

MULTI-PURPOSE DIGITAL HIGH VOLTAGE PHASING METER



INSTRUCTION MANUAL

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1. INTRODUCTION

This Multi-purpose digital high voltage phasing meter is designed to measure both of AC high voltage and DC high voltage up to 50kV.

WARNING

This instrument must be connected with an approved hot stick. Failure to do so could lead to injury or death.

READ "SAFETY RULES" (NEXT PAGE) BEFORE USING THE INSTRUMENT.

2. SAFETY RULES

High voltage electrical circuits are dangerous and lethal through lack of caution or poor safety practice. The following rules should reduce the danger:

- Read the user manual carefully and completely before using the Multi-purpose digital high voltage phasing meter. Fully understand the instructions before using this product. Take all the necessary precautions. Do not exceed the limits of this Multi-purpose digital high voltage phasing meter.
- Always use fiber glass rods or authorized hot sticks for connection.
- A high voltage test is carried out with the Multi-purpose digital high voltage phasing meter attached to a hot stick.
- Do not touch any exposed wiring, connections, or other "live" parts of an electrical circuit.

This instrument must only be used by a competent, suitably trained person who understands this test procedure fully. Personnel working with high voltage should be trained regularly.

3. FEATURES

- AC 50kV and DC 50kV measurement with direct reading.
- 4000-count LCD.
- Input impedance : 400 Mohm
- Auto-ranging :
AC : 4.000kV / 40.00kV / 50.0kV
DC : 4.000kV / 40.00kV / 50.0kV
- The Multi-purpose digital high voltage phasing meter must be connected with an approved hot stick.
- Check phases are "in-phase" or "out of phase".
- Polarity indication : Positive / Negative
- Backlight function.
- Auto power off.
- Power source : 1.5V(AA) alkaline battery × 2.
- Low battery indication(Multi-level).
- Protection class : IP66

4. SPECIFICATIONS

AC Voltage :

Range	Resolution
4.000 kV	0.001 kV
40.00 kV	0.01 kV
50.0 kV	0.1 kV
Accuracy	
0 ~ 4 kV	$\pm(2.5\%rdg+0.1kV)$
4 kV ~ 50 kV	$\pm(2.5\%rdg+2dgt)$

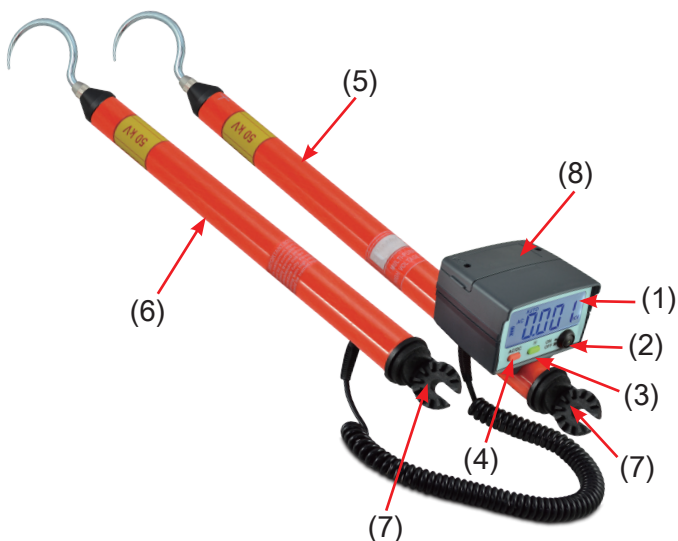
DC Voltage :

Range	Resolution
4.000 kV	0.001 kV
40.00 kV	0.01 kV
50.0 kV	0.1 kV
Accuracy	
0 ~ 20 kV	$\pm(2.0\%rdg+0.08 kV)$
20 kV ~ 50 kV	$\pm(3.0\%rdg+0.1kV)$

General :

Low battery indication	√ (Multi-level)
Operating temperature & humidity	0°C~40°C, 80% Max.
Storage temperature & humidity	-10°C~50°C, 80% Max.
Dimensions	Master stick : 19.3"(L) × 4"(W) × 4.6"(D) Slave stick : 19.3"(L) × 1.4"(W) × 1.4"(D)
Weight (battery included)	3 lbs
Power source	1.5V (AA) Alkaline battery × 2
Accessories	Instruction manual "Y" contact electrode × 2 Test hook(contact electrode)× 2 Insulated rod × 2 Alkaline batteries Carry case Piercing tip × 2(Optional)

5. INSTRUMENT LAYOUT



(1) LCD

(2) ON/OFF Button

(3)  Backlight Button

(4) AC/DC Button

(5) Master Stick

(6) Slave Stick

(7) Adapter End

(8) Battery Cover

(1) LCD

4000-count LCD with low battery indication(Multi-level).

