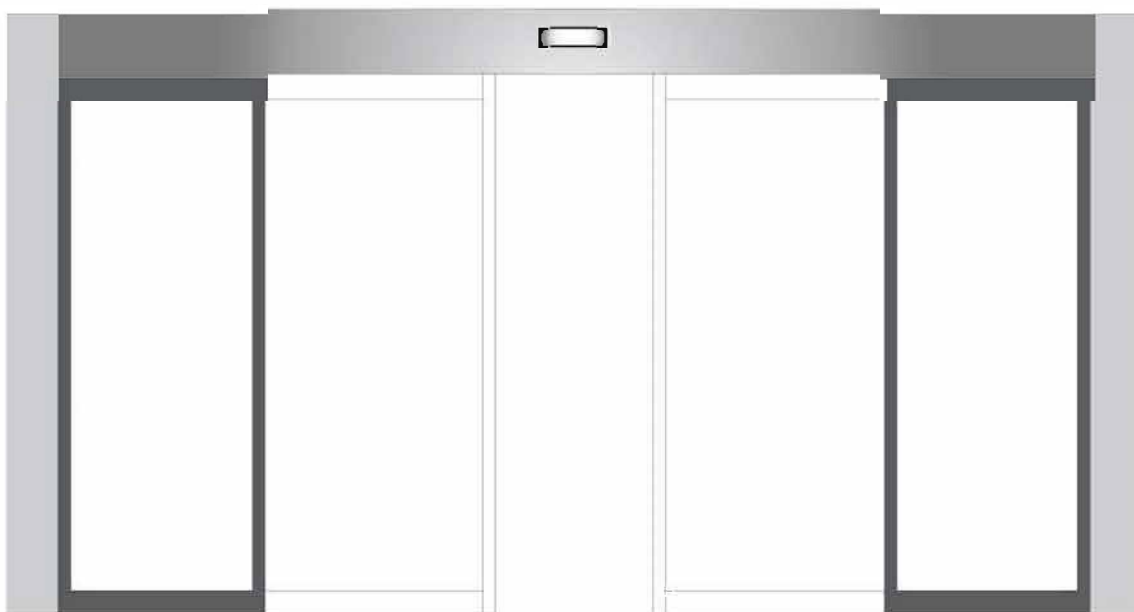


Installation manual

DCS-62s

- Installation of automatic door should be entrusted to the appointed distributor or professional team as installation by non-professionals may result in injury.
- Installation must be performed by professionals only in accordance with relevant decrees and codes for electrical installation.
- This manual must be kept well for product maintenance.




Contents


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Safety precautions

Users must comply with the content and mark as the below notation and explanation.








 **Warning** Improper operation may result in death or injury to the users.

 **Caution** Improper operation may result in injury or property loss to the users.

 This figure indicates the "prohibited" content.

 This figure indicates the required "compulsory" content.

Warning

-  **!** Be sure to follow the installation manual to do installation and adjustment. If there is inadvertent in the installation and adjustment, may result in fire, electric shock, falling etc. accidents.
-  **!** During installation, do not allow passagers to pass through the automatic door or be near to the job site. Such as tools or parts accidentally fall may result in personal injury.
-  **⊘** Please don't remould the standard parts, otherwise may result in fire, electric shock and falling.
-  **⊘** Do not use the supply power out of rated voltage & frequency, may result in fire, electric shock etc. accidents.
-  **!** Please set and adjust the sensor to make sure the door opening scope is fully in the detection range without any dead zone. If the detection range is too small or left dead zone, pedestrian will be knocked or pinched by the door and result in injury.
-  **!** Be sure to use the infra-red safety sensor to cover the detection range of the door walking route. Otherwise pedestrian may be knocked or pinched by the door and result in injury.
-  **!** If the above detection range can not be ensure, it requested to place the potted plants and other methods to restrict the pedestrian to go through the detection range, meanwhile please explain the situtation to the property owners. If there is inadvertence, pedestrian will be knocked or pinched by the door and result in injury.

 **Caution**

- ⊘ Do not use door in the condition of damp, vibration, or corrosive gases.
Otherwise it may result in fire, electric shock, falling ect. accidents.
- ⊘ Make sure when the door is open, there is a gap more than 30mm between two linked door leaf.
Otherwise the finger may be pinched by the door leafs, result in injury.
- ⊘ Door is working, do not cut off the power.
Otherwise may result in personal injury.
- ⊘ Do not supply the electrical capacity exceed DC24V 300mA directly to the controller.
Otherwise may cause fire.

Other Considerations

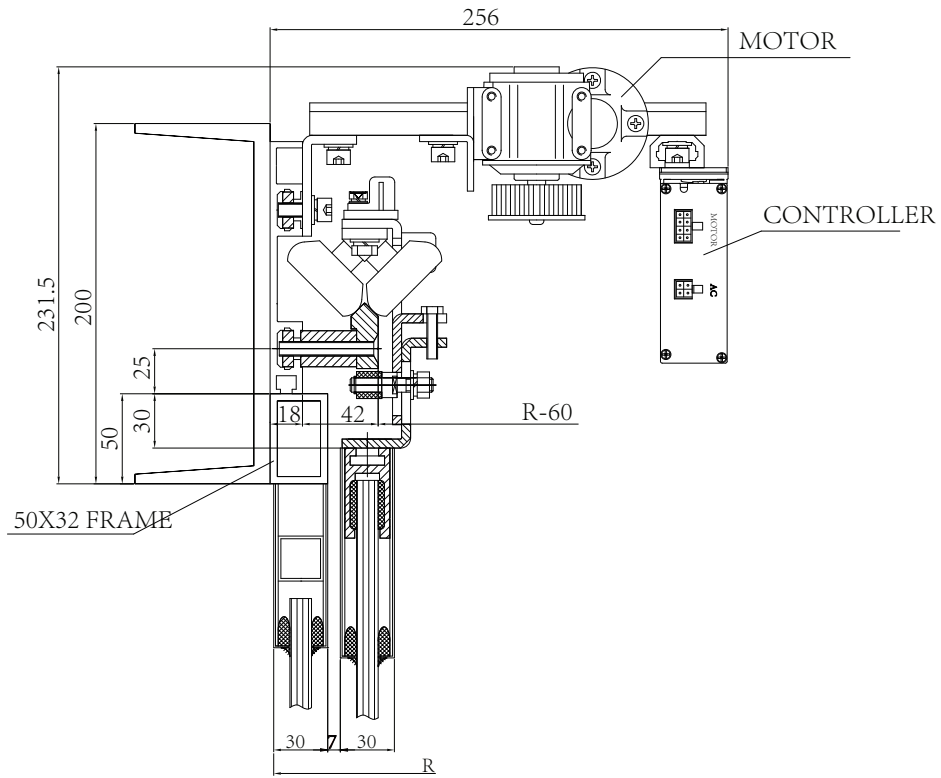
- Do not use this automatic system for the door which weight is heavier than the permitted maximum weight, otherwise, it will cause trouble.
- For identifying the engine model of the system, please stick the product label (attached in the packing box) on the engine box.
- If you choose to use the battery device function.
 - Please charge for 24 hours before use.
 - The battery life in the environment temperature 0-40 °C is 3 to 5 years. If the environment temperature is other than 0-40 °C, the battery life will be shorten.
 - If charging for 24 hours, when power is failed, the door is still unable to open or close, it means that the battery has worn out. Please replace the battery immediately.
 - Every six months to give a regular inspection for the battery.
- If you choose to use the electromagnetic lock.

Do not use it in the environment where the temperature is beyond 0-40 °C.
It's easy to result in working unsmoothly.
- The pictures in this manual are for reference only, please see the products, the products are subject to change without notice.

