INSTRUCTION MANUAL

Safety Instruction

✓ Please read this instructions carefully before using the door operator. An incorrectly performed installation might cause serious injuries.

⚠ Safety During Mounting

- The working area has to be secured against unauthorised access from other people. Falling items or tools might cause injuries.
- Door operator has to be secured against water and other liquids.
- In any case, the way of mounting and the mounting equipment, like for example screws and wall plugs, have to be adequate with regard to the structural
- Following the successful installation of the system, the settings and the proper function of door operator and the safety equipment have to be checked.
- Only specially qualified staff may open the power supply housing.
- Disconnect the door operator from power supply (de-energise the system) before removing the cover of the power supply housing. Remove mains plug or switch off fuse (with permanent power supply).
- Always pull at the plug and never at the cable when unplugging the power supply.

⚠ Safety During Commissioning

- The protective earth conductor has to be connected.
- The safety sensors are to be connected
- The operator and the active panels are properly linked.
- The end stops are adjusted so that the sliding panels meet the end stops when the system is adjusted to its maximum opening width
- Furthermore the sealing profiles of the active panels and the passive panels must not collide while the door is closed.
- Separately supplied components such as the remote controller,and a ctivators have to be mounted and connected.
- Ensure that the door leaves run smoothly

✓ Before the first commissioning and depending on requirements, however, at least once a year, the door operator has to be inspected by a properly qualified technician and serviced if required.

⚠ Safety in Maintenance

- The system has to be de-energised (disconnected from power supply) before performing any kind of maintenance work
- Remove the power plug or switch off the fuse (with permanent power supply).

⚠ Safety in Care

- The system has to be de-energised (disconnected from power supply) before performing any kind of maintenance work Remove the power plug or switch off the fuse (with permanent power supply).
- You may clean door operator with a damp cloth and standard commerical detergent Don't use scoring agents which may damage the surface finish.
- Ensure there is no water or other liquid drop on or into door operator.
- Never stick a metal object into the opening of door operator otherwise you may sustain an electric shock.

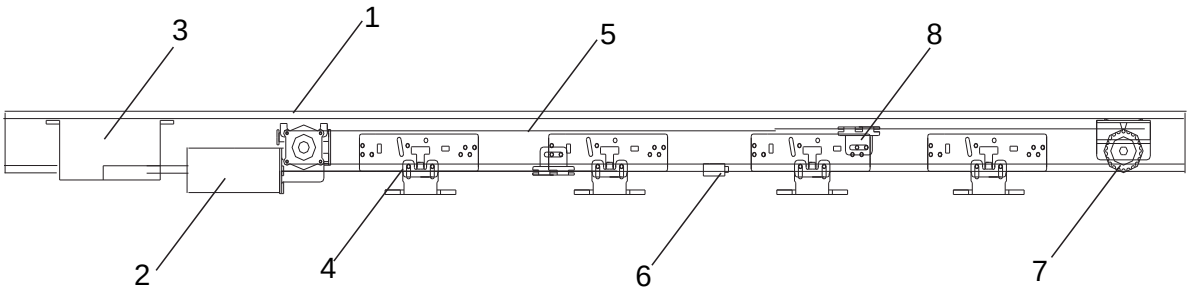
Contents

1. Product parameter

1.1 Technical Data

Parameter		
Open style	Single open	Double open
Installation type	Surface mounting	
Door leaf weight	< 250kgs	< 200kgs x2
Door leaf width	700-3000mm	800-4000mm
Bruthless motor	DC 36V, 85W	
Opening speed	15cm/s - 50cm/s	
Closing speed	10cm/s - 45cm/s	
Hold open time(adjustable)	2-20s	
Impact force	<100N	
Close force	⩾70N	
Power	AC 220V+/-10% , 50/60Hz 10A	
Relative humidity	65%	
Ambient temperature	-20℃-+50℃	

