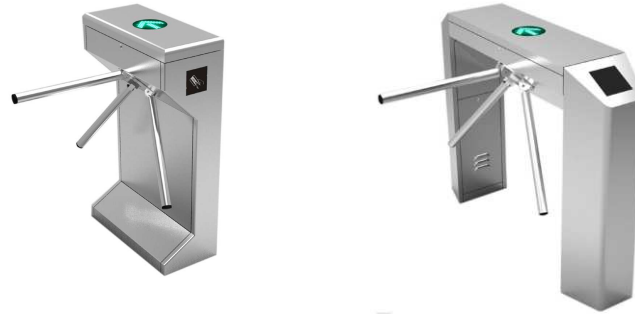


FULL AUTO TRIPOD TURNSTILE OPERATING MANUAL



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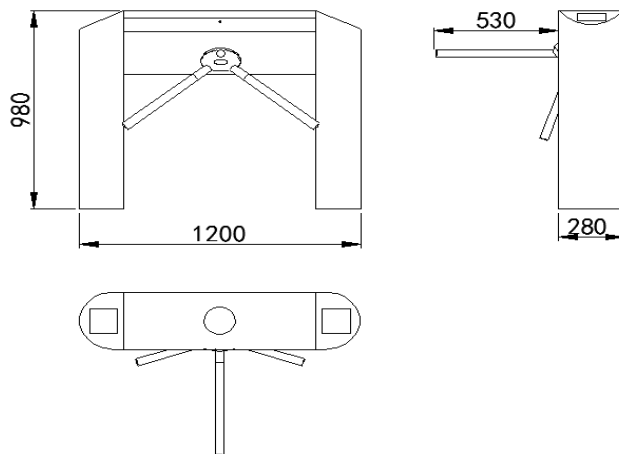
Thank you very much for buying the intelligent tripod turnstile produced by our company. kindly read this manual before installation and operating, and please note after working long time, the control board would heat up slightly and this is a normal phenomenon. Please make sure all these parts cool before doing the routine maintenance.



1. Product Introduction

Description	Parameters
Lane Width	550-570mm
IP	IP54
Pass Speed	25-30 persons/min
Power supply	AC220V/110V,50/60Hz
Drive Mode	Motor drive
Max Power Consumption	200W
Opening time	0.06S
Humidity	≤90% coagulation free
Noise	≤50dB
Service Life	3,000,000 cycles
Outside packing	113x135x43 cm
Working Environment	-20° C~+60° C
Gross Weight	85KGS

DIMENSION:



1 RELIABILITY

Alloy steel tripod hub prevents mechanical wear. Patented compact mechanism ensures the long life of the lubricating oil inside and high quality electrical components.

2 AUTO ROTATION

Its unique mechanical drive design allow the arm auto-rotate back with an electric motor. If arm rotated more than half, it will auto-rotate to the next idle position. If arm rotated less than half, it will auto-rotate back to the current idle position. Adjustable absorber controls rotation force to minimize loud sound and avoid over rotation.

3 EASY MAINTENANCE

Common parts are modular and can be easily changed by simply removing screws. Top cover can be opened for full access into internal mechanism during servicing. Regular wear and tear parts can be purchased to keep stock for faster replacement.

4 ANTI TAIL-GATING

Smart lock mechanism effectively allow only one person to pass through at a time. Arm will automatically relock back if nobody pass through after a preset delay time.

5 EASY INTEGRATION

Smart lock mechanism effectively allow only one person to pass through at a time. Arm will automatically relock back if nobody pass through after a preset delay time.

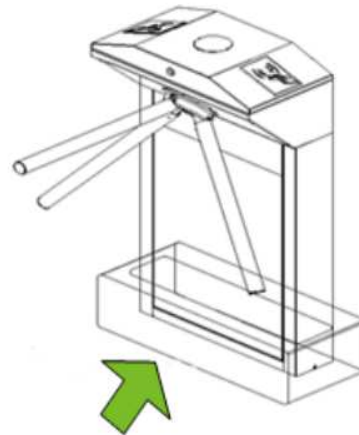
6 USER FRIENDLY

LED at top cover indicates approved entry direction after flash card. During power failure, arm will drop automatically allowing free pass through. Arm is manually lifted up back to position after power resumed.

