

User Manual

Aegis-3000

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If there is any issue related to the product, please contact us.

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About the Manual

This manual introduces the operations of **Aegis-3000**.

All figures displayed are for illustration purposes only. Figures in this manual may not be exactly consistent with the actual products.

Features and parameters with ★ are not available in all devices.

Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into Dangers and Cautions:

Dangers: Neglecting any of the warnings may cause serious injury or death.

Cautions: Neglecting any of the cautions may cause injury or equipment damage.

Symbols

Convention	Description
	Dangers: Follow these safeguards to prevent serious injury or death.
	Cautions: Follow these precautions to prevent potential injury or material damage.



Dangers:

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The equipment must be connected to an earthed mains socket-outlet.
- Shock hazard! Disconnect all power sources before maintenance.
- Do not touch the bare metal contacts of the inlets after the circuit breaker is turned off. Electricity still exists.
- To prevent possible hearing damage, do not listen at high volume levels for long periods.
- All the electronic operation should be strictly compliance with the electrical safety regulations, fire prevention regulations and other related regulations in your local region.
- Please use the power adapter, which is provided by normal company. The power consumption cannot be less than the required value.
- Do not connect several devices to one power adapter as adapter overload may cause over-heat or fire hazard.
- Please make sure that the power has been disconnected before you wire, install or dismantle the device.
- If the top caps should be open and the device should be powered on for maintenance, make sure:

- a. Power off the fan to prevent the operator from getting injured accidentally.
 - b. Do not touch bare high-voltage components.
 - c. Make sure the switch's wiring sequence is correct after maintenance.
- Please make sure that the power has been disconnected before you wire, install or dismantle the device.
 - If smoke, odors or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
 - If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the device yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
 - The Terminal PE of the switch should be connected to a ground wire.

**Cautions:**

- Instructions must be read before installation. Please follow these instructions carefully, incorrect installation could affect gate operation.
- When mounting and positioning this product please ensure the power cable is unplugged.
- The motor cover will need to be removed to mount the motor to the mounting plate. Electrical-related operation of the main unit can only be made by a licensed electrician.
- To prevent injury, this equipment must be securely attached to the floor/base of the turnstile in accordance with the installation instructions.
- Keep straight down when moving or using the equipment.
- Never place the equipment in an unstable location. The equipment may fall, causing serious personal injury or death.
- Stainless steel may be corroded in some circumstances. You need to clean and care the device by using the stainless steel cleaner. It is suggested to clean the device every month.
- Do not drop the device or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the equipment installation on vibrations surface or places subject to shock (ignorance can cause equipment damage).
- Do not place the device in extremely hot (refer to the specification of the device for the detailed operating temperature), cold, dusty or damp locations, and do not expose it to high electromagnetic radiation.
- The device cover for indoor use shall be kept from rain and moisture.
- Exposing the equipment to direct sun light, low ventilation or heat source such as heater or radiator is forbidden (ignorance can cause fire danger).

- Do not aim the device at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.
- Please use the provided glove when open up the device cover, avoid direct contact with the device cover, because the acidic sweat of the fingers may erode the surface coating of the device cover.
- Please use a soft and dry cloth when clean inside and outside surfaces of the device cover, do not use alkaline detergents.
- Please keep all wrappers after unpack them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the device and lead to additional costs.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- Biometric recognition products are not 100% applicable to anti-spoofing environments. If you require a higher security level, use multiple authentication modes.
- Do not stay in the lane when the device is rebooting.
- RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- SUITABLE FOR MOUNTING ON CONCRETE OR OTHER NON-COMBUSTIBLE SURFACE ONLY.
- The instructions shall require connection of the equipment protective earthing conductor to the installation protective earthing conductor.

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1. Overview

The Aegis-3000 Series is a full-height turnstile from Armatura with high-security physical access control and multiple authentication capabilities. Designed for high-traffic environments, it can process a maximum of 25 passengers per minute and features anti-tailgating detection, auto-barrier unlocking in emergency and auto close mechanism. Additionally, the Aegis-3000 Series provides multiple authentication methods including RFID, static/dynamic QR code scanning, and fingerprint authentication. It also supports mobile credentials through the Armatura Mobile Credential System, utilizing NFC and Bluetooth. What makes Aegis-3000 Series stands out is its rugged and corrosion-resistant SUS201 stainless steel construction and IPX4 water resistance protection rating, ensuring reliable performance in industrial facilities, transportation hubs, government and corporate facilities.

