



**Users' Manual
for
Tripod Turnstile
MTT06**

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1. Technical Parameters:

- Working voltage : **DC24V/5A** 、 **DC12V/3A** ■
- Power consumption: single channel ≤ 150W ■ Access controller: ◆ Input port: 2pcs standard Wiegand 26-34 ◆ Output port: 2pcs electronic relay
- ◆ Communication interface: TCP/IP、RS-232、RS485、RS-422
- ◆ Card storage: 3000-100000pcs ■ Offline information storage: 15000pcs
- Passing speed ≥ 30 persons per minute ■ Direction light: green light means passing, red light means passing forbidden
- Arm length: 550mm ■ Max forces for Arm: 50Kg
- Arm revolving direction: single or bi-directional. ■ Arm drop: arm drop automatically when power off ■ MTBF : ≥ 3 million times ■ Structure: Stainless Steel frame structure. ■ Cabinet dimension: 1200×280×1000 mm
- Ingress Protection: IP56 ■ Working temperature: -20°C-+70°C ■ Working humidity: 5%-90%

2. Working Principle

Pedestrian access control management system is one part of RFID one card system. It can control people's entry and exit and their records.

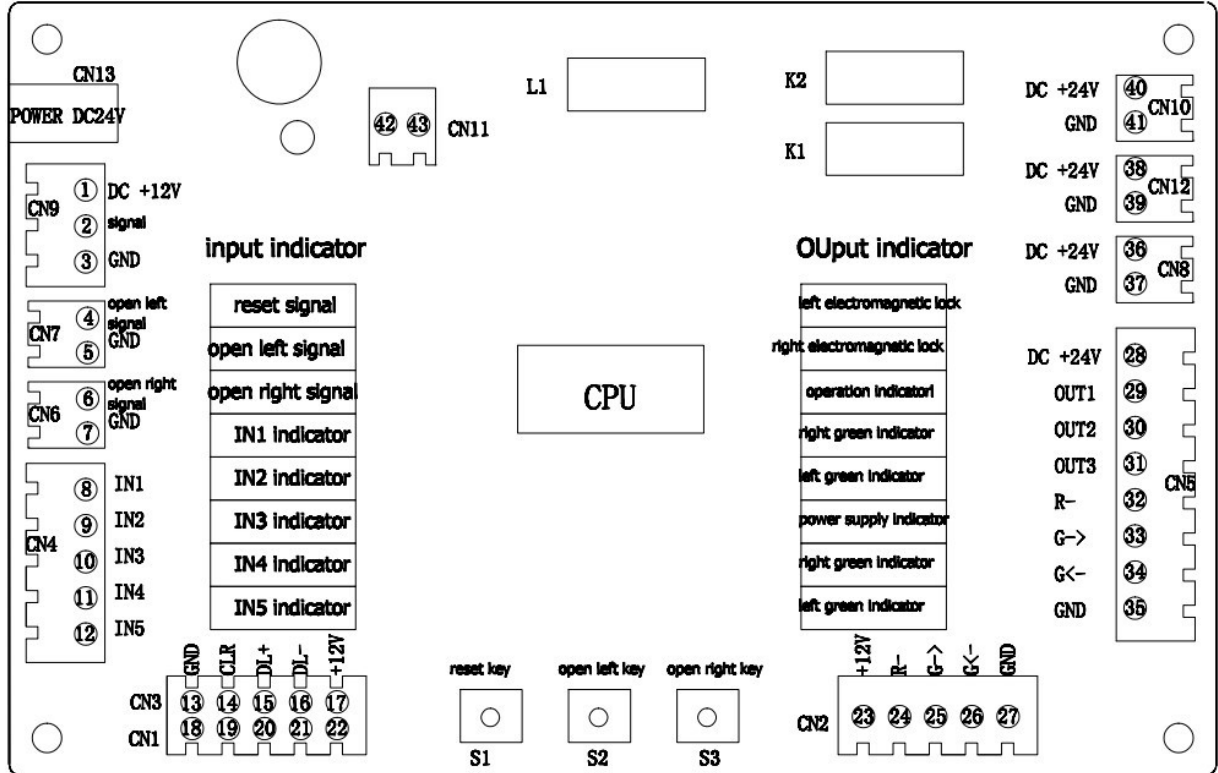
When staff entry the channel, he needs to close the card to the reader. After reader acquire the card information, the access controller would tell whether the card is legal or not. If legal, it will give beep sound, green light would be light up. In the same time. The turnstile would open and let the user pass. Then record the card number, date, time, user's name and department for future reference. If the card is illegal, the red light will be light up and the security will know.

When the tripod turnstile is connected with power DC24V/5A, press the turnstile arm to the bottom and pull it up, the arm would be on the horizontal position. The turnstile would be on duty status. Press the left open or right open bottom, the electronic magnet lock would be open. So the passenger could push the turnstile arm and walk through the turnstile.

channel. After passenger pass, the infrared lock would reset the turnstile. the electronic magnet would lock the arm, waiting for next open directions. When power off , the arm will drop down, ensure the clearance of the passage.

2. Tripod turnstile control board wiring diagram

1、control board port



CN1——left counter wiring port:

18:power ground wire GND, 19: data reset line CLR, 20: count + line DR+, 21: count - line DR-, 22: positive line +12V

CN2:——left pass indicator light output port:

23: positive line +12V, 24:red x indicator light R-, 25:right green arrow indicator light G→, 26: left green arrow indicator light G←,27: power ground wire GND CN3——right counter input port:

13: power ground wire GND, 14: data reset line CLR, 15: count + line DR+, 16: count - lineDR-,

17: positive line +12V CN4——reserved ports:

CN5——right pass indicator light output port:

23: positive line +24V, 32: red x indicator light R-, 33: right green arrow indicator light G→, 34: left green arrow indicator light G←, 35: power ground wire GND

CN6——open right signal input port:

4: open right signal input line SIN-R-IN, 5: power ground wire GND

CN7——open left signal input port:

6: open left signal input line SIN-L-IN, 7: power ground wire GND CN8——open right electromagnet output port:

36: positive DC24V output line, 37: power ground wire GND CN9——reset board signal port:

1: positive line +DC12V, 2: reset signal input line PLACE~IN, 3: power ground wire GND

CN10——electromagnet chuck power supply output port:

