OFG5311 Installation Guide V1.0.0

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Revision History

Date	Manual Version	Description	Author
2023/04/24	V1.0.0	Initial release	W3317

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1 Product Overview

OFG5311tripod turnstile is designed for personnel access control. It can be used with face recognition devices to realize precise access control and supports multiple authentication modes including QR code, face, card, induction, keep open, etc. This product has a simple and elegant design, uses an advanced movement to ensure long-term reliability, and can be widely used in scenarios such as education, parks, and residential compounds.

OFG5311 Tripod Turnstile

2 Site Survey

Before the site survey, you need to have a comprehensive understanding of the project, including background, scale, quality objectives, cycle, bidding documents, contracts, design plans and drawings. Then you can conduct a survey on site based on the above information, and combine the survey results with the customer's needs to decide the exact installation location of the device.

2.1 Site Requirements

1. The device is preferred to be installed in aisles of regular width or in wider lobbies.
2. Confirm the number of pedestals required according to the flow of people on site.
3. Reserve space for people queuing to avoid congestion.
4. Check whether a logistics lane is required.
5. If the device is installed outdoors, equip it with a shade and take effective measures to prevent it from being immersed in water. Under special circumstances, the immersion height should not exceed 10cm, otherwise it may lead to rust and corrosion of the infrared board and motor. Be sure to power off the device in the event of a heavy rainstorm.
6. The device is for pedestrian traffic only, motor vehicles and non-motor vehicles are prohibited.
7. The foundation surface shall be smooth and flat.
8. Make sure that there is accessible power and network at the installation site, and protect them during underground wiring.
9. For installation on tile and marble floors, check whether the floor is repairable after being grooved.
10. Avoid underground pipelines such as electricity, water, and communication during construction.
11. Do not use the face recognition access control terminal in strong light and backlight scenes.

2.2 Ground Requirements

1. The ground must be level (check it with a spirit level). To install the device on a slope, pour a new foundation or platform to make the ground level.
2. The ground must be smooth, flat, and free of foreign objects such as small stones, otherwise it may cause the device to shake and the motor to make abnormal noise.
3. A new foundation is required if the ground is made of dry cement and sand, as expansion screws cannot be fixed on such ground.
4. If the ground is covered by marble or tiles laid with dry cement and sand, check what material the ground is first. If the ground is cement concrete, then you need to use expansion screws that are long enough to reach the cement concrete layer to secure the device.
5. If the ground does not allow drilling and cement pouring, use a base to complete the installation.

2.3 Site Survey Report

After the site survey is complete, you need to make a site survey schematic diagram, including environmental information (installation width, whether a shade, illuminator or logistics lane is required), installation location and direction. With this schematic diagram, you can determine the cable length/type and the number/type of devices required, estimate the number of technicians required, and produce a site survey report.

3 Safety Instructions

1. Ensure that the device is placed or installed firmly and reliably.
2. Ensure that the device is installed properly before you connect it to power, otherwise it may cause personal injury and device failure.
3. Disconnect the power before moving the device, otherwise it may cause electric shock.
4. Keep the device away from liquid of any kind, it may damage the device and cause fire or electric shock.
5. Take waterproof measures for devices installed outdoors.
6. Use a ground-protected power outlet.
7. Ensure that the device is grounded properly if grounding is required.
8. Be sure to strictly observe local electrical safety codes.
9. Ensure that the power supply meets the device requirements. The power supply shall be greater than the sum of the power consumption of all devices.
10. Ensure that the temperature, humidity, dust, corrosive gas, electromagnetic radiation indicators of the site where the device is placed or installed meet the requirements.

4 Preparations

4.1 Installation Tools

Tool	Image
L-key	
Screwdriver set	 33-piece set and above for cable wiring.

ESD wrist strap or gloves	
Marker	Used to mark mounting holes.
Tape measure	 Used to measure dimensions.
Electric hammer drill (16mm drill bit is recommended)	 Used to drill holes.
Hammer	 Used to hammer expansion screws into the ground.
Cutter	 Used to make grooves in the ground.
Expansion screw (M12*100mm)	 Used to secure pedestals.
Wrench	 Used to fix expansion screws. Select the wrench according to the expansion screw size.
Network cables	Used to connect face recognition terminals to network. Cat5e network cables are recommended.

4.2 Installation Environment

The installation can be divided into new installation and renovation installation.

4.2.1 New Installation

Determine the device model and lane width.

Model	Standard Width
OFG5311	550mm

1. Install Power Cables

Install power cables at the appropriate location according to the design layout of the device. See the table below for power cable specifications.

Number of Lanes	Power Cable Requirements
≤ 5	RVV3*1.5 3 1.5 mm² copper core wires with a protective sheath
5 < number of lanes ≤ 10	RVV3*2.5 3 2.5 mm² copper core wires with a protective sheath
> 10	If the number of lanes is close to 10, refer to the power cable requirements for the number of lanes within 5 to 10. If the installation involves a large number of lanes (for example, 20), it is recommended to provide a power supply for every 10 lanes.