1.1 Features

Multiple Authentication Options

- Credential Options: Supports QR Code, and Fingerprint authentication.
- Compatible with external access control systems such as RFID readers.
- Multi-Factor Authentication: Provides enhanced security for restricted areas.
- Integration with Armatura One: Supports centralized access control and monitoring.

Performance & Durability

- MCBF (Mean Cycles Between Failures): Tested for 2 million cycles, ensuring long-term reliability and durability in high-traffic environments.
- Throughput Rate: Capable of handling up to 20-25 people per minute, making it ideal for busy locations.
- Access Direction: Supports single or bi-directional operation for flexible entry/exit configurations.
- Lane Width: Standard lane width of 21.65" (550mm), suitable for controlled pedestrian access.

Reliable Safety & Security Features

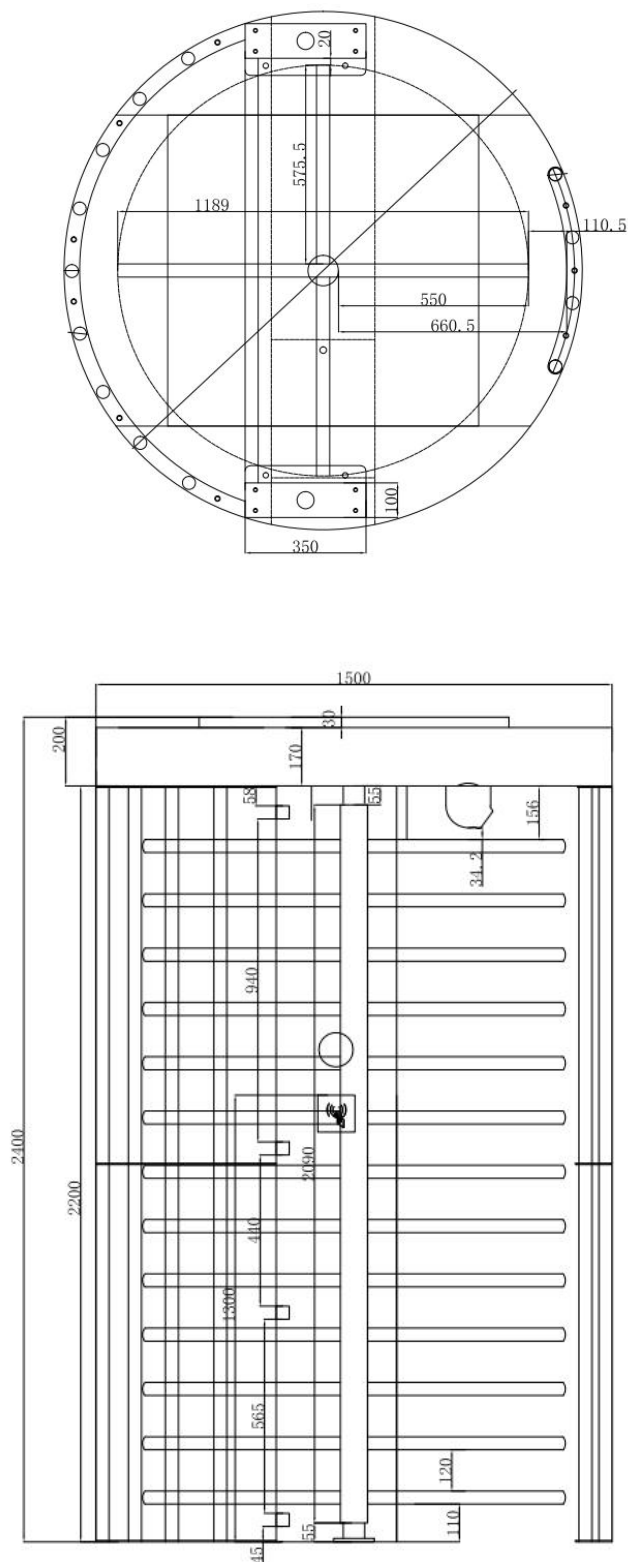
- Emergency Mode: Automatically unlocks during power failure or fire alarm activation.
- Anti-Collision Detection: Mechanical and electronic safeguards to ensure user safety.

Durable and Weatherproof Design

- Achieved IPX4 protection rating for water resistance.
- Utilize SUS201 stainless steel construction with corrosion-resistant properties.