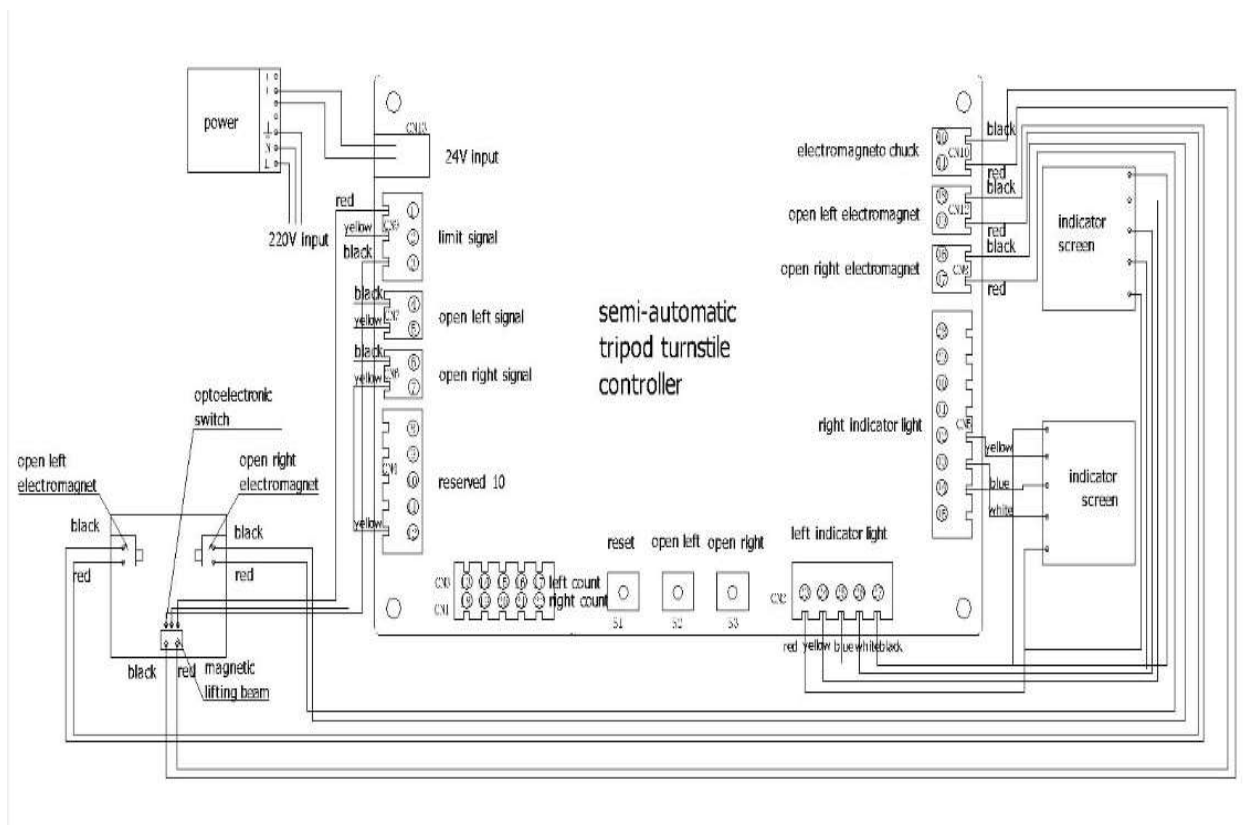
40: positive line +DC24V input, 41: power ground wire GND

CN11——alarm reserved port:

CN12——left electromagnet output port:

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2、tripod turnstile control board wiring diagram



3、access controller output signal request

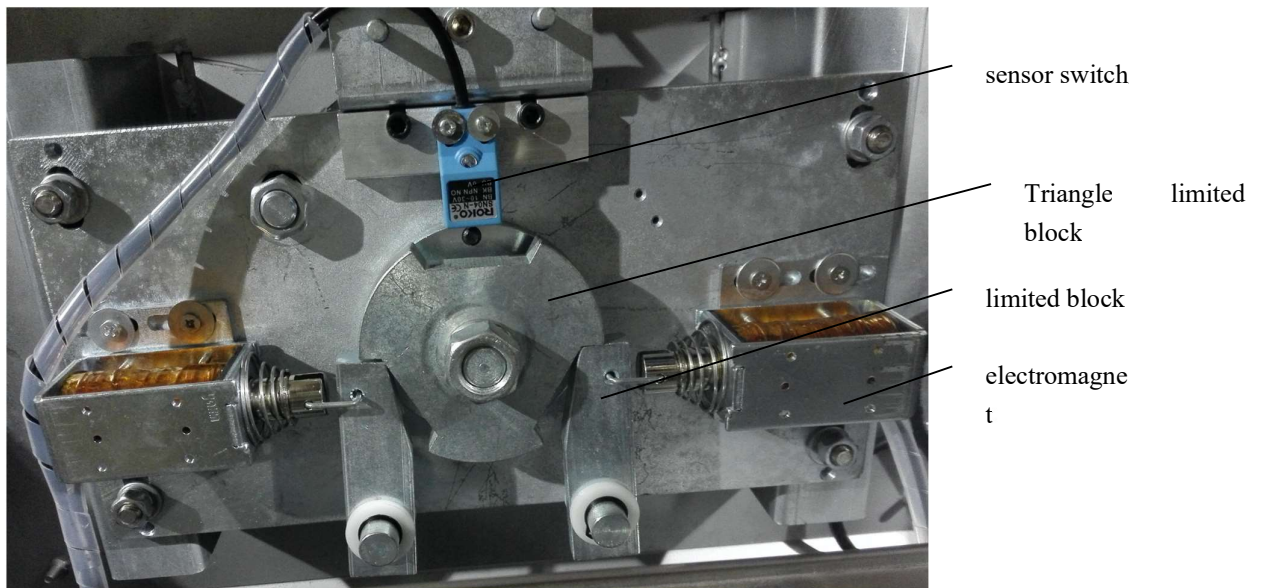
Tripod turnstile control port signal must be relay switching value signal input.

