

# Full Automatic Tripod Turnstile



**Instruction**

**Please read the instruction carefully before using the product.  
(The color in kind prevail)  
(Second Version)**

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## 1. Production Instruction

Thank you very much for purchasing our full automatic tripod turnstile. This series of turnstile adopt the unique technology of our company——precise photoelectric registration and gear structure to orient the closure. The turnstile will be unlocked and reset by the specific motor. The closure is precise and stable. Furthermore, this product adopt standard electrical socket, which can be integrated with magcard, code card, ID card, and IC card etc.

There is a series of tripod turnstile, you can choose different models and specifications according to your demand. They can be used in the area that requires intelligent management such as hotel, school, metro, chamber etc. All our tripod turnstiles are produced in accordance with relevant electrical technology standard and need to be tested strictly before delivery. This product is hi-tech product, in order to make sure the product can be used to its best advantage safely, please read this instruction book carefully before use

## 2. Technical Data

- 2.1. Power Supply/ Frequency : AC100-240V, 50/60HZ
- 2.2. Machine Core Working Voltage: DC12V
- 2.3. Rated Power: 50W
- 2.4. Working Temperature: -15°C~+55°C
- 2.5. Relative Humidity: ≤95% No condensation of moisture
- 2.6. Motor Speed: 1450 rounds per minute
- 2.7. Turnstile Arm Length: 490MM
- 2.8. Max Bearable Weight: 80KGS
- 2.9. Arm Drive Force: 4KGS
- 2.10. Installation Site: Outdoors and indoors
- 2.11. Passenger Flow: 25~32 persons per minute
- 2.12. Input: dry contact signal>100ms
- 2.13. Communication Interface: RS232

### 3. Functions and Features

3.1. The integration of mechanical and electrical structure. The rotate platform is made by specific technology. The stable mechanism can self-lock. Precision gears and gear box composition structure.

3.2. It can be bi-direction transit. The boom can rotate single direction or bi-direction (optional).

3.3. It can self-test for malfunction, which makes it easy to maintain and use.

3.4. Multiple working mode for choice. The card can be read in bi-direction or single direction. One direction can read the card, while the opposite direction can be forbidden for transit or can be transited freely. These functions can be realized by setting the button on the control panel.

3.5. It has reliable safety protection function, when the power off the boom will auto-down, to meet the firefighting requirement. Then boom can be up automatically when power on.

3.6. With automatic reset function, after the pedestrian swipes the card effectively, the system will cancel the right to pass if the pedestrian do not pass within the setting time.

3.7. It can connect the bi-direction Red & Green light, the light will remind the pedestrian whether can pass or not.

3.8. Both direction can connect the counters.

3.9. The card readers can be installed in both directions, it supports WEIGNAD26/34 communication card reader.

3.10. It has RS232 socket which can connect to the computer. And it can also connect to the computer by internet LAN socket.

3.11. It has soft-start function, which can detect the locking and unlocking position accurately by photo-detector.

3.12. It has complete communication protocol and flexible operation model.

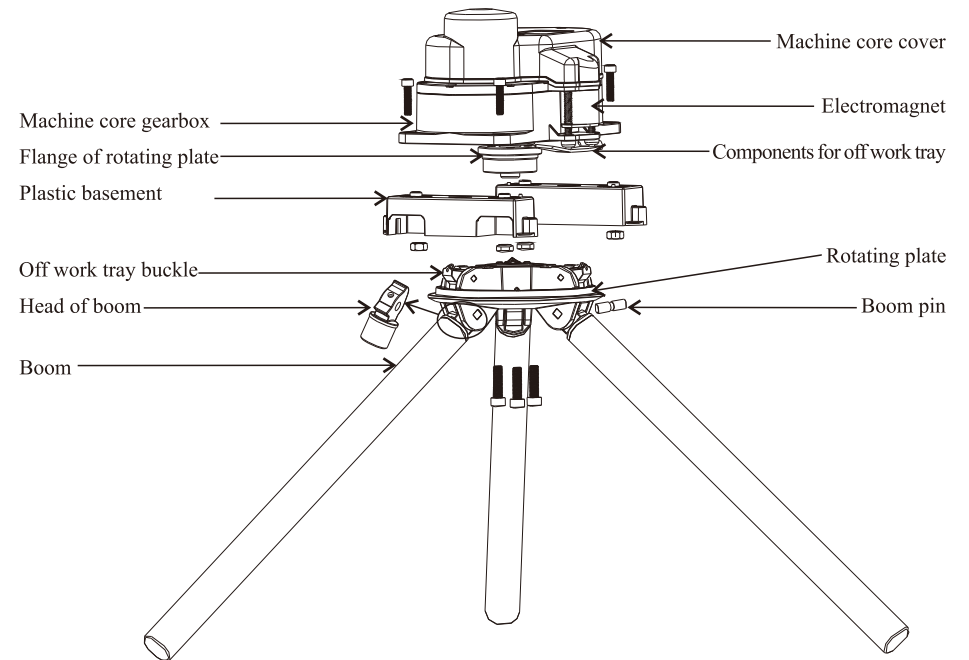
3.13. It has phonic module socket. After reading the card, the system can voice “pass” or “forbidden to pass”.

