

Installation Guide

Version E-06

OA

**300kg Heavy Duty
Automatic Sliding Door Opener**



LOHAS A HOUSE

A3

General Safety Regulations

1. CAUTION! It's important for personal safety to follow all the instructions carefully. Incorrect instruction or misuse of the product may cause people serious harm or damage the equipment.
2. The power supply voltage should be suitable for the demand of the motor and earthing well
3. Before wiring, switch off the electricity supply first.
4. Do regular inspections to make sure the equipment work normally.
5. Do not make any alteration to any components, or it may damage the equipment.
6. We are not responsible for the man-made mistakes during operation or out of limit operation
7. We're not responsible for the safety problem or devices don't work caused by the components which not produced by our factory.
8. Do not allow children or other persons to stand near the gate during installation.
9. The user must refrain from attempting to repair or adjust systems personally and should contact qualified person only.
10. Keep the installation in a safe place for future reference.

Components

- ① A3 Motor X 1
- ② A3 Controller X 1
- ③ Hanging wheel set X 4 (Dual leaves) / X 2 (Single leaf)
- ④ Rear wheel bracket X 1
- ⑤ Positioning block X 2
- ⑥ Belt connection Device (upper & lower) X 1
- ⑦ Tooth belt X 7.5m (Dual Leaves) / X 4.5m (Single Leaf)
- ⑧ 2.1m Aluminum Case X 2 (Dual leaves) / X 1 (Single leaf)
- ⑨ Installation guide
- ⑩ Sensor (Optional)
- ⑪ Glass holder with Anti-sway device (Optional)

Mechanical Installation

1. Features

1. Input voltage AC110V ~ 240V
2. DC24V Brushless Motor - Silent operation
3. Microprocessor controller, Easy settings and adjustments
4. Safety stop when meet obstacles during opening
5. Auto reverse when meet obstacles during closing
6. Adjustable Opening /Closing speed and distance
7. Adjustable Auto close delay time
8. During power failure, doors can be opened manually
9. High-strength aluminum alloy rail track
10. During power failure, the backup batteries can be option for continuous operation
11. Functional switch function: Auto, Open, One Way, Lock, Half Open
12. Optional 2 button remote control: Open/Close & Lock

2. Technical Specifications

■ Electrical

Input Voltage	AC110V~AC240V
Operating Voltage	DC 24V
Electronic Controller	Microprocessor Controller/ Dimension: 400*55*50 mm
Motor	DC24V Brushless Motor/ Dimension: 280*100*90 mm
Safety Detection	Automatic stop/ reverse during opening or closing
Optional Devices	Microwave Sensor/ Keypad/ Backup Battery/ Functional Switch/ Remote Control/ Magnetic Lock/ etc.

■ Mechanical

Model Number	A3-S/ Single leaf	A3-D/ Double leaves
Door Weight	280kg/ Single leaf	300kg/ 2 leaves
Door Width	700~1700mm	650~1600mm
Maximum Noise	Below 55dB	
Railing Type	High Strength Aluminum Alloy Rail	
Fixed Pulley	Available for easy installation	
Working Temperature	-25°C~+55°C	

Installation Process

1. 1 Confirm the motor, controller and components
1. 2 Confirm the installation method and position of aluminum case
1. 3 Confirm the aluminum case height and horizontal position

2. 1 Cut and fix aluminum rail on the wall or mounted position
2. 2 Measure the glass door based on the height of aluminum case
2. 3 Confirm the dimension of fixed and moving glass leaf before tempered glasses

3. 1 Install the motor / controller / rear wheel bracket / positioning block

4. 1 Fix the 2 fixed leaves under the joist steel
4. 2 Fix the glass holders on the movable leaves
4. 3 Connect the hanging wheel set and glass holder with the movable leaves
4. 4 Fix the screw between the hanging wheel sets and glass holders
4. 5 Loosen the stopper of the hanging wheel