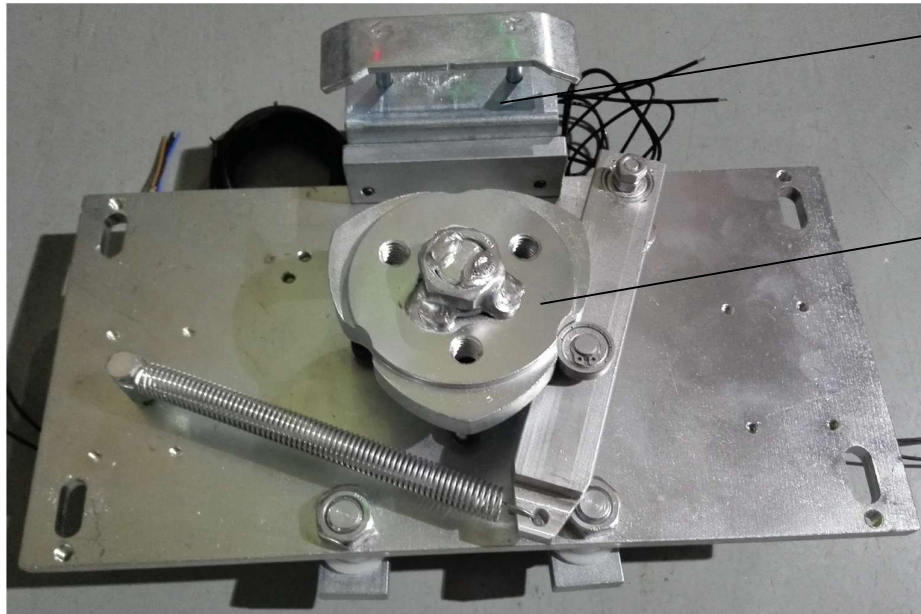
When access controller has two relay switching value output signal,connect the relay normally open contact NC ,COM and 12 wiring row

Few access controllers' output signal is pulse signal,must add 2 Arrange ushering relay,to change the pulse signal to relay switching value signal.the relay must match the pulse signal 's voltage input by access controller

4、 turnstile installation instruction

1、 mechanism instruction(3 Generation)



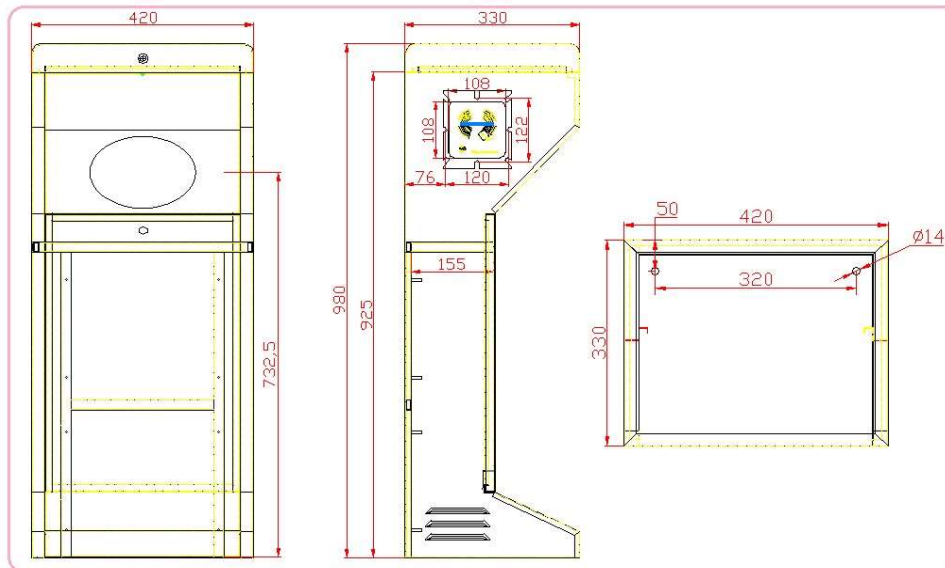


Power off, arm fall down
part, electromagnet
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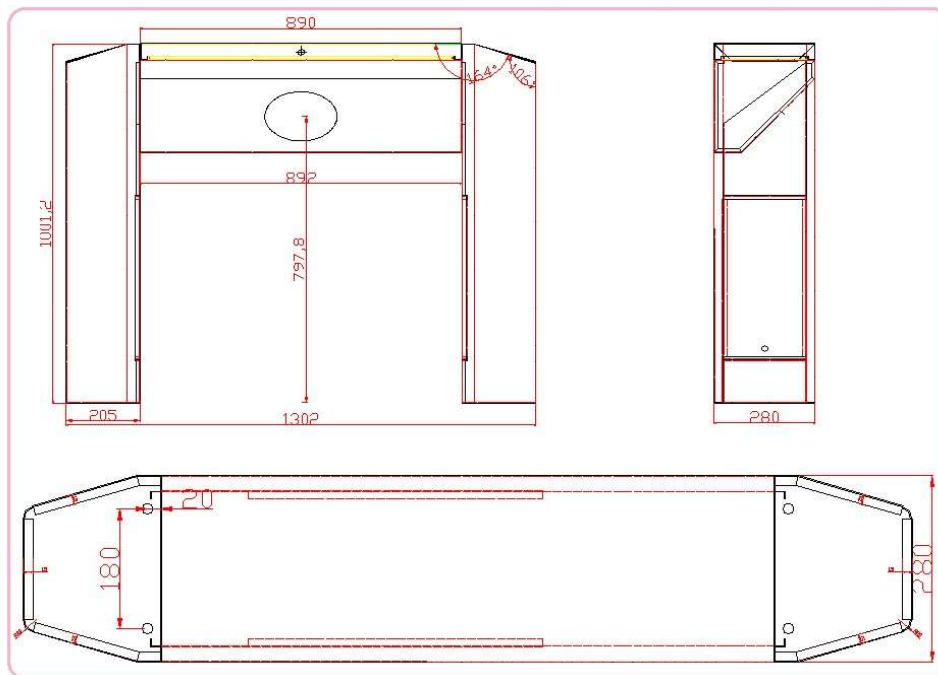
trilobed wheel