3.14. The system can self-detect if the boom stops abnormally. When the machine meet resistance in the process of running, the motor will stop within the setting time. When the resistance gone, pushing the arm, the system will lock the arm automatically.

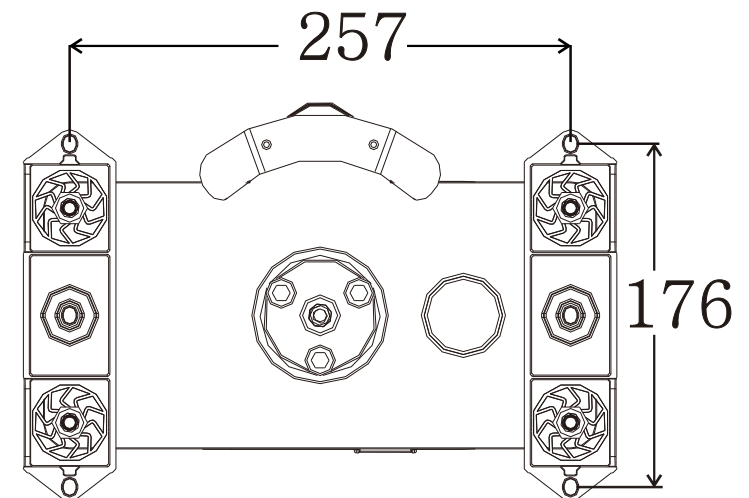
3.15. The system can work smoothly with very low noise.

### 4. Machine Core Structure and Dimension

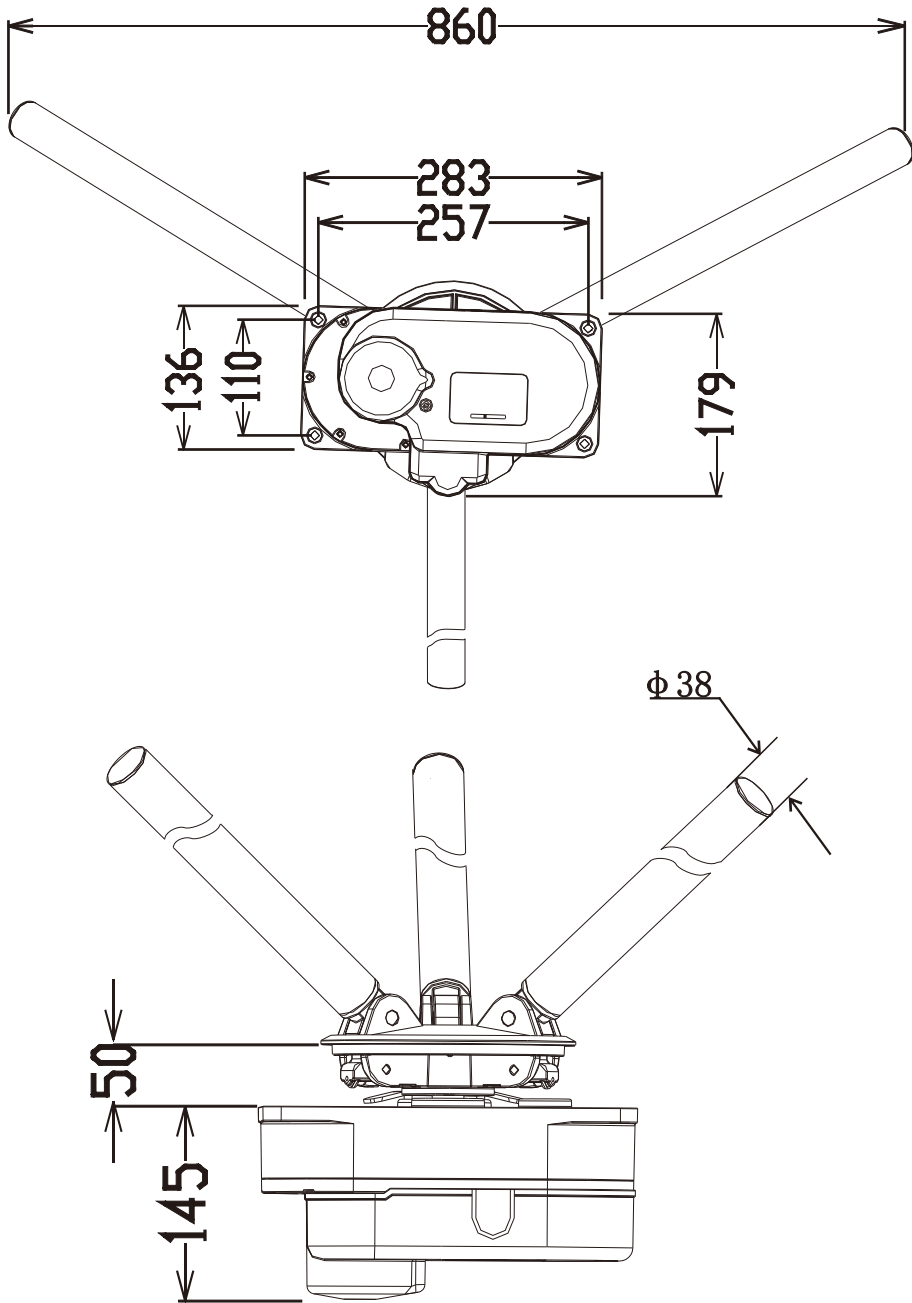
#### 4.1. Machine Core Structure



Installation figure of machine core (unit: mm)

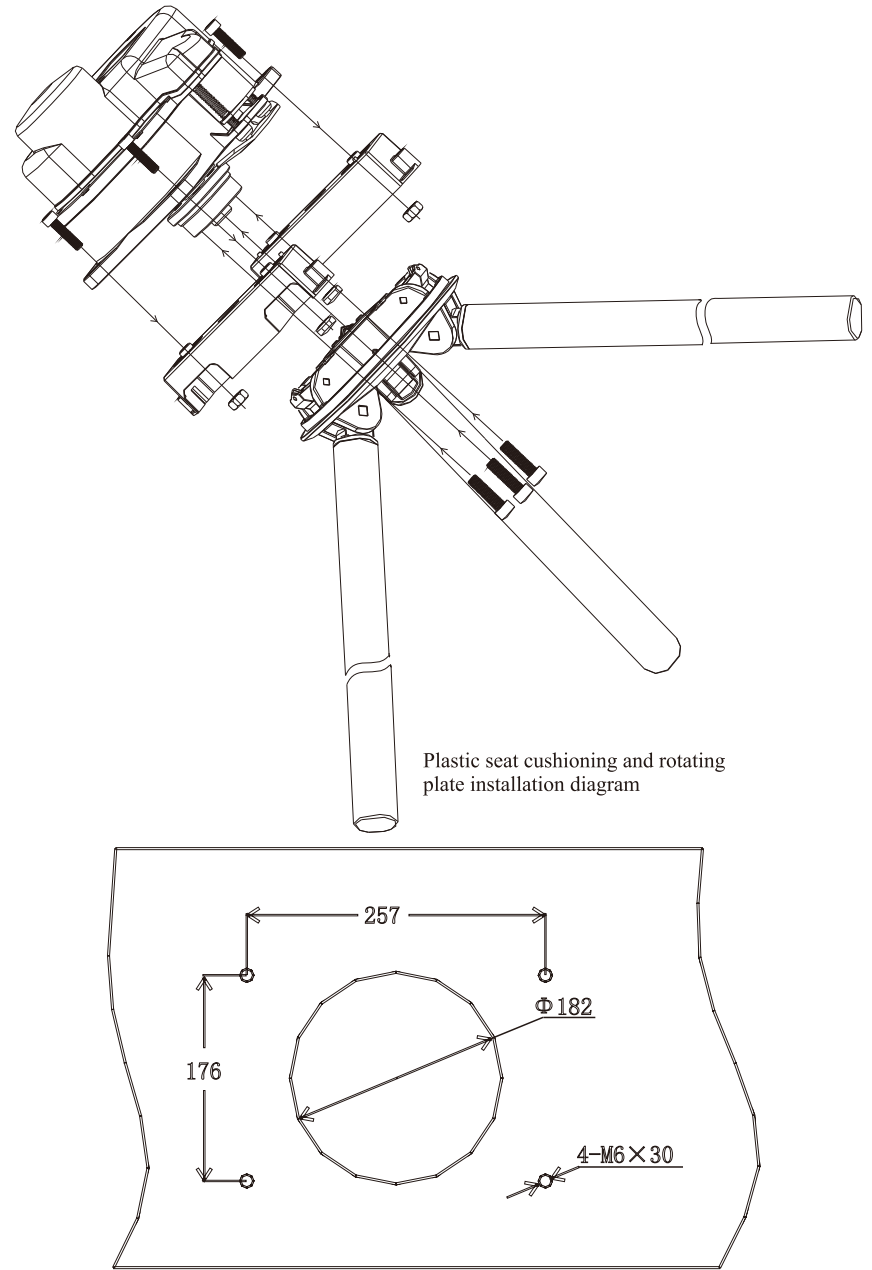


4.2. Machine Core Dimension Figure ( unit: mm)



4

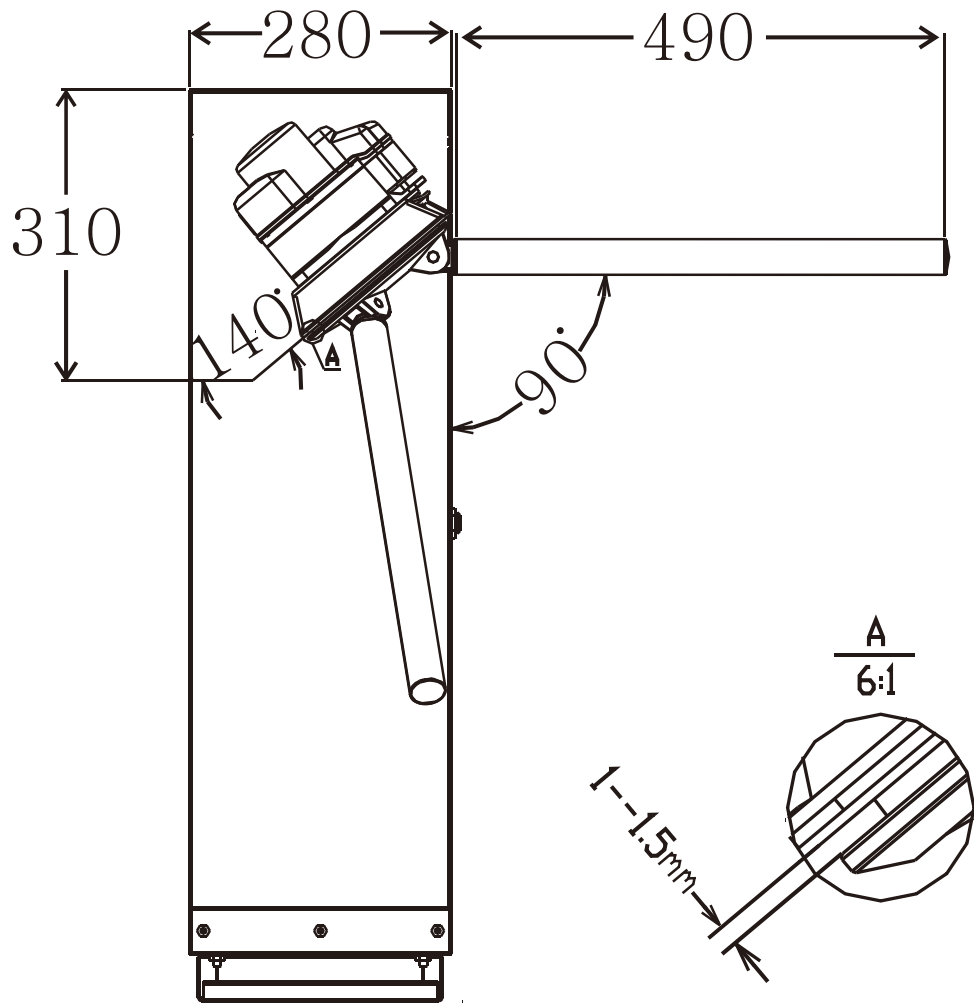
4.3. Machine Core Assembling Diagram



Plastic seat cushioning and rotating plate installation diagram

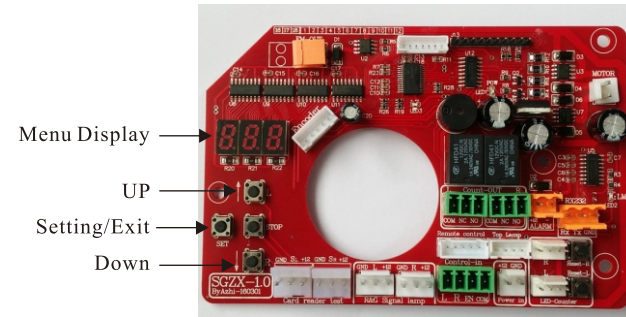
The dimension of the holes in the rotating plate and the position of the screws for fixing the machine core.

5



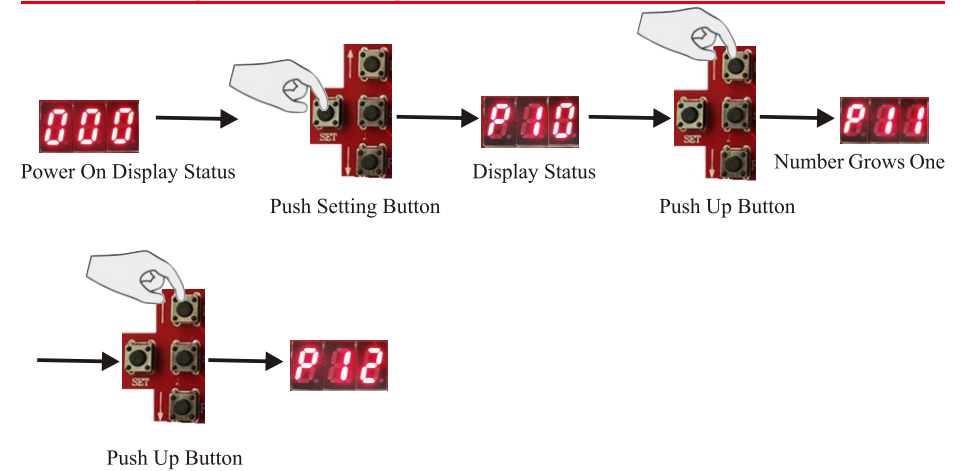
mounting angle diagram of the machine core

## 5. Function Setup Instruction



Function setting is realized by pushing button and digital display. The specific operation process is shown as below:

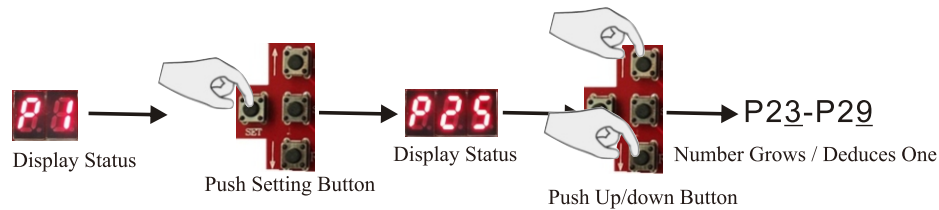
### P1: Working Mold Setting



Parameter Description:

- P10** → Swiping card bi-directional passing (factory default)—standby display **000**
  - P11** → Free passing on the left, swiping card passing on the right
  - P12** → Free passing on the right, swiping card passing on the left
- } standby display **000**

## P2: Auto-closing Time Setting



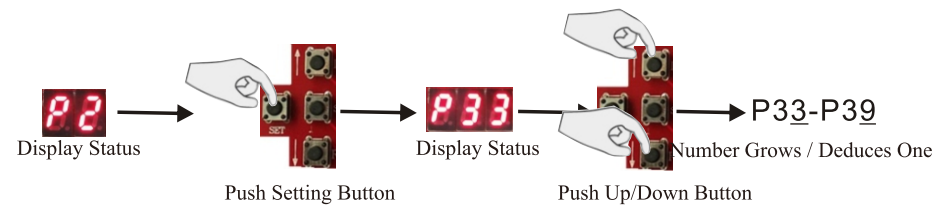
Parameter description:

Auto-closing time can be set into 3 to 9 seconds after opening (factory default is 5 seconds).

Countdown time is showed as follows: **-5-**

The boom will be auto-closing when countdown time completes.

## P3: Auto-Reworking Time Setting After the Boom Stops abnormally



Parameter description:

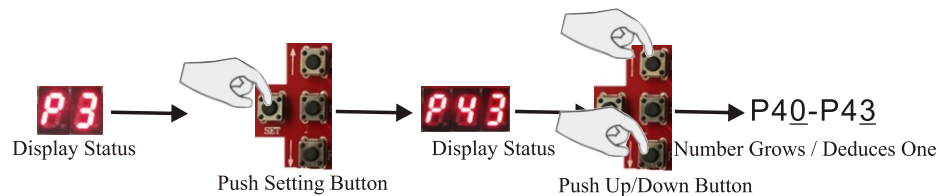
Auto-reworking time can be set into 3 seconds to 9 seconds after the boom stops

abnormally (factory default is 3 seconds). The buzzer will ring 4 Di Di Di Di tick

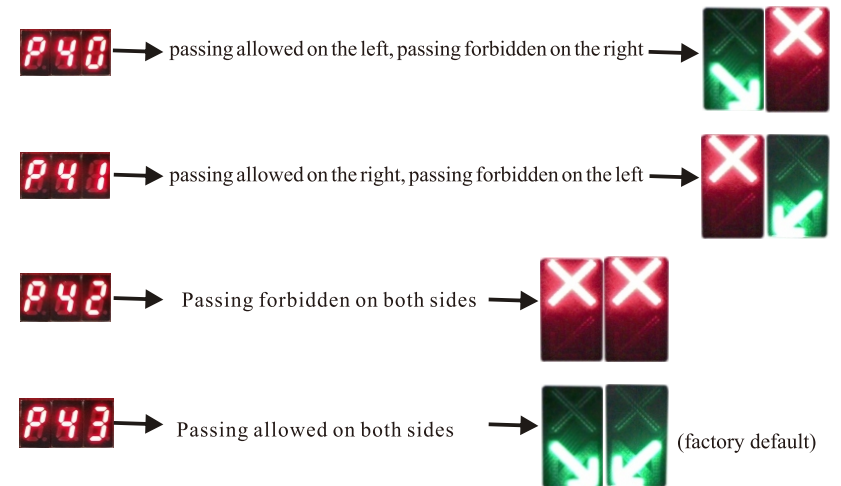
sound, and the error message is displayed in the figure as following. **E04**

Pushing the boom or waiting for 3 seconds, the boom will rotate again.