- 5.1 Fix the glass door with hanging wheel sets on the aluminum rail
- 5.2 Repeat step 4.2~4.5 if dual leaves
- 5.3 Adjust the centre, interval distance and height of the door leaf.
- 5.4 Assemble and screw the stopper of hanging wheel set
- 5.5 Adjust and fix the position of positioning blocks
- 5.6 Fix the anti-sway device on the ground

- 6.1 Adjust the length of the tooth belt
- 6.2 Install the tooth belt
- 6.3 Adjust the tension of the tooth belt by adjusting rear wheel bracket

- 7.1 Wiring the motor and controller
- 7.2 Batteries Installation (back-up power)
- 7.3 Wiring the power supply and optional devices
- 7.4 Adjust the parameters of the controller

Confirm the height and horizontal position of the rail

Cut and fix the aluminum rail

Put the motor , controller rear wheel bracket positioning block in right position

Fix and assemble the hanging wheel set glass holder and glass as one part

Fix the hanging wheel with glass holder into the aluminum case and adjust the door position

Tooth belt Adjustment

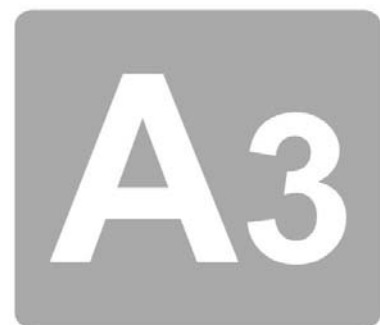
Wiring and Adjustment

-
1. 1 Confirm the motor, controller and components
 1. 2 Confirm the installation method and position of aluminum case
 1. 3 Confirm the aluminum case height and horizontal position

Confirm the height and horizontal position of the rail

Necessary Tools for Installation

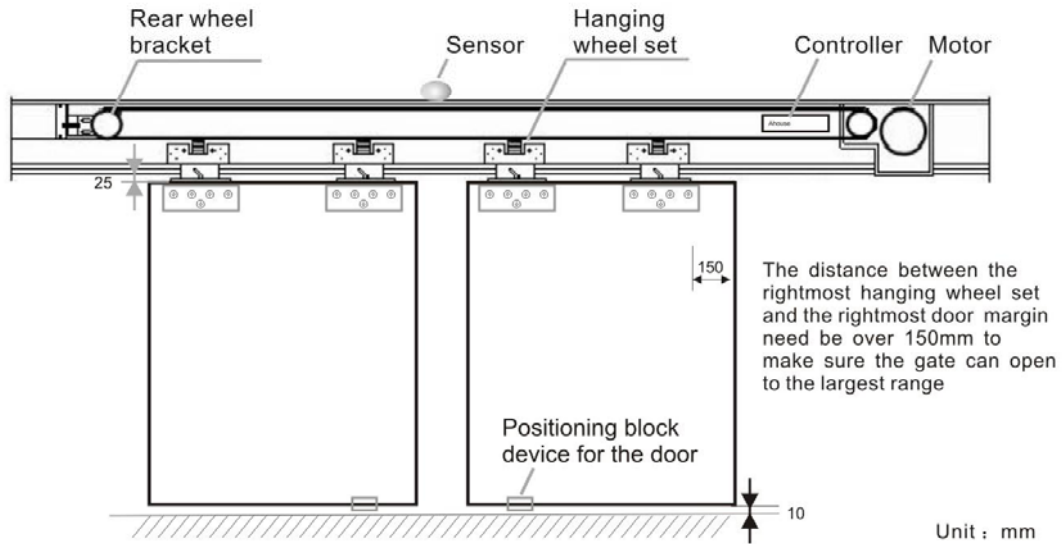
- ① Measuring tape X 1
- ② Spirit level X 1
- ③ Adjustable wrench X 1
- ④ 6# Allen wrench X 1
- ⑤ Cross screw driver X 1
- ⑥ Small flat head screwdriver X 1
- ⑦ Electric hand drill X 1
- ⑧ Percussion drill X 1
- ⑨ Sander X 1
- ⑩ Self-tapping screw X 8
- ⑪ Ladder X 1