2. Install Network Cables

Determine the location of the computer room and install network cables for communication between the computer room and the front end (high-quality Cat5e and above network cables are recommended, and the distance between the computer room and the front end shall not be too far).

3. Reserve Installation Location

If you plan to lay brittle materials such as tiles on the floor, install the device first before you start. Otherwise, it will result in additional trenching and repair costs.

4.2.2 Renovation Installation

In a decorated environment, you need to pour a new foundation or install a base to secure the device. The device does not have interconnection cables, so there is no need to consider grooving.

1. Pour a New Foundation

For installation on sloping ground, pour a new foundation to ensure that the device is installed horizontally.

2. Install a Base

For installation on irreparable floors, such as tiles and marble, use a base to secure the device.

1) Locate the pedestals according to the site survey diagram, and then install bases at the pedestal locations.
2) Fix the pedestals to the bases and tighten the expansion bolts.

4.3 Cable Wiring Requirements

1. Mark and label the defined cables at both ends before wiring to facilitate future maintenance.

2. Separate the signal cables and power cables to prevent interference from high voltage to signal transmission.

3. An extender or a fiber optic cable is required if the network communication distance exceeds 80m.

4. Prepare RVV2*1.0 cables (1 for each lane) on the main controller, and connect the cables to the nearest security booth, monitoring room or management center through the pre-buried cable conduits to realize the control of a lane by the corresponding lane switch.

5. Prepare RVV2*1.0 cables (1 for each lane) on the main controller, and connect the cables to the nearest security booth, monitoring room or management center through the pre-buried cable conduits to realize the control of all lanes by the fire button.

6. Do not pull cables excessively, otherwise the cables may be damaged.

7. To ensure cable threading and heat dissipation, the cross-sectional area of all cables in the conduit shall not exceed 50% of the cross-sectional area of the conduit.

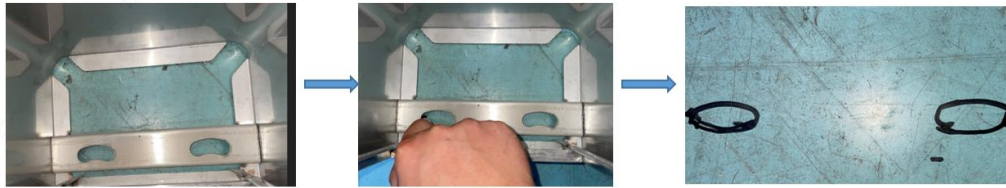8. All devices shall be grounded properly.

5 Installation

5.1 Pedestal Installation

1. Open the side panel with the supplied key.
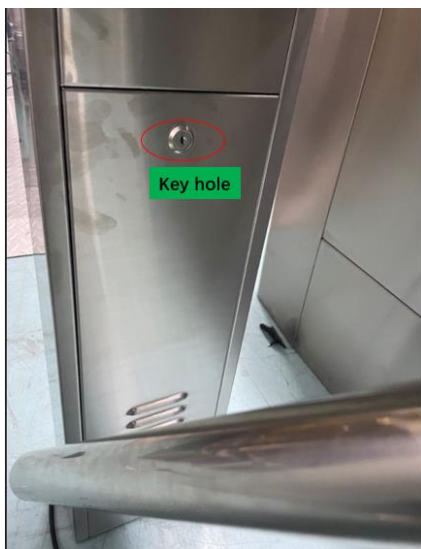
2. Move the pedestal to the desired installation location. Mark the expansion bolt holes on the ground with a marker.

3. Drill holes at the marked points and insert expansion bolts.

4. Align the mounting holes at the bottom of the pedestal with the expansion bolts on the ground, and then tighten the bolts to secure the pedestal.
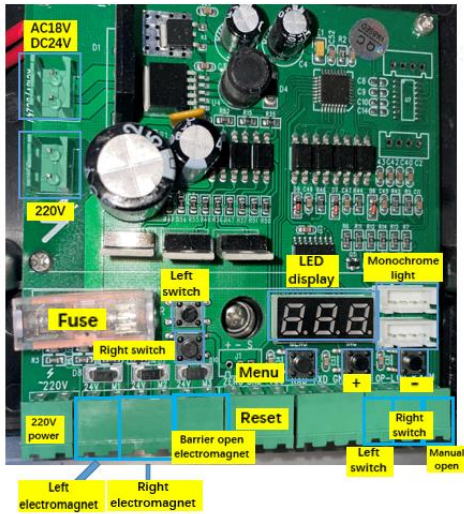
5.2 Wiring

