

VECTECH 492GNA WRIST STRAP & FOOTWEAR TESTER

MANUAL OPERATION

Thank you for purchasing this tester. The device is exclusively designed for testing the wearing of the wrist strap and footwear. Please carefully read this manual before operating the device. Store this manual in a safe, easily accessible place for future reference.

I. Summary

This tester is according with standards GJB 3007-97,SJ/T 10694-2006 and ANSI ESD S20.20, and can test the wearing quickly and conveniently of the wrist strap and the footwear (feet loops, conductive footwear and antistatic footwear). Practical range of measurement is $0.1\text{M}\Omega\sim 1000\text{M}\Omega$, gamut precision less than 10%. The operation of tester is very easy, green value express normal, yellow value express approach limit value, but red value express test result is disqualification (specific method of application see test specification) . User setting relevant parameter according test condition.

II、 Specifications and Characteristics

2.1 Specifications

Power voltage	8-12VDC/100mA (must equip power adapter from out company, other power adapter may damage tester or result in test value inaccuracy)
	Entrance guard open and close signal output Voltage maximum: $\pm 400\text{V}$ (peak, DC or AC) Switched current maximum: 100mA, contact resistance about 30Ω
precision	$\pm 10\%$
weight	Net: 605g
communication	RS485
Environment	Indoor use, humidity 60%

2.2 Characteristics

1. This test have stand-alone and on-line mode, can test alone or connect computers, test and recorded data by computer. Can test wear of wrist strap and anklet conductive shoe, ESD shoe, save test time, also can test alone wrist strap and anklet , can select single line or double line wrist strap.
2. Tester can connect with door control system, output test signal to door control system, control personnel come in or go out.
3. Adopt low voltage 10V testing, test more stabilize and safe, test data more accuracy.
4. When test result below lower limit or exceed up limit of one gallery, measuring resistance value be display red value in tester screen. When test result satisfy up and down limit but exceed near up and down limit, measuring resistance value be display in yellow, reminder have transfinite risk. when test result within up and down limit, measuring resistance value be display in green.
5. Open-close door signal, when any measured item disqualification, output entrance guard (close output port close, close time is 0.5s) , all test item qualified, output entrance guard open signal (open output port close, close time is 0.5s) .
6. Open voice mode, any measured item fail, buzzer tweet three times. All pass, buzzer tweet one time.
7. Can control tester and record data by on-line mode.

5.2 On-line test mode

On-line test mode different from one machine test ,tester bar show lelsure, upper computer send start test instruction, tester enter ready state, this time can test.

VI. Calibration

6.1 calibration parameter

Every gallery test use standard resistance, all test satisfy 10% precision. If out of range, calibration tester again.

6.2 Calibration method

Calibration must use matched calibration equipment .

set					
password	wrist	foot	other	calibration	
	ADC0	ADC1	ADC2	ADC3	
refer	3102.3	61.4	3117.7	62.0	
CH0	3006.1	56.2	3020.2	58.6	
CH1	3010.8	56.5	3026.5	59.3	
CH2	2998.7	56.9	3038.6	60.3	
CH3	3042.0	57.8	3035.2	60.2	
calibration					
<input type="button" value="save"/> <input type="button" value="cancel"/>					

pic5

V. Test specification

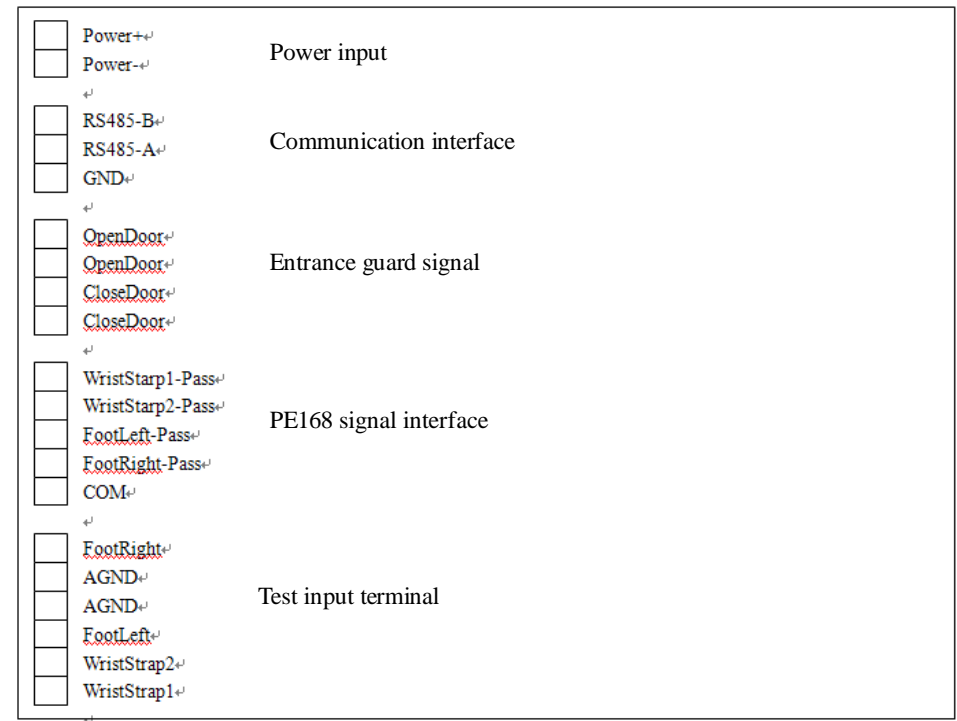
⚠notice:

- In test procedure, maintain hand and switch fine contact.
- Test procedure, not strenuous exercise, ESD or bad contact result in test value instability.
- Not use tester in voltage instability or highfield, result test value inaccuracy.
- Check tester connecting right or not, if not test value will inaccuracy.

5.1 One-machine test

1. Tester electrify enter into test state, tester bar show ready.
2. Wrist connect to tester wrist jack, stand on foot pedal, press test button, state test(must touch button centre and outer electrode, and maintain to test finish).
3. Tester bar show testing, bar show test finish after about 1s.screen display test value. green value satisfy test requirement, yellow value satisfy test value but approach limit value. red value over limit. if value is white, express hand contact touch switch not stable.
4. After hand leave touch switch, tester bar show ready.

III. Install and connect

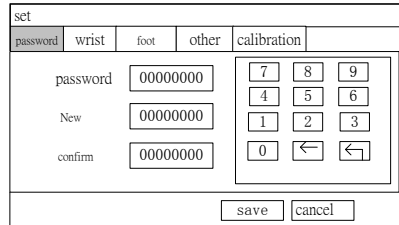


tester back port

State: GND must be connect to ground. Two AGND of six-core connector be use for connect ESD foot rest and shield port, not connect with GND of three-core connector.

IV. Setting parameters

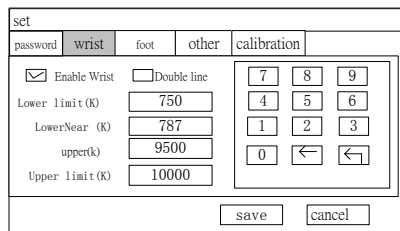
1. Press tester screen 3S, enter into setting port. As figure1:



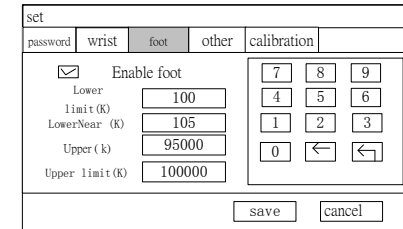
Command page, may set parameter, not input command only see setting parameter.

Default command is: 00000000, after input, please press enter key in keyboard, if command is right, new command and confirm command of connector be start, if not need change command, please maintain two empty. After change password please keep in mind. If forget, can change password by upper computer software.

2. Wrist strap have enabled wrist strap and double wrist, select according to the need, static shoe page only have enabled static shoe option , may select according to the need. As pic2:



3. Wrist and static shoe top and bottom setting, wrist strap top and bottom limit is 100k~35MΩ, static shoe top and bottom limit is 100k~1GΩ, lower limit value ≤ near lower limit value < near upper limit value ≤ upper limit value, when near top and bottom limit equal to top and bottom limit, test value will not display yellow, hint resistance value approach to limit value.as pic3:



pic3

4. Other page

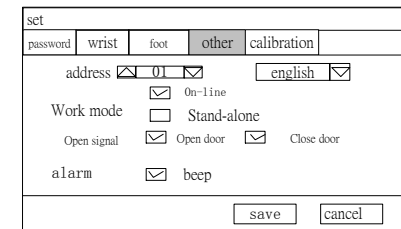
Communication address in stand-alone be set random, on-line mode must guarantee all on-line equipment not have the same address.

Work mode-on-line and stand alone

Entrance guard-enabled open door and close door, when all test item satisfy set 当 limit value, output signal .

Alarm-enable voice: when all test item satisfy limit value, warning tone one sound, when any item over limit, warning tone three sound.

Touch screen calibration key, press it can calibration, if location abnormal, may press on screen and connect power, then press reset button by insulation rod, initialize calibration:



pic4

5. Calibration page display some calibration value and one calibration button, after connect to calibration device can calibration .

After all setting item finish, press save key save parameter. Press ESC , recover 如 previous setting.

When setting port, if upper computer send order or test button be press or not touch display 60S, tester auto return main interface.as following: