

instruction for installation

INSTALLATION MANUAL

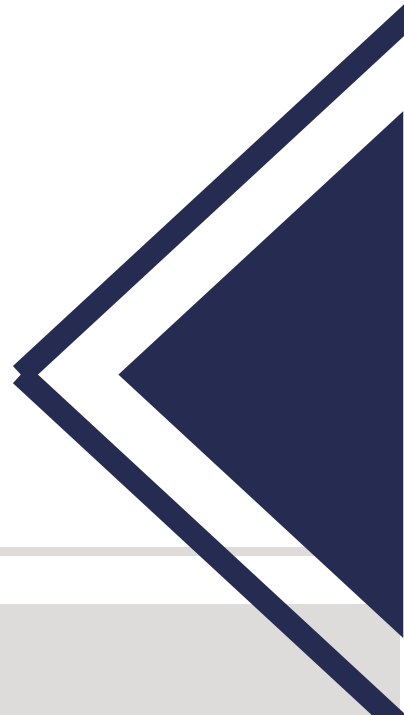


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01

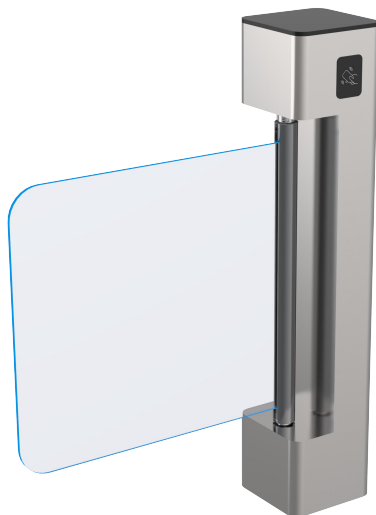
Chapter 1: Installation Instructions

Installation Requirements

- 1、 The finished surface of the turnstiles must be level;
- 2、 Outdoor installation using concrete grade C30 or higher;
- 3、 Outdoor installation with a concrete thickness of 200 mm;
- 4、 The foundation must be frost-free soil with good bearing capacity;
- 5、 Power supply: The equipment must be properly grounded;
- 6、 The power cable shall have a minimum cross-sectional area of $\text{RVV}3 \times 2.0 \text{ mm}^2$;
- 7、 During equipment installation, ensure that the machine body is level and the rotating shaft is vertical;

Start installation

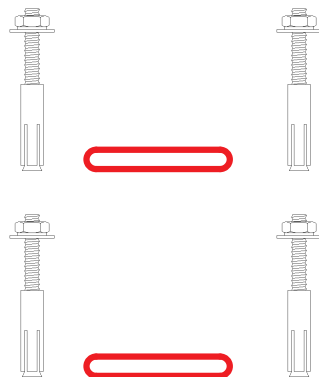
Position the equipment according to the access route requirements, ensuring that both ends of the equipment are aligned and that the access route width is consistent.



Mark the fixed hole position

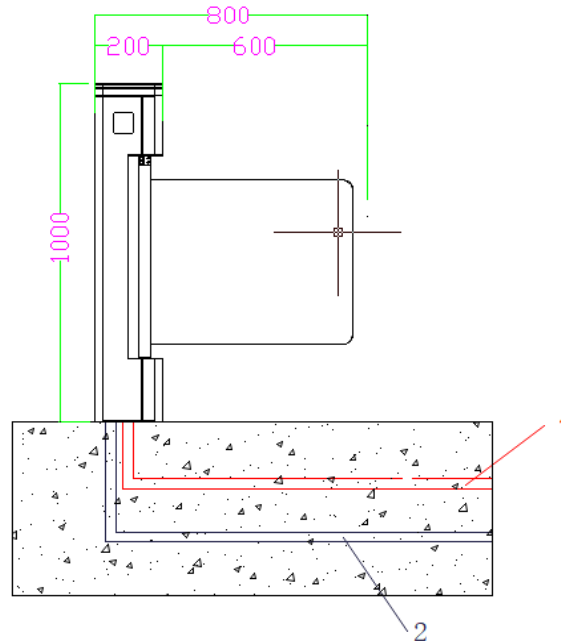


Remove the device and pre-install M12×100 expansion screws according to the marked hole positions.



