# User Manual
ESD Access Control System

01 ▶ Product Overview

- The ESDMAN 001-6809 ESD Access Control System is designed for fast, frequent, and accurate testing of ESD personnel grounding items. Its unique design embeds an ESD tester, computer clock, touch screen display, IC / ID card reader or barcode scanner, Ethernet module etc. into a compact stainless steel enclosure.

- This system can be worked with tripod turnstile, swing gate, flap gate, electronic lock & air shower room. In addition, it could provide basic ESD testing management, stop operators entering EPA without ESD testing.

- What's more, test results are electronically stored in the system and easily downloaded as attendance management, which has the function of distinguishing and setting up different attendance statement. It will automatically store 500,000 testing results while software is closed and PC is off-line.

- It meets the requirements of the ANSI/ESD S20.20 & IEC 61340 in the USA and Europe.

02 ▶ System Overview
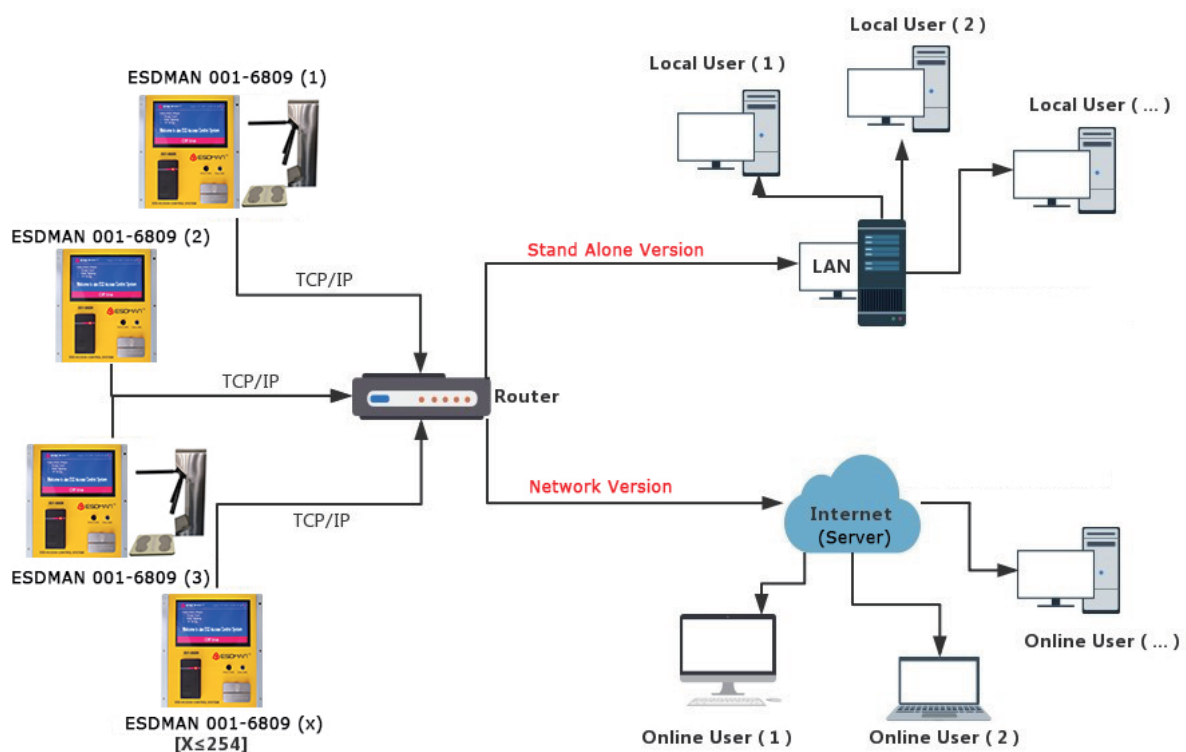
03   Main Features

- 1. Communication: TCP/IP
- 2. Built with a solid-state test button, to enhance a longer life span of the test button
- 3. 7" Touch Screen shows: Time, Date, Position, Department, Employee ID, Name, Group, Tested Item and detailed resistance of wrist strap, footwear, ESD garment
- 4. Basic Permission Set Up:

Role Number	Role Name	VIP	Footwear	Single Wire WS	Dual Wire WS	ESD Garment
01	Single Wire WS	1	1	0	1	1
02	Dual Wire WS	1	1	1	0	1
03	Single WS + Footwear	1	0	0	1	1
04	Dual WS + Footwear	1	0	1	0	1
05	ESD Footwear	1	0	1	1	1
06	ESD Garment	1	1	0	1	0
07	ESD Garment + Footwear	1	0	1	1	0
08	VIP	0	1	1	1	1

- 5. After swiping the card (or barcode), system will be automatically reset if not going through in limited pass time.
- 6. ESD Testing Steps

1.) Swipe the card to ensure the legal permission of card or barcode. (Finger print / Palm Print / Facial recognition can also be one of the ways to give the legal permission)

2.) To begin the test, use your finger to bridge the test switch's upper and down metal contacts. Hold your finger down until the test results are displayed on the touchscreen

3.) DO NOT touch any other metal while performing your test as this will affect your results.

4.) ESD testing result: Green arrow with voice announce means Testing Pass, Red arrow with voice & light instruction means Testing Fail.

Notes: When performing a footwear test, be sure to place both feet on the dual foot plate (one foot per plate). Keep the foot-plate clean with 99% isopropyl alcohol when using the 1 Gigohm high test limit. A dirty foot plate could yield a false pass. When performing a wrist strap test, be sure to completely plug in the wrist cord into the tester's jack.

04   Popular Recognition Methods

ID/IC Card Recognition   Fingerprint and Barcode Reader   Facial Recognition

05 ❯ Tester Configuration

The testing range value can be set up either at tester or in the software as per below pictures. In the meanwhile, the software is able to synchronize the testing range to the tester (hardware).

