MegaGuard WalkPlus

SG9265080

INSTRUCTION MANUAL

SafeGuard®

EC CONFORMITY

Unit SG9265080 conform to EC directives **EMC - 2004/108/CE** the following harmonized standards are in use EN 60204-1, EN 61000-6-1, EN 61000-6-3.

WARRANTY

This unit is guaranteed against all defects due to faulty materials and workmanship, within 12 months from the date of purchase.

A use not conforming to what specified might be dangerous to the safety of the operator and may damage the instrument.

In such circumstances the manufacturer is relieved of any liability and the warranty itself

REPAIR

Repairs have not been attempted by anyone other than authorized repair distributors.

Do not try to repair the unit by yourself.

Protecting the environment

Separate collection.This product must not be disposed of with normal household waste.

Should you find one day that your product needs replacement,or if it is of no further use to you,do not dispose of it with household waste. Make this product available for separate collection.

Separate collection of used products and packaging allows materials to be recycled and used again.

Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household,at municipal waste sites or by the retailer when you purchase a new product.

TECHNICAL FEATURES

The MegaGuard WalkPlus is a portable measuring system that allows analysis of charge levels accumulated on the human body according to IEC 61340-4-5 standard.

It's fully portable and doesn't require a PC for data acquisition because all data are measured and logged in the internal memory.

The operator can perform all necessary operations without any collaborator, and while he is walking the instrument is attached only with a single cable to a fixed position for the reference to the ground.

The graphs of the tests can be displayed on the graphic LCD for a quick evaluation.

Then they can be easily exported and analyzed on a PC for a professional documentation.

A program to manage the tests recorded in the instrument is included in the MegaGuard WalkPlus.

Instrument

Range: . . . . . ±1050V
Resolution: . . . . . 1 Volt
Accuracy: . . . . . 5% o ±5V
Input resistance: . . . . . 10^{14} Ω

Humidity: 1 to95%RH
. . . . . (accuracy: ±2%RH to 25°C, 10%RH~90%RH)
Temperature: . . . . . -20°C to +60°C (accuracy: ±1°C)

Display: . . . . . graphic LCD 128 x 64 pixel, 68x51mm
Power supply: . . . . . 6 alcaline batteries, LR6 1, 5V
Dimensions: . . . . . 243x130x60mm (instrument)
. . . . . Ø35x130mm (probe)
Weight: . . . . . 650g (instrument) - 250g (probe)

LOW BATTERY =  Blinking
Auto Shut-off after 10 minutes of inoperativity

Datalogger

In the internal memory of the instrument can be logged till to 10 graphs.
Sample rate: 200Hz
Max total graphs duration: . . . . . 2minutes and 30 sec
Interface: . . . . . USB

ORDERING CODES

SG9265080: MegaGuard WalkPlus Meter with batteries and case
SG9265082: Instrument recalibration, ISO9000 Traceable Certificate is supplied

KEYBOARD

<**SETTING**> To enter the setting mode

<**LEFT**> To move to the previous menu

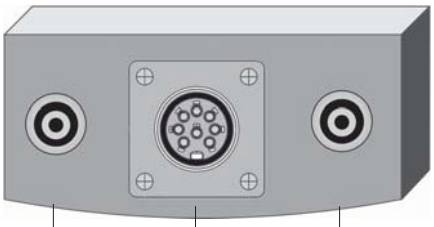
<**CURSOR**> To advance the cursor

<**RIGHT**> To move to the next menu

<**EXIT**> To turn on / off the instrument and to exit from setting mode and from menu operation.

<**START/STOP**> To start / stop the measurement.
To increase the value at the cursor location when you are in setting mode

FRONT PANEL



GND

Probe input / PC input

GND

BATTERY REPLACEMENT

- Open the battery cover .
- Replace the battery (only alcaline type).

- Close the battery cover.

OPERATIVE INSTRUCTIONS

ON / OFF

In order to light-up MegaGuard WalkPlus press 

.

To shut-off MegaGuard WalkPlus keep pressed the same key for 1 second.

