

# Automatic Door Systems



**H-18**

**HEAVY-DUTY DOOR**

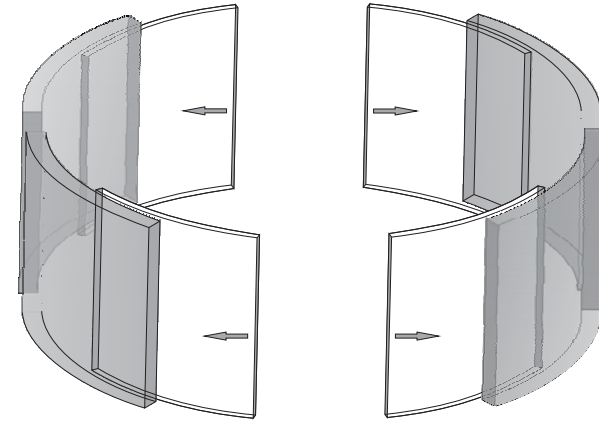
**<http://www.kthtw.com>  
e-mail: [kth@kthtw.com](mailto:kth@kthtw.com)**

**OPERATION INSTRUCTION**



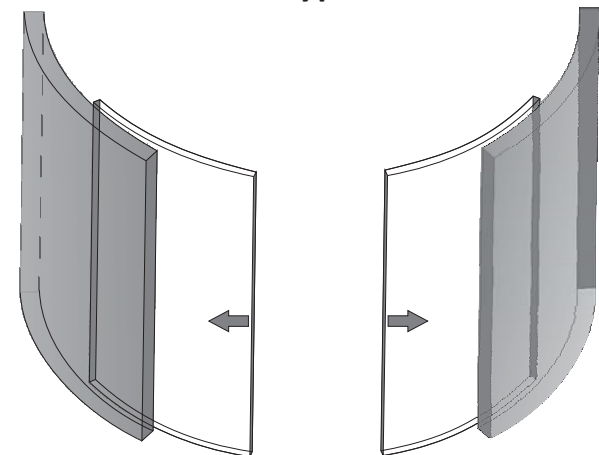
Our company has the following series of automatic door, please contact with our distributors/representations.

### Round type door



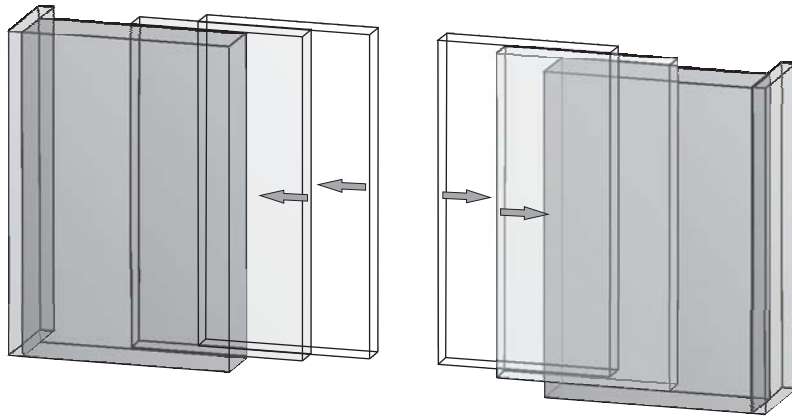
Installation: Please in accordance with the instruction of Round Type Door.

### Curved type door



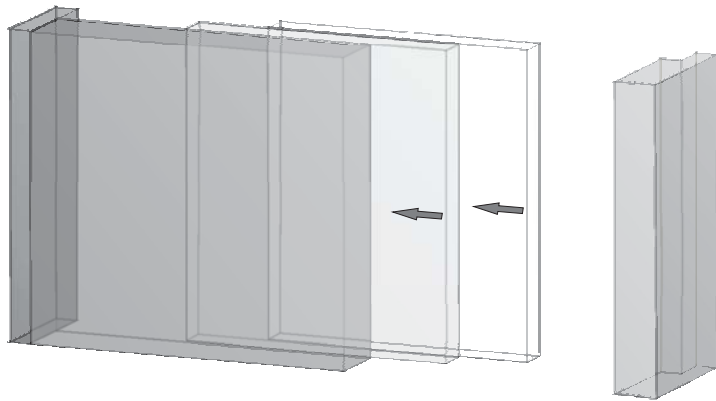
Installation: Please in accordance with the instruction of Curved Type Door.

**Telescopic 4-winged Sliding Doors.**



**Installation:** Please in accordance with the instruction of Telescopic 4-winged Sliding Doors.

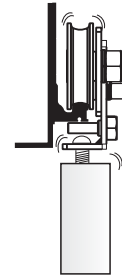
**Telescopic 2-winged Sliding Doors.**



**Installation:** Please in accordance with the instruction of Telescopic 2-winged Sliding Doors.

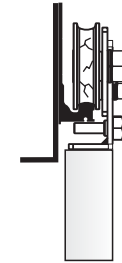
**The Door-Leaf sends out abnormal noise in operating.**

**Cause 1**  
The SCREW of the HANGING TWIN-WHEEL is loose.



**How to solve:**  
Refasten the SCREW of HANGING TWIN-WHEEL.

**Cause 2**  
HANGING TWIN-WHEEL is broken.



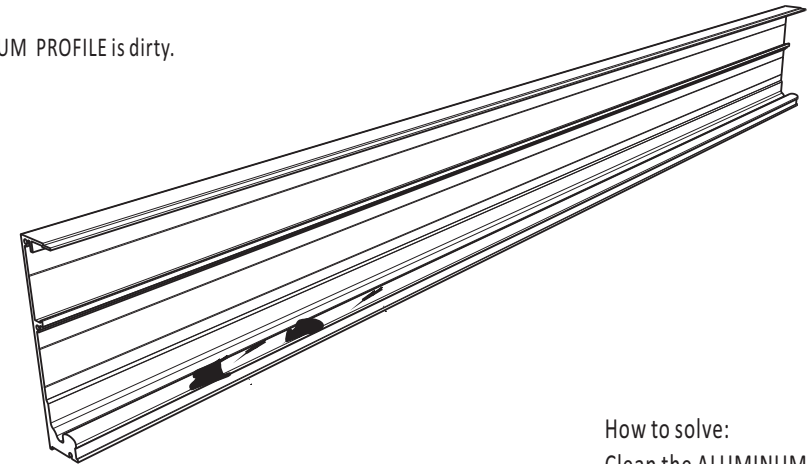
**How to solve:**  
Replace a new one HANGING TWIN-WHEEL.