Pre-Install Wiring According to the Wiring Diagram

(Note: This Device Requires Only a Power Cord if Additional Access Control Devices Are Installed Wiring Should Be Arranged According to Actual Requirements.)



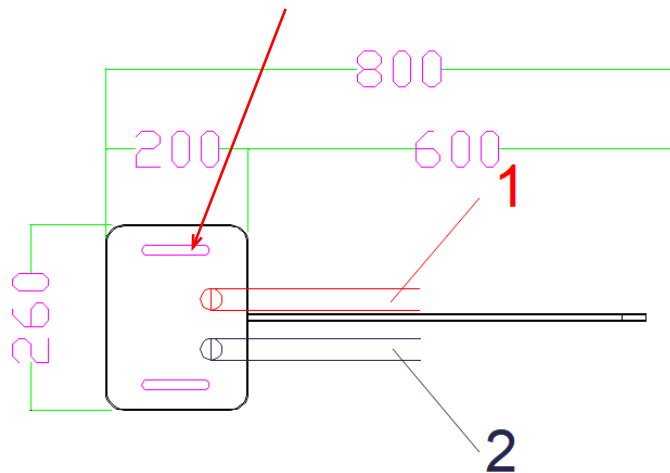
Legend:

- | | | |
|---|--|--|
| 1 |  | Power cord (3-core) X2.0mm) |
| 2 |  | TCP/IP (8-core network cable) or RS-485 signal cable – recommended maximum distance of 100 m (to be installed inside the machine housing where the access control panel is located). |
| 3 |  | 1 – Main Gate Drive Board; 2 – Secondary Gate Drive Board |
| 4 |  | Fixed plate |

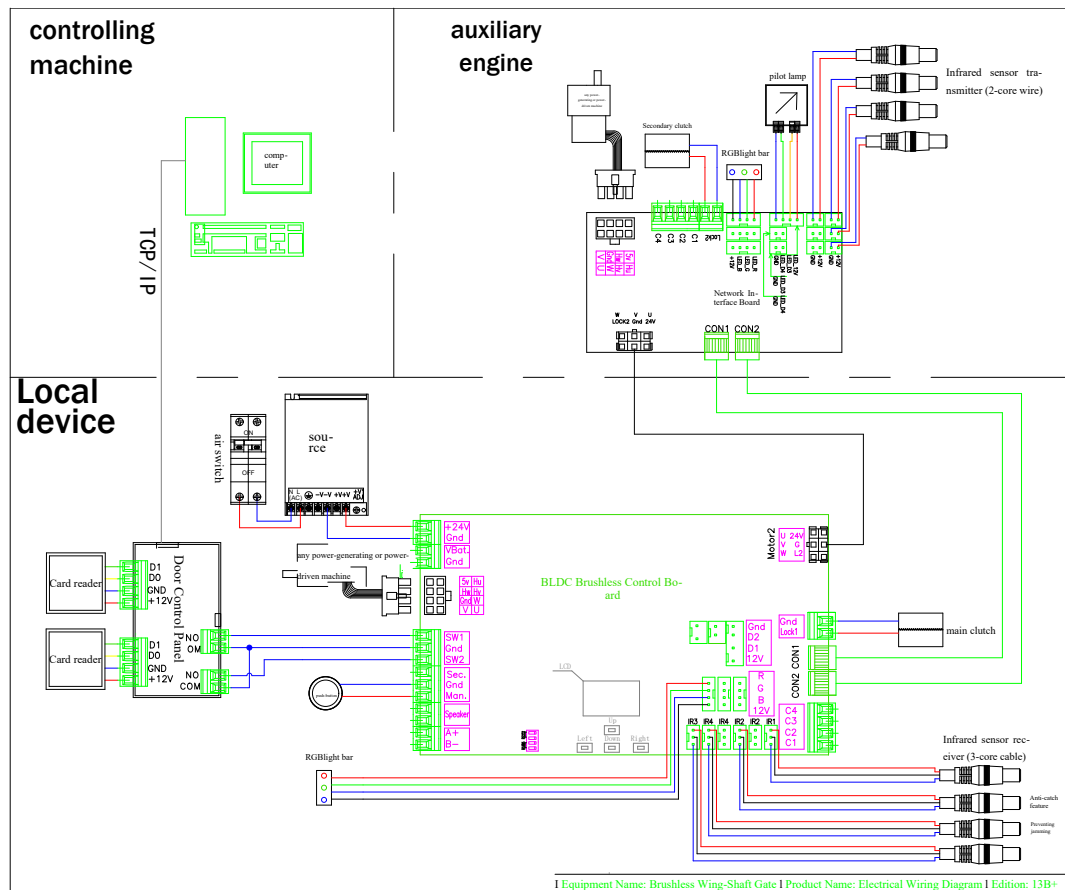
Note: This gate machine requires only a power cord and an interconnection cable. The internal switching power supply and control board are not installed at the bottom; it is recommended that the power cord and interconnection cable extend at least 2 m above the ground.

