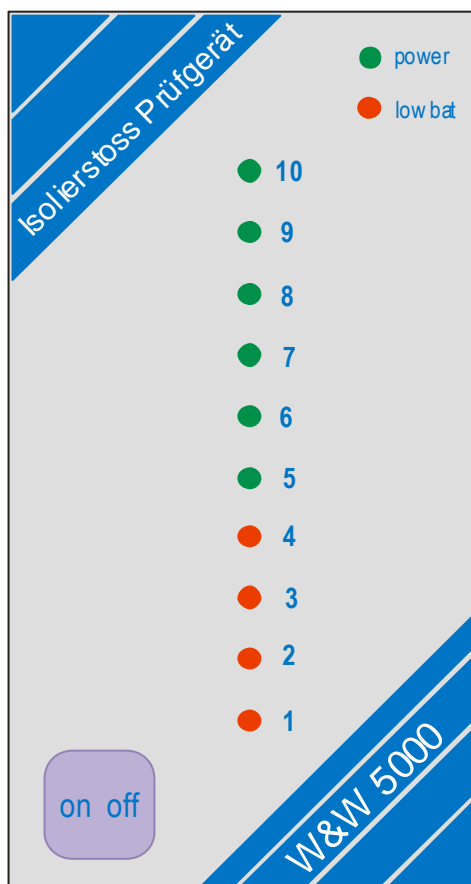


# Instruction Manual

## W&W 5000



● power

● low bat

— Glows when the unit is turned on

— Glows when the batteries are weakened

— Indicates the level of insulation of the rail joint

### Warning:

There are two contact sections on the unit's backside. In case of incorrect handling there is a risk of injury.





---

**On-Off Push button :**

To switch the unit « on » press the on-off button for 1second.  
A selftest starts automatically (the LED`s will be glowing shortly). 40seconds after the last measurement the unit will turn off automatically.

**Cage:**

The unit is waterproof (IP 65).

**Types of insolation:**

The unit is suitable for every type of insulation such as direct current voltage insulation  
alternating voltage insolation UGSK 100, usw.

**Batteries:**

The battery case is on the backside of the unit. It can be opened with the provided tools. Two 1.5V batteries are required (alkali mangan AA).  
The current drain is 200mA. The battery lasts about 12 hours or 700 measurements.  
If « low bat » is glowing, the batteries have to be changend.

**Measuring sensor:**

On the unit`s backside there are two measuring contacts made of iron drills (if necessary abrade (file) them)..  
Swisstraintech GmbH can also exchange them

**Functional-principle**

The unit sends, alternately, several frequencies through the insulated rail joint and calculates at the same time the absorbability by the use of a microprocessor.  
Through a high measurement frequency and a short signal propagation delay, external effects can be eliminated.

## Insulated rail joint – Test:



No feed cables have to be disconnected.

Look out for good contact.

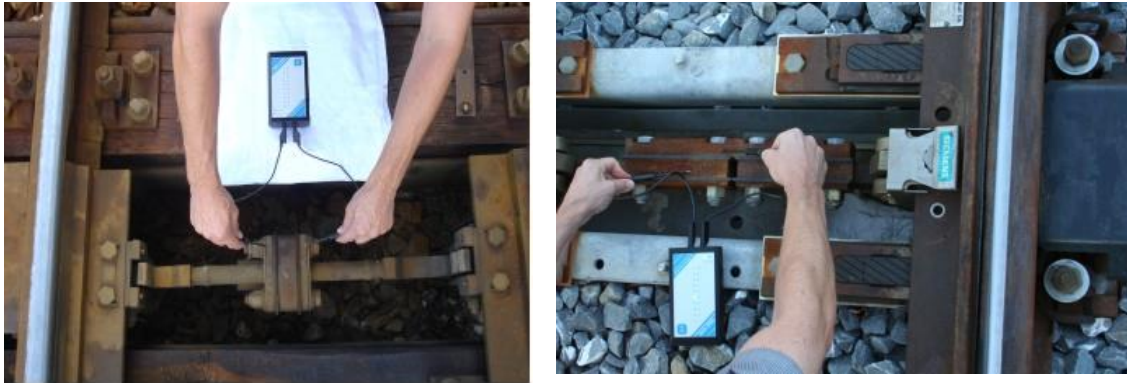
In the following chart, the **value of resistance** does not correspond exactly with a Ohm-measurement. However the detected value of the measurement corresponds very closely to an Ohm-measurement.

Indication	Quality of the insulated rail joint	~ value of resistance
10	very good	75 - 450 Ohm
9	very good	47 – 75 Ohm
8	good	30 – 47 Ohm
7	good	22 – 30 Ohm
6	sufficient	15 – 22 Ohm
5	narrow sufficient	10 – 15 Ohm
4	damaged	7 - 10 Ohm
3	damaged	5 - 7 Ohm
2	damaged	2 - 5 Ohm
1	damaged	0 - 2 Ohm

If none of the LEDs is glowing, the resistance is higher than 500 Ohm.

## General insulation-tests:

Different kinds of insulation tests can be made by connecting measurement cables to the additional test jacks.



## Technical features:

- IP 65 case
- direct contact on the unit
- clearly laid out display
- battery voltage control
- auto power off
- current supply 2x1,5 V
- weight: 240 g incl. batteries
- dimensions: B: 8cm L:15cm T: 3cm
- temperature range from -15 to 55 degrees Celsius
- temperature range unit: 0 to 40 degrees Celsius
- 1 year warranty

A reduced instruction manual can be found behind the foam plastic inside the top cover of the transportation box.



Furthermore the general terms and conditions of Swisstraintech LLC (GmbH) 2.8.2007 shall be regarded.