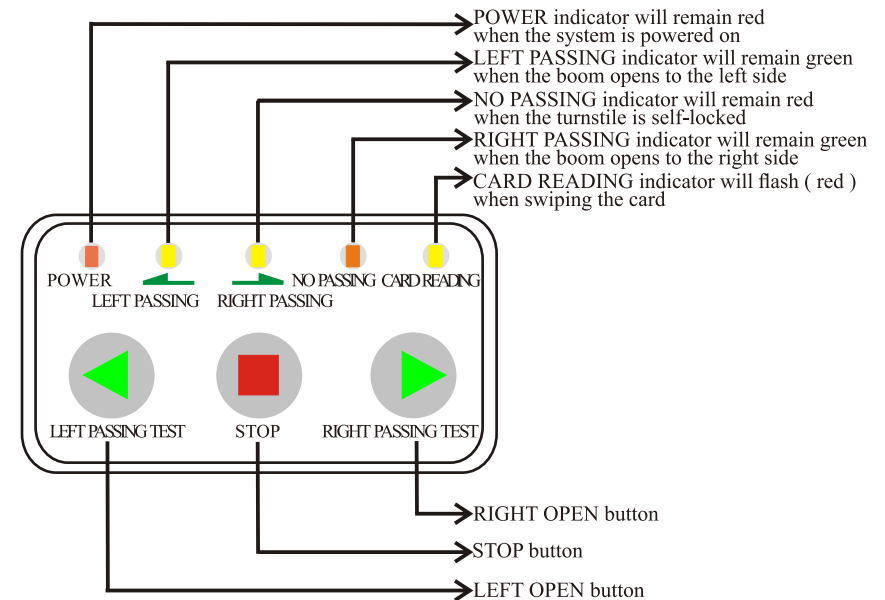
## P4: Traffic Light Setting



Parameter description:

