

# Swing Barrier Manual



Version: V2.0

Note: pictures in the Manual are just for reference, and there will be no further notice if any pictures are changed.

(The second version)

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## 1. Product Introduction

Intelligent swing barrier is a brand-new product of our company. It has features of precise craftsmanship, comprehensive functions and high reliability, which can be applied in high class communities, intelligent buildings, hotels, subway stations, gym and other high level venues. our swing barrier can be integrated with modern intelligent management system to realize the intelligent management of access control.

Swing barrier can be classified into cylindrical swing barrier and bridge-type swing barrier.

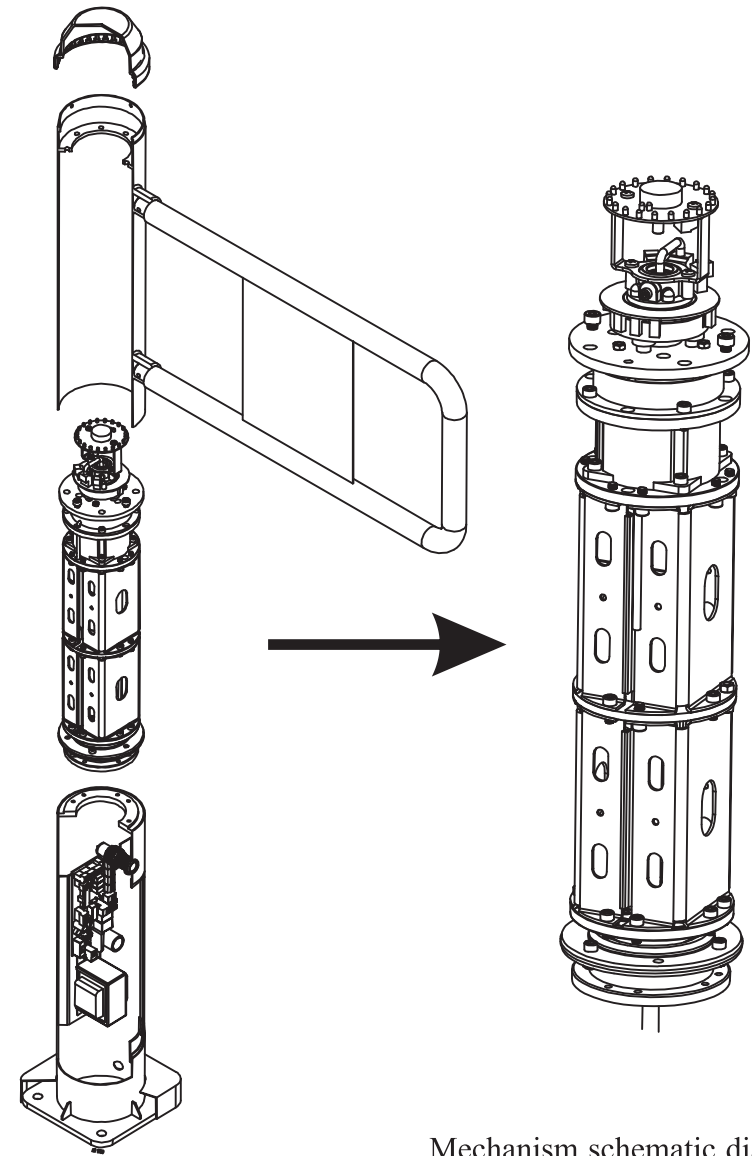
## 2. Features and Functions

- 2.1. A compact electro-mechanical design with unique drive and a self-lock mechanism
- 2.2. Automatic detection for malfunctions
- 2.3. Input interface available for dry contact and switch signal connection
- 2.4. Adjustable auto-delay closing
- 2.5. Infrared photocells for safety access
- 2.6. Alarm for unauthorized access and no access against passenger flow
- 2.7. Anti-reverse passing
- 2.8. Auto-closing when power on
- 2.9. Auto-open and free access when power off
- 2.10. Adjustable access directions
- 2.11. Emergency interface available
- 2.12. Traffic light indicating passenger access

