AiJGO>>

AIJGO-5.1
RESISTANCE DECADE

INSTRUCTION MANUAL

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TECHNICAL INFORMATIONS

Adjustable resistance limit	0,1 Ω - 111,111111 MΩ
9 rotary switches for resistance value settings	1. x 0,1 Ω: 0,1 Ω – 1,0 Ω 2. x 1 Ω: 1,0 Ω – 10 Ω 3. x 10 Ω: 10 Ω – 100 Ω 4. x 100 Ω: 100 Ω – 1000 Ω 5. x 1 kΩ: 1,0 kΩ – 10 kΩ 6. x 10 kΩ: 10 kΩ – 100 kΩ 7. x 100 kΩ: 100 kΩ – 1000 kΩ 8. x 1 MΩ: 1,0 MΩ – 10 MΩ 9. x 10 MΩ: 10 MΩ – 100 MΩ
Accuracy	1%
Connectors	Two 4 mm banana plug sockets for cable connections
Maximum current	2 A
Size	215 x 195 x 65 mm
Weight	670 g

CE declaration

We declare that the AIJGO-5.1 product complies with the requirements of IEC 61340-5-1, ANSI/ESD S20.20 and Directive 2001/95/EC (General product safety).

It is forbidden to modify the device. Do not open the device. Any modification to the product will void the warranty.

SUPPLIED WITH THE PRODUCT

▶ **Stainless steel cylindrical shape weight electrode for foot electrode connection**
  › Size: d = 80 mm, h = 20 mm › Weight: 930 g
▶ **Stainless steel cylindrical shape hand electrode for ESD tester touch button**
▶ **connection**
  › Size: d = 25 mm, h = 82 mm › Weight: 310 g
▶ **1,5 meter long cables with banana connectors**
  › 2 pieces, one black and one red (maximum current: 2 A)
▶ **Manufacturer's calibration certificate**
▶ **Instruction manual**
▶ **Suitcase – optional, can be ordered additionally**
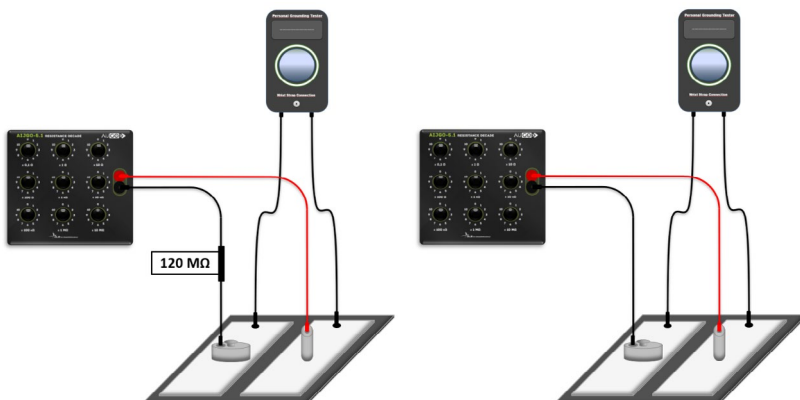
CALIBRATION / VERIFICATION PROCESS OF ESD TESTERS

Calibration / verification process of the footwear system test

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1.	Clean the foot electrodes of the tester.
2.	Place the stainless stainless steel cylindrical shape weight electrode on one of the foot electrodes.
3.	Using the black cable, connect the black output of the decade to the weight electrode.
4.	Use the red cable to connect the red output of the decade to the hand electrode.
5.	Place the hand electrode on the stainless steel touch button of the ESD tester.
6.	Set the resistance decade calibration / verification limit by turning the 9 rotary switches.
7.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
8.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
9.	If necessary, set another resistance value on the resistance decade and repeat points 7-8.
10.	Place the stainless steel cylindrical shape weight electrode on the other foot electrode and repeat points 6-9.
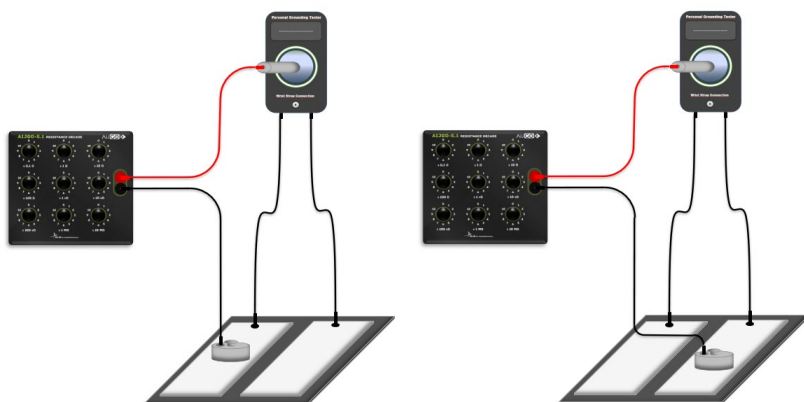
Calibration / verification process of the footwear system test in case of touchless testing

1.	Clean the foot electrodes of the tester.
2.	Place the stainless steel cylindrical shape weight electrode on one of the foot electrodes.
3.	In case of upper limit value calibration / verification using a black cable with 120 MΩ resistance, connect the black output of the decade to the weight electrode. (*First illustration*) In case of lower limit value calibration / verification using a black cable without 120 MΩ resistance, connect the black output of the decade to the weight electrode. (*Second illustration*)
4.	Use the red cable to connect the red output of the decade to the hand electrode.
5.	Set the resistance decade calibration / verification limit by turning the 9 rotary switches.
6.	Place the hand electrode on the other foot electrode.
7.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
8.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
9.	If necessary, set another resistance value on the resistance decade and evaluate the tester's response (OK/NOK).

