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# SME-8350

## SHIELDING BOX

### Instruction Manual

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# HIOKI

www.hioki.com/

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#### Warranty

Warranty malfunctions occurring under conditions of normal use in conformity with the Instruction Manual and Product Precautionary Markings will be repaired free of charge. This warranty is valid for a period of one (1) year from the date of purchase. Please contact the distributor from which you purchased the product for further information on warranty provisions.

#### Introduction

Thank you for purchasing the HIOKI Model SME-8350 Shielding Box. To obtain maximum performance from the device, please read this manual first, and keep it handy for future reference.

#### Inspection


When you receive the device, inspect it carefully to ensure that no damage occurred during shipping. If damage is evident, or if it fails to operate according to the specifications, contact your dealer or Hioki representative.

## Safety Information

This manual contains information and warnings essential for safe operation of the device and for maintaining it in safe operating condition. Before using it, be sure to carefully read the following safety precautions.

#### Safety Symbol



In the manual, the  symbol indicates particularly important information that the user should read before using the device.

The following symbols in this manual indicate the relative importance of cautions and warnings.



Indicates that incorrect operation presents a significant hazard that could result in serious injury or death to the user.



Indicates that incorrect operation presents a possibility of injury to the user or damage to the device.



Indicates advisory items related to performance or correct operation of the device.

## Operating Precautions



Follow these precautions to ensure safe operation and to obtain the full benefits of the various functions.

#### Preliminary Checks

Before using the device the first time, verify that it operates normally to ensure that no damage occurred during storage or shipping. If you find any damage, contact your dealer or Hioki representative.



**Before using the device, make sure that the insulation on the cable is undamaged and that no bare conductors are improperly exposed. Using the device in such conditions could cause an electric shock, so contact your dealer or Hioki representative for repair.**



The blue clip attached to this device is used as guard. It is not used as guard, do not allow it to contact another section. The measuring voltage is generated between the blue and black clips.

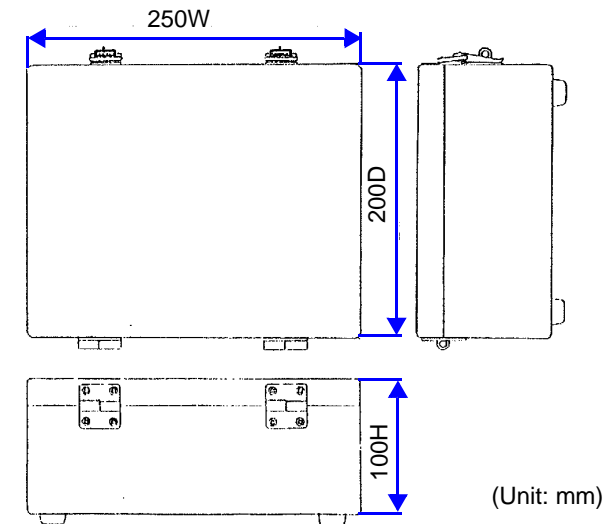
#### NOTE

- Generally, for insulation resistance measurement, the metal plate attached to this device is used for Guard. Use the Blue clip for connection. Always place the attached rubber plate or a insulator as a resin plate on the metal plate and place a measured.
- Resistance may vary with the polarity of the part connection. This is caused by part characteristics.
- Measured value may change if the red clip contacts the black or blue clip during measurement.
- For surface resistance or volume resistance measurement, also use the SME-8320 Weight Electrode. See "Measurement Procedure" Table for connection.
- Only for measurement, a measured sample can be connected between the red and black clips, but for more accurate measurement, the blue clip is used as guard. The use of this guard may be troublesome; however, it is best to use this guard for the measurement of more than " $\times 10^{10} \Omega$ ".
- This can be connected to the HV-EN.
- Attache the HV-EN to a HIOKI SM-8200 Series Super Megohm Meter as an option.

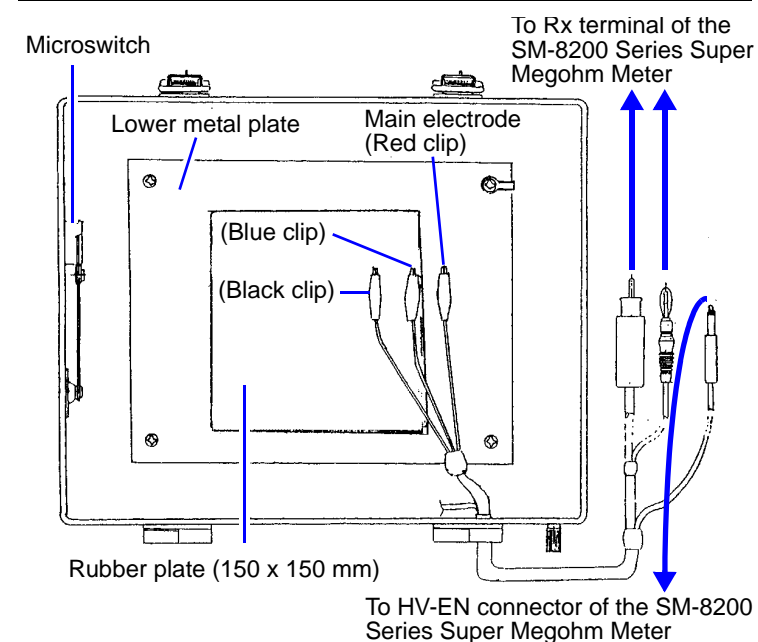
## Overview

This is used to accommodate a measured sample during insulation resistance measurement of insulators and electronic parts. Generally, high insulation resistance cannot be measured accurately because of the influence of measuring environments especially such as noise and induction hum. In such measurement, this device displays its power.