### 3. Specifications

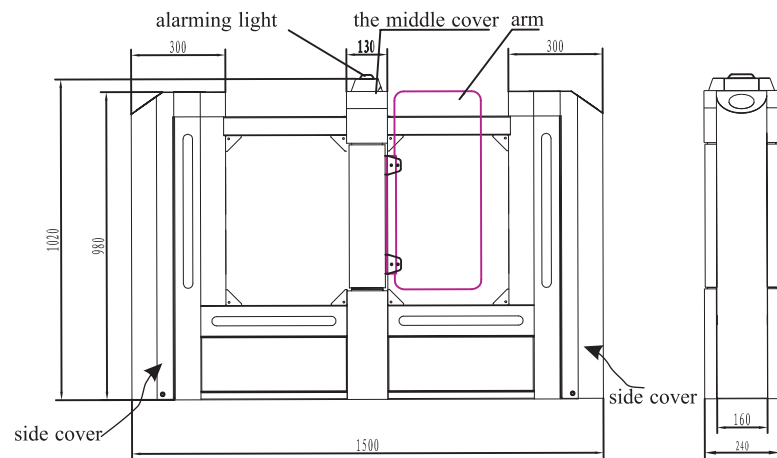
- 3.1. Mechanism dimension:  $\varnothing 108 \times H450\text{mm}$
- 3.2. Arm length: 500~900mm
- 3.3. Motor material: steel and aluminum alloy
- 3.4. Power Supply: 220V $\pm$ 15%, 50~60Hz  
110V $\pm$ 15%, 50~60Hz
- 3.5. Motor type: DC 24V, brush
- 3.6. Dry contact interface
- 3.7. Flow speed: 30~40 people per minute
- 3.8. Opening time: 1s
- 3.9. Time for reset when power on: 3s
- 3.10. Protection grade: Ip32
- 3.11. Working environment: indoor or outdoor with shelter, -25°C~+50°C,  
relative humidity  $\leq 90\%$  without condensation.

### 4. Mechanism and Construction Dimension

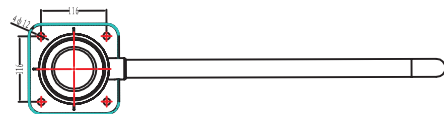
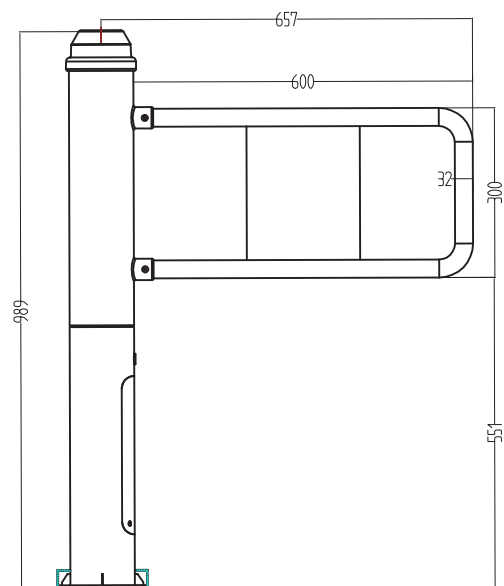
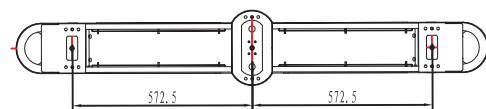


