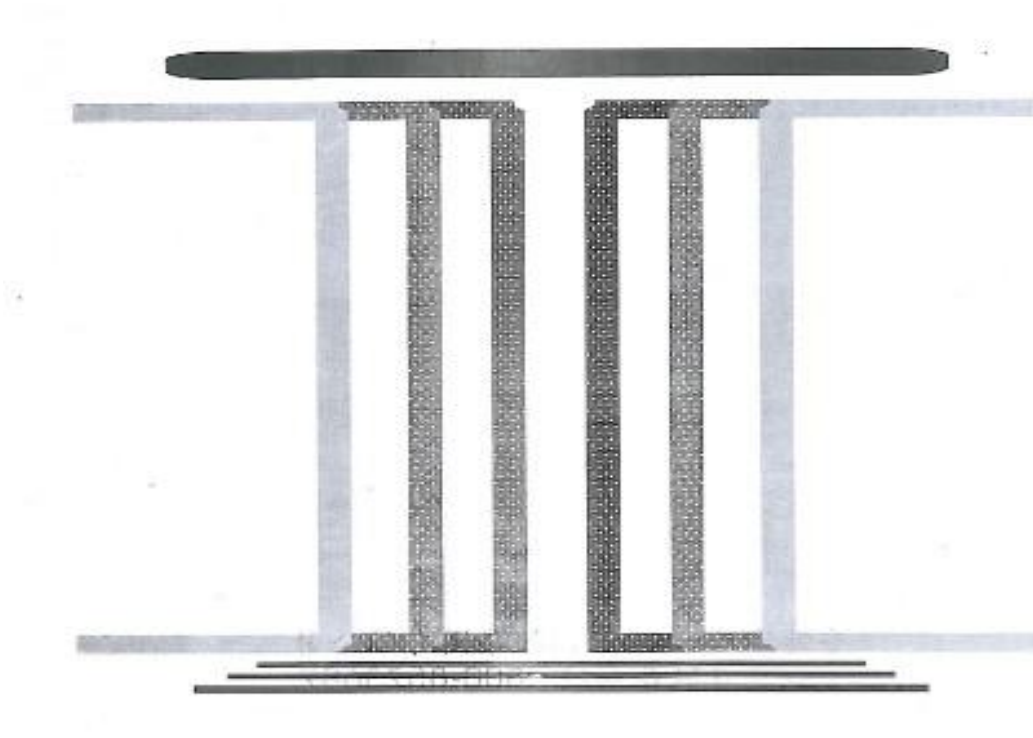


Automatic Intelligent Control Automatic Door

S-150

General Description of Construction

- The automatic door construction shall be entrusted to the construction agent;
- According to the laws and regulations related to the electrical construction, the automatic door must be constructed by professionals.



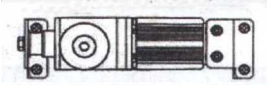
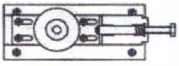
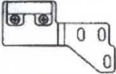
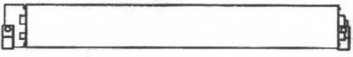
1. Functions and characteristics

- Micro computer intelligent control and advanced machinery manufacturing;
- Intelligent control system, various parameters can be flexibly adjusted;
- Low-noise power device, easy and convenience installation;
- Integrated brushless motor and gear box, high efficiency, large torque, long life;
- Motor self-locking function, no electric lock, safe and reliable;
- AC100V-240V wide voltage design, international accepted;
- Full function remote control device.

2. Technical Index

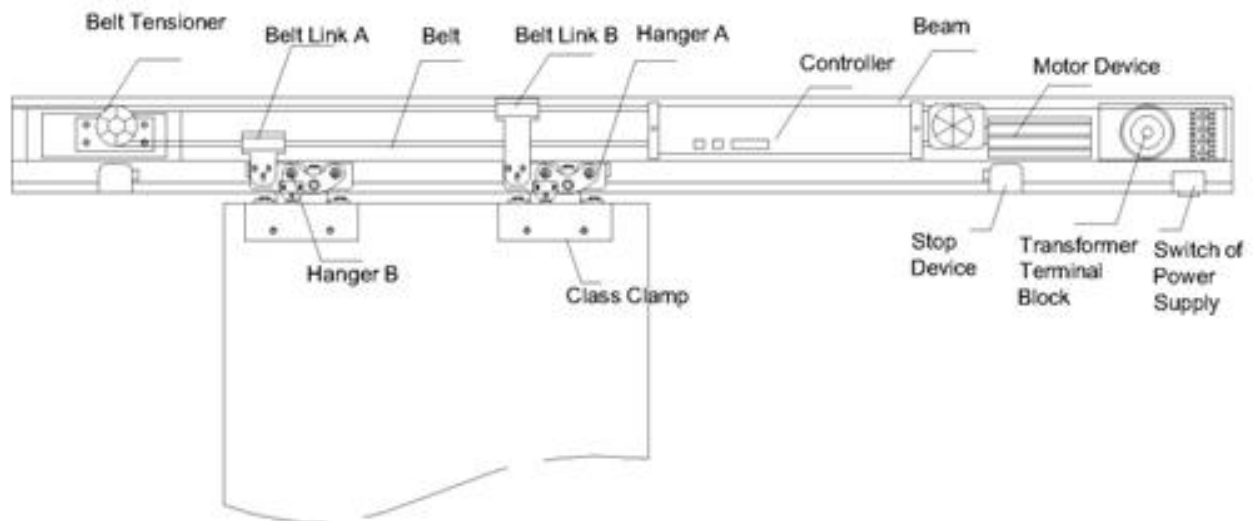
Specification	Single leaf type	Two leaf type
Door leaf weight	200 kg maximum	2*150 kg maximum
Door leaf width	DW=750mm to 1600mm	DW=650mm to 1250mm
Clearance width	DW=1450mm to 6000mm	DW=2500mm to 6000mm
Installation mode	Surface mounting, closed installation	
Supply voltage	AC100V to 240V	
Frequency	50Hz to 60Hz	
Door opening speed	100 to 500mm/s adjustable	
Door closing speed	100 to 500mm/s adjustable	
Buffer speed	30 to 100mm/s adjustable	
Opening time	0 to 9S adjustable	
Closed force	200N<F<400N	
Manual force	<100N	
Noise	<50dB	
Operating ambient temperature	-20℃ to +50℃	

