INSTRUCTION MANUAL

AWM-8DL - Wall Mounted Wrist Strap and Footwear Tester with AC switch
for external Door Lock

Product Description:

The Wall Mounted Wrist Strap and Footwear Tester with AC switch for external Door Lock was designed to provide low cost alternative to assure presence of properly protected personnel in ESD safe areas. The AR-8DL Control unit has built-in AC switch which can handle up to 4A of current. The switch can be pre-programmed to close the door lock circuit in one of three possible modes of operation:

Mode A: when the wrist strap test is within the specifications limits and checks "pass"

Mode B: when both wrist strap and footwear are within the specifications limits and both check "pass" when footwear (heel strap) is within the specifications limits checks "pass"

Mode C: footwear (heel strap) is within the specifications limits checks "pass"

Features:

* Two in one instrument to check both wrist straps and footwear.
* Extremely easy to use. Just move your finger from wrist strap button to footwear button to complete the test (without a need to remember to change a position of an additional switch from one measurement to the other like with other manufacturers' units).
* Built with SMT technology for reliability.
* Microprocessor controlled for accuracy.
* Dependable and simple.
* Pass tone is easy to hear.
* Visual indicators to show pass, low or high fail and low battery condition.

The wrist strap and footwear tester system was created to fill a growing demand for a dependable, low cost and easy-to-use test mechanism for personnel grounding devices. It is available as **AWM-8LUS** Tester, (U.S. standards) a 750-kohms to 10-Mohms range for wrist straps and 750kohms to 100Mohms range for footwear and **AWM-8LE** Tester (European standards) a 750-kohms to 35-Mohms range for both wrist straps and footwear.

AR-8DL Wrist and Footwear Tester with built-in AC switch

System includes:

AR-8L Wrist and Footwear Tester with built-in AC switch and 9V battery.
AWM-WP - Wall mounted plate with test instructions.
AWM8- FP - Foot plate.
AWG-6FM-0O - Zero ohms grounding wire.
Manual and Warranty Card.

Technical specifications:

	AR-8LA (U.S.A. Parameters)		AR-8LE (European Parameters) (Same for both wrist straps and foot wear)
	For Wrist Straps	**For Foot wear**	
Pass Level	750 kohm-10 Mohm; green light and audible tone	750 kohm-100 Mohm; green light and audible tone	750 kohm-35 Mohm; green light and audible tone
Low Fail	< 750 kohm; yellow light and no tone	< 750 kohm; yellow light and no tone	< 750 kohm; yellow light and no tone
High Fail	> 10 Mohm; red light and no tone	> 100 Mohm; red light and no tone	> 35 Mohm; red light and no tone

Modes of Operation A, B and C.
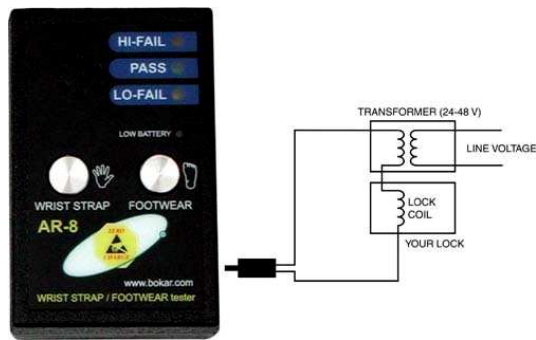
AWM-8DL Connection diagram

Pre-Programming the Mode of Operation: (When to close the AC switch to open the door)

Mode A: Wrist strap only
- If resistance range is correct when pressing **WRIST STRAP** button, the green LED lights-up and stays lit for 10 seconds. At the same time the opto-triac is closed so that the current can flow through the door lock solenoid. The sound duration is for 2 seconds to let the operator know that the wrist strap checked "OK" and the door can be opened. After 10 seconds the system returns to normal waiting state.

Mode B: Wrist strap + Footwear
- If resistance range is correct when pressing **WRIST STRAP** button, the green LED lights-up and the sound is heard for one second. The system is now active for 5 seconds for the operator to test the footwear. During this 5 seconds the operator must press the FOOTWEAR button to complete the test.
If he does, and the footwear resistance is within the correct range, the green LED lights-up and stays lit for 10 seconds. At the same time the opto-triac is closed so that the current can flow through the door lock solenoid. The sound duration is for 2 seconds to let the operator know that the wrist strap and the footwear strap (heel strap or toe strap) checked "OK" and the door can be opened. After 10 seconds the system returns to normal waiting state.

Mode C: Footwear only
- If resistance range is correct when pressing **FOOTWEAR** button, the green LED lights-up and stays lit for 10 seconds. At the same time the opto-triac is closed so that the current can flow through the door lock solenoid. The sound duration is for 2 seconds to let the operator know that the footwear strap checked "OK" and the door can be opened. After 10 seconds the system returns to normal waiting state.

For the modes of operation **A or B** pressing the other button than the one which is supposed to open the door will not activate the opto-triac and allow to open the door.
      The Mode of Operation is shown each time when any test button is pressed by corresponding LED's.
The corresponding LED will light-up for 0.5 sec.
 If Red, "Hi-Fail" LED will light for 0.5sec at the beginning of the test it means that the AR-8 is in **Mode A**
 If Green, "Pass" LED will light for 0.5sec at the beginning of the test it means that the AR-8 is in **Mode B**
 If Yellow, "Lo-Fail" LED will light for 0.5sec at the beginning of the test it means that the AR-8 is in **Mode C**
 Read carefully before you start!

How to pre-program Mode of Operation prior to System Use:
Do not connect the AR-8DL Tester to the Wall Plate. Press **WRIST STRAP** button for about 30 sec., until all 3 LED's light-up. Within 3 sec from the time they lit-up release the WRIST STRAP button, see that the LED's turned-off and immediately press the WRIST STRAP button again. Hold it and observe the LED's lightning-up in sequence, one after another. Release the button when the LED indicating desired by you mode of operation is lit. This sets chosen by you mode of operation.
    Now you have 2 sec. to press the WRIST STRAP button again to set the time interval for the opto-triac to be open. The opto-triac will be open as many seconds as you hold the WRIST STRAP button pressed at this time. The setting for opto-triac can be from 3 to max 25 sec. In case that you did not set this time interval the factory default is 10 sec. You can change the mode of operation and the time interval for opening the door at the later date if so desired.