5.2.1 System Wiring

Connect the AC220V mains supply to the air circuit breakers in the right and middle pedestals. Connect the L (live wire) and N (neutral wire) wires to the air circuit breaker and connect the PE wire (yellow and green wire) to a grounding terminal. Power cables are user-supplied.
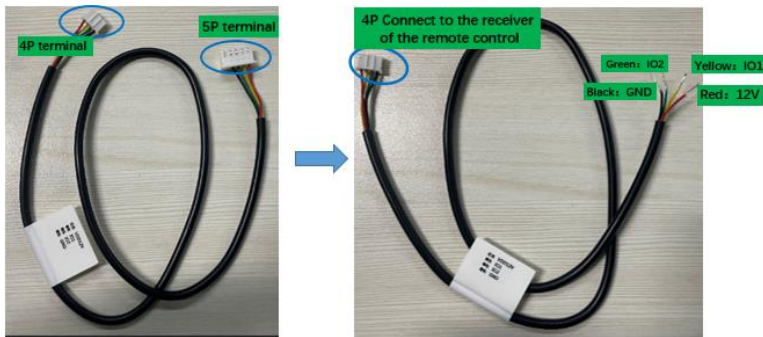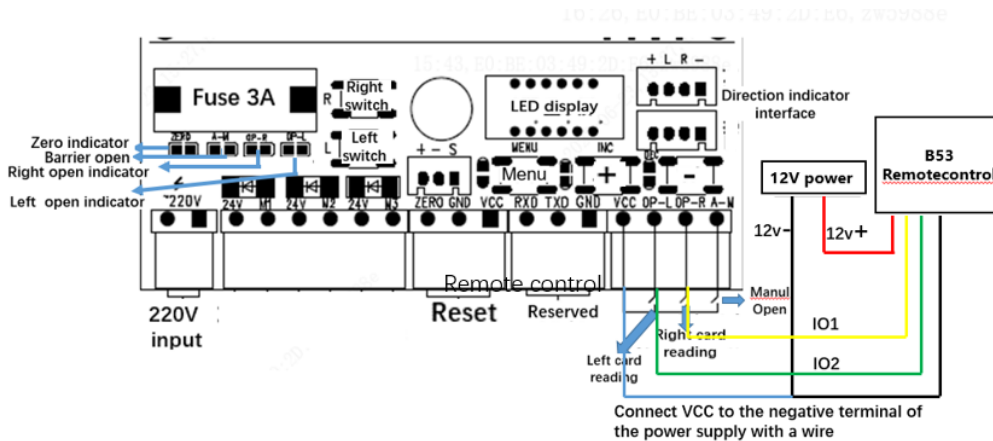
5.2.2 Control Board Wiring

5.2.3 Remote Control Wiring

Take B53 remote control as an example:

1. Connect the 4P terminal to the receiver of the remote control and cut off the 5P terminal.
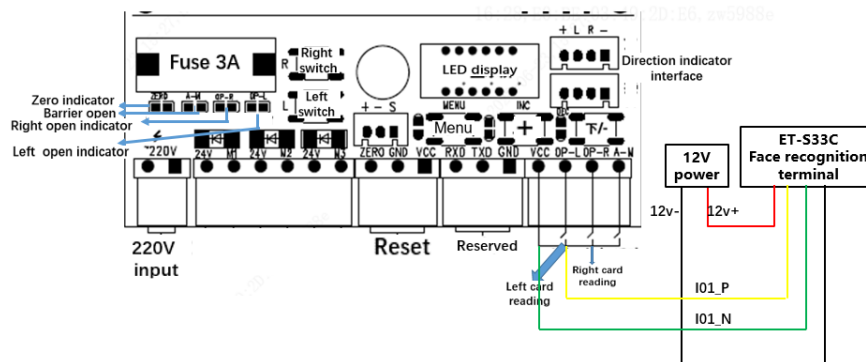

2. Wire as follows.

5.2.4 Face Recognition Terminal Wiring

Take ET-S33C as an example:

6 Configuration

No.	Parameter Type	Function	Value Range	Function Description	Default
1	F01	Passing time	0-255s	If a person passes through the gate within the set time, the time will be automatically reset; if no one passes, the gate will automatically close when the time is up.	5
2	F02	Keep open	1-3	1: Only keep the left electromagnet open. 2: Only keep the right electromagnet open. 3: Keep both left and right electromagnets open.	3
3	F03	Operation mode	0-1	0: Free access 1: Fail-safe (keep open in case of power failure)	1
4	F04	Memory	/	Generally used for gate control by card authentication. When enabled, the gate allows multiple authenticated people to pass consecutively at a time. When disabled, the gate only allows one person to pass at a time.	0
5	F05	Repeatedly open and close	/	Control board stability test and aging test.	/
6	F06	Zero signal	0-1	0: The gate closes when it detects a zero signal. 1: The gate closes after the detected zero signal disappears (commonly used in full-height turnstiles).	0

7	F07	Keep open	/	Used to detect continuous open signals. If the received open signal lasts longer than the set time, the gate will consider it a continuous signal and keep open (F2 determines which side opens, both sides open by default); when the signal disappears, the gate returns to standard mode.	0s, keep open off
8	F08	Open delay	/	The minimum time interval between two opens when the memory function is enabled.	0
9	F09	Restore factory defaults	/	Restore all parameters to factory defaults.	/
10	F10	Exit menu	/	/	/