Equipment Installation and Fastening

(M12×100 mm expansion screw hole position)



hookup



02

Chapter 2: Equipment Commissioning

Testing of equipment

- 1、 Check the wiring: Refer to the wiring diagram to verify that the gate machine's connection cable and power cable are properly connected; only after confirming this should the device be powered on. Should any abnormality occur during the power-on process, immediately disconnect the power supply and inspect the connection cable.
- 2、 Functional debugging: After powering on, operate the gate by opening, closing, then opening again, and finally closing it. This sequence constitutes the machine's self-test; the self-test is complete upon the occurrence of two consecutive two-second beeps. During this process, do not obstruct the infrared sensor or stand within the passage.
- 3、 Under normal circumstances, if a card is not swiped when entering the passage, the gate will trigger an alarm; if no alarm is issued, please check whether the infrared alignment is correct. Under normal, unobstructed conditions, the infrared receiver should illuminate its red light; if the illumination status of the infrared receiver is different, it indicates that the infrared beams from the transmitting and receiving ends are not aligned; in this case, the alignment should be adjusted.
- 4、 The access control relay's unlocking time should be set to 0 seconds or 1 second;
- 5、 When a valid card is swiped, the indicator light will display as a green arrow; if the indicator light shows an incorrect direction or if the gate is triggered, it will close immediately and trigger an alarm – in this case, simply swap the SW1-Gnd and SW2-Gnd wiring connections.
- 6、 Carefully inspect the device to ensure there are no abnormalities when opening or closing the doors, that the indicator lights are functioning correctly, and that the infrared anti-catch function is working properly before putting it into use.

parameter

declaration

Menu item	Explain
1. Traffic Parameters	
1.1 Number of passengers	Display the number of people who have passed through the entrance/exit.
1.2 Door Gate Mode	Set the gate mode to default: 1 – Normally Closed Bidirectional Card Reader
1.3 Travel duration	Set maximum individual travel time (0.1–25.5 seconds); default: 5 seconds
1.4 Authorized Memory	Enable the card swipe memory function – default: disabled (two-way).
1.5 Card swiping through the channel	Whether card swiping is allowed in the channel – disabled by default.
1.6 Door Opening Delay	Set the delay for door opening after authorization (0.0–25.5 seconds); default: 0 seconds
1.7 Door Closing Delay	Set the delay before closing the door after passage is completed (0.0–25.5 seconds); default: 0 seconds
1.8 Minimum speed: 1	Set the host's power-on self-test speed; the lower the value, the slower the test.
1.9 Maximum speed: 1	Set the host door opening/closing speed; the higher the value, the faster the speed.
1.10 Minimum speed: 2	Set the power-on self-test speed for the secondary device; the lower the value, the slower the test.
1.11 Maximum speed: 2	Set the secondary machine door opening/closing speed; the higher the value, the faster the speed.
1.12 Passage completed	Set the infrared sensor location that indicates the end of pedestrian passage (exit, anti-catch), default: exit.
1.13 Unauthorized Access Alert	Set an alarm mode for unauthorized access; default alarm.
1.14 Reverse traffic flow	Set up a reverse traffic alert mode (default alert).
1.15 Following Access	Set the trailing passage alarm mode (default alarm).
1.16 Forward speech	

