Digital Multimeter

User Manual

- **B35(T)(+)**
- **D35(T)**
- **B41T(+)**

Note: "T" indicates true RMS (optional)

"+" indicates Multimeter Offline Record function (optional)

For product support, visit:www.owon.com.hk/download

※：The illustrations, interface, icons and characters in the user manual may be slightly different from the actual product. Please refer to the actual product.

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General Warranty

Our company warrants that the product will be free from defects in materials and workmanship for a period of 1 year from the date of purchase of the product by the original purchaser from the our company. This warranty only applies to the original purchaser and is not transferable to the third party, and does not apply to fuses, disposable batteries or to any product which has been misused, altered, neglected or damaged by accident or abnormal conditions of operation or handling.

If the product proves defective during the warranty period, we either will repair the defective product without charge for parts and labor, or will provide a replacement in exchange for the defective product. Parts, modules and replacement products used by us for warranty work may be new or reconditioned like new performance. All replaced parts, modules and products become the property of our company.

In order to obtain service under this warranty, Customer must notify our company of the defect before the expiration of the warranty period. Customer shall be responsible for packaging and shipping the defective product to the service center designated by us, and with a copy of customer proof of purchase.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. We shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than our representatives to install, repair or service the product; b) to repair damage resulting from improper use or connection to incompatible equipment; c) to repair any damage or malfunction caused by the use of non-us supplies; or d) to service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

Please contact the nearest our company Sales and Service Offices for services.

Excepting the after-sales services provided in this summary or the applicable warranty statements, We will not offer any guarantee for maintenance definitely declared or hinted, including but not limited to the implied guarantee for marketability and special-purpose acceptability. We should not take any responsibilities for any indirect, special or consequent damages.

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1. Safety Information

Safety Considerations

Before any operations, please read the following safety precautions to avoid any possible bodily injury and prevent damage to this product or any other products connected. To avoid any contingent danger, use this product only as specified.

- Limit operation to the specified measurement category, voltage, or amperage ratings.
- **Do not use the multimeter if it is damaged.** Before you use the multimeter, inspect the case. Look for cracks or missing plastic. Pay particular attention to the insulation surrounding the connectors.
- **Do not use the test leads provided for other products.** Use only the certified test leads specified for this product.
- Inspect the test leads for damaged insulation or exposed metal.
- Before use, verify the multimeter's operation by measuring a known voltage.
- Only the qualified technicians can implement the maintenance.
- **Always use the specified battery type.** The power for the multimeter is supplied with two standard AA 1.5 V batteries. Observe the correct polarity markings before you insert the batteries to ensure proper insertion of the batteries in the multimeter.
- **Check all Terminal Ratings.** To avoid fire or shock hazard, check all ratings and markers of this product. Refer to the user's manual for more information about ratings before connecting to the multimeter.
- Do not operate the multimeter with the cover or portions of the cover removed or loosened.
- **Use Proper Fuse.** Use only the specified type and rating fuse for the multimeter.
- **Do not operate if in any doubt.** If you suspect damage occurs to the multimeter, have it inspected by qualified service personnel before further operations.
- **To avoid electric shock, do not operate this product in wet or damp conditions.**
- **Do not operate in an explosive atmosphere.**
- **Keep product surfaces clean and dry.**
- Do not apply more than the rated voltage (as marked on the multimeter) between terminals, or between terminal and earth ground.
- When measuring current, turn off the circuit power before connecting the multimeter in the circuit. Remember to place the multimeter in series with the

circuit.

- When servicing the multimeter, use only the specified replacement parts.
- Use caution when working above 60 V DC, 30 V AC RMS, or 42.4 V peak. Such voltages pose a shock hazard.
- When using the test leads, keep your fingers behind the finger guards on the test leads.
- Remove the test leads from the multimeter before you open the battery cover.
- To avoid false readings, which may lead to possible electric shock or personal injury, replace the battery as soon as the low battery indicator  appears and flashes.
- Disconnect circuit power and discharge all high-voltage capacitors before testing resistance, continuity, diodes, or capacitance.
- **Use the proper terminals, function, and range for your measurements.** When the range of the value to be measured is unknown, set the rotary switch position as the highest range, choose the auto ranging mode. To avoid damages to the multimeter, do not exceed the maximum limits of the input values shown in the technical specification tables.
- Connect the common test lead before you connect the live test lead. When you disconnect the leads, disconnect the live test lead first.
- Before changing functions, disconnect the test leads from the circuit under test.

Measurement Category

The multimeter has a safety rating of 1000 V, CAT III.

Measurement category definition

Measurement CAT I applies to measurements performed on circuits not directly connected to the AC mains. Examples are measurements on circuits not derived from the AC mains and specially protected (internal) mains- derived circuits.

Measurement CAT II applies to protect against transients from energy-consuming equipment supplied from the fixed installation, such as TVs, PCs, portable tools, and other household circuits.

Measurement CAT III applies to protect against transients in equipment in fixed equipment installations, such as distribution panels, feeders and short branch circuits, and lighting systems in large buildings.

Measurement CAT IV applies to measurements performed at the source of the low- voltage installation. Examples are electricity meters and measurements on primary over current protection devices and ripple control units.

Safety Terms and Symbols

Safety Terms

Terms in this Manual. The following terms may appear in this manual:

Warning: Warning indicates the conditions or practices that could result in personal injury or death.

Caution: Caution indicates the conditions or practices that could result in damage to this product or other property.

Terms on the Product. The following terms may appear on this product:

Danger: It indicates an injury or hazard may immediately happen.

Warning: It indicates an injury or hazard may be accessible potentially.

Caution: It indicates a potential damage to the instrument or other property might occur.

Safety Symbols

Symbols on the Product. The following symbol may appear on the product:

	Direct current (DC)		Fuse
	Alternating current (AC)		Caution, risk of danger (refer to this manual for specific Warning or Caution information)
	Both direct and alternating current	CAT II	Category II overvoltage protection
	Ground terminal	CAT III	Category III overvoltage protection
CE	Conforms to European Union directives	CAT IV	Category IV overvoltage protection
	Equipment protected throughout by double insulation or reinforced insulation		

2. Quick Start

General Inspection

After you get a new multimeter, make a check on the instrument according to the following steps:

1. **Check whether there is any damage caused by transportation.**

   If it is found that the packaging carton or the foamed plastic protection cushion has suffered serious damage, do not throw it away first till the complete device and its accessories succeed in the electrical and mechanical property tests.

2. **Check the Accessories**

   The supplied accessories have been already described in the *Appendix A: Enclosure* of this Manual. You can check whether there is any loss of accessories with reference to this description. If it is found that there is any accessory lost or damaged, please get in touch with the distributor of our responsible for this service or the our local offices.

3. **Check the Complete Instrument**

   If it is found that there is damage to the appearance of the instrument, or the instrument can not work normally, or fails in the performance test, please get in touch with the our distributor responsible for this business or the ours local offices. If there is damage to the instrument caused by the transportation, please keep the package. With the transportation department or the our distributor responsible for this business informed about it, a repairing or replacement of the instrument will be arranged by us.

Install the Batteries

The multimeter is powered by two 1.5 V AA alkaline batteries.

Warning: To avoid false readings, which could lead to possible electric shock or personal injury, replace the battery as soon as the low battery indicator  **appears.**

Before replacing the battery, turn off the meter, disconnect test leads and any connectors from any circuit under test, remove test leads from the input terminals. Use only the specified battery type.

Use the following procedure to install the batteries.

(1) Ensure that the rotary switch is at the OFF position. Remove test leads and any connectors from the input terminals.

(2) Lift the tilt stand and loosen the screws with a suitable Phillips screwdriver and remove the battery cover.

(3) Observe the battery polarity indicated inside the battery compartment, Insert the batteries.

(4) Place the battery cover back in its original position and tighten the screws.

Caution: To avoid instruments being damage from battery leakage, always remove the batteries and store them separately if the multimeter is not going to be used for a long period.

Adjusting the Tilt Stand

Pull the tilt stand outward to its maximum reach (about 85° to the meter body).

Power On

(1) To power ON the multimeter, turn the rotary switch to any other position except OFF.

(2) To power OFF the multimeter, turn the rotary switch to the OFF position.

Sleep Mode

The multimeter automatically enters the sleep mode if the rotary switch is not moved or a key is not pressed in wait time. The wait time is 15 minutes for B35(T)(+)&D35(T), 30 minutes for B41T(+). (When the Bluetooth is activated, this function is disabled.)

Pressing any key (except △/ᛒ) will turn the multimeter back to operation mode from the sleep mode.

One minute before Auto Power-off, the buzzer will beep five times to warn. Before shutoff, the buzzer will emit a long beep, and then the multimeter will shut off.

Only for B41T(+): To disable the Auto Power-off function, hold down Range . Hz/Duty . Max/Min or △/ᛒ while powering on the multimeter, the multimeter will not shut off automatically.

Note: In sleep mode, the multimeter will still consume a little power. If the multimeter is not going to be used for a long period, the power should be turned off.

Backlight Control

To view the display in low-light conditions, you can activate the LCD backlight by pressing  for more than 2 seconds. The backlight will last for one minute.

Selecting the Range

- Auto ranging is set as default when the meter is powered on, **AUTO** is displayed.
- When auto ranging is enabled, press  to enter the manual range mode.
- In manual range, each additional press of  sets the multimeter to the next higher range, unless it is already in the highest range, at which point the range switches to the lowest range.
- When manual range is enabled, press  for more than 2 seconds to enter the auto ranging mode.

Note: Manual range is not available when measuring capacitance.

Multimeter in Brief

Front panel

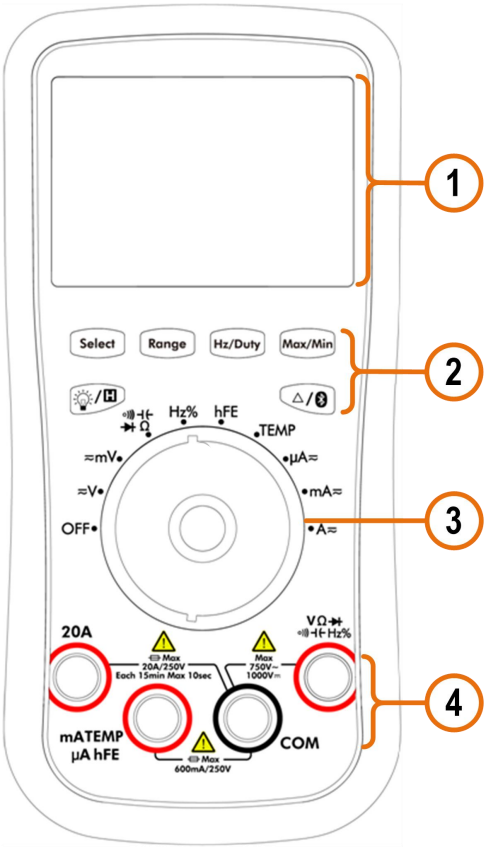


Figure 2- 1 Front panel overview (B35 shown)

No.	Description	Details
①	Display screen	Page 10
②	Keypad	Page 9
③	Rotary switch	Page 8
④	Input terminals	Page 11

Rotary switch

Position	Description	Details
OFF	Power off	Page 6
≂V	DC or AC voltage measurement	Page 14
≂mV	DC or AC voltage measurement (up to 600 millivolts)	
•))) ⊣⊢ ⇻ Ω	Continuity test	Page 15
	Capacitance measurement	Page 15

	Diode test	Page 15
	Resistance measurement	Page 14
Hz%	Frequency measurement	Page 16
hFE	Transistor measurement — Not available on B41T(+)	Page 16
TEMP	Temperature measurement	Page 16
μA≈	DC or AC current measurement (up to 600 microamperes)	Page 17
mA≈	DC or AC current measurement (up to 600 milliamperes)	
A≈	DC or AC current measurement	

Keypad

Key	Description	Details
Select	Select function: ● Select DC or AC ● Select ℃ or ℉ during temperature measurements ● Select Resistance/Diode/Continuity/Capacitance Note: Select Resistance/Diode/Continuity on B41T(+).	
Range	Auto/Manual range	Page 7
Hz/Duty	Select frequency/duty cycle	Page 16
Max/Min	Capturing Max. and Min. Values	Page 18
/H	Backlight	Page 7
	Data Hold	Page 18
△/	Relative Measurements	Page 18
	Bluetooth (only for the model with Bluetooth)	Page 20

Display screen

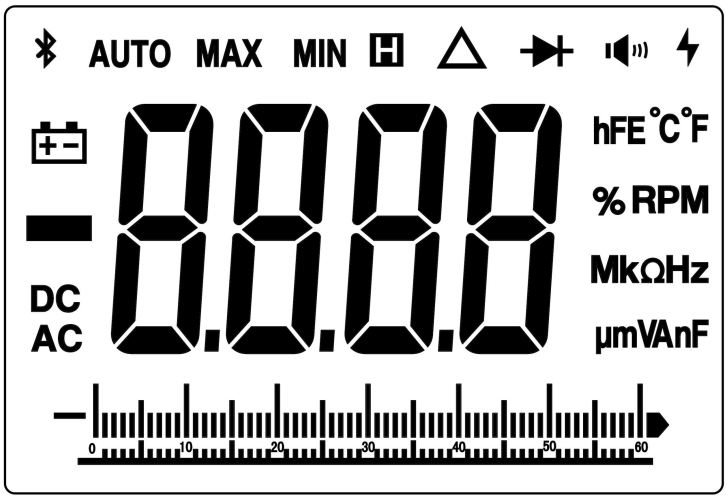
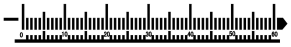


Figure 2- 2 Display screen

Symbol	Description	Details
	Bluetooth enabled	Page 20
AUTO	Auto range	Page 7
MAX	Maximum reading	Page 18
MIN	Minimum reading	
	Data hold enabled	Page 18
	Relative enabled	Page 18
	Diode test selected	Page 15
	Continuity test selected	Page 15
	Battery is low	Page 5
DC	DC	Page 14 and Page 17
AC	AC	
-8.8.8.8	Measurement display ("OL" is short for overload, indicates the reading exceeds the display range)	

hFE °C °F % RPM MkΩHz µmVAnF	Measuring units	Page 11
	Analog bar graph	

Measurement units

Sign	Description	
M	Mega	1E+06 (1000000)
k	kilo	1E+03 (1000)
m	milli	1E–03 (0.001)
µ	micro	1E–06 (0.000001)
n	nano	1E–09 (0.000000001)

Sign	Description	Measurement type
℃	Degree Celsius	Temperature
℉	Degree Fahrenheit	
V	Voltage	Voltage
A	Ampere	Current
Ω	Ohm	Resistance
Hz	Hertz	Frequency
%	Percent,	Duty cycle
F	Farad	Capacitance
hFE	Current Amplification Factor	Transistor

Input terminals

The terminal connections for the different measurement functions of the multimeter are described in the table below.

