

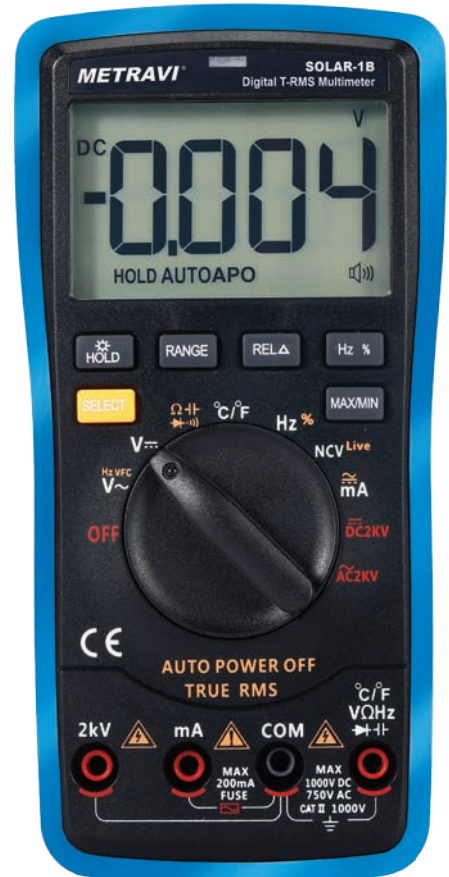
## INTRODUCTION

The Metravi Solar-1B Digital T-RMS Multimeter is a high-performance, battery driven, and highly reliable instrument. It adopts a large, backlit LCD display with clear readings and an overload protection function.


It can measure DC Voltage, True RMS AC Voltage and Average values, DC Current, AC Current, Resistance, Capacitance, Frequency, Diode and Temperature. It features intelligent voice alarm values, 2000V AC/DC Voltage and high voltage diode output measurement.

Compared to traditional diode measurement, the Metravi Solar-1B provides a voltage of 1V higher, making it more convenient for maintenance personnel to measure various LEDs.

The entire device is equipped with dual integral A/D, transformed into the core and it is a high-performance tool and instrument. It's an ideal tool for laboratories, factories and radio enthusiasts.



## GENERAL SPECIFICATIONS

<b>Display Method</b>	: LCD display
<b>Maximum Display</b>	: 5999 (3.5/6) bit automatic polarity display
<b>Measurement Method</b>	: Double integral A/D conversion
<b>Sampling Rate</b>	: approximately 3 times per second
<b>Over Range Display</b>	: the highest position displays "OL"
<b>Low Voltage Display</b>	: "  " symbol appears
<b>Working Environment</b>	: (0-40)°C, relative humidity<80%
<b>Power Supply</b>	: 2* 1.5V battery No. 5
<b>Volume (size)</b>	: 184 x 90 x 46mm (LxWxH)
<b>Weight</b>	: approximately 360g (including battery)
<b>Attachment</b>	: Test Leads, Thermocouple, Batteries, User Manual

## TECHNICAL SPECIFICATIONS

### DC Voltage (DCV)

Range	Accuracy	Resolution
6V	±(0.5%+3)	1mV
60V		10mV
600V		100mV
1000V	±(1.0%+10)	1V

**Input impedance :** All ranges are 10M Ω

**Overload protection :** 200mV with a range of 550V DC or AC peak; The rest are 1000V DC or 750V AC peak values

### AC Voltage True RMS (ACV)

Range	Accuracy	Resolution
6V	±(0.8%+5)	1mV
60V		10mV
200V	±(1.2%+10)	100mV
750V	±(1.2%+10)	1V

**Input impedance:** All ranges are 10MΩ

**Overload protection :** 200mV with a range of 550V DC or AC peak; The rest are 1000V DC or 750V AC peak values

**Frequency response :** True effective value can be measured: sine wave and triangular wave at 40Hz-1Kz; Other waveforms are 40Hz-200Hz;

### AC/DC High Voltage 2000V

Range	Accuracy	Resolution
DC 2000V	±(1.2%+3)	1V
AC 2000V		1V

**Input impedance :** All range are 10M Ω

**Overload protection :** DC /AC 2000V

### DC Current (DCA)

Range	Accuracy	Resolution
60mA	±(1.2%+8)	10μA
600mA		100μA

**Maximum measured pressure drop :** 200mV

**Maximum input current :** 600mA

**Overload protection :** 0.6A/250V fast melting fuse

### AC Current (ACA) True RMS

Range	Accuracy	Resolution
60mA	±(2.0%+5)	10μA
600mA		100μA

**Maximum measured pressure drop :** 200mV;

**Maximum input current :** 600mA

**Overload protection :** 0.6A/250V fuse

**Frequency response :** True RMS measurable: sine wave and triangular wave at 40Hz-1Kz; Other waveforms are 40Hz-200Hz;

**Display :** True RMS/Average

### NCV/LIVE Measurement

When the dial is turned to the NCV measurement function and the instrument is close to an electric field, there is a buzzing sound which changes according to the strength of the electric field. It also emits different intermittent sounds, and at the same time, the red alarm light flashes.

Trigger the SELECT key to switch to LIVE line measurement, and use a continuous red probe inserted into the V/Ω hole, with the pen tip in close contact with the tested live wire. The beep will emit a continuous sound, and the red alarm light will flash.

### Capacitance (C)

Range	Accuracy	Resolution
60nF	±(3.5%+20)	10pF
600nF		100pF
6μF		1nF
60μF		10nF
600μF		100nF
6mF	±(5.0%+10)	1μF
60mF		10μF

**Overload protection :** 250V DC or AC peak

\*Technical Specifications & Appearance are subject to change without prior notice

## Resistance (Ω)

Range	Accuracy	Resolution
600Ω	±(0.8%+5)	0.1Ω
6kΩ		1Ω
60kΩ		10Ω
600kΩ		100Ω
6MΩ		1kΩ
60MΩ	±(1.0%+25)	10kΩ

**Open circuite voltage:** less tha 3V;

**Overload protection :** 250V DC or AC 550V DC or AC peak

**Precautions :** When using a 200Ω range, the probe should be short-circuited first to measure the lead resistance, and then subtracted ffrom the actual measurement;

## Temperature (T)

Range	Accuracy	Resolution
-20 ~ 1000°C	±(1.0%+5) <400°C ±(1.5%+15) ≥400°C	1°C
0 ~ 1832°F	±(0.75%+5) <750°C ±(1.5%+15) ≥750°C	1°F


## Frequency

Range	Accuracy	Resolution
10Hz	±(0.1%+3)	0.01Hz
100Hz		0.1Hz
1kHz		1Hz
10kHz		10Hz
100kHz		100Hz
1MHz		1kHz
10MHz		10kHz

Input sensitivity : 1V effective value;

**Overload protection :** 250V DC or AC peak (not exceeding 10 seconds)

## Diode and On/Off Test

Range	Display Value	Test Conditions
	Diode forward voltage drop	The forward DC current is about 1mA, The open circuit voltage is about 3V
	The buzzer sounds long, The resistance value at points tested is less than (50 ± 20) Ω	Open circuit voltage approximately 4.2V

When starting normally, it is automatically measured when measuring between the diode and buzzer. When the resistance is below 50 Ω, it is measured by the buzzer. When the resistance value is greater than 50 Ω, it is automatically converted to diode measurement; Press the " SELECT " key to switch to manual measurement

**Overload protection :** 250V DC or AC peak

**Warning :** For safety reasons, it is prohibited to input voltage values in this range!