

BST-BT01 BATTERY TESTER



INSTRUCTION MANUAL

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1. Introduction

NOTE

This meter has been designed and tested according to CE safety requirements for electronic measuring apparatus, IEC / EN 61010-1 and other safety standards. Follow all warnings to ensure safe operation.

WARNING

READ "SAFETY NOTES" (NEXT PAGE) BEFORE USING THE METER.

2. Safety notes

- Read the following safety information carefully before attempting to operate or service the meter.
- Use the meter only as specified in this manual. Otherwise, the protection provided by the meter may be impaired.
- Rated environmental conditions:
 - (1) Indoor Use.
 - (2) Installation Category I 100V
 - (3) Pollution Degree 2.
 - (4) Altitude up to 2000 meters.
 - (5) Relative humidity 80% max.
 - (6) Ambient temperature 0~40°C.
- Observe the International Electrical Symbols listed below:



Meter is protected throughout by double insulation or reinforced insulation.



Warning! Risk of electric shock.



Caution! Refer to this manual before using the meter.



DC voltage

3. Features

The battery impedance tester can measure battery impedance and DC voltage at on line.

Impedance measure signal used 1kHz AC frequency.

Test lead used 4-wire measurement method can reduce contact resister.

- 2000-count LCD
- DC Voltage measurement.
- 4-wire impedance measurement.
- Data Hold function.
- Low battery indication.
- 9VDC power supply
- Measure batteries type: Li-ion,Ni-Cd,Ni-MH

4. Specifications (All at 23°C±5°C, ≤ 80%R.H)


- DC Voltage

| Range | Resolution | Accuracy |
|-------|------------|-----------------|
| 2V | 1mV | ± (1% rdg+1dgt) |
| 20V | 10mV | ± (1% rdg+1dgt) |
| 100V | 100mV | ± (1% rdg+1dgt) |

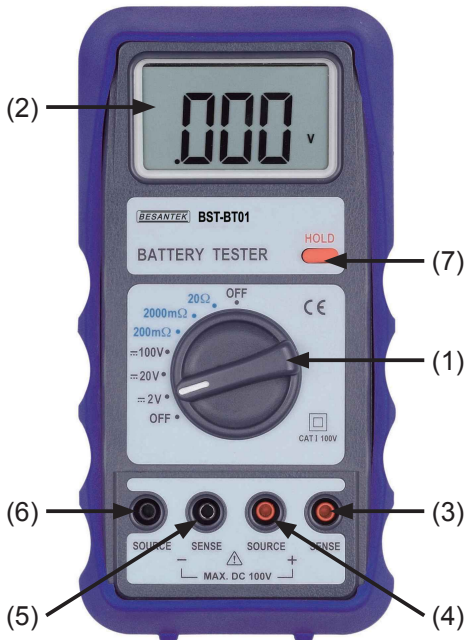
- Impedance

| Range | Resolution | Accuracy |
|--------|------------|-----------------|
| 200mΩ | 0.1 mΩ | ± (3% rdg+3dgt) |
| 2000mΩ | 1mΩ | ± (3% rdg+3dgt) |
| 20Ω | 10 mΩ | ± (3% rdg+3dgt) |

- General

| | |
|------------------------|--|
| Dimensions | 192mm(L)x 88.6mm(W)x 45.2mm(D) |
| Weight | Approx. 360 g (battery included) |
| Power source | battery 9V x1 |
| Low Battery Indication | "  " sign appears on the display when the battery voltage drops below accurate operating level. |
| Safety Standard | EN61010-1 CAT I 100V EN55011 EN61000-4-2 EN61000-4-3 |
| Accessories | Instruction Manual Test leads Battery Holster (optional) |

5. Instrument layout



- (1) Function Switch
- (2) LCD Display
- (3) Sense "+" Terminal
- (4) Source "+" Terminal

- (5) Sense "-" Terminal
- (6) Source "-" Terminal
- (7) HOLD Button

(1) Function selection rotary switch

The rotary switch selects the function.

(2) LCD Display

1999 count LCD with LOW BATTERY indication.

(3) Sense "+" Terminal

This is the positive input terminal for voltage / ohm measurement. Use the RED test lead to connect.

(4) Source "+" Terminal

This is the positive input terminal for voltage / ohm measurement. Use the RED test lead to connect.

(5) Sense "-" Terminal

This is the positive input terminal for voltage / ohm measurement. Use the BLACK test lead to connect.

(6) Source "-" Terminal

This is the positive input terminal for voltage / ohm measurement. Use the BLACK test lead to connect.

(7) HOLD Button

Pressing the HOLD button prevents the meter from updating the LCD display.

6. Measurement

- Battery voltage measurement
 - (1) Insert the RED test lead to Sense (+) and Source (+) terminal and the BLACK test lead to Sense (-) and Source (-) terminal.
 - (2) Rotate function switch to DCV range function.
 - (3) Refer to battery voltage rate and select test range.
 - (4) If battery voltage rate is unknown, select the 100V range test first.
 - (5) Make contact with the test lead tip and the battery. The reading will be displayed on the LCD screen.



Warning!

- (1) Use caution in the presence of voltage above DC 100V as these pose a shock hazard.
- (2) Can't measure AC voltage otherwise electrical circuits can be dangerous.

- Battery impedance measurement
 - (1) Insert the RED test lead to Sense (+) and Source (+) terminal and the BLACK test lead to Sense (-) and Source (-) terminal.
 - (2) Rotate function switch to 20Ω range function.
 - (3) Use the test lead tip to the battery and read the reading of display directly.
 - (4) According measurement value select apply to range test.

7. Maintenance

- Battery replacement

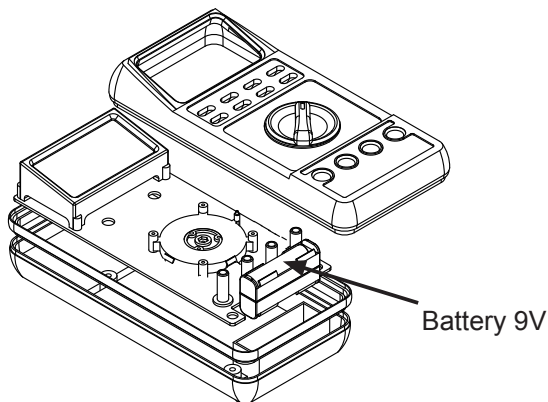
When low battery warning appears, change new batteries as follows:

 - (1) Disconnect the test leads from the instrument and turn off the power.
 - (2) Unscrew the case and replace with new battery.
 - (3) Close the case and lock the screw.



Warning!

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



- **Cleaning and storage**

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 battery for storage.

- CAT IV - For measurements performed at the source of the low voltage installations.
- CAT III - For measurements performed in building installations.
- CAT II - For measurements performed on circuits directly connected to the low voltage installations.
- CAT I - For measurements performed on circuits not directly connected to mains.

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