2. Testing before installation

2.1 Unpacking

The vertical type tripod turnstile is top heavy and unsteady, do not remove the foam at the bottom before installation as shown in figure 2-



Do not remove the foam lining at the bottom before installation.

Figure 2-1

3. Installation

3.1 Arm Installation Method

1. Open the glue and apply in the square opening of the arms as well as the one countersunk screw, as shown in figure 2-2. (This is to prevent screws from getting loose due to vibration after being used for a long time.)
2. Insert the arms to the connection points, and use the hex key to fasten the one screw on each arm as shown in figure 2-3.

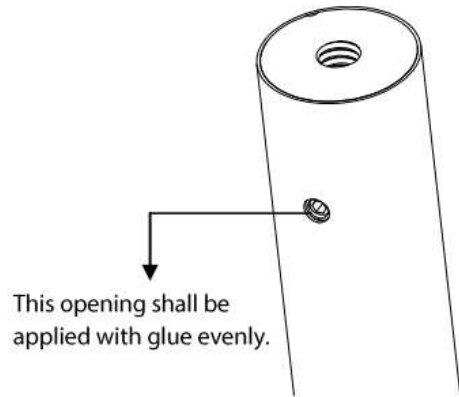


Figure 2-2

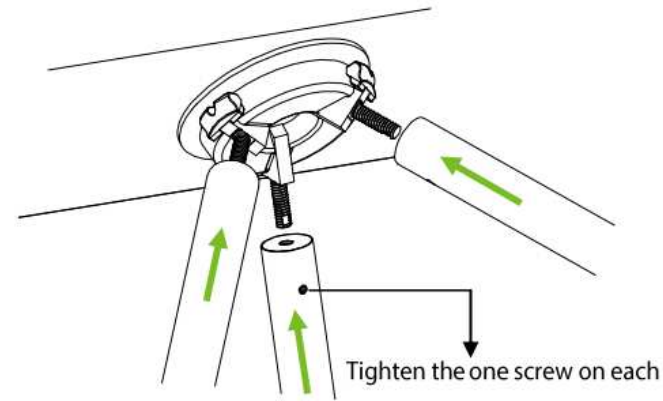


Figure 2-3

3.2 Power-on Test Before The Installation

1. Please make sure the power requirements are strictly met to avoid permanent damage to the unit, input voltage 100V-240V is self-adaptive. Note: The tripod turnstile must be connected to the ground (earth).
2. Power on and wait 30s for the tripod turnstile to finish the self-check program.
3. Arms will be lifted automatically, as shown in figure 2-5.
4. Check whether the tripod turnstile and the LED indicators work properly.
If there is any problem, please contact the supplier.

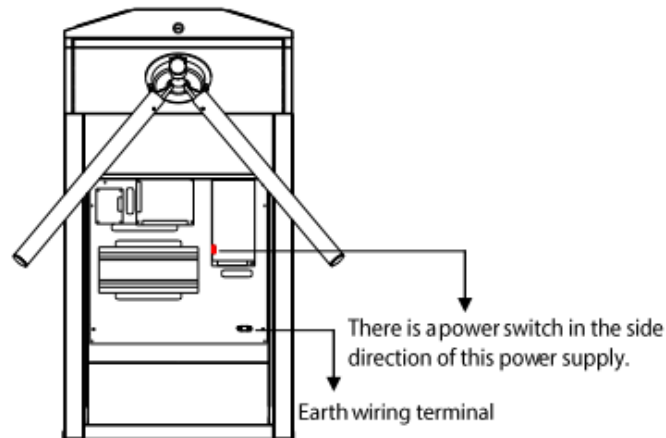


Figure 2-4

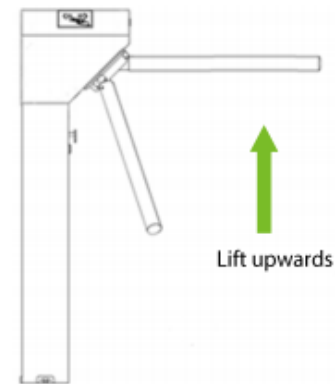


Figure 2-5

3.3 Installation Conditions

The equipment must be installed on concrete ground, ensuring that expansion bolts can be secured firmly. You are suggested to install an assistant framework or fence to form a passageway, as shown in figure 3-1.