MENU

The instrument has 6 menu:

- MONITOR - ZERO - NEW - VIEW - CLEAR - COM -

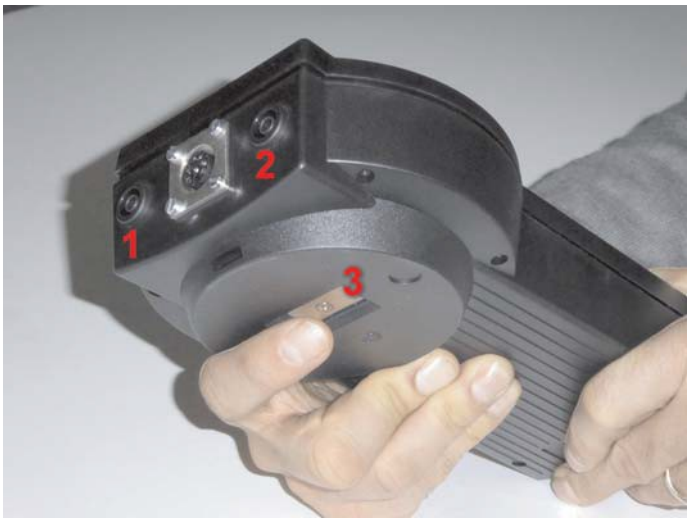
Press **<LEFT>** to move to the previous menu

Press **<RIGHT>** to move to the next menu

MEASUREMENT

First of all connect the ground to one of the two GND input.
Then connect the probe to the instrument

GROUNDING POINTS



1) GND INPUT
2) GND INPUT
3) GND TOUCHPLATE (internally connected to the two GND inputs)

The standard IEC-61340-4-5 says that the operator shall take hold the probe and before to start the walking test shall momentarily touch an earth bonding point.
For this reason in the back of the instrument there is a metal touchplate connected to the two GND inputs that the operator can touch whenever he needs.

PRELIMINARY OPERATIONS

1 - Connect instrument to GND
2 - Finger on touchplate
3 - Hold Sensor with hand

4 - in the MONITOR MENU 

Verify ZERO on display 

(with WARM-UP ALARM still active you could have values starting from -30V, offset values between -0005V and +0005V are to be considered in tolerance)

MONITOR MODE

In this menu if the operator press **<START/STOP>** the instrument shows the electric potential present on the probe.

The electric potential is mediated every second.

A beep every second indicates that the instrument is measuring. The beep was made to avoid missing the instrument with measuring active, causing battery consumption.

To deactivate the measuring press **<START/STOP>** again or **<EXIT>**.

MONITOR
(Datalogger OFF)

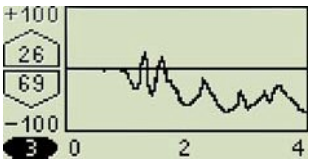
DATALOGGER MODE

If there is free memory space the instrument can log the graph of a new walking test.

In this menu if the operator press **<START/STOP>** the instrument shows a pop-up window with a short countdown (3 seconds) before to execute the test.

In the pop-up window is indicated the maximum duration of the walking test.

To stop the data acquisition of the graph press **<START/STOP>**.



DATALOGGER
Graph n.3
+Peak=26V
-Peak=-6

Press **<LEFT>** or **<RIGHT>** to scroll the graph for a quick evaluation.

Press **<START/STOP>** again: a new pop-up window asks you to save or discard the graph.

Press **<START/STOP>** to save or **<CURSOR>** and **<START/STOP>** to discard.

IMPORTANTE: Warm-up stabilization time.

The electronic components of the electrostatic sensor require a warm-up time of about 5 minutes to obtain accurate and stable measurements.
A warning symbol lamp on the display and an acoustic signal advice that 5 minutes have expired.

This symbol indicate that warm-up is active

During the warm-up it's possible to measure anyway, keeping in mind a little inaccuracy.

ZERO

If the unit does not indicate 0V while the probe is connected to ground and **WARM-UP ALARM is no longer active** enter the ZERO procedure by pressing 2 times **<START/STOP>** at the screenshot of this MENU.

VIEW

If there are graphs logged in the internal memory is possible to see them.
Press **<START/STOP>**: a pop-up window asks you which graph to view.
Move the cursor pressing <**CURSOR>** and select the graph pressing **<START/STOP>**
Press **<LEFT>** or **<RIGHT>** to scroll the graph.
Press **<START/STOP>** again to exit.

CLEAR

If there are graphs logged in the internal memory is possible to delete them.
Press <**START/STOP>**: a pop-up window ask you what you want to delete (it's only possible to delete the last graph or all the graphs memorized)
Move the cursor pressing **<CURSOR>** and select the command by pressing **<START/STOP>**

COM

In this menu the instrument can export data to a PC

SETTINGS

To enter in SETTING mode keep pressed the <**SETTING>** key for 1 second.
There are 4 menus available:
1) V RANGE
2) CLOCK
3) DISPLAY
4) °C °F

Press **<LEFT>** to move to the previous menu
Press **<RIGHT>** to move to the next menu
Press **<EXIT>** to exit from setting mode.

V RANGE
The range for new graphs and view graphs can be selected here.
Press the button **<CURSOR>** to advance the cursor and press **<START / STOP>** to increase the value.
AUTO range is only available in view mode.

CLOCK
Menu for setting the date and time
Press the button **<CURSOR>** to advance the cursor and press **<START / STOP>** to increase the value.

DISPLAY
Menu for setting the contrast of the LCD display (0 to 9)
The default contrast is 5.
Press the button **<START / STOP>** to increase the value of contrast.

° C / ° F
Menu for setting the unit of temperature measurement:
- ° C degrees Celsius
- ° F degrees Fahrenheit

Press the button **<START /STOP>** to switch from one format to another.

INTERFACING TO PC

SOFTWARE INSTALLATION

The WTManager software doesn't need any installation, simply copy the file "WTManager.exe" in a directory of your PC and run it to be operative.

SETTING THE CONNECTION

1) Connect the MegaGuard WalkPlus to the PC (via USB port)
2) Enable the MegaGuard WalkPlus port (enter in "COM" menu)
3) Run WTManager, pull down the "Datalogger" menu and click on "COM port select". Select the right port from the availables (COM1, COM2, COM3 etc..).

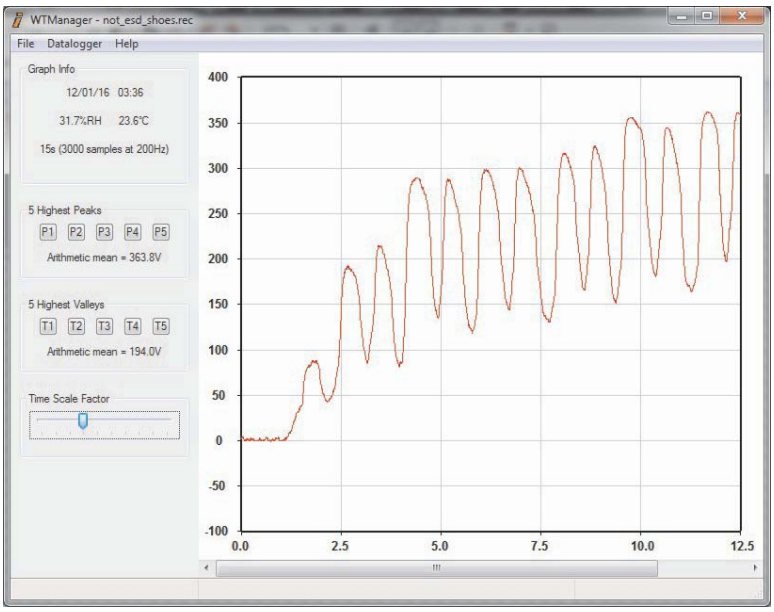
The status of the connection between the MegaGuard WalkPlus and the PC is clearly indicated:

MegaGuard WalkPlus is connected

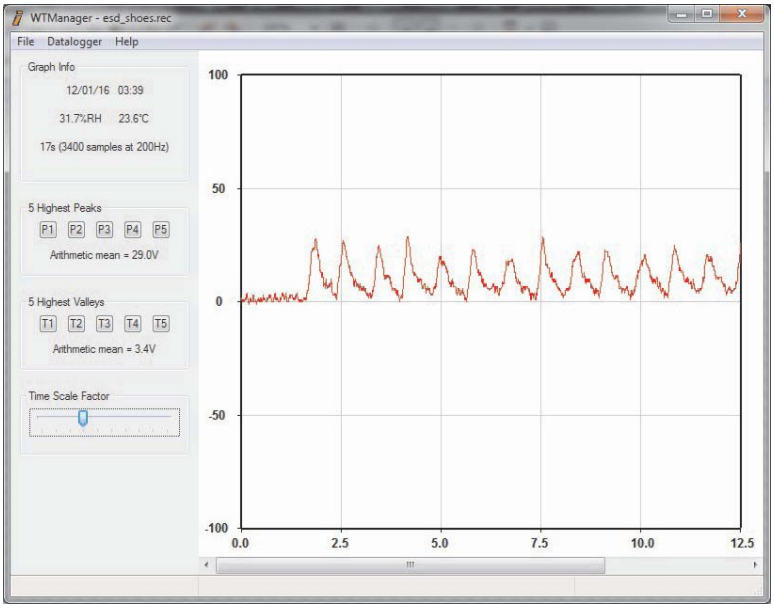
MegaGuard is not connected

DATA DOWNLOAD

Pull down the "Datalogger" menu and click on "Import Graph" for downloading and displaying each of the collected graph.



WALKING TEST with NOT-ESD footwears



WALKING TEST with ESD footwears

The five highest peaks (P1-P5) and the five highest valleys (T1-T5) are indicated with their arithmetic means.

Then the graph can be saved or printed for a professional documentation.