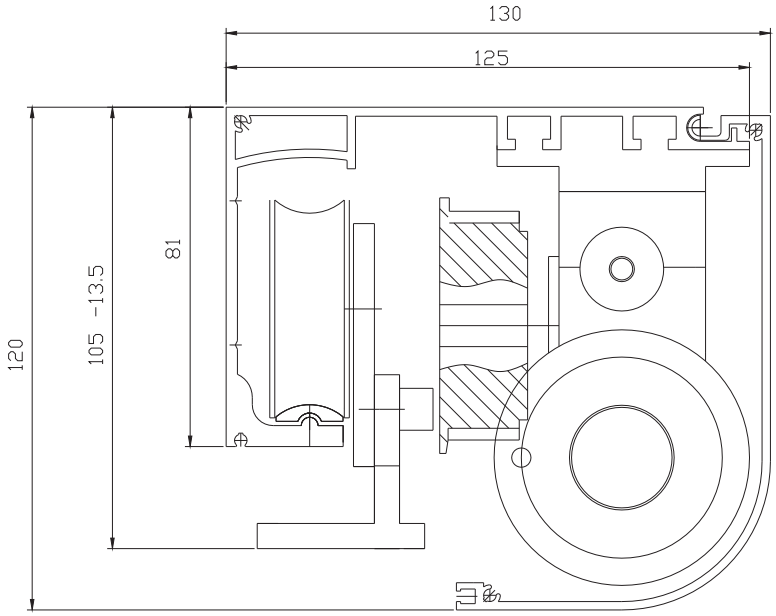
1.2 Assembly Parts



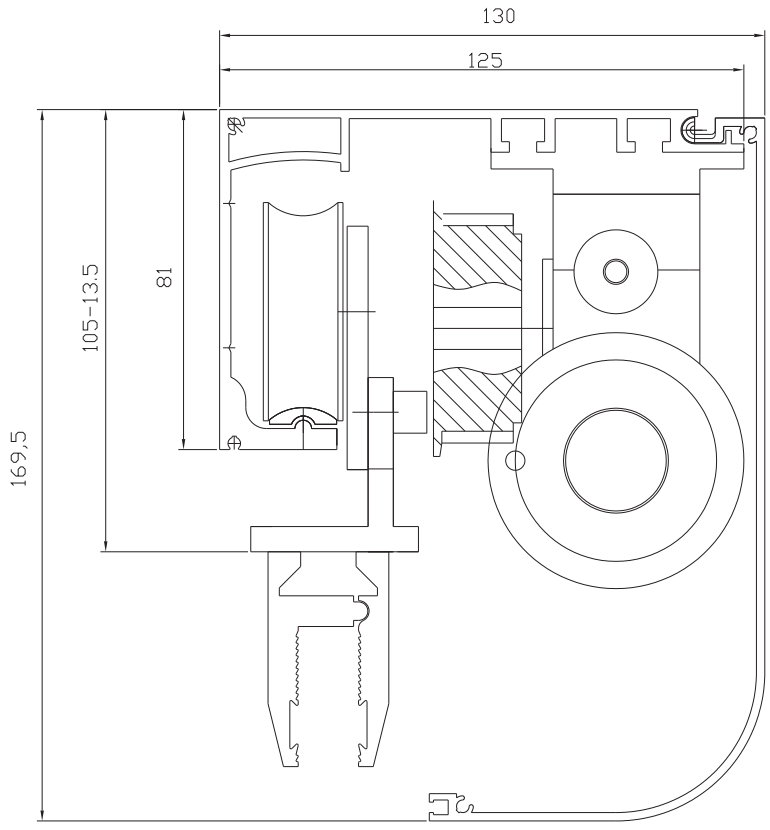
NO	Name	Quantity (pc)
1	Profile	1 (4.2m)
2	Bruthless motor	1
3	Microcntroller	1
4	Carriage	4
5	Toothed belt	1 (7m)
6	Stopper	2
7	Guide roller	1
8	Belt clamping	2

1.3 Sectional View

Aluminum Frame door



Glass Frameless Door



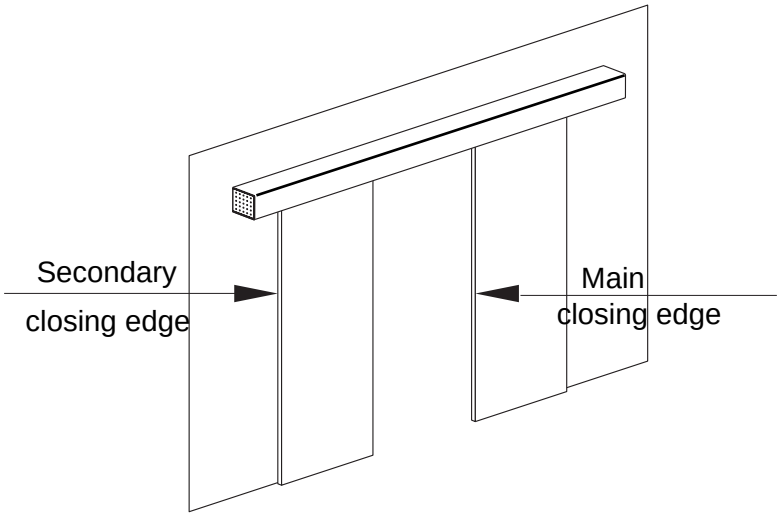
2. Installation

2.1 Preparation

During the planning of the door system, the manufacturer (the person installing the system) and the commissioner/facility operator have to perform an individual risk assessment (together).

Danger spots at closing edge

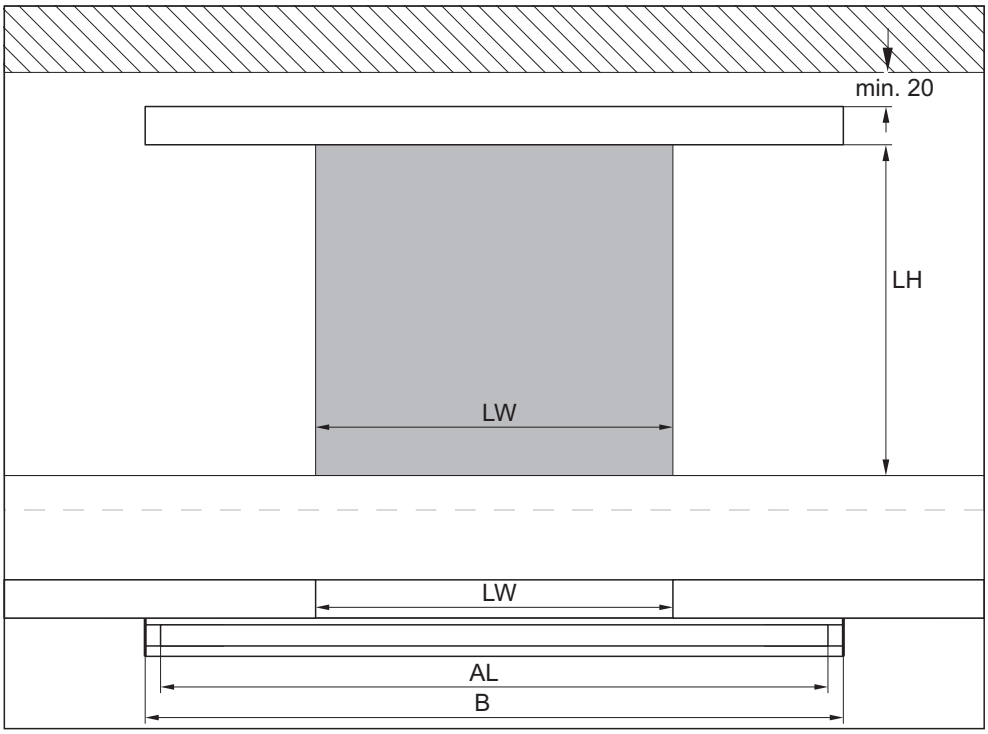
Automatic doors might cause hazards by crushing,shearing, shearing, hitting and drawing-in at the different closing edge



Residual risk

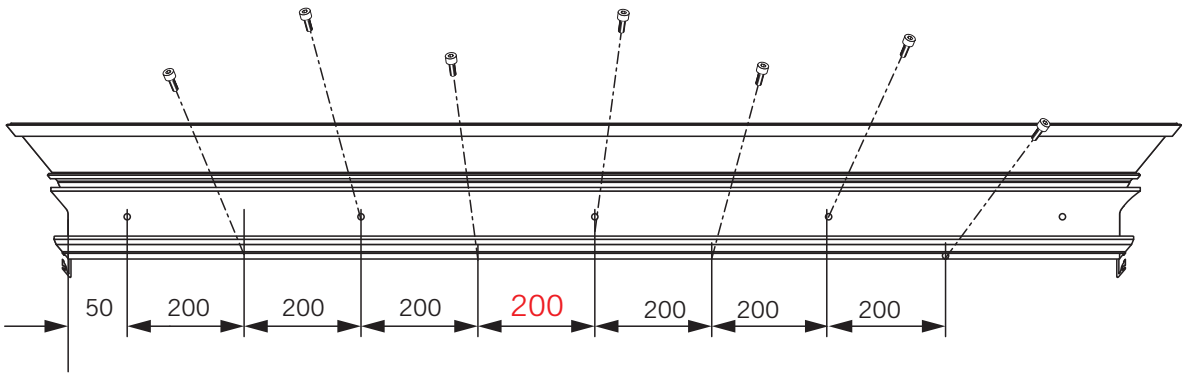
Depending on the structural conditions, the prevailing door version and the available safety equipment, residual risks such as crushing and hitting (with a limited force) cannot be excluded.

2.2 Supporting Profile



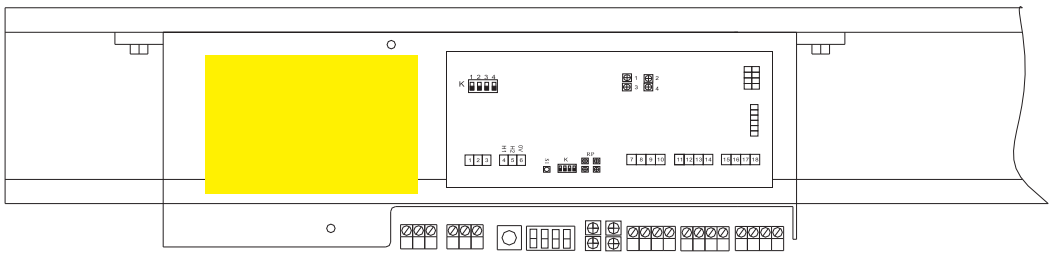
B=LWx2+100

1) Cut the supporting profile as above drawing and measurement.



2) Fix the supporting profile as above drawing show.

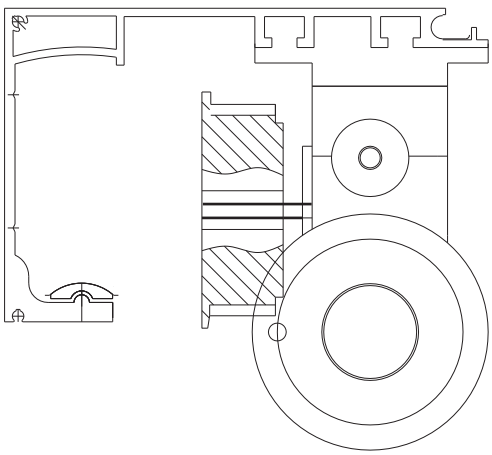
2.3 Microcontroller



1) Insert nuts into suporting profile's U-groove.
2) Move microcontroller to profile's left side and fasten microcontroller with Hex Socket Bolts and schnorr washers to profile.

> Attention,
> Before you install all the assembly parts, you should insert all the nuts into U-groove.

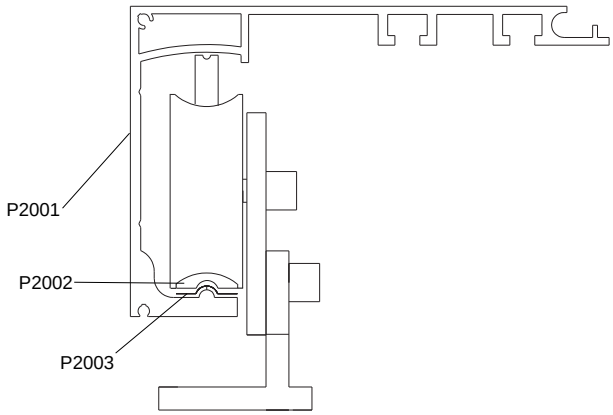
2.4 Bruthless Motor

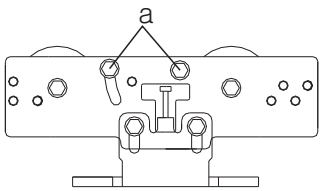


1) Insert nuts into supporting profile's U-groove.
2) Move the bruthless motor to the right position where the motor wire plug can be connected with microcontroller.
3) Connect motor with microcontroller by Hex Socket Bolts

> Attention,
> You should leave a space between motor and microcontroller to install remote controller.