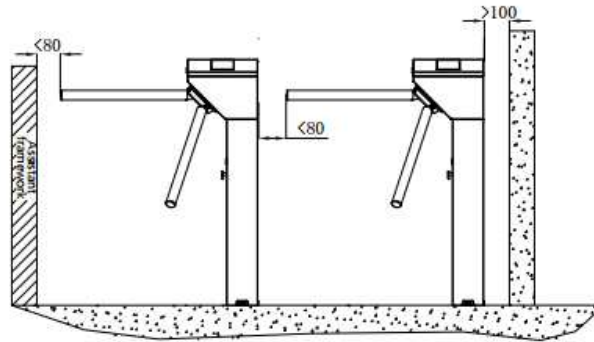


Figure 3-1

Notes:

1. When installing the tripod turnstile against the wall, please reserve at least 100mm space in order to open the cover for adjustment and maintenance.
2. The space at the end of the arm shall not be greater than 80mm (see figure 3-1).
3. Setting a warning line for card swiping (see figure 3-2). A warning line is suggested to prompt users to swip cards in a distance, which would greatly reduce the probability of equipment failure caused by improper operations.

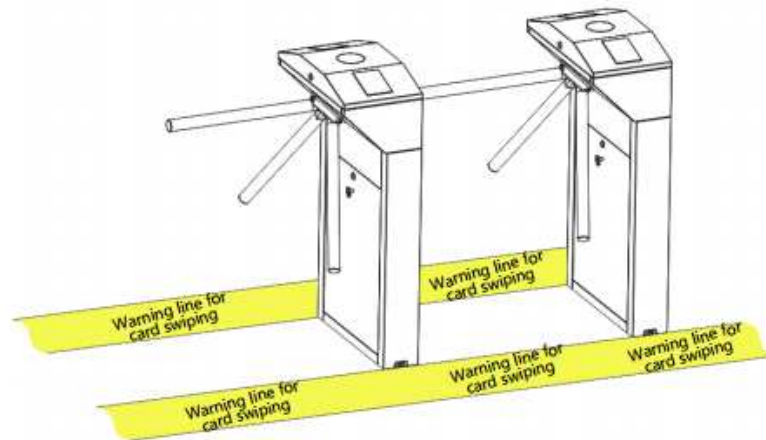


Figure 3-2

3.4 Cabling

There are inlets in the bottom plate for cabling, as shown in figure 3-3, the unit is millimeter. Power supply and communication wire should go through the inlet. Cable protection covers are suggested to use if it is surface mounted.

Warning: The tripod turnstile must be connected to the ground (earth), there is a wiring interface near the power switch.