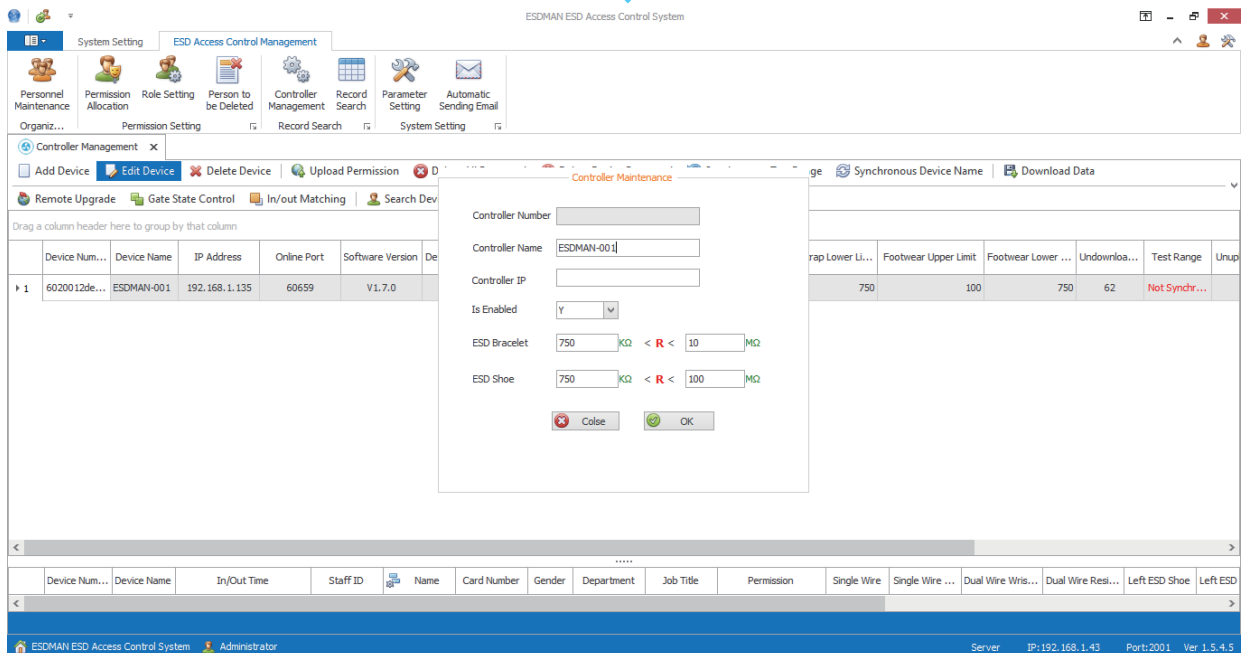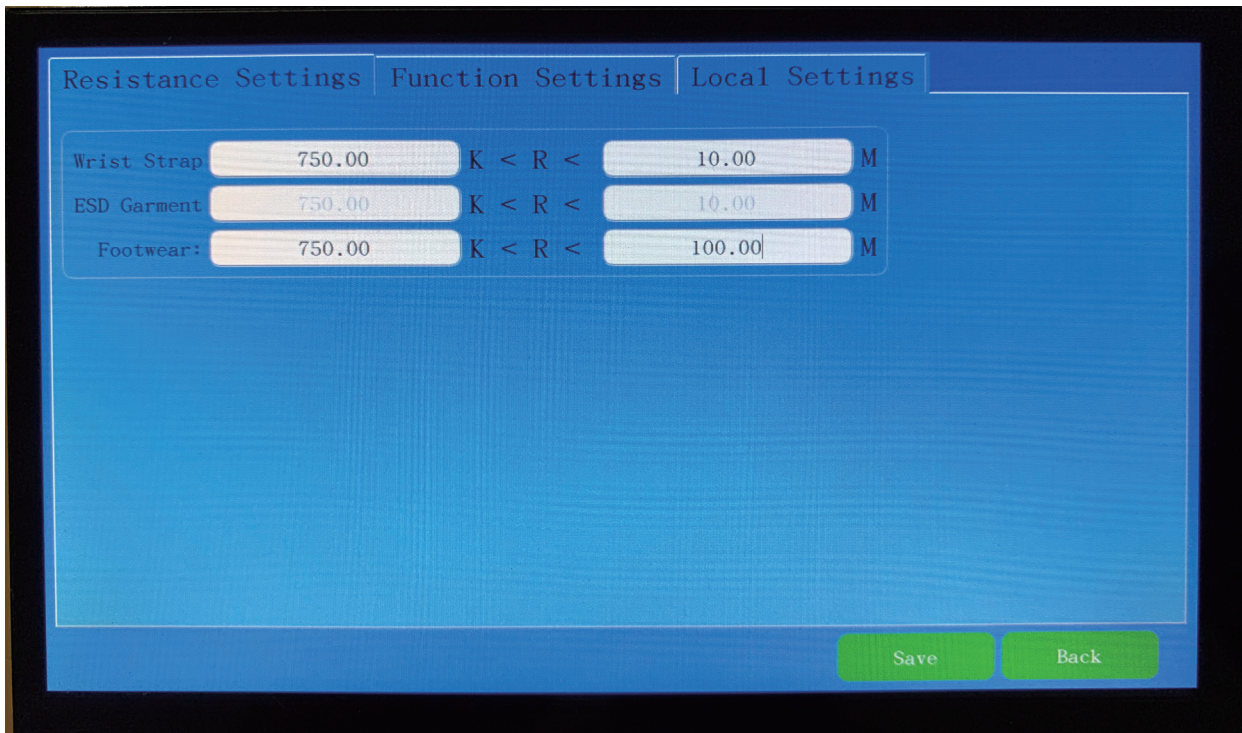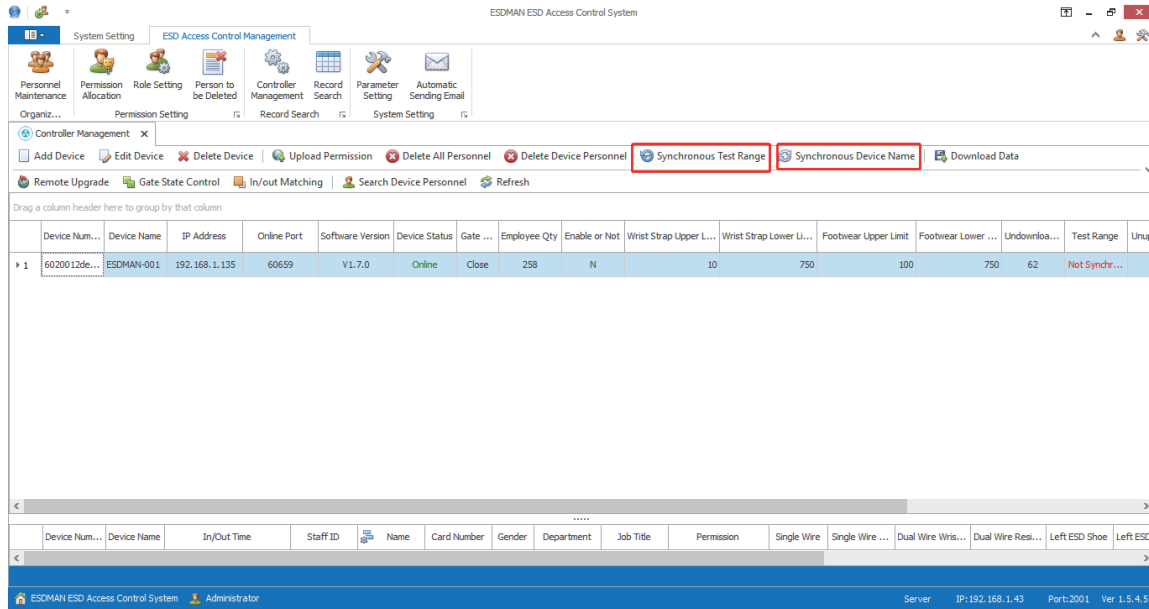Testing range for Wrist Strap / ESD Garment:
100K – 100M 0hms
e.g.: 301K – 95M

Testing range for Footwear:
100K – 1G ohms
e.g.: 505K -901M

06 Hardware Features

- 7-inch Color Touch Screen Display
- Single-Wire and Dual-Wire Wrist Strap Testing Heel Strap and ESD Shoes Testing
- IC (ID) Card Reader (or Embedded Barcode Scanner)
- Ethernet Module for Network Communication
- Dual Footplate for Independent Footwear
- Testing 27VDC Testing

★ **The CPU of device is a 32-bit 4-core processor with the main frequencies of 4X1GHZ and DDR3 2G EMMC FLASH 8G, which supports a variety of screen interface access equipment, in order to meet the needs of the high-speed development of enterprises, the control part has a number of development interfaces, four-bit USB interface 2 RS485, 2 232, and a HIDM high-definition interface.**

★ **300,000 ID / IC card permissions can be stored, in the mean time, the tester can also store 500,000 testing records when offline.**
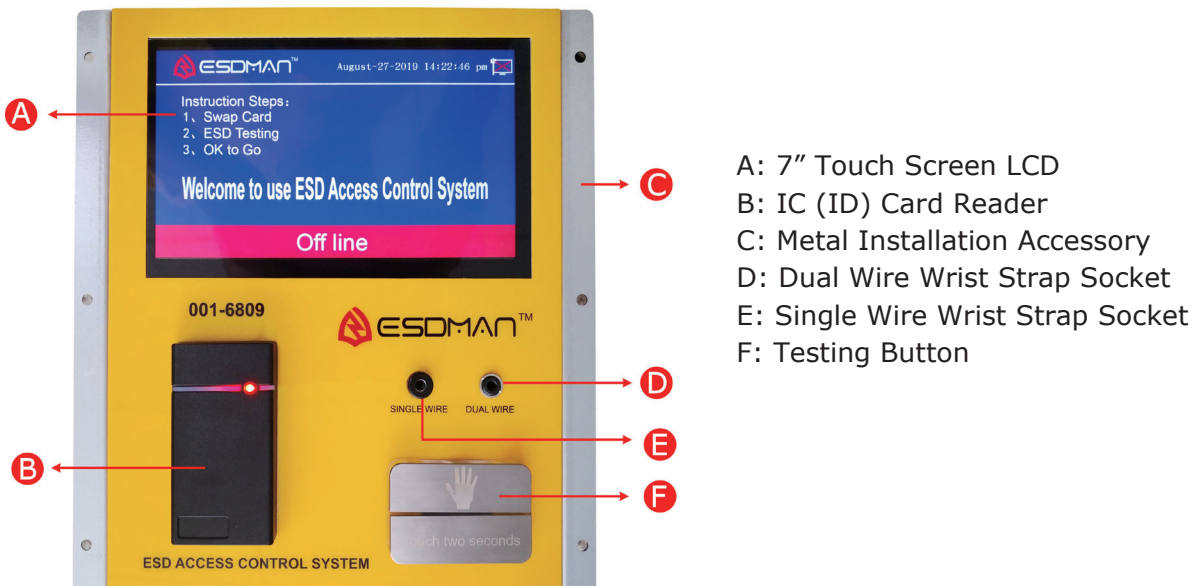
A: 7" Touch Screen LCD
B: IC (ID) Card Reader
C: Metal Installation Accessory
D: Dual Wire Wrist Strap Socket
E: Single Wire Wrist Strap Socket
F: Testing Button

DC-12V   In Door   Out Door
GND12V NC COM NO NC COM NO

USB
1 2 3 4

6020011de544
00.60.6E.C6.AB.C6

TCP/IP N Port

Out Door Reader
D1 DO GND 12V

G$_1$:DC-12V   G$_2$:GND12V

H: In Door   H$_1$-NC   H$_2$-COM   H$_3$-NO

I: Out Door   I$_1$-NC   I$_2$-COM   I$_3$-NO

J: USB

K: HDMl Interface (Reserved)

L: TCP/IP N Port

M: Out Door Reader

   M$_1$-D1   M$_2$-DO   M$_3$-GND   M$_4$-12V

W/S L R Cal
 1   2 3   4

1: Wrist Strap
2: Light Foot
3: Right Foot
4: Calibration

---

07 ▶ **Tester Software Features**

Paperless Data Logging VS Traditional Paper Logs

- Paperless data can enhance operator accountability, immediately identifying problems while reducing logging and auditing costs.