Warning: Before starting any measurement, observe the rotary switch position of the multimeter, and then connect the test leads to the correct terminals.

Caution: To avoid damaging the multimeter, do not exceed the rated input limit.

Input terminals on 35 series multimeter

Rotary switch position	Input terminals		Overload protection
≈V	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	750 VAC/1000 VDC
≈mV	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	250 VDC or Equivalent voltage RMS
•))) ⊣⊢ ⊳⊢ Ω	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	
Hz%	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	250 VAC or Equivalent voltage RMS
hFE	mATEMP µA hFE	COM	1 A/250 V, fast-acting fuse
TEMP	mATEMP µA hFE	COM	
µA≈	mATEMP µA hFE	COM	
mA≈	mATEMP µA hFE	COM	
A≈	20A	COM	20 A/250 V, fast-acting fuse

Input terminals on B41T(+)

Rotary switch position	Input terminals		Overload protection
≈V	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	750 VAC/1000 VDC
≈mV	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	250 VDC or Equivalent voltage RMS
◦))) ⊳⊢ Ω	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	
Hz%	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	250 VAC or Equivalent voltage RMS
⊣⊢	VΩ⊳⊢ ◦))) ⊣⊢ Hz%	COM	250 VDC or Equivalent voltage RMS
TEMP	mA µA TEMP	COM	1 A/250 V, fast-acting fuse
µA≈	mA µA TEMP	COM	
mA≈	mA µA TEMP	COM	

A≈	**20A**	**COM**	20 A/250 V, fast-acting fuse

3. Making Measurements

Measuring AC or DC Voltage

Warning: Do not measure any voltage of over 1000 Vdc or 750 Vac rms to avoid instrument damage or electric shock.
Do not apply more than 1000 Vdc or 750 Vac rms between the common terminal and the earth ground to avoid instrument damage or electric shock.

This multimeter displays DC voltage values as well as their polarity. Negative DC voltages will display a negative sign on the left of the display.

(1) Rotate the rotary switch to ≈V or ≈mV. Default is DC measurement mode, **DC** will be displayed. Press Select to switch into AC measurement mode, **AC** will be displayed.

(2) Connect the black test lead to the **COM** terminal and the red test lead to the VΩ→|◦))) ⊣⊢ Hz% terminal.

(3) Probe the test points and read the display. Press Range to enable and cycle through the manual ranges.

Measuring Resistance

Caution: To avoid possible damage to your multimeter or to the equipment under test, disconnect the circuit power and discharge all high-voltage capacitors before measuring resistance.

(1) Rotate the rotary switch to •))) ⊣⊢ →| Ω. (Note: To ◦))) →| Ω on B41T(+).)

(2) Connect the black test lead to the **COM** terminal and the red test lead to the VΩ→|◦))) ⊣⊢ Hz% terminal.

(3) Probe the test points and read the display. Press Range to enable and cycle through the manual ranges.

Testing Diodes

Caution: To avoid possible damage to your multimeter or to the equipment under test, disconnect the circuit power and discharge all high-voltage capacitors before testing diodes.

(1) Rotate the rotary switch to . (Note: To on B41T(+).) Press Select once to enter diode testing mode, will be displayed.
(2) Connect the black test lead to the **COM** terminal and the red test lead to the terminal.
(3) Connect the red test lead to the positive terminal (anode) of the diode and the black test lead to the negative terminal (cathode). The cathode of a diode is indicated with a band.
(4) Read the diode forward bias. If the test lead connection is reversed, the multimeter will display "OL".

Testing for Continuity

Caution: To avoid possible damage to your multimeter or to the equipment under test, disconnect the circuit power and discharge all high-voltage capacitors before testing for continuity.

(1) Rotate the rotary switch to . (Note: To on B41T(+).) Press Select twice to enter continuity testing mode, will be displayed.
(2) Connect the black test lead to the **COM** terminal and the red test lead to the terminal.
(3) Probe the test points to measure the resistance in the circuit. If the reading is below 30 Ω, the multimeter will beep continuously.

Measuring Capacitance

Caution: To avoid possible damage to the multimeter or to the equipment under test, disconnect circuit power and discharge all high-voltage capacitors before measuring capacitance. Use the DC voltage function to confirm that the capacitor is fully discharged.

(1) Rotate the rotary switch to . Press Select three times to enter capacitance measuring mode, the Farad units will be displayed.

Note: On B41T(+), rotate the rotary switch to Ω.

(2) Connect the black test lead to the **COM** terminal and the red test lead to the VΩ terminal.

(3) Probe the test points and read the display.

Measuring Frequency

(1) Rotate the rotary switch to Hz%.

(2) Connect the black test lead to the **COM** terminal and the red test lead to the VΩ terminal.

(3) Probe the test points and read the display.

(4) Press Hz/Duty to switch between the frequency and duty cycle measurements.

When measuring AC voltage or AC current, press Hz/Duty to cycle through frequency measuring, duty cycle measuring, and original measuring.

Measuring Transistor — Not available on B41T(+)

Warning: To avoid electrical shock or damage to the instrument, do not apply more than 250Vdc or 250Vac rms between the COM terminal and the mATEMP µA hFE terminal.

(1) Rotate the rotary switch to hFE.

(2) Connect the "**+**" plug of the multi-functional test socket to the mATEMP µA hFE terminal and the "**COM**" plug to the **COM** terminal).

(3) Determine whether the transistor is NPN or PNP type and locate the Emitter, Base and Collector leads. Insert leads of the transistor into the corresponding holes of the multi-functional test socket.

(4) Read the hFE value.

Measuring Temperature

(1) Rotate the rotary switch to TEMP.

(2) Connect the **red connection** of the K-type thermocouple to the mATEMP µA hFE terminal (mA µA TEMP on B41T(+)) and the **black connection** to the **COM**

terminal.

(3) Probe the test points and read the display. Press Select to change the temperature units between ℃ or ℉.

Measuring DC or AC Current

Warning: Never attempt an in-circuit current measurement where the open-circuit potential to earth is greater than 250 V. Doing so will cause damage to the multimeter and possible electric shock or personal injury.

Caution: To avoid possible damage to the multimeter or to the equipment under test, check the multimeter's fuse before measuring current. Use the proper terminals, function, and range for your measurement. Never place the test leads in parallel with any circuit or component when the leads are plugged into the current terminals.

(1) Turn off the power of the measured circuit. Discharge all high- voltage capacitors.