(2) ON/OFF Button

This is the ON/OFF button. Press the ON/OFF button to turn on the instrument, the green LED on the ON/OFF button will glow. Press the ON/OFF button again to turn off the instrument.

(3) ☀ Backlight Button

Press the ☀ button to enable the backlight function. Pressing the ☀ button again can disable this function.

(4) AC/DC Button

Press the AC/DC button to select AC voltage measurement mode or DC voltage measurement mode.

(5) Master Stick

(6) Slave Stick

(7) Adapter End

The adapter ends have to be connected to the approved hot sticks for high voltage measurement.

(8) Battery Cover

Battery cover for 1.5V(AA) alkaline batteries.

6. MEASUREMENT

Before proceeding with measurement , read the safety rules.

- (1) Connect approved hot sticks to the Multi-purpose digital high voltage phasing meter.



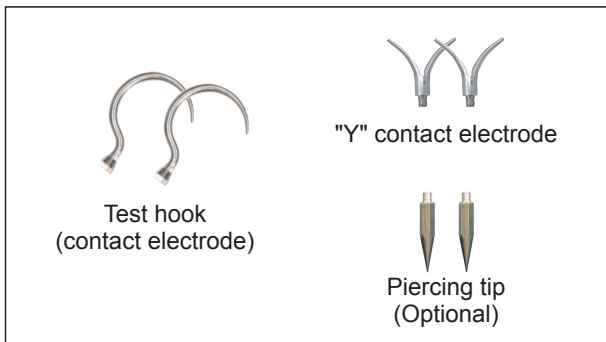
(2) AC Voltage measurement

Turn on the Multi-purpose digital high voltage phasing meter. Connect the test hooks to the high voltage circuit or high voltage device for measuring and get the reading on the LCD directly.

(3) DC Voltage measurement

Turn on the Multi-purpose digital high voltage phasing meter. Select the DC voltage function. Connect the test hooks to the high voltage circuit or high voltage device for measuring and get the reading on the LCD directly.

7. ACCESSORIES

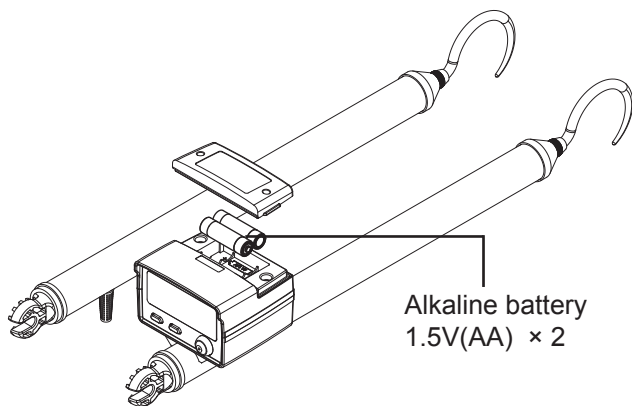


8. MAINTENANCE

Battery replacement :

When low battery warning symbol " Lolt "appears, change new batteries as follows :

- (1) Disconnect the test hooks from the Multi-purpose digital high voltage phasing meter and turn off the power.
- (2) Unscrew the battery cover and replace with new alkaline batteries(1.5V AA alkaline battery × 2).
- (3) Re-install the battery cover.



Cleaning and Storage :



WARNING

To avoid electrical shock or damage to the instrument, do not get water inside the case.

Periodically wipe the case with a damp cloth and detergent. Do not use abrasives or solvents. If the meter is not used for over 60 days, remove the batteries for storage.

Due to our policy of constant improvement and development, we reserve the right to change specifications without notice.

Hoyt Warranty and Repair

Hoyt Electrical Instrument Works, Inc. (Hoyt) warrants its products to be free of defective materials and workmanship for a period of (2) years after shipment to the original purchaser. This warranty shall be limited to defective materials and workmanship. Hoyt will repair all warranty items at no charge.

Hoyt will not cover those products that have been damaged due to removal of warranty stickers, improper handling, storage, installation or operation by the purchaser or any third party. At Hoyt's discretion defective products may be repaired or replaced and the products returned to proper working condition. Upon this time you would be notified for approval of any charges.

All warranty claims must be made using the Hoyt RMA form available by calling the factory directly at 1-800-258-3652.

All products must be returned prepaid to:

Hoyt Electrical Instrument Works, Inc.

Attention: Returns

23 Meter Street

Penacook, NH 03303-1894

Return Shipments must be made in the original packaging or packaging of equal quality that will provide appropriate protection during shipping. Hoyt will not be responsible for warranty repair of products returned via inadequate containers and packaging, nor for missing components.

Hoyt shall not be liable for any special, punitive, incidental or consequential damages made by the buyer or any third party. This statement of warranty is in lieu of all other warranties, guarantees, liabilities, obligations, statutory or implied to the original purchaser or to any other party.

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