SHIRTRONICS

User Manual
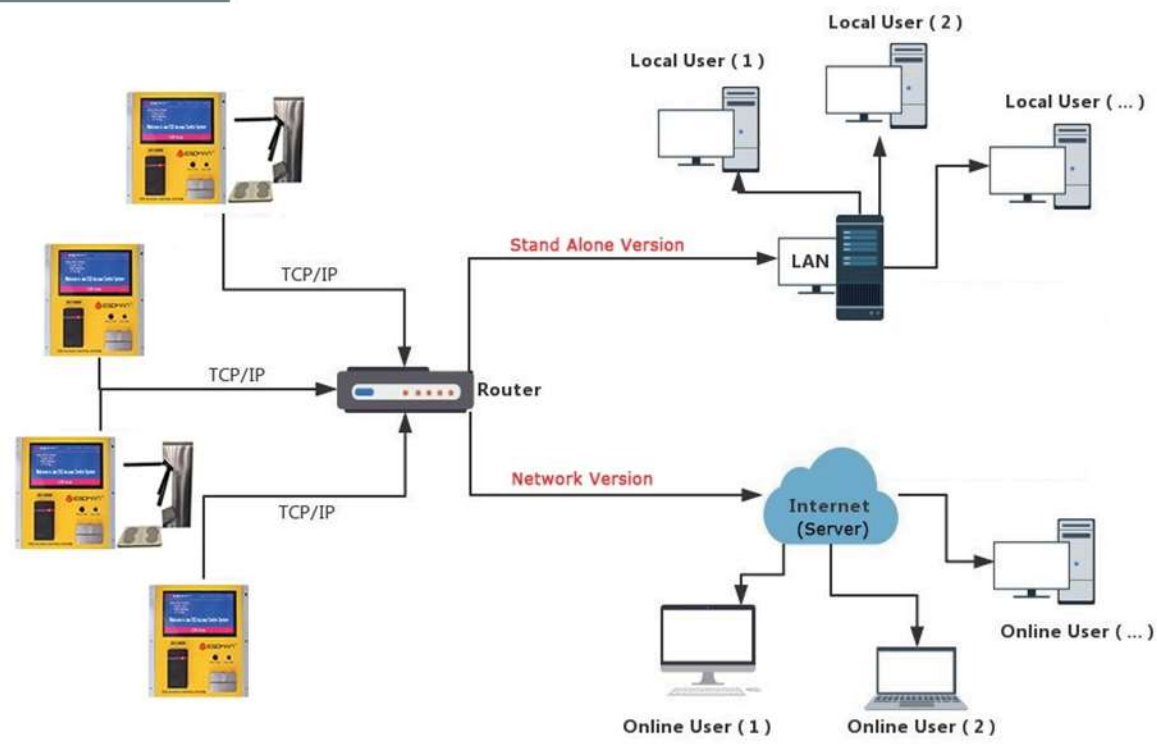ESD Access Control System

01 ▶ Product Overview

- The 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

SHIRTRONICS

Local User (1)
Local User (2)
Local User (...)

TCP/IP

Stand Alone Version

LAN

TCP/IP

Router

TCP/IP

Network Version

Internet
(Server)

Online User (1)
Online User (2)
Online User (...)

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

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).

