AOPUTTRIVER 570T-APP 4000 Count Auto Range Intelligent Digital AC/DC Clamp Meter Instruction Manual

Contents

AOPUTTRIVER

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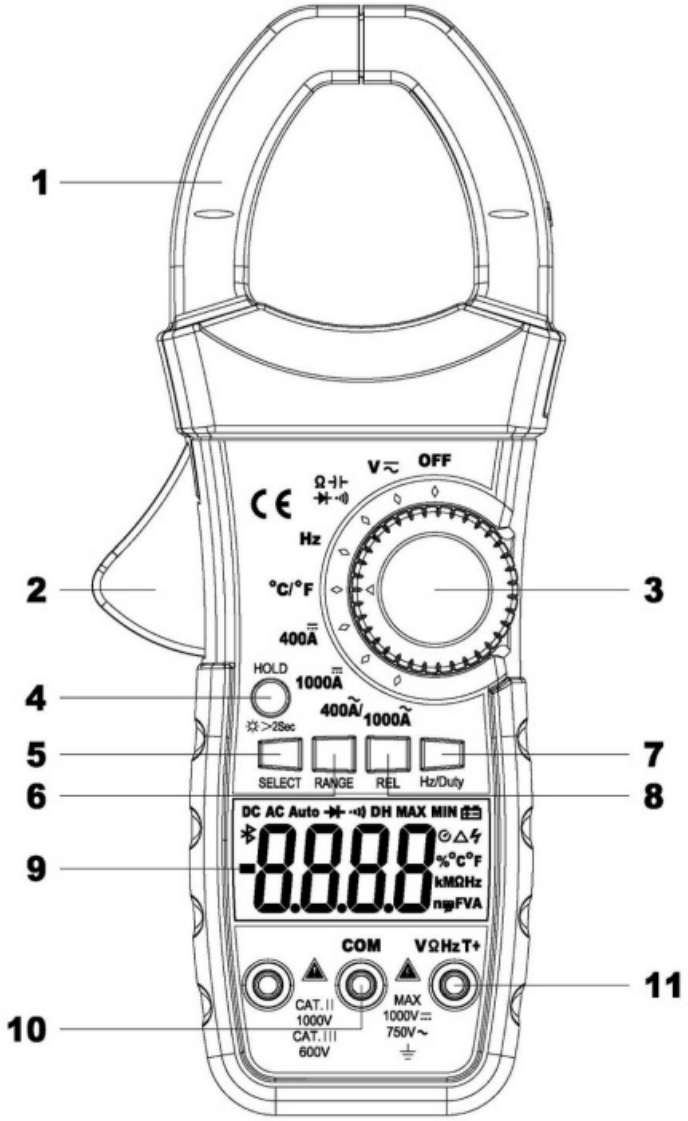
Overview

The auto range clamp multimeter is a portable and stable performance. Using 4000 counts digit LCD monitor with character 18mm high. With overall circuitry design centering on large-scale IC A/D converters in conjunction with an overload protection circuit, the meters give excellent performance and are exquisite making a handy utility instrument.

The meter can be used to measure DC & AC voltage, DC & AC, resistance, capacitor, frequency, duty cycle, temperature, positive diode voltage fall, and audible continuity. The meter can be connected to a mobile phone by wireless transmission, and displayed on the phone by APP, you can remotely monitor the measurement condition, and the distance control is 10 15m.

Panel Layout



1. Clamp jaws: Opens 45mm to enclose conductor.
2. Jaw-opening handle: Opens and closes the jaws.

3. Rotary Switch: Use this switch to select functions and ranges.

4. HOLD key: Press the “HOLD” key to lock the display value, and the “DH” sign will appear on the display, press it again to exit.
5. Press the “HOthe LD” key for more than 2 seconds, and the backlight will light up, press it more than 2 seconds again, and the backlight will light off.
6. SELECT key: This key works on the “Ω →| •)) ⊣⊢ ” range, press it to choose resistance, diode, continuity, or capacitance test, on the voltage range, change to DC or AC, on the range, change to ℃ or ℉ test.
7. RANGE Key: Press the “RANGE” key, and the meter enters manual range mode, press it more than 2 seconds again, and return to auto mode.
8. Hz/Duty Key: On the “ACV/ACA” or “Hz” range, press the “Hz/Duty” key, and you can choose the Frequency or Duty Cycle measurement.
9. REL Key: Press the “REL” key, the meter enters relative measuring mode, “△” is displayed on the LCD and the present reading becomes the reference value and is displayed on the display.
10. Relative measurement REL△=measurement value-Reference value. Press it again to exit.
11. LCD: 4000 counts digit, full function symbol display.
12. COM: COM and Temperature “-” Input Jack
13. VΩ →| •))Hz℃/℉:V/Ω →| •))/⊣⊢/Hz/T Input Jack

Safety Information

- The meter is designed according to IEC-1010 concerning electronic measuring instruments with an over-voltage category CAT Ⅱ1000V or CAT Ⅲ 600V and pollution.
- Follow all safety and operating instructions to ensure that the meter is used safely and is kept in good operating condition.