1.2 Appearance

Aegis-3000



1.3 Technical Specifications

Model	Aegis-3000
Audio Indicator	Internal Buzzer
Visual Indicator	LED visual indicators integrated into the vertical column Red cross: passage denied Green arrow: passage allowed
Display	N/A
Lane Type	Single Lane
Lane Width	21.65" (550 mm)
Barrier Movement Type	Full-height rotating turnstile
Motor	N/A
Movement Speed	Up to 30 people per minute
Clutch	Mechanical clutch for anti-clamping / anti-collision
Barrier Material	0.4"(10 mm) thick Acrylic (standard)
Cabinet Material	SUS201 Stainless Steel (with black powder coating finishing)
Lid Material	SUS201 Stainless Steel (with black powder coating finishing)
IR Sensors	N/A
Motherboard Function	System configuration, entry log memory, safety logic
Motherboard Communication	Fire alarm port (Relay)1, RS485 port1
Controller	Standard full height turnstile controller
Credential Options	EP10, EP20 or 3rd-party readers
Flow Rate	RFID: 30 passengers per minute QR Code: 30 passengers per minute Fingerprint: 20passengers per minute
Accessibility	21.65"(550 mm) standard lane for pedestrians
Power Supply	100-240 VAC, 50/60 Hz
Power Rating	40 VA (Standby), 200 VA (Operation)

Fire Signal	Input for voltage-free contact
Noise Level	Less than 65 dB
MTTR	Less than 60 minutes
MCBF	2 million cycles
Weight	Gross Weight: 776 lbs (352 kg) Net Weight: 551 lbs (250 kg)
Dimension (LxWxH)	59.06"*59.06"*94.49" (1500 *1500 *2400mm)
Dimensions with Packing	58.27"*36.61"*84.67"(1480*930*2150mm)(Fence) 61.02"*13.39"*64.96"(1550*340*1650mm)(Top cabinet) 78.35"*35.83"*39.76"(1990*910*1010mm)(Rotating shaft)
Operating Temperature	-18.4°F to 140°F (-28°C to 60°C)
Operating Humidity	20% to 95% RH (non-condensing)
Certifications	Compliant with global safety and security standards
Ingress Protection Rating	IPX4
Supported Software	Armatura One
Safety Features	Power-off, Fail-safe, Emergency escape function
Security Features	Anti-tailgating, Anti-intrusion, Auto-close mechanism
Product Delivery	Pre-assembled for easy installation
Application Environment	Indoor and Outdoor
Site Preparation	Flat and level finished floor (base plate optional for unfinished floor)
Security Level	High
Emergency Mode	Barrier unlocks automatically during emergencies
Packing Material	Wooden Box

2. Installation

2.1 Installation Tools

- Tapeline
- Marker Pen
- Pencil
- Percussion Drill
- Screwdriver
- Wrench
- Hex Wrench
- Cutting Machine

2.2 Installation Requirements

1. It is recommended that the turnstile must be installed on a horizontal solid platform with a height of **2.0" to 3.9"(50mm to 100mm)**.
2. It is recommended that the turnstile should not be used in the corrosive environment.
3. Make sure that the ground wire of the system is securely connected to avoid personal injuries or other accidents.
4. After installation, check if the connection has been done correctly at the connecting points of the ground wire, at the connector assemblies and wiring points of the circuits, as well as at each movable part of the turnstile. Any loose nuts, screws and other fasteners should be tightened in time to avoid any failures caused by long-time operations.