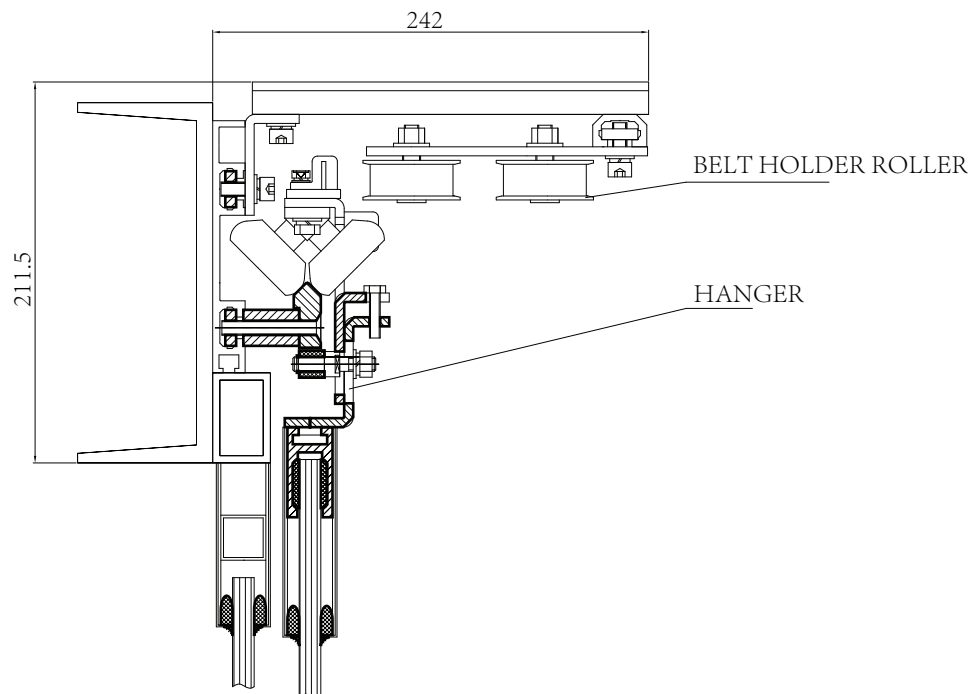
SIDE VIEW

Remake: This view is not in a scale of 1:1

SIDE VIEW (ONE)

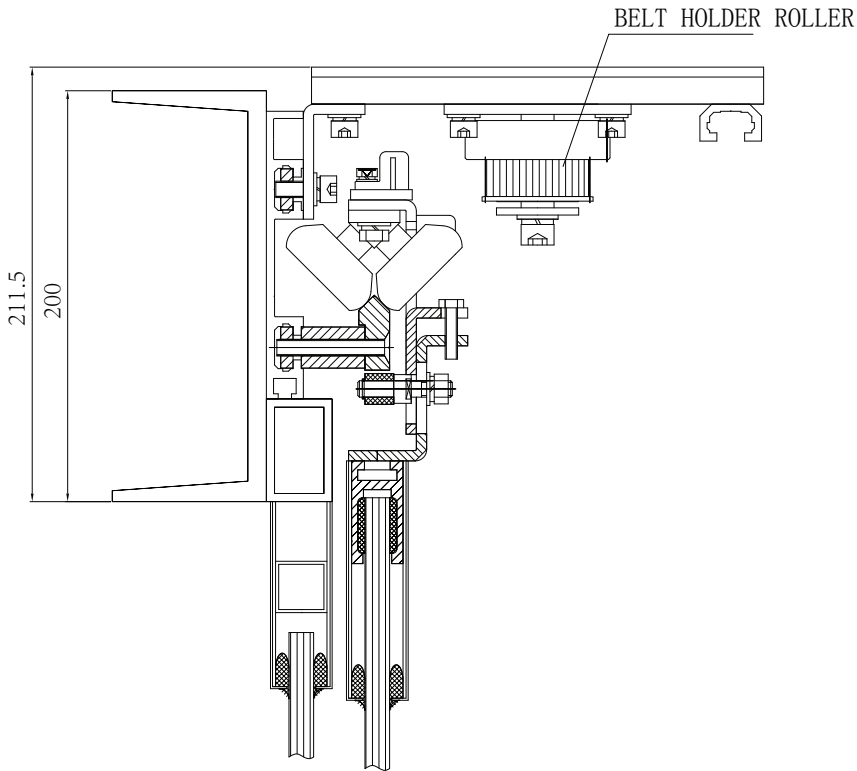


SIDE VIEW (TWO)

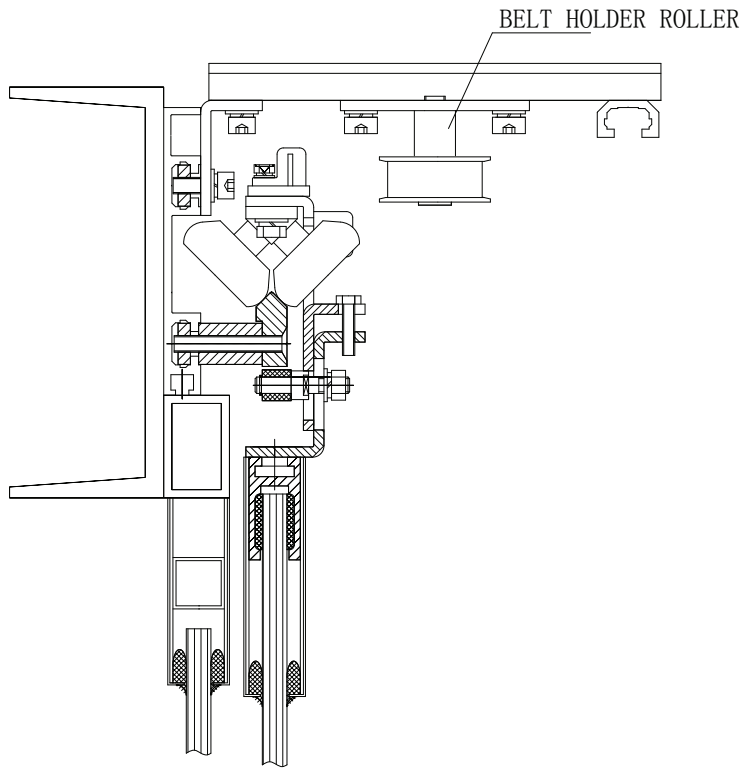


SIDE VIEW

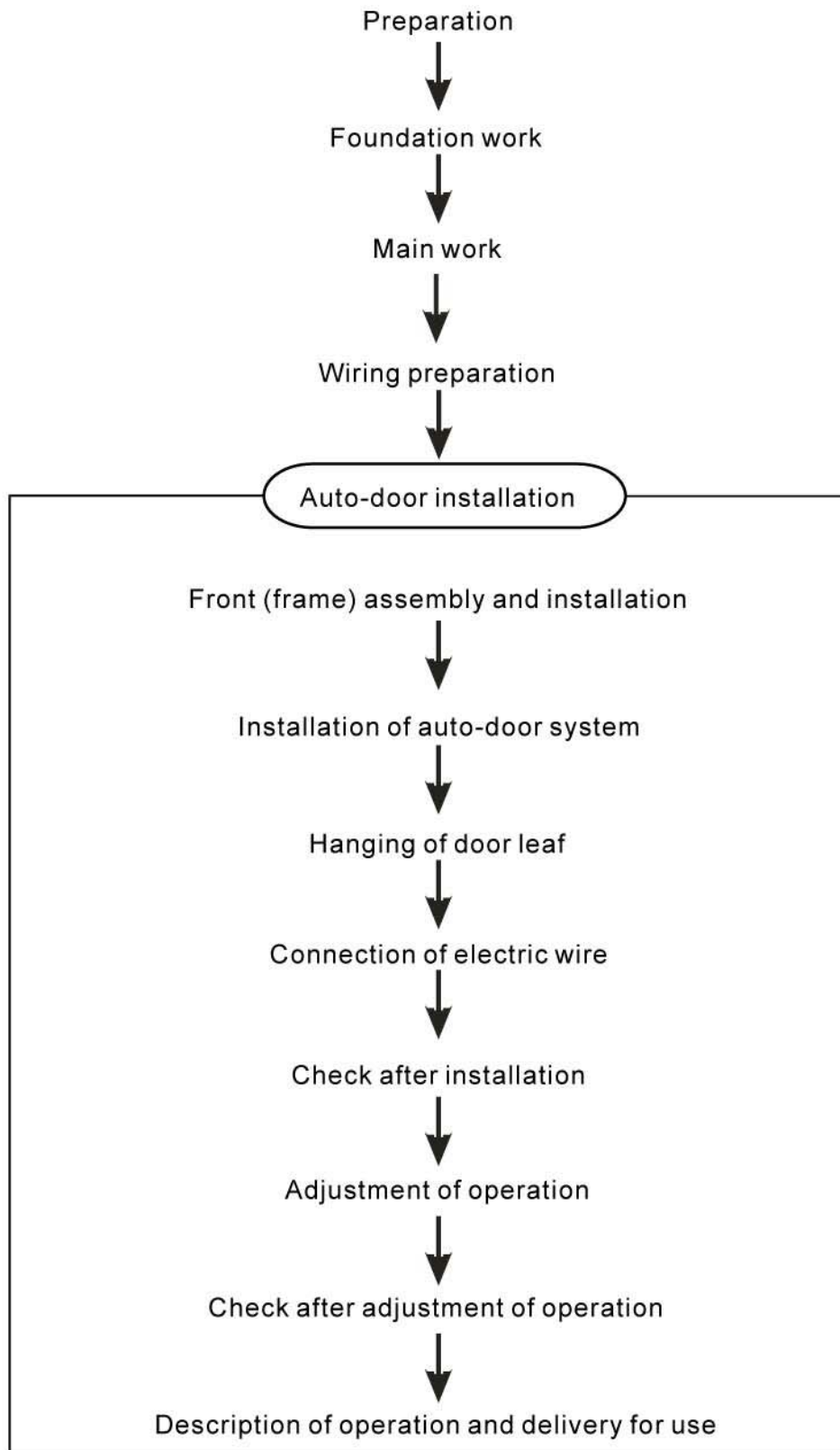
SIDE VIEW (THREE)