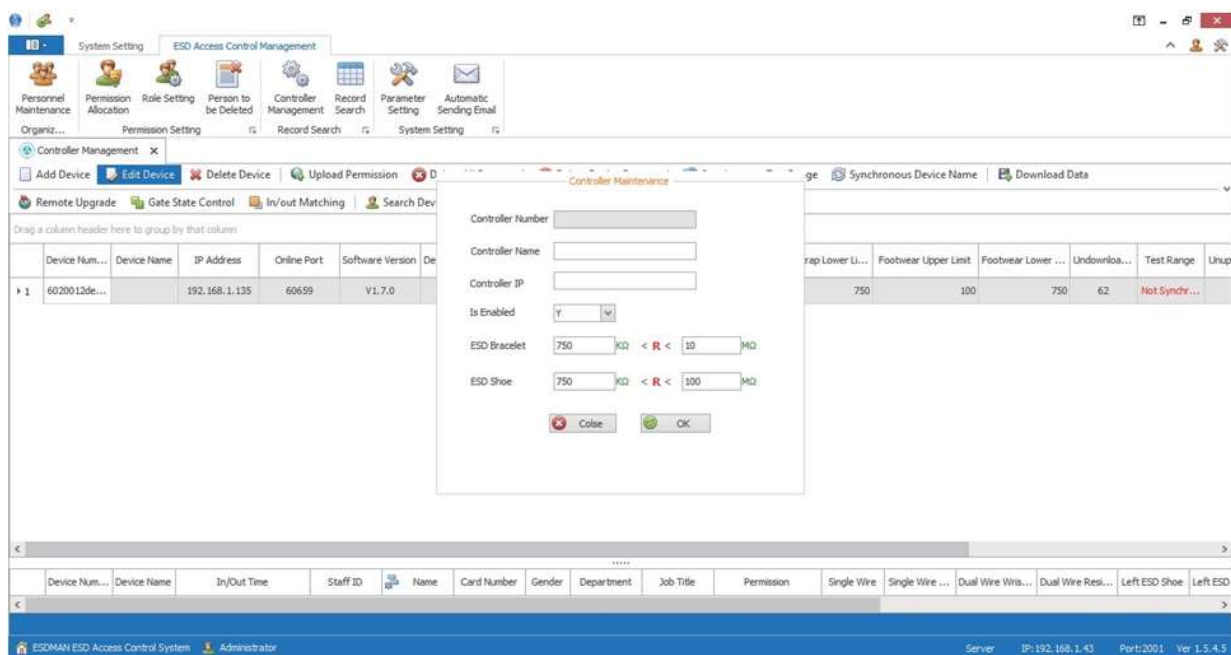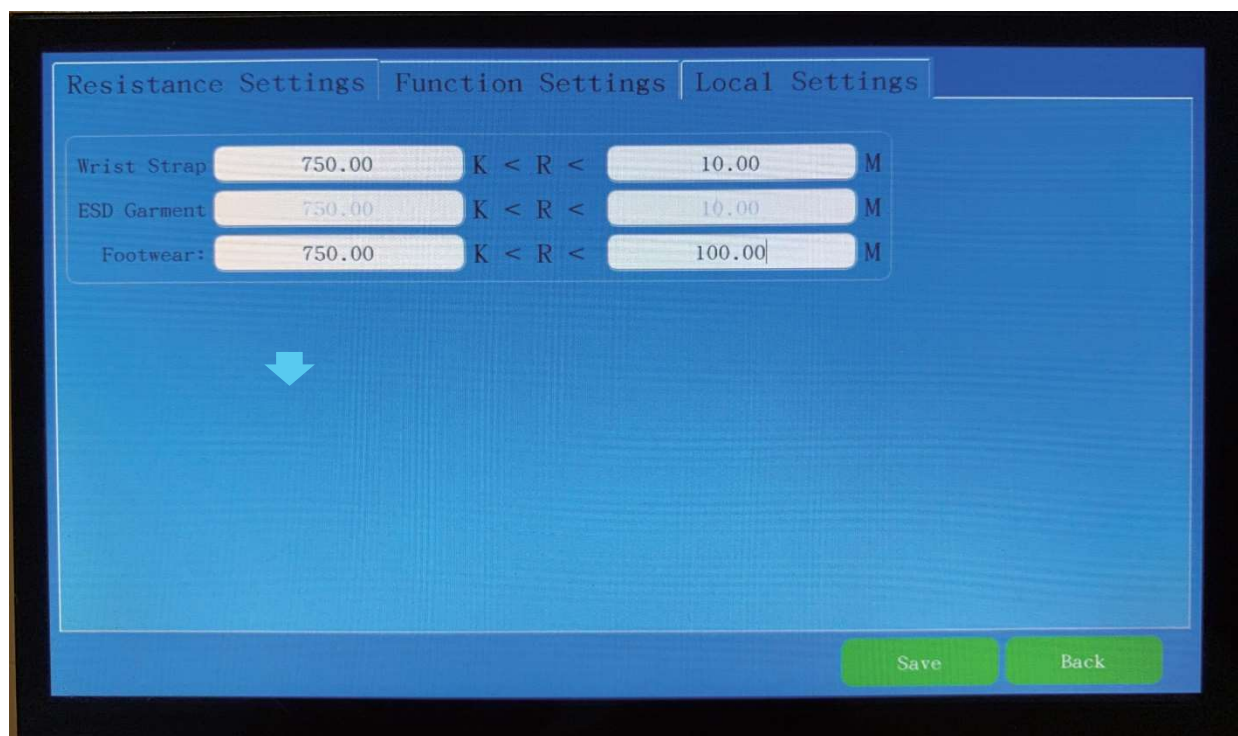Testing range for Wrist Strap / ESD Garment:
100K – 100M 0hms
e.g.: 301K – 95M

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

G1:DC-12V   G2:GND12V

H: In Door   H1-NC   H2-COM   H3-NO

I: Out Door   I1-NC   I2-COM   I3-NO

J: USB

K: HDMI Interface (Reserved)

L: TCP/IP N Port

M: Out Door Reader

    M1-D1   M2-DO   M3-GND   M4-12V

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