**Cause 3**  
HANGING TWIN-WHEEL is dirty.



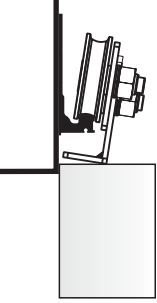
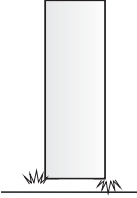
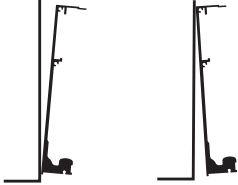
**How to solve:**  
Clean the HANGING TWIN-WHEEL.

**Cause 4**  
ALUMINUM PROFILE is dirty.

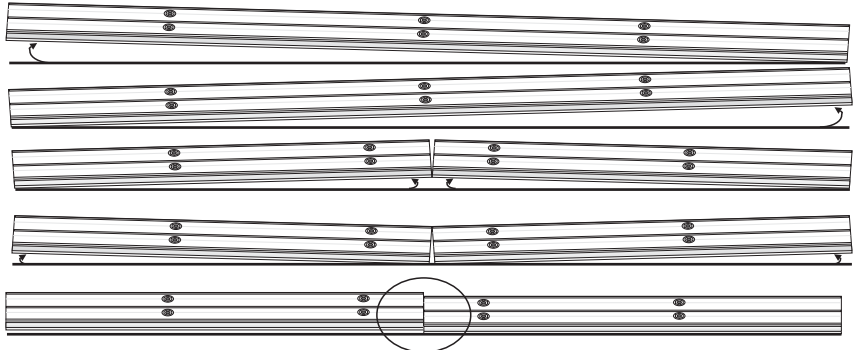


**How to solve:**  
Clean the ALUMINUM PROFILE.

Door-Leaf isnt smooth in operating.

<p><b>Cause 1</b> HANGING TWIN-WHEEL is not at vertical position.</p>  <p><b>How to solve:</b> Readjust the HANGING TWIN-WHEEL.</p>	<p><b>Cause 2</b> 1. Door touches Ground Rail. 2. Ground Rail is dirty.</p>  <p><b>How to solve:</b> 1. Readjust the distance between Door and Ground Rail. 2. Clean up the Ground Rail.</p>	<p><b>Cause 3</b> ALUMINUM PROFILE is not vertical.</p>  <p><b>How to solve:</b> Readjust the vertical position of the ALUMINUM PROFILE.</p>
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**Cause 4**  
ALUMINUM PROFILE is not at vertical position.

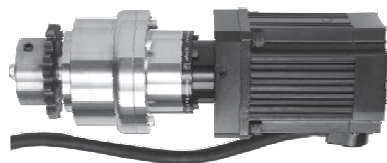


**How to solve:**  
Readjust the level position of the ALUMINUM PROFILE.

- 1.COMPONENTS SPECIFICATION.....P1
- 2.TECHNICAL SPECIFICATION.....P2
- 3.SECTIONAL DRAWING.....P3
- 4.INSTALLATION DRAWING.....P4
- 5.INSTALL PROCEDURE.....P5
- 6.INSTALL THE BELT ROLLER .....P6
- 7.THE POSITION OF THE HANGING TWIN-WHEEL .....P7
- 8.INSTALL THE RACK BELT OF 2-WINGED .....P8
- 9.INSTALL THE RACK BELT OF 4-WINGED .....P9
- 10.ADJUST THE DOOR-LEAF.....P10
- 11.CONNECTION.....P11
- 12.CONNECTION(OPTIONAL DEVICE).....P12
- 13.TEST AND ADJUST.....P14
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- 16.TROUBLESHOOTING.....P18
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MICRO-CONTROLLER



BRUSHLESS DC MOTOR



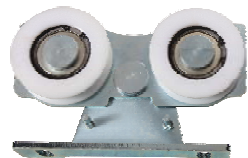
POWER SWITCH



SENSORS  
(OPTIONAL DEVICE)



MOTOR HOLDER



HANGING TWIN  
WHEEL-4PCS



ROLLER CHAIN



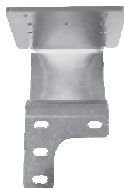
BELT ROLLER



STOPER -2PCS  
(IN PROFILE)



ACTIVE BRACE



PASSIVE BRACE



MEDIUM-10PCS



ACTIVE  
&  
PASSIVE SCREW

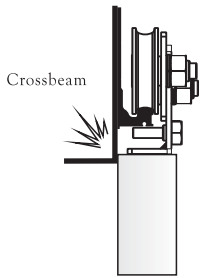
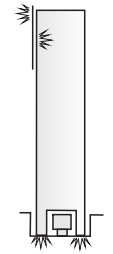
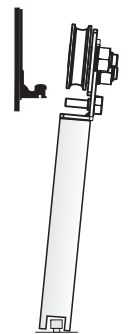
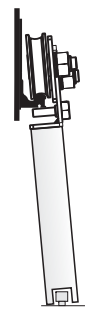