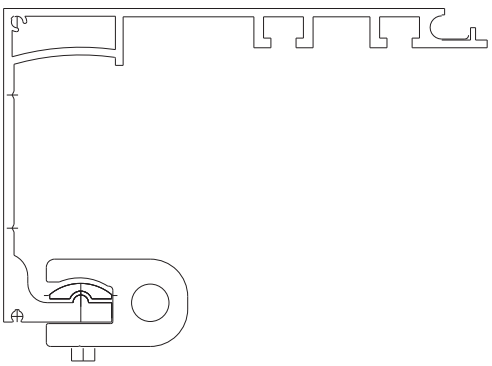
2.5 Guide Profile & Carriage





1) Clean the supporting profile's sliding surface(P2001) carefully.
2) Lay out the rubber damping-washer (P2003) onto the slide surface.
3) Lay out the guide profile (P2002) onto the rubber damping-washer.
4) Loose the adjusting wheel two bolts (a) and insert it laterlly into the guide profile.
5) Adjust the andjusting wheel to make the carriage install vertically.
6) then use finger to push the adjusting wheel upward and fasten the two bolts(a) and make sure it can run smoothly.

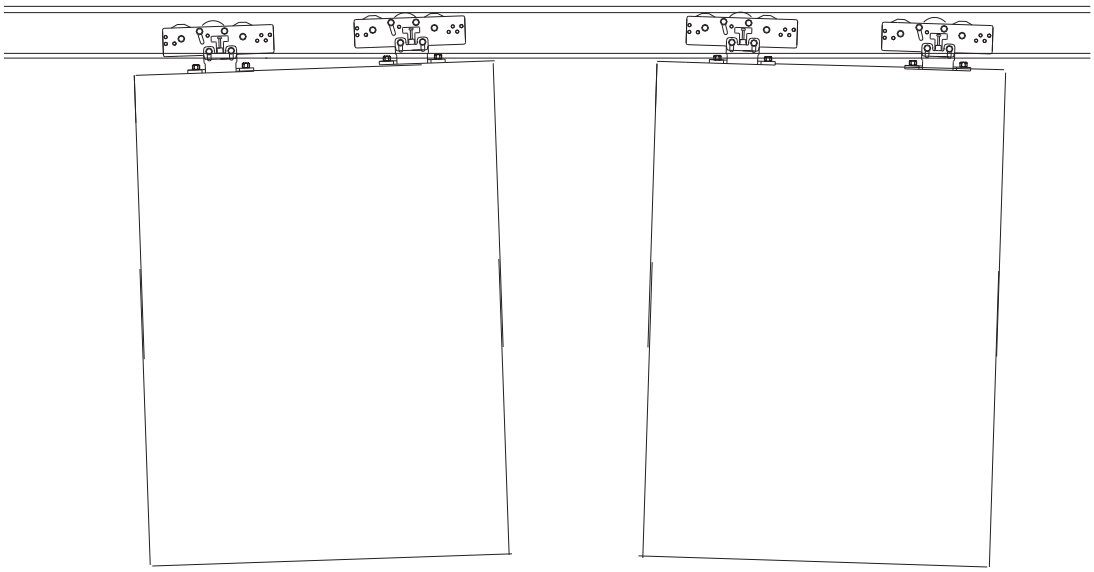
2.6 Stopper

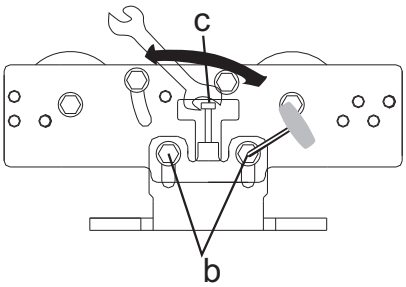


1) Loose the bolts on the stopper and install the stopper on the guide profile.
2) Locate the stopper position by measuring the door full open and closure position.
3) Fasten the bolts to secure the stopper installation.

Attention,
Incorrect installation may cause damage to the door body.

2.7 Door Panels





1) Install the door panels onto carriages like above show.
2) Adjust the door panels after installation.

   If you find the door panels can't install horizontally, adjust the carriage as following.

   a) Loose the two bolts (b) and rotate the screw (c) to adjust the door height, clockwise to ascend, couterclockwise to descend.

   b) Fasten the two bolts (b).

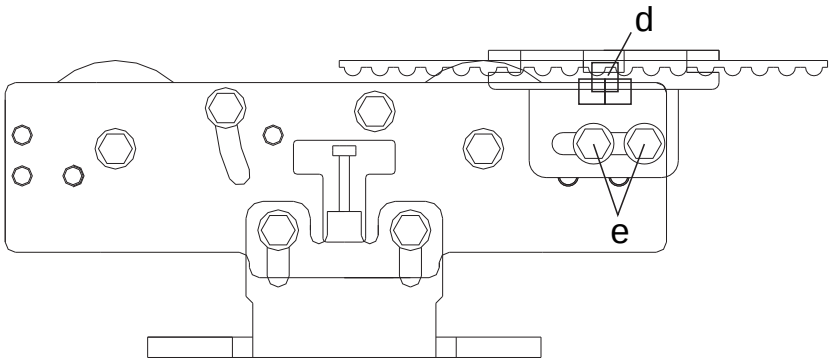
   c) After confirm the gap (about 0.5mm) between adjusting wheel and the interior top of the supporting profile, fasten the adjusting wheel.

   d) Move the door panel with an hand ,make sure it can work smoothly and easily.

Attention,

Make sure the carriages' center line parallel with door panels and they are installed vertically with door panels.

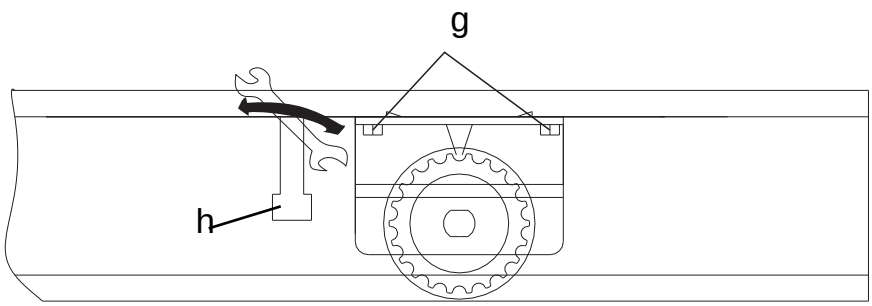
2.8 Toothed Belt & Belt Clamping



1) Remove the bolt (d) and disconnect the belt fixer and belt connecting part.
2) Cut the belt according to your profile length.
3) Insert the two ends of the belt into the center of the belt fixer crosswise.
4) Connect the belt fixer to belt connecting part and fasten bolt (d).
5) Catch the belt to motor wheel and then the guide roller.
6) Secure the belt clamping to the carriages and fasten the two bolts (e).