2、turnstile box installation instruction

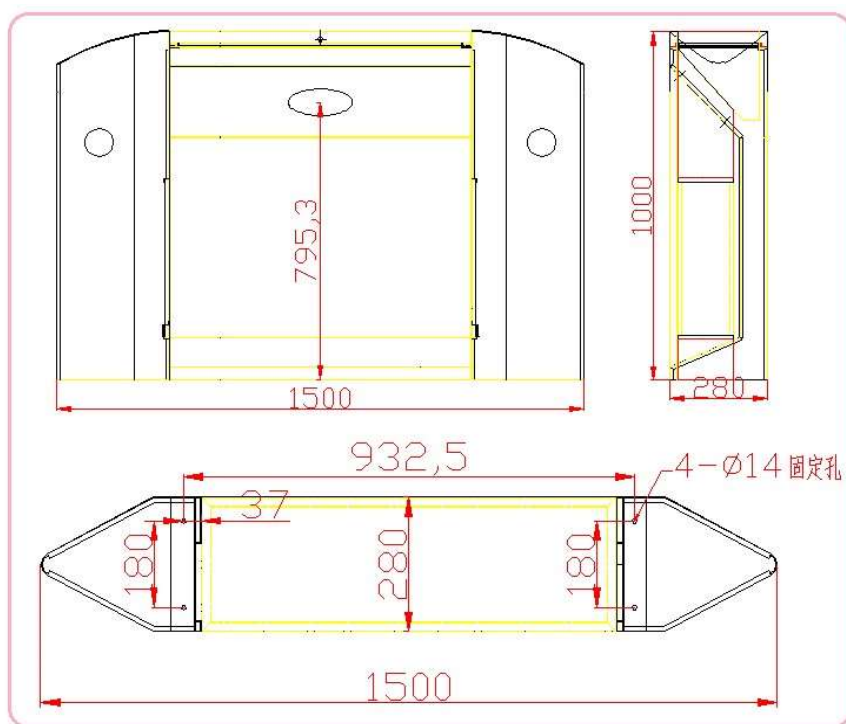
- 1) check the specific system constitute, use site, and the type of turnstile, then confirm the installation position of turnstile
- 2) do as the installation diagram, confirm the installation hole site, Pre-buried 4 M12 ground screw or expansion screw in the installation position



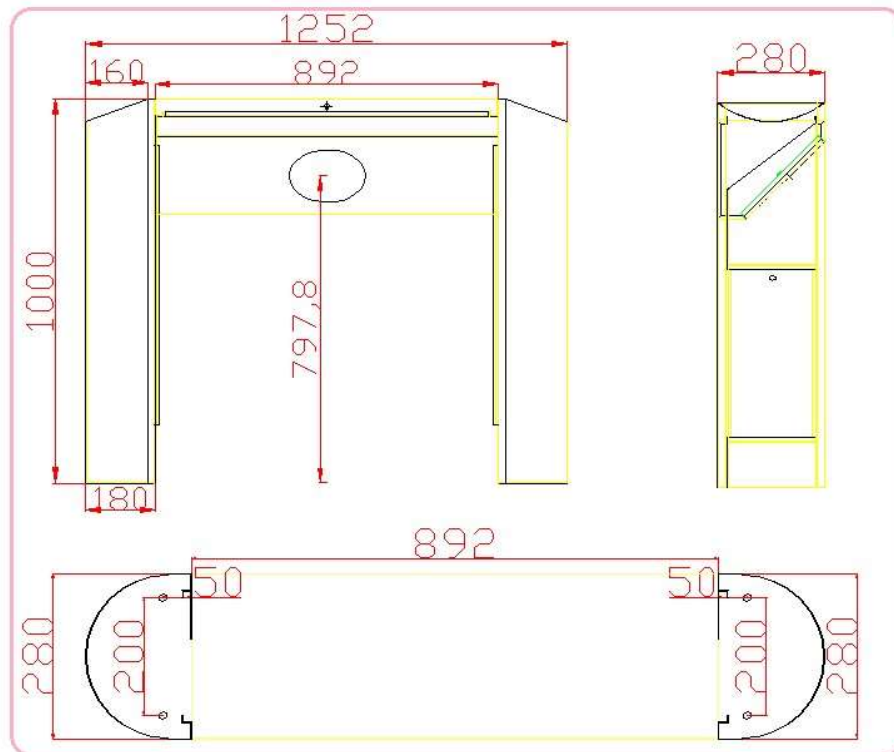
vertical type installation size diagram



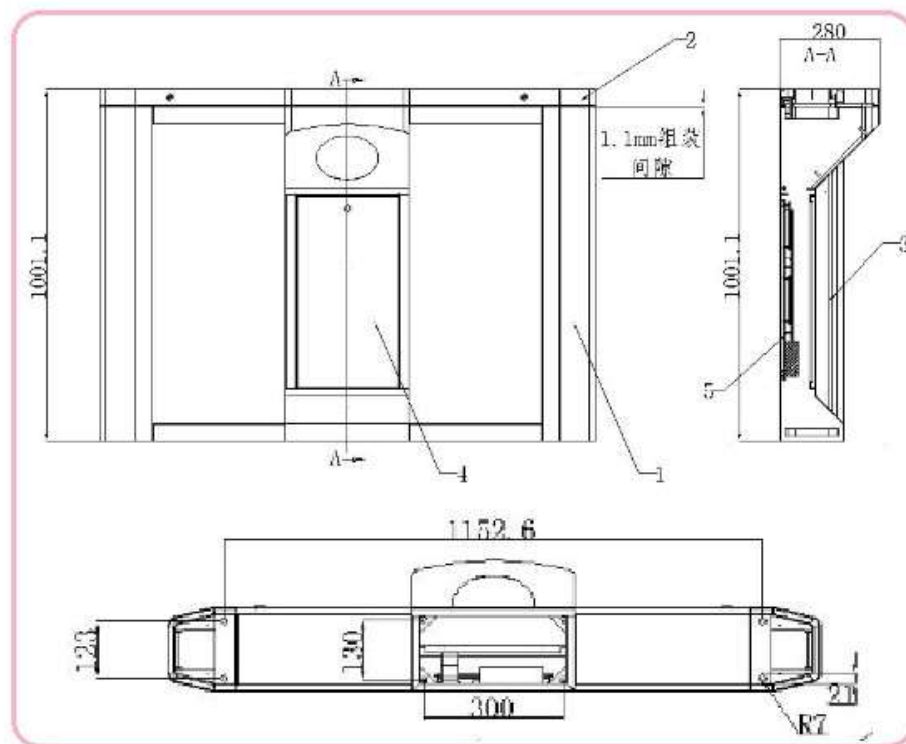
bridge type octangle installation size diagram



bridge type sharp corner installation size diagram



bridge type round corner installation size diagram



TS14 Tripod turnstile installation size diagram

3、debugging instruction

Install and fix the mechanism in the turnstile box, adjust 4 screw for the height of mechanism, make sure the interstice between turntable and box is 1~1.5mm, rotate the turntable 360 degree, if the distance between box is still 1~1.5mm, then lock the screw.

When the mechanism power off, adjust limit eccentricity rubber, to make the 2 locking plate leave locking position device 1~1.5mm. cut the system power, arm should fall down, when power on, press down the arm, then uplift, arm should rise up and lock.