3. Parts list for actuating device

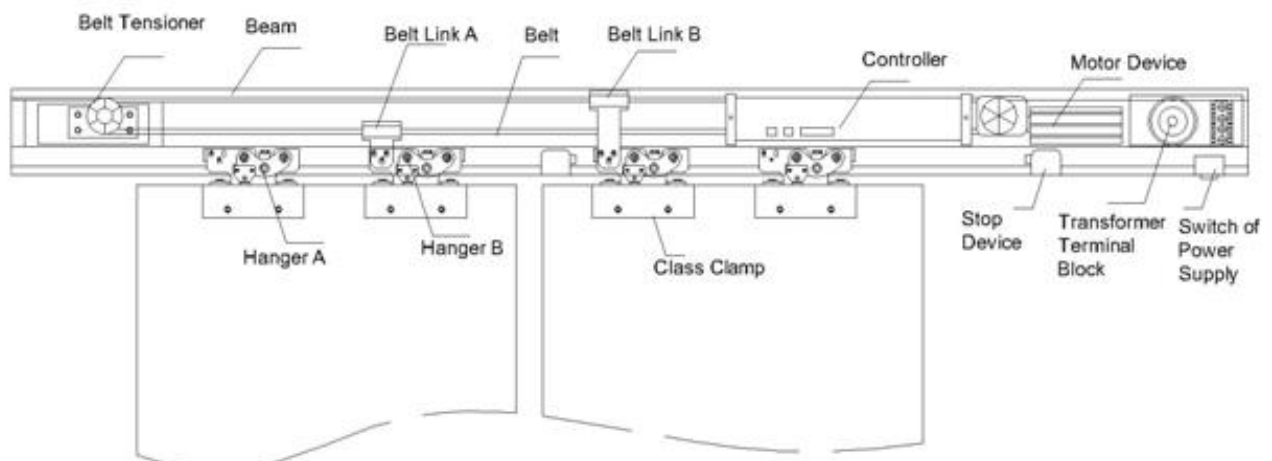
Part name	Schematic diagram	Quantity (pc)	
		two leaf type	Single leaf type
Motor device		1	1
Belt tensioning pulley		1	1
Hanging bracket device		4	2
Belt fixing device		1	1
Belt fixing device (double open)		1	—
Belt		1	1
Microcomputer controller		1	1
Brake device		2	2
Wire clip		1 set	1 set
Fastener		1 set	1 set
Direction marking		2	2
General description of construction		1	1