DOOR  
SCREW-8 PCS



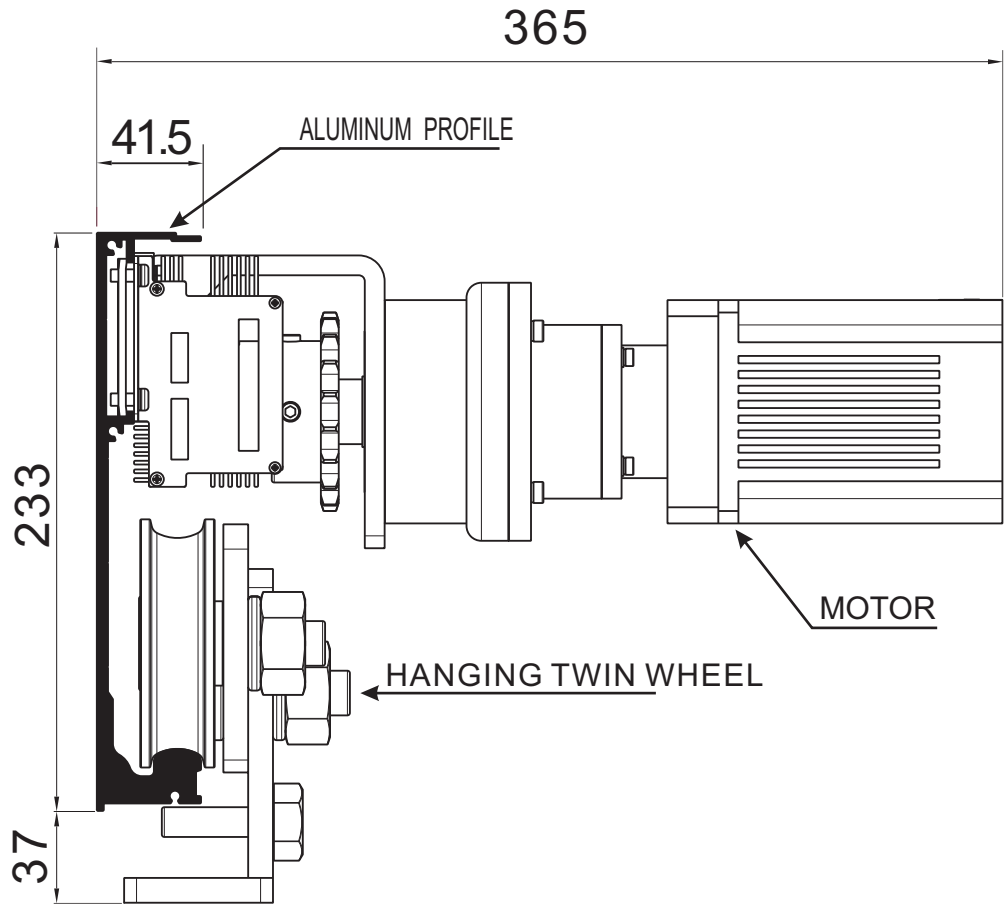
WIRE  
CLAMP-5 PCS

Door cant be opened or closed.

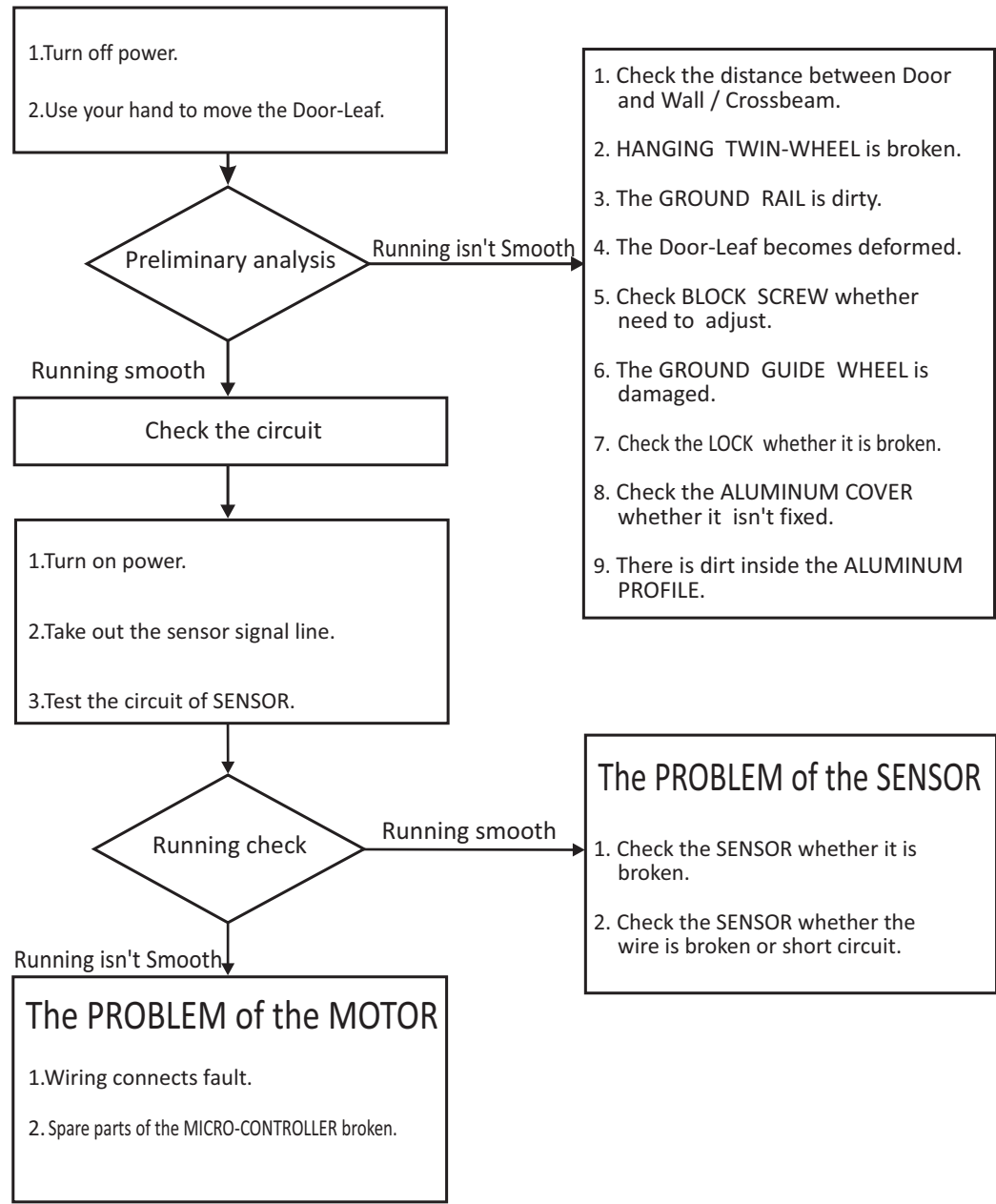
<p><b>Cause 1</b> Above the Door-Leaf touched with the crossbeam.</p>  <p><b>How to solve:</b> Adjustment the interval between the Door-Leaf height and Crossbeam.</p>	<p><b>Cause 2</b> The Door-Leaf touched with the Ground Guide Rail.</p>  <p><b>How to solve:</b> Adjus the Door-Leaf height.</p>	<p><b>Cause 3</b> Door-Leaf details the ALUMINUM PROFILE.</p>  <p><b>How to solve:</b> Put the Door-Leaf into the ALUMINUM PROFILE again.</p>
<p><b>Cause 4</b> Door-leaf is not vertical.</p>  <p><b>How to solve:</b> Adjust the Ground Guide Rail/Wheel position.</p>	<p><b>Cause 5</b> SENSOR is broken or disconnects to the MICRO-CONTROLLER.</p>  <p><b>How to solve:</b> 1.If SENSOR is broken please change a new one. 2.Check SENSOR whether it connects to the MICRO-CONTROLLER.</p>	