safety symbols

- ⚠For important information, refer to the operating manual.
- ⚠Dangerous voltage may be present.
- ⧈Double insulation (protection Class II)

Special Cautions for Operation

- The meters can be safe only according to standard procedures when used in conjunction with the supplied test leads.
- To replace damaged test leads with only the same model or the same electric specifications.
- To avoid the risk of electric shock, do not use the meters before the cover is in place.
- The range switch shows the right position for the testing.
- To avoid electric shock and damaging the instruments, the input signals are forbidden to exceed the specified limits.
- When measuring a TV set or switched power, attention should be paid to the possible pulses that may bring destruction to the circuit.
- The range switch position is forbidden to be changed at random during measurement.
- Take caution against shock in the course of measuring voltage higher than DC 60V & AC 30V.

- Before opening the cover of the battery cabinet replace batteries.
- Disconnect the test leads from any external circuit, and set the selector switch to the “OFF” position.
- Keep the fingers after the protection ring when measuring through the instrument lead.
- Keep the fingers after the protection ring when measuring through the clamp.
- After the operation is finished, set the function switch to OFFtosavebatterypower.
- If the meter is without usage for a long time, take the out battery to avoid damage by battery leakage.

GENERAL SPECIFICATIONS

- Max Voltage between the input terminal and Earth Ground: CATⅡ1000V or CAT Ⅲ 600V
- Over-range Indication: display “OL” for the significant digit.
- Automatic display of negative polarity “-”.
- Low Battery Indication: “  ” displayed.
- Max LCDLCD000 counts digits.

Auto range control

- Clamp opening size: 45mm. 5-8 Power supply: 9V Zinc-carbon battery.
- Operating Temp.: 0℃ to 40℃ (relative humidity <85%)
- Storage Temp.:-10℃ to 50℃ (relative humidity <85%)
- Guaranteed precision Temp.: 23±5℃ (relative humidity <70%)
- Dimension: 225(H)×77(W)×45(D)mm. 5-13
- Weight: Approx. 330g (including battery).
- Testing Specifications Accuracy is specified for a year after calibration and at 18℃to28℃(64℉ to 82℉) with relative humidity to 70%.

DC Voltage

Range	Resolution	Accuracy
400mV	0.1mV	±(0.5% of rdg + 2 digits)
4V	1mV	
40V	10mV	
400V	100mV	
1000V	1V	±(0.8% of rdg + 2 digits)

- Impedance: 10MΩ, More than 100MΩ on 400mV range
- Overload protection: 1000V DC or 750V AC rms

AC Voltage

Range	Resolution	Accuracy
4V	1mV	±(1.0% of rdg + 3 digits)
40V	10mV	
400V	100mV	
750V	1V	±(1.5% of rdg + 3 digits)

- Impedance: 10MΩ
- Overload protection: 1000V DC or 750V AC rms
- Frequency Range: 40 to 400Hz
- Response: average, calibrated in rms of sine wave

DC Current

Range	Resolution	Accuracy
400A	100mA	±(2.5% of rdg + 10 digits)
1000A	1A	±(3.0% of rdg + 10 digits)

- Overload protection: 1000A DC or AC rms

AC Current

Range	Resolution	Accuracy
400A	100mA	±(2.5% of rdg + 10 digits)
1000A	1A	±(3.0% of rdg + 10 digits)

- Overload protection: 1000A DC or AC rms
- Frequency Range: 40 to 100Hz
- Response: average, calibrated in rms of sine wave

Resistance

Range	Resolution	Accuracy
400Ω	0.1Ω	±(1.0% of rdg + 3 digits)
4kΩ	1Ω	±(1.0% of rdg + 2 digits)
40kΩ	10Ω	
400kΩ	100Ω	
4MΩ	1kΩ	
40MΩ	10kΩ	±(1.5% of rdg + 3 digits)

- Overload protection: 250V DC or AC rms

Capacitance

Range	Accuracy	Resolution
4nF	±(5.0% of rdg + 10 digits)	1pF
40nF	±(3.0% of rdg + 10 digits)	10pF
400nF		100pF
4µF		1nF
40µF		10nF
200µF	±(5.0% of rdg + 10 digits)	100nF

- Overload protection: 250V DC or AC rms

Frequency

Range	Accuracy	Resolution
9.999Hz	± (0.1% of rdg + 5 digits)	0.001Hz
99.99Hz		0.01Hz
999.9Hz		0.1Hz
9.999kHz		1Hz
99.99kHz		10Hz
999.9kHz		100Hz
9.999MHz		1kHz

- Sensitivity: sine wave 0.6V rms (9.999MHz: 1.5V rms)
- Overload protection: 250V DC or AC rms

Duty cycle

- 0.1% 99.9%: ± (2.0% of rdg + 2 digits), Frequency lower than 10kHz
- Sensitivity: sine wave 0.6V rms
- Overload protection: 250V DC or AC rms

Temperature

Range	Accuracy		Resolution
°C	-20~150**°C**	± (3**°C**+ 1digit)	1℃
	150~1000**°C**	± (3% of rdg + 2digits)	
°F	-4~302**°F**	± (5**°F**+ 2digits)	1℉
	302~1832**°F**	± (3% of rdg + 3digits)	

- NiCr-NiSi K-type sensor
- Overload protection: 250V DC or AC rms

Diode and Audible continuity test

Range	Description	Test Condition
	The display read approximately forward voltage of the diode	Forward DC approx. 1.5mA Reversed DC voltage approx. 4V
	The built-in buzzer sounds if resistance is less t han 50Ω	Open circuit voltage approx. 2V

- Overload protection 250V DC or AC rms 7.