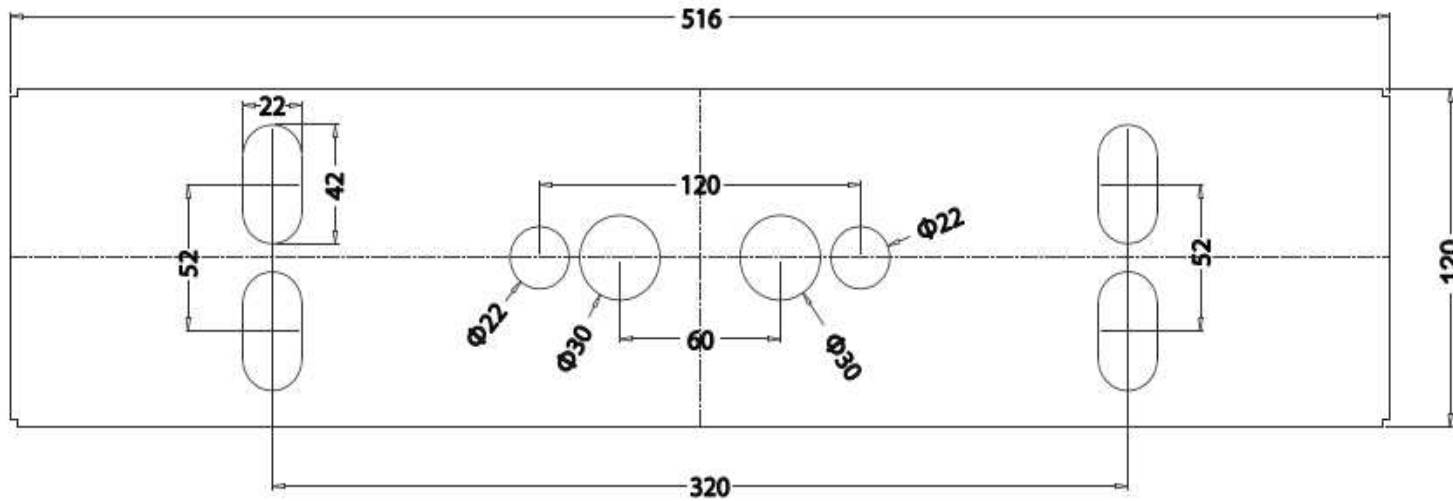


Figure 3-3

3.5 Installation

1. Drilling holes.

Drill holes based on the locations of the holes shown in figure 3-3.

2. Fix the mounting plate to its original position.

Placing the mounting plate properly and apply screw securing glue on the surface and the threads of the expansion bolts, install four expansion bolts to secure the mounting plate, and use a horizontal ruler to test the levelness of the mounting plate. If the mounting plate is not level, adjust it by the gaskets provided. Note that all the four expansion bolts must be installed properly, as shown in figure 3-4.

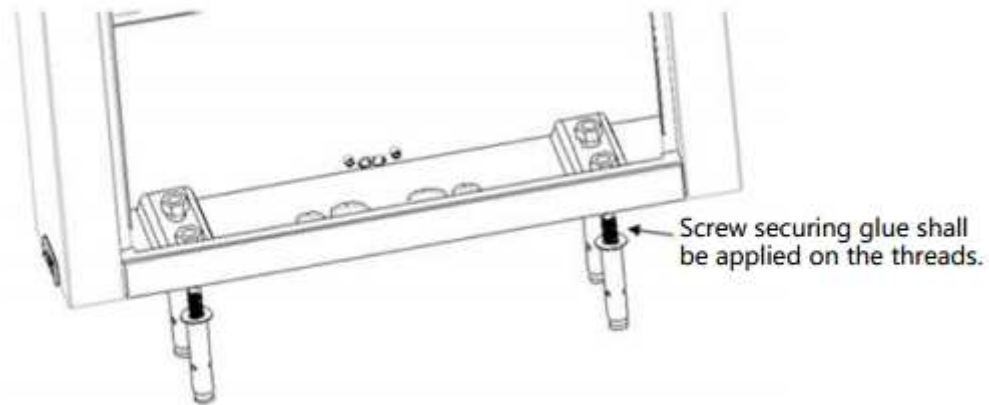


Figure 3-4

3. Put the turnstile on the mounting plate and tighten the screws. Apply screw securing glue before using and putting gaskets on the screws to adjust the direction of the turnstile. If the tripod turnstile is not level, you can place gaskets to adjust, as shown in figure 3-5.

