ESD Access Control Solution

- Comprehensive Monitoring
- Operational Visibility
- Enhanced Management Efficiency
- Quick Response
- Management Improvement Measures

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Modern Production Management Approach

ESD Access Control Management Mode

Through the all-round monitoring of the electrostatic testing area, managers and management personnel can easily understand and grasp the use of gates and equipment operation conditions at various locations, and solve problems in time, which can effectively improve the work efficiency of management personnel. Necessary measures to improve management:

- The employee only needs to swipe his card to test the wrist strap instrument to determine the displayed resistance value, and the gate will automatically open in the OK range.
- The employee only needs to swipe the card to test the electrostatic shoes. The T10 instrument judges and displays the resistance value of the left and right feet, and the gate opens automatically in the OK range.
- The employee needs to test the electrostatic shoes and wrist strap by swiping the card. The T10 instrument displays the resistance value of the hand shoes, and the gate will automatically open in the OK range.
- Customers and VIPs want to enter the workshop to watch, we have prepared a VIP test-free card for him, and the gate will open automatically when the card is swiped.
- If the boss or manager wants to enter the workshop, we have also prepared a special card for you, and the gate will open automatically when you swipe the card.
- It can be equipped with fingerprint recognition or face recognition before testing.

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Modern Production Management Approach

System Features

The ESD access control management system is carefully designed and manufactured based on years of technical channel access research and demand analysis. It integrates UHF card reading technology, network digital technology, remote alarm technology, computer network software technology, and barrier-free channel technology. The system meets the safety requirements of safe production. It is an integrated system integrating channel management system, monitoring system, anti-static access control system, voice prompt system, etc.

Multimedia Signage Linkage Monitoring Function

A large display screen is installed at the gate channel site, and the information of the unqualified personnel in the testing department is displayed on it and marked in red for the leaders and customers to watch and verify at any time.

Anti-Static Test

The anti-static test instrument can quickly determine the tester's combination test of electrostatic ring, left foot electrostatic shoes, right foot electrostatic shoes, etc. Each channel can enter and exit, which greatly improves the utilization rate of the equipment. When personnel pass, the system can automatically identify the direction of entry and exit.

Real-Time Upload of Swiping Card Information

The anti-static test instrument can quickly determine the tester's combination test of electrostatic ring, left foot electrostatic shoes, right foot electrostatic shoes, etc. Each channel can enter and exit, which greatly improves the utilization rate of the equipment. When personnel pass, the system can automatically identify the direction of entry and exit.

RFID Card and IC Card Automatic Recognition / Fingerprint Recognition / Face Recognition

The system uses radio frequency technology to realize swiping card to identify personnel information, retrieve database information and synchronization in real time, multiple people can pass through at the same time, and can also be quickly identified. It can also be identified and prompted without registration in the system.

Alarm Function

For people who do not have a card or have an illegal card, when they pass through the gate channel, the gate channel will immediately give an audible and visual alarm. For example, during the commute, illegal persons and people who are not on this floor will follow behind and enter the gate. The system can automatically identify, effectively prevent outsiders from entering, truly combine human defense with technical defense, and make up for management loopholes.