4. Installation location of various components of actuating device

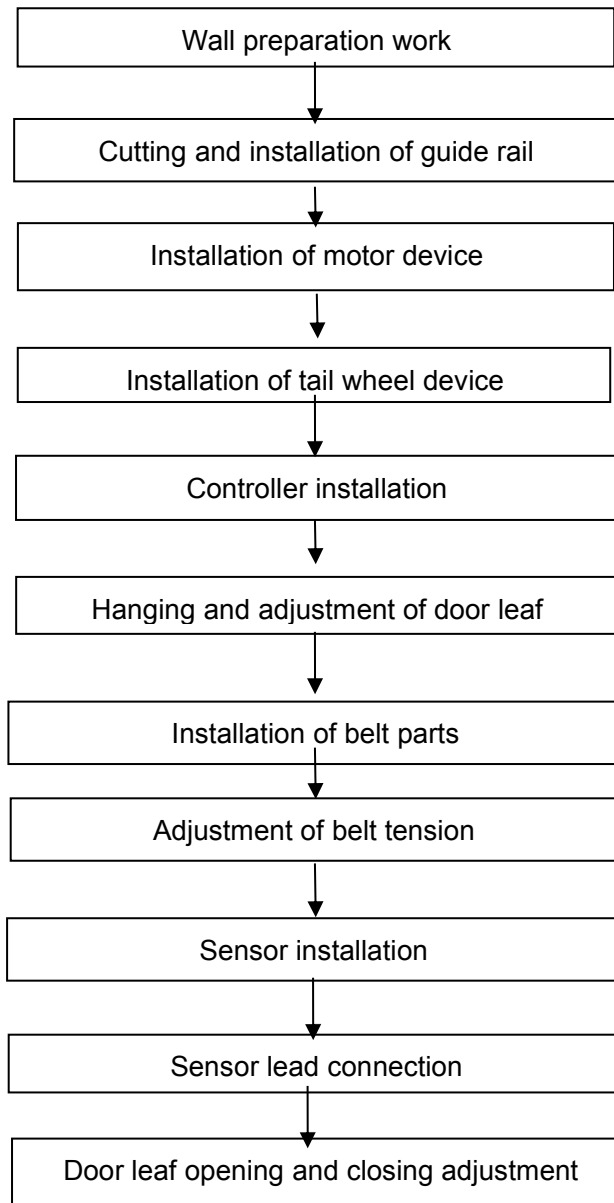
1. Single Door Type



2. Two Door Type



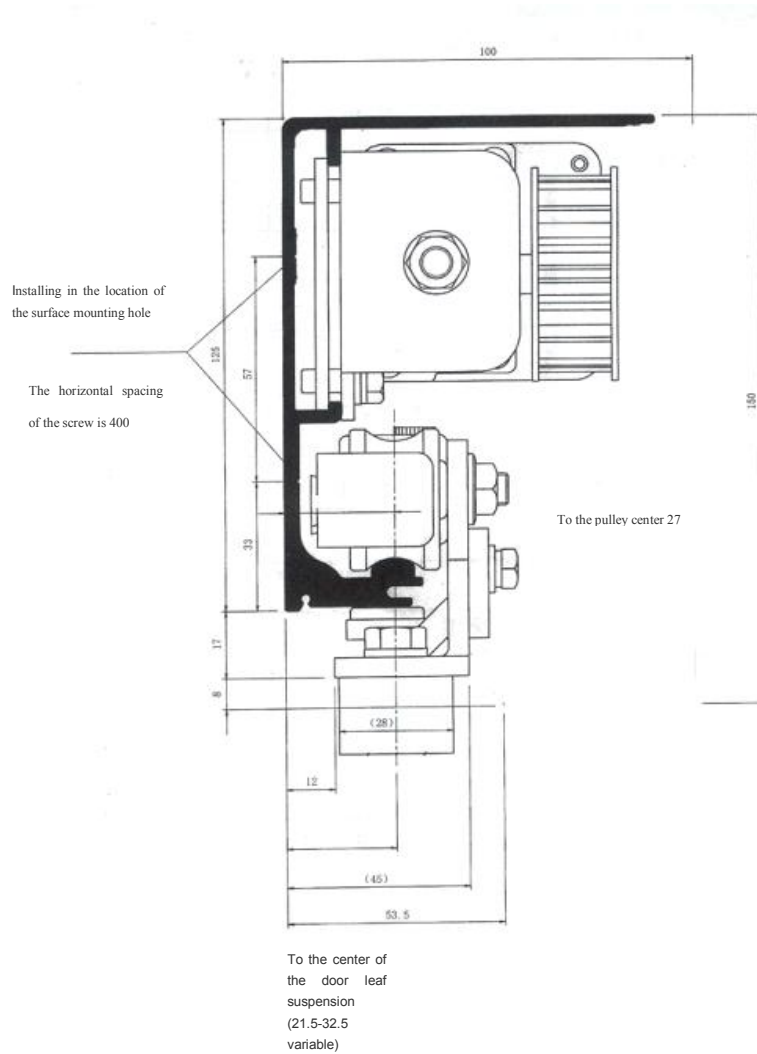
5. Installation Flow Chart



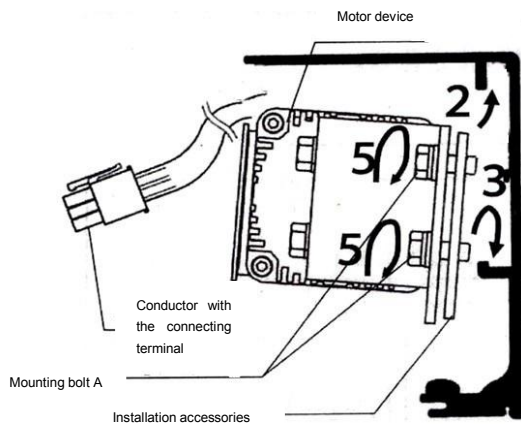
6. Building Installation Legend

Sectional drawing

[Note] this sectional drawing is not used 1:1 ratio



7. Installation of motor device



1. Conductor with connector is placed in front of the motor.

Note: if accidentally embedded in case of the following 2, 3, 5, the motor will fall.

2. The installation accessories are embedded in the upper groove of the engine box.

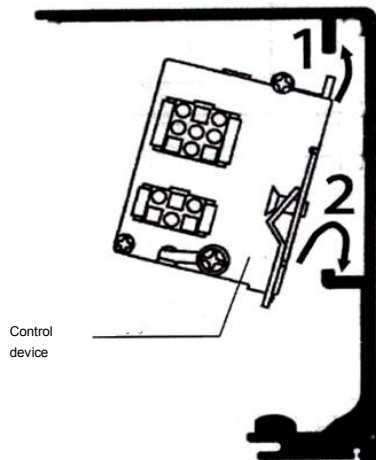
3. Then installation accessories are embedded in the lower groove.

4. The motor device is moved to near the right end of the engine box.

5. The mounting bolts A are tightened.

6. Conductor with connector is placed on the left side of the motor device through the top of the motor device. Conductor shall be not sagged.

8. Installation of control device



Note: if accidentally embedded in case of the following 1, 2, the control device will fall.

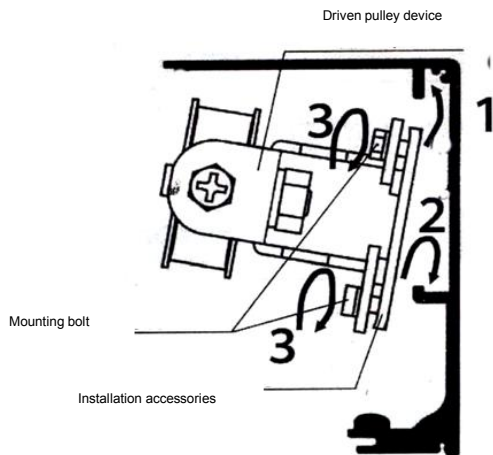
1. The control device is embedded in the upper groove of the engine box

2. The control device is embedded in the lower groove

3. The engine device is moved to the position that can be connected to the conductor of the terminal block.

4. The mounting bolts are tightened.

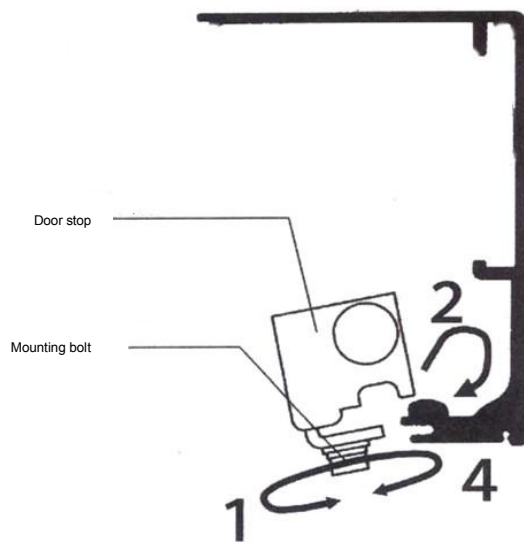
9. Installation of driven pulley device



Note: if accidentally embedded in case of the following 1, 2, the driven pulley device will fall.

1. Installation accessories of the driven pulley device are embedded in the upper groove of the engine box
2. Installation accessories of the driven pulley device are embedded in the lower groove
3. The driven pulley device is fixed gently and temporarily with the mounting bolts, so that it can move slightly.

10. Door stop installation



1. The mounting bolt (hexagon socket screw: M8 * 40) of the door stop device is loosened.
2. The brake device is embedded in the track of the engine box referring to the installation configuration diagram of the engine device components (P.16)
3. The opening and closing position of the door is moved and aligned, to determine the position of the door stop device.

Note: there shall be the space of more than 30mm after opening the door. Otherwise, the fingers will be clamped by the door leaf and columns, and be injured.