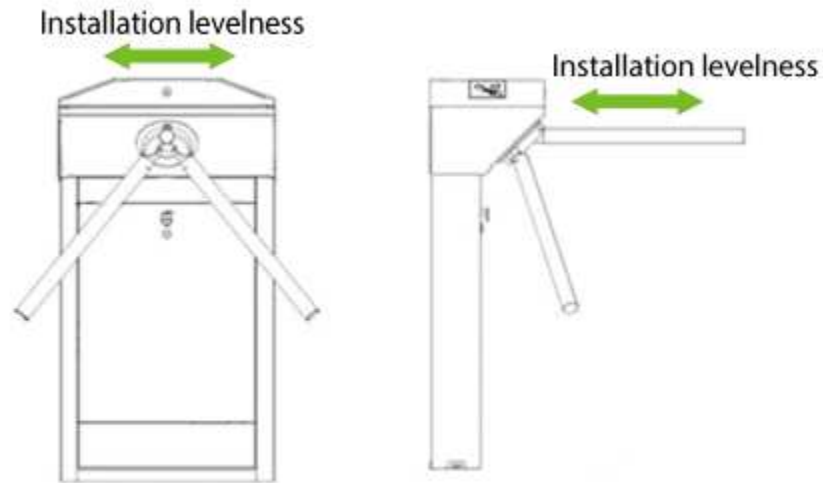


Figure 3-5

4. Drive Board Wiring

4.1 Drive board description

If you are buying access control system from supplier,all the connections between access control and turnstile control boards are done in factory,just plug in communication cable to access controller and do the setting.

If you install access control system by yourself,you need to connect access control system to the main board,please check the content in this chapter carefully.

4.2 Unlock input

1# unlock input,2# unlock input and GND:gate opening input interface,receive dry contact signal to open the gate.The are two pairs of input for both in and out.That means access control system need two relays to indicate in and out.

ALM:Alarm input for normal open.

XF:Emergency input for normal open,for example fire alarm input.

4.3 Barrier arm's position detection input

There are +12V、 A、 B inputs detecting wing's postion;

+12V、 A、 GND: use for detecting speed gate is unlock status;

+12V、 B、 GND: use for detecting speed gate is lock status;

The function of limited switch: control the motor start direction,right is A lighting,left is B lighting.

Z is encoder output,used for control the middle position,(Z turned off means receiving signal),used for control the clutch.

4.4 Other input

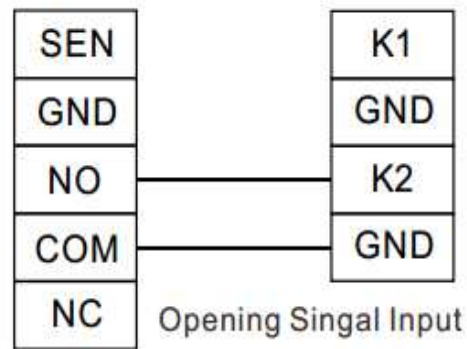
+MOT-: connect to motor's“+ “and “-” ; 24V,SOL1: connect to clutch;

1、 GND、 2: housing top green LED indicator output; R1:housing top red LED indicator,illegal entry will be lighting;

NC1、NO1、GND、NO2、NC2:connect to housing side LED direction indicators,showing passages the direction available or not.

+24-: for power supply.