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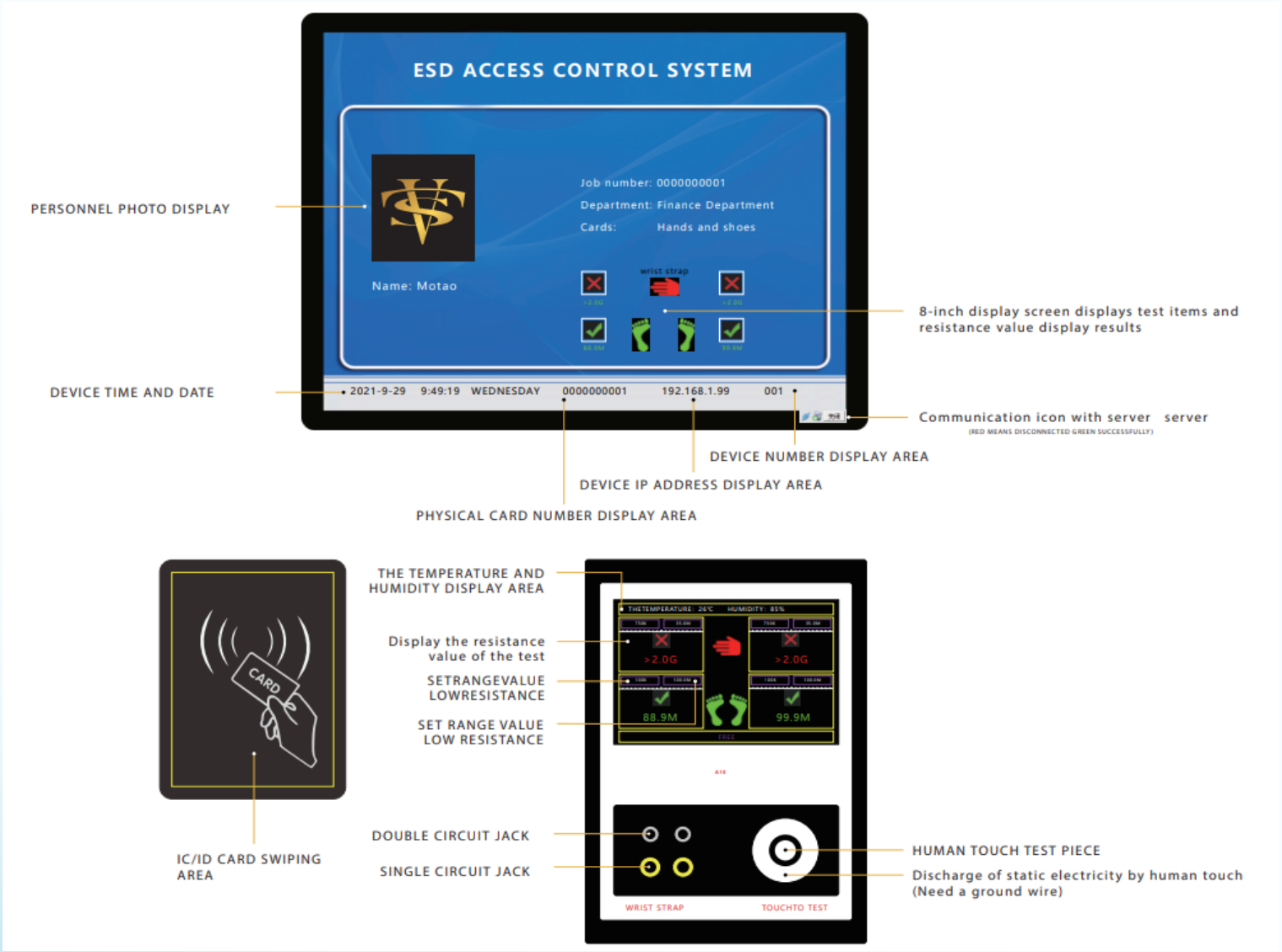
System Structure and Composition

VT-T10 Digital Display ESD Tester



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System Structure and Composition

VT-I8 Status Indicator ESD Test Host

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Key Hardware and Software Components

VT-T10 Digital Display ESD Tester

Card Reader

The system consists of a radio frequency card reader (optional ID/IC), channel gate, VT-T10 tester, Linux motherboard, 8-inch display, foot test pedal, single and double loop socket, and platform management software.

Passage Gate

When personnel quickly pass through the gates, illegal identities are screened quickly and accurately, and an alarm signal is output after judging illegal ones, which reflects the organic combination of safety management and humanized management.

Anti-Static Tester

The system consists of a radio frequency card reader (optional ID/IC), channel gate, VTS-T10 tester, Linux motherboard, 8-inch display, foot test pedal, single and double loop socket, and platform management software.