SIDE VIEW (four)



Installation process



Product features

Arc door

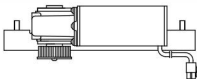
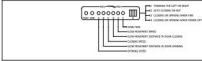
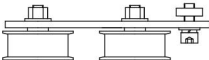
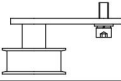



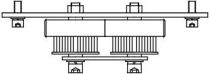
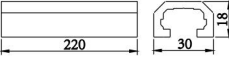





- Micro-computer intelligent control and advanced mechanical manufacture.
- Automatically adjust the operating status of the door leaf, if necessary, manual adjustments.
- Open and close smoothly and low noise.
- DC brushless motor with longer service life.
- Double-entry interlock function and electric lock function, supporting for multiple entrance system.
- Dual-purpose for light and heavy door leaves, with a great load capacity.
- Installation is simple and convenient.

Technical specifications

Model	Arc door	
Door configuration	Single door leaf	Double door leaf
Door leaf weight	Max.125kg	Max.2*100kg
Width of door leaf	DW=750-1600mm	DW=650-1300mm
Clean opening	W=650-1500mm	W=1200-2500mm
Installation method	steel frame structure	
Supply power voltage	AC220V, 50~60Hz	
Opening speed	15-40cm/s(adjustable)	
Closing speed	13-40cm/s(adjustable)	
Hold open time	0-8 s(adjustable)	
Manual force	<50N	<60N
Motor	DC24V, 65W(DC brushless)	
Working environment temperature	-20 °C -50 °C	

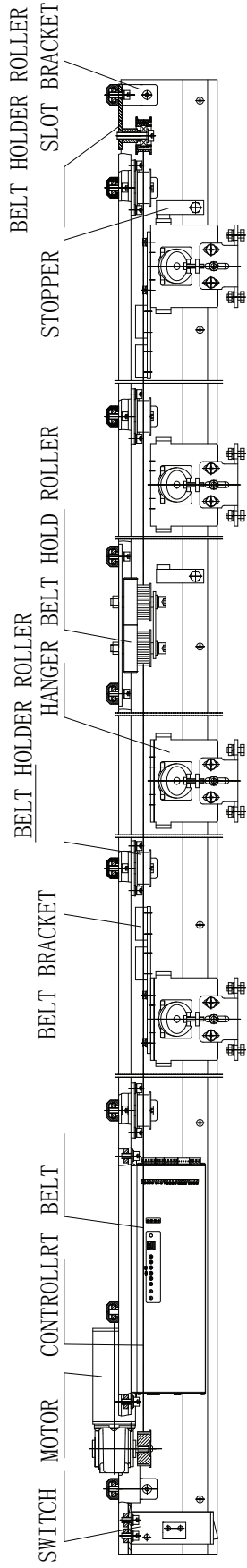
COMPONENT LIST

PARTS IN MAIN UNITS

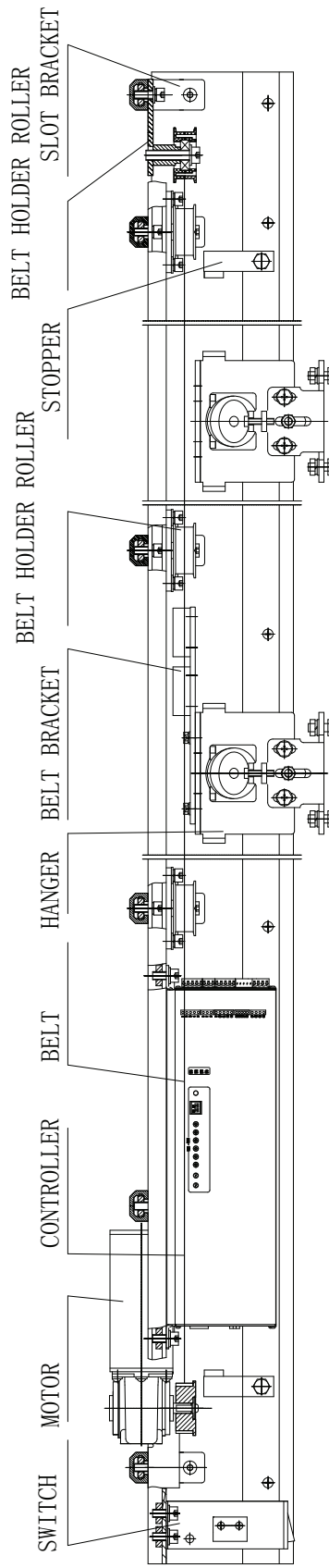
NAME	DRAWING	QTY	
		SINGLE	DOUBLE
MOTOR		1	1
CONTROLLER		1	1
BELT HOLD ROLLER		4	8
BELT HOLD ROLLER		1	1
KEY SWITCH		1	1
HANGER		2	4
BELT BRACKET		1 (left)	2 (left、right)
BELT HOLD ROLLER			1
SLOT (ONE)		8	13
SLOT (TWO)		1	1
FLAT STEEL		8	13
SLOT BRACKET		8	13
STOPPER		2(left、right)	2(left、right)
BELT		1 (5m)	1 (10m)
FASTENING		1set	1set
STICKER		1pcs	1pcs
MANUAL		1套	1套

COMPONENT POSITION IN GUIDE RAIL

DOUBLE

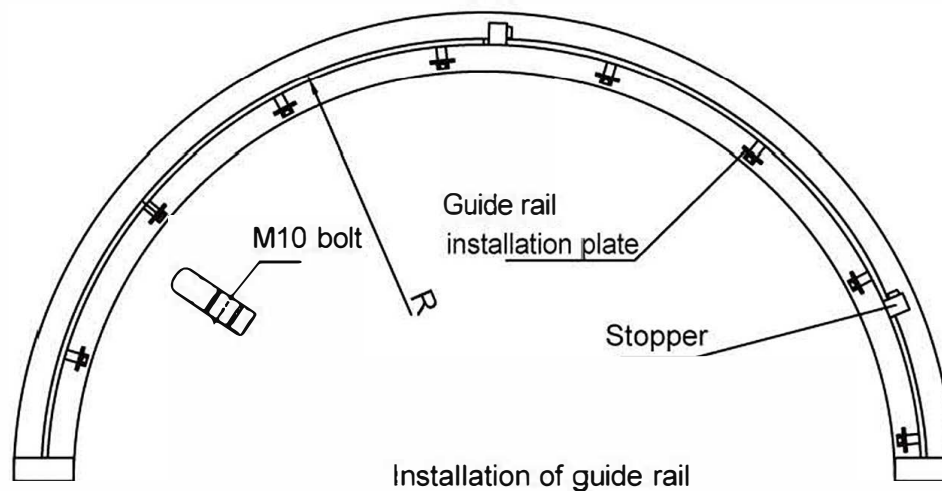


SINGLE



Making arc frame

- (1) To prepare 25 * 25 * 1.5 square tube, set radius R according to the construction requirements and bend it into half round. The side section of welded framework is 180 * 250, see Figure A.
- (2) Fix guide rail brackets and the bracket of the belt holder, determine the location of the belt holder rollers, see the complete drawing.
- (3) Tap 8 holes with size M10 in the guide rail, the distance between each two holes is 500mm. Bend the guide rail into half round according to the construction requirements, connect the guide rail and guide rail bracket with M10X55 counter sunk bolts and spacer. Adjust the position of the guide rail until it's level.