Adjust damper, adjusting knob black point on the end of damper match the number on the damper, the number bigger means the damper strength bigger. if the damper strength is too low, the arm will swing heavily, if the damper strength is too high, the arm will come back slower. as usual, it has been adjusted well in factory.

4、function test

Test the function below: (do some or all the test below, depends on the needs of turnstile function from users)

1) one time read card and pass

Read the card in the entrance or exit, for the legal card, motor will unlock automatically by coupling double cam, and pass direction indicator will become green pass sign, wait the pedestrian enter. when pedestrian enter and push pole, the pole will rotate, after pole rotate some angle, system will reset and lock automatically, then pass indicator will become no passing sign, and the counter that can record pedestrian number will add 1, one time pass finish.

2) many times read cards and pass

Read cards many times in the entrance or exit, after one person pass, turnstile will reset and lock automatically, pass indicator will become no passing state. when do this function test, turnstile P08 set should be 0, or else this function invalid.

3) one direction read cards, one direction free pass

For the read cards pass test, you can refer 4.3 1) or 2). for the free pass direction, push the pole with the pass direction, pole will rotate with the pedestrian, when pole rotate to some angle, it will back to zero position, and counter will add one.

4) reset function

Read card in the entrance or exit, for the legal cards, motor will unlock automatically by coupling double cam, and pass direction indicator will become green pass sign, wait the pedestrian enter. nobody pass after the specified pass time (set by users, default 10s), device will reset automatically, cancel this pass permission, and will not count.

5) pole fall down automatically when power off, pole rise up by hand function

When power off, pole should fall down automatically, then power on, press down the pole then uplift, pole should back swing and lock.

6) pole fall down/ uplift by hand function

According to wiring diagram, connect one external button, press button one time, pole will fall down automatically; then use hand uplift the pole, pole should back swing and lock.

5.Common Fault and Debugging

1.Swiping one card and several persons pass.

1) The problem is that the closing time from the access controller is too long .

We need to set the time as 1 second.

2) When passenger passes, the controller is not reset.We need to check whether the signal line of turnstile reset switch is becoming loose and the reset switch is broken or not.

3) The spring on the electronic magnet lost stretch, leading to the limit metal not being reset.

2、 After using some time , the turnstile arm still arm down when power on or the arm not drop down when power off .

Solution: arm down components position is moved. We need to adjust the position

3.Card Reader is normal,direction light display pass status, the turnstile arm doesn't revolve.

1) The power line of electronic magnet lock is in poor contact.

2) Electronic magnet is broken.

3) The output relay on the turnstile controller is broken.

4) Check whether the mechanism limit switch is smooth or not .

