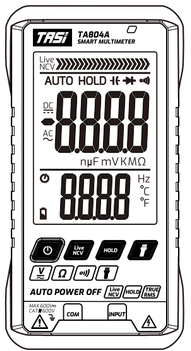
TA804A/B
Smart Multimeter
Instruction manual



Pack #:PB01-0072

Thank you for your patronage. Welcome to visit TASI!
Before using this product, please read this manual carefully. It will guide you the correct operation method and simple inspection and treatment essentials, so as to give full play to the excellent performance of the instrument.

Summary

TA804 series is a super thin 3 5 / 6-bit automatic digital instrument. It has stable performance, high precision, high reliability, clear large screen reading and overload protection function. Driven by AAA 1.5V single battery, the meter is easy to carry.

Safety matters

1. When measuring the voltage, please do not input the limit voltage beyond the effective value of AC and DC 600V;
2. The voltage below 36V is the safe voltage. When measuring the voltage higher than 36V DC and 25V AC, it is necessary to check whether the probe is in reliable contact, correctly connected and well insulated, so as to avoid electric shock;

3. When changing function and range, the probe should leave the test point;
4. Choose the correct function and range, and be careful of wrong operation.
Although this series of instruments have full range protection function, please pay more attention to it for safety;
5. The safety symbol: "⚠" indicates the presence of dangerous voltage, "⏚" grounding and "▣"double insulation, "⚠" The operator must refer to the manual and "🔋" the low voltage symbol.

Troubleshooting

If your instrument does not work normally, the following methods can help you quickly solve the general problem; if the fault still can not be eliminated, please contact the maintenance center or dealer.

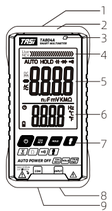
Fault phenomenon	*Inspection position and method*
No display	*Reverse polarity of battery*
	Replace the battery
Low battery symbol	*Replace the battery*
Resistance display error is large	*The test pen does not contact well*

Function description

Function	*Gear*	*Switch mode*	*Model*
DC voltage	*600mV*	*Manual switching measurement*	*TA804B*
	6V	*Automatic identification / manual switching measurement*	
	60V		
	600V		
	600V	*Automatic identification*	*TA804A*
AC voltage	*6V*	*Automatic identification / manual switching measurement*	*TA804B*
	60V		
	600V		
	600V	*Automatic identification*	*TA804A*
Resistance	*600Ω*	*Automatic identification / manual switching measurement*	*TA804B*
	6KΩ	*Automatic identification / TA804Bmanual switching measurement*	*TA804A/B*
	60KΩ		
	600KΩ		
	6MΩ		
	60MΩ		
Capacitance	*6uF*	*Manual switching measurement*	*TA804B*
	60uF		
	600uF		
	6mF		
	60mF		
On off measurement	*•))*	*Automatic identification*	*TA804A/B*
Diode	*⊣⊢*	*Manual switching measurement*	*TA804B*

Description of Panel

1. Instrument protective sleeve;
2. NCV: Non-contact AC voltage detection area;
3. Indicator light: On-off measurement and Non-contact measurement and live wire measurement indicator light;
4. Simulation bar display area;
5. Main display: measurement data display area;
6. Sub display: temperature and frequency display area;
7. Function keys;
8. Input port: Red probe jack;
9. COM input port: Black probe jack.



Function description of TA804A key:
- *⏻ Power button: long press more than 2 seconds to turn on and off;*
- *Live / NCV button: short press to switch live live line measurement / NCV non-contact AC voltage detection;*
- *Hold button: short press data hold;*
- *🔦Key: short press to turn on and off the lighting.*

Function description of TA804B key:
- *⏻ Power button: long press more than 2 seconds to turn on and off;*
- *SMART/FUNC button: short press in AUTO intelligent mode to switch to manual mode. Manual mode switching diode, on-off measurement, resistance, DC voltage, AC voltage and AUTO intelligent mode are converted circularly. In any manual gear, long press more than 2 seconds to automatically switch to AUTO intelligent measurement mode;*
- *Live / NCV button: short press to switch live line measurement / NCV non-contact AC voltage detection;*
- *Hold🔦button: short press data hold, long press more than 2 seconds to turn on and off the light.*

Description of Panel

1. General characteristics
- *Display mode: LCD display;*
- *Maximum display: main display 5999 (3 5/6) bit automatic polarity display, sub display: temperature, 40℃, frequency: 5999hz;*
- *Measurement method: double integral A / D conversion;*
- *Sampling rate: about 3 times per second;*
- *Over range display: the highest position displays "OL";*
- *Low voltage display: "🔋" symbol appears;*
- *Working environment: (0-40)℃, relative humidity less than 80%;*
- *Power supply: AAA 1.5Vx1 battery;*
- *Size: 148x76x21mm (L x W x H);*
- *TA804A weight: about 167g (including 11g battery); TA804B weight: about 175g (including 11g battery);*
- *Accessories: one instruction manual, one certificate, one outer packing box, one pair of probes and one AAA 1.5V battery.*

2. Technical characteristics

Accuracy: ± (a% of reading + least significant digit), ensure accuracy, ambient temperature: (23 ± 5)℃, relative humidity less than 75%, calibration guarantee period is one year from the factory date.