	Attention, Don't twist the belt when fixing and make sure all the bolt are fasten tightly

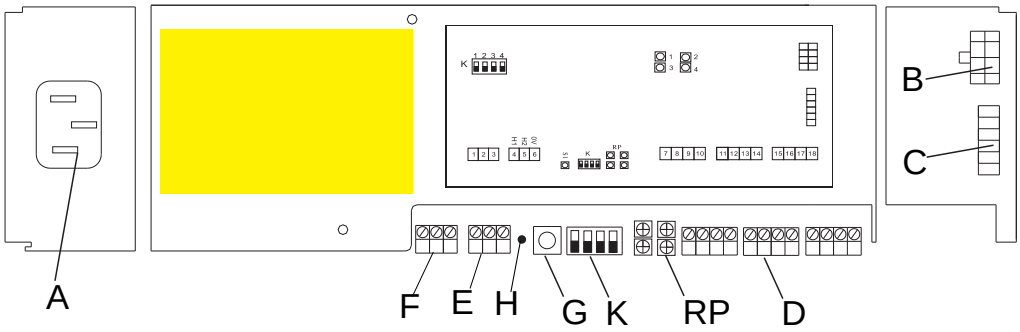
2.9 Guide Roller



1) Push guide roller outward until toothed belt lies flat and tightly.
2) Insert the screw (h) in front of guide roller and fasten it.
3) Use screwdriver,wrench,etc to hold the guide roller until the belt is more tightly, then fasten the two bolts.