Automatic Door

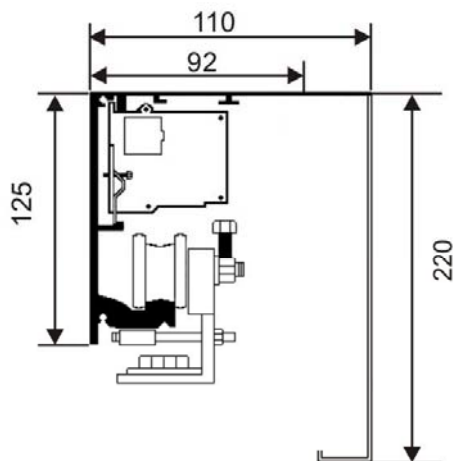
2. 1 Cut and fix aluminum rail on the wall or mounted position
2. 2 Measure the glass door based on the height of aluminum case
2. 3 Confirm the dimension of fixed and moving glass leaf before tempered glasses

Cut and fix the aluminum rail

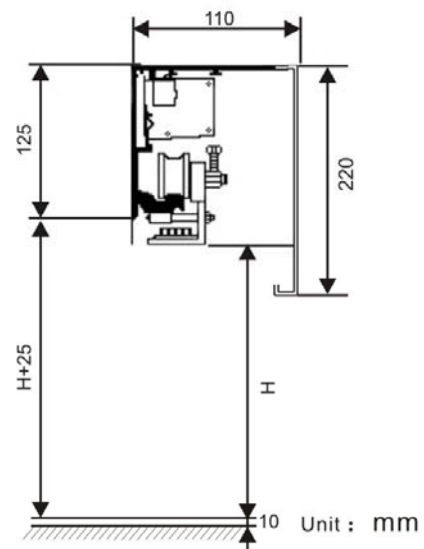


*The fixed door leaf should be wider than movable door leaf.
The best interval space between the leaves is 3~10cm

Side View of Aluminum Case

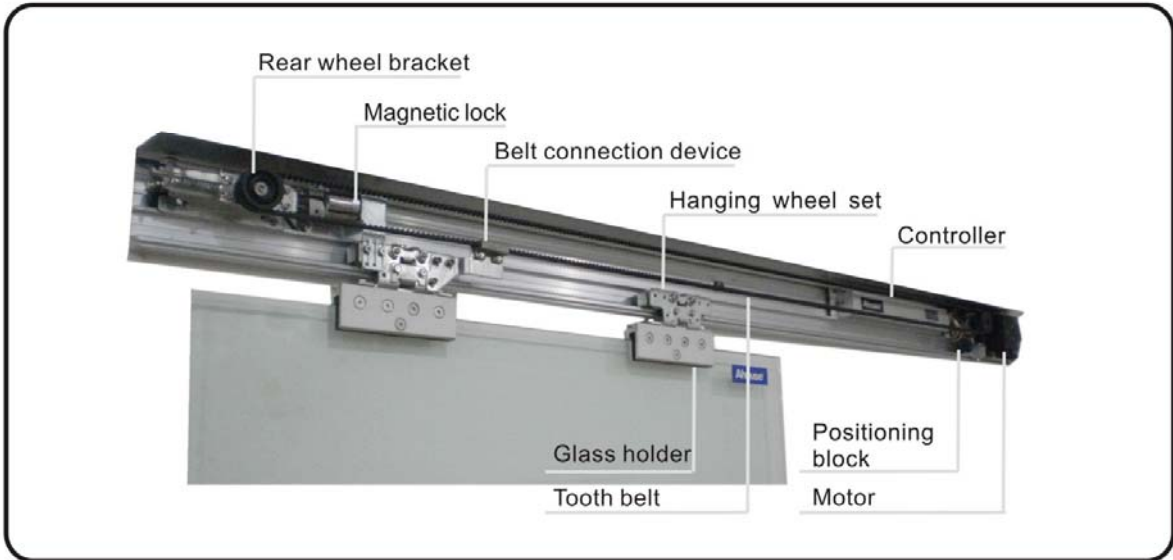


Height dimension of Aluminum Case



3. 1 Install the motor / controller / rear wheel bracket / positioning block

Put the motor , controller rear wheel bracket positioning block in right position