Mechanism schematic diagram

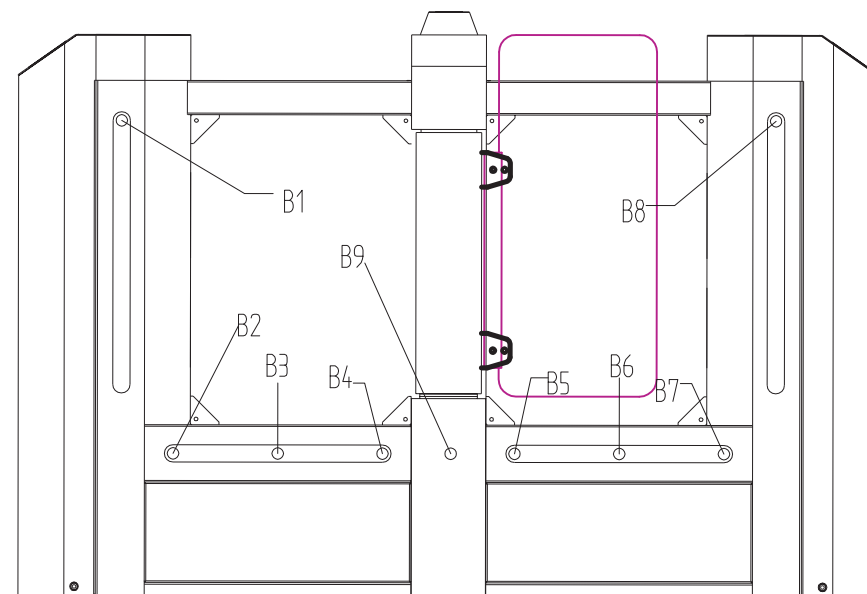
**Attention:** Not all housing types are displayed due to the big variety.



Dimension of fixing holes (3 pieces of M12X120 foundation bolts)



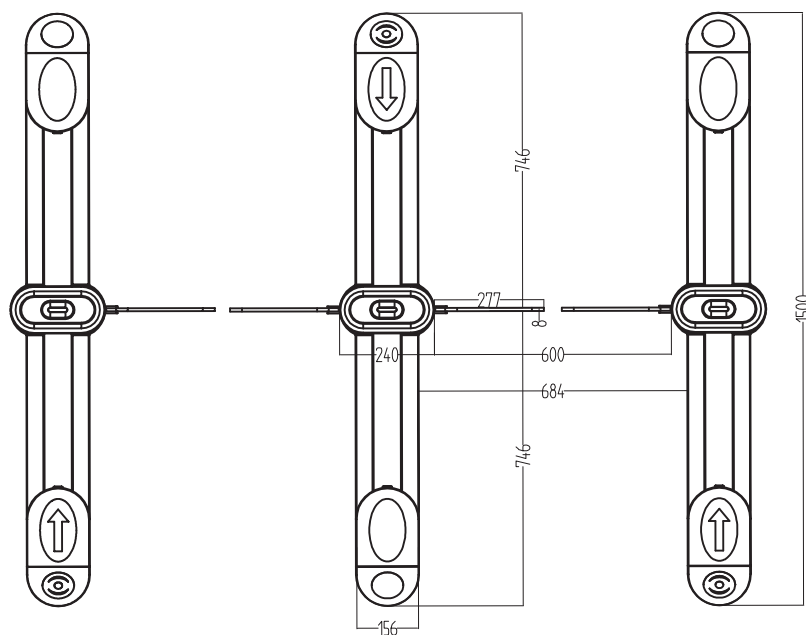
4 pieces of M10x120 foundation bolts



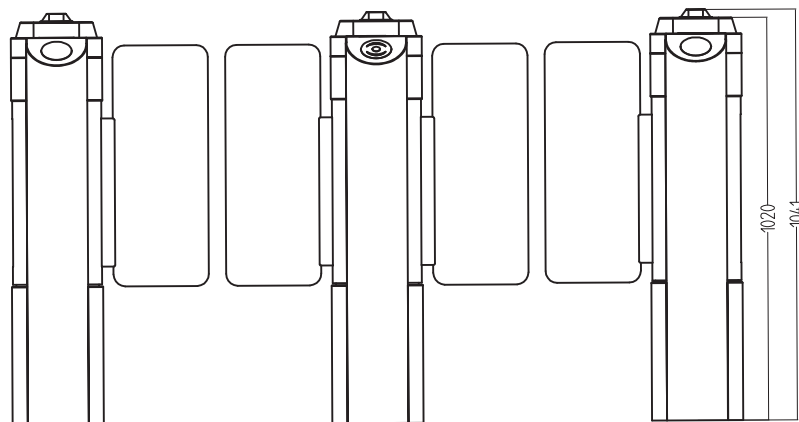
Schematic diagram for barrier housing

- B1= left infrared photocell (high)
- B2= left infrared photocell (low)
- B3=left safety infrared photocell
- B4=left safety infrared photocell
- B5= right safety infrared photocell
- B6= right safety infrared photocell
- B7= right infrared photocell (low)
- B8 right infrared photocell (high)
- B9= middle safety infrared photocell

