

# DIGITAL MEGOHMMETER

## INSTRUMENT OPERATION MANUAL

### 1. INTRODUCTION

A60B series digital megohmmeter instrument uses lower power consumption、high change rate、inductance energy-DCV converter, change 9V-volt to DC250V/500V/1000V; Also, uses digit-bridge resistance measurement for measuring electric insulation resistance. Features include:

- ◇ Easy and correct readout.
  - ◇ Wide measurement range
  - ◇ High stability and reliability
  - ◇ LCD display for low power consumption and clear readout
  - ◇ Light-weight and compact construction for easy operation.
  - ◇ Auto power off and asleep mode
- It is suitable for elevator、machine equipment、telecommunications system check work.

### 2. FRONT PANEL DESCRIPTION

1. LCD: display measurement data and "MΩ"
2. High voltage indication: LED display
3. RANGE Switch
4. Power OFF
5. G: shield input jack terminal
6. L: Connect test circuit input jack terminal
7. Test key (PUSH): self return
- 8.9. E2/E1: connect to GND of test object input jack terminal

### 3. SPECIFICATIONS

#### 3-1. GENERAL SPECIFICATIONS

1. Display : 60x30mm large window LCD with max. reading of 1999.
2. Over range indication: only the MSD "1" display.
3. Power supply: Single, standard 9 volt battery, NEDA 1604IEC6F22
4. Power Consumption: unload consumption is less than 300mW.
5. Operation environment: Temperature 0°C-40°C; humidity 30%RH-85%RH.
6. Dimension: 80mm(W) x 185mm (L) x45mm (H)
7. Weight: approx. 360g (including 9V battery)

#### 3-2. ELECTRICAL SPECIFICATIONS

##### A60B TYPE

Test voltage	100V±10%	250V±10%	500V±10%	1000V±15%	
Range	200MΩ	0.1MΩ-20MΩ	0.1MΩ-20MΩ	0.1MΩ-50MΩ	0.1MΩ-100MΩ
	2000MΩ	10MΩ-500MΩ	20MΩ-500MΩ	50MΩ-1000MΩ	100MΩ-2000MΩ
Accuracy	±(4% of reading+2d)		±(3% of reading+2d)		
Short current	0.9mA	1.4mA	1.4mA	1.4mA	
Median resistance	2MΩ	2MΩ	2MΩ	5MΩ	
Jack position	L,E2	L,E2	L,E2	L,E1	


Note: Median resistance ensures that two terminal voltage is not less than 90% of test voltage of low terminal limit value of measure resistance.

#### 4. OPERATION

1. Press down the " POWER" key.
2. To select test voltage (1000V, 500V, 250V) according to need.
3. To select rang switch according to need.
4. Connect test object electrode to input jack terminal

5. When measuring cable, connect protection circle to "G" jack.
6. Press down the "PUSH" switch until display value stability and reading, then release "PUSH".
7. Connect input line "E1 or E2" to test object GND terminal, connect L to test circuit terminal; and asks the "L" connect line to hang in the air.
8. If only the figure"1" is displayed, over range is indicated and the FUNCTION switch must be set to a higher range. When function key is "Down" position, express insulation resistance exceed 2000MΩ.

#### 5. WARNING

1. When test voltage select key is not pressed down, it is possible to appear high voltage on output voltage jack.
2. When measuring, firstly, check test voltage select and test voltage remind on LCD are not same with need voltage.
3. To ensure operation safety, test object must be removed from electrified wire netting and short circuit for fully discharge.
4. To ensure reading is accurate, don't contact test terminal during measuring.
5. Keep instrument from high temperature position, avoid sunlight to affect LCD life.
6. It is necessary to replace battery when a "  " symbol appears on the LCD display. If store for a long time, the battery should be taken out.
7. When unload, readings are displayed. This is normal and it doesn't affect measure.

8. During "MΩ" measuring, it is possible that environment interference or insulation material cause reading unstable. So user may connect "G" terminal to test object shield terminal to reading.
9. To ensure safety and decrease interference, uses SI rubber material measurement line and don't replace it as one likes.

#### 6. ACCESSORIES

- |                                |        |
|--------------------------------|--------|
| 1. Measurement cable with clip | 1 pair |
| 2. 9V multi-layer battery      | 1 pcs  |
| 3. Introduction manual         | 1 pcs  |