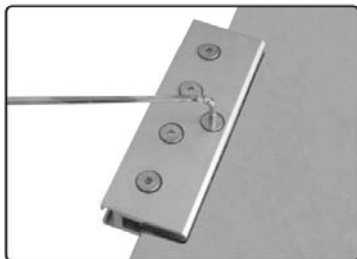
* Installation position for positioning block :

- If dual sliding, one installed in the middle of the rail for fixing position when closing the two doors, the other install beside the motor for fixing position when opening.
- If single sliding, install the blocks on both sides of the movable door leaf.

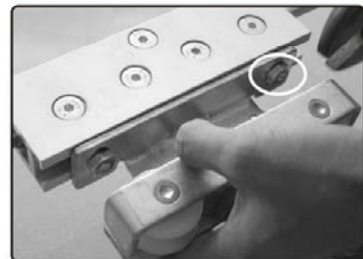
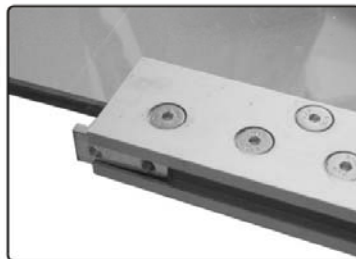
4. 1 Fix the 2 fixed door leaves under the joist steel
4. 2 Fix the glass holder on the movable door leaves
4. 3 Connect the hanging wheel set and glass holder with the movable door leaves
4. 4 Fix the screw between the hanging wheel sets and glass holders
4. 5 Loosen the stopper of the hanging wheel

Fix and assemble the hanging wheel set glass holder and glass as one part

- * 4. 1 Make sure to fix the fixed door leaves steadily. Then get it as close as possible with the joist frame profile in order to reduce the interval space between the fixed and movable doors to obtain the best installation result.



4. 2



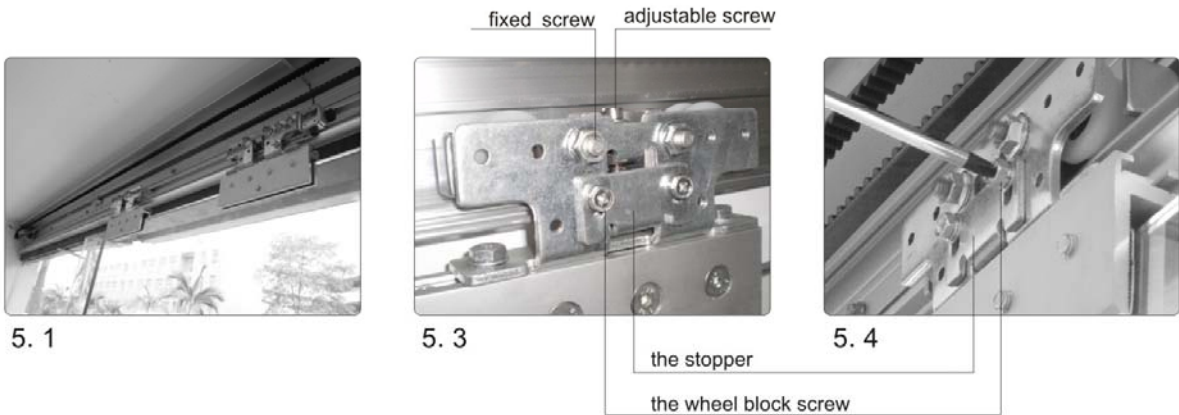
4. 3 / 4. 4

- 5.1 Fix the glass door with hanging wheel sets on the aluminum rail
- 5.2 Repeat step 4.2~4.5 if dual leaves
- 5.3 Adjust the centre, interval distance and height of the door leaf.