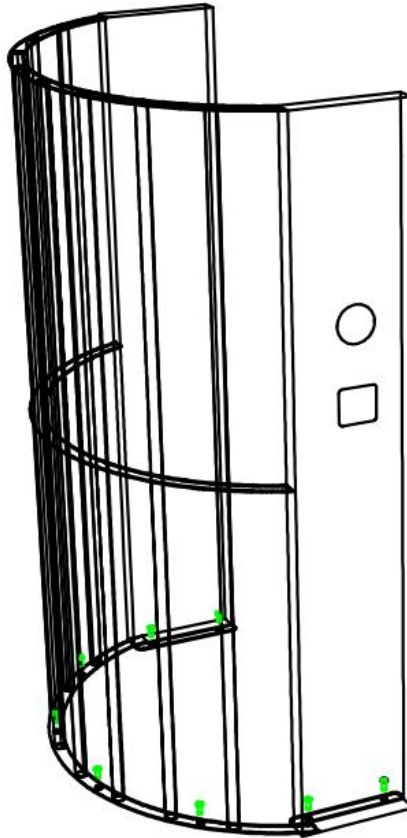
2.3 Installation Environment

1. Before installation begins, prepare installation tools, check the device and the accessories, and clear the installation base.
2. Make sure that the appliance is mounted on a concrete surface or other non-flammable surfaces.
3. The installation position of the turnstile depends on its size. A distance of **3.9"(100mm)** between the turnstile and the wall needs to be reserved for ease of opening the top lid of the turnstile to perform maintenance and adjustment. The reference figure is shown below:

2.4 Installation Cabinet

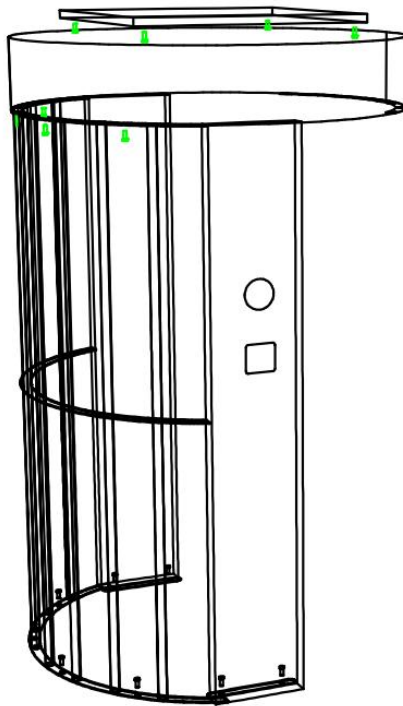
Step 1 Determine the mounting location

1. Place the frame to the installation site, and mark the floor following the periphery of the legs
2. Take the frame aside and use the electric drill according to the drawn screw and wiring holes.
3. Using a concrete drill bit, drill the mounting holes **2.4" (60mm)** in depth at the center of each marked location.
4. Then insert the bolts vertically into the mounting holes as shown at right.
5. Make sure the bolts are placed in place. Use a hammer to tap the bolts into place, if needed.



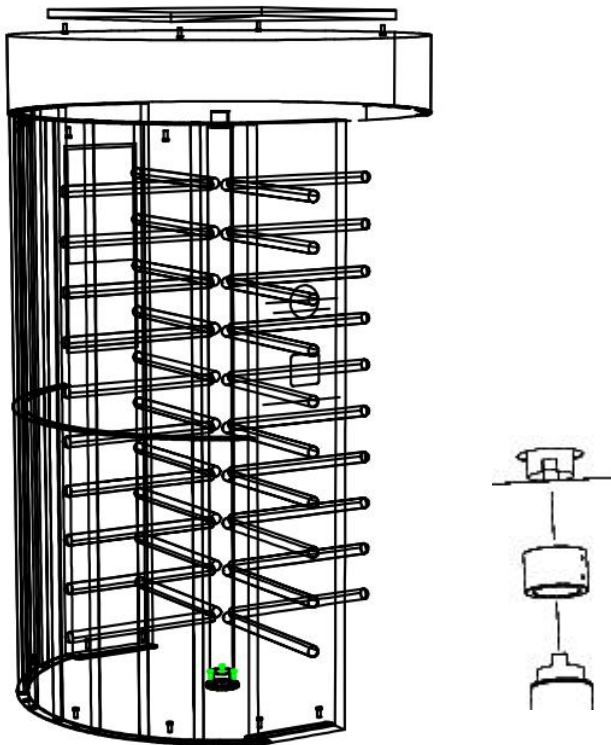
Step 2 Install the top case of the chassis

Put the mainframe box on the frame, after connect the power cable, Ethernet and Tether Cable, fix up with screws.