## 5. Passage Installation Diagram



Schematic diagram for double channels



## 6. Installation and Adjustment Explanation

- 6.1. Preparation Before Adjustment: read the manual carefully and have the equipments ready
- 6.2. Wiring Connection Checking : Connect the wiring according to the wiring diagram and make sure all the wiring is correct.



**Attention: Before connected to the power and adjustment, the product must be ground connected.**

### 6.3. Running with power on

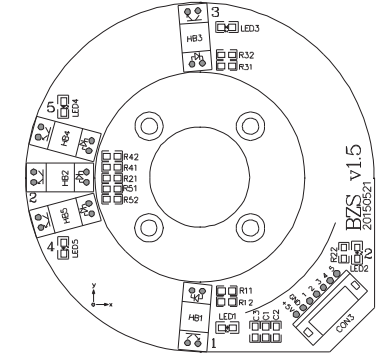
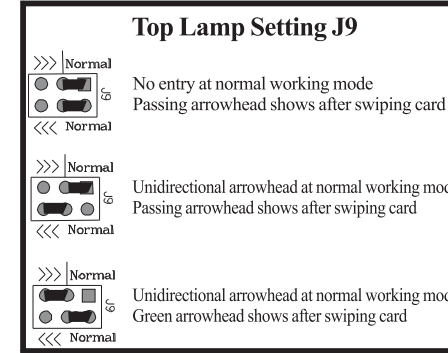
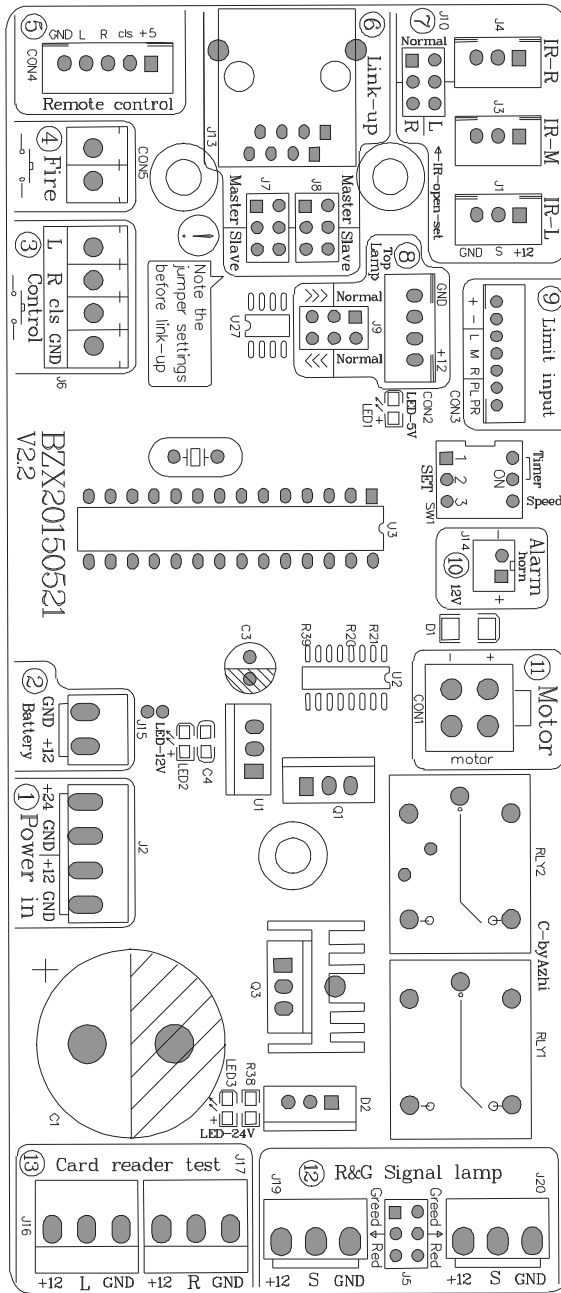
The swing barrier is normal close. When the power is on, the barrier will auto close; when off, it will auto unlock, but the gate still needs to be opened manually.