3. Control System

3.1 Control Panel



A. Main power terminal

B. Motor terminal

C. Remote controller terminal

D. Inside,outside radar & Light barrier terminal

E. Interlocking terminal

F. Battery & E-lock terminal

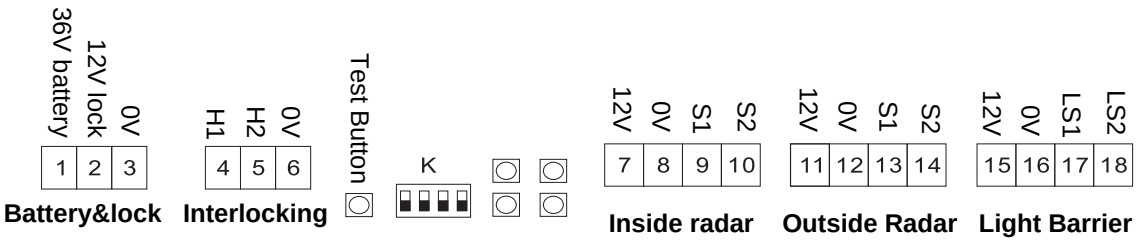
G. Test button

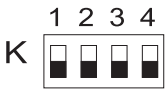
H. Signal indicator light

RP. Working behavior adjustment switch

K. Working position adjustment switch

3.2 Fuction Description



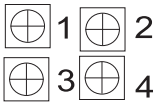


K1: Battery working option switch

K2: Primary or Secondary induction switch

K3: Open direction switch

K4: Door working position when battery initiated



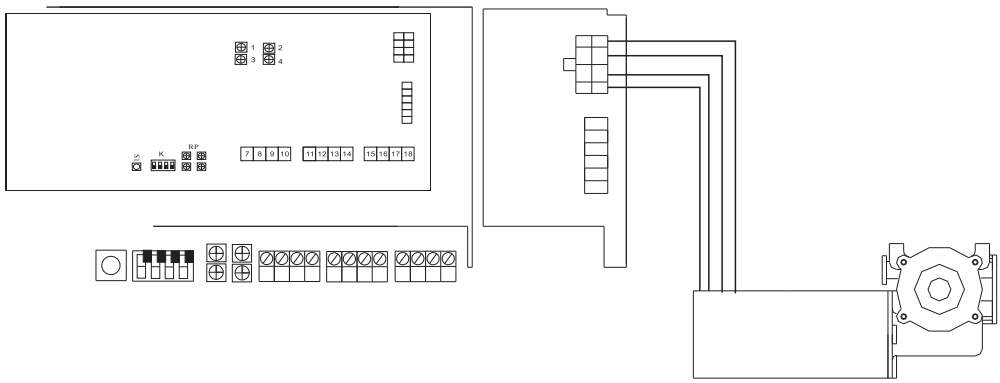
RP1: Opening speed

RP2: Closing speed

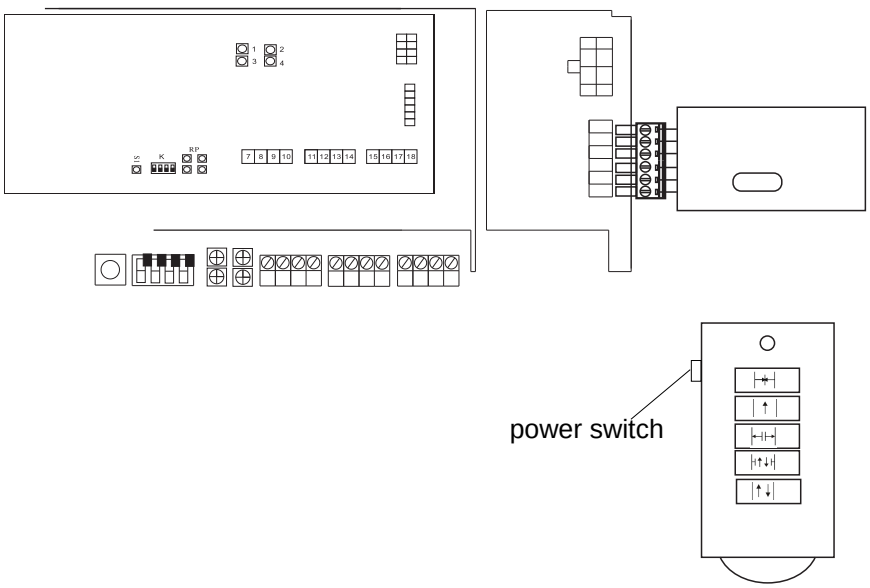
RP3: Hold-open time

RP4: Impact force

3.3 Wire Diagram of Motor



3.4 Wire Diagram of Remote Controller



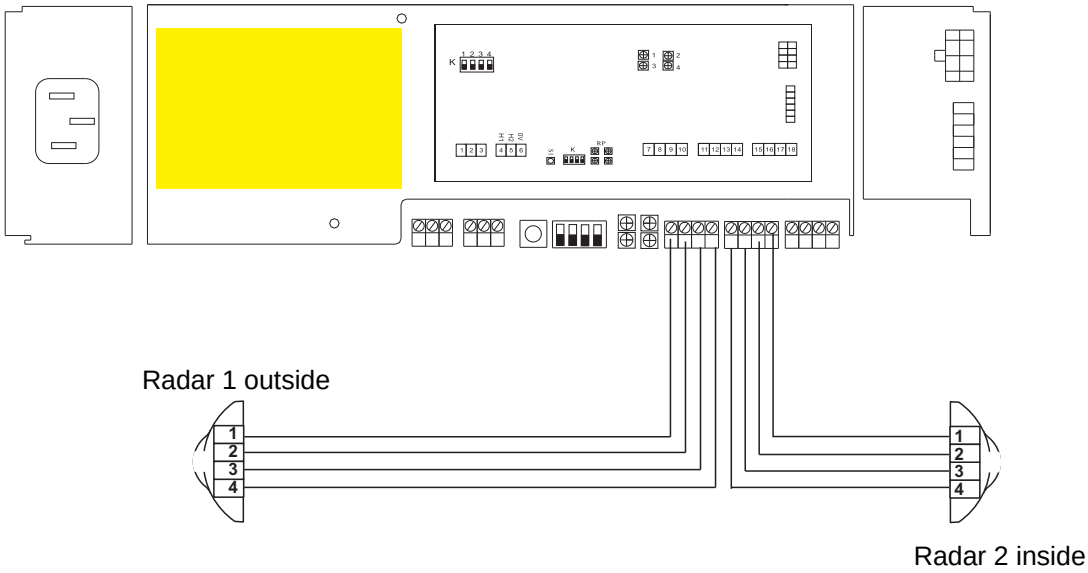
Lock Exit only Permanent Open

Half Open Automatic

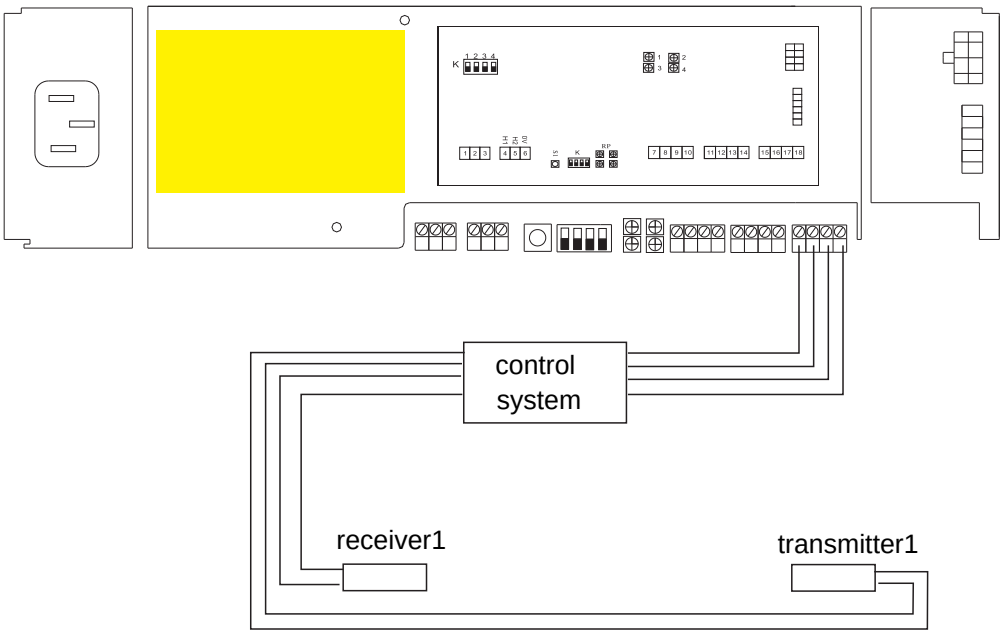
Attention,

All wire connection should be conducted under power off.