- Paper log systems can initially be effective but have proven to be inaccurate and ignored over time.

- This is an intelligent solution to cater for smart manufacturing and factory

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

08 ▷ Tester Software Features

- Records Resistance Measurements
- Displays Operators First and Last Name
- Displays Operators Test Requirement
- Color-Coded Pass / Fail Results
- Access Control Capabilities
- Records In and Out Transactions
- Time Clock Capabilities
- Records results for each wire of a dual wire wrist strap
- Records results for the left and right footwear
- Wrist / Foot symbols make it easy for operators to identify what test to perform
- All changes are recorded and viewed through the server software
- Simultaneously managing multiple ESD test access control systems through the TCP/IP network. There is stand-alone software (for free) and the online software (charges required).
- The stand-alone version can only run on one stand-alone computer for monitoring and management, while the online version can be authorized to multiple computers for monitoring and management.
- The employees can be grouped based on permission for real-time monitoring or batch management, which is user-friendly.
- Displaying the test results of employee daily, and saving them in the files, which can be searched out, saved and analyzed.
- Displaying the test results and recording the causes for the errors, such as failure of ESD wrist strap, left shoe, right shoe, or unauthorized cards, and displaying the department, door number, card number, job number, name and other information.
- Searching by various criteria, such as a month, date, department, employee or various causes of errors to generate the multi-functional ESD access control management sheets.
- Capable of converting Excel employee information sheets. The existing employee information sheet in Excel format can be directly imported into the ESD software,where the permissions can be automatically uploaded and authorized.
- With optional attendance management software, with which the ESD test records can be used directly in attendance management.
- We can provide communication ports for customer's redevelopment, or we can re-develop the software as required by customers to satisfy their needs.
- This software can be used for remote management, which makes the software maintenance more flexible and convenient.

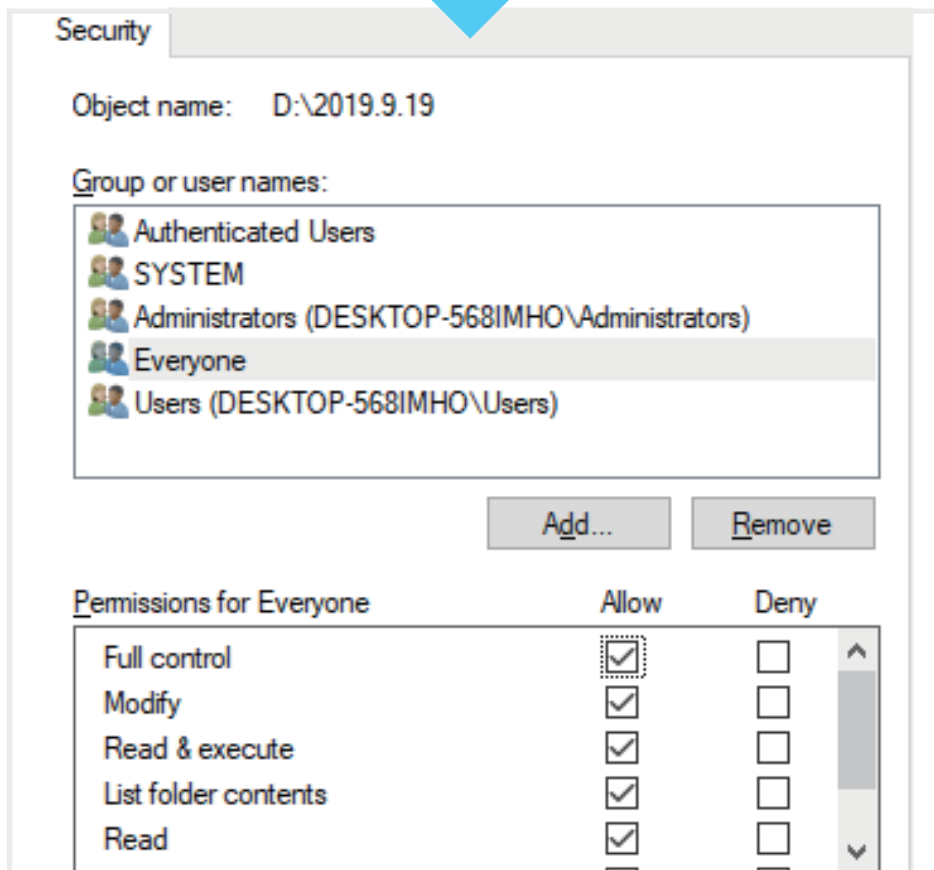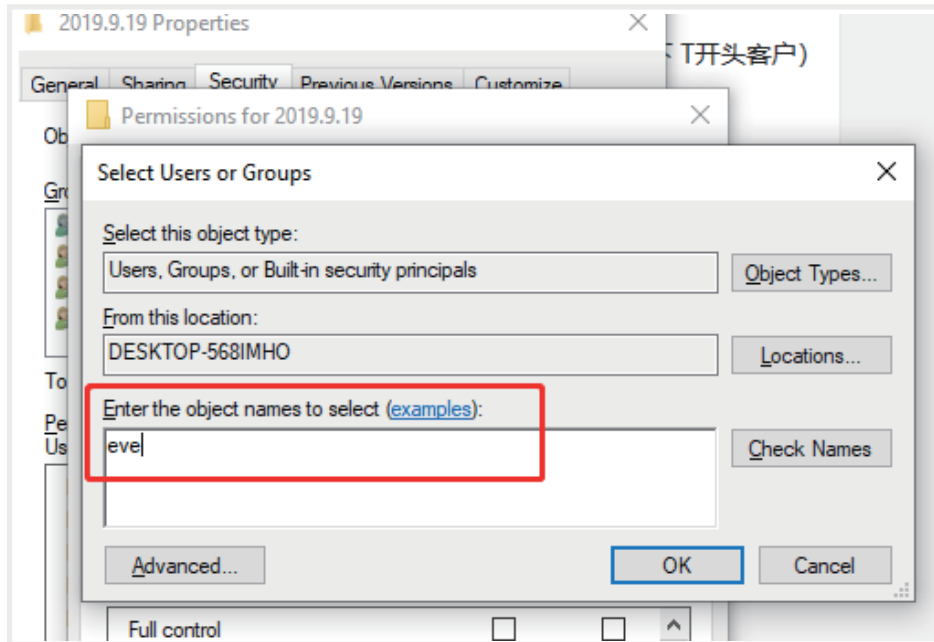### Software Installation Environment Requirements

- 1. Operating system: Require Windows Server 2008 system or above (XP system is not supported in present).

- 2. Database: Database SQL MINI (included at the package)

- 3. Internal memory requirements: 16GB or more

- 4. Hard disk: 300G or more

- 5. Microsoft Office 2007 and above version are required (Simplified version cannot be used).