### 6.4. Function Adjustment

- A. Open the gate by swiping card (choosing the card type according to the card reader that you had chosen)
- B. Alarm if someone bursts into the entrance or exit longer than 3 seconds without any opening signal
- C. After swiping the card, the passenger can pass the gate, and the indicator light will turn green; After passing, the gate will close and the indicator will turn red; And if the passenger did not pass within the setting period time, the gate will auto close and the light will turn red too.
- D. The auto-closing time is adjustable; Detailed operation please refer to the diagram on the right.
- E. The wiring method for WJ-SGZ-101C indicator control board: there are 12V, S and GND input interfaces on the indicator control board, it will show green arrow when S and 12V are connected together, and it will show red cross when S interface is not connected or connected to GND.

# Wiring Diagram

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Wiring instructions, the interfaces are defined as follows:

- Power in: +24V, GND, +12V, GND
- Battery: connect with 12V backup battery
- L, R, Close, GND: dry contact signal or 5V-TTL pulse 200ms ~ 500ms, active low
- Fire: interface for fire protection or emergency release, dry contact signal input.
- Remote Control , Interface for radio receiver, active low
- Link-up: interface for contacting master and slave by a PIN-TO-PIN wire-line. Move the J7 and J8 jumper caps to the same side of the master or slave by 4 jumper caps
- IR-L, IR-M, IR-R: IR signal input, the interface near the card mouth is IR-L. Jumper J10 is IR-OPEN-SET, please refer to the left top figure for specific instruction of these interfaces.
- Top Lamp: Interface for top lamp. J9 is for setting arrowhead or no entry in normal mode. As shown in the figure above.
- Limit Input: Limit signal input interface.
- Alarm: alarm interface, connected to 12V alarm alert-er.
- Motor: motor interface, connected with motor.
- R&G signal lamp: Interface for R&G lamp. J5 is for red X or green arrowhead, As shown in the figure left.
- Card reader test: Interface for Internal debugging

## 7. Common Malfunctions and Solutions

### 7.1. Power supply is connected, but parts of the system or the whole system is power off.

Check whether the 220V AC power socket is well connected or not

Check whether the power output terminal and control board is well connected or not

Check whether the fuse on the control board is broken or not

### 7.2. Giving the open signal, the gate shows no reaction.

Check whether the open indicator light on the control board receives the signal or not

Check whether the opening signal lines are dropped or not; and check whether the photocells are working or not.

### 7.3. Giving the open signal, one machine can open, but the other one shows no reaction.

First of all, check whether the connection lines between these two machines are well connected or not, if it is yes, then check whether the control board can receive the open signal or not, if the answer is still yes, you need to recheck the connection lines and make sure the all the plugs on the control board is well connected.

### 7.4. Giving the open signal, it can open but can not close.

Before fixing the housing, you should make sure that receiving side and transmitting side of the infrared photocell are adjusted and fixed in the right position.

Check the infrared photocell in the middle is warded off by some obstacles or not

Check whether lines on the transmitting side of infrared photocell are well connected.

### 7.5. The gate already open or close in place, but it did not stop

Readjusting the position of limit switch until the gate can open or close in place

### 7.6. The passenger already passed, but the gate can not close in time.

Check whether the infrared photocell is normal or not, including the receiver, the transmitter and all the connection lines.

## 8. Packing List

Items	Name	Model or Specification	Unit	Quantity	Remark
1	Mechanism		Set	1	
2	Housing		Set	1	
3	Control board		Piece	1	
4	Card reader board		Piece	2	Optional
5	Traffic Light Board		Piece	2	
6	Connection line		Piece	1	
7	Manual		Piece	1	
8	Warranty Card		Piece	1	
9	Foundation Bolt	M12X120	Piece	6	Fixing the bridge-type housing
10	Foundation Bolt	M10X120	Piece	4	Fix the cylindrical housing