3.5 Wire Diagram of Radar



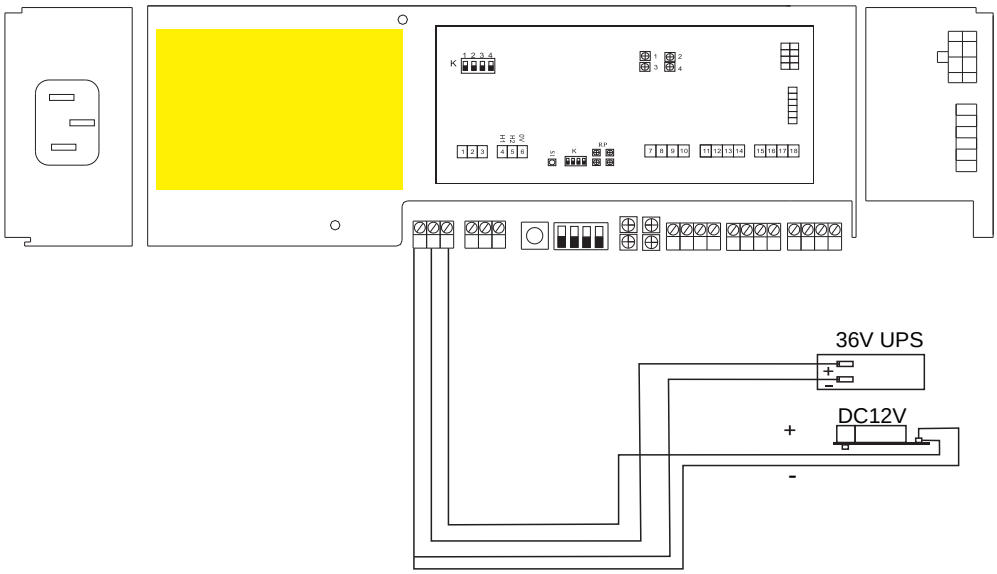
3.6 Wire Diagram of Light Barrier



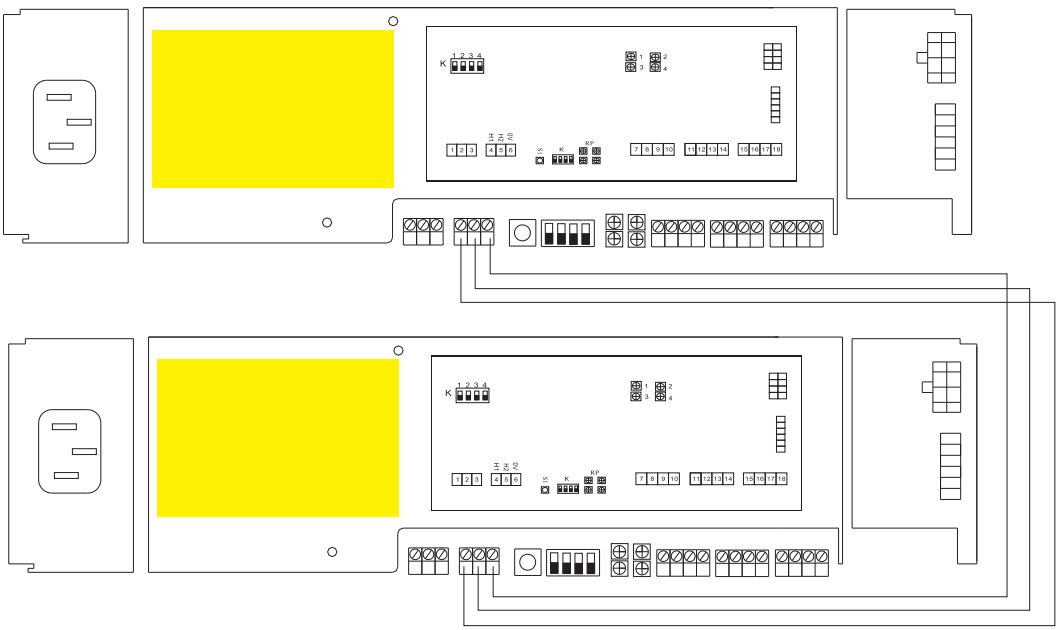
Attention,

The transmitter and reciver should keep in a line when installating.

