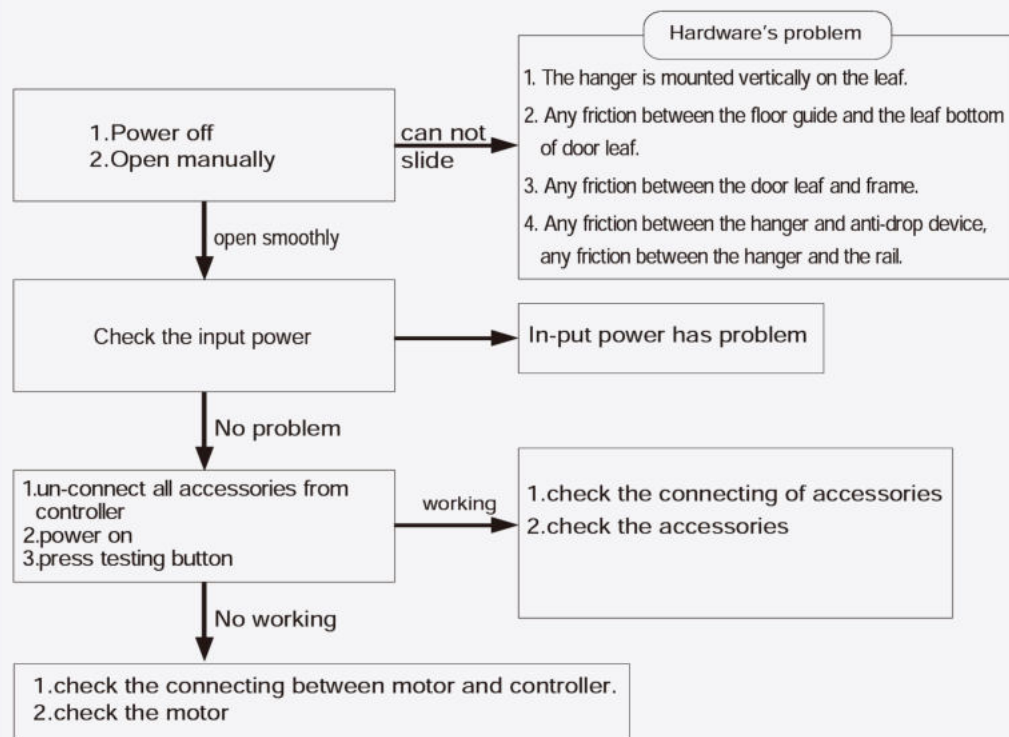
## Description of operation

1. Power on, the mechanism start to self-learning. The door will open and close to find the opening and closing position.

2. The mechanism's working steps are as following:



## Trouble shooting



## Trouble shooting

Symptoms	Causes	Troubles shooting	Remedy
Door leaves open or close un-smoothly	Opening or closing speed is set too slow	Check the data of opening and closing speed.	Adjust the opening or closing speed.
	Too much resistance when no power.	Any damager or loosen at hangers, floor guide or anti-drop device.  Any obstacle on the track.	Fix the parts strongly. Fixe the guide at the right position. Fix the anti-drop device.  Clean the track.
Door leaves hit each other when closing	Stopper is fixed not strongly.	Check the stopper.	Adjust the stopper's position and fix it.
	Closing speed is too fast and the buffer distance when closing is too small.	Check the closing speed and buffer distance when closing on controller.	Turn down the closing speed, and turn up the buffer distance when closing.
Door not working	No power input.	Check the outside input power.	Connection the power.
		Check the fuse of power switch.	Change a new fuse.
	Door is locked.	Check the lock is working or not.	Un-lock the door.
	Connection between motor and controller is not good.	Check the connection is good or not.	Connect them strongly.
Door does not close	Inter-lock is working.	Check it works as inter-lock or not.	Waiting another door close.
		Check the sensor is broken or not.	Use a new sensor.
	Check any stuff at the detecting area.	Clean the detecting area.	
Check the sensor is fixed stably.	Fix the sensor well.		

## Trouble shooting

Symptoms	Causes	Troubles shooting	Remedy
Door does not close	Remote control is working	Check	Press automatic button on remote
	Microwave is working	Any object at the detect area	Remove the object
		Check the detect area without object to cause mistake working	Change the microwave sensor
	Photocell is working	Check the surface of receiver and emitter is clean or not	Clean the surface
		Check the receiver and emitter are at same level or not	Adjust position of receiver and emitter to the same level
		If use built-in photocell, check the selection of single beam or double beam and the distance of detect is correct	Adjust the DIPswitch Adjust program 24
Other signal wire is wrong connection	Remove other accessories from controller and check the door leaf if is closed	Exchange the signal wire	
Door open by itself	Sensor mistake working	If there is a moving object in detect area	Check Remove the moving object
		any strong microwave near the door system	Check Remove the machine with strong microwave
		Any fluorescent light near the detect area	Check Remove the fluorescent light
	Not well setting	Remove the obstacle	setting again
	There is an obstacle on the track	Check	Remove