(2) Connect the black test lead to the **COM** terminal. For currents below 600 mA, connect the red test lead to the **mATEMP µA hFE** terminal (**mA µA TEMP** on B41T(+)); for currents within 600 mA – 20 A, connect the red test lead to the **20A** terminal.

(3) Rotate the rotary switch to the appropriate position according to the measurement range, µA≂, mA≂, or A≂.

(4) Disconnect the circuit path to be tested. Connect the black test lead to one side of the circuit (with a lower voltage); connect the red test lead to the other side (with a higher voltage). Reversing the leads will produce a negative reading, but will not damage the multimeter.

(5) Select DC or AC measurement mode. Default is DC measurement mode, **DC** will be displayed. Press Select to switch into AC measurement mode, **AC** will be displayed.

(6) Turn on the power of the measured circuit, and read the display. Press Range to enable and cycle through the manual ranges. If "OL" is displayed, it indicates the input exceeds the selected range and the rotary switch should be set to the position with higher range.

(7) Turn off the power of the measured circuit and discharge all high-voltage capacitors. Remove the test leads and restore the circuit to the original condition.

4. Multimeter Features

Data Hold Mode

(1) Press  to freeze the display during measurement, H will be shown on the display.

(2) Press  again to exit this mode.

Note: This function is not available when measuring diodes and transistor.

Capturing Max. and Min. Values

In MAX mode, the measured maximum value will be held; In MIN mode, the measured minimum value will be held.

(1) Press  to cycle between the MAX mode and MIN mode.

(2) Press  for more than 2 seconds to exit the mode.

In this mode, the manual range mode will be activated automatically. Analog bar graph is not displayed. Auto power-off function is disabled.

Note: This function is not available when measuring diodes, capacitance, transistor, and frequency.

Making Relative Measurements

When making relative measurements, reading is the difference between a stored reference value and the input signal.

(1) Press  to enter the relative mode.

The measurement value when pressing  is stored as the reference value.
In this mode, REL△ (current reading) = input value - reference value.

(2) Press it again to exit the mode.

In relative measurement, the manual range mode will be activated automatically. (The relative measurement should be carried out under a certain range, that is, this function is only available under the manual range mode.) Analog bar graph is not displayed.

Note: This function is not available when measuring diodes, transistor, and frequency.

Buzzer Feature

- Press the function key, the buzzer emits a short beep.
- One minute before Auto Power-off, the buzzer will beep five times to warn. Before shutoff, the buzzer will emit a long beep, and then the multimeter will shut off.
- The buzzer beeps continuously to warn once the measured DC voltage exceeds 1000 V, AC voltage exceeds 750 V, or the voltage in DC/AC mV mode exceeds 600.0 mV. (Only B35T+)
- The buzzer emits a long beep when the short circuit resistance is less than about 30Ω during the continuity test.
- When the Bluetooth function is idle for 10 minutes, the Bluetooth will be turned off automatically. Before turning off, the buzzer will beep twice.

5. Bluetooth Function – only for the model with Bluetooth

Support communications with smart device through Bluetooth. You can use the free application software on the smart devices to monitor the measurements, perform remote control, view trending graphs, etc. The recorded data can be saved as CSV file. The maximum number of record that can be stored depends on the free storage space in your smart device. More than one meters can be connected simultaneously.

Note: Bluetooth connectivity works over a range of about 7 to 8 meters. The work range is much longer in open-sided and non-occluded wide range environment, even up to 20 meters. When the Bluetooth function is idle for 10 minutes, the Bluetooth will be turned off automatically.

Mobile App

How to Connect with Mobile Device

(1) On the mobile device, scan the QR code below and follow the instructions to install the free multimeter app.

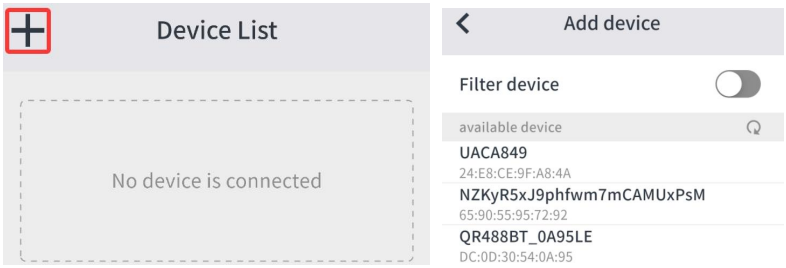
(2) Open the installed application on your mobile device.

(3) Turn on the multimeter, press and hold △/ until appear on the display.

(4) Click on **"Device List"** in the bottom navigation bar.



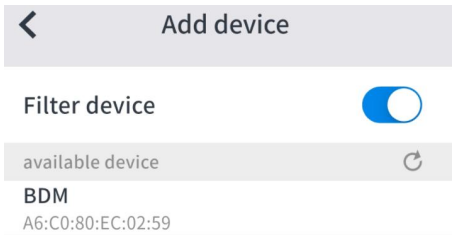
(5) Click the **"+"** icon in the upper left corner to begin searching for devices and list out the multimeters found.



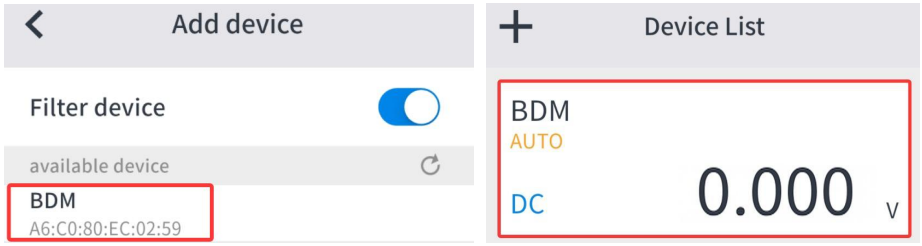
(6) If the Bluetooth of the mobile device is not enabled, a prompt box will pop up at the bottom, indicating **"Bluetooth is not turned on"**. You need to manually open the Bluetooth of the mobile device before connection can be made.



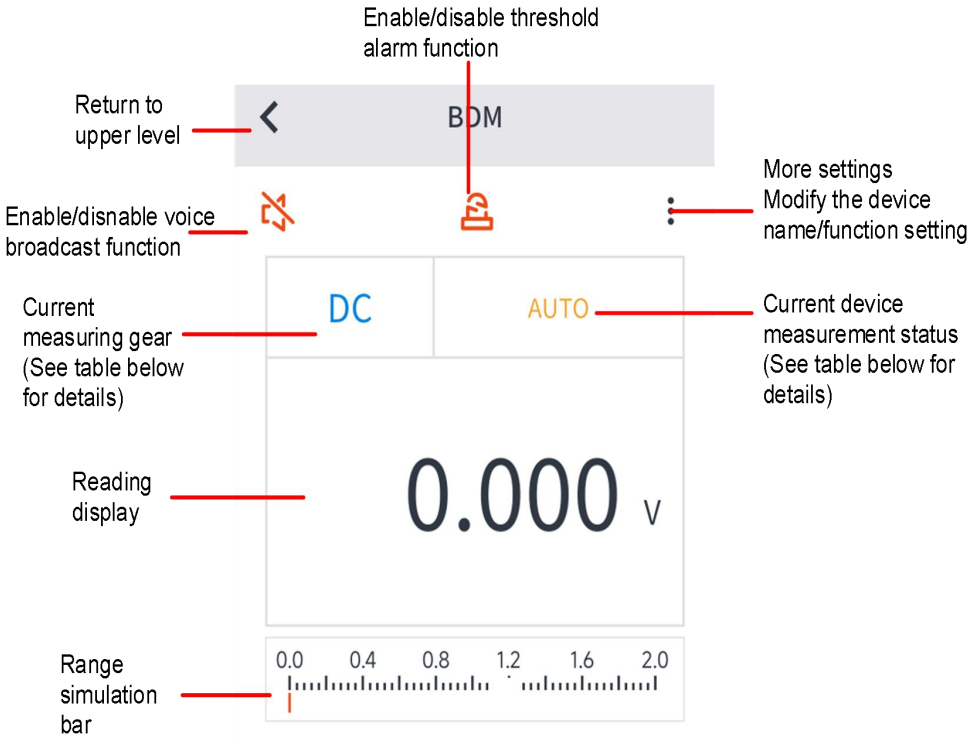
(7) Active **"Filter device"** to hide incompatible multimeters.