Linux Motherboard

Provides a large amount of data storage; the network can transmit gigabit and supports a variety of interface examples (USB 2.0, serial port, HDMI) to connect to high-resolution display. The scalability is very large.

Two-Foot Test Pedal

It is more efficient, more convenient, and more beautiful than the ordinary one-leg test.

8-inch LCD Display

It can basically have the same function as the LCD monitor we use. It can display photos with very high definition and process display data at a high speed, and the most important thing is that it can be perfectly combined with the gate to make it more atmospheric.

Single and Double Circuit Socket

It is equipped with a single loop wrist strap and a dual loop wrist strap hole with earphone socket. Fully equipped to change at will.

Backstage Management Software Circuit Socket

The system consists of a radio frequency card reader (optional ID/IC), channel gate, VT-T10 tester, Linux motherboard, 8-inch display, foot test pedal, single and double loop socket, and platform management software.

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Key Hardware and Software Components

Core System Feature List

- Support simplified Chinese, traditional Chinese, and English (3 languages); choose any language, and custom language additions are supported.
- Real-time display of test resistance values, visual display of icons, swiping card status, and automatic data collection.
- Support full-screen record display and live voice broadcast.
- Test wrist strap (supports single loop, dual loop, and cordless modes).
- Test static shoes (supports single foot test and double foot test).
- The test range can be written freely by the computer.
- Seamless integration of test + card swipe + display using integrated stainless steel and acrylic materials.
- Can coordinate with time and attendance software; the time & attendance database and ESD system software database mus eside on the same computer.
- Data sheets provide flexible import and export functions for convenient administrative processing.
- The software automatically synchronizes time, and the personnel list is synchronized to the ESD equipment in real time.
- Support multiple report export formats: list of unswiped cards, test records divided into left foot, right foot, wrist, etc.
- Data updates can be scheduled arbitrarily with stable speed and flexible operation.
- The database can be connected with third-party software to support real-time management and multi-user/multi-computer monitorin

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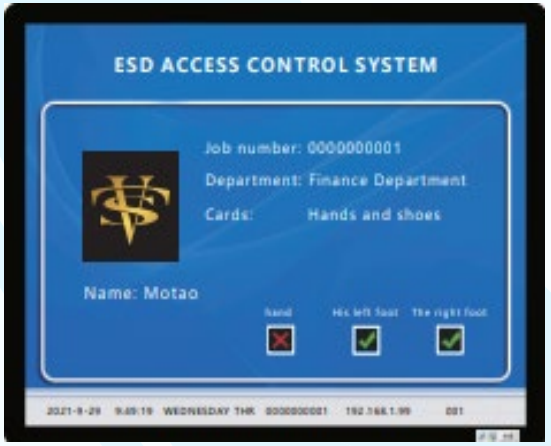
Operation Steps to Use The Test System

VT-T10 Digital Display ESD Tester

Step 1: Swipe Card & stand on the foot pedal

Step 2: Touch the test button with you finger



Step 3: View the result on display

Step 4: Pass the test, please pass the gate

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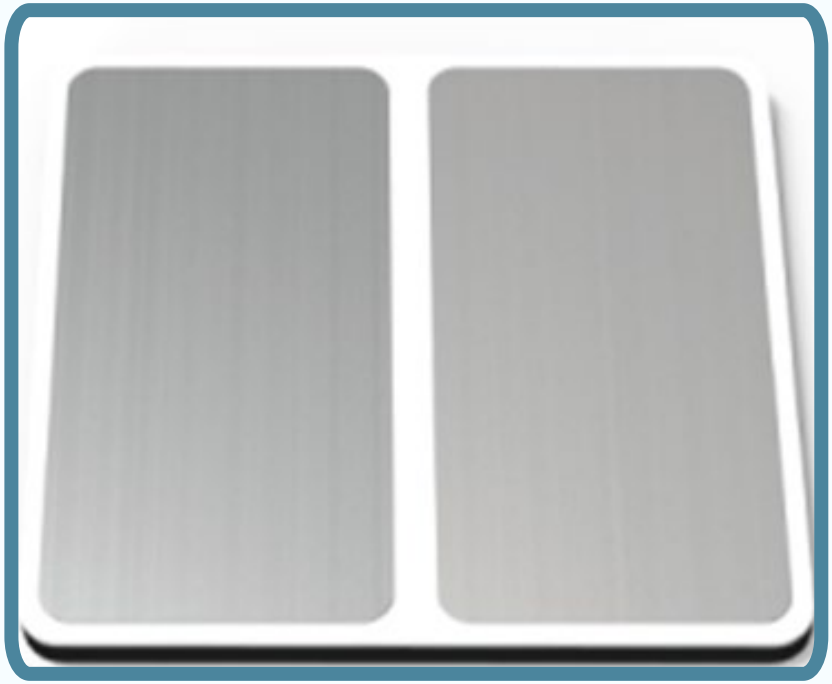
Selection of Main Equipment