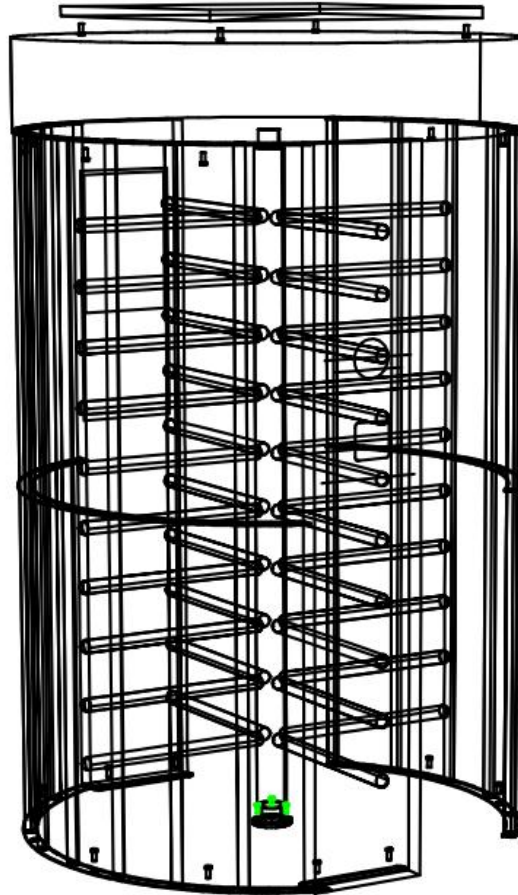
Step 3 Install the rotating part

Put the whole rotating part in the middle of the frame and mainframe box and then fix up with screws and connection block rotating part bottom fix up with screws.

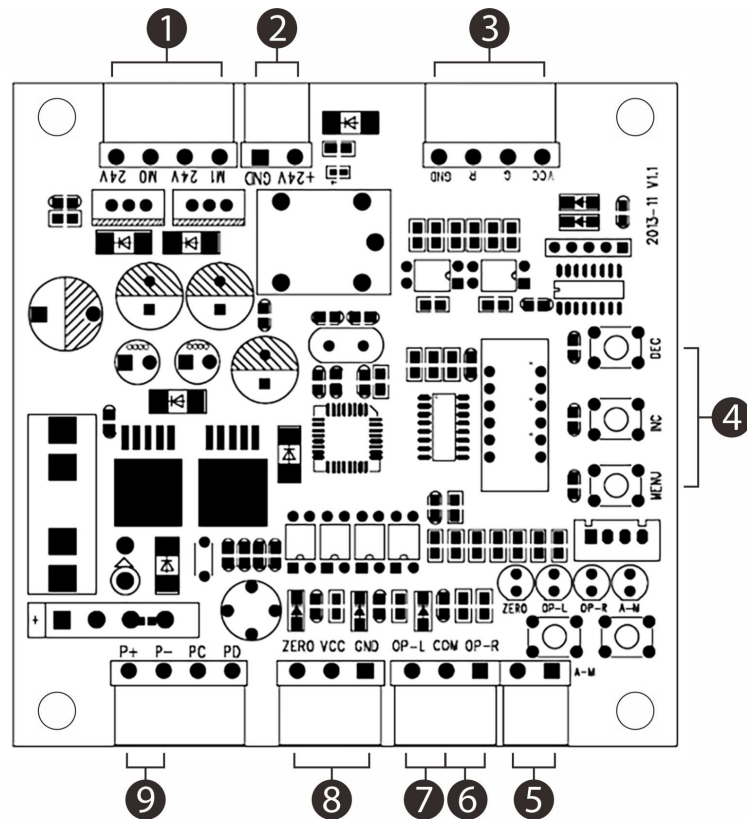


Step 4 Install the small frame

Align the small frame with the top compartment holes, fix up with screws.



3.Mainboard Instructions



3.1 Mainboard Panels

NO.	Terminal	Descriptions
1	M1,24V,M0,24V	Left and right electromagnet
2	+24V,GND	Round electromagnet
3	VCC,G,R,GND	Direction Light
4	MENU,INC,DEC	Control Panel Buttons
5	AL+,AL-	Alarm signal
6/7	OP-L,COM,OP-R	Left Open / Right Open
8	ZERO,VCC,GND	In place switch
9	P+,P-,PC,PD	24V/3A (not used for PC PD) Switching power supply

3.2 Menu Setting Instructions



Control Panel Buttons: There are three operation buttons: **"MENU"** (menu button), **"INC"** (up/increase button), and **"DEC"** (down/decrease button).

Function Description of Each Button:

"MENU" button:

- Press and hold this button on the standby interface to enter the system menu.
- On the system menu interface, press this button after selecting the corresponding menu to enter the parameter setting interface of that menu.
- After completing menu settings, press this button to save parameters and return to the system menu interface.

"INC" button:

- Functions to scroll up to select system menus and increase parameters by 1 when setting values.