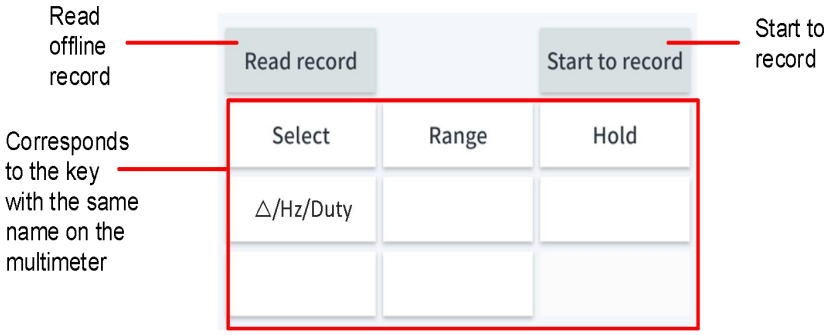


(8) After **"BDM"** appears in the list of available devices, click and select to connect it to the mobile device.



User Interface in Mobile App





Measuring gear comparison table:

Display	Function	Display	Function
DC	DC voltage/current measurement	CAP	Capacitance measurement
AC	AC voltage/current measurement	Hz	Frequency measurement
RES	Resistance measurement	DUTY	Duty cycle measurement
CONT	On-off test	TEMP	Temperature measurement
DIODE	Diode measurement	POWER	Power measurement

Measurement status comparison table:

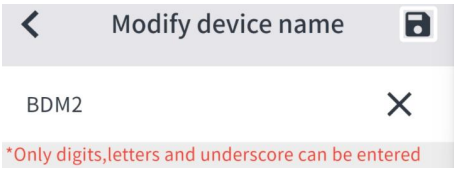
Display	Function	Display	Function
HOLD	Holds or locks the current value	REL	Relative value

AUTO	Automatic measuring range	Bat	Low battery
MAX	Maximum holding	MIN	Minimum holding
RMR	Current value (only B41 model)		

Operations in Mobile App

- ### Customize the meter name

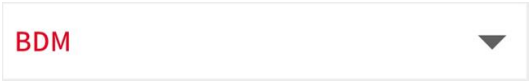
  The device name of meter can be customized.Click the main interface of the device to enter the control screen interface,click on the top right corner " ⋮ ",enter the more settings interface,and then click the **"Modify device name"** , you can enter the rename device interface.You can input the customized name, click "💾" to finish the setting, this name will be memorized in the device. If this meter is connected to the same device next time, the customized name will be shown. If this meter is connected to another device, the name is still the default one or the customized name to the connected device.



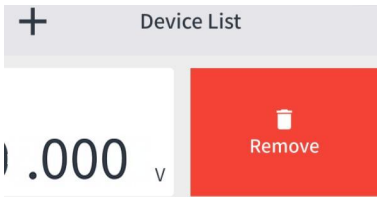
- **Add meter**:Click the **"+"** icon in the upper left corner to begin searching for devices and list out the multimeters found.



- **Select meter**:Under the Data Chart interface,click the drop-down box to select the multimeter for reading.



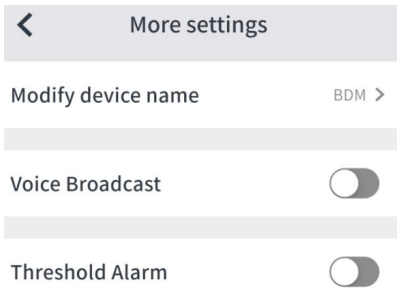
- **Disconnect meter**: In the list of devices, select the multimeter you want to disconnect, and swipe left after touching your finger. Click the **"Remove"** button that slides out.Click on **"OK"** in the pop-up prompt to disconnect the multimeter.



