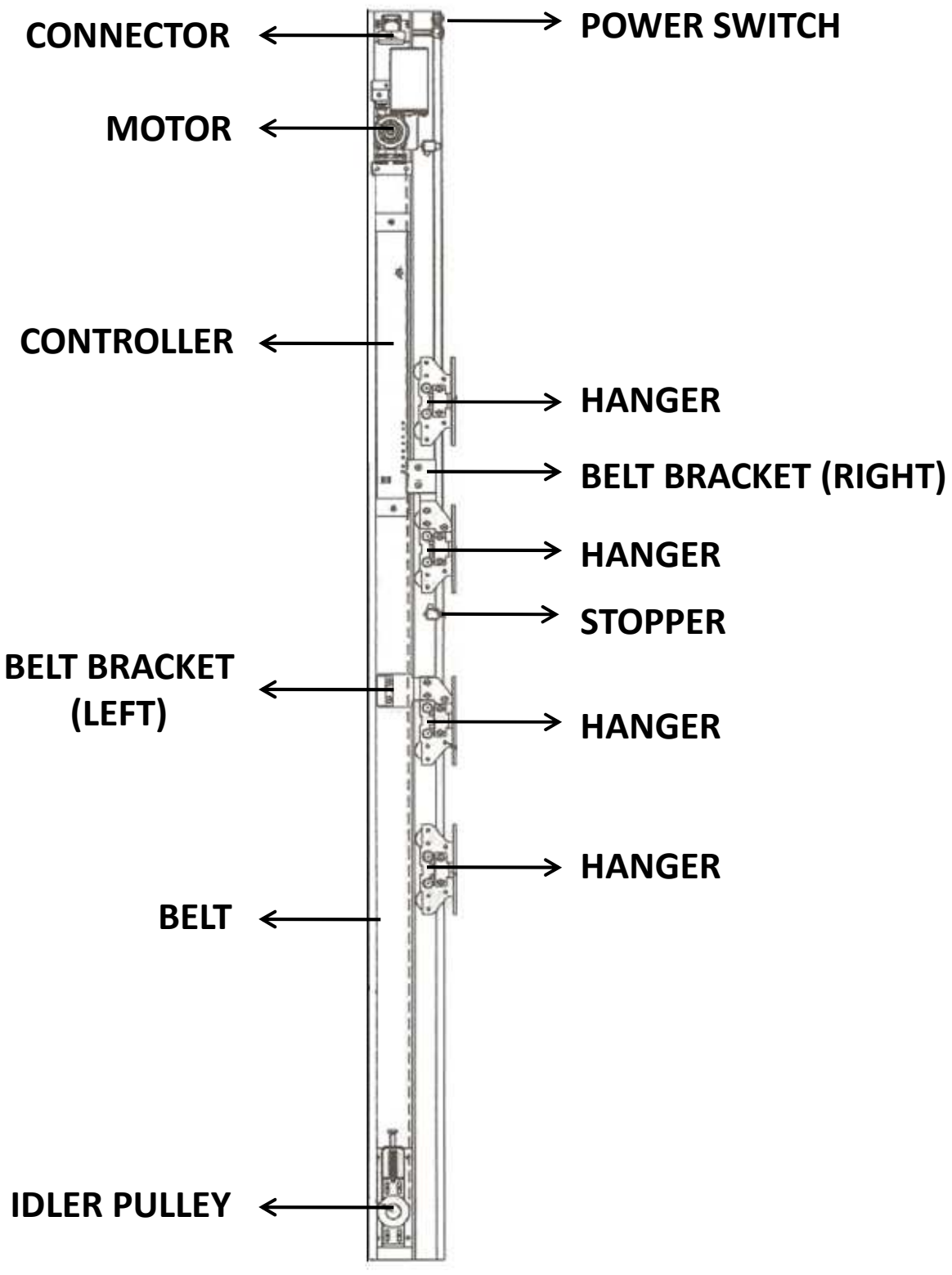
INSTALLATION MANUAL

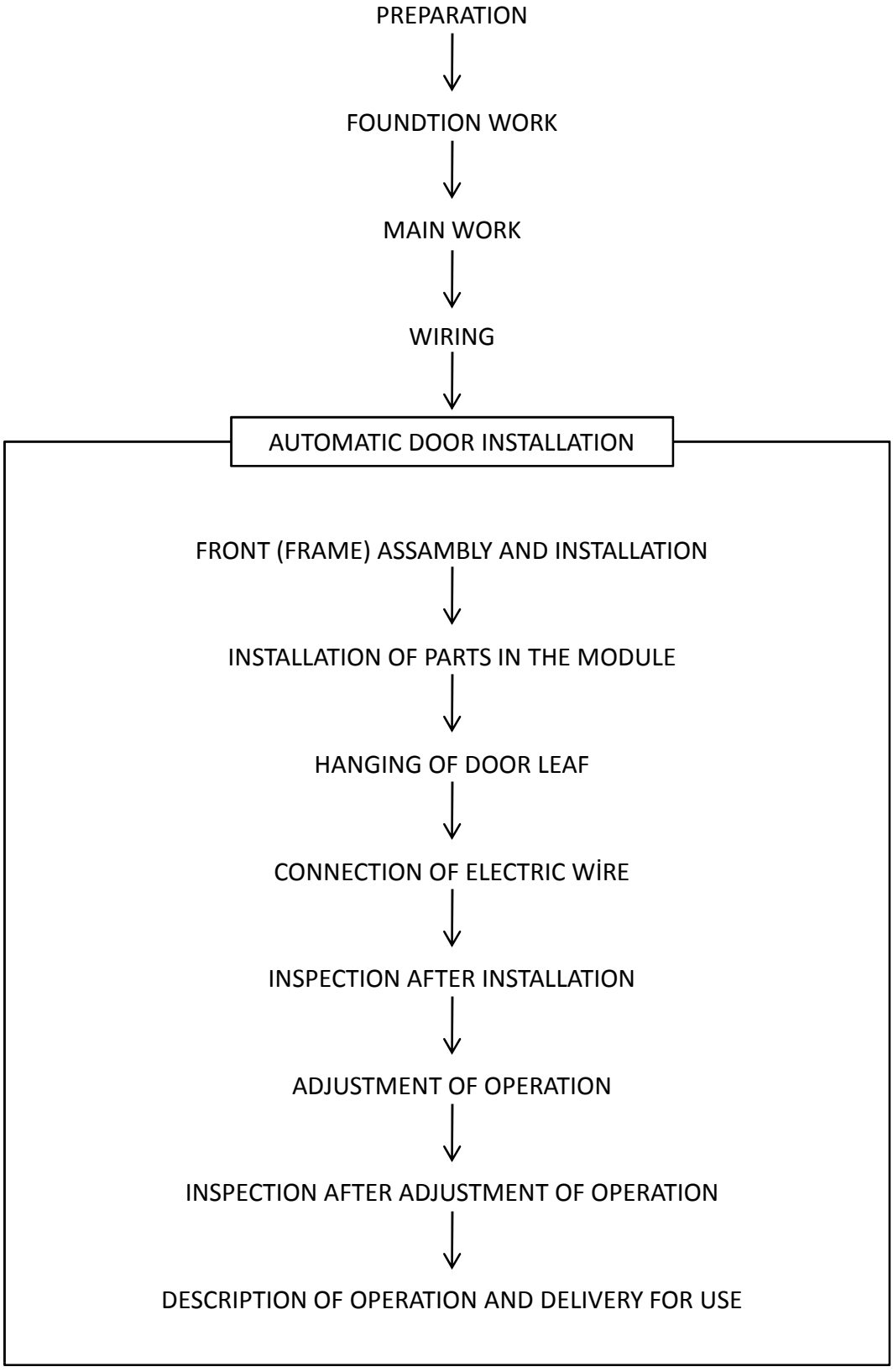
STEPP - MASTER

CONTENT

INSTALLATION FOR PARTS IN THE MODULE



INSTALLATION

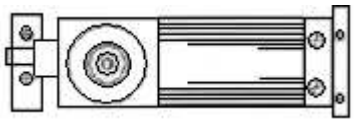
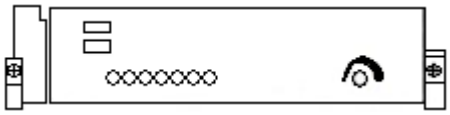
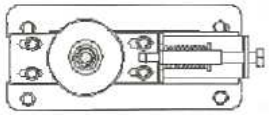
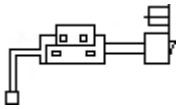
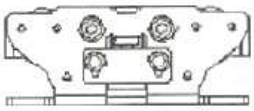
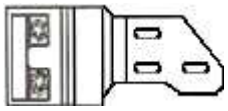
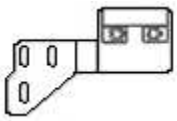
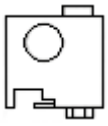