T: 86-755-85243764　　　　　　　　F: 86-755-27670307　　　　　　　　W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China
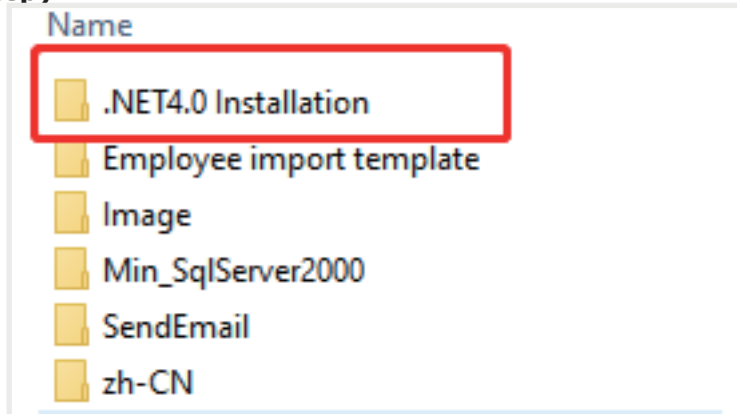
09 ▶ Software Installation

- **1. Unzip the installation package to the current folder, select the unzipped folder and click the right mouse button, change software permissions.**
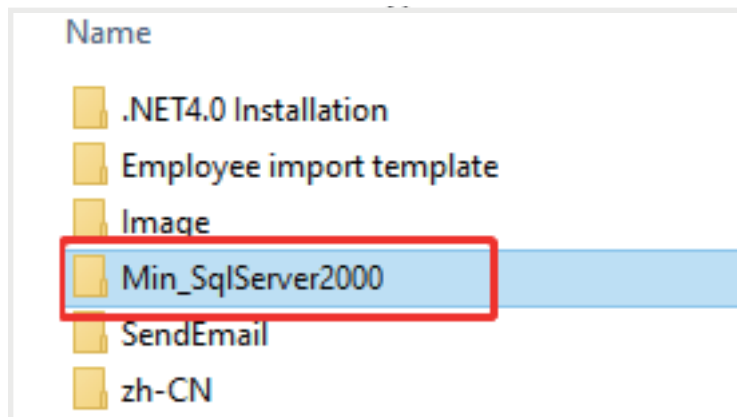
  1). Click the "Properties", Choose "Security", Choose "Edit", Choose "Add", Enter "everyone" in the input field, Click "OK", Tick the "Full Control", Click "OK", then the software permission modification has been completed
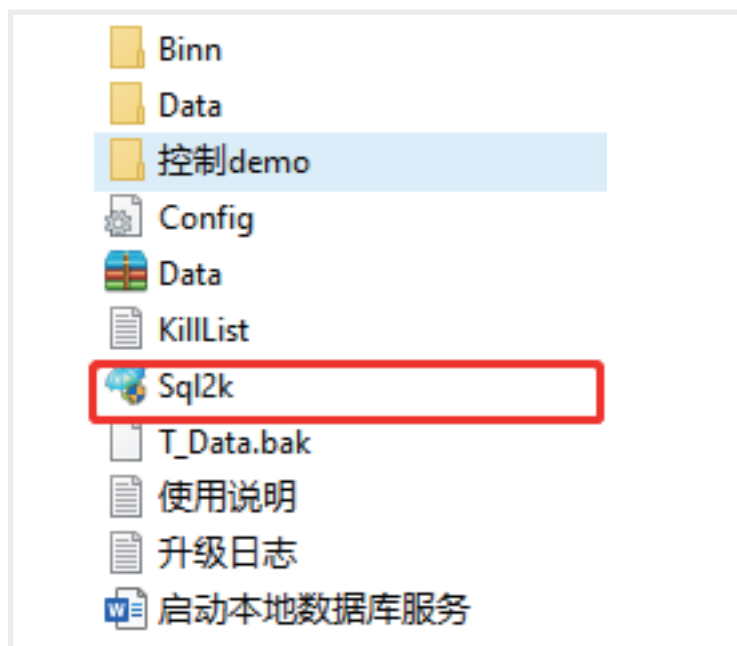
T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

- **2. Open the folder, install .NET4.0 as per steps. (If NET4.0 has been installed, please ignore this step)**

Name

📁 .NET4.0 Installation

📁 Employee import template

📁 Image

📁 Min_SqlServer2000

📁 SendEmail

📁 zh-CN

- **3. Run the database and open the folder (as per below instruction)**

Name

📁 .NET4.0 Installation

📁 Employee import template

📁 Image

📁 Min_SqlServer2000

📁 SendEmail

📁 zh-CN

1). Double click below icon as indicated

📁 Binn

📁 Data

📁 控制demo

⚙ Config

🗜 Data

📄 KillList

🌐 Sql2k

📄 T_Data.bak

📄 使用说明

📄 升级日志

📄 启动本地数据库服务

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

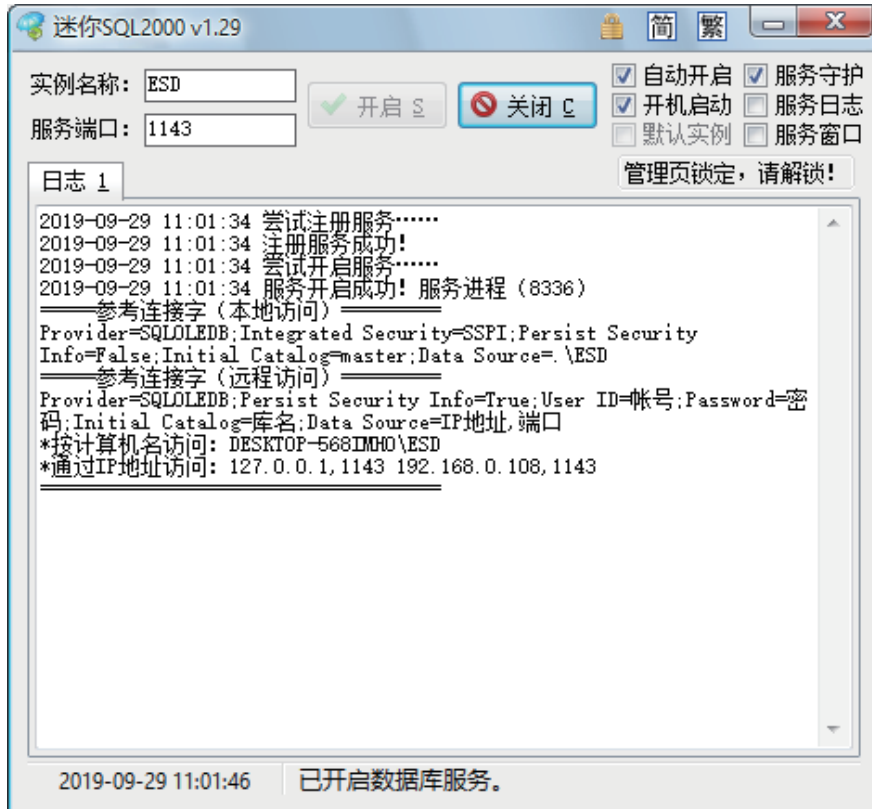Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

2). Tick the three options shown in the figure
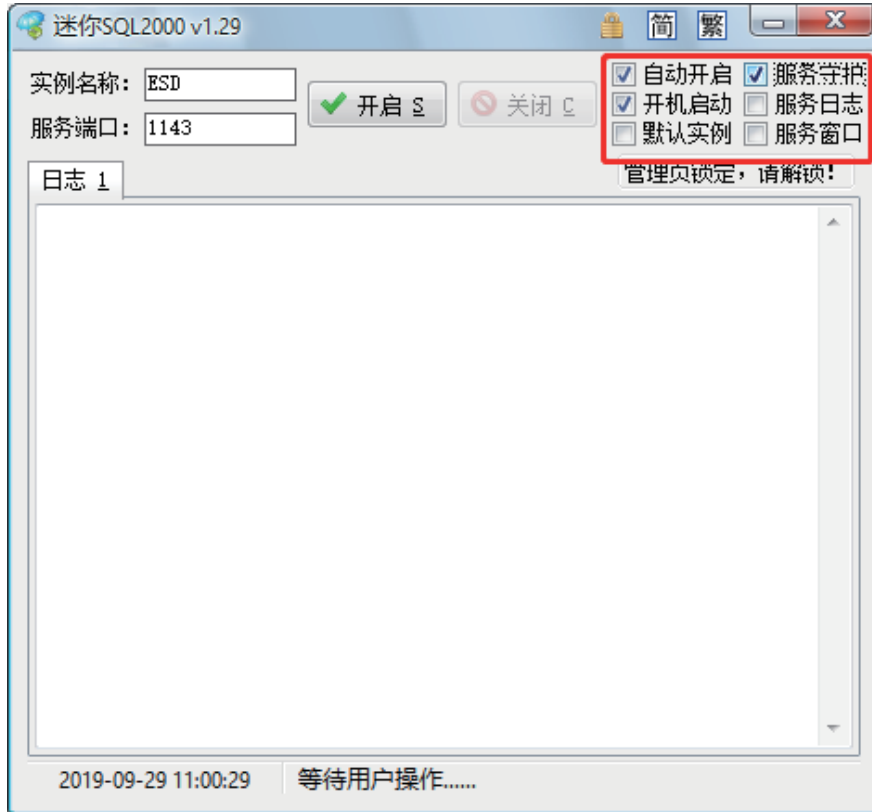
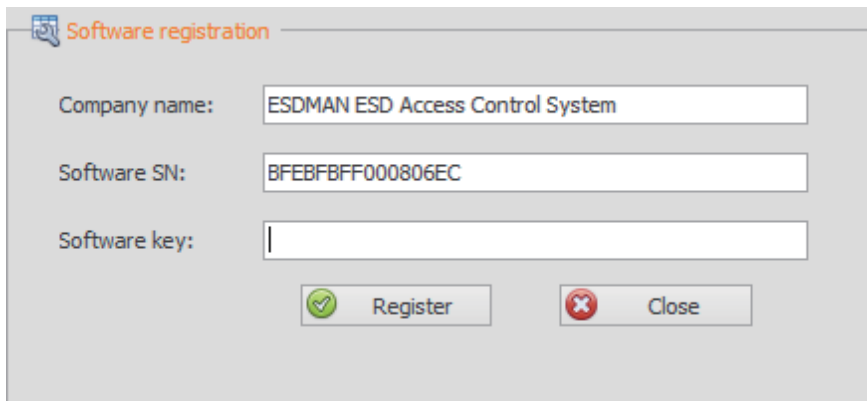3). Click on the "开启" button, and the database starts to run.