PROBLEMS	REASONABLE	CHECK	HOW TO SOLVE
DOOR CAN'T BE MOVED.	1.No power.	Broken circuit.	Check the broken circuit position.
		The Power Switch is not opened.	Open the POWER SWITCH.
	2.The door is locked.	Door is locked and no movement action.	Open the DOOR LOCK.
	3.The sensor is broken.	Signal light is WORKING.	Check the MICRO-CONTROLLER.
Signal light is OUT OF WORKING.		Check the CIRCUIT OF SENSOR or change a new one SENSOR.	
SPEED	1.Speed is too slow.	Check the Speed at KNOB of MICRO-CONTROLLER.	Adjust the Speed of Open/Closed Door.
	2.Door runs into the obstructor, then cause the Door moving slow.	Installation problem or dirty.	Reinstall or clean the ALUMINUM PROFILE.
	3.Door is difficult to move.	Turn off the power.Use hand to move the Door, besides, check the Ground Guide Rail whether it is dirty.	Clean the Ground Guide Rail.
		Check the HANGING TWIN-WHEEL whether it is broken.	Change a new one.
		Check the Door Bolt in the door bottom whether it is loosen.	Fix the Door Bolt.
Check whether the Ground Wheel is broken.		Change a new Ground wheel.	
DOOR CAN'T FULL OPEN.	In the Half-Open way.	Check the Knob/Switch.	Turn on to Full Open.
DOOR CAN'T CLOSE.	1.In the Full-Open way.	The SENSOR keeps working.	Check wiring or change a new SENSOR.
	2.The Door opens suddenly while it is moving to close.	The SENSOR probably is installed with something wrong.	Adjust the SENSOR or change a new one.

TYPE	H-18	
MODEL	SINGLE-WINGED	BI-PARTING
DOOR WEIGHT	1000kg X 1(door)	900kg X 2(door)
DOOR WIDTH	DW=500mm~6000mm	DW=500mm~6000mm
INSTALL WAY	Surface install	Surface install
MOTOR	DC24V 180W BRUSHLESS DC MOTOR (PLANETARY GEAR)	
CONTROL	STANDARD MICRO-CONTROLLER	
POWER CONSUMPTION	180W	
VOLTAGE	AC100V~240V	
ENVIRONMENTAL TEMPERATURE	-20°C~+50°C	
VOLUME	65 decibel(max.)	
STARTING SPEED	250mm(second)	200mm X 2(second)
STARTING TIMES	0~20 sec. (regulable)	
TRANSMISSION IMPORTANT CONDITION	ROLLER CHAIN 40-1R	
OPENING DOOR RANGE	FULL/HALF-OPEN (regulable)	
PFC POWER EFFICIENCY	0.95(in AC100V Full load)	
TRACTION FORCE	WHEN POWER OFF THE DOOR CAN BE OPENED BY MANUAL	



MEASURE : mm





**E** The closing speed of the door

Adjust the CLOSED SPEED  
 Higher number, faster speed.  
 CAUTION: please adjust the number one by one from low to high.

**F** The slowing range of closing door

Adjust the SLOW RANGE of CLOSED DOOR  
 Higher number, more range about the slow range at open door position.  
 CAUTION: please adjust the number one by one from high to low.