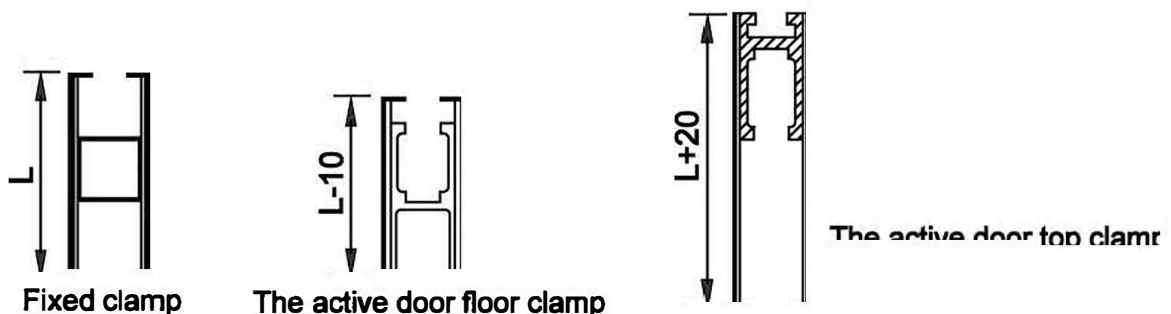


Connection of the components

- (1) Connect the supporting bracket and rollers holder of the belt holder roller unit with M6 bolt. Note that supporting bracket B matches with rollers holder B, supporting bracket C matches with rollers holder C. See section view B and section view C (page 3 and page 4).
- (2) Connect the motor brackets and the supporting plate for motor with M6 bolt, fix the idle pulley onto the other supporting plate.

Hanging of door leaf

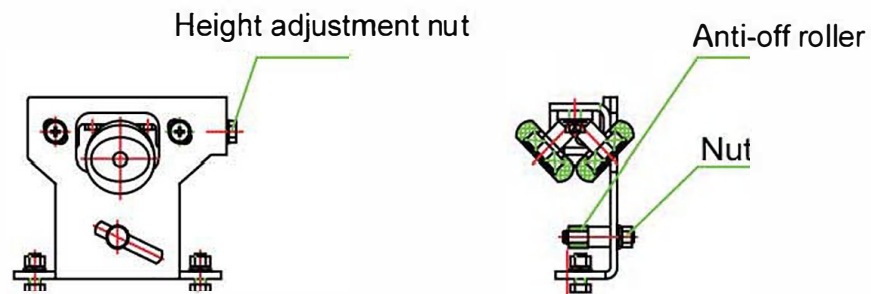
There are three ways to connect the door glasses as below drawing. The hangers can be directly connected to below three clamps with M8 bolts, easy to install. The surface coat of the aluminium profile can be wood or stainless steel.



Adjustment of door leaf

(1) First loosen hanger bolts, move the anti-off roller to the lowest position. Install the hanger on proper position of the door leaf with hanger bolts(M8X30), please avoid the stopper touching the guide rail column.

(2) Hang the door leaf onto the guide rail, adjust the anti-off roller and leave a gap about 1mm to the guide rail.

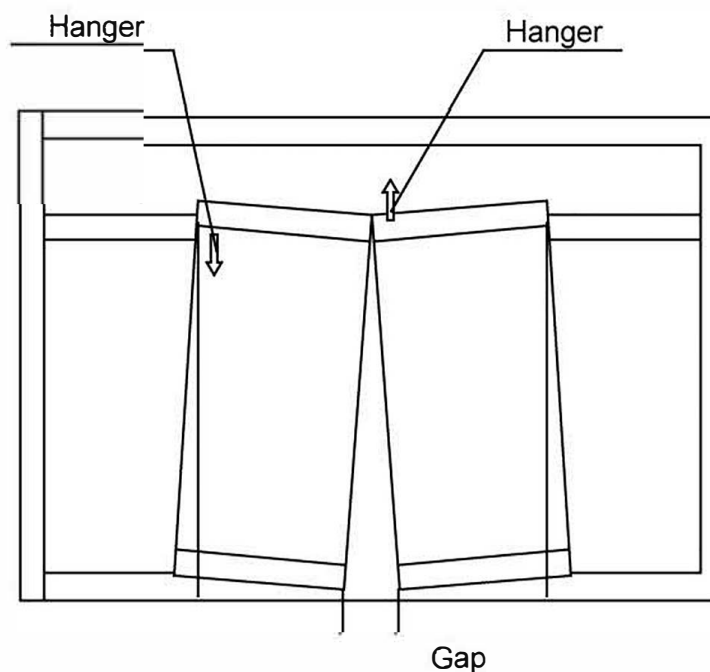


(3) Hang the door leaf on the guide rail, if the door slide to left or right means that the rail is not level, the door leaf should be able to be gently opened or closed by hand.

(4) If the gap between the active & fixed door leaf is not the same, loosen and adjust the height adjustment bolts or adjust the position of floor guide roller.

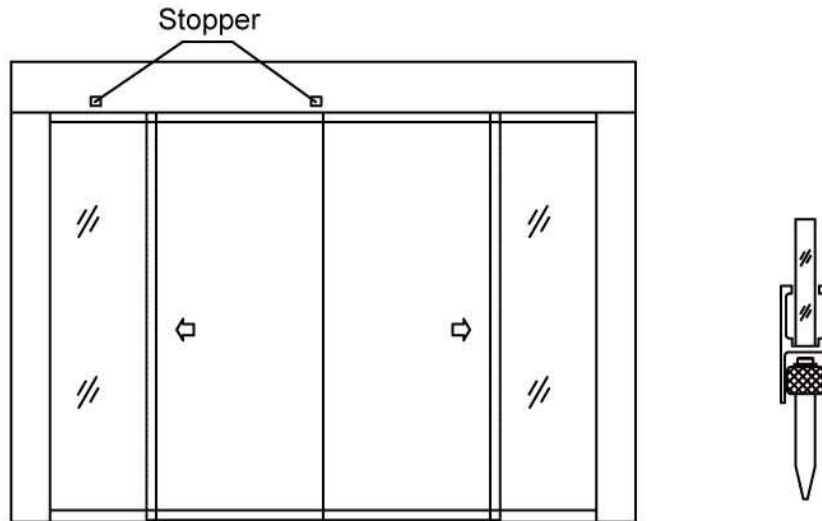
(5) The active door leaf has no friction with static objects, such as guide rail, cover, fixed doors and the floor.

Double opening



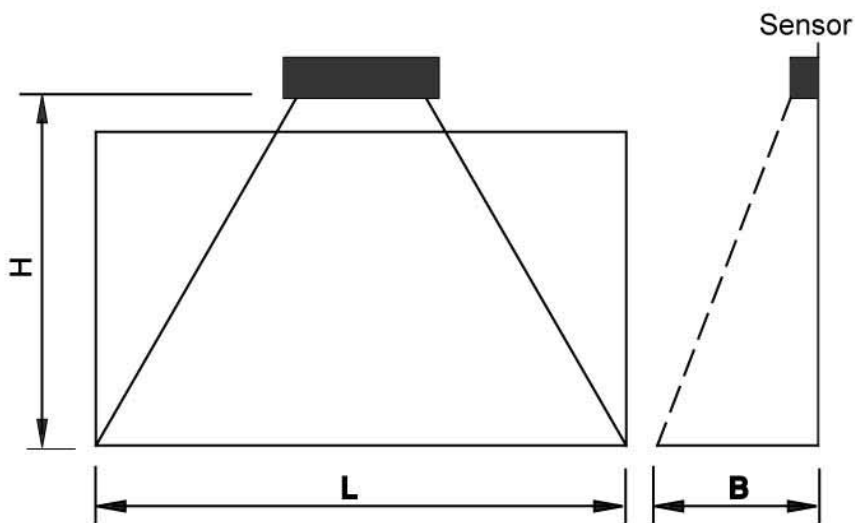
Installation of stopper and floor guide roller

- (1) Mount the stopper into the guide rail, the stopper position as the below figure show.
- (2) The floor guide roller (fixed on the ground) should be concealed at the middle of the profile of active door leaf, the axis coincide with the door leaf centerline.



