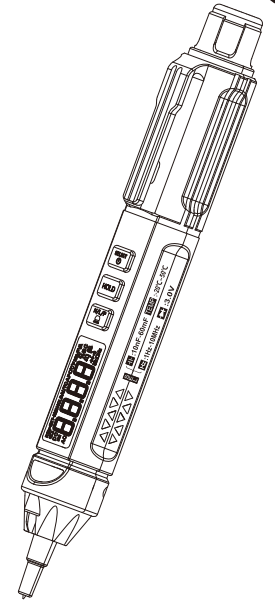




TA8303 Smart Pen Type METER Instruction manual



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Thank you very much for your patronage and choosing our products. Before you use this product please read this manual carefully as it will familiarize you with the correct operating procedure of our TASI product.

Overview:

TA8303 is a pocket type 3 1/2 digits true effective value, pen-type smart multimeter, no need to turn the dial to select the function. The meter will identify and measure automatically according to the different input voltage / resistance. And works stably, high precisely and reliably, also with clear readings and overload protection function. Driven by a AAA 1.5V battery, this meter uses a large LCD display and a boost power supply. It can ensure the ultra-high brightness of the backlight and flashlight even at the edge of the 0.8V low battery. This meter is easy to carry and is a meter that most users like very much. This series of meters can automatically identify DC voltage, AC voltage, resistance, without any switching, and can also be switched to measure capacitance, diode, continuity test, non-contact voltage measurement, null/fire wire measurement, phase sequence measurement and other parameters manually. It is a tool meter with superior performance, an ideal tool for laboratories, factories, radio enthusiasts and families as well.

Safety Precautions

This series of meters is designed to comply with IEC1010 (safety standards promulgated by the International Electrotechnical Commission). Please read the safety precautions before using it.
- When measuring voltage, do not input a limit voltage that exceeds the effective value of DC1000V or AC 700V;
- The voltage below 36V in the current file is a safe voltage;
- When changing functions and ranges, the test leads should leave the test point;

- Choose the correct function and range, and beware of wrong operation. Although this series of instruments has full range protection, for safety reasons, please pay more attention;
- Safety symbol description "▲" Dangerous voltage exists. "☑" Grounded. "☐" Double insulation. "▲" The operator must refer to the manual.

Characteristic

General characteristics

- Display mode: liquid crystal display;
- Maximum display: 5999 (3 1/2) automatic polarity shutdown;
- Measurement method: double integral A/D conversion;
- Sampling rate: about 3 times per second;
- Over-range display: the highest position displays "OL";
- Working environment: (0~40)°C, relative humidity <80%;
- Power supply: AAA 1 x 1.5V battery;
- Volume (size): 170×24×21mm (length×width×height)
- Weight: about 50g (including 1.5V battery)
- Accessories: One manual, one certificate, one outer box, 1 pcs test lead, and one AAA1.5V battery;

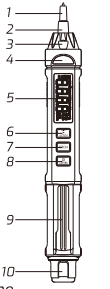
Technical characteristics

- Accuracy: ±(α% of reading + least significant digit), guaranteed accuracy Ambient temperature: (23±5)°C, relative humidity <75%, calibration guarantee period is one year from the factory date.
- Performance (Note "▲" means the meter has this function)

Features	
DC voltage DCV	▲
AC voltage ACV	▲
Resistance/diode	▲
continuitytest/capacitance	▲
Non-contact phase sequence	▲
measurement	▲
Color screen display	▲
NCV	▲
Neutral/Fire Test	▲
Full unit symbol	▲
Backlight manual/automatic	▲
shutdown	▲
True RMS measurement	▲
Temperature (°C/°F) normal	▲
temperature display	▲
Flashlight lighting	▲

Operation panel instruction

1. Test pen tip; positive end test point of voltage, resistance, capacitance, frequency, phase sequence;
2. Input end test protective glue;
3. Flashlight;
4. Signal indicator;
5. LCD display;
6. Power and function selection key SELECT ;(long press for power on and off, short press for manual DC voltage/AC voltage respectively/Resistance/diode, buzzer measurement/capacitance/frequency/temperature measurement)
7. Lock the HOLD button; (short press for turn-on and turn-off the backlight)



8. Electric field induction measurement/null wire and fire wire; measurement/phase sequence measurement;
9. Pen hang;
10. Measuring negative input COM.

Technical index

DC voltage/AC voltage automatic scanning test (DCV/ACV)

Range	Accuracy	Resolution
DC/AC 6V	±(0.5%+4)	0.001V
DC/AC 60V		0.01V
DC/AC 600V	±(0.8%+4)	0.1V
DC 1000 / AC 700V		1V

Input impedance: 10MΩ; Overload protection: true RMS measurement, frequency response is 50Hz-800Hz, DC1000 or 700V AC peak value.

The specific operation is as follows:

- Press and hold POWER for more than 2S, and it will display in automatic scanning state "AUTO";
- Insert the black test lead into the "COM" tail jack, and the positive electrode is the tip of the front end; the tip of the test pen is in reliable contact with the measured point;
- When the measured voltage between the input port "COM" and the "pen tip" is greater than 0.8V, regardless of the AC voltage or the DC voltage, the meter will take the larger component signal after comparing the DC component and the AC component according to the measured value The range is automatically switched between DC6V/60V/600V/1000V, AC6V/60V/600V/700V and then the measured value be displayed on the LCD;

Input impedance: 10MΩ; Overload protection: true RMS measurement, frequency response is 50Hz-800Hz, DC1000 or 700V AC peak value.