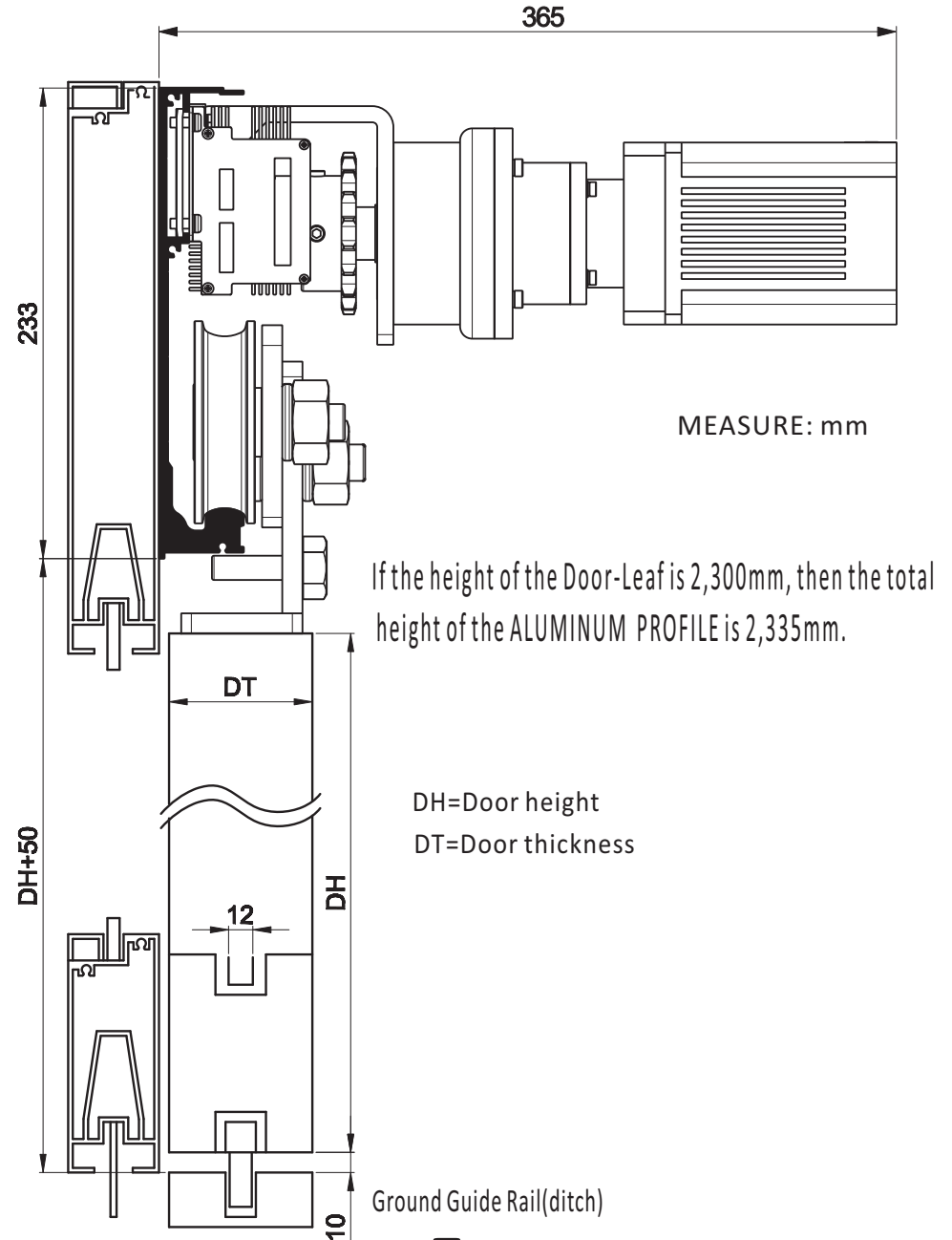
**G** The slowing speed of the door

Adjust the SLOW SPEED  
 Higher number, faster speed.  
 CAUTION: please adjust the number one by one from low to high.

**H** Opening hold time

Adjust the HOLD OPEN TIME  
 Higher number, the hold time is longer.

NUMBER	0	1	2	3	4	5	6	7	8	9
SECOND	0	1	2	3	4	5	6	10	15	20



**1** Prepare Should correct the height and the leveling of the ALUMINUM PROFILE



**2** Cut and install the ALUMINUM PROFILE



**3** Install the SENSORS



**4** MOTOR



**5** MICRO-CONTROLLER



**6** Install the BELT ROLLER



**7** Hang and adjust the Door-Leaf



**8** Install and adjust the BELT



**9** Power connect



**10** Test and adjust



**A** Full/Half opening

Adjust the RANGE of the HALF OPEN DISTANCE.  
Higher number, wider range.



**B** Brake power

The Door-Leaf is slight, the BRAKE POWER is less.  
Please choose 0~2 if the Door-Leaf is under 50kg.  
Please adjust number from number 5 if the Door-Leaf is over 80kg.



**C** The opening speed of the door

Adjust the OPEN SPEED  
Higher number, faster speed.  
CAUTION: please adjust the number one by one from low to high.



**D** The slowing range of opening door

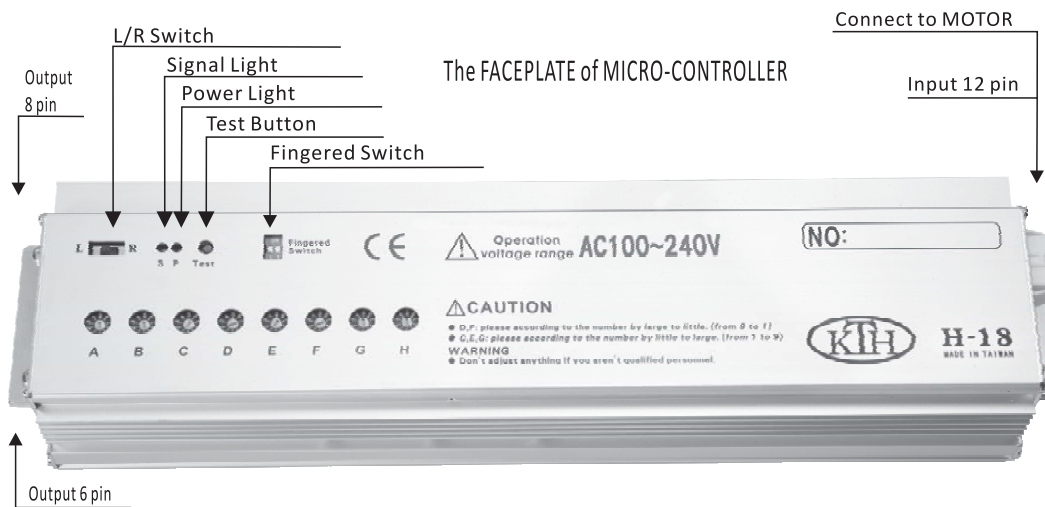
Adjust the SLOW RANGE of OPENING DOOR  
Higher number, more range about the slow range at open door position.  
CAUTION: please adjust the number one by one from high to low.

Before turn on the power, make sure the Door-Leaf can be smoothly moved, and the electric link is correct at first.

## 1.SYSTEM PROGRAM REMEMBER

After turn on the power, the MICRO-CONTROLLER will remember the distance and the range.