Installation of the sensor

The sensor should be installed at the top center of the active door leafs, at the height 2.5m is most proper. Normally, one sensor is inside of the door, one is outside of the door, the wiring drawing is on Page 12 & 13. the details of the sensor please refer to the user's guide of the sensor.

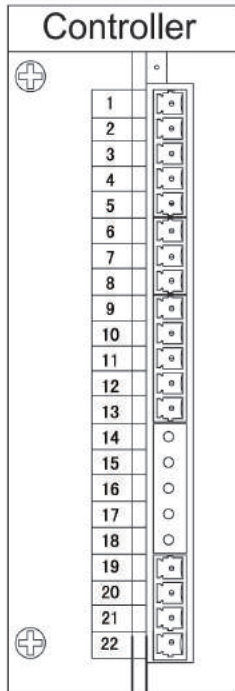
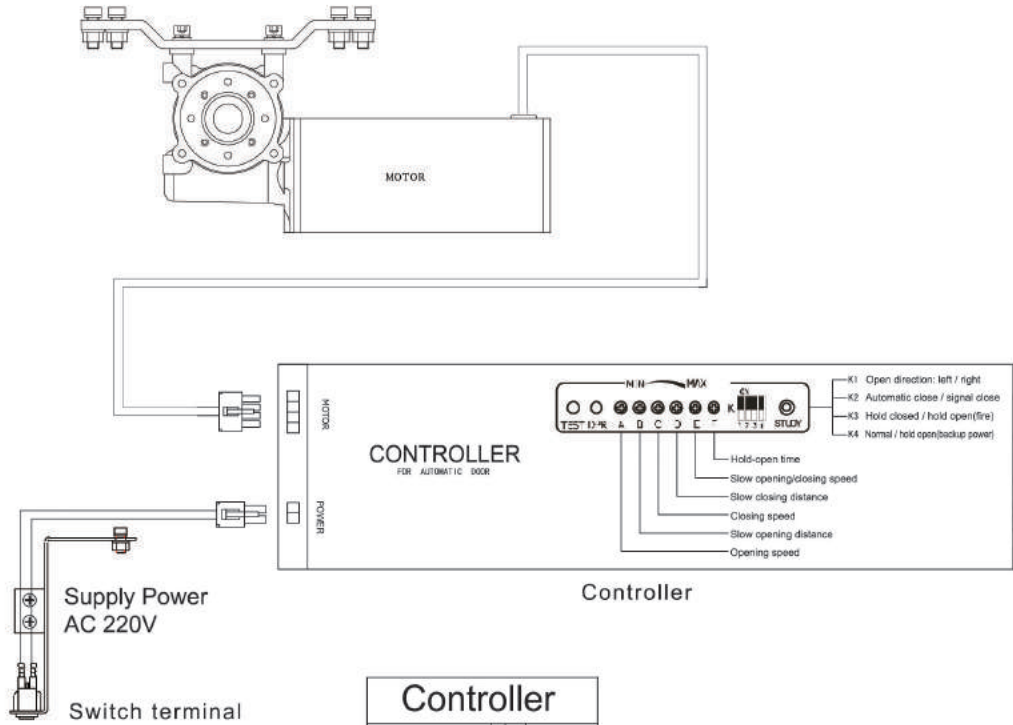


Note: Because the wiring voltage of the sensor is different among different manufacturers and models, please replace it at will.

Description of controller and switch terminal

Connection of controller, motor and switch terminal.

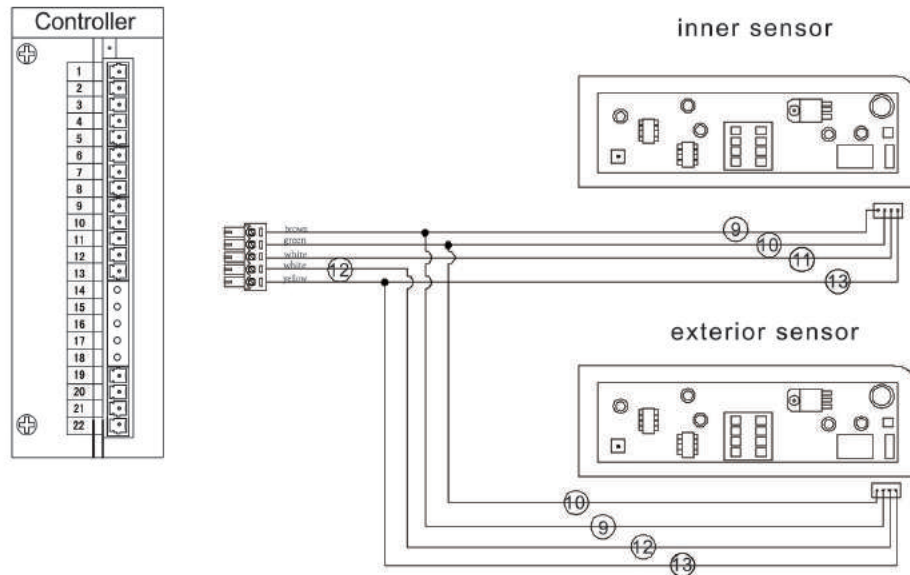
Note: All the connections should be performed with the power disconnected from the unit.



- 1. +12V
- 2. GND
- 3. safety beam input
- 4. access control input
- 5. COM
- 6. inter-lock input
- 7. inter-lock output
- 8. COM
- 9. +24V
- 10. GND
- 11. inner sensor input
- 12. exterior sensor input
- 13. COM
- 14. Lock
- 15. Hold-open
- 16. One-way
- 17. Half-open
- 18. COM
- 19. Fire signal input
- 20. +12V lock power output
- 21. +24V backup power input
- 22. COM

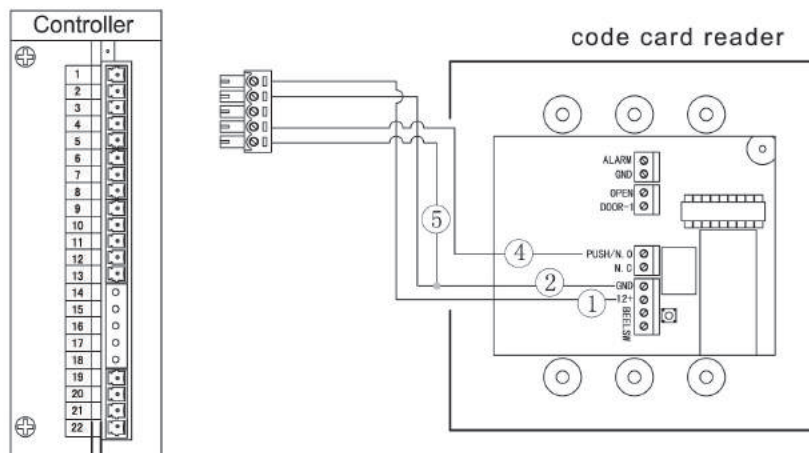
Connection of sensors

Note: When the door is locked by remote control, the sensor signal is disabled.