1.17	Output Speech	
1.18	Alarm Voice Alert	
1.19	Advanced Parameters	Enter Advanced Parameter Settings
.1	Motor reduction ratio	Set motor reduction ratio (1–120)
.2	KP1	
.3	KP2	
.4	Overcurrent Protection	Set the motor overcurrent protection threshold (default: 2.0 A).
.5	Entrance/Exit Angle 1	Set the host's inlet door position angle
.6	Door Opening/Angle 1	Set the host's outgoing door position angle
.7	Entrance/Exit Opening Angle 2	Set the entry door position angle for the auxiliary unit
.8	Door Opening/Angle 2	Set the outgoing door opening position angle for the secondary unit
.9.	Advance Buffer Coefficient: 1	Set up a door closing position buffer for the host unit.
10	Output buffer coefficient: 1	Set up an outgoing door closing position buffer for the host.
11	Advance Buffer Coefficient 2	Set up a buffer for the secondary machine's inlet door closing position.
12	Output buffer coefficient: 2	Set up a buffer for the secondary machine's outgoing door closing position.
13	Combat intensity	Resistance force required to operate the gate in standby mode (Without clutch mode)
14	Output Control 1	Main unit angle value and Hall value position display
15	Output Control 2	Secondary motor angle value and Hall value position display
16	Clutch engaged	Set clutch (1. Prohibited; 2. Permitted)
17	Save Default	Set the current parameters to factory default values.
18	Automatic Reporting	Whether the gate machine status change is automatically reported via RS485 – default: disabled
19	Motor Direction 1	Set the main motor rotation direction (1. Forward; 2. Reverse)

20	Motor Direction 2	Set the auxiliary motor rotation direction (1. Forward; 2. Reverse)
21	Motor type	Select motor type (1. Standard Motor; 2. Integrated Motor)
22	Indicator Light Mode	Set default indicator light parameters (static sequential light, square light)
23	Relay Counter	Whether to enable the relay for traffic counting – disabled by default.
24	Change equipment type	Set the controller device type (Swing Gate, Wing Gate, Three-Roll Barrier)
2.	System Settings	
2.1	Lang (Language)	Set menu display language
2.2	device type	Display Control Board Device Type
2.3	Version Information	Display control board hardware and software version information
2.4	device address	Set device logical address
2.5	485 baud rate	Set the baud rate for the RS485 communication port
2.6	Restore to factory settings	All parameters are restored to factory default settings.
2.7	Restart device	Reboot
3.	function testing	(These features are available only to qualified engineers.)
3.1	Door Opening/Closing Test	Door Opening/Closing Cycle Test
3.2	Set zero position	Operating the swing gate; setting the baffle closure position

03

chapter three

Fault Troubleshooting and
Maintenance

Gate Machine Fault Handling

Basic Concept:The opposite-direction infrared system consists of a transmitter and a receiver. The green light at the tail of the transmitter is always on; when there is no obstruction at the receiver (which has three wires – a brown 12V power wire, a blue ground wire, and a black signal wire), the red light at the tail is off, and no voltage is detected between the black signal wire and the blue wire; when an obstruction is present, the red light at the tail turns on, and voltage is detected between the black signal wire and the blue wire.