[Note] The track shall be not damaged

4. The mounting bolt shall be tightened by the hexagonal bar screw spanner.

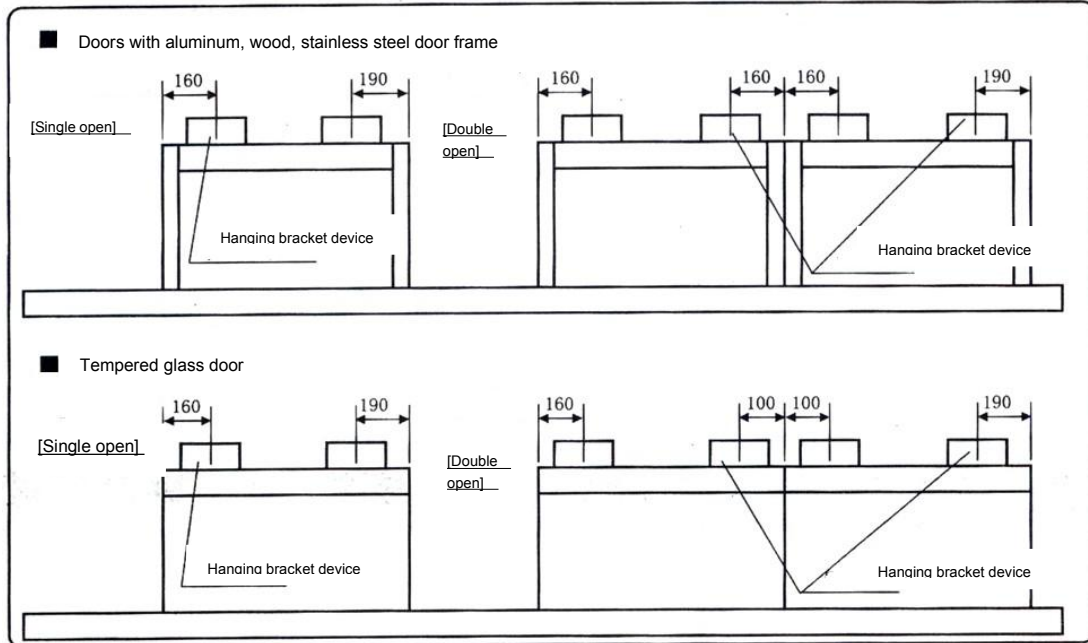
Note: any carelessness can cause damage to the door.

11. Hanging of door leaf

1. The hanging bracket device is installed on the specified location with the door leaf hanging bolt group.

Note: If treated carelessly, it will cause falling.

Installation location of the hanging bracket device



[Note] The pulley center of the hanging bracket device shall be parallel to the door leaf when installing (refers to following Figure). If not parallel, the pulley life will be shortened.

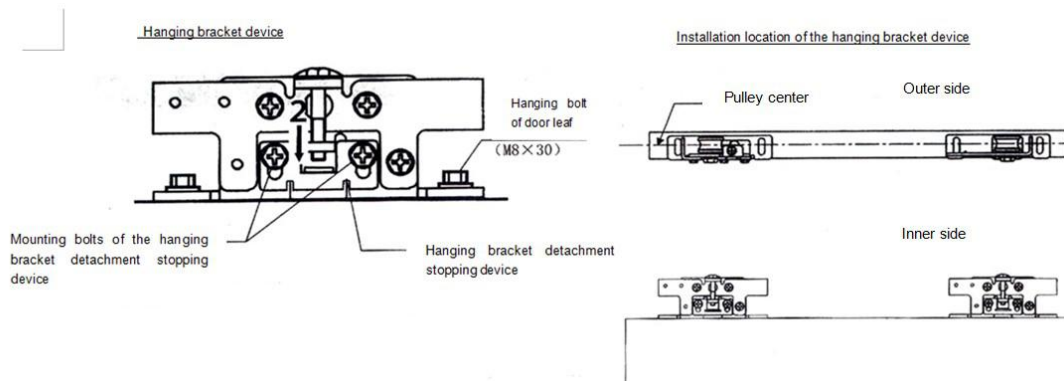
1. The mounting bolts of the hanging bracket detachment stopping device are loosened, the hanging bracket detachment stopping device is lowered.

2. The pulley of the hanging bracket device is hung to the guide rail of the engine box.

[Note] Do not collide the internal parts of the engine box or damage the track and ensure that the pulley centerline is parallel to the door leaf.

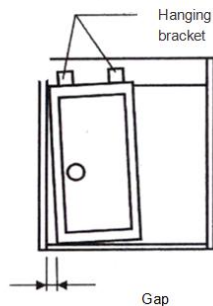
Otherwise, the parts will be failed, the pulley life span will be shortened, the noise and abnormal sound will be generated.

Figure:

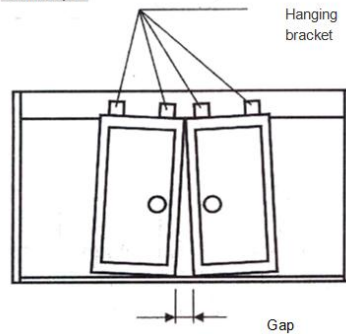


12. Adjustment after the door leaf is installed

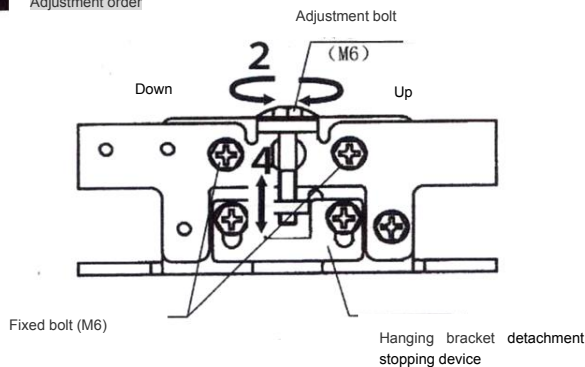
Single open



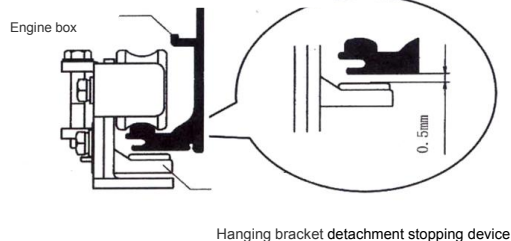
Double open



Adjustment order



Installation location of the hanging bracket detachment stopping device



As shown in Left Figure, if the door leaf can not be installed horizontally, it can be adjusted after the door leaf is hanged.

1. Fixed bolt is loosened.
2. The height is adjusted with the adjustment bolt (M6).

In case of the clockwise rotation, the door rises.

In case of the counterclockwise rotation, the door falls.