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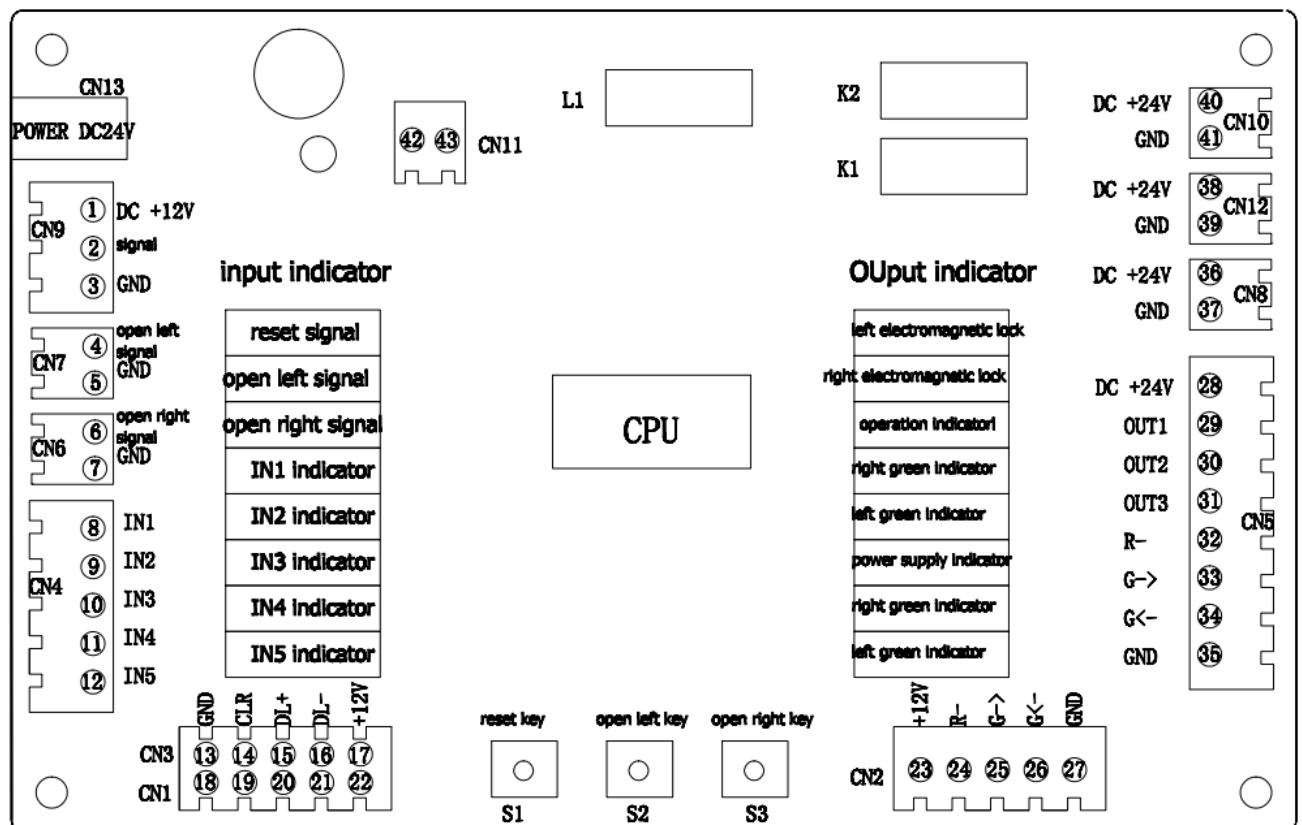
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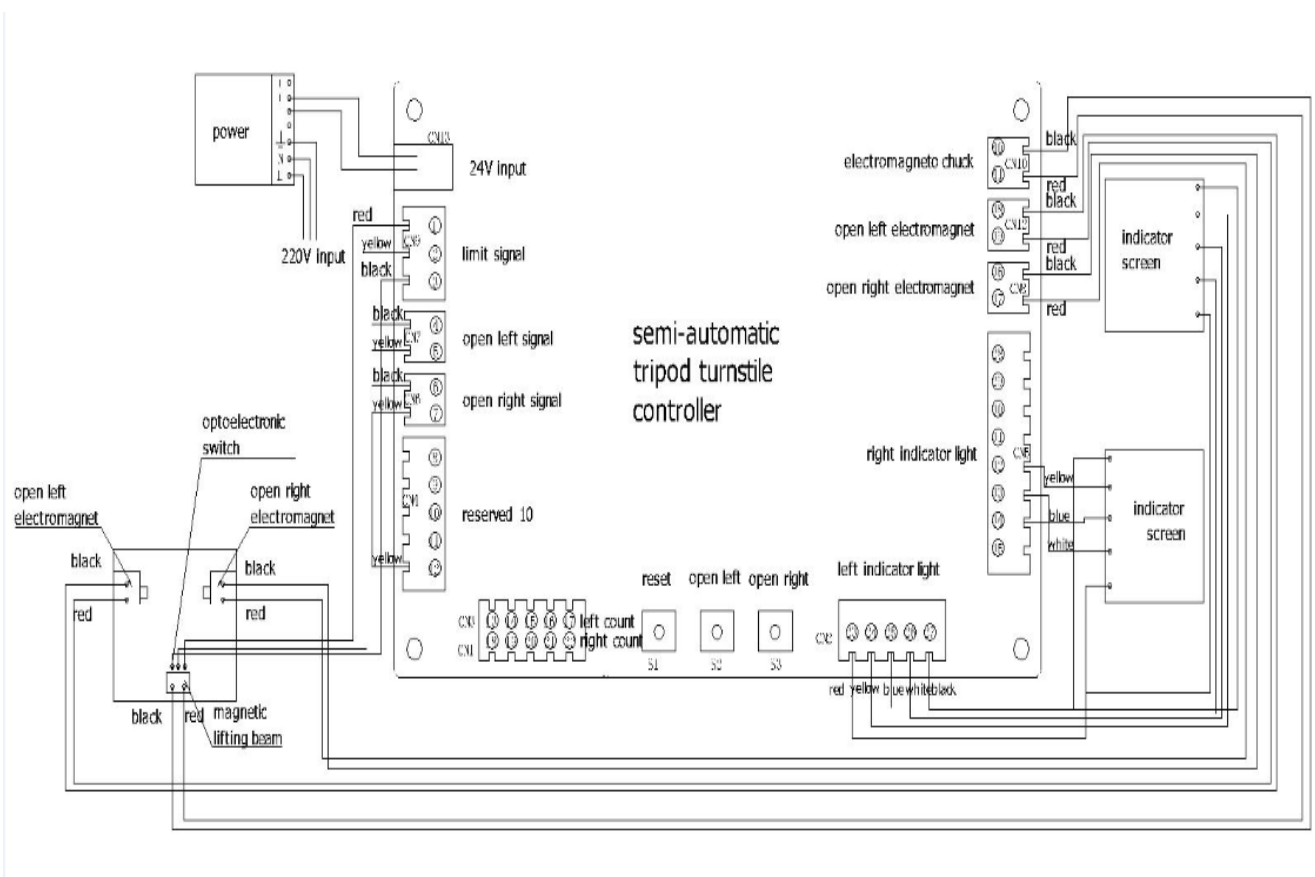
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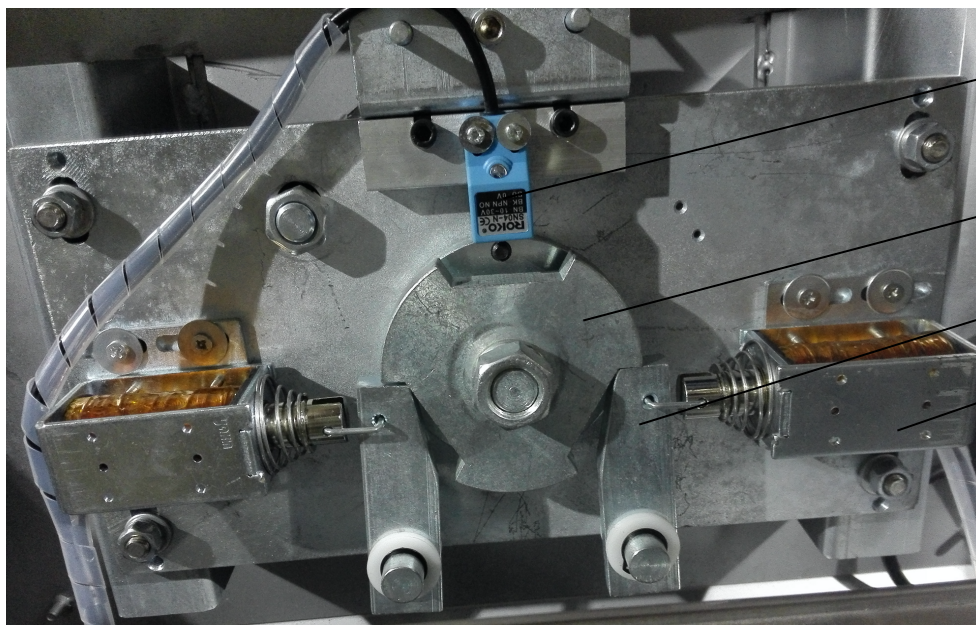
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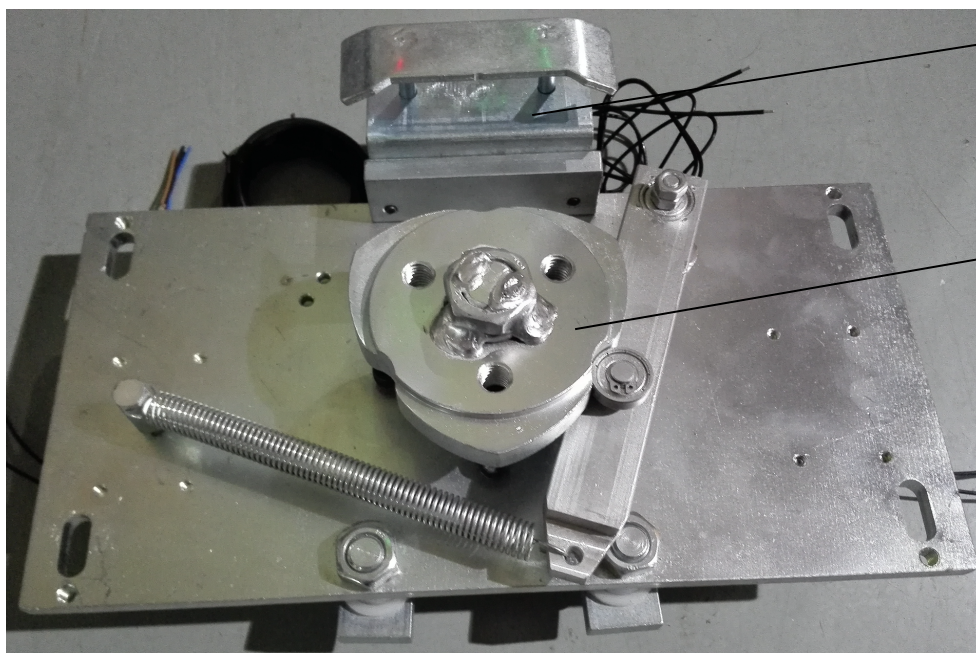