OPERATING INSTRUCTIONS

Attention before operation

- Check battery. When the battery voltage drodropslow the proper operation range, the “  ” symbol will appear on the LCDLCDd the battery needs to be changed.
- Pay attention to the “  ” beside the input jack which shows that the input voltage or current should be within the specified value.
- The range switch should be positioned to the desired range for measurement before operation.

Measuring DC & AC Voltage

- Connect the black test lead to the COM jack and the red to the VΩHzT+ jack.
- Set the rotary switch at the desired “V ” range position, it shows the symbol for testing DC voltage, if you want to test AC voltage, push the “SELECT” button switch.
- Connect test leads across the source or load under measurement.
- You can get reading from LCD. The polarity of the red lead connection will be indicated along with the DC voltage value.
  NOTE “ ” means you can’t in a voltage of more than 1000V DC or 750V AC, it’s possible to show higher voltage, but it may destroy the inner circuit or pose a shock.
- Be cautious against shock when measuring high Voltage.

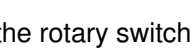
Measuring DC Current

- Set the rotary switch at the desired “400A ” or “1000A ” position.
- Press the “REL” the display shows “0”.
  Note: The jaw core may retain some magnetic force after use for a while. If the display can not reach “0” When pressing the “REL”, please take the following process to correct it: To change the direction of the measured DC-DC.
- Open the JAWS several times.
- Open the clamp by pressing the jaw-opening handle and insert the cable (one cable only) to measure the jaw.
- Close the clamp and get the reading from the LCD panel. The arrow in the Jaw indicates the direction of positive current flow (positive to negative).
  Note: Before this measurement, disconnect the test lead with the meter for safety. On the occasion that the reading is hard to read, push the HOLD button and read the result later.

Measuring AC Current

- Set the rotary switch at the desired “400A /1000A ” position.
- Open the clamp by pressing the jaw-opening handle and insert the cable (one cable only) to be measured into the jaw.
- Close the clamp and get the reading from the LCD panel.
  Note: Before this measurement, disconnect the test lead with the meter for safety.
- On the same occasion that the reading is hard to read, push the HOLD button and read the result later.

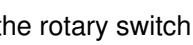
Measuring Resistance

- Connect the black test lead to the COM jack and the red to the VΩHzT+ jack.
- Set the rotary switch at the desired “  ” range position.
- Connect test leads across the resistance under measurement.
- You can get reading from LCD.
  NOTE: Max. input overload: 250V rms 10sec

For measuring resistance above 1MΩ, the mete may take a few seconds to get a stable reading.

1. When the input is not connected, i.e. at an open circuit, the figure ‘OL’ will be displayed for the over-range condition.
2. When checking in-circuit resistance, be sure the circuit under test has all power removed and that all capacitors have been discharged fully.

Measuring Capacitance

1. Connect the black test lead to the COM jack and the red to the VΩHzT+jack.
2. Set the rotary switch at the desired “  ” position, and push“SELECT” to choose Capacitance measurement.
3. Connect test leads across the capacitance under measurement.

4. You can get reading from LCD.
   NOTE: Max. input overload: 250V rms 10sec 1. Capacitors should be discharged before being tested.
5. When testing large capacitance, it takes a take longer time before the final indication (For the 200uF range, it will take about 10 seconds).

Measuring Frequency & Duty cycle

1. Connect the black test lead to the COM jack and the red to the VΩHzT+jack.
2. Set the rotary switch at the desired “Hz” range position.
3. Push the “Hz/Duty” key to choose Frequency or Duty cycletest.
4. Connect the probe across the source or load under measurement.
5. You can get reading from LCD.

Measuring Temperature

1. Connect the black banana plug of the sensor to the COMjackandtheredbanana plug to the VΩHzT+ jack.
2. Set the rotary switch at the desired “ Ω ⊣◀ •)) ⊣⊢ ” range position, and push“SELECT” to choose ℃ or ℉ measurement.
3. Put the sensor probe into the temperature field under measurement.
4. You can get reading from LCD.
   NOTE: Please don’t change the thermocouple at will, otherwise we can’t guarantee measure accuracy.
5. Please don’t import the voltage in the temperature function.

Diode & Audible Continuity Testing

1. Connect the black test lead to the COM jack and the red to the VΩHzT+jack.
2. Set the rotary switch at the “ Ω ⊣◀ •)) ⊣⊢ ” range position, and push“SELECT” to choose Diode or Audible continuity measurement.
3. On the diode range, connect the test leads across the thediodeundermeasurement, and the display shows the approx. The forward voltage of this diode.
4. On the Audible continuity range, connect the test leads totwopointofcircuit, if the resistance is lower than approx. 50Ω, the buzzer sounds.
   NOTE: Make sure the power is cut off and all capacitors needtobedischarged under this measurement.