Note: if accidentally treated in case of the following 3.4, it will cause falling.

3. The fixed bolts are tightened and fixed.
4. The hanging bracket detachment stopping device is installed after confirming the gap between it and the lower part of the engine box.

[Note]: The gap is 0.5mm

5. The walk resistance is confirmed

It is confirmed if the door leaf can be moved with one hand.

Walk resistance shall be less than 14.7N (1.5kgf).

If the door leaf is slowly moved, the following items shall be confirmed.

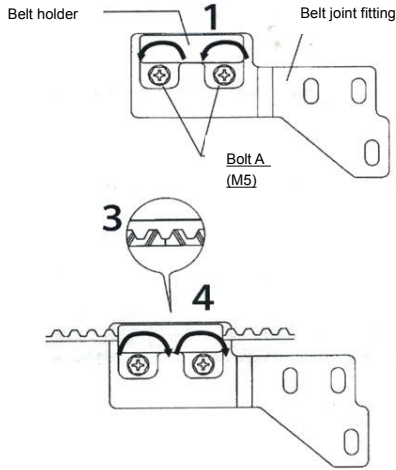
- Confirmed matters

1. If the hanging bracket device is mounted vertically on the door.
2. Whether there is the friction between the door stop at the bottom of the door leaf and bottom of the door leaf.
3. Whether there is the friction between the hanging bracket detachment stopping device and engine box.
4. Whether there is the friction between the hanging bracket device and horizontal frame.
5. Whether there is the friction between the door leaf and door frame.
6. Whether the centerline of the pulley is parallel to the door body.

13. Belt installation

Single open

■ Installation steps of the belt fixing device



1. The bolt A (M5) is removed, the belt fixer is removed from the belt joint fitting
2. The belt is cut off refer to the belt cutting table.

[Note] The belt is cut off from the center of the valley.

2. Two ends of the belt are cross placed into the fixer from the center of the belt fixer.

[Note] The belt shall be not distorted when installing.

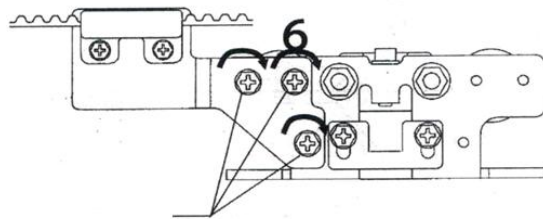
3. The belt fixer is rigidly mounted to the belt joint fitting.

[Note] Pay attention to the direction of belt fixer.

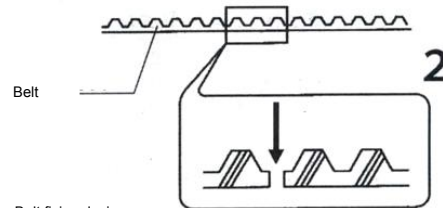
4. The belt is first hanged to the pulley at the motor side, and then hanged to the driven wheel.

5. Refer to the following installation location map, the belt is installed to the hanging bracket device using the mounting bolt (M6 * 12 with spring washer) of the belt fixing device.

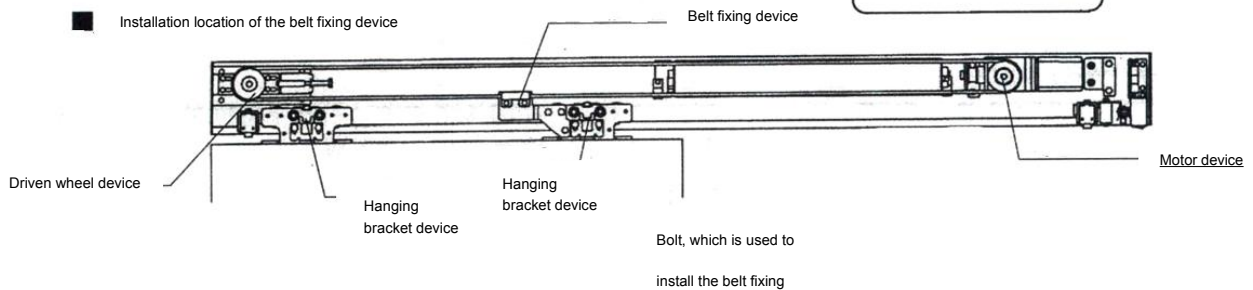
[Note] The bolt is tightened with the tools such as wrench, socket wrench, etc.



■ Belt cutting position



■ Installation location of the belt fixing device



■ Belt cutting table (single open)

[Belt cutting size L standard] unit (mm)

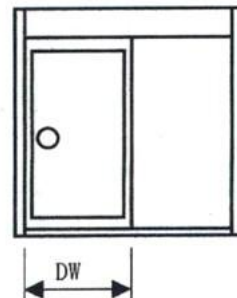
In case DW=700-1,000

$$L=(DW-100)*4$$

In case DW=1,000-1,250

$$L=3,700$$

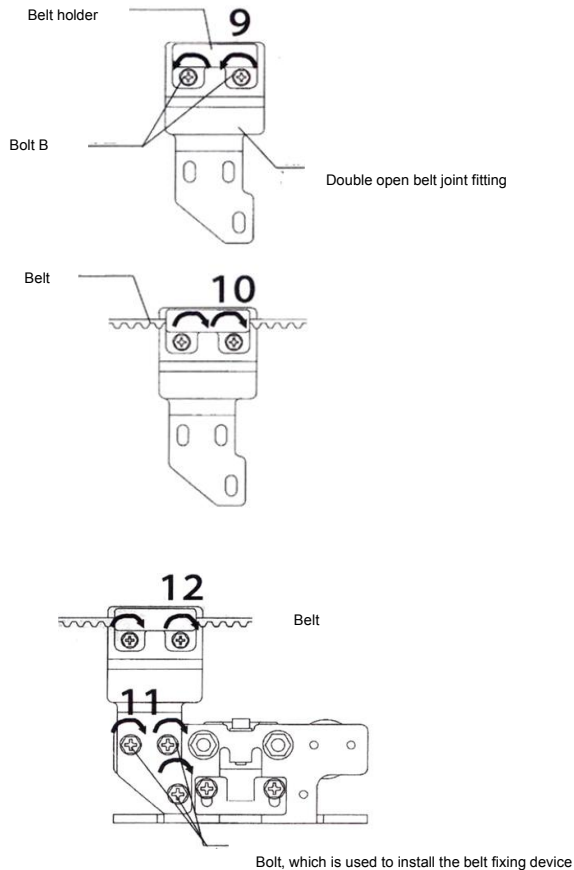
[Note] The above formula is just a standard, it shall be adjusted when the actual size is confirmed.



