

**HIOKI**

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INSTRUCTION MANUAL

**SR-2**

**STANDARD RESISTOR**

HIOKI E. E. CORPORATION

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STANDARD RESISTOR

Model SR-2

Instruction manual

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1. Caution in handling

(Absolutely follow the caution described below.)

- 1) When measurement is influenced by external inductance or noise, be sure to ground the earth terminal.
- 2) For simplified calibration of an insulation resistance tester, connect a guard tip( used as guard tip of red measuring rod) to the 「GUARD」 terminal to prevent current leakage among terminals of this unit.

(Refer to item 6.1.)

- 3) It is recommended that this unit is calibrated periodically.
- 4) When this unit is not in use, put the lid on it and keep it at less humidity place.

## 2. Specifications

The specifications of this unit are as follows:

- 1) Resistance range  
0 - 1 - 2.5 - 5 - 10M $\Omega$   
(0 - 10M $\Omega$  internally connected in series)  
0 - 50 - 100 - 150 - 200 - 250 - 300 - 350 - 400 - 450  
- 500M $\Omega$   
(0 - 500M $\Omega$  internally connected in series)  
0 - 1000 - 2000 - 3000 - 4000 - 5000 - 6000 - 7000  
- 8000 - 9000 - 10000M $\Omega$   
(0 - 10000M $\Omega$ , internally connected in series)
- 2) Accuracy of resistance value  
+2%
- 3) Maximum applied voltage  
1000VDC
- 4) Voltage coefficient  
0.0005% / V
- 5) Temperature coefficient  
200ppm/  $^{\circ}$ C
- 6) Dimensions of main body  
approx. 270(w) x 90(h) x 195(d) mm
- 7) Weight of main body  
approx. 2.9 kgs.