Connect to mobile phone APP.
The meter has sera ial data output function. It can be connected to the mobile phone by Bluetooth, so the measured data can be recorded, analyzed, and processed mobile phone APP. Before using this function, you need to install the mobile phone APP “Intelligent Meter” by scanning the QR code. It includes the “Intelligent Meter” APP packages for dow download and detailed installation usage instructions.
NOTE: The mobile phone APP can be installed on the iPhone4SiOS7.0 or Android30 system and up.

Battery replacement

When the battery voltage drops proper operation the symbol  will appear on the LCDLCDd the battery needs to be. Changed Before changing the battery, set the selector switch to the “OF the F” position and remove test leads from the terminals. Open the cover ofthe the thebatterycabiwitht by a screwdriver. Replace the old battery with the

same type of battery (9 V battery 6F22 or NEDA 1604). Close the cover of the battery cabinet and fasten the screw. 9.

Maintenance

You must replace the test leads if the lead is exposed, and should lead with the same specifications as the the origin. Do not use the meter before the back cover is properly closedandscrewsecured. Upon any abnormality, stop operation immediately andsendthemeter for maintenance.

When taking the current measurement, keeping the cable atthe center ofthe clamp will get a more accurate test result. Repairs or servicing not covered in this manual should only be qualified personally. Periodically wipe the case with a dry cloth and do not use abrasives or solvents on these instruments. Please take out the battery when not it using for a long time.

Accessories

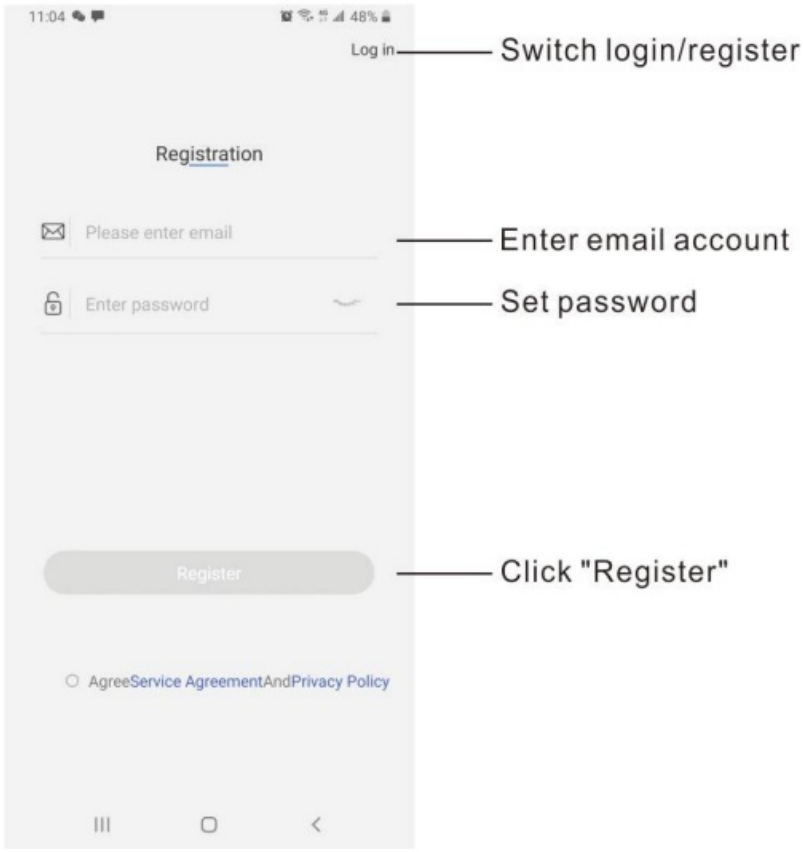
1. Test Leads: electric rating 1000V 10A
2. “K” type thermocouple sensor probe
3. Operator’s MThe above

The above picture and care are not just for your reference. Please besubjecttothe actual products if anything is different or updated. Please please me rming in advance. intelligent Meter