Connection of code card reader (optional)

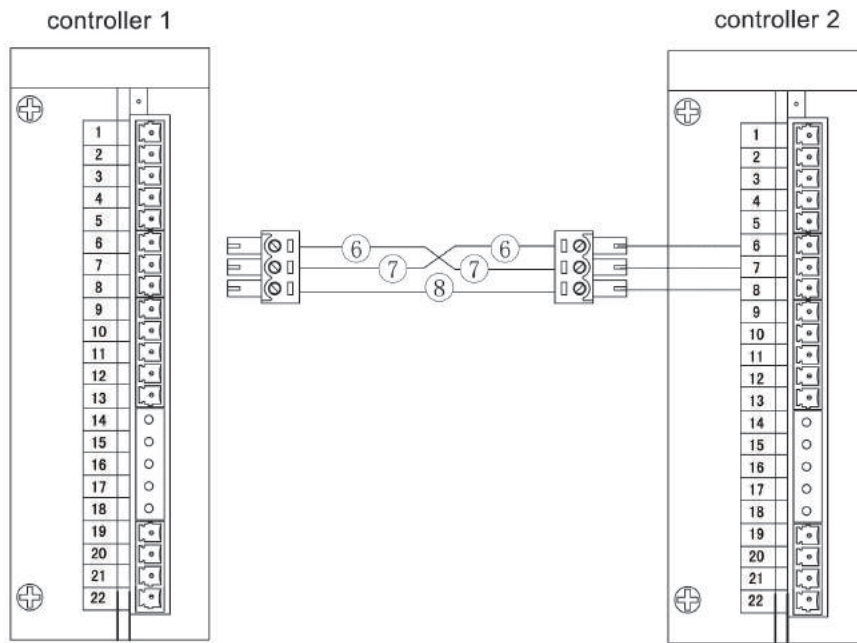
1. All the wiring operations should be conducted with the power disconnected.
2. Positive or negative polarity should be identified when the card reader is connected.
3. At this time the card reader with passive output should be connected. If a card reader with active output is available, it should be changed to passive output.



Caution: If the access control power is greater than 2.4W, it is necessary to supply 12V DC externally. Never feed 12 V power from the automatic door control system because overload will lead to failed controller.

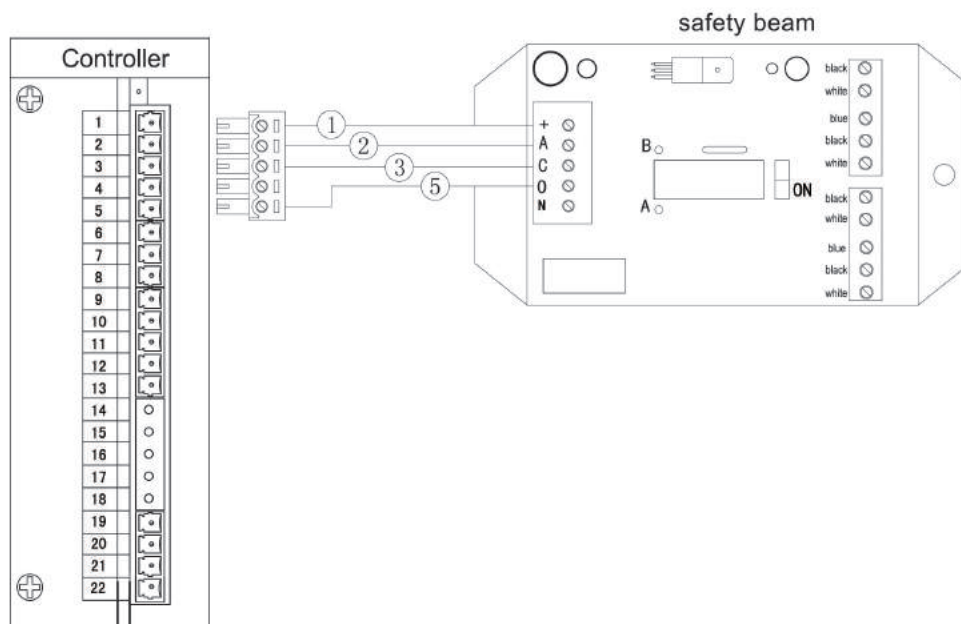
Connection of two-door interlocking

Wire connection drawing



Connection of safety beam(optional)

Caution: All the connecting operations should be conducted with power disconnected.

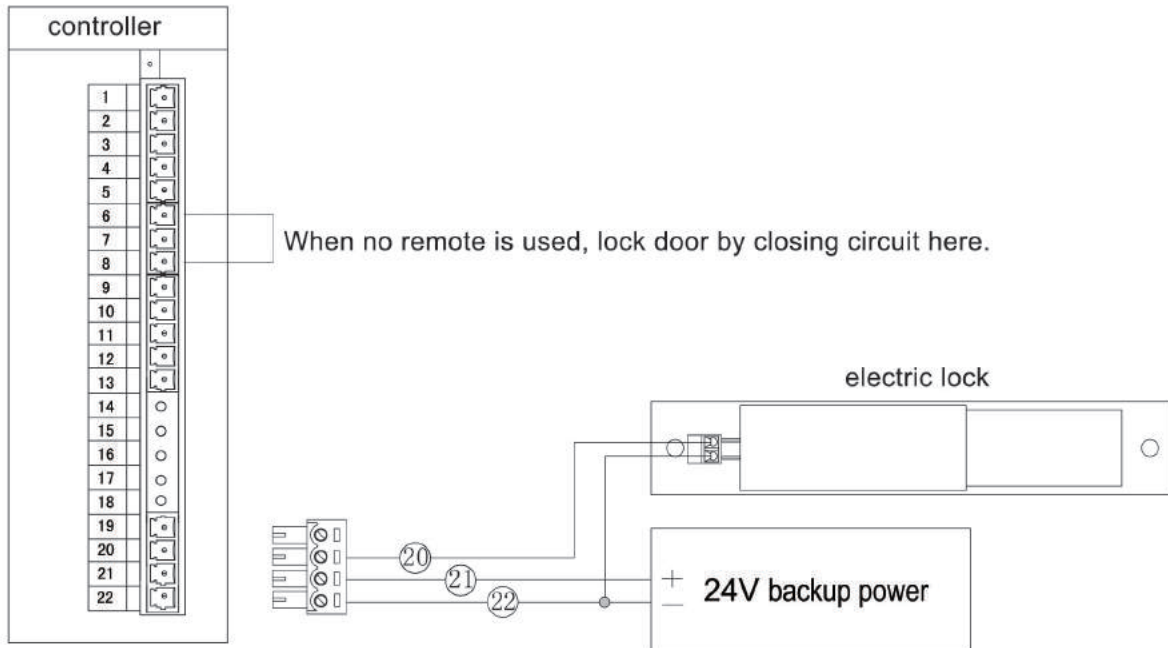


Connection of backup power & electric lock(optional)

Caution: All the connecting operations should be conducted with the power disconnected.

Working current of electric lock is less than 200mA, starting current is less than 800mA.

When connecting backup power please note the polarity and connect as shown in the following drawing:



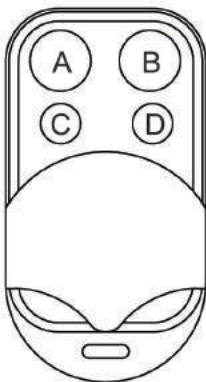
Remote control instruction

A lock

B hold-open

C half-open

D automatic



Remote control and controller

1. Clearance: Long press button "STUDY" until there is no buzzer sounds, loosen the button.

2. Matching: Press button "STUDY", it's buzzing.

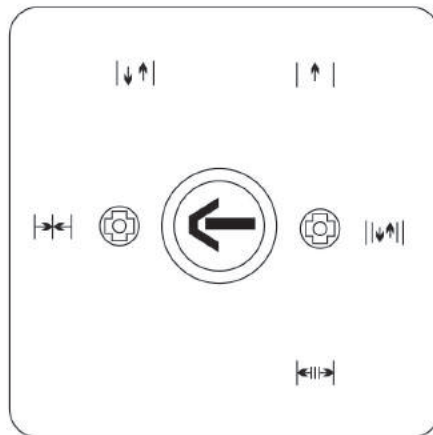
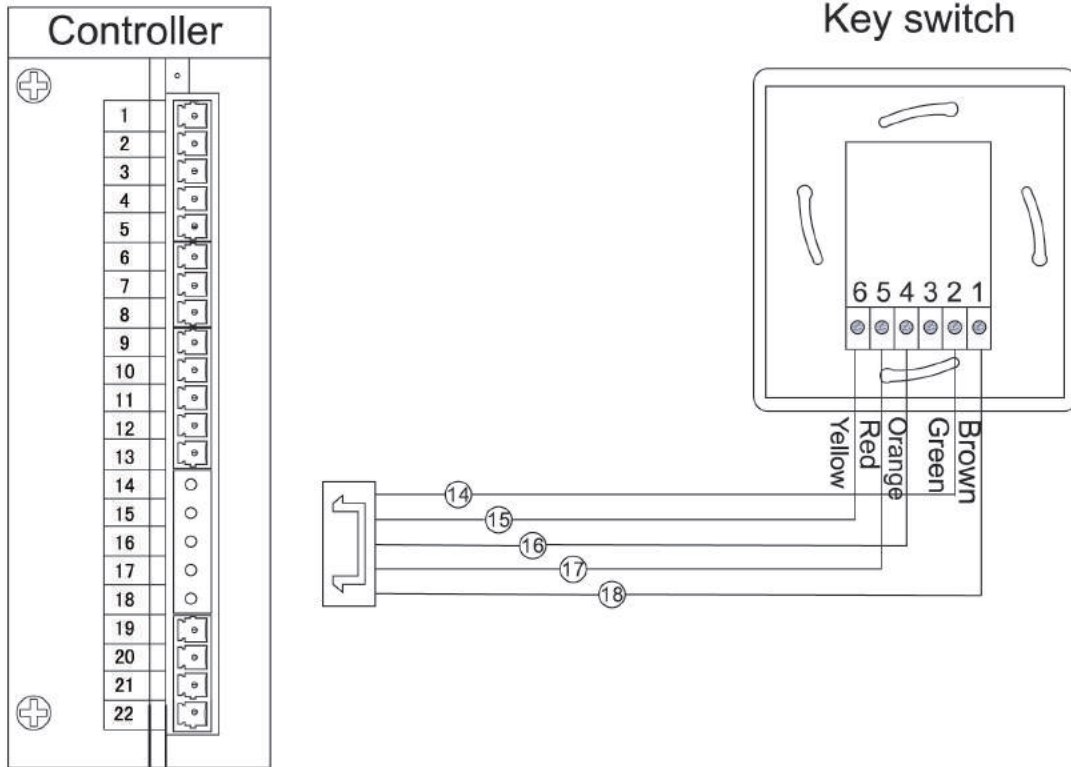
Then press any button on the remote control, buzzer stops sounding, it means matching pairing code is successful.






When use the remote control, the buzzer sounds for 2 seconds.

3. Caution: When use remote control, buzzer "beep" twice, it means the pairing code matching is unsuccessful. Please repeat above step 2.

One controller can connect one signal receiver of remote control, at most ten signal transmitters of remote control can be used.

Connection of functional switch

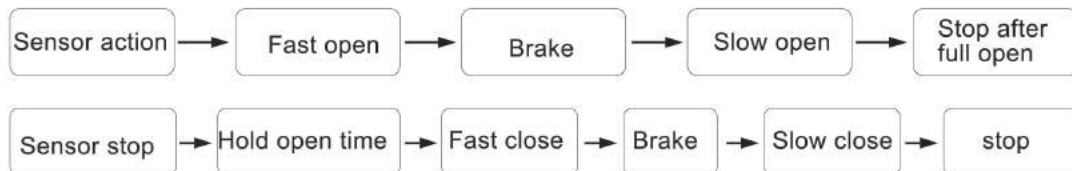


-  Lock
-  Automatic
-  One-way
-  Half-open
-  Hold-open

When one-way is connected, the controlled sensor will be shielded.

Operation description

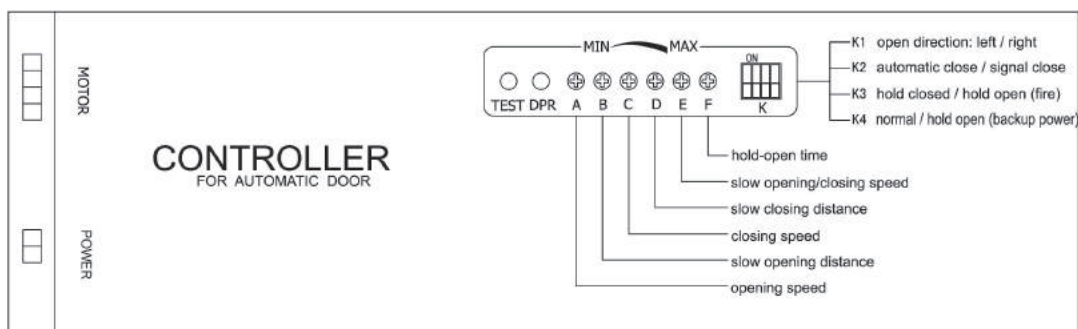
1. After switching on power, the system begins its initial program from the close status. The door leaf will open at a low speed and close again after meeting with the door stopper and confirming the stroke. The built-in micro-processor will memorize the stroke through this open-close cycle.
2. The door operation is as below steps:



Note: The functional control panel allows the selection of different modes. These modes can be chosen as required.

Adjustment of opening and closing parameters

© Name and function of each part in the central controller



TEST: One press initialises a full open and close stroke and can be used for conveniently adjusting every parameter during installation.

DRP: Power indicator. Always on when mains or UPS is available.

K1: Opening direction: Before switching on, push the moveable leaf fully open; switch on, if the door learning is to closing direction, do not change K1; Alternatively, switch K1 to other position for direction change .

K2: Closing automatically or not: K2 is down, the door will close automatically after hold-open time; K2 is "ON": Only another closing signal can make the door to close after full open.

K3: Closing or opening when fire: K3 is down, the door will open when it receives a fire signal; At "ON" means the door will stay closed when it receives a fire signal.

K4: Status when backup power is available from battery pack: When K4 is down the door will open and close normally; When K4 is "ON", the door will stay open.

A: Turning counterclockwise will reduce open speed while clockwise will increase speed.

B: Turning counterclockwise will reduce open speed while clockwise will increase speed.

C: Turning counterclockwise will reduce close speed while clockwise will increase speed

D: Turning counterclockwise will reduce close buffer distance while clockwise will increase distance.

E: Turning counterclockwise will reduce buffer speed while clockwise will increase speed.

F: Turning counterclockwise will reduce hold-open time while clockwise will increase the time.

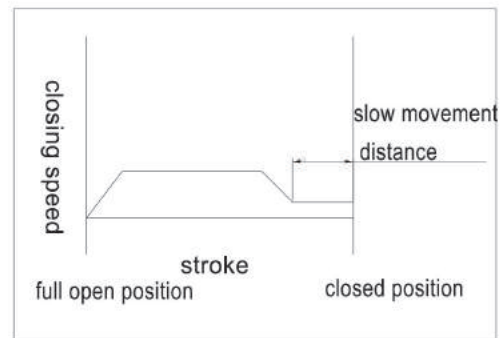
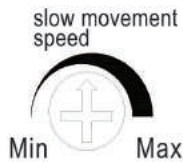
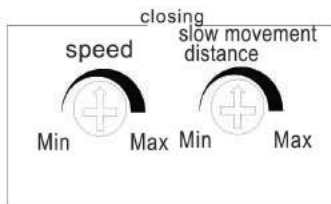
Adjustment of opening and closing parameters

◎ Before power on:

1. Push the door leaf by hand, check the resistance. If the door operation is not smooth, or is noisy, please check the mechanism.
2. Push the door fully open.
3. Switch K2, K3, K4 to positions according desired function.

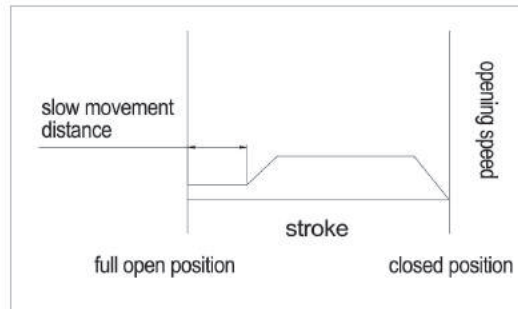
◎ After power on:

1. Check the door operating direction: if the door leaf is sliding to closing direction, keep K1 at the position where it is; Or, switch off, then turn K1 to opposite position, about 10 seconds later, switch on.
2. Adjust closing operation parameters.