14. Belt installation

Double open

■ Installation steps of double open belt fixing device



7. The belt tension is adjusted referring to 18 Belt tension adjustment (P 26).

8. Two doors are in the closed position.
If the manual door lock is provided, it is locked.

9. The bolt B (M5) of double open belt holder is removed, and it is removed from the double belt joint fitting.

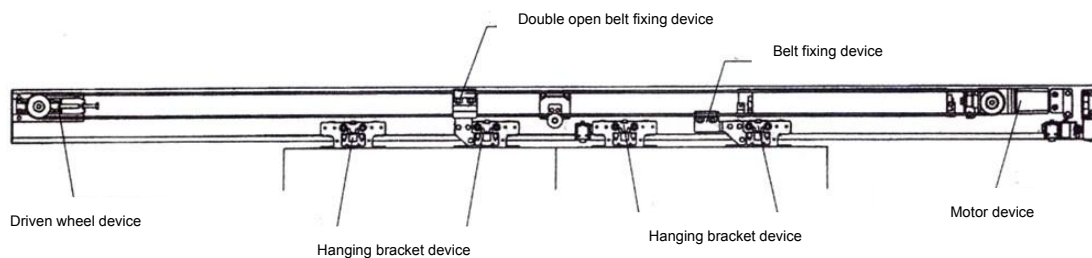
10. The belt holder is installed on the belt, and the belt holder is fixed on the double belt joint fitting with bolt B referring to the following installation location map.

11. The belt holder is securely installed on the hanging bracket device using the mounting bolts (M6 * 12 with spring washers) of the belt fixing device.

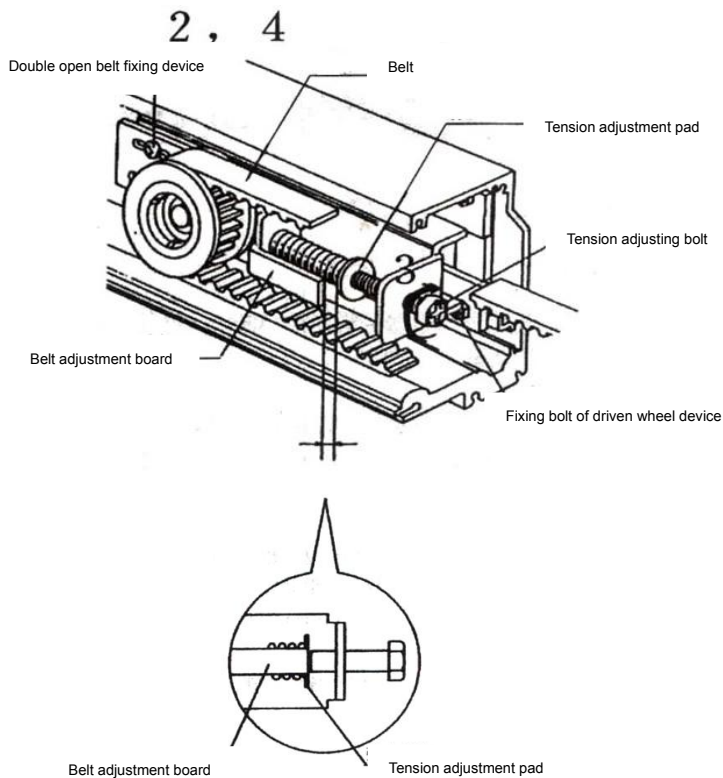
[Note] The bolt is installed with a wrench, socket wrench and so on

12. The bolt B is tightened after the door position is adjusted.

■ Installation location of the belt fixing device



15. Adjustment of tail wheel device



1. The driven wheel device is pulled to the left to tighten the fixed bolt.

2. Four bolts A are loosened

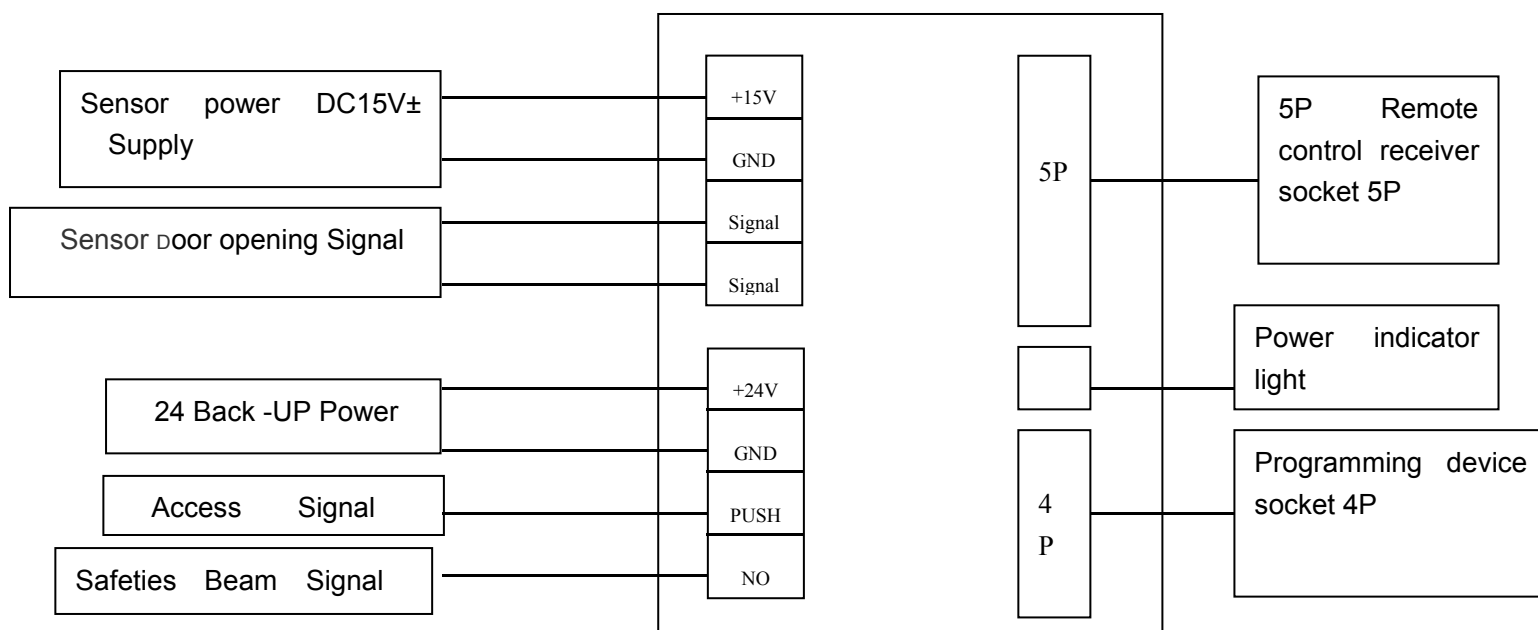
3. The tension adjustment bolt is rotated in the clockwise direction, to adjust the belt tension.

