



# **Maintenance Manual**

**Product NO: TG-S2000G**

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Maintenance Instruction-Main Part List

Motor& encoder		Controller	
Driver		Main Power Supply	
Sensor		GearBox	

## Maintenance and Troubleshooting

### Troubleshooting

Basic concepts: Infrared radiation consists of a receiving end and a transmitting end.

The green light at the tail of the transmitting end is always on, and the receiving end (with 3 wires, brown, 12V, blue, Gnd, black) When the signal line is unobstructed, the red light at the tail does not light up, and there is no voltage output between the black signal line and the blue line. When there is obstruction, the red light at the tail lights up, and the black signal. There is voltage output between the number line and the blue line.

Question	Solution
1.The indicator light is not on?	Switch to another test machine or use a good one to check the wiring.
2.There is one indicator light with wrong direction?	Swap the connection between D1 and D2 terminals of control board.
3. After swiping the card, one side of the door wing remains stationary?	Check if the wiring is loose; Power off and check if the connecting wires are properly connected; Check the electrical of the control board separately. The ports W, V, and U of the machine correspond one-to-one with the color of the line sequence
4. Open the gate upon entering the channel?	Change the two-way free access mode of the control panel menu to card swiping mode.
5. After swiping the card, enter the channel to sound an alarm and close the gate	Connect the opening signal to the two terminals of the anti adjustment control board, SW1 GND and SW2 GND.
6.Why does 304 stainless steel rust?	Environmental factors can cause corrosion and rusting of stainless steel, especially the presence of hydrogen ions and chloride ions. For example, hydrogen ions and chloride ions are present in table salt/sweat/sea water/sea breeze/soil, etc. Stainless steel corrodes quickly in the presence of chloride ions, even more than ordinary low carbon steel. Therefore, there are requirements for the working environment of stainless steel, and it needs to be wiped frequently to remove dust and keep clean and dry.



## Maintenance & Service Interval

Type	Solutions	Maintenance cycle
Surface dust, chemical liquid, dirt and acid and alkaline substances	Wash with wet soft non-woven cloth, then wipe clean, then scrub with alcohol, and then wipe the whole body of the turnstile with WD-40 rust remover.	Weekly
The surface has rainbow patterns or the surface color is dull	Wash with wet soft cotton cloth, then wipe clean, then scrub with alcohol and then wipe the whole body of the turnstile with WD-40 rust remover.	Weekly
Check the moving parts for abnormal noise or looseness	Apply industrial oil to the moving part and tighten the parts especially the obstacles.	Quarterly
Check if fasteners are loose or not and circuits is abnormal or not	If the fasteners and connections are loose, tighten them; if the circuit is abnormal, solve the problem.	Annual

## Maintenance tools and materials

1. Cleaner: Choose mild stainless steel cleaners and avoid using cleaners with acidic or alkaline ingredients.
2. Soft cloth or sponge: Spray cleaners on a soft cloth (or sponge) to clean the turnstile surface.
3. Water: wash surface dirt. Water: Clean surface contaminants with water.
4. Drying cloth: wipe off surface moisture.
5. WD-40 Rust Remover: Remove rust caused by long-term exposure to corrosive environment.
6. Lubrication: lubricate bearings, locking arms, transmission joint components.

## Note :

1. Avoid using cleaners with acidic or alkaline ingredients, which may make the surface rust.
2. Avoid using sharp or hard objects to scratch the turnstile surface, which will affect the appearance of the turnstile surface.
3. Keep surface dry, Avoid making the turnstile in moisture for a long time. Water stains will cause stainless steel to rust. If there are water stains on the surface, wipe clean immediately.
4. Regular inspection and maintenance, regularly check the turnstile surface condition to promptly find and resolve existing problems. If there are rust or scratches on the surface, please maintain or replace in time.



## Testing

### Testing

1. Check the wiring: the channel: According to the wiring diagram, check whether the online and power lines of the gate are connected correctly. Only after confirming that they are correct can the power be turned on. If there are any abnormalities during the power on process. Always disconnect the power and check the connecting wires first.
2. Function debugging: After power on, the gate is opened and closed, then opened and finally closed. This process is a machine self-test, and the self-test is completed after two beeps of two seconds. Do not block the infrared during the process and do not stand in the channel.
3. Enter the lines without swiping card, the turnstile will always alarm; if no alarm, please check if the infrared sensors are aligned. When they are aligned, the infrared receiver lights up red; When they are not aligned, and then the infrared receiver will not light up red, please adjust and align the infrared sensors.
4. The unlocking time of the access control relay should be set to 0 seconds or 1 second;
5. When flashing a valid card, the indicator light turns into a green arrow. If the direction indicated by the indicator light is incorrect or if the entrance gate is closed immediately and an alarm is triggered, switch to SW1 Simply swap the Gnd and SW2 Gnd wiring.
6. Carefully inspect and test to ensure that there are no abnormalities in the door opening and closing, the indicator lights are correct, and infrared anti pinch function is normal before putting it into use.