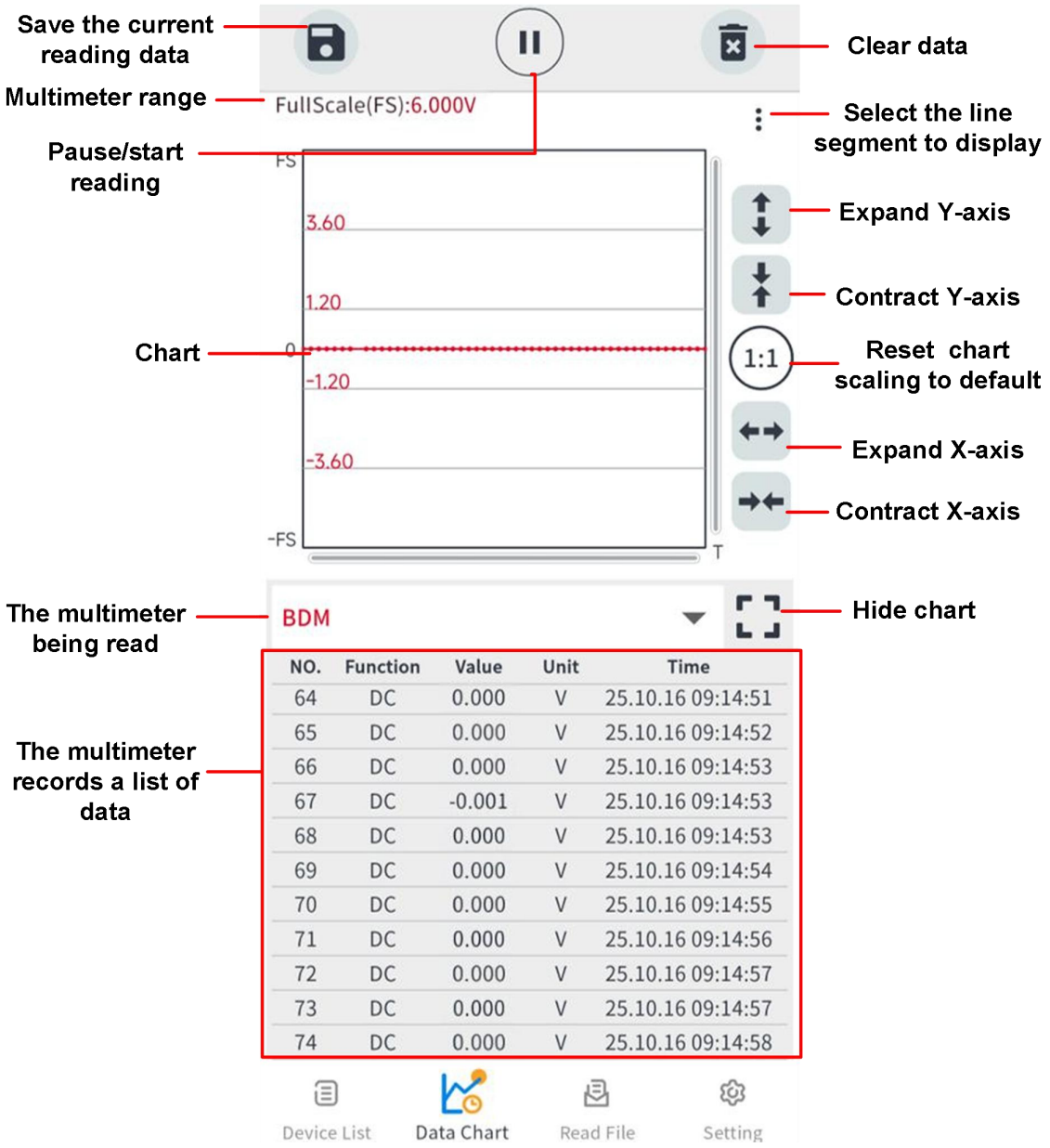


- **Remote Control**: In single view, the control softkeys just as press the corresponding keys of multimeter.
- **Voice out function**

  Click the shortcut key at the top of the control interface to turn on or off the voice broadcast .Click on the upper right corner of the control interface "⋮", to enter more settings, click on **"Voice Broadcast"** switch ,turn on or off the function.



- **Data Graph and Table**: Click **“Data Chart ”** to enter the chart interface.



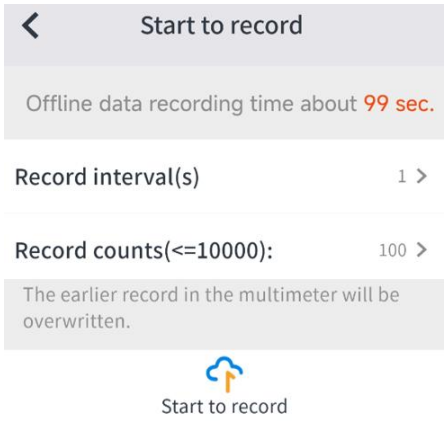
Multimeter Offline Record

When measuring with instrument, you can use mobile device APP to send a command, the multimeter will start recording the measurements. After receiving the command, the connection will be disconnected automatically. The multimeter will record the measuring data in its own memory. After completion of the record, use APP to reconnect the multimeter, and then you can read the measuring data into the Mobile device as a CSV file. You can use this function to record for a long time without staff on duty, while reducing Bluetooth consumption to conserve the battery power of the multimeter.

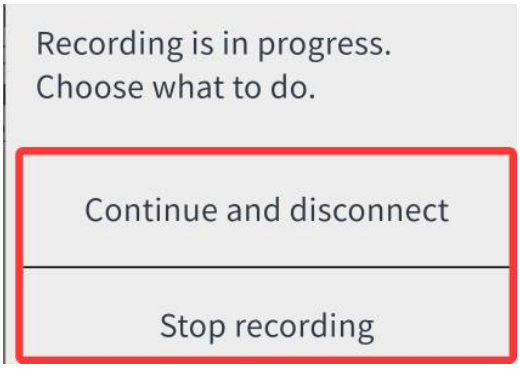
Note: When the low battery indicator appears on the meter screen, the offline record function may not work correctly. Please check the batteries of the meter to ensure them in a good state.

(1) Connect the Mobile device with the multimeter, see "*How to Connect with Mobile Device*" on P20.

(2) In APP view, tap on the "Start to record" icon on the lower right, enter the read record interface.On the interface click on "Start to record".



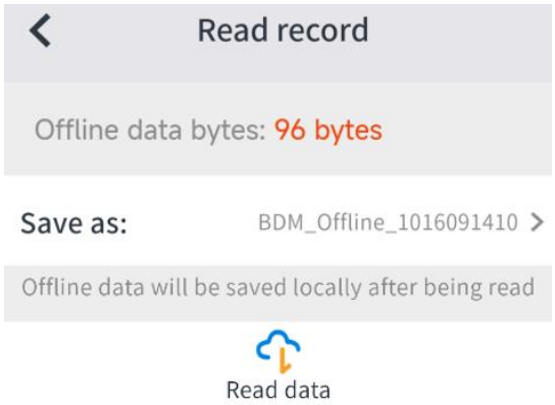
(3) Set "Record interval" and "Records count" (maximum records count is 10,000). Tap on Start to record . The memory in the multimeter can only store the recording data of one time . When start to record, the earlier offline record stored in the multimeter will be overwritten.
The mobile device will disconnect with the multimeter in two seconds. After disconnecting, the information "**BDM disconnected.**" will be shown on APP. The multimeter will record the current measurements and store in the memory.
Note: If the multimeter is in the process of recording data and not finished yet, connect the Mobile device and the multimeter, a dialog box will pop up:



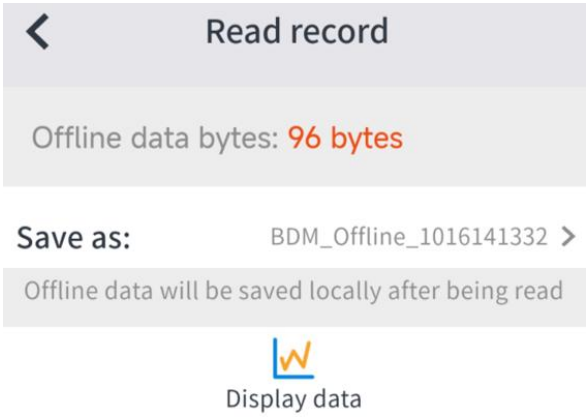
Select "Stop recording", the recording process will be interrupted. The Mobile device will connect with the multimeter to read data.
Select "Continue and disconnect", the multimeter will continue recording, the connection will be aborted.

(4) After completion of the record, to read the measuring data, reconnect the mobile device and the multimeter.

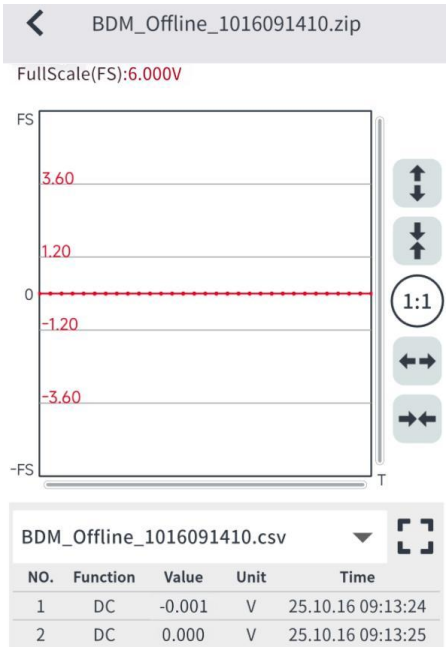
(5) In APP view, tap on the Read record icon on the lower left, enter the read record interface,under the interface click on the "Read data",can start to read data.