[Note] The pad and front end of the adjustment plate shall be adjusted for the superposition.

4. Four bolts A are tightened

16. Sensor wiring method

End cover on the left side of the controller



1. The sensor signal is connected with the sensor signal interface of the wiring terminal.

[Note] The wiring shall be made, if inadvertently wiring, it may lead to the failure caused by poor contact.

2. Two wires of the sensor power supply are connected to the sensor power supply interface of the wiring terminal

[Note] The sensor of more than 1A shall be not used, otherwise it may cause a malfunction and fire.

Please use the sensor meeting power supply voltage, and carefully read the instruction manual of the sensor, if it is used accidentally, it may cause the malfunction.

3. Use method of remote control

Button **【D】** : normally open (the door leaf is in a normally open state)

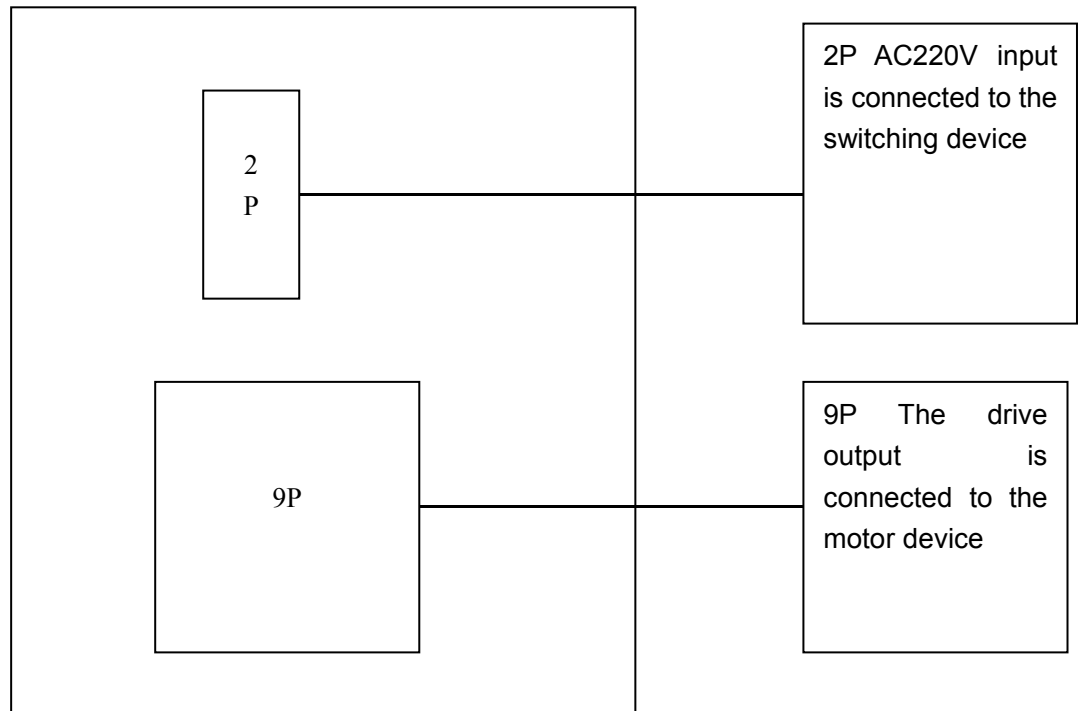
Button **【B】** : normal (window and door are in the state of the normal induction)

Button **【A】** : half-open (the door leaf is in the half-open state)

Button **【C】** : locking (the door leaf is in the lock state)

17. Connection between the motor device and transformer

End cover on the right side of the controller



1. AC220V input switch terminal (2P) is connected to AC220V input (2P);
2. The connection terminal of the motor device (9P) is connected to the drive output (9P).

20. Function button description of programming device panel

Sequence of operation:

1. The flexible conductor of the programming device is inserted into the programming device socket of the left end cover of the controller;
2. The controller's power supply is connected (power switch is opened)
3. After waiting for about 3 seconds, the program is initialized in the closed state of the door leaf, and the door leaf is opened at the low-speed in the opening direction. The door leaf is closed after the opening stopper is encountered, and the travel is confirmed, the loop is opened and closed by the controller built-in microprocessor, and the travel is memorized.

Operation sequences of the programming display

1. According to the item to be set, press 【▲】 or 【▼】 button to select the mode (MODE) to be adjusted.
2. After determining the mode to be adjusted, press the [SET] button, the digital in the digital display window of the programming device flashes.
3. And then press 【▲】 or 【▼】 button, adjust to the desired parameter value .
4. After determining the required parameter value, press [SET] button to store data

Note: The drive device setup has been completed in accordance with the standard when leaving the factory, if it is necessary to change the operation of the door body, the parameters are changed based on the steps above.