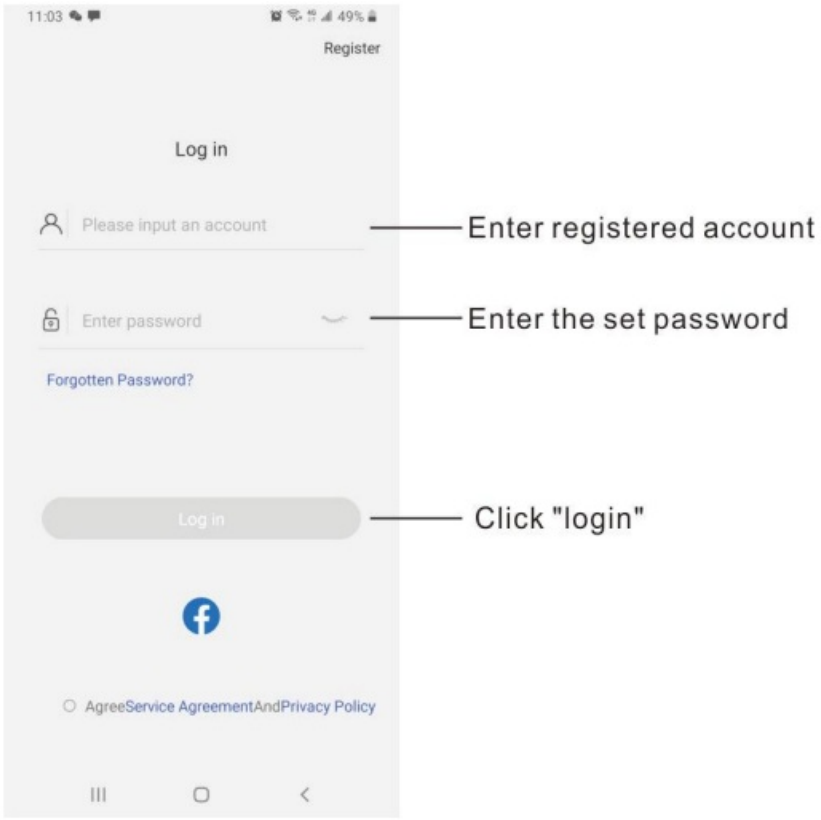
Operation manual
Summary Intelligent Meter is a comprehensive intelligent hardware management platform. Through the Intelligent Meter App, you can complete the convenience between mobile phones and intelligent hardware, and achieve interconnection and intercommunication between devices and users. Intelligent Meter supports multiple types of devices, Such as intelligent insinstrumentsl ectrical insinstrumentsnemometer,d infrared thermometers.

APP download and installation
Scan the below QR code to download a direct search for “Intelligent Meter” in the APP Store, Google Play download and install the “Intelligent Meter”.

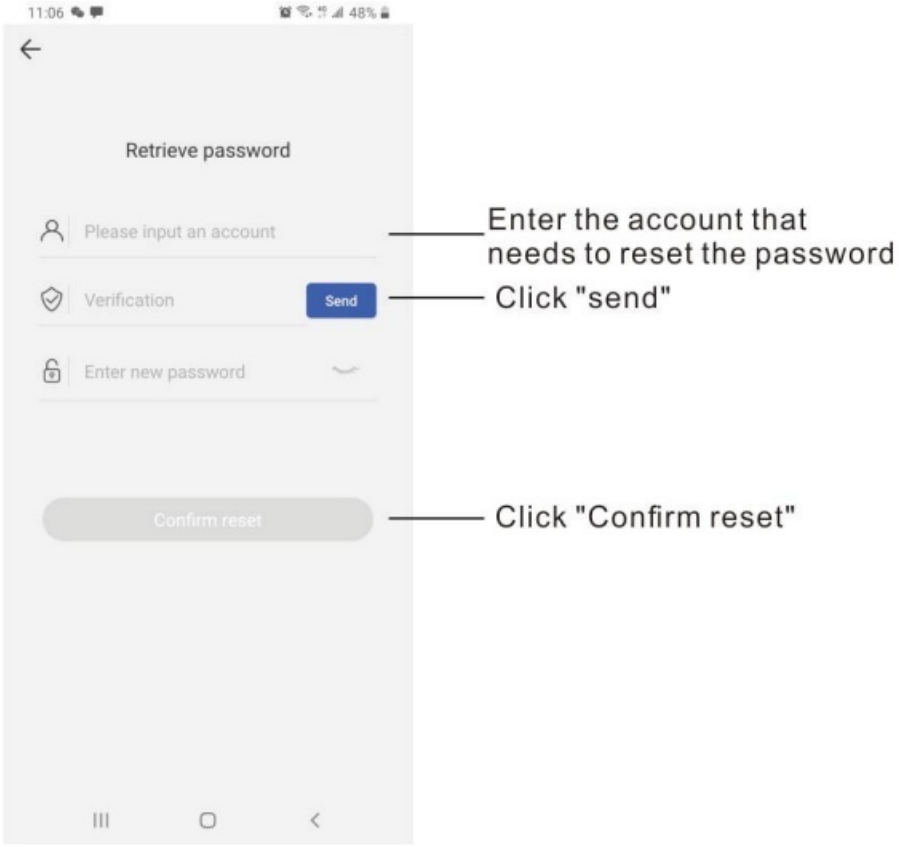
AcRegistrationration
To register an email account, enter the email number and password, and click Register. This account is used for future login.



AcLogin login
Enter the account and password and click login



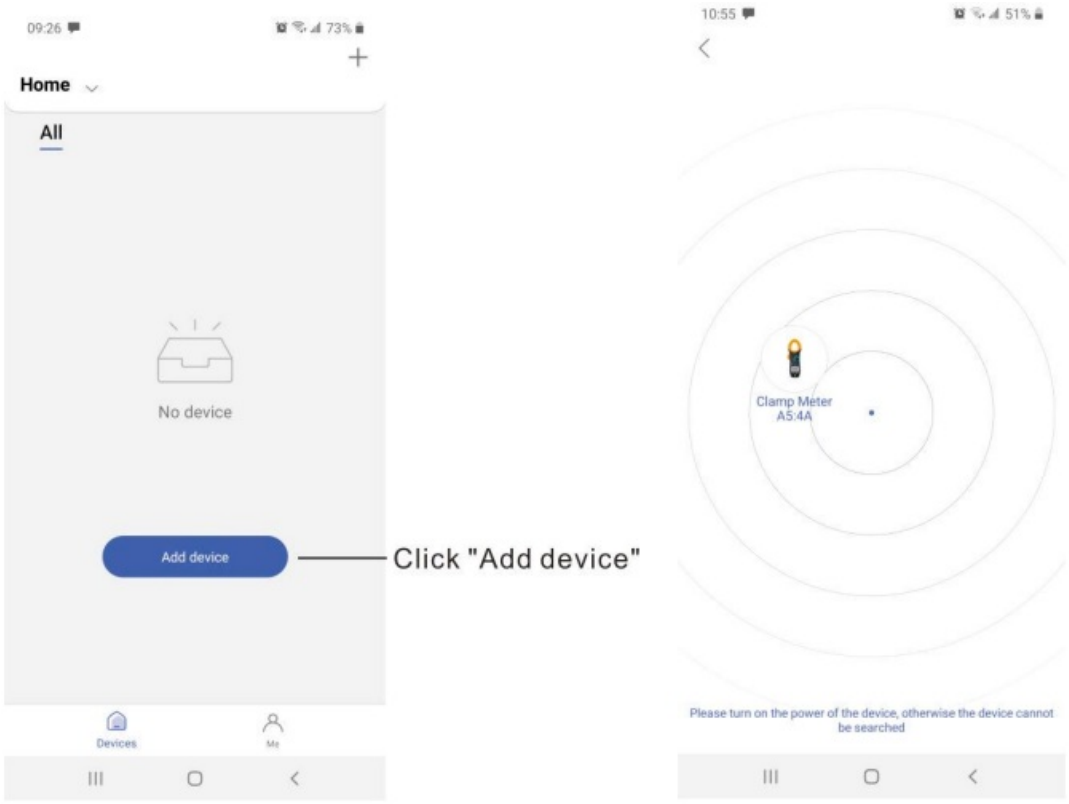
Retrieve password
when the user forgets the login pass the login passwordssword can be reset through this function.



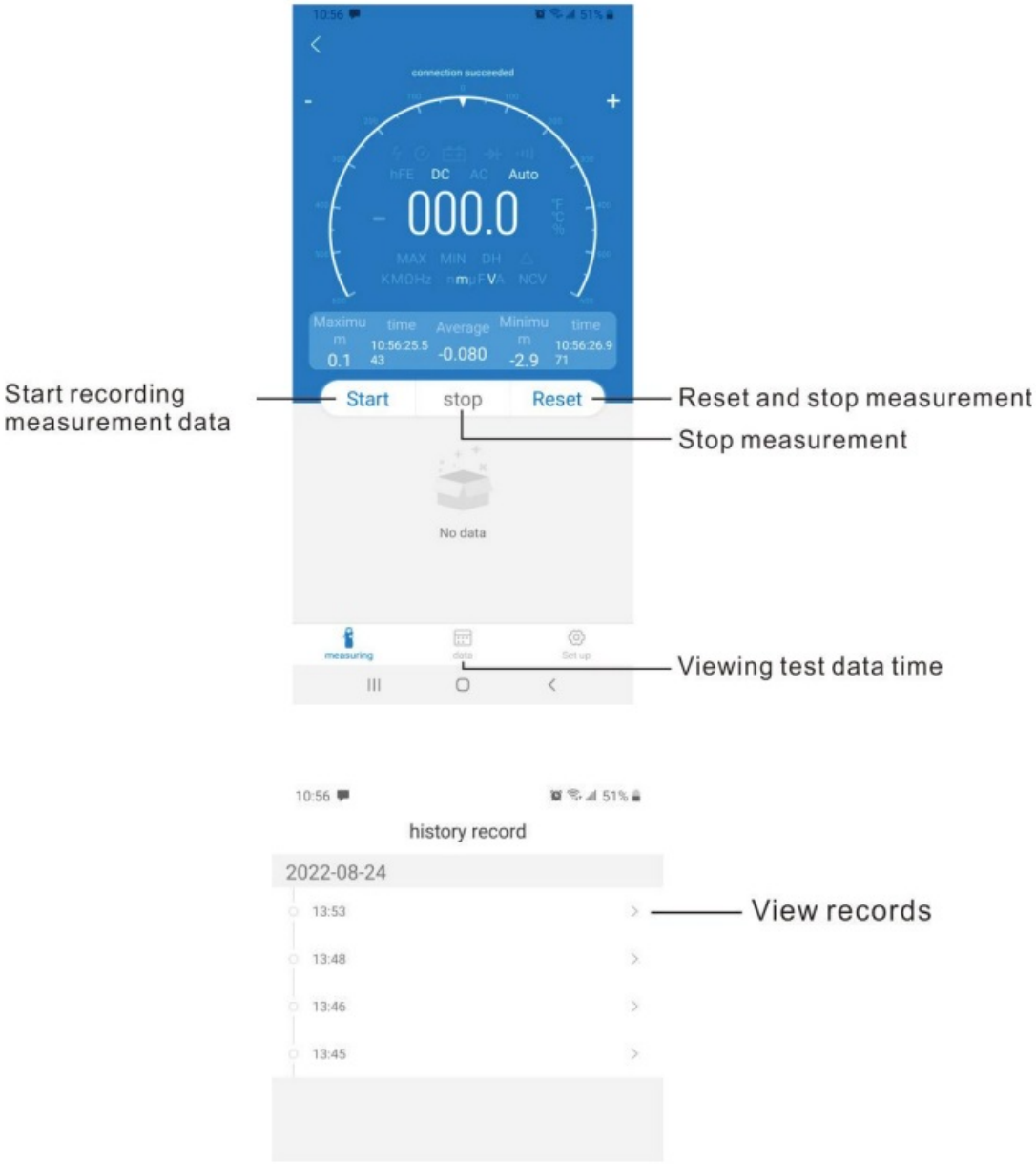
1. Enter the account number to retrieve the password;2) Click the “send” button to send the verification code to the email;
2. Enter the verification code, reset the password “submit reset”, and then you can log in to the app with a new password.
3. Click Add Equipment, select the equipment to be added, and operate according to to instructions to add;
4. Click “start using” to enter the function page.