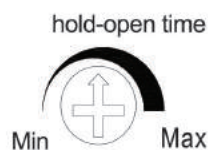
Note: To avoid impact on pedestrian, the closing speed cannot be too fast; to avoid the doors banging together or banging on framework, the slow movement distance can not be too short; to ensure the door can be closed tightly, the slow movement speed can not be too slow.

3. Adjust opening operation parameters.

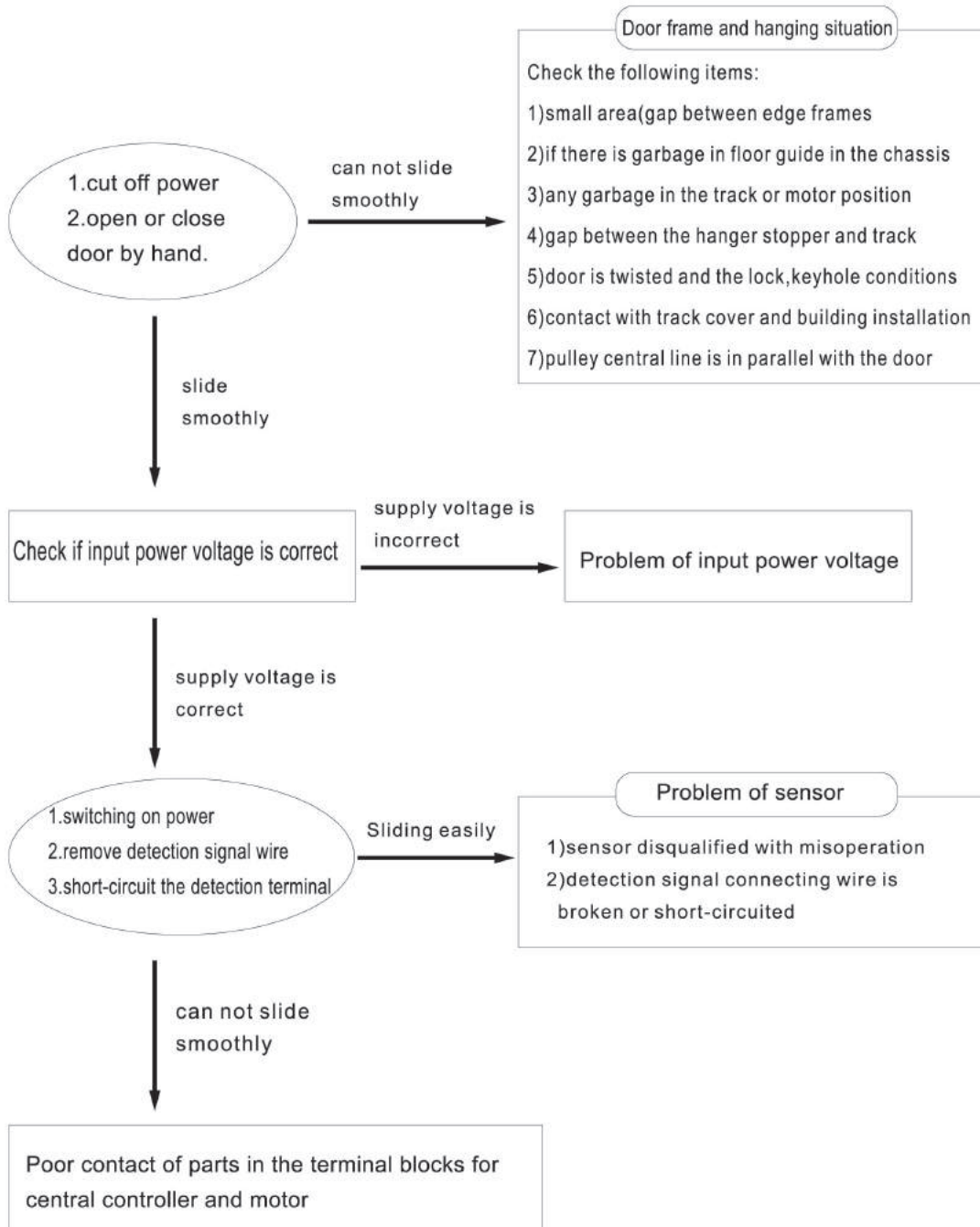


Note: The opening speed should be faster to allow full opening prior to pedestrian passing through; to avoid the doors banging together or banging on framework, the slow movement distance can not be too short; to ensure the door can be opened fully, the slow movement speed can not be too slow.

4. Adjust hold open time.



Troubleshooting



Troubleshooting (continued)

Symptoms	Causes	Check	Solutions
Open and close is not smooth.	<ul style="list-style-type: none"> ● Open/Close speed is set slow ● Slow movement distance set is too wide, visual slow ● Someone is in touch with door leaf when closing, resulting in an abnormal mode. ● Too much resistance 	<p>Check open and close speed</p> <p>Slow movement distance is short</p> <p>Cut off power and open by hand</p> <p>If any garbage in the guide rail.</p> <p>If damage or loose of floor guide make the door leaf touch the rail and lock.</p> <p>If there is any obstacle.</p>	<p>Reset the Open / Close speed</p> <p>Reset the slow movement distance</p> <p>Make sensor work by entrance and exit of people to make door close temporarily.</p> <p>Remove garbage. fix the lock.</p> <p>Install the floor guide properly.</p> <p>Clear obstacle away.</p>
Door leaf over-tight	<ul style="list-style-type: none"> ● slow movement speed is too fast ● slow movement distance too short 		<p>decrease the slow movement speed</p> <p>increase the slow movement distance</p>
Door doesn't work.	<ul style="list-style-type: none"> ● power not switched on ● door locked ● garbage in the track ● poor electrical connection ● double-door interlocking ● Auto-door is under protection because of great resistance. ● The slow movement speed value is set too small. 	<p>Check the power switch of breaker and motor.</p> <p>Check if the door is locked.</p> <p>Turn off power to check if the door can move easily.</p> <p>Something is wrong with the connector.</p>	<p>Switch on.</p> <p>Open the door lock.</p> <p>Remove garbage.</p> <p>Check the connector for good contact.</p> <p>Wait till the other door is closed.</p> <p>Switch off and check the resistance</p> <p>Screw the button E clockwise slowly, because fast action will cause collision.</p>
Door doesn't open fully.	<ul style="list-style-type: none"> ● under half-open mode ● buffer speed is too small. 	<p>Check fully/ half-open switch.</p>	<p>Change to fully-open mode.</p> <p>increase buffer speed by screw button E clockwise.</p>

Troubleshooting (continued)

Symptoms	Causes	Check	Solutions
Door doesn't close.	<ul style="list-style-type: none"> ● Sensor keep on working. ● Safety beam keep on working. ● Detection signal wire short-circuited. 	<p>There is object cause misoperation within the detection range</p> <p>There is no object cause misoperation within the detection range</p> <p>Check if the safe beam detector has any contaminant.</p> <p>Optical axis is deviated.</p> <p>Check if the door will close after removing the control signal wire connect to the terminal switch.</p>	<p>Clear away the moving object</p> <p>Replace sensor</p> <p>Clear away the garbage on the safety beam detector</p> <p>Adjust optical axis.</p> <p>Change signal wire.</p>
Door keeps opening and closing with no stop.	<ul style="list-style-type: none"> ● Misoperation of sensor <ul style="list-style-type: none"> There is some movable objects in the detection area. There is strong wave near the door Coinciding with other detection area There is fluorescent in the detection area. ● Poor sensor 	<p>check</p> <p>check</p> <p>check</p> <p>check</p> <p>Sensor bounce</p>	<p>Remove the movable from the detection area</p> <p>Remove the strong wave sender</p> <p>Change the anti-interference switch</p> <p>Move the fluorescent away from the detection area</p> <p>Replace sensor</p>
Door comes into great collision	<ul style="list-style-type: none"> ● Significant speed reduction, but with a great collision. ● Belt is loose ● No speed reduction when door opening. ● No speed reduction when door closing. 		<p>Turn button (E) slowly anti-clockwise</p> <p>Adjust belt tension.</p> <p>Turn button (B) slowly clockwise</p> <p>Turn button(D) slowly clockwise</p>



The Product Has Passed ISO 9001:2008 Quality Management System Certification.