3B SCIENTIFIC® PHYSICS



Skin Resistance Box U11393

Instruction sheet

03/08 Hh



1. Safety instructions

The skin resistance box is only intended for teaching purposes. The experimental data and recorder traces that are obtained must never be used for evaluating a person's state of health.

- Do not use the skin resistance box as a diagnostic instrument.
- Do not use the skin resistance box as an instrument for monitoring the effects of therapeutic treatments.
- The skin resistance box and the 3B NETlog[™]
 must only be used with a PC that conforms to
 the CE specifications, and in particular to the
 European standard EN 69950.
- Do not open up or interfere with the skin resistance box under any circumstances.

The skin resistance box is constructed in accordance with the current safety regulations of protection class II, classification BF (body, floating earth).

2. Description

Sensor box for measuring the skin resistance of a human guinea pig under the influence of internal and external factors, e.g., under stress, after a frightening event, or in the course of autogenic training.

It can also demonstrate the principle of the "lie detector".

The instrument gives a reading for skin resistance ("Sres") in megohm units (M Ω).

The sensor box is detected automatically by the 3B $NETlog^{TM}$ unit.

3. Equipment supplied

- 1 Sensor box
- 1 Electrode cable including metal electrodes on Velcro bands, length 1 m
- 1 MiniDIN 8-pin connector cable, 600 mm long
- 1 Instruction sheet for U11393

4. Technical data

Measurement range: $1 \text{ M}\Omega - 10 \text{ M}\Omega$

Sensor type: 2 Metal electrodes, clipped

to Velcro bands

Safety category: Protection class II, classification BF

5. Instructions

Place the sensor box close to the person being tested

 Using the two Velcro fasteners, attach the metal electrodes to the undersides of the person's forefinger and middle finger on one hand at the tips.

The person's hand should be resting in a relaxed state on a support.

 Read off the value of the skin resistance on the display screen of the 3B NETlog[™].

6. Applications

Measurements of the skin resistance when the body is relaxed, and then during an "emotional" event Use of the skin resistance box as a "lie detector"

7. Sample experiment

Measuring the skin resistance of a person

Equipment needed:

1 3B NET $log^{™}$ U11300 1 3B NET $lab^{™}$ U11310 1 Skin resistance box U11393

- Set up the experiment as shown in Fig. 1.
- Open the template for the experiment with a skin resistance box in the 3B NET lab^{TM} software.
- Run the program in the template so that the value of the skin resistance and any changes in it are recorded (Fig. 2).
- Investigate how skin resistance is affected by the types of events described under heading 2, "Description".
- Change the experimental conditions for the guinea pig and repeat the experiment.
- Analyse the results of the experiment.



Fig. 1 Measuring skin resistance of a person

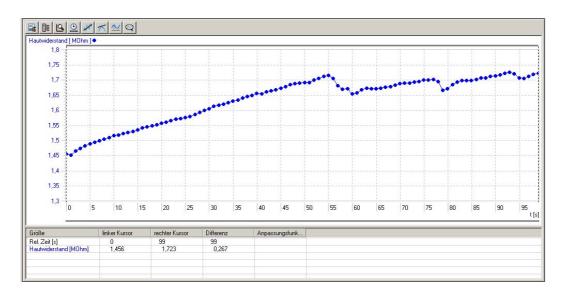


Fig. 2 Recording of skin resistance measured under changing conditions (normal relaxed phase and three brief disturbances) displayed on the monitor screen of the 3B NET*lab*™ unit (U11310)