Fix the hanging wheel with glass holder into the aluminum case and adjust the door position

* If needed to adjust height or interval distance of the door, firstly is to loosen the "Fixed Screw", then rotate and adjust "Adjustable Screw" of the hanging wheel set
 After adjustment, wrench tightly the "Fixed Screw" of the hanging wheel set

- 5.4 Assemble and screw the stopper of hanging wheel set
- * After confirmed the position of the door leaf, move the door leaves to the interval distance between the "Block Screw" and rail, make sure the distance is 0.5~1mm. If not, Adjust the "Block Screw"
- 5.5 Adjust and fix the position of positioning blocks
- 5.6 Fix the anti-sway device on the ground



Positioning block



5.5 Use wrench to tight the positioning block



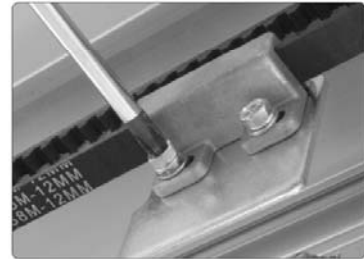
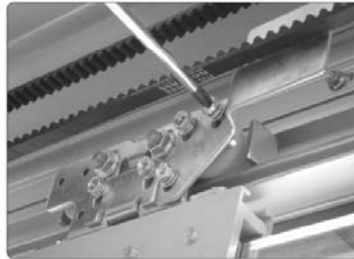
5.6 Fix the anti-sway device on the ground

- 6.1 Adjust the length of the tooth belt
- 6.2 Install the tooth belt
- 6.3 Adjust the tension of the tooth belt by adjusting rear wheel bracket

Tooth belt Adjustment



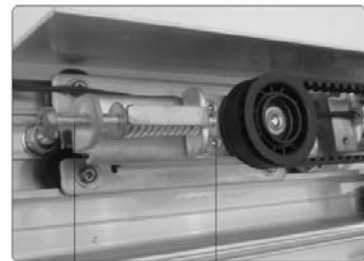
6.2



*According to the upper-left and lower-right position principle during installation the tooth of belt

You can adjust tension of the tooth belt from the "Tooth Belt Adjustable Screw". After adjustment, remember to wrench tightly the "Adjustable Screw" of the rear wheel bracket

*Make just right during wrench tight tooth belt. Too tight or too loose will damage the belt, will also increase the noise during operation



6.3

Tooth belt adjustable screw

The rear wheel seat adjustable screw

- 7.1 Wiring the motor and controller
- 7.2 Batteries Installation (back-up power)
- 7.3 Wiring the power supply and optional devices
- 7.4 Adjust the parameters of the controller

Wiring and Adjustment

Wring

7.1 Wiring the motor and controller



* TO Protect against fire and electrocution:
DISCONNECT power BEFORE installing or servicing operator

7.2 Bateria Installation (back-up power)



7.3 Wiring the power supply and optional devices



A3 Wiring Diagram

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Description	0V	+15V	Open	0V	+24V	Open	+24V	Open		COM	0V	Open	Half Open	signal (off)

Keypad	•	•	•											
Sensor Beam				•	•	•								
Wireless Touch Switch				•	•	•								
Microwave Sensor I / II				•	•	•								
Microwave Sensor II With Remote Control/ Functional Switch							•	•	•		•			
Functional Switch							•			•	•	•	•	•

Item	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Description	0V	+24V	0V	Open/ Stop/ Close	Signal (off)	0V	OUT	+24V	0V	+24V	+24V		Open/ Stop/ Close	0V

Remote Control	•	•	•	•	•	•								
Magnetic Lock							•	•						
Backup Battery									•	•				
Push Button													•	•