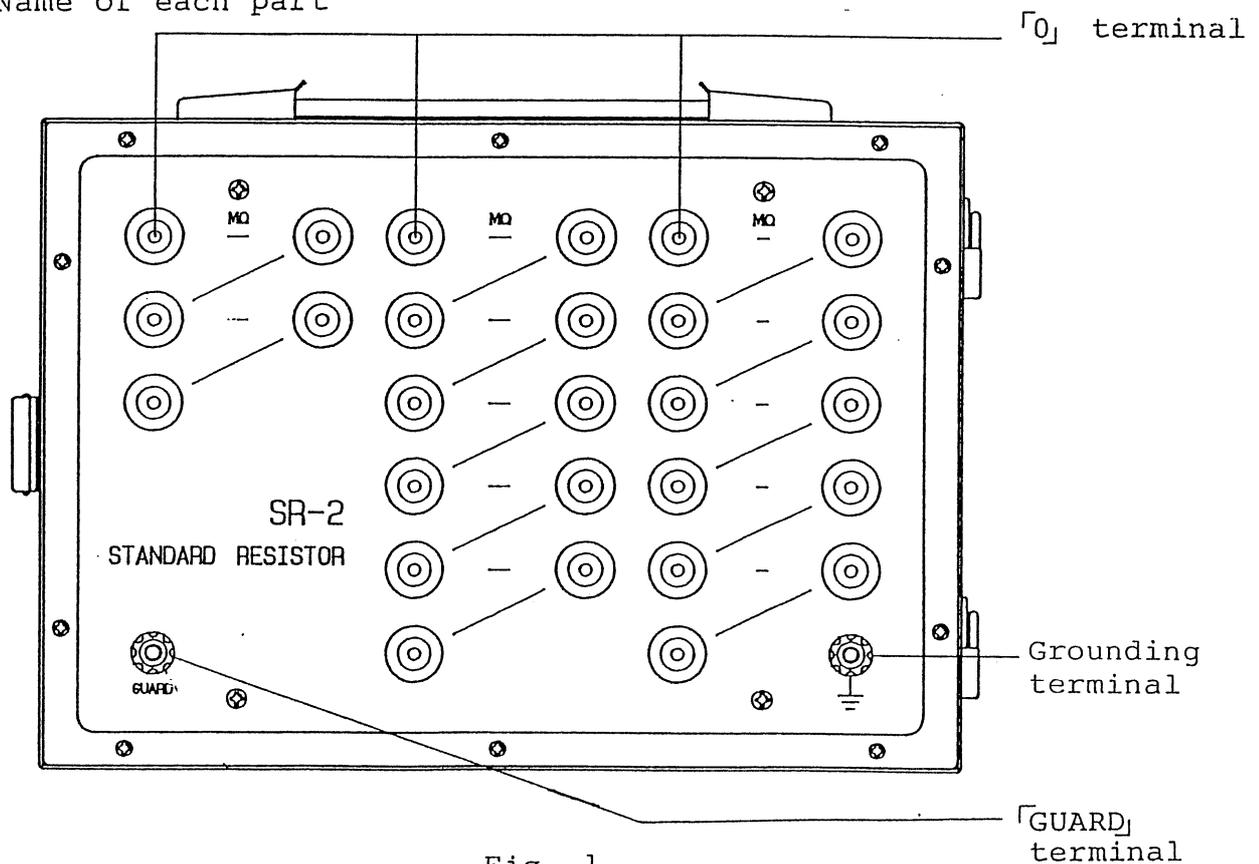
Standard accessories

|                                     |        |
|-------------------------------------|--------|
| lead for connecting the gura        | .....1 |
| lead for short-circuiting           | .....1 |
| Instrucion manual/calibration table | .....1 |

### 3. General Description

This unit is used for calibration of various kinds of Super megohmmeter like or model SM-5E. In this unit, a total of 24 ultra-precision resistors are encased in a sealed metal case and each element can be connected on the terminal plate in various combination as required. Also provided on the terminal plate are a 「GUARD」 terminal and a grounding terminal for preventing current leakage among terminals and external inductance.

### 4. Name of each part



### 5. Description of each part

#### 5-1 「GUARD」 terminal

A terminal to connect to a guard of insulation tester (guard tip of red measuring rod) to prevent current leakage.

#### 5-2 Grounding terminal

A terminal to ground this unit, when influenced by external inductance or noise.

#### 5-3 「0」 terminal

A reference terminal on each resistance range, each connected internally

## 6. How to operate

### 6.1 Preparation

- 1) Remove the measuring leads from  $\overline{R_x}$  terminals, and take out a guard tip at the tip of red measuring rod as shown in Fig. 2 by turning it counterclockwise. Then, attach an accessory lead for guard connection (guard tip w/ leadwire) by turning it clockwise.

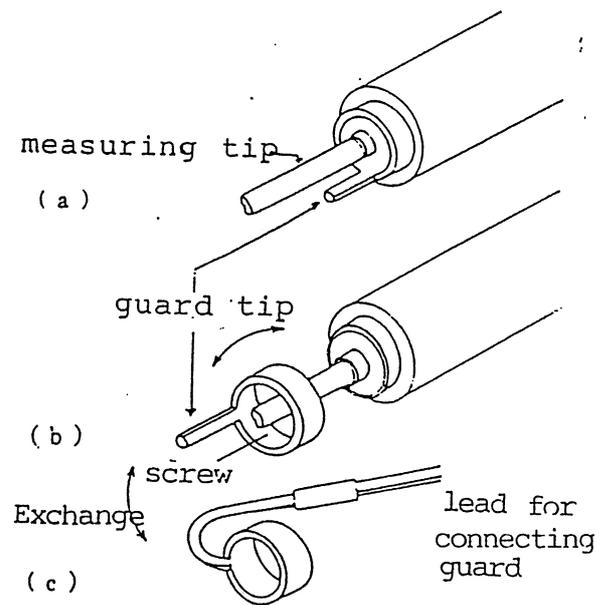


Fig. 2

- 2) Connect the spade tip at the other side of guard tip to the  $\overline{\text{GUARD}}$  terminal of this unit.
- 3) Connect a black measuring rod to  $\overline{0}$  terminal, and a red measuring rod to the terminal of the value to be calibrated.
- 4) Let the super megohmmeter being in measuring condition, and wait a few minute until the indicating needle is stable.