PRODUCT FEATURES AND TECHNICAL SPECIFICATIONS

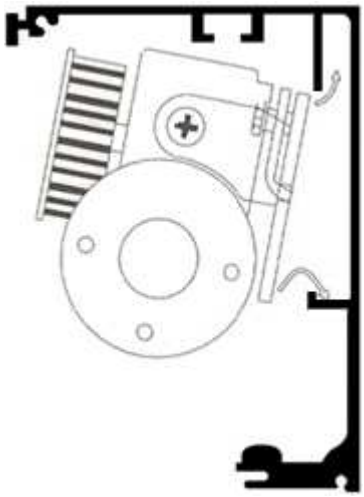
- Microprocessor control tecnology and advanced mechanical manufacturer
- Automatic adjustment of door leaf operation, manuel adjustment when necessary
- Low noise
- Brushless motor, long working life
- Function terminals for electronic lock, access keypad, function remote etc.

Gate Sliding Modes	Single Opening	Double Opening
Gate Leaf Weight	<= 1*150 kg	<= 2*130 kg
Gate Leaf Width	700 – 1300 mm	600 – 1250 mm
Opening Speed	100-500 mm/s (Adjustable)	100-450 mm/s (Adjustable)
Closing Speed	100-450 mm/s (Adjustable)	100-430 mm/s (Adjustable)
Motor	24 V , 55 W brushless DC motor	
Opening Time	0 – 9 second (Adjustable)	
Impact Function	Rebounding up on impact	
Voltage	AC220V 50Hz - 60Hz	
Operating Temperature	-20 C – 50 C	

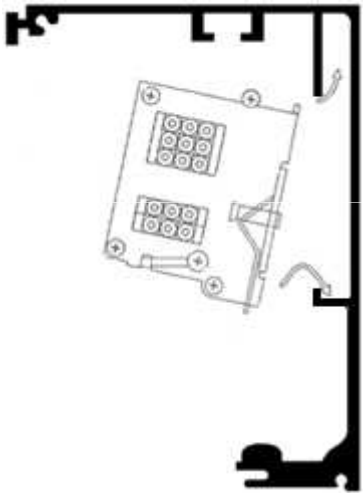
PACKING LIST

Description	Schematic Diagram	Quantity
Motor		1
Controller		1
Sensor		2
Idler Pulley		1
Connector		1
Hanger		4
Belt Bracket (Left)		1
Belt Bracket (Right)		1
Stopper		2 (Left&Right)
Belt		1
Fastenings		1 set

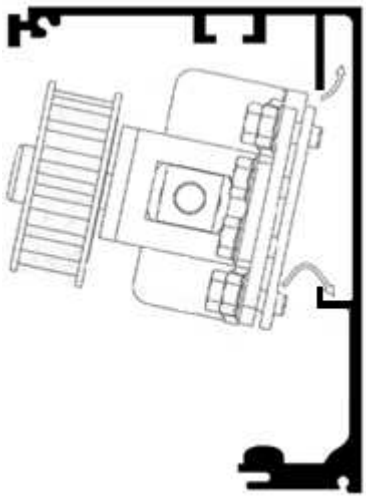
INSTALLATION OF MOTOR



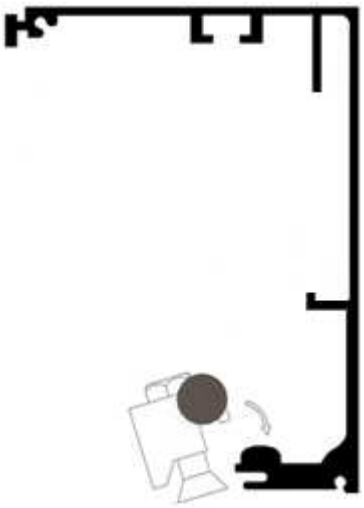
INSTALLATION OF CONTROLLER



INSTALLATION OF IDLER PULLEY



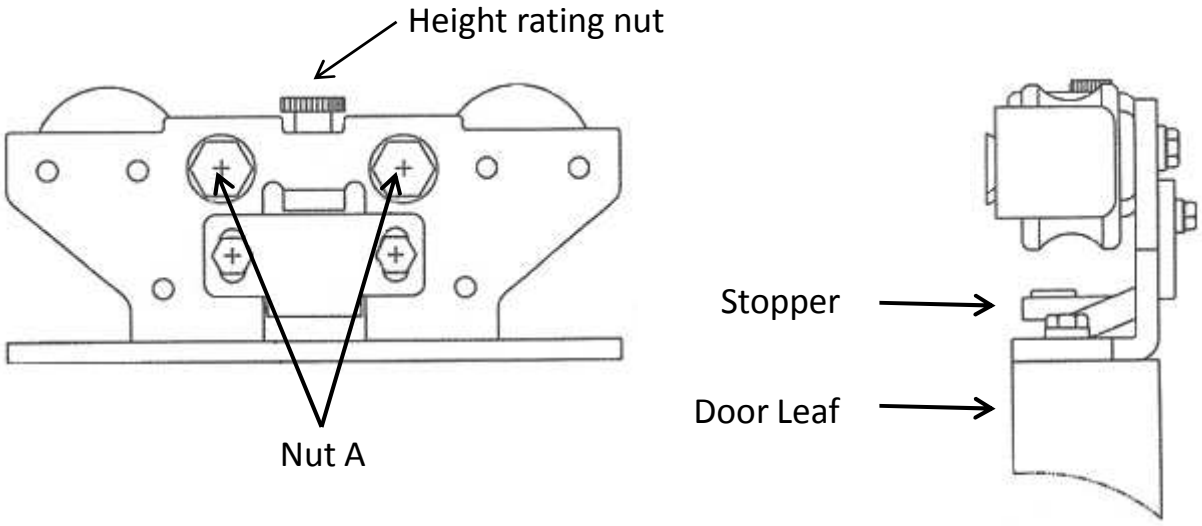
INSTALLATION OF STOPPER



INSTALLATION OF HANGER

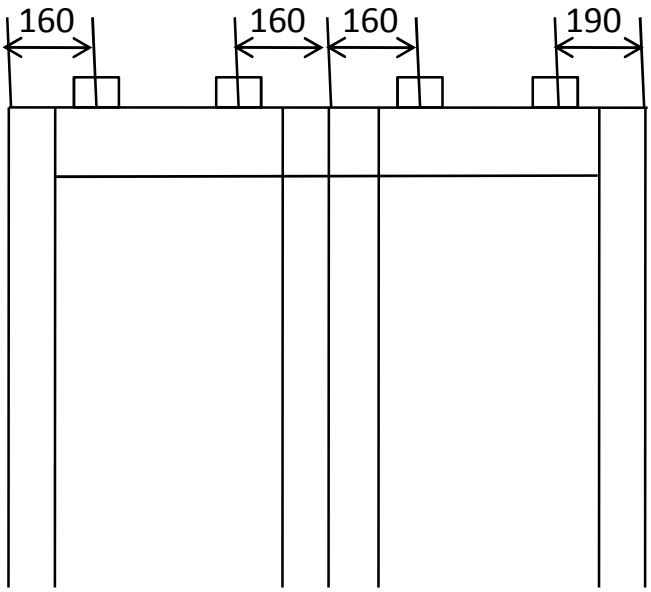
- Loosen nut A of the hanger and remove the stopper from the hanger
- Each hanger is installed in the door leaf in place with a complete set of hanger bolts (M8*20)
- The door leaf is suspended over the module
- The stopper is resumed to the hanger