Add device

Click add equipment, select the equipment to be added, and operate according to the operation instructions to add;

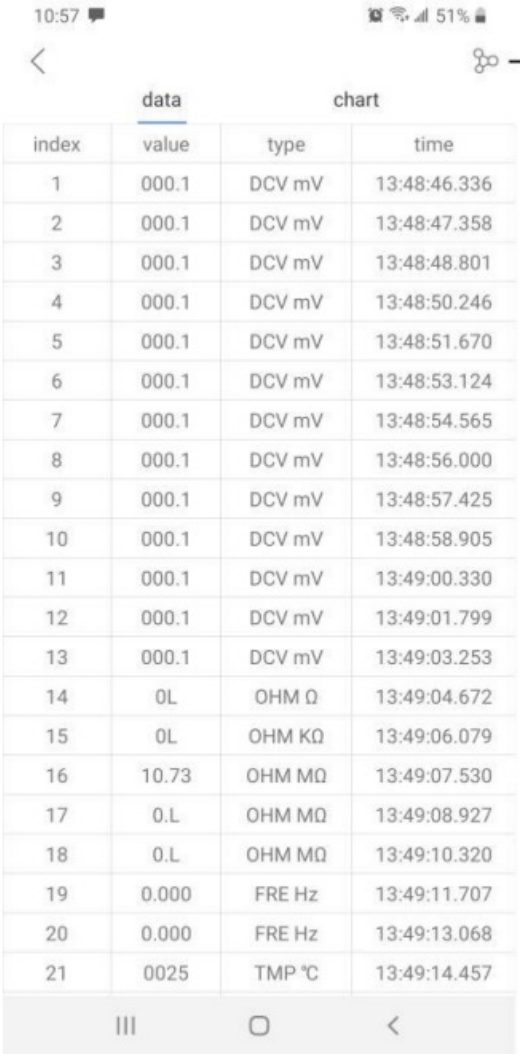


Click “start using” to enter the function page.