4). Then, minimize the window as above.

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

- **4. Registration for the ESD Access Control System**
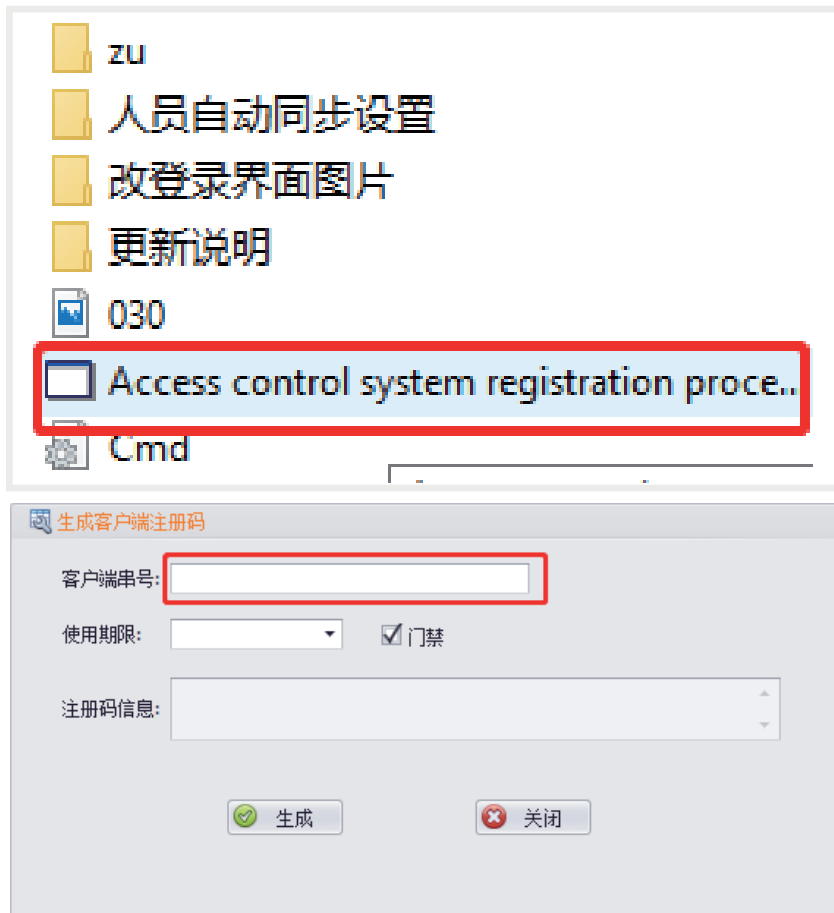
1). Double-click the icon as shown
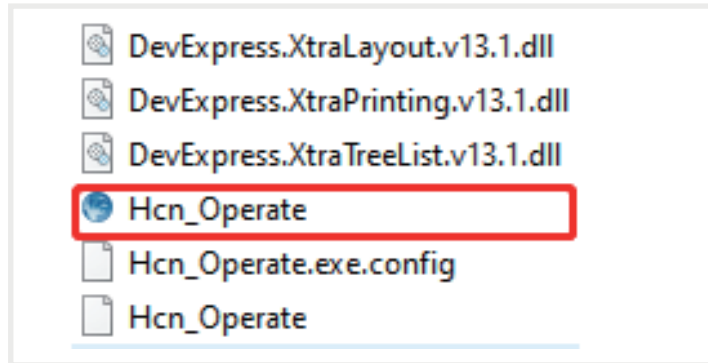
2). COPY Software SN

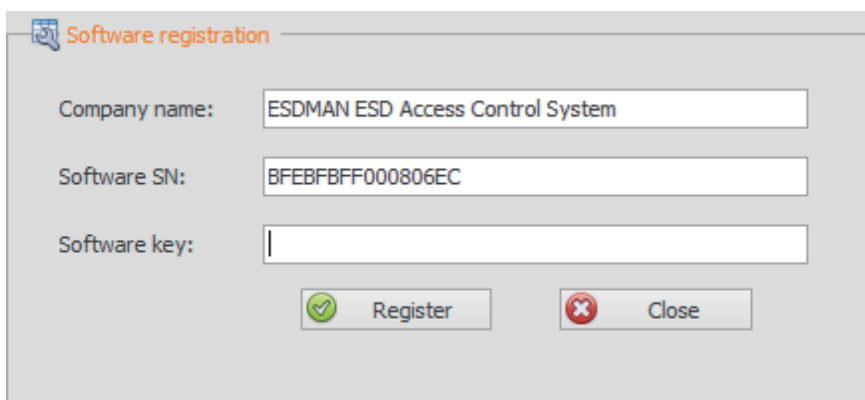3). Open the icon in the folder as shown in the following figure

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

4). Paste the Software SN you just copied, as shown below.

5). Choose "永久使用", Tick "门禁", then further click "生成"

6). Copy the content in"注册码信息", open the following window，then paste the copied content into the input field of "Software Key"

7). Click the "注册", then the registration has been completed.

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China
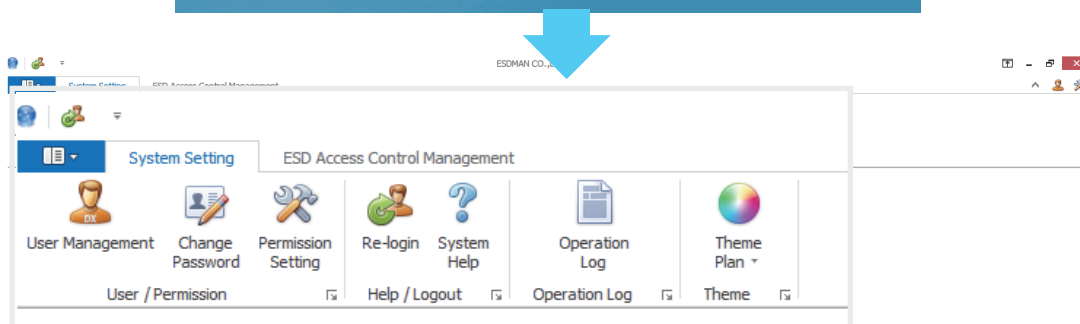
10   Log in the Software.

- **1. Log in the software**

User Name: Admin
Password: qwe123
Click "Remember password", then click the "Sigh in" to enter the software interface.