Notice:

- The input voltage must not exceed DC1000V or AC700V. If it exceeds , there is a risk of damaging the meter circuit; when high-voltage circuits, pay special attention to avoid electric shock;
- After completing all measurement operations, disconnect the test leads from the circuit under test.

Resistance(Ω)

Range	Accuracy	Resolution
600Ω	±(0.8%+5)	0.1Ω
6KΩ		1Ω
60KΩ	±(0.8%+3)	10Ω
600KΩ		100Ω
6MΩ		1KΩ
60MΩ	±(0.8%+10)	10KΩ

Input impedance: 10MΩ; overload protection: DC1000V or 700V AC peak value.

The specific operation is as follows:

- The boot display is automatic scanning state "AUTO";
- Insert the black test lead into the "COM" tail jack, and the positive electrode is the tip of the front end; the tip of the test pen is in reliable contact with the measured point;
- If the measured resistance at both ends of the test lead is less than 50Ω,the buzzer will emit a continuous beep, and quick buzzer measurement is required, please press the power key to enter the buzzer quick measurement;

- If you are measuring closed loop resistance, you must discharge the resistance at both ends of the resistance to be measured. Otherwise, if the voltage in the loop is greater than 0.8V, the meter will mistake it for voltage measurement and enter the voltage measurement mode;
- Enter the resistance measurement value between the input port "COM" and "pen tip", the meter will automatically switch between600Ω/6kΩ / 60kΩ/ 600kΩ / 6MΩ/60MΩ according to the resistance measurement value, and then the measured value will be displayed on the LCD.

Notice:

- When measuring low resistance, the test leads will bring internal resistance. In order to obtain accurate readings, you can record the short circuit value of the test leads first, and subtract the recorded value after you got the final measured value.
- leads are short circuited from the measurement readings;
- When measuring online resistance, all power supplies of the circuit under test must be turned off and all capacitors must be completely discharged to ensure the correct measurement value.

Fast continuity test/diode/capacitor

Range	Display value	Test conditions
*AUTO	Diode forward voltage drop	The forward DC current is about 1mA, the open circuit voltage is about 3V
	The buzzer sounds long, and the resistance of two points is less than (50+20)Ω	Open circuit voltage is about 0.4V, press "power" to switch between two functions

- When the large capacitance file is measuring serious leakage or breakdown capacitance, some values will be displayed and unstable; when measuring large capacitance, the reading will take a few seconds to stabilize, which is normal when measuring large capacitance;
- Please fully discharge the capacitor before testing the capacitance, otherwise it will enter the voltage measurement mode;
- Unit: 1F=1000mF 1mF=1000uF 1uF =1000nF 1nF=1000pF.

NCV/LIVE/phase sequence measurement

The operation is as follows:

- Power-on state is automatic scanning state "AUTO";
- Trigger the "NCV/LIVE/P" key; enter the electric field measurement EF/ LIVE measure /phase sequence measurement P respectively, and switch between auto/EF/LIVE/P in turn;
- NCV measurement: trigger the "NCV/LIVE/P" key; enter the EF measurement, the LCD displays "EF", when the pen tip is close to the power test point (the measured frequency is 50Hz/60Hz), the LCD will display different according to the signal strength The buzzer will make different sounds, and the indicator will also emit different lights when weak, and red light when strong; LIVE measurement: Trigger the "NCV/LIVE/P" key twice; enter the LIVE measurement, the LCD will display "LIVE". When the pen tip reliably touches the live wire test point, the LCD will display OL, and the buzzer will emit a continuous beep and indicate red backlight at the same time.
- Non-Contact phase measurement: (Front end positive electrode of a test lead for phase measurement close to the test) Trigger the "NCV/LIVE/P" key three times; enter the phase sequence measurement, the LCD displays PA, the display screen A keeps flashing, and the sensor tip is pressed tightly to the first phase wire, wait for a beep;

Notice:

- When measuring capacitance in the 10nF range, there may be residual readings in the value displayed on the screen. This number is the distributed capacitance of the test leads and is an accurate reading. You can subtract this value after the measurement;

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This manual is subject to change without notice; The content of this manual is considered correct. If users find errors or omissions, please contact the manufacturer;

The company is not responsible for accidents and hazards caused by users' wrong operations; The functions described in this manual are not used as a reason for using the product for special purposes.

- When the user is operating and measuring normally, it will not shut down, and only if you stop using it for 5 minutes will it trigger the automatic shutdown mode;
- The base number of the capacitor file is within 100 characters, and the ACV is within 5 characters, it will automatically shut down. When the display value of the capacitor file is greater than 100 characters, the ACV is greater than the displayed value and greater than 5 characters, it will not shutdown during the measurement under this condition.
- Automatically shut down in 5 minutes during electric field measurement/fire wire measurement/phase sequence measurement.

Trouble shooting

If your meter does not work normally, the following methods can help you quickly solve general problems. If the fault still cannot be eliminated, Please contact the repair center or dealer.

Failure phenomenon	Inspection site and method
Did not show	Power is not turned on Replacement battery
Large resistance display error	The test lead is not in good contact

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Product: Smart Pen Type METER
Model: TA8303
Manufacture place: **MADE IN CHINA**

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