Foot Pedal Upgrade

The original ordinary pedal consists of a single layer where exposed screws conduct electricity when contacting the floor, causing moisture short-circuits and test inaccuracies. The upgraded design features:

- Improved upper and lower dual-layer structure with all wiring screws enclosed inside the pedal.
- Superior electrical insulation and moisture resistance.
- Meets high aesthetic and durability standards: Moisture-proof, waterproof, drop-proof, shielded, anti-interference, and high test accuracy.



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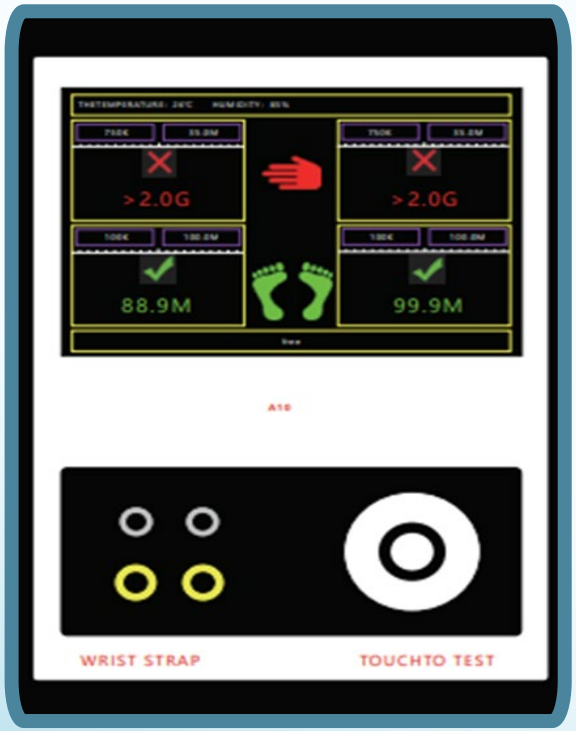
Selection of Main Equipment

ESD Test Access Control VT-T10 and VT-I8 Two Hosts are Optional

The ESD test access control instrument is part of the RS232 access control series. It uses standard industrial-grade isolated RS232 communication. The number of devices in a management system is not limited; it can be connected to 2 Wiegand card readers to realize 1 entry and 1 exit card swiping. It features stable performance, fast communication, large capacity, strong compatibility, and convenient networking.



ESD (VT-T10) Tester Performance Parameters

Parameter	Specification
Working Voltage Input	DC 9V / 1A
External Dimensions	115 mm × 175 mm × 28.5 mm
Gate Opening Size	99.4 mm wide × 159.4 mm high
Working Hours	Unlimited
Use Environment	Humidity: 0%–90% RH | Temperature: -20°C to 60°C
Display	3.5-inch resistive touch screen
Instrument Interface	Self-contained single and double circuit
Static Electricity Discharge	Built-in human body static electricity discharge function
Temperature & Humidity	Capacitive humidity sensing for high accuracy
Operation Mode	Stand-alone machine mode OR network mode (swipe card + network test with centralized records)
Protection Measures	Semiconductor lightning protection
Read Head Frequency	13.56 MHz and 125 kHz
Induction Speed	Quick response < 0.1 s; repeat swiping interval < 1 s
Input Interface	Standard Wiegand 34/26 (RS232 input mode customizable)
Output Interface	RS232 communication
Working Status Display	LCD screen displays live resistance values for wrist strap & static shoes
Factory Resistance Range (Wrist Strap)	750 KΩ – 35 MΩ
Factory Resistance Range (Static Shoes)	750 KΩ – 100 MΩ
Range Adjustment	Arbitrary resistance range adjustment via touch screen menu