(6) Tap on Read record, APP will read the measuring data and save as a CSV file into the Mobile device. After reading, display as below:



(7) Tap on Display data, the data will be displayed in Data Graph and Table interface.



6. To Connect With Computer – only for B35+, B35T+ or B41T+

To connect the multimeter to a computer, a **Bluetooth USB dongle** should be plugged into the USB port of computer.

- Use only the Bluetooth USB dongle (optional) supplied with the product.
- The computer must be running the **Windows** operating system (Windows 10, Windows 8, Windows 7, Windows Vista, Windows XP).

By communications with a computer through Bluetooth, you can use the free multimeterBLE software on computer to monitor the measurements, perform remote control, view trending graphs, etc. The recorded data can be saved as CSV file. The maximum number of record that can be stored depends on the free storage space in your smart device. Up to three multimeters can be connected simultaneously.

Note: Bluetooth connectivity works over a range of about 7 to 8 meters. The work range is much longer in open-sided and non-occluded wide range environment, even up to 20 meters. When the Bluetooth function is idle for 10 minutes, the Bluetooth will be turned off automatically.

How to install App

You can get the installation package from our official website and download it to your computer.

Device list

Connecting multimeters

Connect the multimeter to the PC app to receive readings.
Note: When the multimeter restarts or shuts down, it needs to be reconnected.
There are two ways to connect.

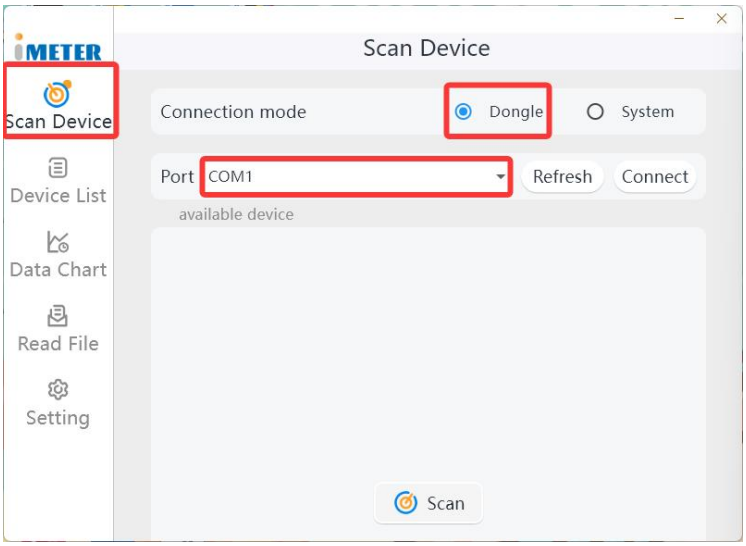
Method 1:

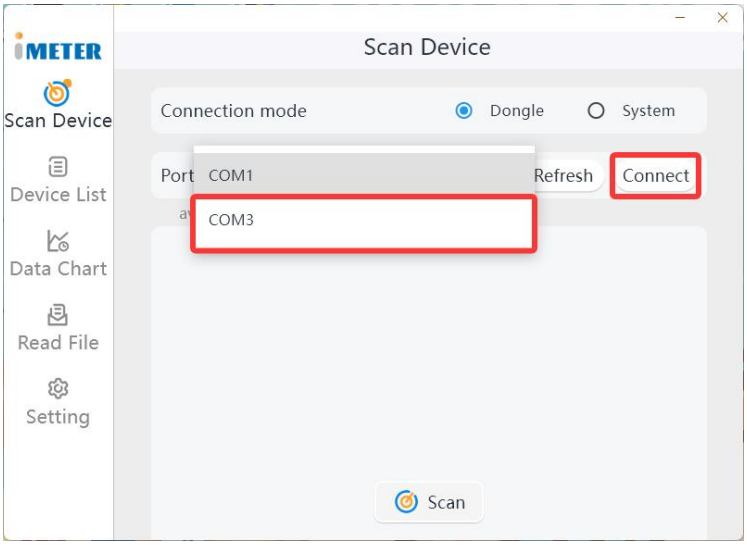
1、Insert the Bluetooth module into the computer terminal device.
2、Turn on the multimeter.
3、On the multimeter, press and hold the button with a Bluetooth identifier until the Bluetooth icon " " is displayed on the multimeter screen.
4、Open the iMeter APP on your PC device.
5、Click on "**Scan Device"** in the left navigation bar.
6、In the connection mode, click on "**Dongle**".



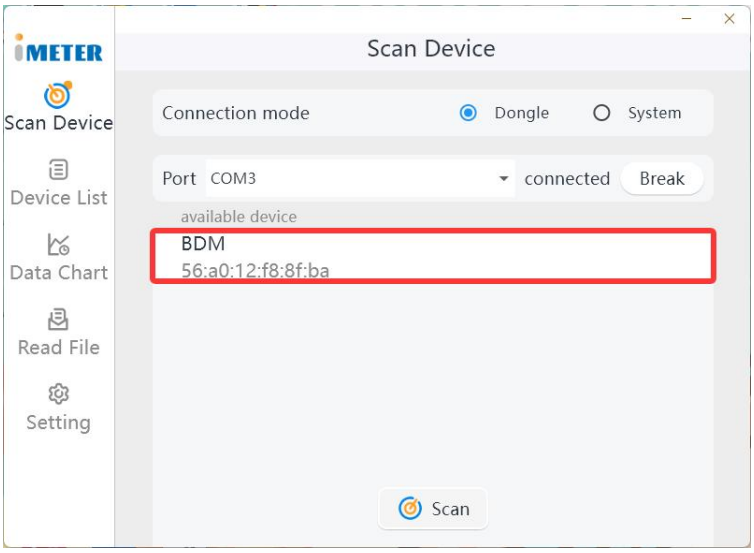
7、Click on the right screen " 

",switch to the port of the Bluetooth module.If the port is not updated, click **"Refresh"** to update the port.After selecting the corresponding port, click **"Connect"** to complete the switch of port.



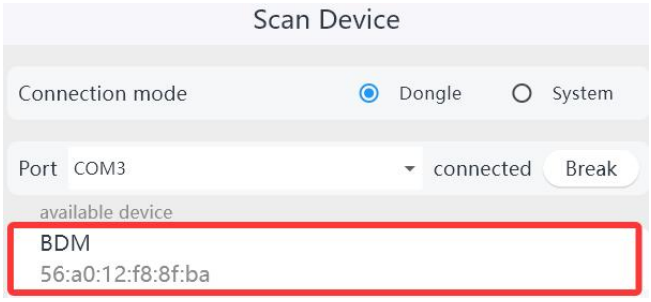


8、Click **"Scan"** at the bottom to display available devices.



9、Click the found multimeter to connect it to your PC device.

- After successful connection, the multimeter reading appears in the PC app.





Method 2:

1、When your computer does not have Bluetooth functionality, please insert a Bluetooth expansion module.