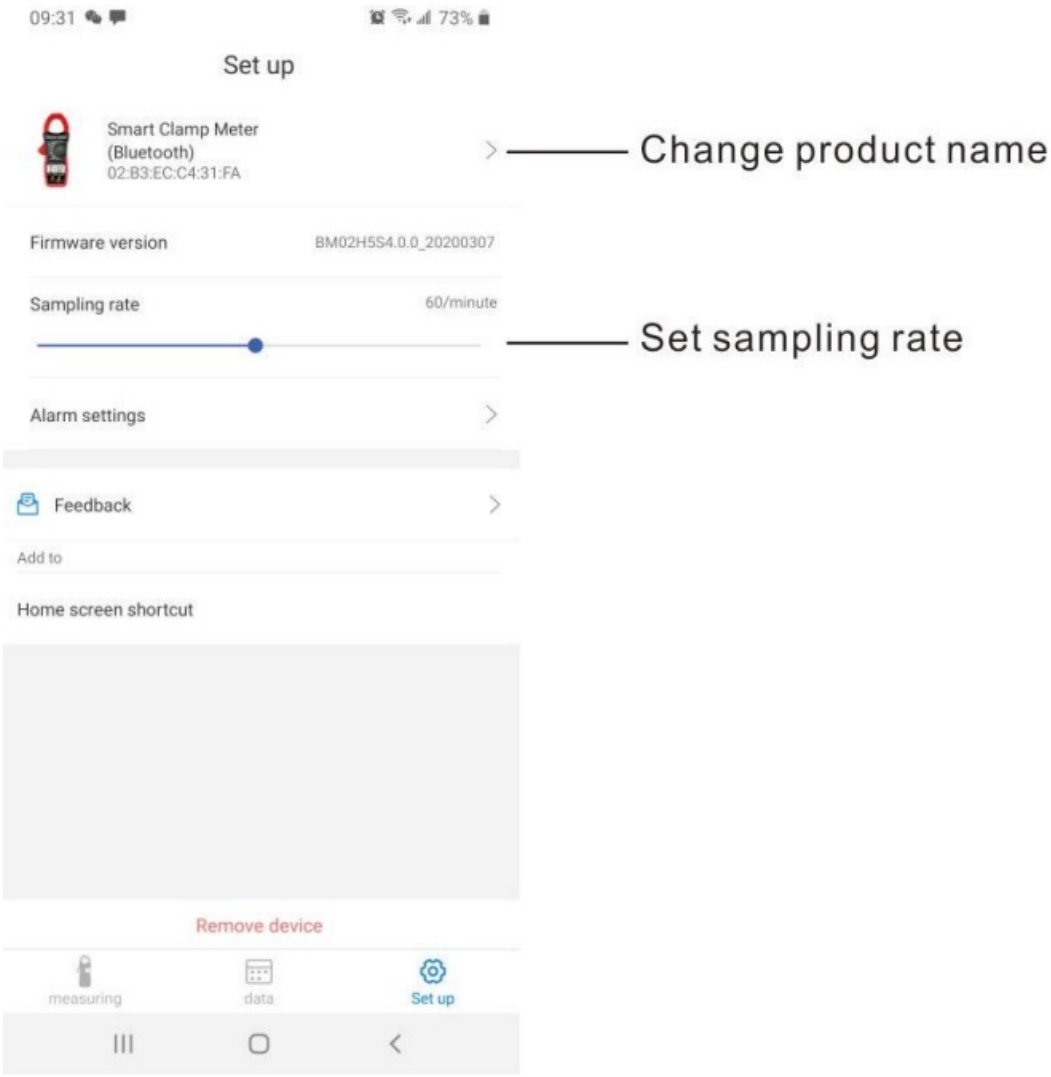


Function

1. The maximum or minimum value and the corresponding time will be displayed on the mobile phone application, and the average value over some time from the start of measurement will also be displayed.
2. Press the “start” key to start recording measurement data, and press the “stop” key to stop recording. Press the “reset” key to reset and stop the measurement, clear the old data and restart the rec..ding.
3. Click the “data” button to view the historical record time and historical record data, and press the button at the upper right corner to share or download data.
4. Click “setting” to enter the setting interface, click the device image change the product name, and send the sample.
5. After using this product, if it has not been used for a long time, it is recommended to take out the battery, both erwise the battery will be concerns e time.



index	value	type	time
1	000.1	DCV mV	13:48:46.336
2	000.1	DCV mV	13:48:47.358
3	000.1	DCV mV	13:48:48.801
4	000.1	DCV mV	13:48:50.246
5	000.1	DCV mV	13:48:51.670
6	000.1	DCV mV	13:48:53.124
7	000.1	DCV mV	13:48:54.565
8	000.1	DCV mV	13:48:56.000
9	000.1	DCV mV	13:48:57.425
10	000.1	DCV mV	13:48:58.905
11	000.1	DCV mV	13:49:00.330
12	000.1	DCV mV	13:49:01.799
13	000.1	DCV mV	13:49:03.253
14	0L	OHM Ω	13:49:04.672
15	0L	OHM KΩ	13:49:06.079
16	10.73	OHM MΩ	13:49:07.530
17	0.L	OHM MΩ	13:49:08.927
18	0.L	OHM MΩ	13:49:10.320
19	0.000	FRE Hz	13:49:11.707
20	0.000	FRE Hz	13:49:13.068
21	0025	TMP ℃	13:49:14.457



CONTACT US

1. For any problem or concern, welcome to email us a response.
2. To make sure you can receive immediate solutions and your requests processed quickly, please see this information.
3. Platform of Your Purchas
4. Full Model Number
5. description of the Problem(Attachingvideosorphotos can help us troubleshoot theproblemsevenfaster)

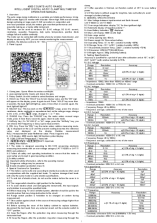
FCC Warning
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, unfunded 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interferenceto radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equator to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radiation Exposure Statement
The device has been evaluated to meet general requirements device can be used in portable exposure condition without restriction.

Documents / Resources

	AOPUTTRIVER 570T-APP 4000 Count Auto Range Intelligent Digital AC/DC Clamp Meter [pdf] Instruction Manual 570T-APP, 2A7T4-570T-APP, 2A7T4570TAPP, 570T-APP 4000 Count Auto Range Intelligent Digital AC DC Clamp Meter, 570T-APP, 4000 Count Auto Range Intelligent Digital AC DC Clamp Meter, Auto Range Intelligent Digital AC DC Clamp Meter, Intelligent Digital AC DC Clamp Meter, Digital AC DC Clamp Meter, AC DC Clamp Meter, Clamp Meter, Meter

References

- User Manual