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Selection of Main Equipment

ESD Test Access Control VT-T10 and VT-I8 Two Hosts are Optional

ESD (VT-I8) Tester Performance Parameters

Parameter	Specification
Working Voltage Input	DC 12V / 2A
External Dimensions	175 mm × 105 mm × 8 mm
Gate Opening Size	Width 175 mm × Height 105 mm × R3
Working Hours	Unlimited
Environment Conditions	Humidity: 0%–90% RH | Temperature: -20°C to 60°C
Instrument Interface	Supports single circuit, double circuit, and double pedals
Operation Mode	Stand-alone mode OR network swipe + test mode
Protection Measures	Semiconductor lightning protection
Working Frequency	13.56 MHz
Induction Speed	Quick response < 0.1 s; repeat swiping interval < 1 s
Input Interface	Standard Wiegand 34/26 (RS232 customizable)
Transmission Distance	National standard Cat5 network cable > 100 meters
Enclosure Treatment	Glue filling treatment, waterproof and dustproof
Working Status Indicators	Acousto-optic status: Red light power, green light running, flashing green + buzzer on card swipe
Control Line	External control line for green LED and buzzer
Factory Resistance Range (Wrist Strap)	750 KΩ – 35 MΩ
Factory Resistance Range (Static Shoes)	750 KΩ – 100 MΩ

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Selection of Main Equipment

Linus Host Performance Parameters

Linus Host Performance Parameters

Parameter	Specification
Processor Chipset	Broadcom BCM2837 @ 1.2 GHz
CPU Architecture	64-bit quad-core ARM Cortex-A53
Wireless Connectivity	802.11 b/g/n Wireless LAN & Bluetooth 4.1
GPU Coprocessor	Dual-core VideoCore IV coprocessor
OS Compatibility	Supports all latest versions of LINUX OS
Memory (RAM)	2 GB
Storage (Hard Disk)	16 GB
Power Supply Input	Micro-USB connector, 2.5A power supply
Video & Audio Ports	1× HDMI video port, 1× audio jack
Network & USB Interfaces	1× 100M Ethernet port, 4× USB 2.0 ports, 40× GPIO pins
Display Resolution	Maximum support up to 1920 × 1080
Shell Material	Aluminum alloy with high heat dissipation efficiency
Working Environment	Temperature: -15°C to 60°C | Humidity: 0%–90% RH
Operating System	LINUX

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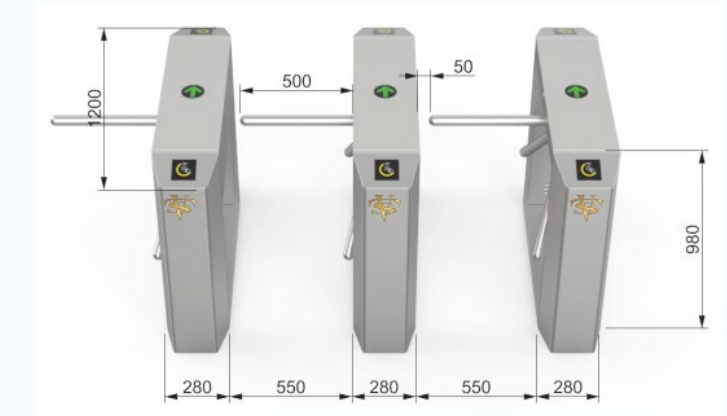
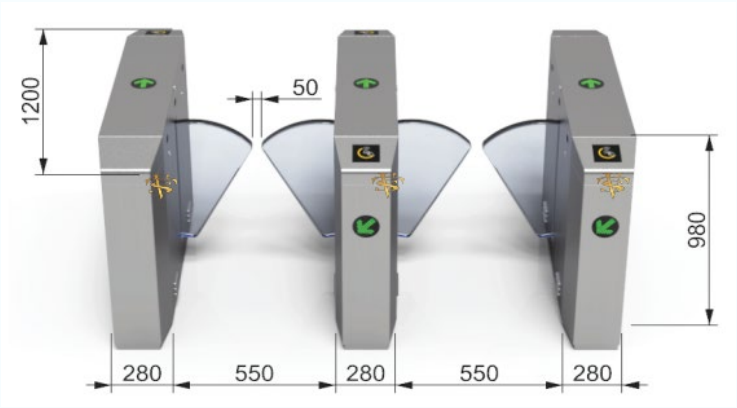
Variety of Gate Styles & Scheme

Tripod Turnstile Gate (Standard Style Passageway)



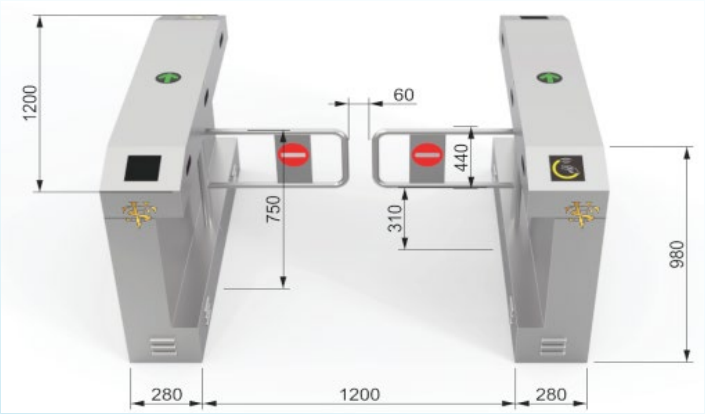
Dimensions: Cabinet Width: 280 mm | Passageway Width: 550 mm | Tripod Arm Length: 500 mm | Arm Diameter: 50 mm | Cabinet Height: 980 mm | Total Turnstile Height: 1200 mm

Tripod Turnstile Gate (Standard Style Passageway)



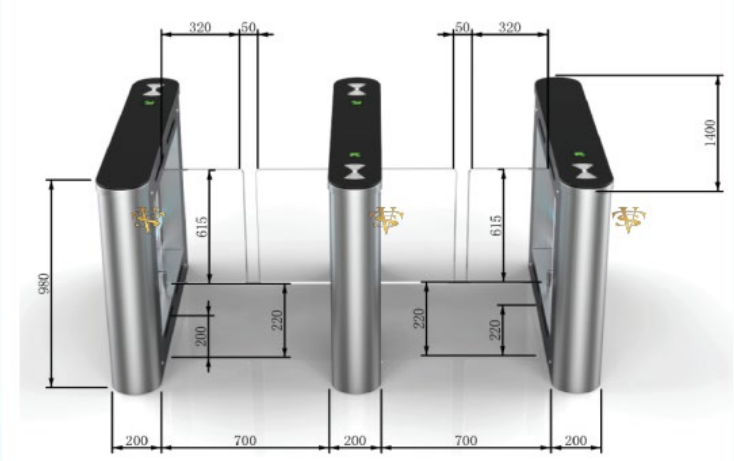
Dimensions: Cabinet Width: 280 mm | Passageway Width: 550 mm | Wing Clearance Gap: 50 mm | Cabinet Height: 980 mm | Total Structure Height: 1200 mm

B904 Swing Barrier Gate (Standard Style Passageway, Mall Trailer Can Pass)



Dimensions: Cabinet Width: 280 mm | Passageway Width: 1200 mm | Barrier Arm Height: 310 mm | Barrier Arm Length: 750 mm | Barrier Gap: 60 mm | Arm Mount Offset: 440 mm | Cabinet Height: 980 mm | Total Post Height: 1200 mm