7.4 Adjust the parameters of the controller

Function Debug Form

ITEM	Description	Setting Range	Factory Defect Setting
0	Overload detection	0--60	Defect setting : 25 small number, more sensitive
1	Braking force for gate closing with fast speed movement when overload or sensed	0-30	Default Setting : 0
2	Gate opening speed	0--60	Default Setting : 20
3	Gate opening with slow speed	0--60	Default Setting : 25
4	Gate closing speed	0--60	Default Setting : 20
5	Gate closing with slow speed	0--60	Default Setting : 25
6	Moving force for slow speed movement	0--99	Default Setting : 38
7	Automatic closing delay time after opening	0--99	Default Setting : 35 (0-99)=Delay time 0-99 seconds automatic closing after opening
8	Direction of motor movement (when make wrong connection of +/- main power, you can make it reverse by this setting)	0--1	Door opening direction
A	Impact force adjustment after full door closed	0--60	Default Setting : 28
B	The interval distance between the two movable leaves	0--99	Default Setting : 32
C	System allocate speed for low speed and fast speed movement during learning mode when power on	0--60	Default Setting : 35
D	Electric lock parameter	0--1	Default Setting : 0 0=without electric lock 1=with electric lock
E	Software version		
F	Restore default setting		Default Setting : 0 09=restore factory settings

1. Setting Mode:

Press and hold the "FUN+" button on the controller around 2 seconds, then start to set parameters.

Press and hold the "DATA+, DATA-" button to set the parameter value, then press "ENTER" to confirm.

2. Exit Setting Mode:

Press and hold "EXIT" button around 2 seconds to exit the setting mode.

3. Testing:

After setting, press "TEST" to test the parameter values.



Optional parts for automatic door



Microwave Sensor



Glass Holder



Keypad



Magnetic Lock



Hand Sensor Switch



Push Button



Backup Battery



Functional Switch*



Remote Control *



Pedal Inductive Switch

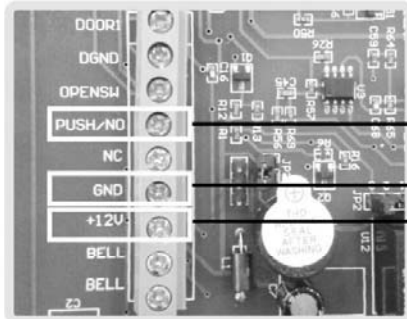


Sensor Beam



Wireless Touch Switch

Wiring for Optional Parts



- Open 3
- 0V 1
- +15V 2



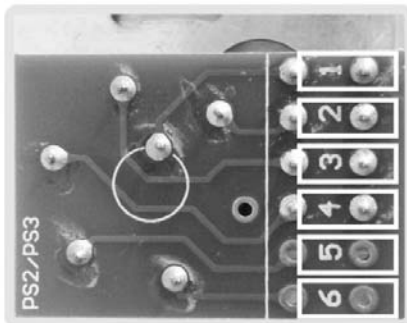
Keypad



- Yellow/ Red (1, 4) wire — 0V 4
 - Red wire (3) — +24V 5
 - Yellow wire (2) — Open 6
- Microwave Sensor II
With Remote Control/ Functional Switch**
- Red wire (3) — +24V 7
 - Yellow wire (2) — Open 8
 - Red wire (4) — 9
 - Yellow wire (1) — 0V 11



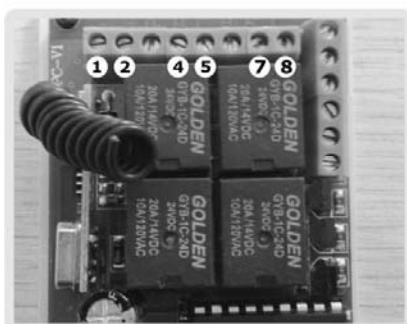
Microwave Sensor



- 0V 11
- Signal (off) 14
- +24V 7
- COM 10
- Half Open 13
- Open 12



Functional Switch



- 1 — 0V 15
- 2 — +24V 16
- 4 — Open/ Stop/ Close 18
- 5 — 0V 17
- 7 — Signal (off) 19
- 8 — 0V 20



Remote Control