sensor switch

Triangle limited block

limited block

electromagne

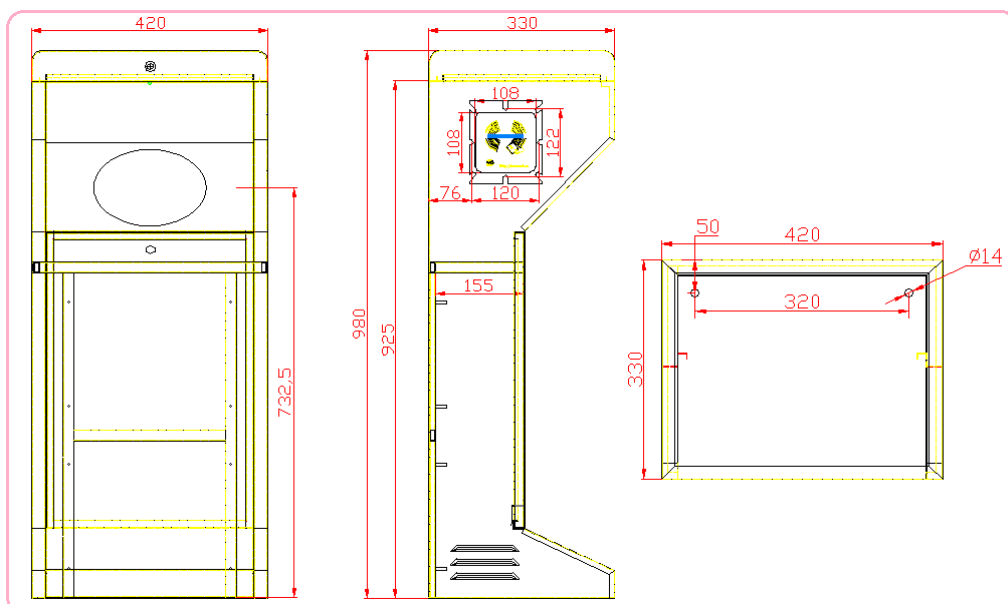


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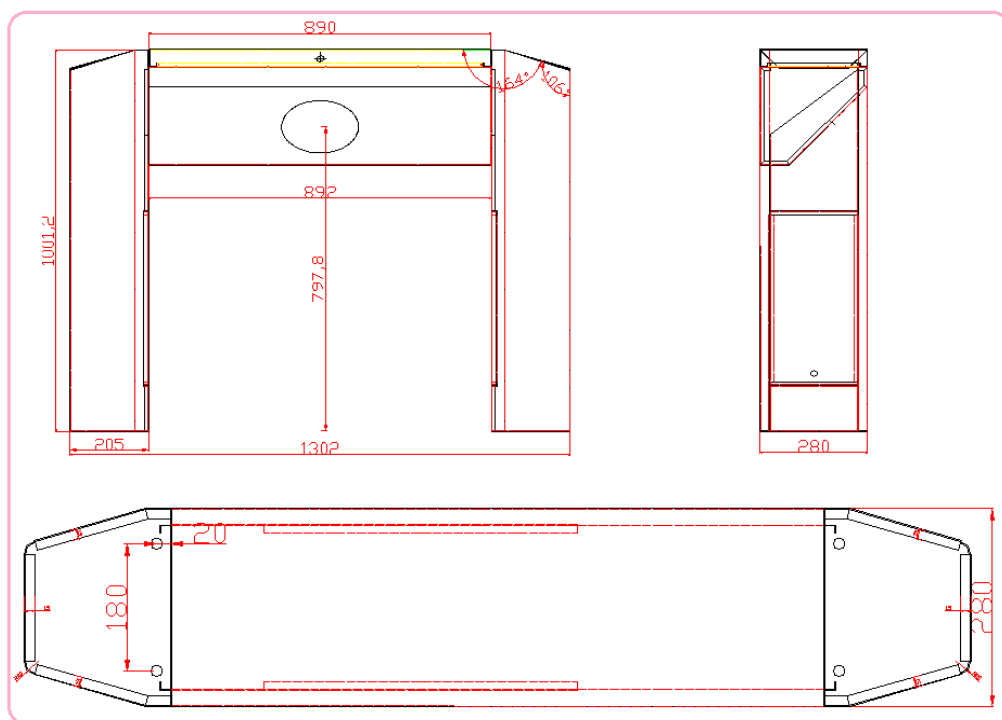
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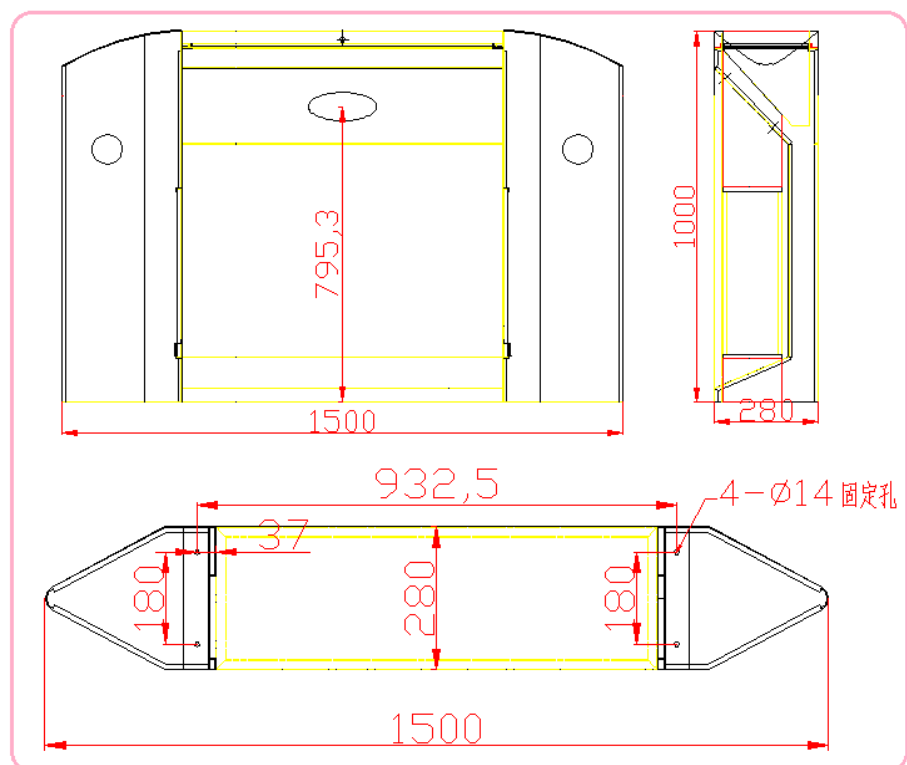