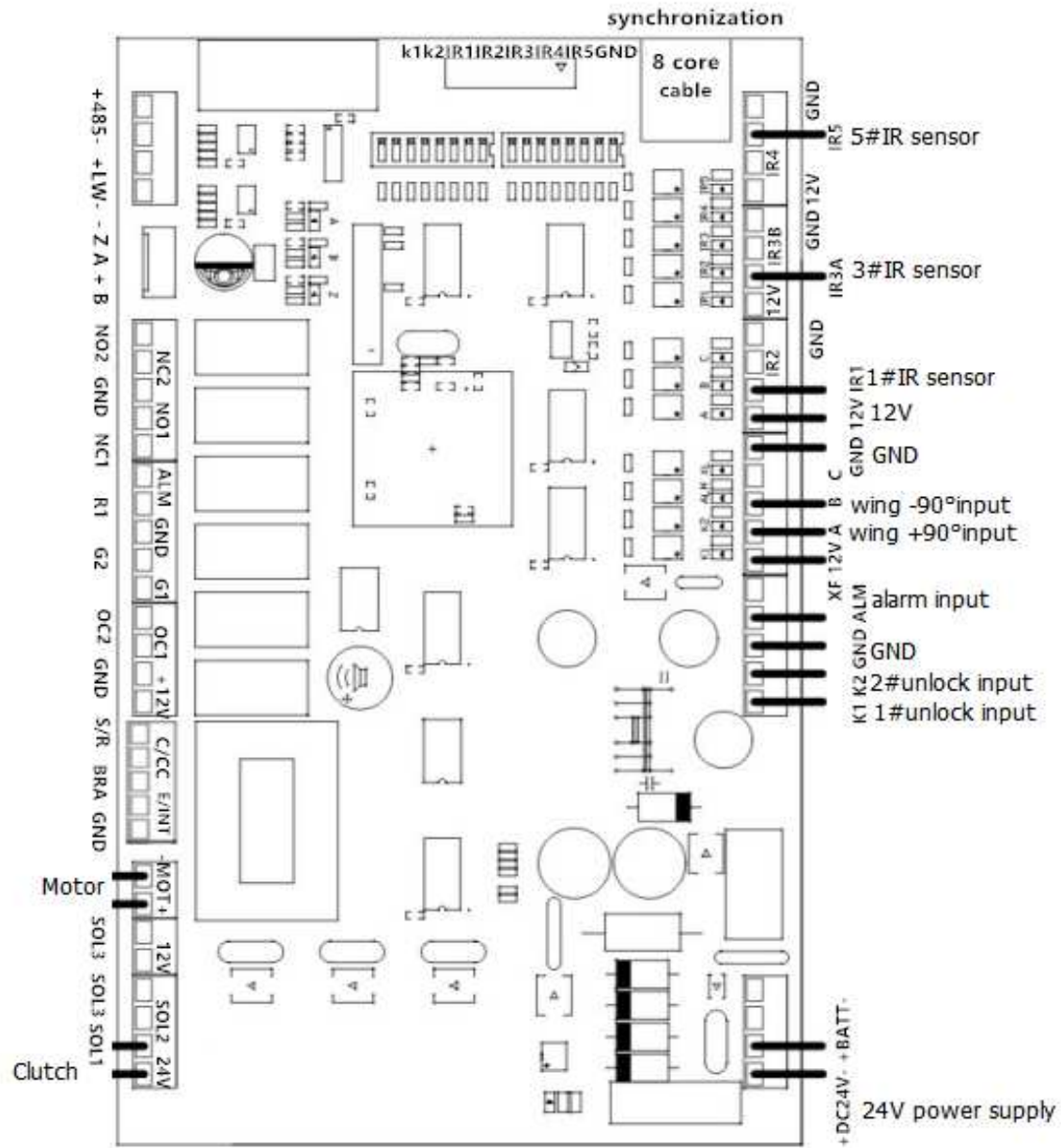
4.5 Connection between Access control system



Access Control System

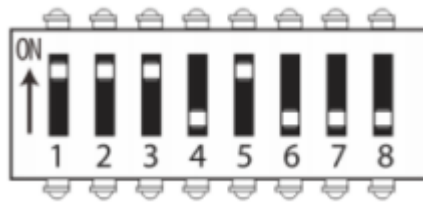
Picture 4-3

Note: The access control relay open duration should be no more than 1 second.



Picture4-4
Security4all.ro

4.6 DIP Switch Setting



(1=ON 0=OFF)

Picture4-5

No.	SW1-1	SW1-2	SW1-3	SW1-4	SW1-5	SW1-6	SW1-7	SW1-8
Function	Open speed		Open direction			Alarm	Opening time	
Default	1	0	1	0	0	0	0	0

Note: SW1-1 and SW1-2 adjust open speed: 00 01 10 11 = (fourth third second first) speed

SW1-3 adjust gate unlock direction,used for synchronize two pieces gates

SW1-4 electromagnet z point,SW1-5 encoder z point

SW1-6 enabled or disabled the alarm function 1=enabled 0=disabled (please set to 0 when working normally,that is to say that alarm function is disabled)

SW1-7 and SW1-8 adjust open time: 00 01 10 11 =5s 3s 8s 10s

4.7 Indicators

Power、K1、K2、ALM、XF、A、B、C、IR1、IR2、IR3、IR4、IR5 indicating power supply、1# unlock input、2# unlock input、unlocking status、locking status、1、2、3、4、5 pairs IR sensors detected signal.

5. Operation Explanation

5.1 Operation principle

- 1).When power on,the gate is normally locking;
- 2).When access signal activated, the gate will be unlock;
- 3).When power off or emergency signal is activated,the gate open automatically;
- 4).When authorized access signal is sent, the gate will lock within fixed time if there is no passenger access.