## Dimensional Drawing



## Names of Parts



## Measurement Procedure

This device is used to measure insulator surface resistance and volume resistance in combination with the SME-8320 Weight Electrode, and also to accommodate directly an electronic part for insulation resistance measurement.

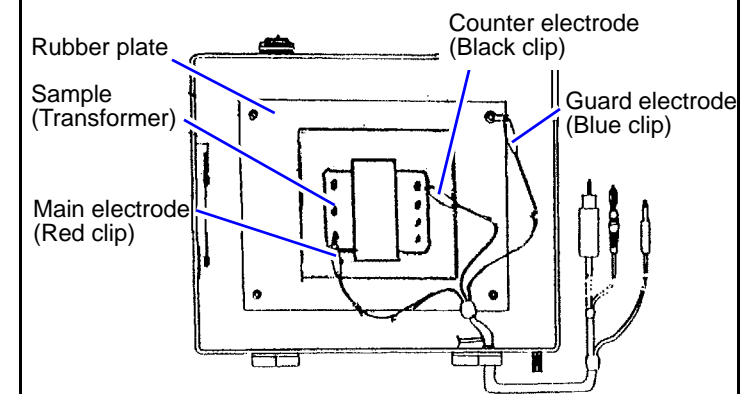
Connect a measured sample between the main electrode (red clip) and the counter electrode (black clip). For guard connection, use a blue clip. (See "Names of Parts".)

About the connection method, see "Names of Parts", following table, Ex. 1, and Ex. 2.

Internal clips and rubber plate	Parts to connection		
	For insulation resistance measurement of general parts	For surface resistance measurement*	For volume resistance measurement*
Red clip	○ (Main electrode)	Main electrode	Main electrode
Blue clip	(Lower metal plate)	(Lower metal plate)	Guard electrode
Black clip	○ (Counter electrode)	Counter electrode	(Lower metal plate)
Rubber plate	Used	Not used	Not used

\*: In combination with Model SME-8320 Weight Electrode.

### Ex.1 Power transformer insulation resistance measurement



### Ex. 2 Usage in combination with Model SME-8320 (See Fig. 1 and Fig. 2)

Fig. 1 Surface Resistance Measurement by Model SME-8320

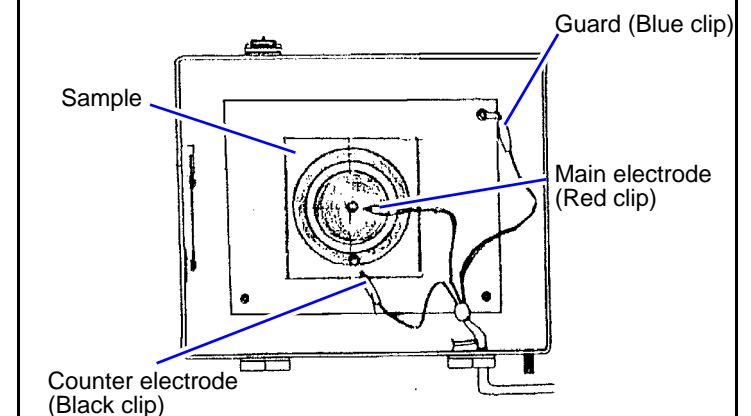
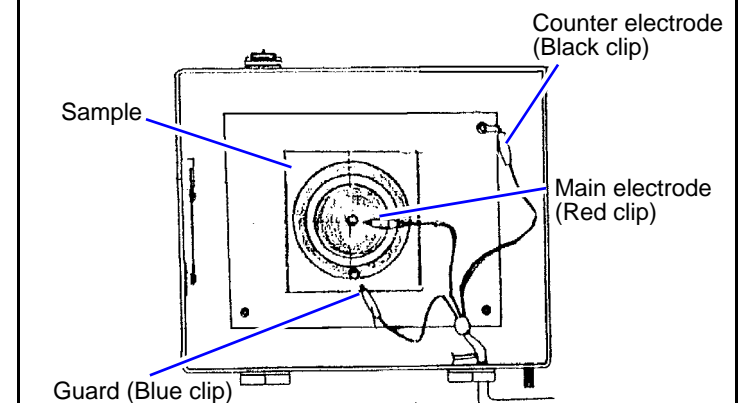


Fig. 2 Volume Resistance Measurement by Model SME-8320



## Maintenance and Service

- To clean the device, wipe it gently with a soft cloth moistened with water or mild detergent. Never use solvents such as benzene, alcohol, acetone, ether, ketones, thinners or gasoline, as they can deform and discolor the case.
- If the device seems to be malfunctioning, contact your dealer or Hioki representative.
- Pack the device so that it will not sustain damage during shipping, and include a description of existing damage. We cannot accept responsibility for damage incurred during shipping.