3.7 Wire Diagram of Electronic Lock

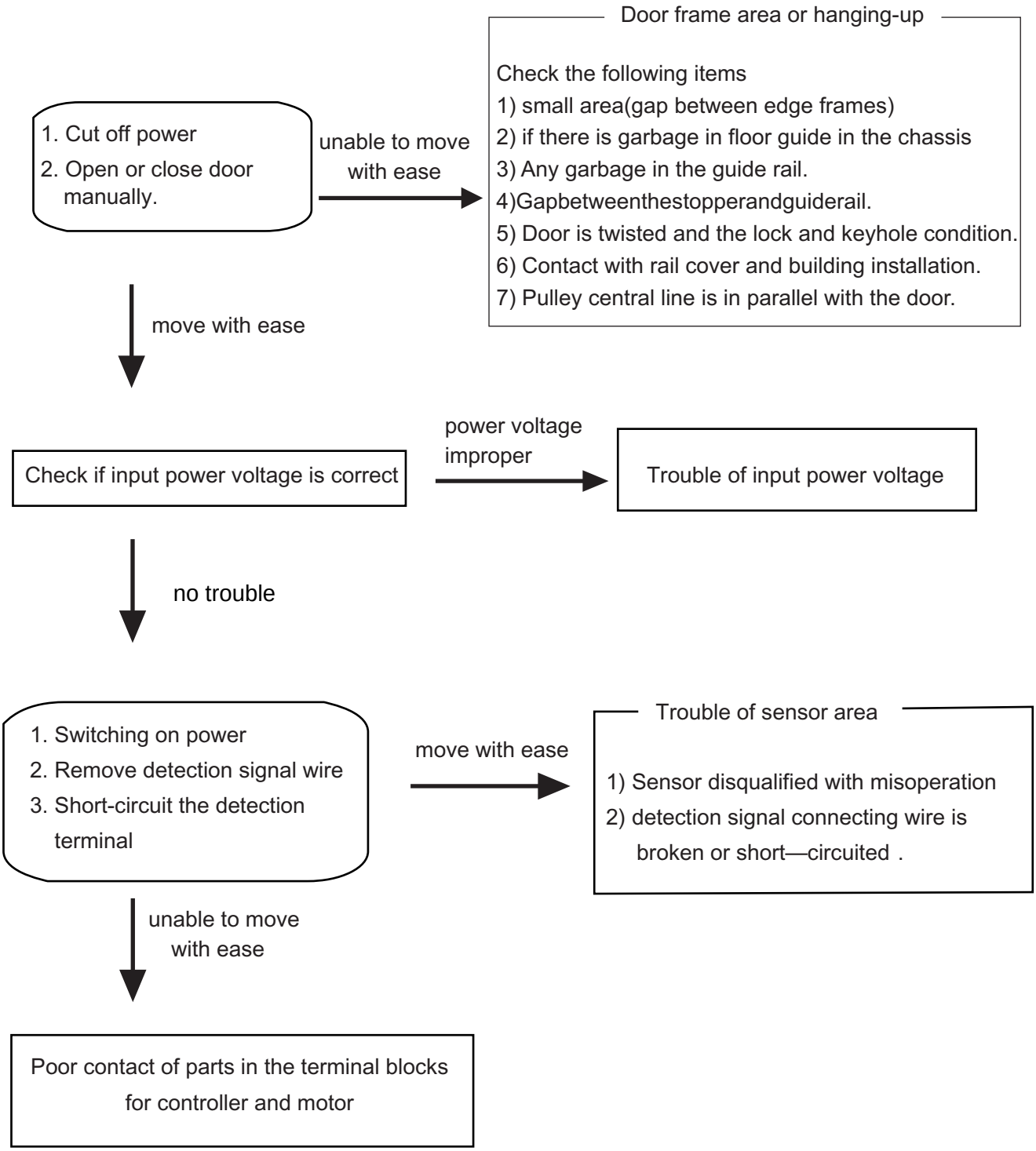


3.8 Wire Diagram of Interlocking



4. Troubleshouting

4.1 If the door don't work any more ,please check it as following.



4.2 If faults arise, during learning or operation. Please check the following points:

1) Have all maintenance intervals been observed/has the maintenance been performed?
2) Have all wear parts been checked and replaced if required?
3) Is the power supply connected?
4) Are the areas monitored by the light barriers are clear and clean?
5) Is the door blocked by an obstruction?
6) Is the door running smoothly (adjusting wheel, floor guides) ?
7) Are all external activators, remote controller, lock, photocell connected corretly ?
8) All connection points checked?

For further assistance, consult the following troubleshouting table.

Malfunctions	Causes	Checking	Remedy
Door moves too slowly or not smoothly	1.Opening/closing speed is too slow 2.Buffer distance value is set too big 3.Somebody ran into the door, or there may be something block inside 4.Too much moving resistance	1.Confirm open-shut speed value 2.Shut the power, push the door and check if there is obstacles hidden inside the alu track	1.Quicken the opening/closing speed 2.Adjust or reset value 3.Close the door for one time 4.Remove the obstacle
Door doesn't move	1.No power 2.Sensor error 3.Door locked 4.Trash in guide rail 5.Bad wire contact and circuit break	1. Check power switch is on or off 2.If the door is locked. 3.Shut the power and pull or push the door to see if the door can move smoothly 4.Check the wire connection	1.Switch on 2.Replace sensor 3.unlock 4.Remove trash or obstacles 5.Re-connect or replace wire
Door doesn't shut	1.Sensor keeps activating constantly 2.Safety photo cell keeps activating the door opener 3.Signal line of the sensor short-circuit	1.Moving object stay in the sensor detecting area, or the sensor is in disorder 2.Check if dust covers on the electric eye, or the two cells not in the line 3.Detach the signal line and check if the door begins to close, if yes…	1. Remove the moving object in sensing area, or replace the sensor 2.Clear dust 3. Correct optical axis 4. Replace the signal line
Door automatically opens and shuts without activation	Improper sensor performance	1.If there is moving object inside the detecting area 2.If there is strong electric wave around the door 3.If the detecting area is overlaped by other sensors 4.If there is fluorescent lamp in detecting area 5.Poor quality sensor	1.Remove the moving object 2.Removing the source what gives out electric wave 3.Adjust the detecting angle of other sensor 4.Remove fluorescent lamp from detecting area 5.Change sensor
Unpleasant operating noise	Screw press against carraige wheel		replace or trim screws

5. Care & Maintenance

The unit must be checked and, if necessary, serviced before it is commissioned for the first time and thereafter as required, but at least once a year by a specialist engineer or by authorised specialist personnel.

Wear parts

The following wear parts must be checked in regular intervals and replaced if required in order to ensure the smooth function of the unit.

1) Carriage: every 2 years
2) Rubber end stops: at every service check
3) Track rail: every 5 years
4) Toothed belt: every 1,000,000 opening/closing cycle
5) Floor guides: at every service check

Only use the original spare parts

Cleaning

During cleaning, the remote control must be set to to PERMANT OPEN in order to avoide inadvertent movements of the door. The whole of the sliding door unit (aluminium, glass, covers) can be cleaned with a damp cloth and normal commercial detergents. The light barriers have to be cleaned with a dry cloth and the floor guide rails must be cleaned.

Behaviour of door system during varying weather conditions

The safety sensors (infrared light curtains) are designed to safeguard the passage area. When it comes to adjusting the sensitivity of the sensors, the protection of people always has top priority. From time to time, changing climatic conditions (such as rain or snow), flying leaves or direct sunlight (reflected by certain floor finishes) may accidentally trigger the sensors. As soon as the light curtains have been triggered, the door may remain open for up to one minute -- as required by a certain standard. This is o nly a standard procedure with the only purpose to protect the users of the door system.

We recommand to conclude a maintenance contract with your supplier.

6. Check up / Briefing

1) Derailment guard/ counter roller adjusted correctly (0.5 mm)?
2) Door panels run smoothly, no grinding noise?
3) Electromechanical locking adjusted correctly (> 1mm)?
4) All shortened wires provided with end splices?
5) All connectors plugged in?
6) All cables fixed / no obstacles within the driving phase?
7) Serial connection with "internal sensor" performed?

Following successful commissioning and functional testing of the unit, the documentation has to be handed over to the facility operator and a briefing has to be made.

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