## 2.ADJUST

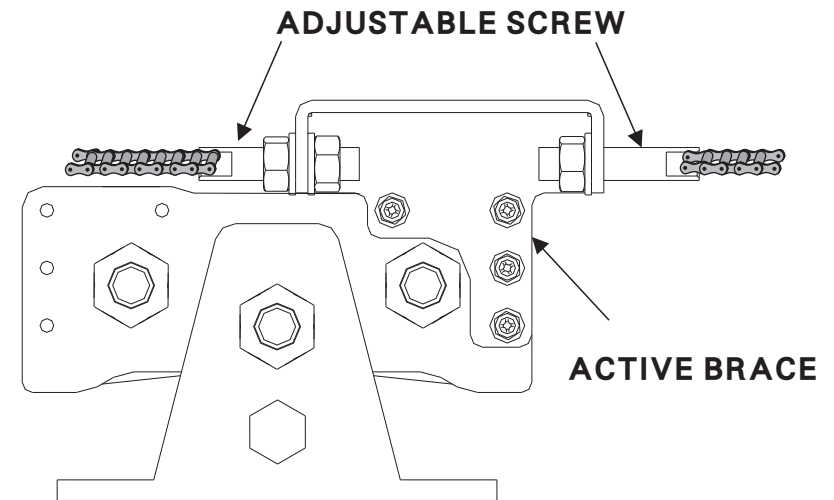
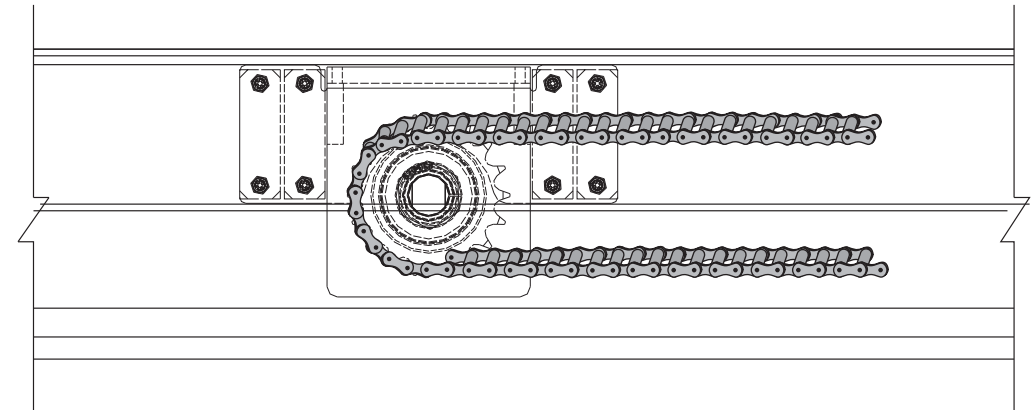


Red LED-Power is connected.

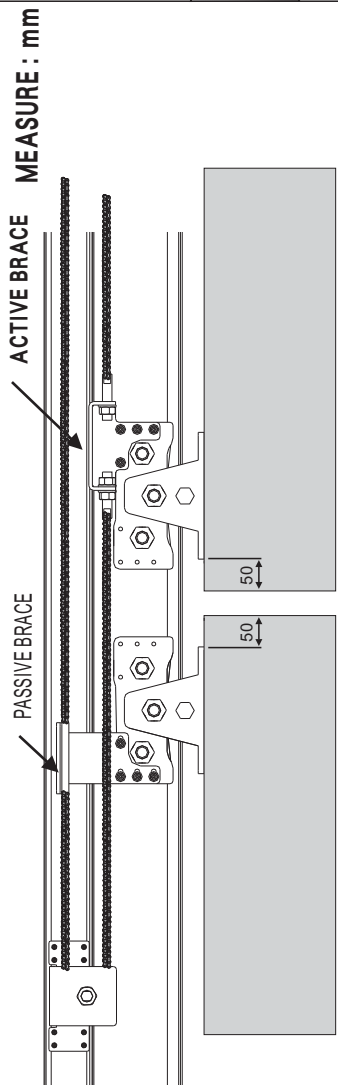
Green LED-Input the open door signal.

L/R switch-The direction of the door opening: right/lift(R/L).

Fingered Switch- When the pin 1 is ON, push once : open the door. Push again: close the door. Pin 2 is standby.