★ Operation Guide (5 Main Steps)

1. Connect the tester and software successfully

2. Testing range synchronized

3. Import the employee data spreadsheet

4. Permissions Allocation

5. ESD Testing - and checking the testing result sheet

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China
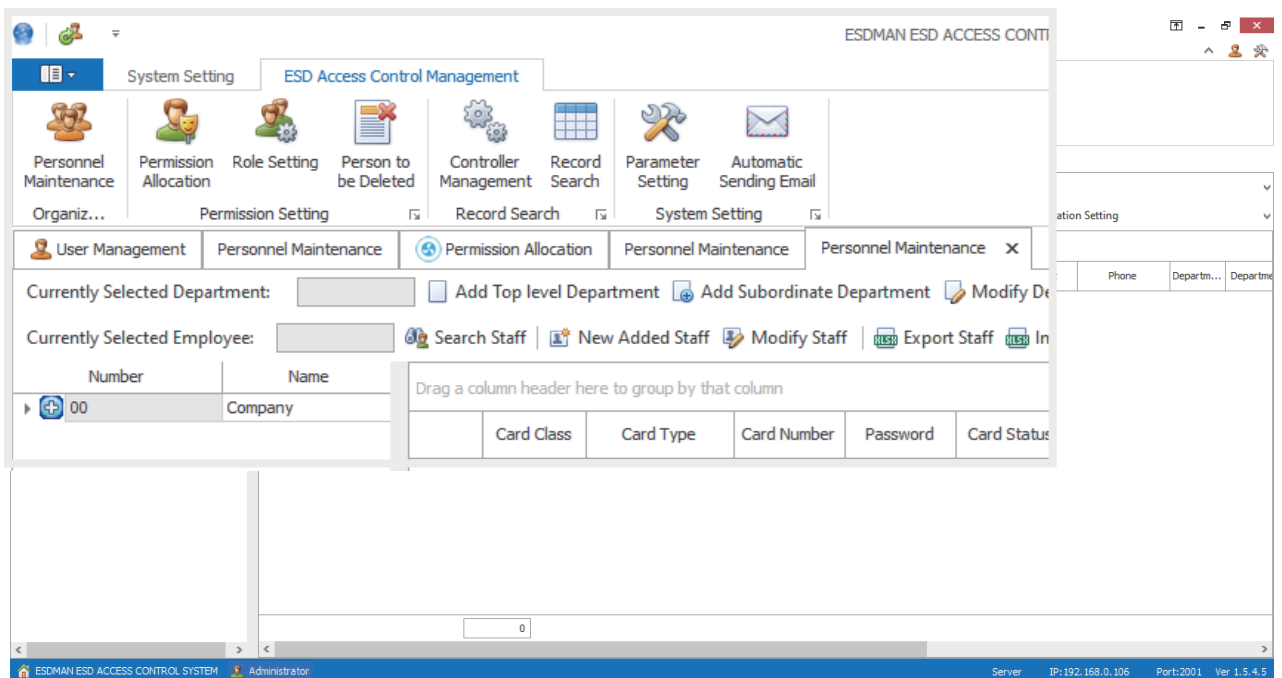
- **2. After entering the software interface:**

1). System management

2). Access control management, we click to select " Access control management ".
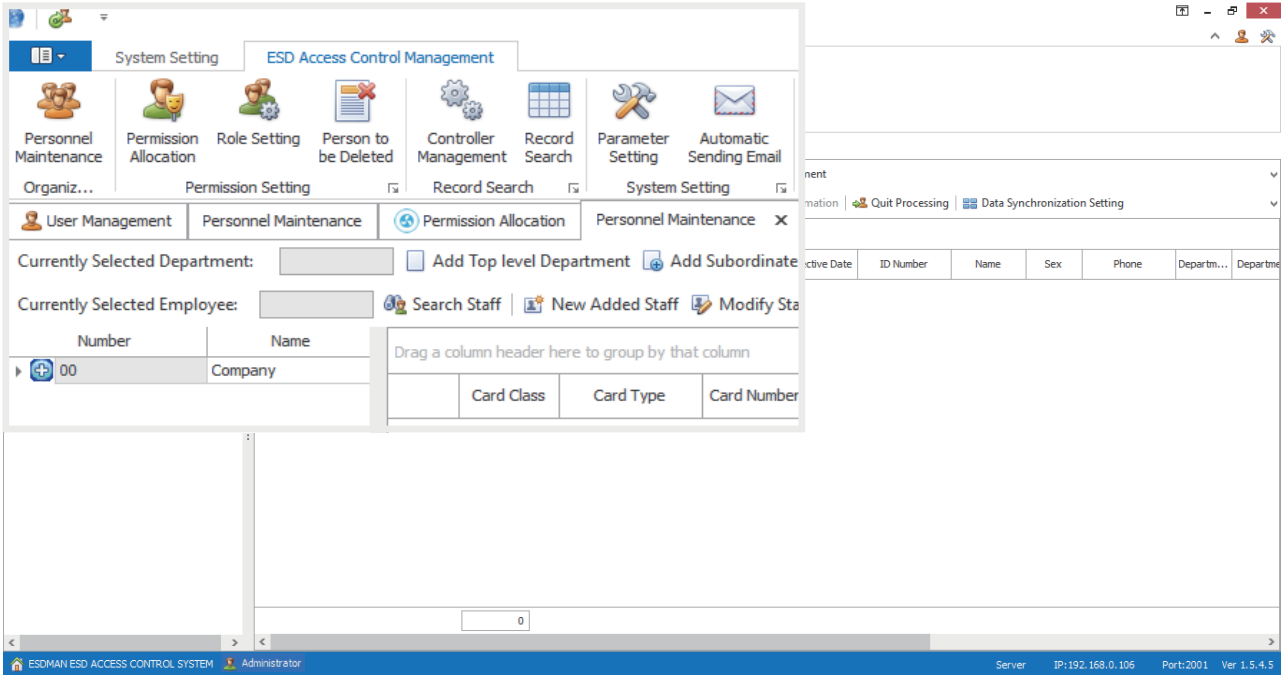
| 11 | Software Functions and Instructions |

- **1. Personnel Information Maintenance: Add department, personnel, modify and set the automatic import function and so on**

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

1). Add Department: Display the total number of person in each department/the number of person queried by criteria

- a. Add Top Department: Multiple top departments can be added.
- b. Add Subordinate Department：Multiple Subordinate departments can be added.
- c. Modify Department:Modifies the original department.
- d. Delete Department:Delete the department and all subordinate departments of the department, but the personnel data in the department will not be deleted.

2). Add Staff: Display the total number of persons/display the number of persons queried by criteria.

- a. Search Employee: Search all employee, search employee by criteria.

- b. Add Employee: Add a new person individually. The card NO. and employee work NO. are required. Other options are optional. When you select a department on the left to add employees, the department number and department name are filled in automatically, the position is added manually, and the on-the-job/off-the-job status is on-the-job/on-the-job status. (Add here, the photo name defaults to work number)

- c. Modify Employee: Modify the personnel information which has been added, and all items can be modified. After modification, the original personnel data will not be saved in personnel information maintenance, but the original personnel data and test records of historical records will be saved. (This feature is also available in the right-click function key)

- d. Delete Employee: delete personnel information in personnel information maintenance, but it will save the history of original personnel information and test records. (This feature appears only in the right-click function key.)

- e. Export Employee: The personnel data which in all personnel information maintenance can be exported, and it can be selectively exported. (e.g. Department, active or resigned personnel, etc.)

- f. Import Employee: The personnel data which filled in Excel form can be imported; When the resigned personnel information has been imported, the software will auto-modify the personnel status from active to resignation. (There are fixed format templates for Excel form in the system file, the information must be filled in according to the fixed format templates.) All in text format.

- g. Import Confirmation: Import personnel data, after the import confirmation, the personnel is successfully import. Or else, the importation is failed.

- h. Resignation Processing: After modified the resigned personnel status to resignation，the personnel data will be displayed as undelete personnel from the equipment. Click "Delete Equipment" to delete the personnel data from the equipment, or the software will delete the personnel data automatically after "Data Synchronization Device" is enabled.

- i. Data Synchronization Device：Set up the synchronizable database view file, and connected with software, then the software will auto-import the the personnel data and assign permissions to the device.

• 2. Permission Settings

1). Permission Assignment

- a. Search: You can search the personnel information which has already assigned.

- b. Add permissions: Assign appropriate permissions to people who need to pass the gate. Each person's authority can be assigned about pass one or more gates.

- c. Modify Permission: Select the person who needs to modify permission, to modify permission of gates.

- d. Delete Permission: Delete the permission of an assigned person directly without deleting the personnel data.

- e. Export the Excel: export the personnel data which needs to be exported.

2). Role Settings

- a. Add role: set the permission method for passing through the channel gate (Factory-set).

- b. Modify Role: Permission method can be modified.

- c. Delete role: Remove unneeded permission methods.

- d. Refresh: Refresh after the operation is complete.

3). Personnel need to be delete.

- a. Search: Search the deleted personnel list.

- b. Delete Record: Delete the list of deleted persons and then it will be delete permanently.

- c. Export Record: Export the deleted person list .

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

- ## 3. Search Access Control System Record
  ### 1). Controller Management

- a. Add Device: you can add the device manually, or click"Refresh" to let the software automatically add device when the device is connected to the software. For example: Device IP settings complete, software and devices are in the same network segment.

- b. Edit Device: Select a device to edit the name, IP, enable   status, test range and save modification, and then click the   corresponding function key to upload and modify it to the device.

- c. Delete device: Delete the selected device.

- d. Upload Permission: The assigned permission, when the device status is online, the number of personnel which need to upload to the device will be displayed in "Not Uploaded Permission". Select the device and click "Upload Permission" to upload it to the device.