❖ CAUTION : When the same group of hanger is mounted, make sure that both are flat with the door top and roller in parallel

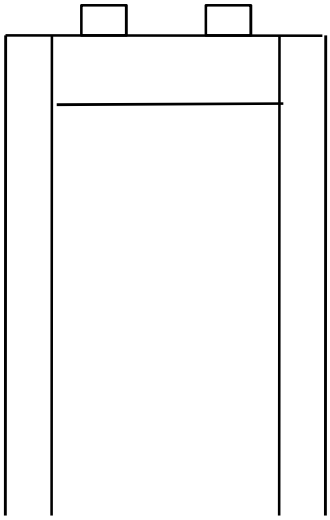


INSTALLATION OF HANGER

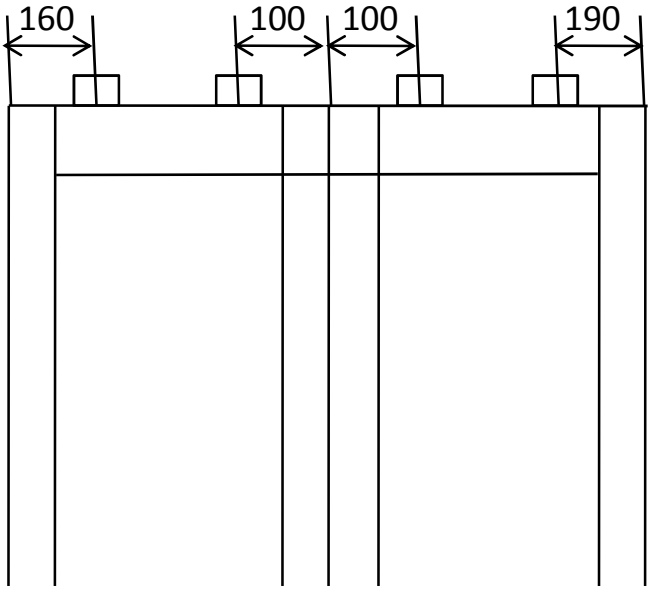
Framed Door (Double-leaves type)



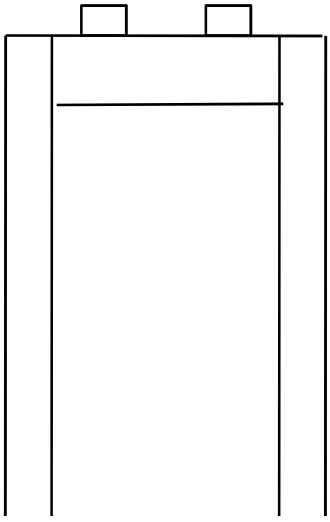
Framed Door
(Single-leaf type)



Frameless Door (Double-leaves type)



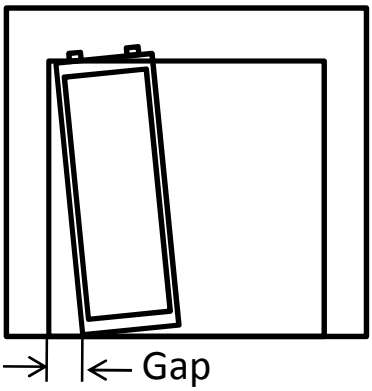
Frameless Door
(Single-leaf type)



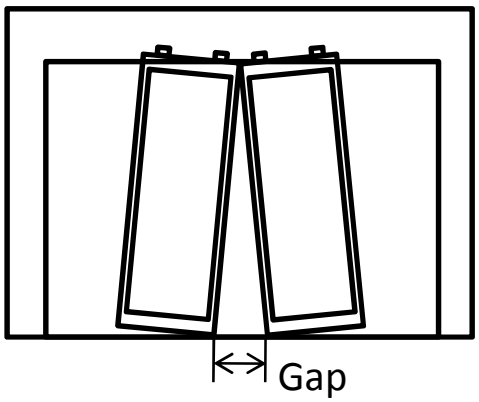
Hanger

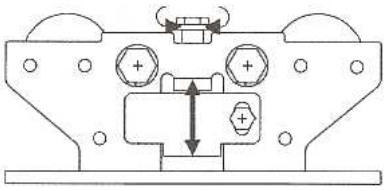
INSTALLATION AND ADJUSTMENT OF DOOR LEAF

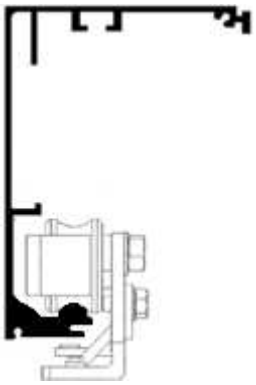
Single Leaf Door



Double Leaves Door







As is shown in the left figure, if the door leaf can't be installed horizantally, it can be adjusted by suspending

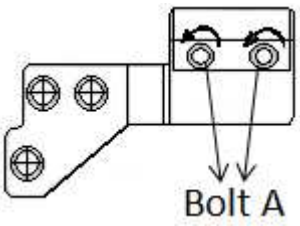
1. Loosen the nut for fixing the hanger
2. Adjust the height using the jack bolt

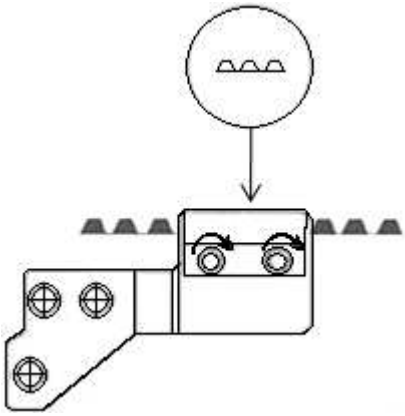
   Turn clockwise and the door will ascend
   Turn counterclockwise and the door will descend
3. Tighten the nut that fixes the hanger
4. After confirm the gap between the door leaf and the bottom of the module the trolley stopper should be installed properly with a gap 0,5 mm.
5. Confirm the resistance in walking.

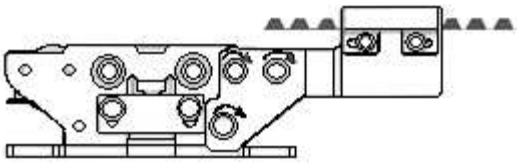
- If the door leaf is difficult to move, the following item shold be checked to restore it to normal

1. The hanger is mounted vertically on the leaf
2. Any friction between the floor guide and the leaf bottom.
3. Any friction between the door leaf and frame
4. Any friction between the hanger and stopper and the module

INSTALLATION BELT OF SINGLE - LEAF







1. Remove the bolt and take out the belt fastening part form the belt connector part.

2. Cut the belt with the reference to the belt cutting table.
   Caution: Cut the belt at the center of the valley bottom.