Hitch	Analysis and Processing Methodology
1、 The indicator light isn't turning on?	Test the device on another unit or replace it with a good one, then check the wiring.
2、 Does the indicator light show the wrong direction?	Connect the D1 and D2 control board wiring.
3、 The side door panel doesn't move after swiping the card?	Check whether the wiring is loose; after powering off the system, verify that all connection cables are properly connected; inspect the W, V, and U motor ports on the control board one by one to ensure the wire color codes match accordingly.
4、 Do the gates open upon entering the passage?	Change the Control Panel menu's "Two-Way Free Mode" to "Card Swipe Mode".
5、 Upon card swiping, the access gate triggers an alarm and closes the barrier.	The gate-open signal is connected to the GND terminals of both SW1 and SW2 on the Reverse Control Board.

Precautions and Maintenance



Why does 304 stainless steel rust?

Scientific research indicates that the primary environmental factor contributing to corrosion and rusting of 304 stainless steel is the widespread presence of hydrogen ions and chloride ions—such as those found in table salt, sweat, seawater, sea breeze, or soil. When exposed to an environment containing helium ions, stainless steel corrodes rapidly—sometimes even faster than ordinary low-carbon steel. Therefore, specific environmental conditions must be met when using stainless steel; additionally, it should be cleaned regularly by wiping away dust to maintain cleanliness and dryness.



Stainless Steel Gate Maintenance Manual

Dear Customer:

Hello! Thank you for purchasing our products. We would like to formally assure our customers that all pedestrian passage products you have purchased are constructed from 304-grade stainless steel, manufactured using advanced production techniques and subjected to rigorous quality inspections to ensure compliance with all quality standards. However, during installation and use, due to improper operation or environmental factors, it is inevitable that the various components may experience wear and deterioration, which could result in rusting on the product surface and adversely affect your customer experience. We recommend performing regular maintenance and care on your products to keep them in optimal condition over time.

Type: Surface dust, chemical liquids, dirt, and acidic or alkaline substances

Processing method: Wash the gate with soft non-woven fabric dipped in water, then wipe it clean; next, wipe it with alcohol; finally, apply WD-40 rust inhibitor to wipe down the entire gate surface.

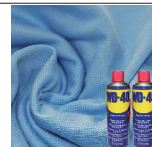
Maintenance period: Weekly Maintenance



Type: The surface features rainbow patterns or appears dull in color.

Processing method: Wash the surface thoroughly with soft cotton cloth dipped in warm water, then wipe it clean. Next, wipe the surface with alcohol, and finally apply WD-40 rust preventive spray to the entire gate machine.

Maintenance period: Weekly Maintenance



Type: Check whether the moving parts are making any abnormal noises or appear loose.

Processing method: Apply butter to the movable joints.

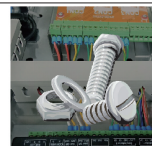
Maintenance period: Quarterly Maintenance



Type: Check whether any fasteners are loose or if there are any circuit abnormalities.

Processing method: The fasteners are loose; they need to be re-tightened (e.g., with screws) to resolve any circuit abnormalities.

Maintenance period: yearly maintenance



Maintenance Tools and Materials

- 1、 Cleaner: Use a mild, stainless steel-specific cleaner; avoid using cleaners containing acidic or alkaline ingredients.
- 2、 Soft cloth or sponge: Used to apply detergent and wipe surfaces.
- 3、 Clear water: For rinsing surfaces.
- 4、 Dry cloth: Used to wipe away surface moisture.
- 5、 WD-40 Rust Remover: For areas that have developed rust due to prolonged exposure to corrosive environments.
- 6、 Lubricating oil: For bearings, locking arms, and transmission joint components

Matters Need Attention

- 1、 Avoid using cleaners containing acidic or alkaline ingredients, as these may damage stainless steel surfaces.
- 2、 Avoid physical damage: Do not use sharp objects or hard surfaces to scrape the gate surface, as this may affect its appearance.
- 3、 Keep the stainless steel surface dry; avoid exposing it to humid environments for extended periods, as moisture can lead to rusting. If the surface is damp, wipe it clean immediately with a clean cloth.
- 4、 Regular inspection and maintenance: Periodically check the condition of the stainless steel surface to promptly identify and address any issues. If rust or scratches are detected on the surface, repair or replace it immediately.