Calibration / verification process of the wrist strap/groundable ESD smock system test

1.	Using the black cable, connect the black output of the decade to the wrist strap / groundable ESD smock connection point of the ESD tester.
2.	Using the red cable, connect the red output of the decade to the hand electrode.
3.	Place the hand electrode on the stainless steel touch button of the ESD tester.
4.	Set the resistance decade calibration / verification limit by turning the 9 rotary switches.
5.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
6.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
7.	If necessary, set another resistance value on the resistance decade and repeat points 5-6.
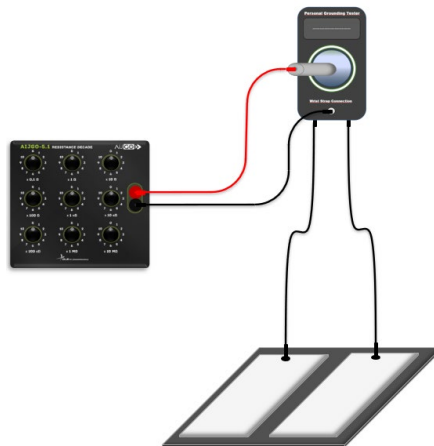
Examples – calibration / verification process of the footwear system test

1. example: If the ESD tester's footwear system test upper limit is set to 100 MOhm and the maximum deviation of the device can be 10% regarding this value (during the calibration / verification, upper limit value is acceptable, if it is 90 MOhm, 110 MOhm or between), carry out the calibration / verification according to the following points:

1.	Clean the foot electrodes of the tester.
2.	Place the stainless steel cylindrical shape weight electrode on one of the foot electrodes.
3.	Using the black cable, connect the black output of the decade to the weight electrode.
4.	Use the red cable to connect the red output of the decade to the hand electrode.
5.	Place the hand electrode on the stainless steel touch button of the ESD tester.
6.	Set a resistance value of 100 MOhm on the resistance decade. For this: - set the [x 10 MΩ] rotary switch to the position [10] - the other rotary switches should be in the [0] position
7.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
8.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
9.	If the result was OK, set a resistance value of 101 MOhm on the resistance decade. For this: - set the [x 10 MΩ] rotary switch to the position [10] - set the [x 1 MΩ] rotary switch to the position [1] - the other rotary switches should be in the [0] position
10.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
11.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.

12.	If the result was OK, continue to raise the resistance value which you use for the test, until you reach a NOK result. Enter the last resistance value where you received OK result in the ESD tester calibration / verification protocol as an upper test limit.
13.	If the result was NOK at 100 MOhm, set a resistance value of 99 MOhm on the resistance decade. For this: - set the [x 10 MΩ] rotary switch to the position [9] - set the [x 1 MΩ] rotary switch to the position [9] - the other rotary switches should be in the [0] position
14.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
15.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
16.	If the result was OK, enter the limit value of 99 MOhm in the ESD tester calibration / verification protocol as an upper test limit.
17.	If the result was NOK, reduce the limit value on the resistance decade continuously until the ESD tester indicates an OK test result. When you reach the OK test result, enter the actual set resistance value in the ESD tester calibration / verification protocol as an upper test limit.
18.	Place the stainless steel cylindrical shape weight electrode on the other foot electrode and repeat points 6-17.

2. example: If the ESD tester's footwear system test lower limit is set to 100 kOhm and the maximum deviation of the device can be 20% regarding this value (during the calibration / verification, the acceptable lower limit value is between 80 kOhm and 120 kOhm), carry out the calibration / verification according to the following points:

1.	Clean the foot electrodes of the tester.
2.	Place the stainless steel cylindrical shape weight electrode on one of the foot electrodes.
3.	Using the black cable, connect the black output of the decade to the weight electrode.
4.	Using the red cable to connect the red output of the decade to the hand electrode.

5.	Place the hand electrode on the stainless steel touch button of the ESD tester.
6.	Set a resistance value of 100 kOhm on the resistance decade. For this: - set the [x 10 kΩ] rotary switch to the position [10] - the other rotary switches should be in the [0] position
7.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
8.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
9.	If the result was OK, continue with decreasing the resistance value which you use for the test, until you reach a NOK result. Enter the last resistance value where you received OK result in the ESD tester calibration / verification protocol as a lower test limit.
10.	If the result was NOK, set a resistance value of 101 kOhm on the resistance decade. For this: - set the [x 10 kΩ] rotary switch to the position [10] - set the [x 1 kΩ] rotary switch to the position [1] - the other rotary switches should be in the [0] position
11.	Start the test on the ESD tester (Depending on the model of the tester, the start of the test process may vary. In the case of testers equipped with an RFID reader, the test can be started after reading the RFID card and touching the touch button. If there is no RFID reader in the tester, it is enough to touch the stainless steel touch button.).
12.	Evaluate the tester's response (OK/NOK) in connection to the resistance value set on the decade.
13.	If the result was OK, enter the limit value of 101 kOhm in the ESD tester calibration / verification protocol as a lower test limit.
14.	If the result was NOK, increase the limit value on the resistance decade continuously until the ESD tester indicates an OK test result. When you reach the OK test result, enter the actual set resistance value in the ESD tester calibration / verification protocol as a lower test limit.
15.	Place the stainless steel cylindrical shape weight electrode on the other foot electrode and repeat points 6-14.

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