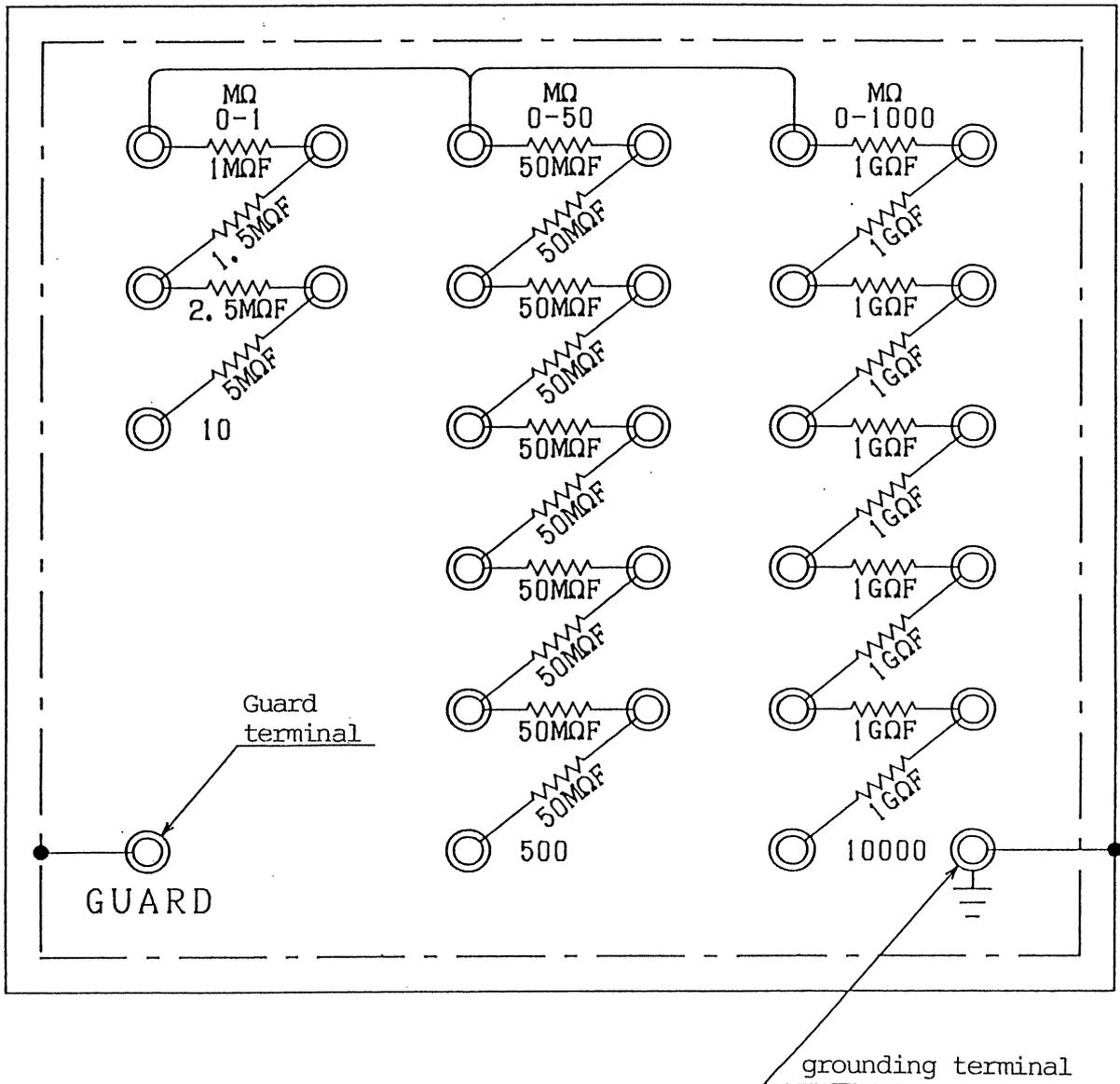
### 6.2

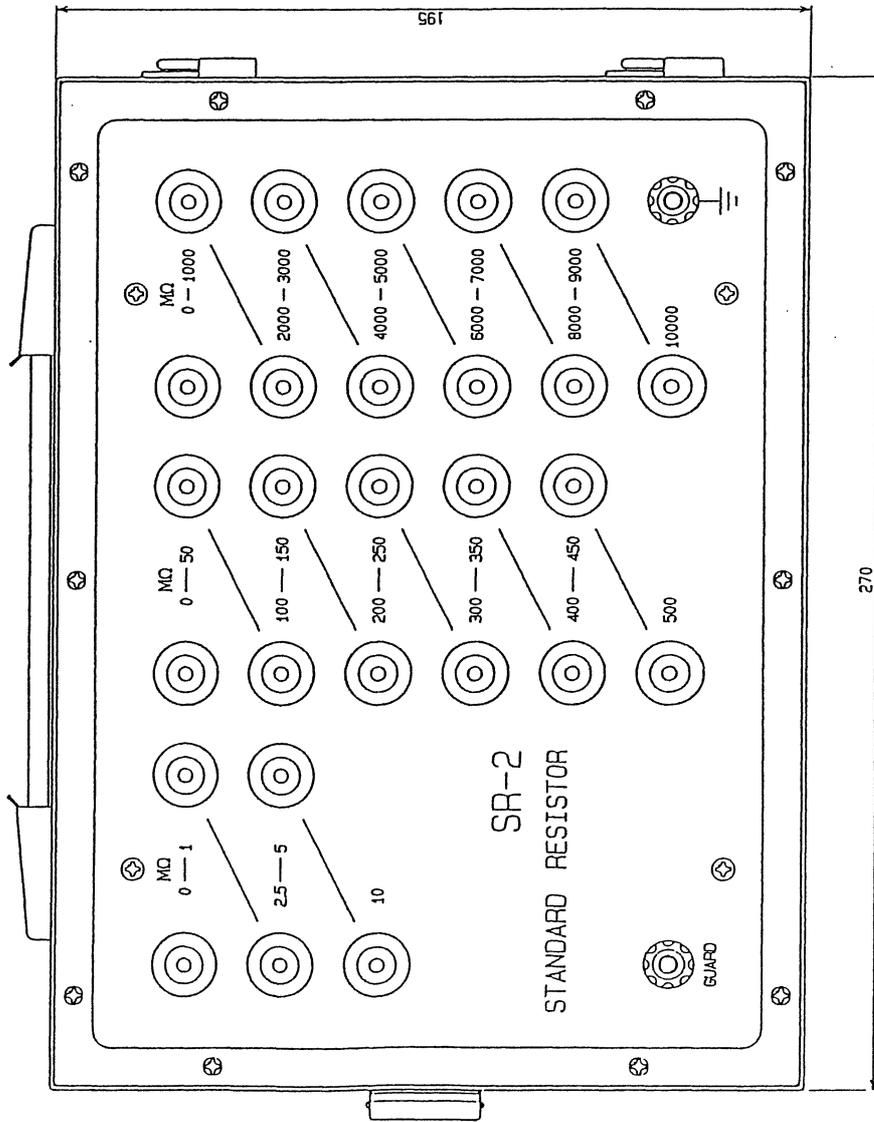
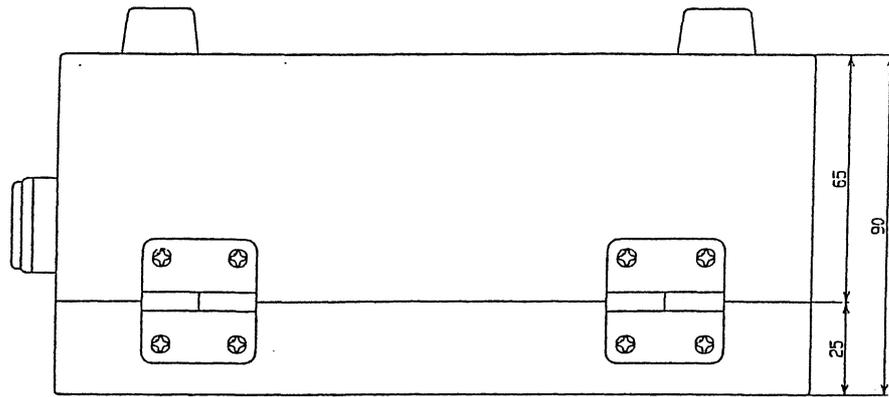
- 1) Set the RANGE knob to the range position to be calibrated.
- 2) Connect the red & black measuring lead to  $\overline{R_x}$  terminal respectively.
- 3) With use of an accessory lead for short-circuiting, a respective resistance value can be used in combination. For example, when  $25M\Omega$  is needed, short-circuit between 0 and  $100M\Omega$  terminals with the lead for short-circuiting, use the terminal of 0 -  $50M\Omega$ .

## 7. Calibration and maintenance

- 1) This unit should be calibrated periodically.
- 2) The dust adhered to the panel will cause the error.
- 3) Please consult us or our agent as to other poor condition or troubles.

8 Drawing











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Technical Support Section

All inquiries to International Sales and Marketing Department  
81 Koizumi, Ueda, Nagano, 386-1192, Japan  
TEL: +81-268-28-0562 / FAX: +81-268-28-0568  
E-mail: [os-com@hioki.co.jp](mailto:os-com@hioki.co.jp)  
URL <http://www.hioki.co.jp/>

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# **HIOKI**

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**HIOKI E. E. CORPORATION**

**HEAD OFFICE**

81 Koizumi, Ueda, Nagano 386-1192, Japan

TEL +81-268-28-0562 / FAX +81-268-28-0568

E-mail: [os-com@hioki.co.jp](mailto:os-com@hioki.co.jp) / URL <http://www.hioki.co.jp/>

**HIOKI USA CORPORATION**

6 Corporate Drive, Cranbury, NJ 08512, USA

TEL +1-609-409-9109 / FAX +1-609-409-9108

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