"DEC" button:

- Functions to scroll down to select system menus and decrease parameters by 1 when setting values.

NOTE: On the system menu and menu setting interfaces, if no button is operated within 5 seconds, the system will automatically exit the menu and return to the standby interface.

For example, to change the passage duration of the turnstile channel:

- 1) Press and hold the **"MENU"** button to enter the system menu.
- 2) Use the **"INC"** and **"DEC"** buttons to scroll up and down respectively to select the **"F01"** menu (see below for menu description).
- 3) Press the **"MENU"** button to enter the channel duration setting interface.
- 4) Use the **"INC"** and **"DEC"** buttons to increase or decrease the parameter value respectively.
- 5) After setting, press the **"MENU"** button to save.

3.3 Parameter Setting Instructions

NO.	Terminal	Descriptions
F01	Set Channel Passage Duration (Setting range: 0-240)	Within the set duration, the timer will automatically reset after a person passes through the turnstile. If no one passes, the turnstile will automatically close when the time elapses. (System default: 5 seconds)
F02	Allow or Forbid Channel Passage (Setting range: 0-3)	0: Both left and right turnstiles are forbidden to open. 1: Both are allowed (default). 2: Left turnstile forbidden, right turnstile allowed. 3: Right turnstile forbidden, left turnstile allowed.
F03	Turnstile Working Mode (Setting range: 0-1)	0: Free passage (commonly used for rotating turnstiles). 1: Power-off drop (default: power-off drop).
F04	Memory Function (Setting range: 0-1)	Enables or disables the memory function for entrance/exit passage. It is generally used for card-swiping to open the turnstile: when one person swipes the card but hasn't passed yet, whether to memorize others' card-swiping records. "Forbidden": The second person's card swipe becomes valid only after the first card swiper passes. "Allowed": The number of people allowed to pass continuously equals the number of card swipes.(Default: Forbidden)
F05	Repeated Opening and Closing Test	Mainly used to test the stability and aging of the turnstile control board. C-5: In test mode, press the "MENU" button to exit the test.
F06	Zero Position Working Setting (Setting range: 0-1)	0: Standard mode. 1: Reset mode after zero position signal is disconnected. (Mainboard default: 0)

F07	Proximity Switch Count Reset Setting (Setting range: 0-30)	The mainboard defaults to 1, meaning it resets after one induction, and so on.
F08	Normally Open Setting (Setting range: 0-20)	"Turnstile Normally Open Setting": This parameter sets the duration (in seconds) after which the system enters the normally open state when the gate-opening signal exceeds this time. If the gate-opening signal is continuous, the turnstile remains open for the entire duration of the continuous signal. (Mainboard default: 5 seconds)
F09	Restore Factory Settings	All mainboard parameters are restored to factory settings. Display "---", then press "MENU" to confirm and exit.

4. Maintenance

4.1 Chassis Maintenance

- Regularly wipe the surface of the chassis with a soft dry cloth or slightly damp cotton cloth to remove dust, fingerprints and other stains
- Prohibited cleaning tools/reagents. Avoid using hard tools such as steel wool, hard brushes, and sandpaper for wiping to prevent scratching the coating.
- Do not use corrosive liquids such as strong acids, strong alkalis (e.g., toilet cleaner, caustic soda), and organic solvents (e.g., alcohol, gasoline, banana oil), as they may cause the coating to dissolve, discolor, or peel off.
- Protection against scratches and collisions. When placing the chassis, ensure that the desktop or ground is flat and free of sharp debris. Avoid collisions with other hard objects (such as tools and metal products).

4.2 Movement Maintenance

- Cut off power supply before maintenance. Open the barriers and clean the dust on surface, add lubricating oil to the transmission mechanism. Check and tighten others connection parts.

4.3 Power Supply Maintenance

- Cut off power supply before maintenance. Check whether the plug is loose, if loose, it needed to tightly it. Please do not replace the connection position at random. Check whether the external power supply is exposed and wrap it. Check whether there is any leakage, found to be timely processing. Check the technical parameters at the interface are regular and replace the old electronic components in time. (Attention: Above full height turnstile maintenance must be maintained by professional personnel. Especially the movement and the electric control part, first cut off the power supply, ensure the operation safety.)

Revision History

Revision	Date	Author	Reviewer	Description
V1.0	10/10/2025	Crist		Original Document



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