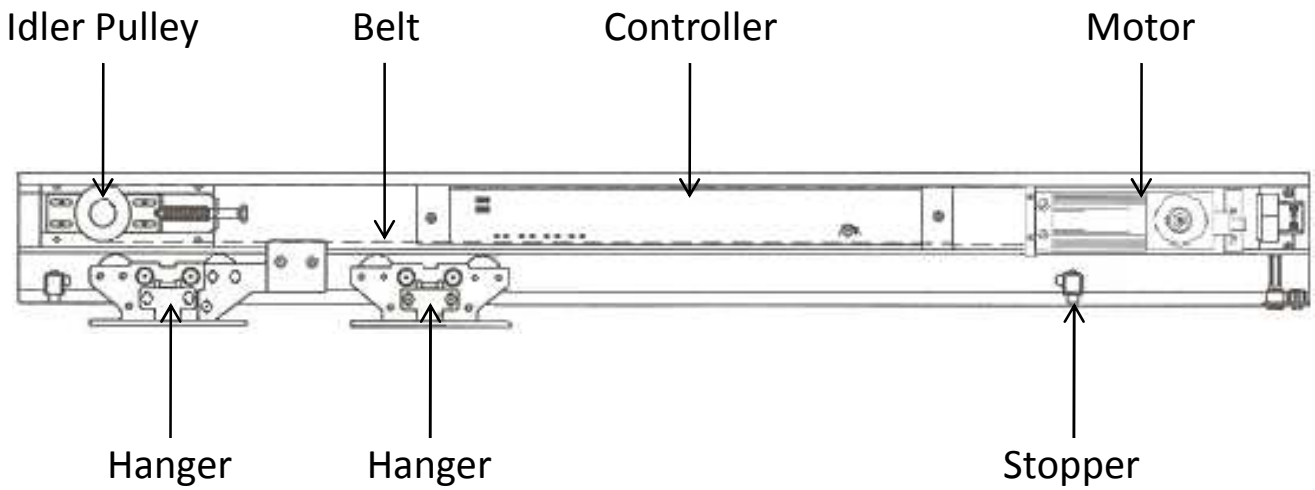
3. Both ends of the belt are put into the fastening part form the center of the fastening part.

4. The fastening part of the belt is installed to the belt connector part firmly.
   Caution : The direction of the belt fastener.

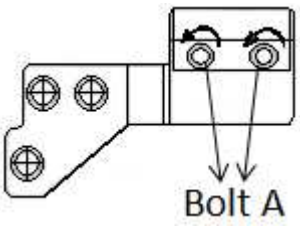
5. The belt is put up the wheel on one side of the motor first and then to the idler pulley.

6. The bolt (M6x12) spring washer should be inserted firmly with the accessory belt fastener.
   Caution : Do tighten the bolts.

INSTALLATION POSITION OF BELT FASTENER (SINGLE – LEAF)

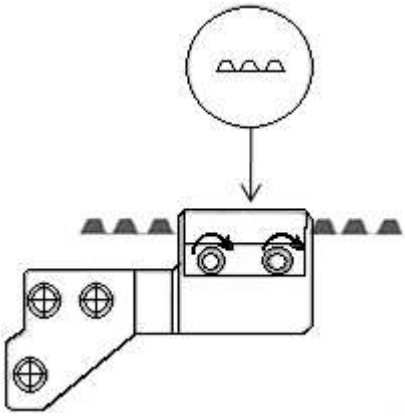


INSTALLATION BELT OF DOUBLE - LEAVES



1. Remove the bolt and take the belt fastening part form the belt connector part.

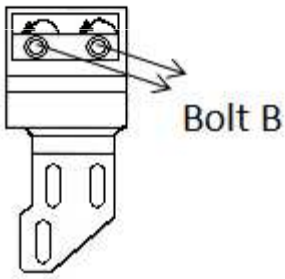
2. Cut the belt with reference to the belt cutting table.
   Caution : Cut the belt at the center of the valley bottom.



3. Both ends of the belt are put into the fastening part form the center of the fastening part.
   Notice : Never have the belt twisted in installation.

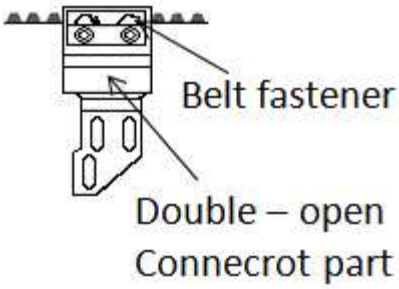
4. The fastening part of the belt is installed to the belt bracket firmly.
   Notice : The direction connector of the belt fastener.

5. The belt is put up the wheel on one side of the motor first and then to the idler pulley.



6. The bolt (M6x12) spring washer is inserted firmly with the accessory belt fastener.
   Notice : Do tighten the bolts.

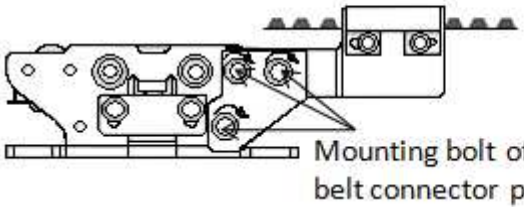
7. Remove bolt B from the belt fastener and take it out from the belt fastening part.

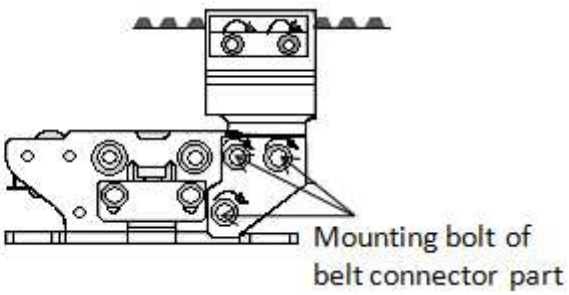


8. Install the belt fastener into the belt and tighten it them.

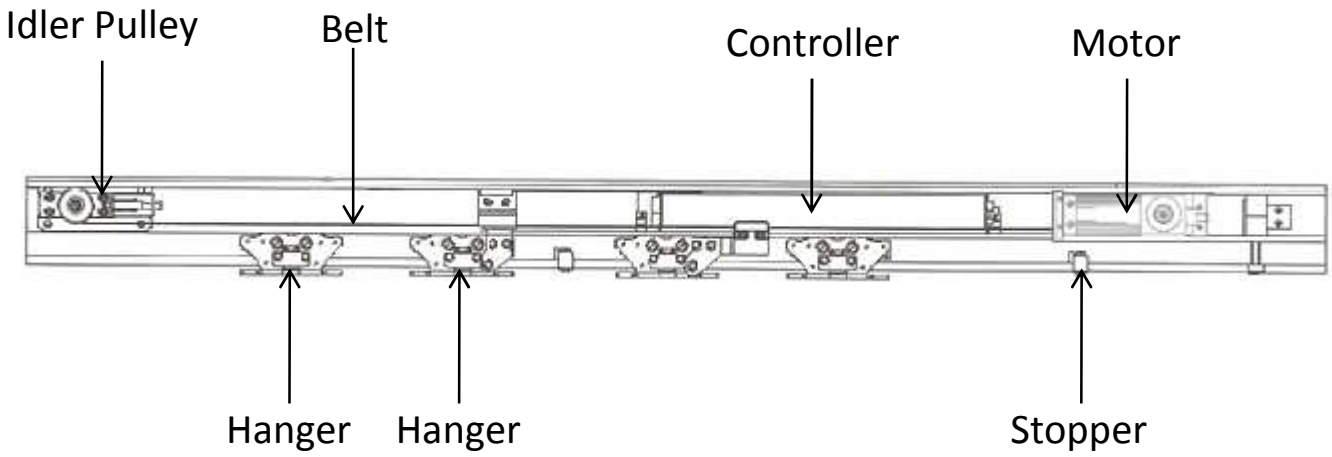
9. Fix the belt fastener with bolts.

10. Tighten bolt B after adjusting the door position.





INSTALLATION POSITION OF BELT FASTENER (BELT OF DOUBLE – LEAVES)



BELT LENGHT TABLE

Zoom table for minimum belt lenght (for reference only)

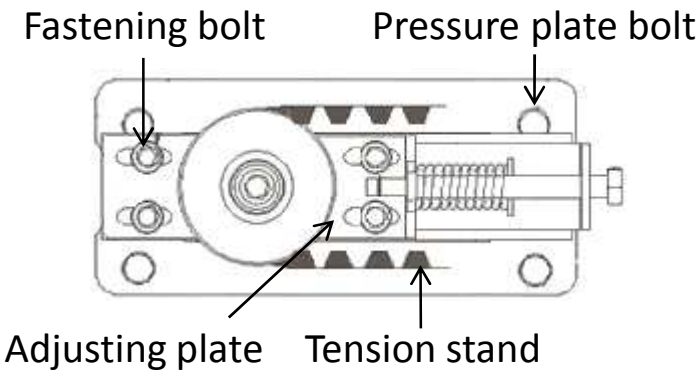
DOOR WIDHT	BELT LENGHT
650	4100 - 4200
700	4400 - 4500
750	4700 – 4800
800	5000 - 5100
850	5300 - 5400
900	5600 - 5700
950	5900 - 6000
1000	6200 - 6300
1050	6640

ADJUSTMENT OF BELT TENSION

1. Pull the belt idler pulley to the left to keep the belt tightened and fasten the four pressure plate bolts.

2. Loosen the four fixing bolts.

3. Turn the tension adjusting bolt clockwise so that the tension plate will be moved to the left and the belt tension increased gradually. Adjust the belt tension to a moderate measure and then fasten the four fixing bolts.