- e. Upload Photo: When the device is online, the photos of personnel will be uploaded to the device by batches, the photo name is work number, and the file as the compressed file package.

- f. Clear Full Equipment Personnel: Each device will display the total number of persons, and the equipment online status, you can delete all the information and permission of the selected device by clicking the selected device.

- g. Delete equipment personnel: Select the equipment to delete the equipment personnel when the equipment is online if the software displays "non-deleted personnel record" after deleting the personnel that should be deleted in "permission assignment" or the personnel subject to resignation processing in "personnel information maintenance".

- h. Synchronous test range: Set the needed test range in the equipment modification and then click this function key to update the test range to the equipment when the equipment is online.

- i. Synchronizer name: Set the equipment name in the equipment modification and then click this function key to update the name to the equipment when the equipment is online.

- j. Download data: Save the test record of equipment offline in the equipment, select the equipment or select all when the equipment is online and then click this function key to upload the offline record "undownload data" to the software database.

- k. Remote upgrade: Upgrade the equipment remotely when there is an upgrading scheme for the equipment.

- l. Door status control: The status of door is normal open, close, and normal operation, which is adjustable. In the equipment, the status of door is displayed as closed (if it is incorrect, select "close" first then click "normal operation"), and the status of gate is displayed as normally operated.

- m. Access matching: Match to open or close or match automatically, which is adjustable.

- n. Search the equipment personnel: Search the information of a certain personnel in the equipment according to the equipment name. The search method is to click this function key, select the equipment, input the personnel's card number, and click on "search" to view the information of the existing personnel. If there is no such person, then the screen will display "no such person".

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

- o. Refresh: Refresh the online status of the equipment and by refreshing, effective equipment searched can be added automatically.

2). Access Control Record Search

- a. Search: Search the history record selectively, such as the job number, card number, name and date,

- b. Export Excel: Export the test record according to the search result.

- c. View settings: Adjust display condition items in the display window and select the items needed to be displayed.

- d. History record display: All tested records passing the passage gate are saved in the history record, such as the invalid card, test qualification record and test failure record.

4. System Settings

1). Access Control Parameter Setting

- a. System Settings
  a). Software language options : Simplified Chinese, traditional Chinese and English.

  b). Server or not: Check as the server rather than the client (the software defaults to the server). One database defaults to one server only, and the server IP is bound to the database and equipment. At the server side, all functions can be operated while at the client end, some particular functions can be operated, only the personnel information and permission assignment can be imported, the upload permission is processed at the server side or completed automatically after synchronous data setting and other functions of the equipment cannot be operated. (The server side is an optional software purchased by the client.)

- b. Registration information: The software can be used only after registration, the registered trial period is three months and the one-year, two-year or permanent service life of the software can be applied for upon expiration of the trial period. Note: After the software is registered once, the computer will default the software as unable to be copied or deleted, otherwise the software cannot be used.

- c. Timing task: This function is not open temporarily.

12 ▷ Automatic Sending Email

- **1). Send emails automatically: When test records should be sent to the designated personnel by email, this function can be set.**

- **2). Email Operation method**

  1).Whether to enable the mailbox send function.

  2).Set the IP, email address and password of the mailbox.

  3).Set the send time.

  4).Add the inbox address.

  5).Select the report content to be sent.

  6). Save the setting and finish.

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

13 Common Problems in the Equipment and Software

- **1. The equipment has no reaction after swiping card and it does not display valid card of invalid card but the card reader gives out sound at the time of swiping card.**

1). Look if the date and time at the top right corner of the equipment is updated or not, and if it is not updated, please open and connect the software to the equipment to update the time automatically, and if the timed remains unchanged, please shut down and restart.

2). Check whether "enable server authentication function" at the background of the equipment is checked, and if it is checked, then uncheck it. This function operation is in the "function settings" among "other functions" at the background. You need to contact the service provider.

3). Whether the card reader connection is loose or disconnected.

4). Open the controller and check whether the test indicator light is on and whether there is a test.

5). If the problem cannot be solved through all the above steps, please contact the service provider.

- **2. After swiping card, the equipment suggests a test but it has no reaction after the test.**

1). Whether the test resistance is displayed after the test?

- a. The resistance is displayed and do not open the gate as there is a problem with the gate open signal. Check the gate open signal line. Or if the gate mainboard is not opened, please contact the service provider.
- b. No interface or resistance is displayed. Please observe whether the test light on the electrostatic plate is flashing at the time of test after swiping card, and if it is on, it means the test is normal and if no signal is sent out, it means a repair is needed. If the test light is off, it means the electrostatic plate has a problem and should be replaced.

2). The electrostatic test is normal and a test result is displayed and qualified, but the gate is not open.
- a. Whether the door status control and access matching on software is correct.
- b. Whether there is a gate open signal at the gate mainboard.
- c. If the problem cannot be solved through all the above steps, please contact the service provider.

14 Access Control

- The ESDMAN 001-6809 features a relay terminal that can be integrated with Turnstile Gate (Tripod, Swing Gate, Wing Gate), lights, buzzers, etc. to control access to an ESD Protected
- Area (EPA).

The relay open and close time can be modified using the ESDMAN 001-6809 Software.

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

1. Integrated with Tripod Gate

2. Integrated with Wing Gate

15 ▶ Equipment Installation

- 1. Prepare the tools to install the equipment, and count the accessories according to the packing list.

- 2. Verify the location which is suitable for the installation environment, and adjust the chassis location to do the installation.

- 3. Set the four mounting holes at the bottom of the chassis, drill the holes, and fix the chassis with the M10 expansion screws.

- 4. Installation of power supply and network cables:

1). The input voltage of each device is 220V, with grounding wire, and it should be connected to the empty open lead-out terminal.

2). Each device requires a network cable with a fixed IP to communication with the software.

- 5. If the ground screws or expansion bolts of M10 need to be embedded in advance, then the construction should be carried out according to the fixed hole position at the bottom of the chassis. (Note: Chassis holes are inconsistent)

- 6. Use 3/4 "PVC pipe to penetrate the strong and weak cables respectively, and use Cement is buried in place.

16   Foundation Installation Picture

- 1. Prepare the tools to install the equipment, and count the accessories according to the packing list.

- 2. Verify the location which is suitable for the installation environment, and adjust the chassis location to do the installation.

- 3. Set the four mounting holes at the bottom of the chassis, drill the holes, and fix the chassis with the M10 expansion screws.

- 4.   Installation of power supply and network cables:

1). The input voltage of each device is 220V, with grounding wire, and it should be connected to the empty open lead-out terminal.

2). Each device requires a network cable with a fixed IP to communication with the software.

Foundation Installation Picture
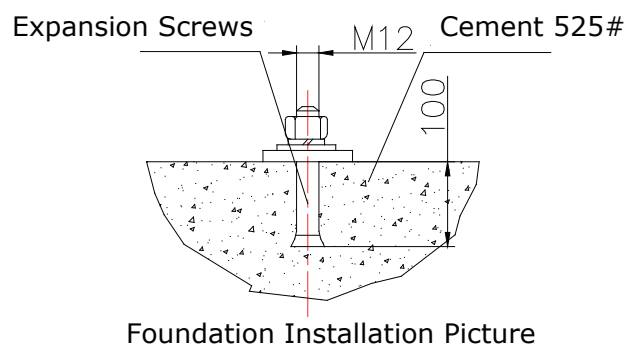
17   Software Installation Environment Requirements

- 1. Operating system: Require Windows Server 2008 system or above (XP system is not supported in present).

- 2. Database: Database SQL MINI (included in the package)

- 3. Internal memory requirements: 16GB or more

- 4. Hard disk: 300G or more

- 5. Microsoft Office 2007 and above version are required (Simplified version cannot be used).

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

18   Maintenance

- To maintain optimum performance, cleaning should be performed on a regular basis. Use 99% isopropyl alcohol to clean the foot plate and test switch. Other cleaners are susceptible to leaving residue on these surfaces.

- NOTE: Avoid wetting or mopping the foot plate. This may yield false test results and cause damage to its internal circuitry

19   Calibration

001-1005 is a precise resistance box designed for wrist strap and footwear,it's made of aluminum with the features of light weight,easy to operate,convenient to carry and strong anti-interference ability.

The resistance on the resistance box are both precise resistance,resistance value can be set up according to customers request.