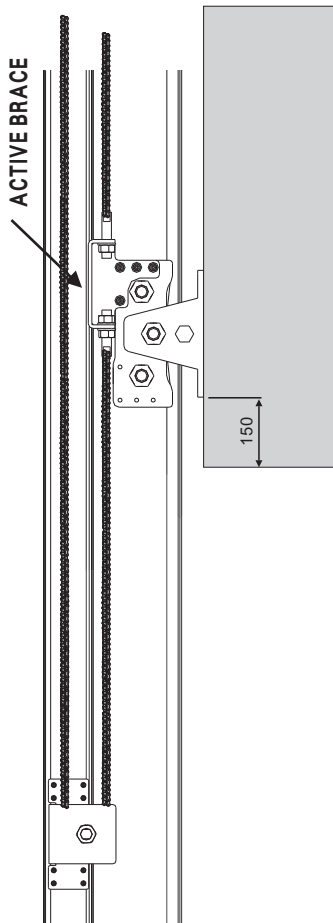


**TENSION of ROLLER CHAIN can be adjusted by the ADJUSTABLE SCREW of ROLLER CHAIN.**



Bi-parting

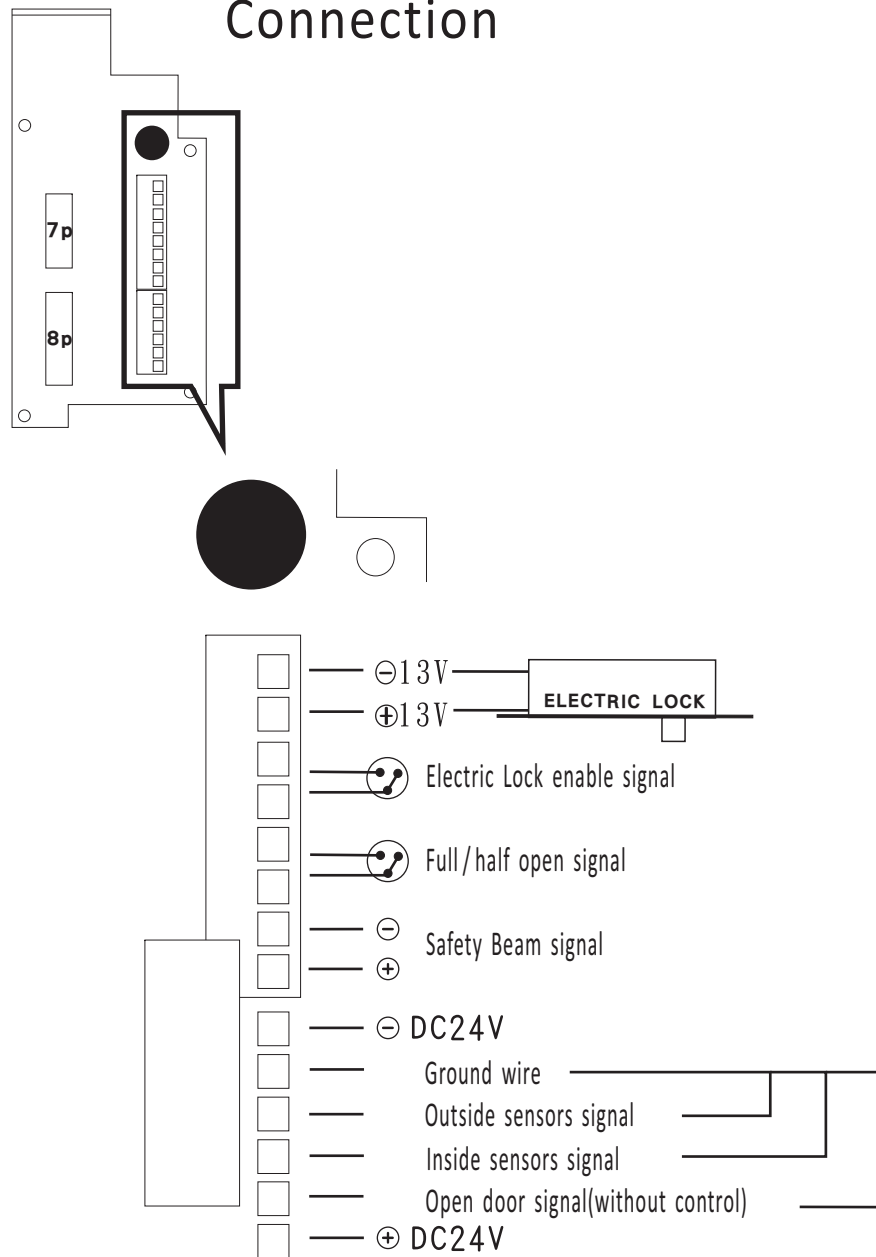
**In order to open to the largest position. Please leave 50mm between the edge of door leaves and hangers**



Single-winged

**In order to open to the largest position. Please leave 150mm between the edge of door leaf and left hanger.**

## Connection



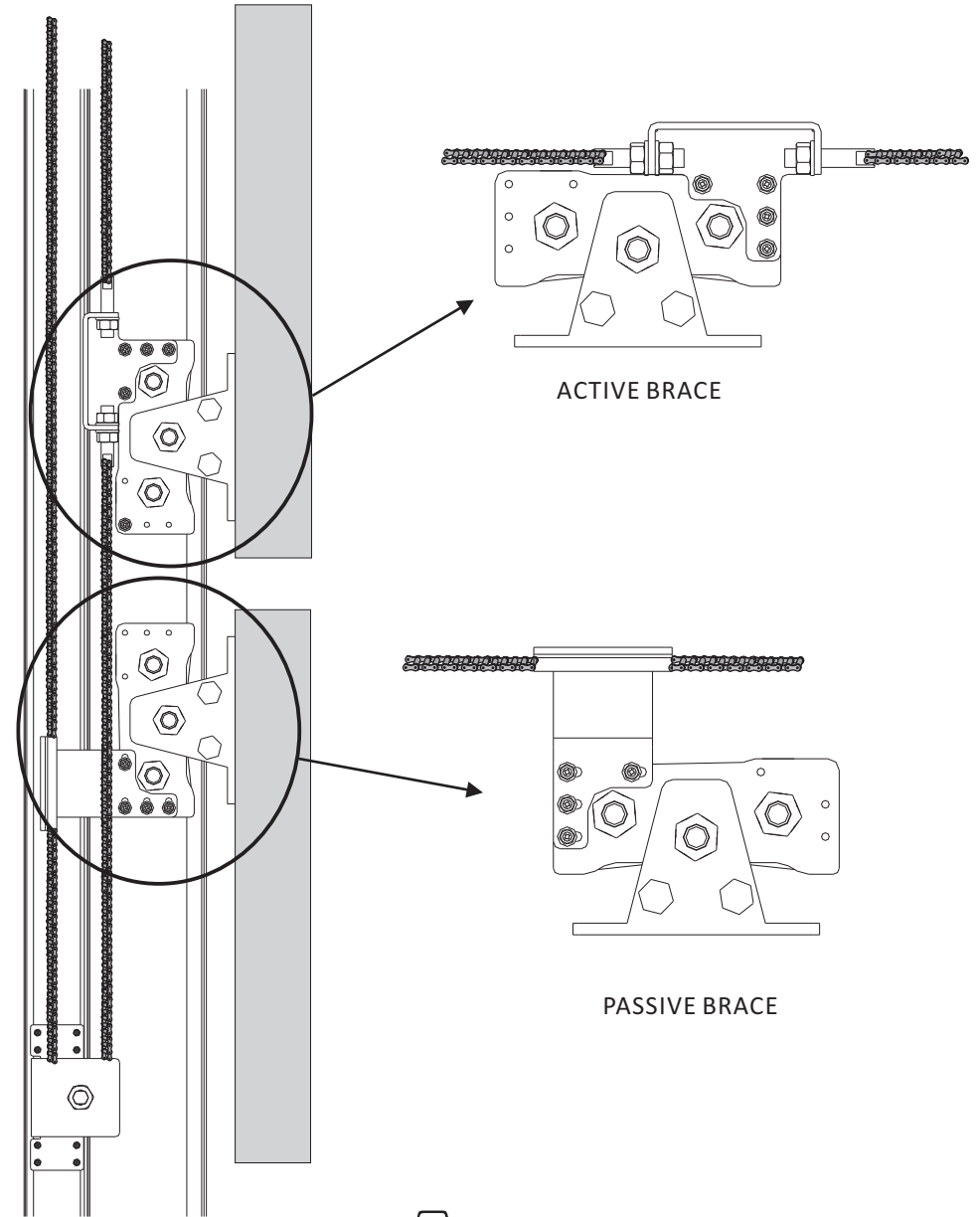
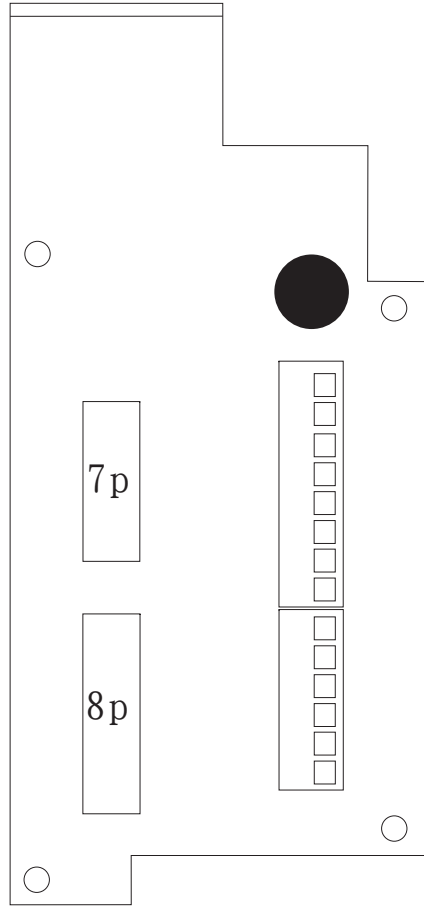
# Connection