After use for some time the belt will be stretched slightly and then the belt tension should be readjusted by repeating steps 1-3.

INSTALLATION OF FLOOR GUIDE

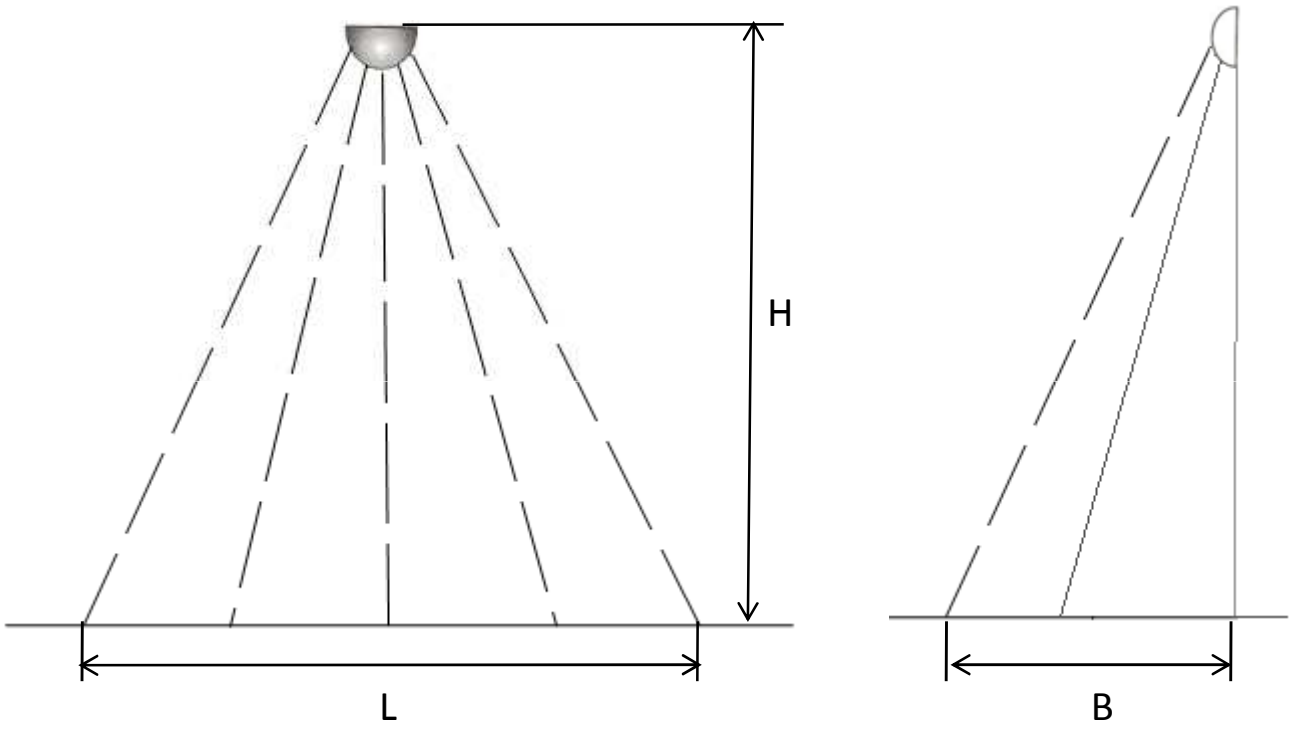
Suitable for framed doors

Suitable for frameless doors

- ✓ The floor guide should be installed in the center of the moveable door leaf with its axle center coinciding with the central line of the door leaf.
- ✓ The central distance between the two floor guides must be smaller then the total width of two doors 2DW.

INSTALLATION OF SENSOR

- ✓ The sensor should be installed above the center of the door leaf properly with a height of not over 3,5 meter high as most properly. Generally the sensors are installed both inside and outside of the room each as a rule. For wiring please refer to the wiring diagram and for more detailed rules for installation refer to the installation specifications of the sensor manufacturer.

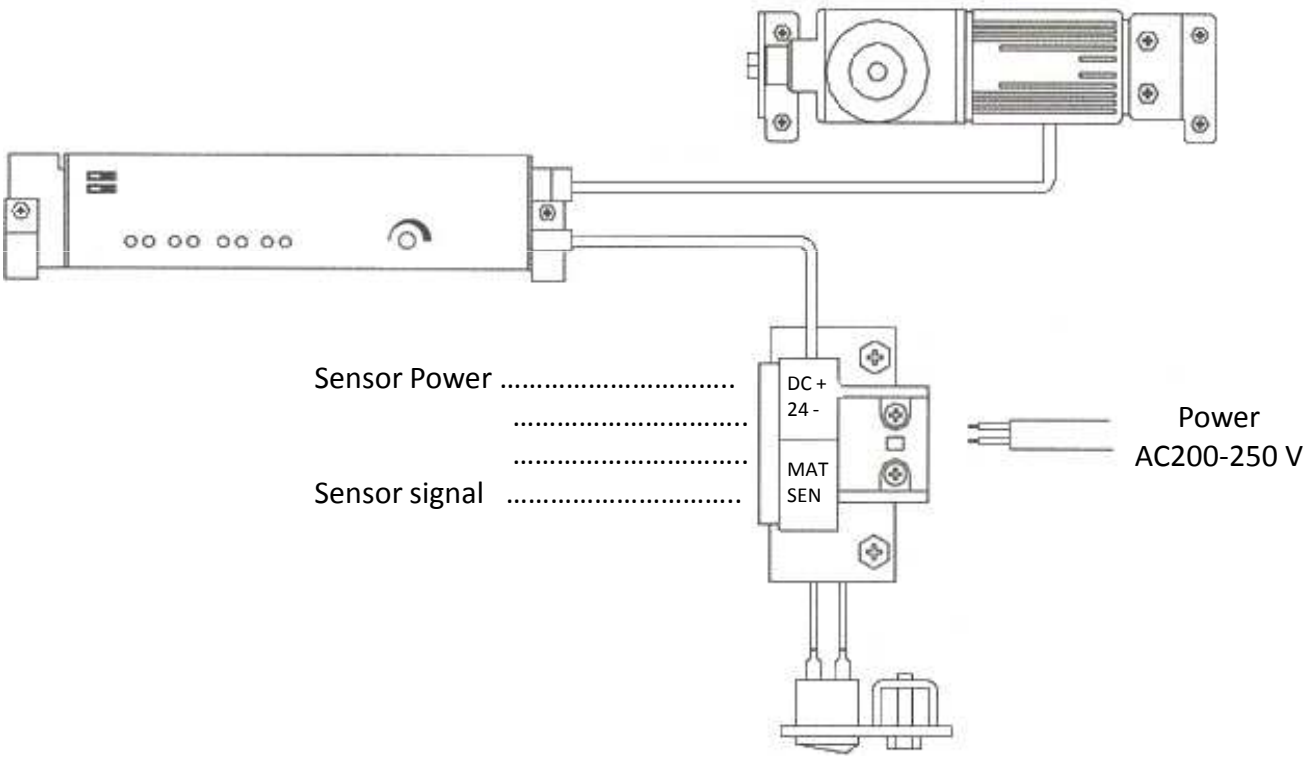


- ✓ Caution : As wiring voltage varies for sensors of different manufacturers and models, they should never be replaced at will.