3. Technical index

A. DC voltage(TA804A/B)

Range	*Resolution*	*Accuracy*	*Model*
600mV	*0.1mV*	*0.5%Reading±5Digit*	*TA804B*
6V	*1mV*	*0.8%Reading±5Digit*	*TA804B*
60V	*10mV*	*0.8%Reading±5Digit*	*TA804B*
600V	*100mV*	*0.8%Reading±5Digit*	*TA804A/B*

Input impedance: 10MΩ; overload protection: 600V DC or AC RMS.
The specific operation is as follows: as shown in the right figure.
- *Insert the black probe into the "COM" jack and the red probe into the "INPUT " jack;*
- *The instrument screen displaysAUTO mode;*
- *If you need to continuously measure a single gear, you can manually switch to the independent DC voltage gear by pressing the SMART/FUNC button in AUTO mode (only TA804B has this function);*
- *Contact the test point reliably with the test probe, and the screen will display the measured voltage value. When measuring the DC voltage, the red probe is the voltage polarity of the point connected.*

Note:
- *The input voltage should not exceed DC600V or ac600v. If it exceeds, the instrument circuit may be damaged;*

- *When measuring high voltage circuit, pay special attention to avoid electric shock;*
- *After completing all measurement operations, disconnect the probe from the circuit under test.*

Power on intelligent mode *DC voltage mode*

B. AC voltage(TA804A/B)

Range	*Resolution*	*Accuracy*	*Model*
6V	*1mV*	*1.0%Reading±3Digit*	*TA804B*
60V	*10mV*	*1.0%Reading±3Digit*	*TA804B*
600V	*100mV*	*1.0%Reading±3Digit*	*TA804A/B*

Input impedance: 10MΩ; The frequency response of standard sine wave and triangle wave is 40Hz-1KHz; other waveform frequency response is: 40Hz-200Hz.
Overload protection: 600V DC or AC RMS. The specific operation is as follows: as shown in the right figure.
- *Insert the black probe into the "COM" jack and the red probe into the "INPUT " jack;*
- *The instrument screen displaysAUTO mode;*

- *If you need to continuously measure a single gear, you can manually switch to the independent DC voltage gear by pressing the SMART/FUNC button in AUTO mode (only TA804B has this function);*
- *Contact the test point reliably with the test probe, and the screen will display the measured voltage value.*

Note:

- *There are some residual numbers in each range before the test, but it does not affect the measurement accuracy;*
- *The input voltage should not exceed 600V . If it exceeds, the instrument circuit may be damaged;*
- *When measuring high voltage circuit, pay special attention to avoid electric shock;*
- *After completing all measurement operations, disconnect the probe from the circuit under test.*

Power on intelligent mode

AC voltage mode

C. Resistance(TA804A/B)

Range	Resolution	Accuracy	Model
600Ω	0.1Ω	1.5%Reading±2Digit	TA804B
6kΩ	1Ω	1.5%Reading±2Digit	TA804A/B
60kΩ	10Ω	1.5%Reading±2Digit	TA804A/B
600kΩ	100Ω	1.5%Reading±2Digit	TA804A/B
6MΩ	1kΩ	1.5%Reading±2Digit	TA804A/B
60MΩ	10KΩ	3.0%Reading±5Digit	TA804A/B

Open circuit voltage: less than 3V; overload protection: 250V DC or 250V AC RMS.
The specific operation is shown in the figure on the right.

- *Insert the black probe into the "COM" jack and the red probe into the "INPUT " jack;*
- *The instrument screen displays AUTO mode;*
- *If you need to measure a single gear continuously, you can manually switch to the independent resistance gear by pressing theSMART/FUNC key inAUTO mode (only TA804B has this function);*
- *Connect the probe to the measured resistance and read the measurement result from the display.*

Power on intelligent mode

Resistance measurement mode

D. Capacitance(TA804B)

Range	Resolution	Accuracy
6μF	1nF	3%Reading±5
60μF	10nF	3%Reading±5
600μF	100nF	3%Reading±5
6mF	1μF	3.5%Reading±10
60mF	10μF	3.5%Reading±10

Overload protection: 250V DC or AC RMS
The specific operation is as follows: (as shown in the right figure)

- *Insert the black probe into the "COM" jack and the red probe into the "INPUT" jack.*
- *In AUTO mode, press the SMART/FUNC button to manually switch to the independent capacitor gear (only TA804B has this function)*
- *Read the measurement results from the display.*

Note:

- *When in large capacitance gear to verify the leakage or breakdown capacitance, some values will be displayed and unstable. When measuring large capacitance, the reading will take several seconds to be stable, which is normal when measuring large capacitance;*
- *Before testing the capacitance, discharge the capacitor fully to prevent damage to the fuse and instrument;*

- *Unit 1F=1000mF,1mF=1000F,1F=1000nF, 1nF=1000pF.*

Capacitance measurement mode

E.NCV measurement

The operation is as follows: (as shown on the right)

- *PressLive/NCV button to "NCV" gear;*
- *There is a NCV test point at the front end of the instrument. As long as the point is close to the AC voltage, the buzzer will give out continuous sound according to the different strength of the signal. At the same time, the analog bar will display different segments according to the strength of the signal.*

Note:

- *When NCV non-contact voltage measurement, please pull out the test probe to avoid electric shock;*
- *Even if there is no indication, the voltage may still exist. Do not rely on the non contact voltage to judge whether there is voltage in the wire. The detection operation may be affected by the insertion design, insulation thickness and different types and other factors;*
- *Interference of external environment (such as flash lamp, motor, etc.) may send NCV alarm by mistake.*

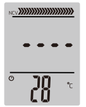
6cells *10cells*

Unmeasured state

5CMstatus

3CMstatus

20cells



1CMstatus

F.Zero line / live line measurement

The specific operation is as follows: (as shown in the right figure)

- *Press the Live/NCV button to switch to the "Live" gear;*
- *Insert the red probe into the " INPUT " jack(single probe operation is enough);*
- *Insert the tip of the red probe into the zero line or the live line. If it is a live line, the buzzer will make a continuous sound. At the same time, the panel indicator light will flash, and the screen simulation question bar will display full grid. If it is the zero line, the instrument will give intermittent prompt sound, and the panel indicator will flash, and the screen simulation question bar will display half a grid.*

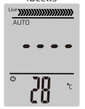
Note:

- *This function is applicable to the frequency signal of 50Hz-1KHz.*

5cells *10cells*

Unmeasured state

Neutral state



Fire state

G. Diode and on-off test

Range	Display value	Test conditions	Model
→|	*Forward voltage drop of diode*	*The forward DC current is 1mA and the open circuit voltage is about 3.2V*	*TA804B*
•))	*The buzzer sounds for a long time, and the resistance at two points is less than(50+20)Ω*	*The open circuit voltage is about 3.2V, press the SEL button to switch between the two gears*	*TA804A/B*

Overload protection: 220 V DC voltage or AC RMS;
Warning: For safety, input voltage value is prohibited in this range!
The specific operation is shown in the figure on the right:

- *Insert the black probe into the "COM" jack and the red probe into the " INPUT " jack (note that the red probe is +)*
- *The instrument screen displays AUTO mode,*
- *If you need to continuously measure a single gear, you can manually switch to the independent diode or on-off measurement gear by pressing the SMART/FUNC button in AUTO mode (only TA804B has this function)*
- *Connect the probe to the circuit to be tested, and the reading is the current measured value.*

Auto shutdown & cancel auto shutdown

- *Auto shutdown & cancel auto shutdown*
  When the instrument is out of service for 10 minutes, the instrument will . automatically power off and enter the sleep state; if you want to restart the power supply, press the power supply to restart the instrument.
- *To cancel the automatic shutdown, press the HOLD key + power button in the shutdown status gear, the buzzer will prompt 3 times, and the "⏲" symbol on the screen will disappear, the automatic shutdown function will be cancelled. If you need automatic shutdown function, press the power button to turn off the machine, turn on the machine again and it will be switched to automatic shutdown mode.*

Boot smart mode

On-off mode

Special statement:

Old batteries must be disposed in accordance with local laws and regulations. The company reserves the right to update and modify the design specifications and instruction manual of this product without prior notice.

TASI CE

Product: *Smart multimeter*
Model: *TA804A/B*
Manufacture place: ***MADE IN CHINA***

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Issue date:12/17/2020