Tripod Turnstile Gate (Standard Style Passageway)



Dimensions: Pedestal Base Width: 200 mm | Pedestal Top Width: 320 mm / 50 mm | Passageway Width: 700 mm | Cabinet Height: 980 mm | Total Glass Panel Height: 1400 mm | Internal Sensor Positions: 200 mm, 220 mm, 615 mm

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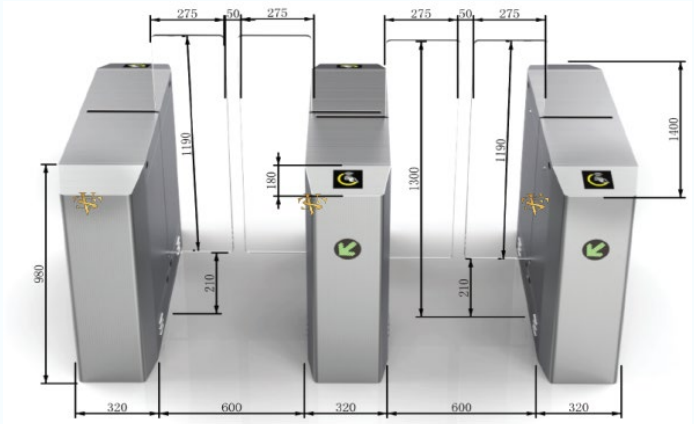
Variety of Gate Styles & Scheme

Sliding Turnstile Gates (High-end Style Passageway)



Dimensions: Cabinet Width: 320 mm | Top Section Segments: 275 mm / 50 mm / 275 mm | Passageway Width: 600 mm | Cabinet Base Height: 980 mm | Middle Section Height: 1190 mm | Total Cabinet Height: 1300 mm | Glass Barrier Height: 1100 mm | Sensor Clearances: 210 mm, 180 mm

Single-Sided Adapter Gate

Sided Test of The Instrument + Use of Display Screen with Gate (No Test Record)

Swipe Card + Instrument Test with Gate Machine

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Variety of Gate Styles & Scheme

Swipe Card + Instrument + Display Screen for Use with Gates

Use of Face + Instrument + Display with Gate

Swipe Card + Face + Instrument + Display with Turnstile

Fingerprint Machine + Instrument + Display with Gate Machine

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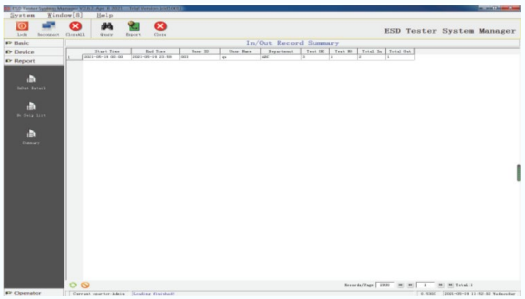
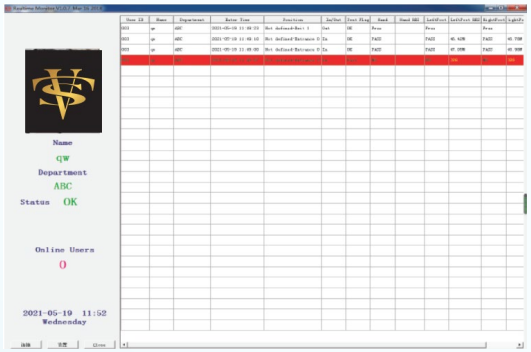
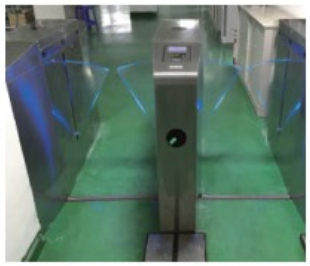
Management Software Background Entry and Exit Schedule

In & Out Summary



Real Time Monitoring





Real Time Monitoring