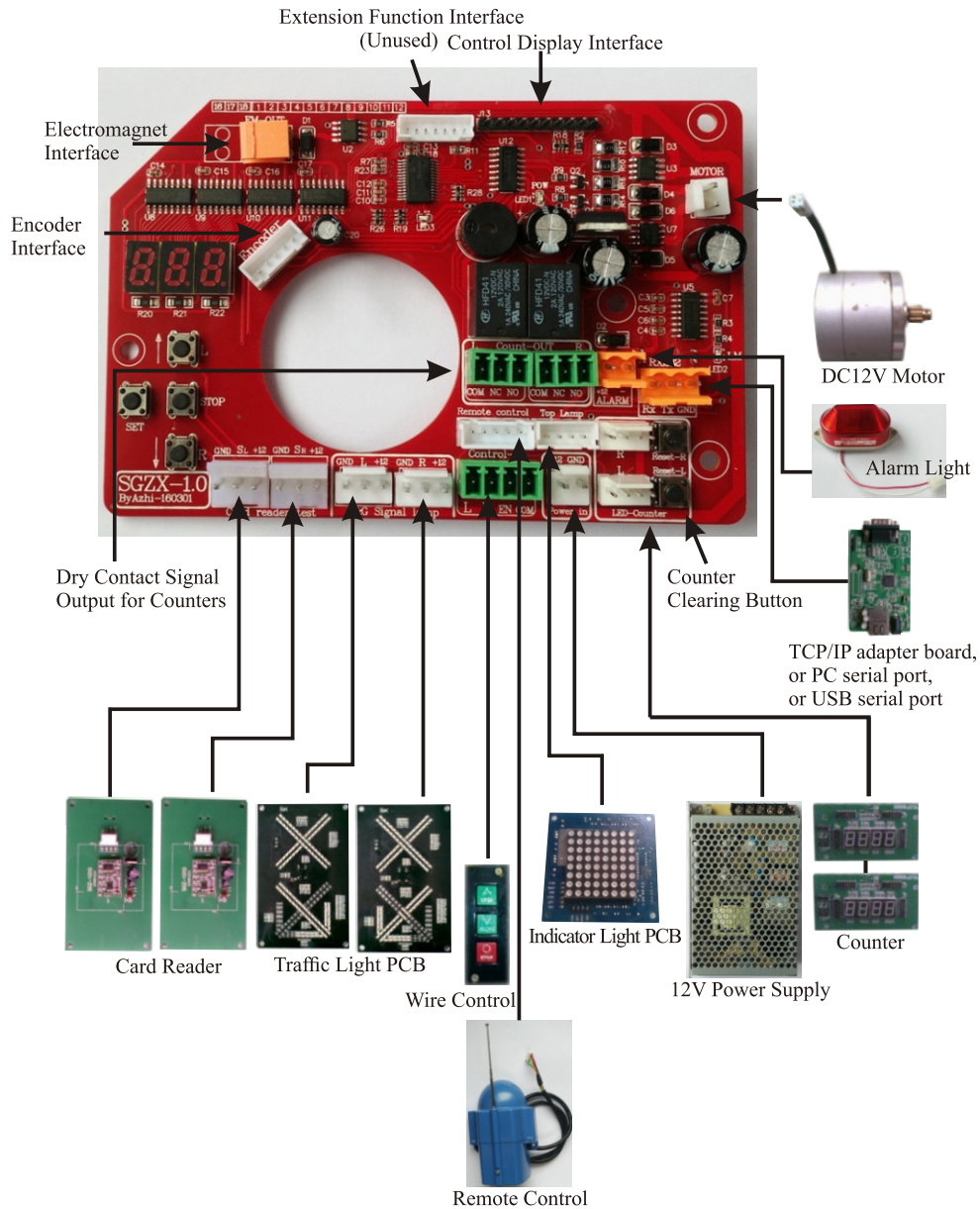


## 6. Control Panel Instruction





## 7. Wiring Diagram



## 8. Adjustment Instruction

### 8.1. Mechanical part checking

Check the system carefully before power on. Make sure no part of the turnstile is jammed, and operate flexibly. Pull the boom up and down flexibly, check the gap between the rotate plate and housing (should be 1-1.5mm).

### 8.2. System function adjustment

8.2.1. Left and right opening adjustment: press the "OPEN" button on the control panel, and the boom will rotate automatically to an angle of 15 degree to the passing direction, then the passenger can pass. If no passenger pass within the setting time (factory default is 3 seconds, you can adjust it), the machine will lock automatically and won't count for this time.

8.2.2. Boom drop-off function adjustment: The boom will drop-off automatically when power off; and the boom will auto-up after rotating 3 cycles when power on.

8.3. Please refer to "Function Setup Instruction" for function setting.

### 9. Term of Service

9.1. One year guarantee (or change).

9.2. Fee-based service after 1 year guarantee.

9.3. 24 hours online service.

\* The following situations are not included in the guarantee:

A. Broken by wrongly installed.

B. Broken by improper voltage.

C. The appearance of the product destroyed by wrongly installed and use.


D. Broken by natural disaster.

E. Overdue the guarantee.

F. The service item which out of undertaking

The explaining authority of the product instruction and service article belong to the manufacturer

## 10. Packing List

No.	Title of parts	Qty	Photo	Remark
1	Rotating plate	1		Necessary parts
2	Boom	3		Necessary parts
3	Motor	1		Necessary parts
4	Plastic basement(fixing motor)	2		Necessary parts
5	Traffic light panel and its wiring	2		Necessary parts
6	Main control board	1		Necessary parts
7	Power supply	1		Necessary parts
8	Connecting bar	1		Necessary parts
9	Air switch	1		Necessary parts
10	Alarm	1		Optional parts
11	Card reader and its wiring	2		Optional parts
12	Remote control	1		Optional parts
13	Counter and its wiring	2		Optional parts
14	Indicator Light and its wiring	1		Optional parts
15	TCP/IP-RS232 adapter board and its wiring	1		Optional parts

## Appendix

### Communication Protocol for Full-auto Tripod Turnstile

RS232 communication protocol

Communication baud rate: 9600bps

Data bit length: 8 data bit

Verify code: No

Stop bit: 1 bit

Format: FF 00 XX (Hexadecimal, XX is order, will return the same command data to the PC when receive the data from the equipment.)

Command list

1) Left opening: FF 00 01

2) Right opening: FF 00 02





3) Left red light lighting: FF 00 04

4) Left green light lighting: FF 00 05

5) Right red light lighting: FF 00 06

6) Right green light lighting: FF 00 07

### Malfunction Display Instruction

	Trouble: can't detect the encoder work when power on Buzzer sound: long sound and short sound Solution: insure that the encoder and motor is well connected
	Trouble: Can't open the turnstile Buzzer sound: four continuous sharp sound Solution: don't prevent the arm open or push the arm when reading the card
	Trouble: boom can't re-position when nobody pass after reading the card Buzzer sound: continuous sound Solution: don't stop the boom re-position
	Trouble: boom stops abnormally during opening Buzzer sound: continuous four sharp sound Solution: don't stop the arm rotate, it will re-rotate after 5s