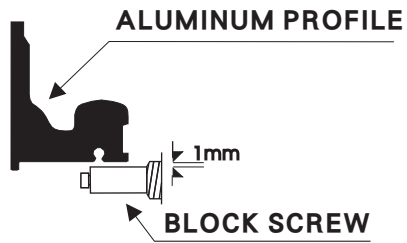
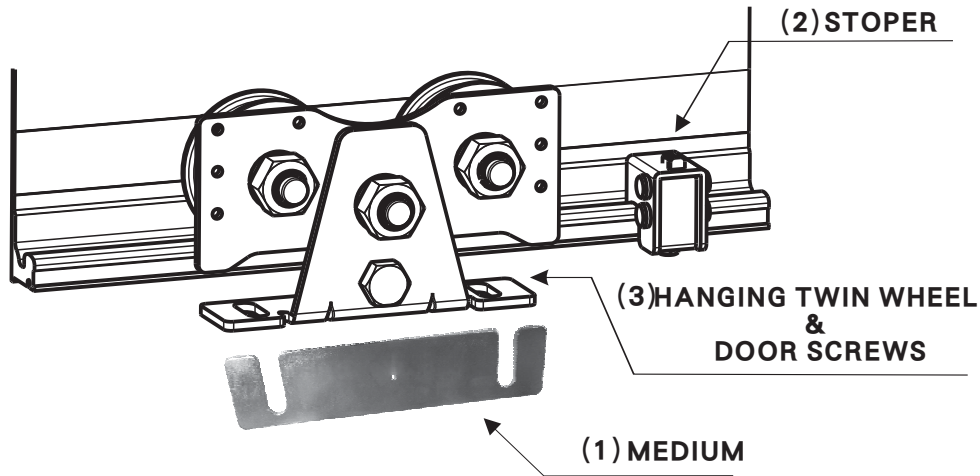
Connect to Remote Control ←

7p

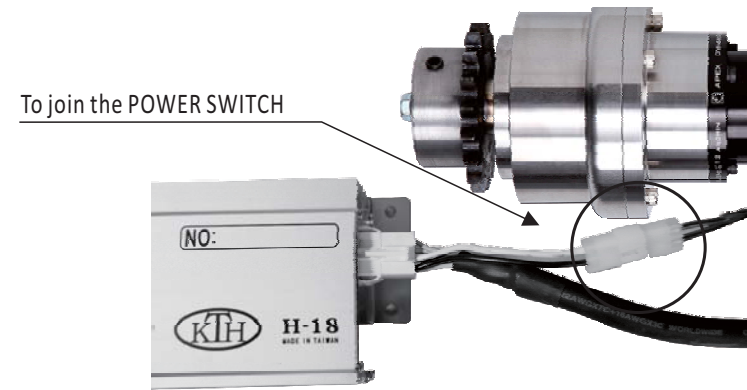
Connect to Function Switch ←

8p

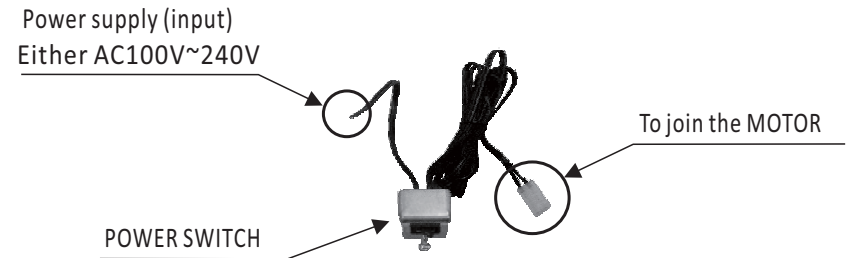




- A** When Door-Leaf height and interval need to adjust, loose (3) at first, then put (1) to where you need to adjust.
- B** Need to fasten (3) after adjust **A**.
- C** Install above-mentioned (2) after make sure the DOOR OPEN POSITION.



The ILLUSTRATED of CONTROLLER and MOTOR.



**Warning**

Please confirm WHETHER the SENSOR VOLTAGE is the same as the power supply. If different between them, need to add the TRANSFORMER, otherwise the SENSOR would be burned.