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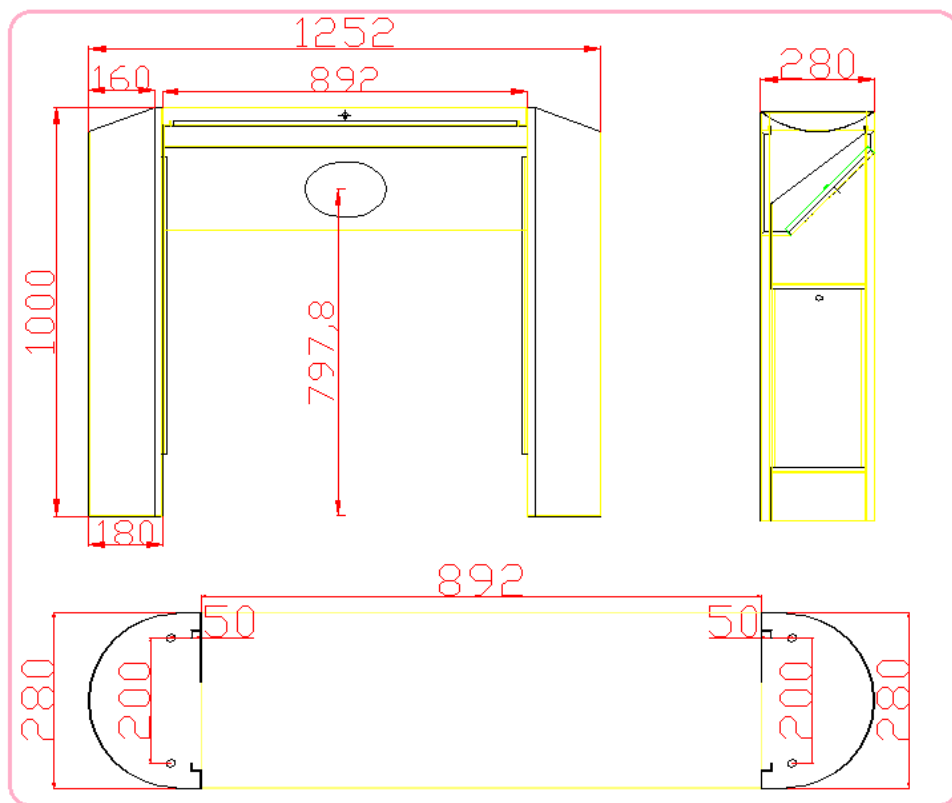
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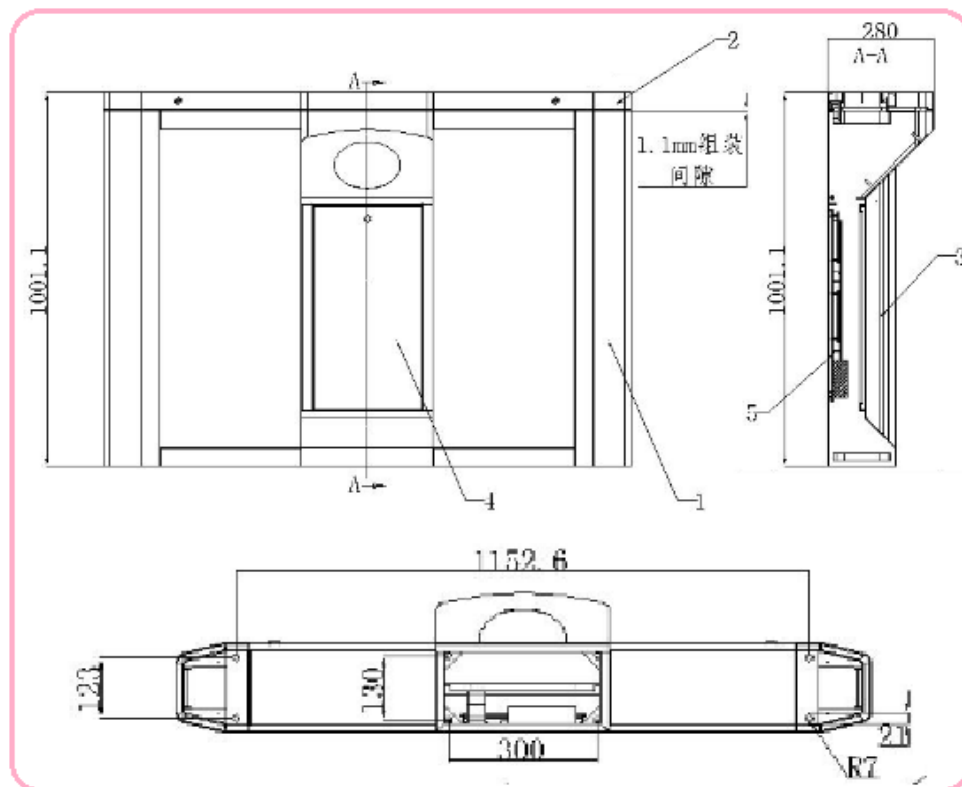
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