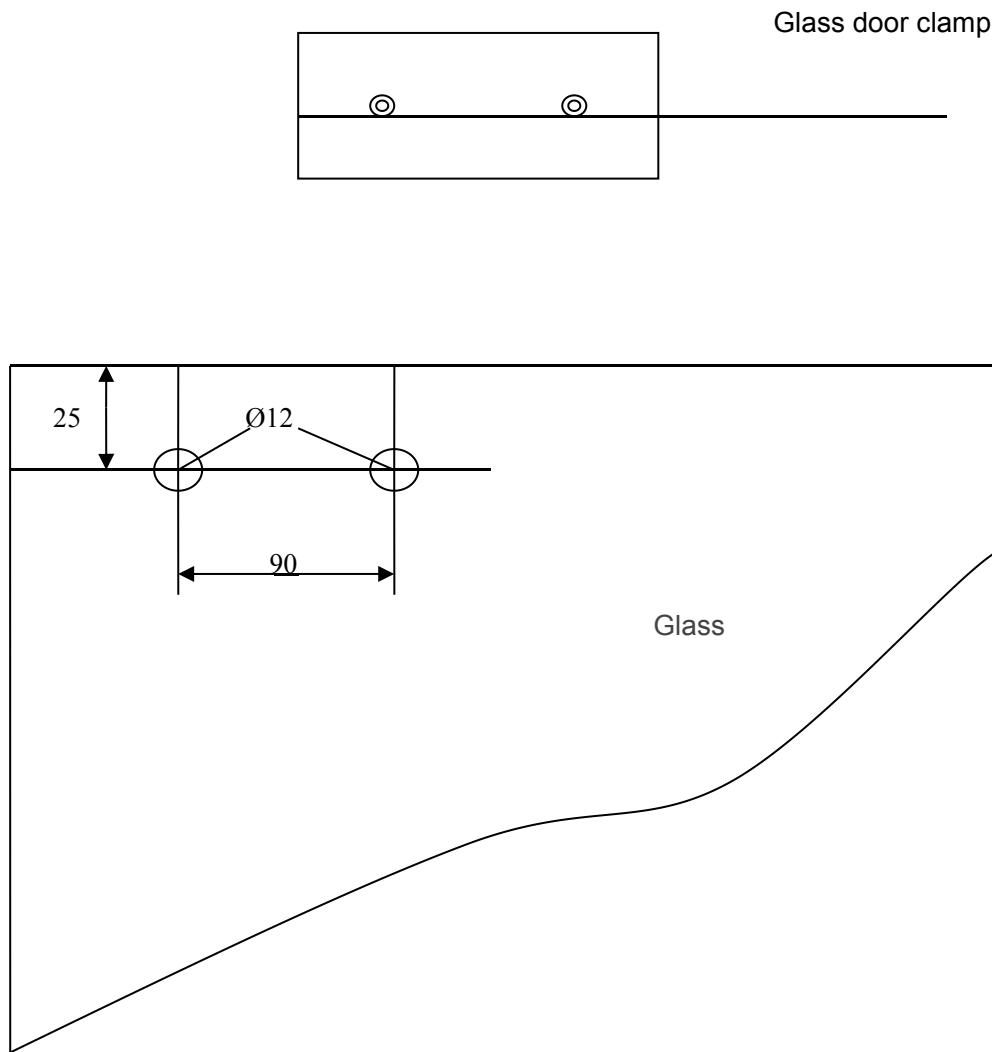
18. List for setting items

Mode	Function	Function description	Setting range	Initial value	Unit
00	Detection speed	Speed in case of the initial detection	10 to 30	15	Class
01	Door opening fast speed	Set door opening speed	25 to 99	70	Class
02	Door closing fast speed	Set door closing speed	25 to 99	50	Class
03	Door opening low speed	Set door opening low speed	05 to 25	13	Class
04	关门慢速速度 Door closing low speed	Set door closing low speed	05 to 25	13	Class
05	Door opening buffer distance	Set door opening buffer distance	10 to 50	25	CM
06	Door closing buffer distance	Set door closing buffer distance	10 to 50	30	CM
07	Detection time when the door is blocked	Set the detection time when the door is blocked	01 to 03	01	Class
08	Automatic pressurization	Set the status of the action when the door is closed	00 to 01	01	-
09	Door opening time	Set the residence time after the door is opened	01 to 09	01	Second
10	Emergency operation	Set the state of the door in case of the emergency	0. stationary 1. open 2. close	01	-
11	Safety function	Set the operation when people is caught in the door body	0.stop	reversal	-
12	Half-open door position	Set the position when the door is in the half-open state	20 to 90%	60	-

19. Abnormal running situation and disposal method

No.	Abnormal situation	Reason and produced position	Disposal method
1.	The door does not move after powering on, slowly move or move in the short distance	1. Poor plug-in contact 2. The detection speed is set too small 3. The mechanical resistance is too large 4. The control device is failed	1. Check if the power indicator light is on, the plug-in is good contact 2. Increase the 00th value 3. Check if all mechanical parts are rubbed 4. Replace the control device
2.	The door does not move after the movement is detected once	1. Whether the sensor wiring is wrong 2. Whether the sensor connecting wire is good contact and whether it is broken 3. Whether the sensor indicator light is on and acts 4. The control device is failed	1. Carefully check the corresponding terminal blocks 2. Check one by one line whether it is connected and it is good contact 3. Replace the control device
3.	The speed is too slow when the door is opened and closed	1. The speed parameter value of the door opening and closing is set too small 2. Too much walking resistance 3. Belt is loose, the tension is not enough	1. It is set to increase the value of 01 and 02 2. Turn off the power, move the door body to carefully check whether there are the obstacles on the various parts 3. Adjust the belt tension
4.	The door is normally opened and is not closed	1. The left and right belt connectors are wrongly installed 2. The remote control switch is in the normally open mode 3. The sensor is failed 4. The control device is failed	1. Replace the left and right belt connectors (left--high and right--low) 2. Press B button on the remote control 3. If the sensor signal indicator is normally on 4. Replace the control device
5.	Door is automatically opened and closed	1. There is the interfering substance in the sensor's detection area 2. The door body is in the sensor's detection area 3. The sensitivity of the sensor is too high 4. The buffer speed parameter is set too small	1. Remove the interfering substances 2. Adjust the sensitivity of the sensor and detection angle 3. Adjust the 03 and 04 items so that the door can be smoothly opened and closed
6.	Door body is severely collided	1. The parameter is set unreasonably 2. The control device is failed	1. Change the location of the door stop and increase the buffer distance of the door closing, reduce the door closing speed

20. Glass door clamp installation instructions for automatic door



Installation Methods:

1. Glass is drilled in accordance with the dimensions shown in Figure
2. The plastic sleeve is installed in the glass hole
3. The glass clamp is installed along the glass at the side of the glass
4. The M6 screw is tightened with the hex wrench, and then the other end of the screw is tightened with the locking nut
5. After the glass clamp is installed, M8 screw, spring cushion and flat pad used for the hanging bracket and glass clamp are connected
6. Note that the screws and nuts must be tightened during the installation.

**21. Control device used to control the running process of the door body
(starting from the door leaf's half open position)**