- **1. Resistance box includes**

1). Resistance box body x 1ea

2). Connecting wires x 3 ea(one of them is yellow/green ground wire,the other 2 are resistance testing wires:red and black color)

Fixed Resistance	Accuracy	Fixed Resistance	Accuracy
91K	1 %	32M	1 %
110K	1 %	38M	1 %
680K	1 %	90M	1 %
820K	1 %	110M	1 %
9.1M	1 %	800M	5 %
11M	1 %	1100M	5 %

- **2. Preparation**

1). 001-6809 meter connect to 24V ,tester is into normal stand-by interface

2). Authorize a IC/ID card can test single wrist strap and footwear synchronously

3). Set the testing range (100K-1G) at the PC for 001-6809 meter ,then have one button synchronous,meter already set up the testing range customer requested. Or use cursor enter 123 and go to 001-6809 meter's background to make testing range set up
Default testing range for wrist strap:750K<R<10M
Default testing range for footwear :750K<R<100M

4). Look into the set up test range and make records for status change and resistance value displayed during calibrating period,then calculate accuracy range

- **3. To avoid interference caused by environment during calibration,connecting method for calibrator is as follows**

1.Take terminal at the 001-6809 meter port away,connect meter with calibrator directly

2.Connect yellow/green ground cord one terminal to resistance box socket with grounding symbol,the other terminal connected to grounding cord or power supply ground pin.

3.Connect black wire to Calibration hole,the other terminal to equipment's calibration port.

4.Insert red wire to the hole with numeric resistance value symbol,the other terminal connected to any sockets of wrist strap,left foot and right foot,to do calibration step by step by swiping card.

- **4. Wrist strap verification**

Terminal insert to the resistance corresponding to the below chart. Swipe card,use fingers touch the button and do test,only view the color changing and displayed resistance value of wrist strap,working as per blow chart and judging if it is ok.

Wrist strap testing range:750K<R<10M

Accuracy Setting: +/- 10%   Measured Accuracy : +1.5%

Calibration Resistance	Displayed Resistance	Yellow (R<750k)	Green (750k<R<10M)	Red (R>10M)	Result
680K	675K	√			√
820K	820K		√		√
9M	8.86M		√		√
11M	10.85M			√	√

Left foot testing range:750K<R<100M

Accuracy Setting: +/- 10%   Measured Accuracy : -8.5%(max)

Calibration Resistance	Displayed Resistance	Yellow (R<750k)	Green (750k<R<100M)	Red (R>10M)	Result
680K	675K	√			√
820K	831.30K		√		√
9M	8.83M		√		√
11M	10.80M		√		√
32M	31.19m		√		√
38M	37.20M		√		√
90M	97.70M		√		√
110M	111.38M			√	√

Right foot testing range:750K<R<100M

Accuracy Setting: +/- 10%   Measured Accuracy : -8.8%(max)

Calibration Resistance	Displayed Resistance	Yellow (R<750k)	Green (750k<R<100M)	Red (R>10M)	Result
680K	675K	√			√
820K	833.30K		√		√
9M	8.83M		√		√
11M	10.80M		√		√
32M	31.27M		√		√
38M	37.30M		√		√
90M	97.93M		√		√
110M	111.33M			√	√

- **5. Calibration Wiring Diagram**

| 90K | 110K | 680K | 820K | 9M | 11M |

ESDMAN® **001-1005**

DUAL FOOTWEAR / WRIST STRAP

RESISTANCE CALIBRATOR

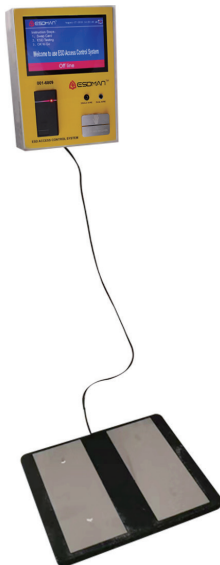CALI HOLE

A

| 1.1G | 800M | 110M | 90M | 38M | 32M |

B

W/S L R CALI
1 2 3 4

---
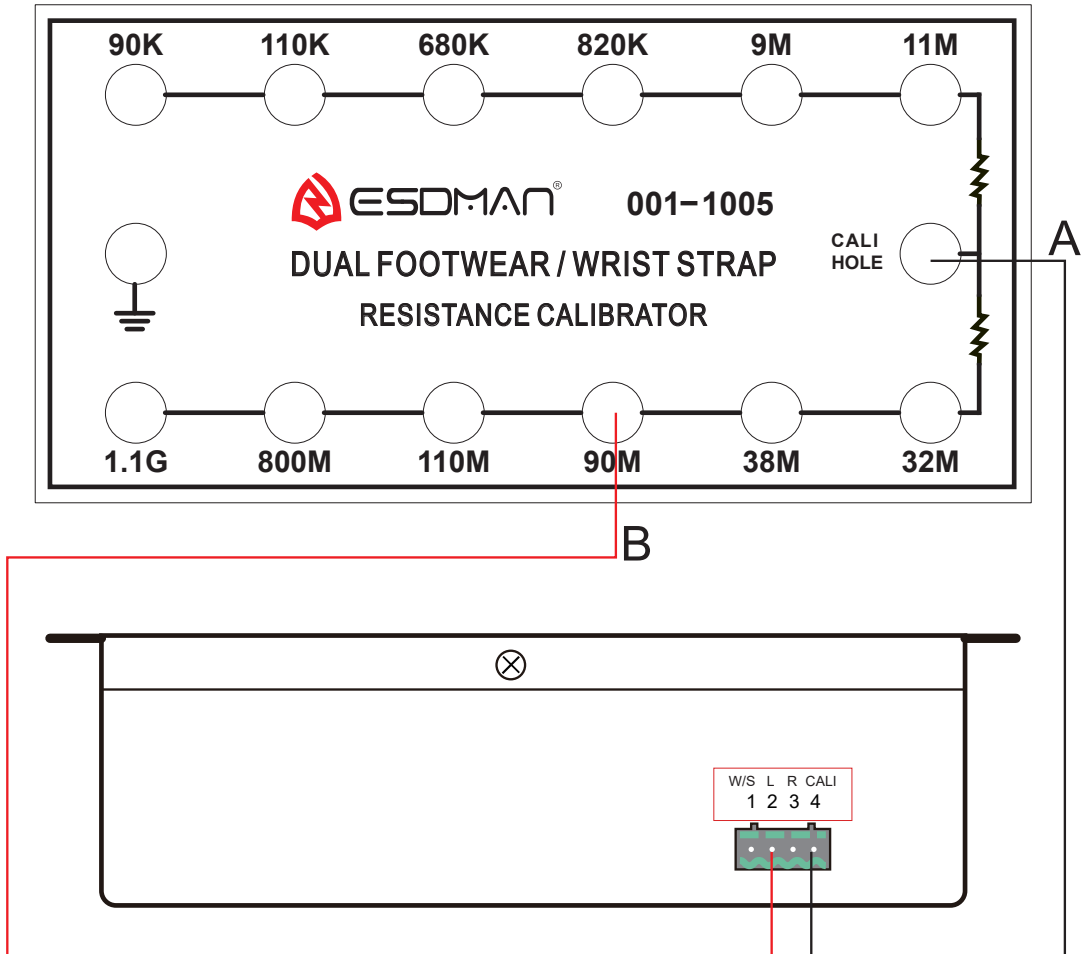
20 ▶ Mounting Options

- **Wall mount: The new mounting bracket allows the unit to be mounted and removed without the use of any tools. Install the bracket on a flat surface and secure the ESDMAN 001-6809 with the included thumbscrew.**

Wall Mount

Embedded in the Turnstile

T: 86-755-85243764   F: 86-755-27670307   W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China

21　Technical Data

- **Wall mount: The new mounting bracket allows the unit to be mounted and removed without the use of any tools. Install the bracket on a flat surface and secure the ESDMAN 001-6809 with the included thumbscrew.**

Input Voltage and Frequency (External Adaptor)	AC / DC Power Adapter
Operating voltage	DC 12V±10%，≥3.3A
Cable Length	1.5m
Operating Temperature	21°C-30°C-for 1 Gigohm test limit // 5°C--30°C-for all other test limits
Dimensions	88*135*42mm(L*W*H)
Weight	1.1kg
Test Accuracy	±20% for 1 Gigohm footwear test limit // ±15% for all other test limits
Test Switch Voltage	27VDC @ open circuit
Wrist Strap and Footwear Test Voltage	27VDC @ open circuit // (Test current is limited by resistors and varies on the test range setting (100K-1G)

22　Packaging

ESDMAN 001-6809

Dual Independent Foot Plate: Dimensions: 49cm x 39cm x 2.5cm Weight:6kgs

Export Outer Package (Plywood Crate)

T: 86-755-85243764　　　　F: 86-755-27670307　　　　W: www.esdman.com.cn

Add: Rm 505, Floor 5, Bldg A, Wenyingxiandai Center, No. 2004, Xihuan Road, Shajing, Bao'an Dist. Shenzhen 518104,China