5.2 The working mode

In order to facilitate the user, there are multiple working modes for the user to choose according to the actual situation of usage.

- 1).Bi-directional card reading and staff limiting
- 2).Left can read the card , while right can be forbidden to pass
- 3).Right can read the card , while left can be forbidden to pass

6. Regular Maintenance

6.1 Maintenance

1.The housing of the equipment is of a sub-polish stainless steel,It is required to clean regularly with soft cloth so as to keep a clean and polish surface.It is forbidden to clean the surface with a hard object;otherwise,the appearance maybe affected.It is also forbidden to wash it with water,otherwise,short circuit may occur in the electric control system and the equipment may be damaged.Ensure that the power supply is disconnected before the inspection to avoid electric shock.

2.It is required to check regularly the connection of various movement sections of the equipment.Fasten timely the loose fasteners such as nut and screw,otherwise,turnstile failure maybe resulted due to long term cooperation.

3.It is required to check regularly the protection grounding of the system to ensure a reliable connection.

4.It is required to check regularly the connectors and line connection points to ensure a reliable connection.

6.2 Common failures and the remedy

1. No indication for LED and counter,and not able to read card after power on.

The failure is due to power system,it is required to check carefully the power supply or the 5A fuse in the drive board of the equipment for damage,and see if there exists any loose connector or broken power line.

2.Not available to read card normally.

The failure is mainly due to a loose connection between reading device and the main controller or the reading device maybe damaged.Replace the reading device and carry out functional test for it.

3. Unable to unlock the gate.

The failure is mainly due to lack of permission or a circuit problem, firstly check if the user has permission to open the gate. Second, use a multimeter to check whether the NO and COM ports of the access control system has a relay signal output. Third, short-circuit the ports "K1, GND" and "K2, GND" if the gate is successfully panned, it would be the problem of controller. In this case, please refer to picture 4-1 to check the cable connection of the controller.

4. The arms drop during the use.

It may be caused by the problem of relative components or drop-arm electromagnet. Check whether there is any gap at the position as shown in figure 6-1. Check whether the drop-arm electromagnet is totally closed. If not, power off the device and power on it again 2 minutes later.

7. Warranty and Service

1. 1 year warranty
2. Service for all the year with due charge accordingly
3. 24 hours online service

The circumstances of the following will not offer free warranty:

1. The user does not operate the product according to the manual, which causes the product broken.
2. Using the product in the conditions of unstable current, overload current or not in line with the national electricity standard
3. The user mismanages the product and causes the product problem.
4. Product damage is because of natural disaster.
5. Not in the warranty period.
6. Other services promised by distributors.

The manufacturer reserves the explanation rights to the manual and the warranty articles.

8. Package Items

Item	Name	Qty	Unit	Notes
1	Housing With Rotating Plate	1	Pc	Necessary
2	Tripod Arm	3	Pc	Necessary
3	Mechanism	1	Pc	Necessary
4	Control Board	1	Pc	Necessary
5	Power Supply and Cables	1	Kit	Necessary
6	Air Switch	1	Pc	Necessary
7	Card Reader and its Cable	2	Kit	Optional
8	Counter and its Cable	2	Kit	Optional
9	Top LED light and its Cable	1	Kit	Optional
10	Access Control System	1	Kit	Optional
11	Mounting Bolts	Unspecified	Pc	Necessary

9. Appendix

```

COM1 9600 n 8 1
Initial flag  Command      Address      BCC Verify   Terminator
buff[0] buff[1] buff[2] buff[3] buff[4]
1BYTE 1BYTE 1BYTE 1BYTE 1BYTE
0x20 0x80<Unlock> 0x01-0xfe [1]^ [2] 0x03
      0x30< Lock > 0xff
      0x50<Alarm>

SW25/SW26/SW27/SW28 ID = 0000 -1111
20 80 FF 7F 03 // Normally Open
20 30 FF CF 03 // Lock
20 50 FF AF 03 // Alarm
20 81 FF 7E 03 // 1# unlock
20 82 FF 7D 03 // 2# unlock

```