

Body Voltage Test Kit DMM3-Set

According to the Standard SBM for Building Biology,

(input impedance of 7.8 MOhm and an input capacity < 100 pF. For the exact result take the reading times 1.25 or "plus one quarter")



For the description of the many functions of the digital multimeter itself, as well as the use of the standard-accessories that go with it, please refer to the English operating manual supplied by the manufacturer.

Measurement instruction the capacitively coupled "body voltage":

Preparation

Connect the black grounding wire to the jack labelled "COM". Connect the red silicone wire to the jack above the „COM“. (see picture)



Connecting to the Ground potential (Ground rod): For best results you should connect the black grounding wire to an independent grounding rod close by, e.g. in the garden. If this is not possible the best solution is to connect to metal heater pipes or water pipes with the included big grounding clip (see picture). If an electrician is available it is possible to connect it under his control to the grounding wire of the power line. Caution! Never try to connect it to the line by yourself, serious injuries may occur.

Configuration of the measurement unit

Put the main turning switch to the position "V". Push the blue button once (to the left of the display must appear the marking "AC"). The auto range mode is preset.

When body voltage is below 1 volt switch to the more sensitive measurement range "Millivolt". To do this push the button "RANGE" several times until you see "mV" on the right side of the display. For a less sensitive measurement press blue button again until "Auto" is displayed on the LCD.

Procedure for actual measurements

The person to be measured sits or lays in the position where the body voltage is to be measured (the measurement is "position-sensitive" and will vary from place to place and position to position). Hold the hand probe tightly in one hand. All power lines that could cause capacitive coupling should be connected to the wall sockets. Other people can influence the measurement and should never stand close to the person to be measured. The person to be measured should not have direct contact to the black grounding wire and should not touch the instrument because of the resulting capacitive coupling to the ground.

Recommendations according to SBM:

Concern:	no	slight	severe	extreme
Body voltage (in mV)	< 10	10 – 100	100 - 1000	> 1000

Important: The measurement of the body voltage does not replace a measurement of the field strength of low frequency (LF) alternating fields. Because of superposition of fields dependant on the place of measurement, sources should be minimized even if they compensate each other resulting in a lower reading of the body voltage.

Note:

The exact quality of the reference ground you use can only be determined by a licensed electrician. You get a rough impression by the following procedure:

- Place the hand electrode close to a power line cable or AC-Adaptor so that minimum of 0.500 Volt is displayed. Now put the black ground wire to different grounding systems. If it is possible use a metal grounding rod in the garden. Pour some gallons of water on the grounding rod to ensure a good connectivity to the earth. Wait for about 5 Minutes so that the water can soak the earth. If the reading does not change significantly the reference ground is good for measurement. If there are big deviations in body voltage dependent of the used grounding system, you have to check the grounding system by a licensed electrician. For preliminary measurements use the grounding that causes the highest readings.