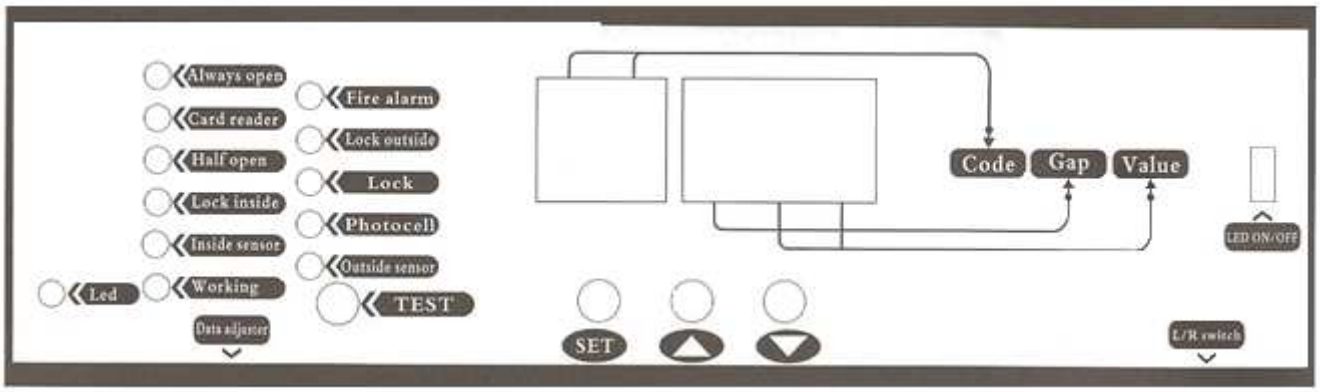
ELECTRICAL CONNECTION

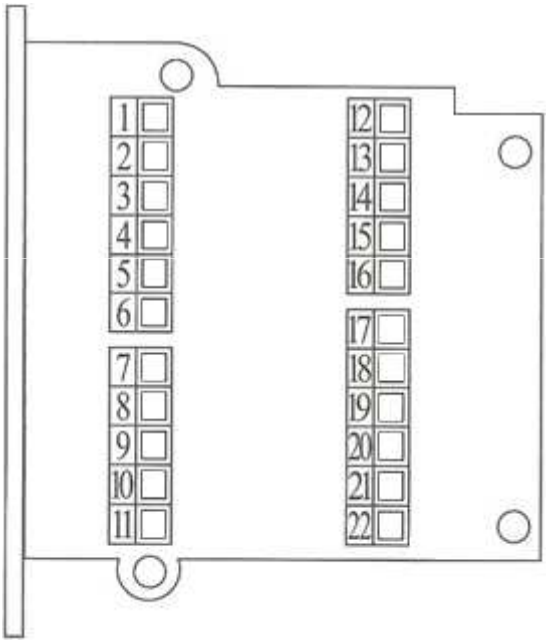
Connection Of Controller, Motor and Connector

- ✓ Caution : All the connecting operations should be conducted under the power off status.



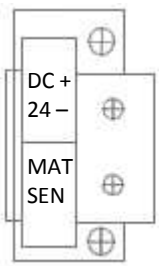
DESCRIPTION OF CONTROLLER AND CONNECTOR





1. +24 V
2. GND
3. Always open
4. Lock outside sensor
5. Half-open
6. Lock
7. Card reader
8. Photocell
9. Outside sensor
10. Inside sensor
11. Inter-lock
12. UPS
13. → +24 V
14. → +24 V
15. → +24 V
16. +12 V
17. → GND
18. → GND
19. → GND
20. → GND
21. → GND
22. → GND

DC + sensor power ……
24 – sensor power ……
MAT sensor signal ……
SEN sensor signal ……



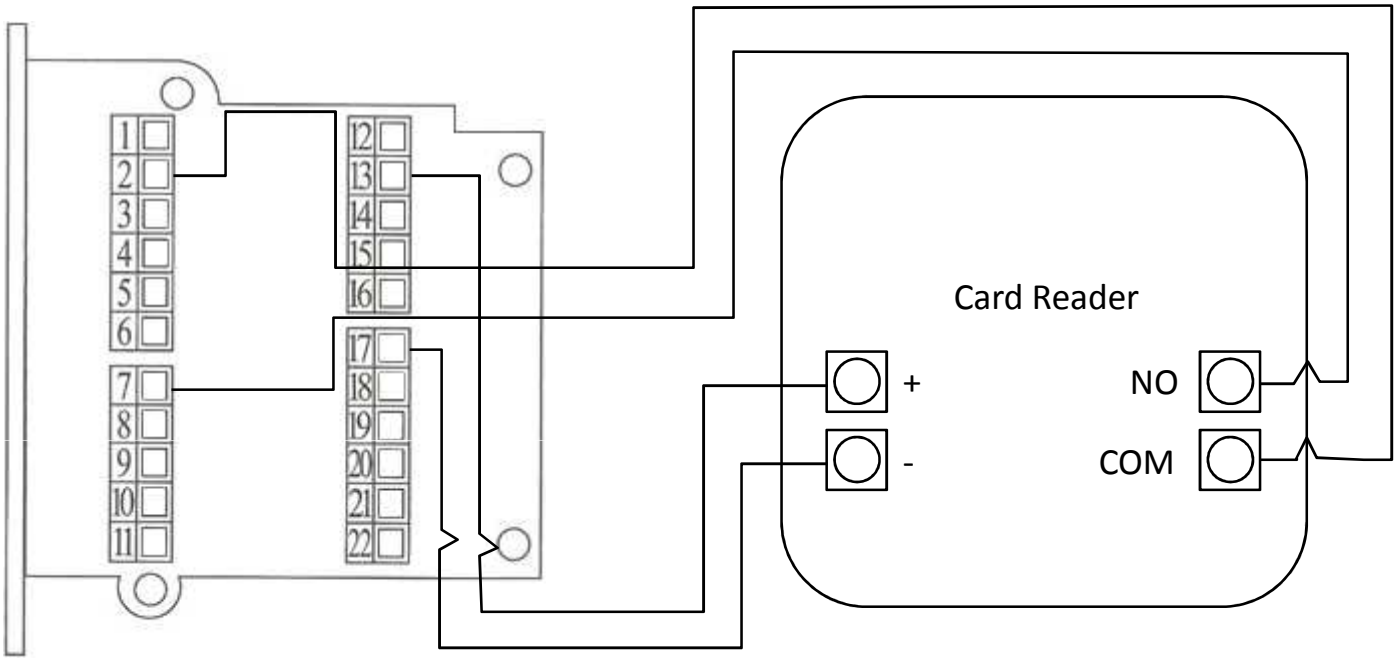
Power
AC220V – 250 V

CONNECTION OF CARD READER

1. All the wiring operations should be conducted under the power off status.

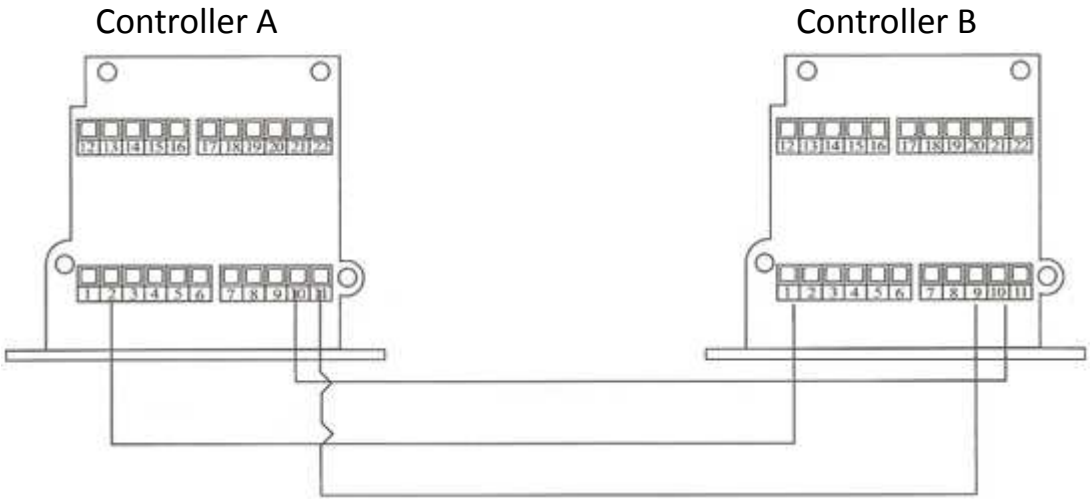
2. Positive or negative pole should be distinguished when the card reader is connected.

3. At this time the card reader with passive output should be connected. If a card reader with active output is avaiable, it should be changed to passive output. Purchase from our company is prefered.



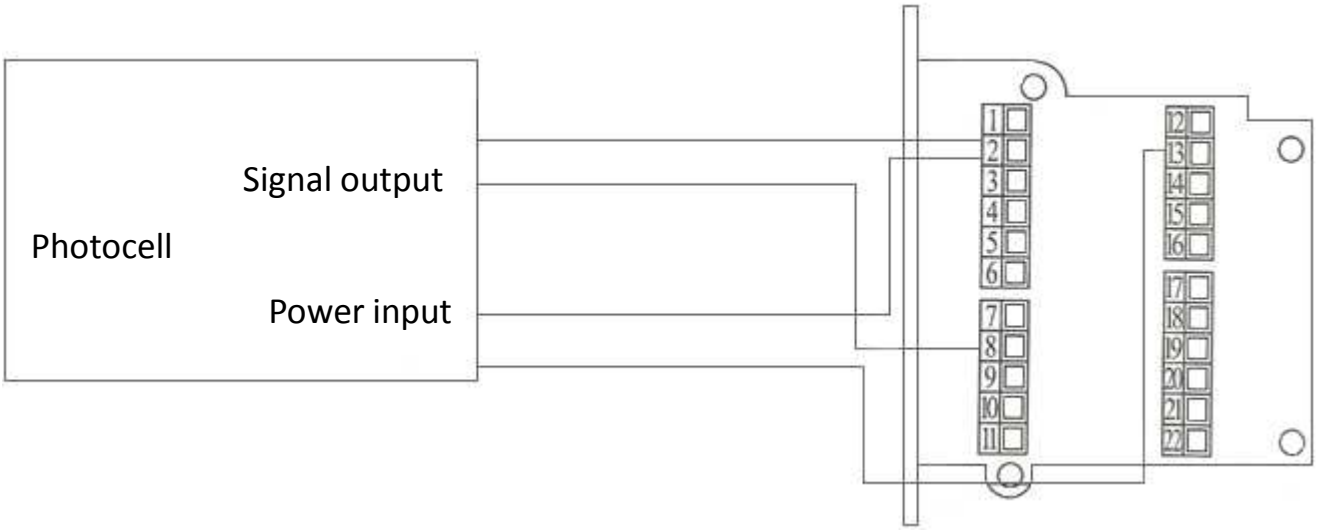
DOUBLE-DOOR INTERLOCKING CONNECTION

Double-door interlocking connection diagram



CONNECTION OF PHOTOCELL

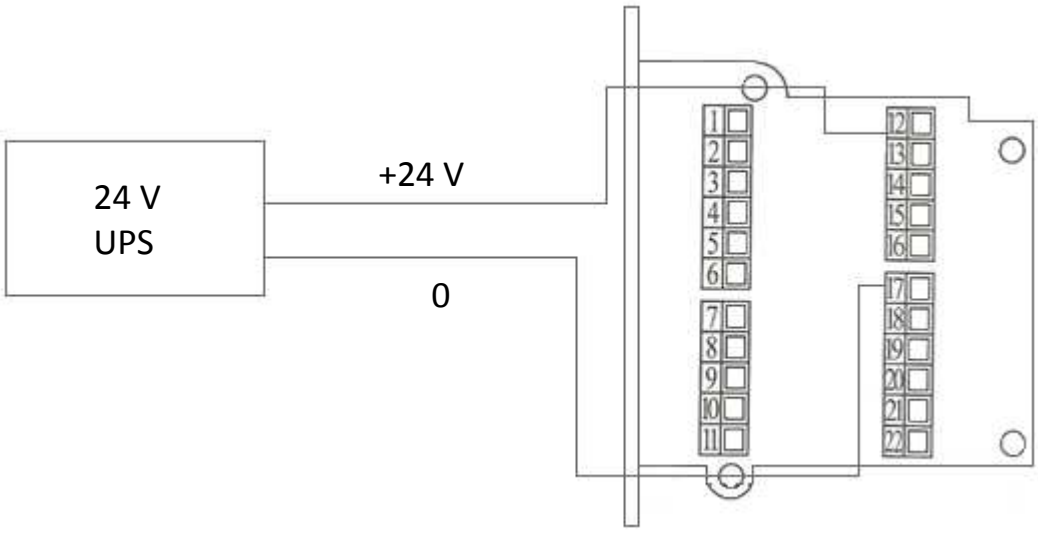
Caution : All the conneting operations should be conducted the power off status.



CONNECTION OF UPS

Caution :

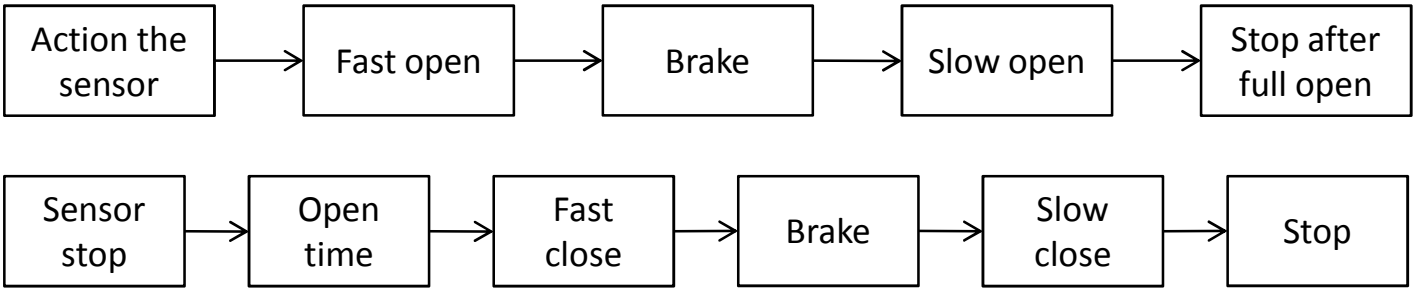
1. All the conneting operations should be conducted the power off status.
2. Note the positive and negative poles in connecting to UPS and spesific operation is shown in the following figure.
3. Working current of electric lock is less than 200mA and starting current less than 800 mA.



DESCRIPTION OF OPERATION

1. After switching on power, the system begins its initial program form the close state, the door leaf will open at a low speed and close again after meeting with the door stoper and comfirming the stroke. The built-in micro-processor will memorize the stroke through this open-close cycle.

2. The door leaf will run by the following sequence in normal operation:

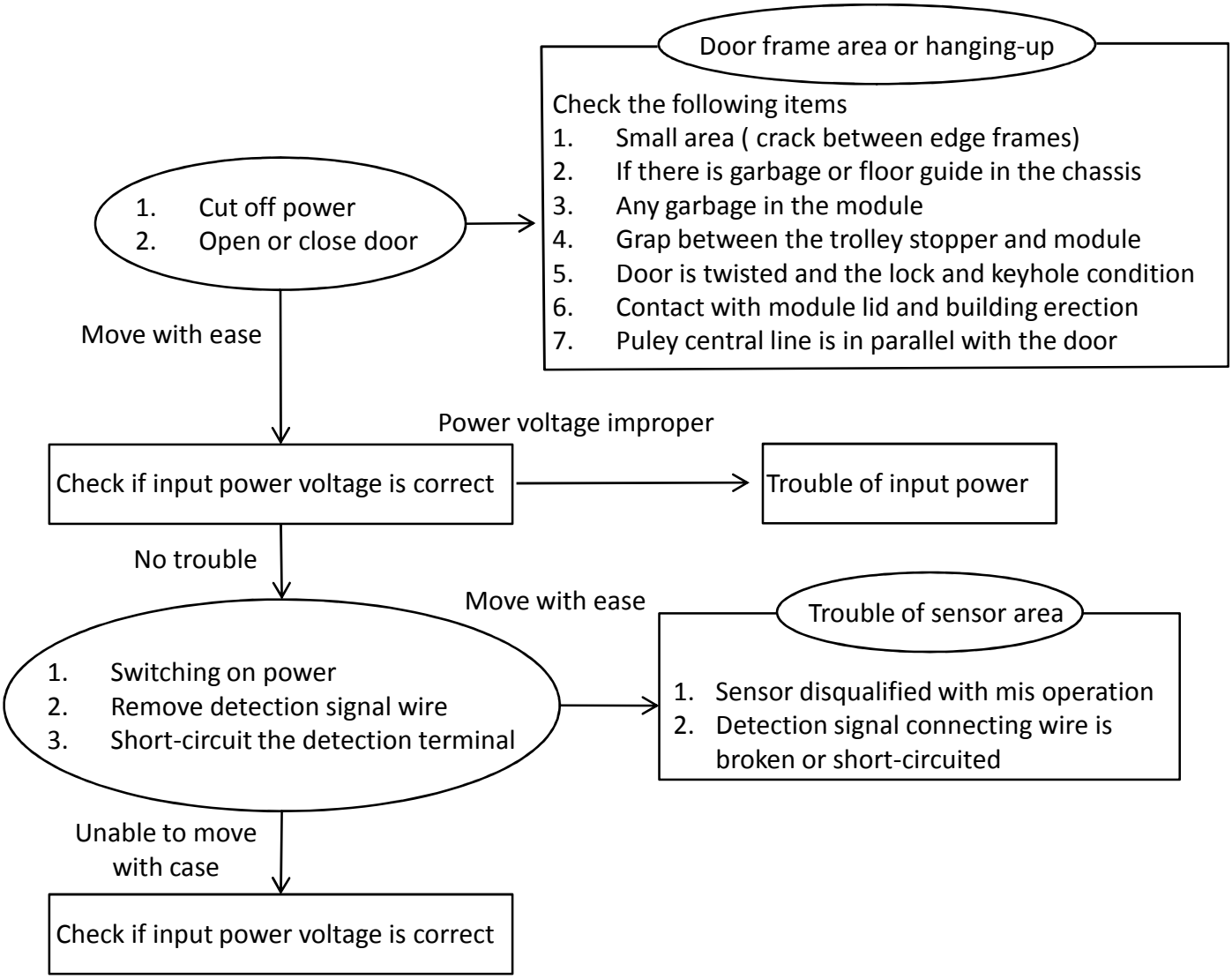


DATA SETTING

Code No	Value Range	Default Value	Details
00	10-30	15	Inıtialize the opening force whwn power on
01	25-99	80	Opening speed
02	25-99	70	Closing speed
03	05-25	15	Buffer speed when opening
04	05-25	15	Buffer speed when closing
05	10-50	25	Buffer distance when opening
06	10-50	30	Buffer distance whenclosing
07	01-03	01	Sensitive power when start
08	00-01	01	Increase press and reduce press when closing
09	00-09	02	Opening time
10	00-01	01	Open or close when fire alarm
11	00-01	01	Stop or withdraw when accounting resistance
12	20-90	60	Percentage of opening widht when halp open
13	01-03	03	Running times
14	00-02	00	Running times

Note : Our mechanism has codes from 00 to 14. But this 3 buttons can change the codes the codes from 00 to 13. Code 14 should be changed by adjust keypad.
Code 14 can be changed from 00-02 (00 means working forever, 01 means working only 5.000 times, 02 means working only 10.000 times).

TROUBLESHOOTING



Symptoms	Causes	Items Checked	Remedies
Door opened or closed unsmoothly	1. Open/close speed is set slow 2. Slow down distance is set too much 3. Someone is in touch with door leaf when closed, resulting in an abnormal mode. 4. To much resistance	1. Check open and close speed 2. Length of slow down 3. Cut off power and open manually 4. If any garbage in the module 5. If damaged or loosened floor guide contacts the lead and keyhole 6. If any obstacle is there	1. Reset the open/close 2. Reset the slow down 3. Distance 4. Sensor works due to entrance and exit of people and door closed temporarily 5. Remove garbage 6. Fix up the lock 7. Installed properly 8. Obstacle cleared away

TROUBLESHOOTING

Symptoms	Causes	Items Checked	Remedies
Door leaf over-tight	1. Slow down speed too fast 2. Slow down distance too short		1. Decrease slow down speed 2. Increase slow down distance
Door doesn't work	1. Power not switch on 2. Door locked 3. Garbage in the track 4. Poor electrical connection 5. Double-door interlocking 6. Auto-door is under protection due to great resistance 7. Set value of controller slow down speed is to small	1. Check for the power 2. Switch of breaker and motor 3. Turn off power to check if the door moves with ease 4. Something is wrong with the connector.	1. Turn on power. 2. Open the door lock. 3. Remove garbage. 4. Check the connector for the good contact. 5. Wait till the other door is closed. 6. Check door resistance after power cut-off. 7. Turn the button clockwise slowly as great speed will result in collision.
Door not open fully	1. Under semi-open mode	1. Check fully/semi-open switch.	1. Change to fully-open mode
Door doesn't close	1. Sensor keep on working 2. P.E. beam keep-on working 3. Detection signal wire short-circuited	1. Any object that may cause misoperation within the detection range 2. Check if the P.E. beam has any contaminant optical axis is deviated 3. Check if the door is closed after the control signal wire from the terminal blocks is removed	1. Clear away any moving objects. 2. Replace sensor clear away the contaminant from the P.E. beam 3. Adjust optical axis change signal wire

TROUBLESHOOTING

Symptoms	Causes	Items Checked	Remedies
Door keep on opening / closing control	1. Misoperation of sensor 2. Any movable object in the detection area 3. Intense electrical wave is emited near the door. 4. Coinciding with the detection area of the other sensor. 5. Fluorescent lamp in the detection area disqualified sensor	1. Check 2. Check 3. Check 4. Check 5. Bounce sensor	1. Remove any moving object from the detection area 2. Remove the machine that emits intense wave 3. Change anti-disturbance switch 4. Remove fluorescent lamp from the detection area. 5. Replace sensor
Door comes into great collision	1. Significant speed reduction but with great collision 2. Belt loosen 3. No slow down when opening door 4. No speed reduction when closing door		1. Turn button (H) slowly anti-clockwise 2. Adjust belt tension 3. Turn open slow down distance (E) clockwise 4. Turn close slow down distance button (G) clockwise

STEPP - MASTER ÜNİTE AYAR DEĞERLERİ

Kod No	Değer Aralığı	Varsayılan Değer	Açıklama
00	10-30	15	Açılışta uygulanan güç
01	25-99	80	Açılış hızı
02	25-99	70	Kapanış hızı
03	05-25	15	Açılırken frenleme hızı
04	05-25	15	Kapanırken frenleme hızı
05	10-50	25	Açılırken frenleme mesafesi
06	10-50	30	Kapanırken frenleme mesafesi
07	01-03	01	Açılışta hassas güç
08	00-01	01	Varsayılan değer kullanılacaktır.
09	00-09	02	Açılış zamanı
10	00-01	01	Yangın alarmında açık/kapalı pozisyonu
11	00-01	01	Varsayılan değer kullanılacaktır.
12	20-90	60	Yarım açılış pozisyonundaki açılış yüzdesi
13	01-03	03	Çalışma adedi
14	00-02	00	Çalışma adedi