2、Turn on the multimeter.

3、On the multimeter, press and hold the button with a Bluetooth identifier until the Bluetooth icon " " is displayed on the multimeter screen.

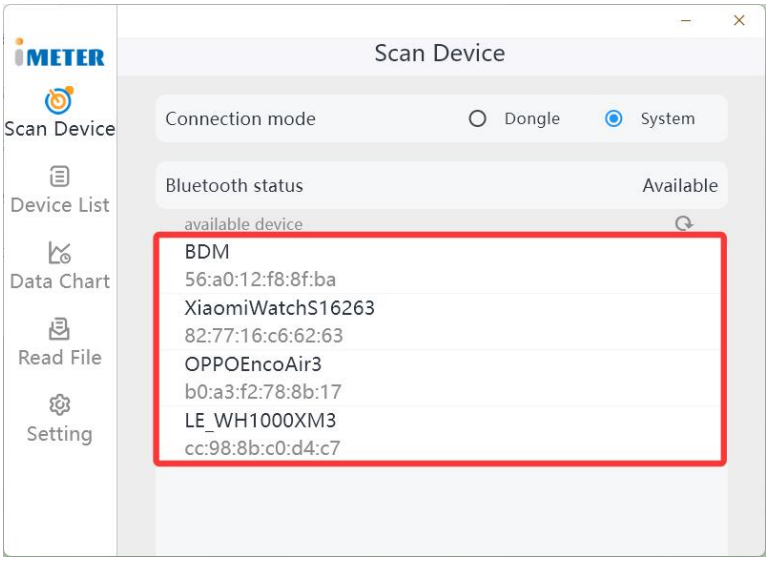
4、Open the iMeter APP on your PC device.

5、Click on "**Scan Device"** in the left navigation bar.

6、In the connection mode, click on "**System**".

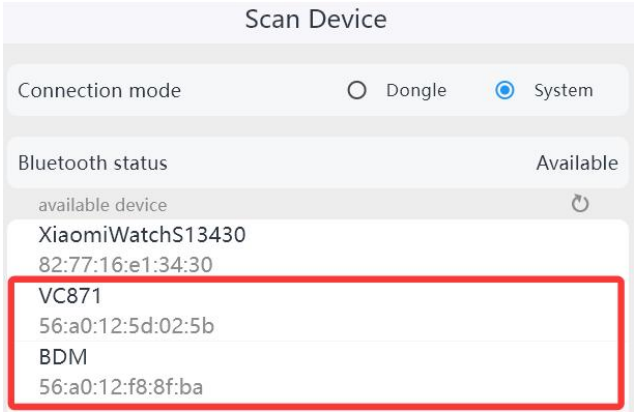


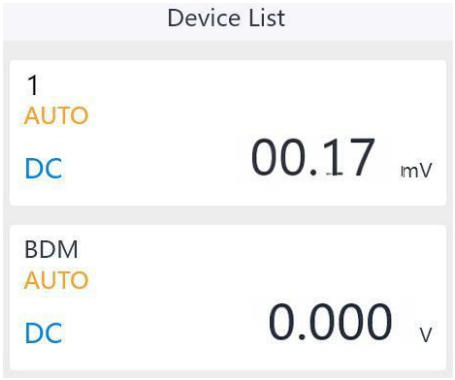
7、Click **"Scan"** at the bottom to display available devices.



8、Click the found multimeter to connect it to your PC device.

- After successful connection, the multimeter reading appears in the PC app.

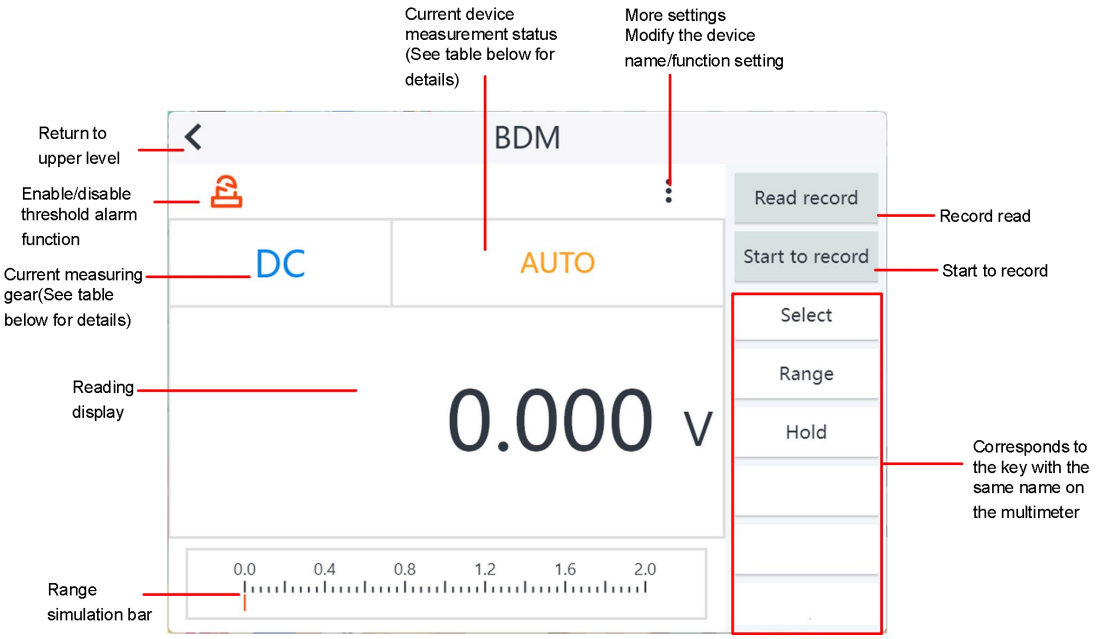




Multimeter controls

1、Click on **"Device List"** in the left navigation bar.

2、Click the device you want to control in the list to enter the multimeter control interface.



Measuring gear comparison table:

Display	Function	Display	Function
DC	DC voltage/current measurement	CAP	Capacitance measurement
AC	AC voltage/current measurement	Hz	Frequency measurement
RES	Resistance measurement	DUTY	Duty cycle measurement
CONT	On-off test	TEMP	Temperature measurement
DIODE	Diode measurement	POWER	Power measurement

Measurement status comparison table:

Display	Function	Display	Function
HOLD	Holds or locks the current value	REL	Relative value
AUTO	Automatic measuring range	Bat	Low battery
MAX	Maximum holding	MIN	Minimum holding
RMR	Current value		

Naming multimeter

Users can customize the display name of the multimeter on the current device.After the modification, the new device name will be displayed when all host computers are connected.

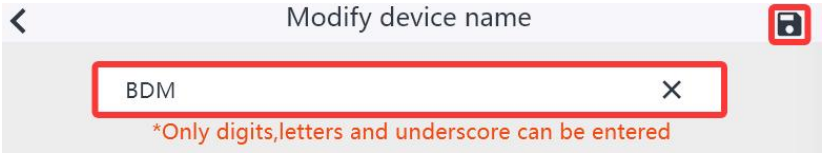
1、Click on **"Device List"** in the left navigation bar.

2、Click the multimeter you want to rename and enter its control interface.

3、Click on the upper right corner of the control interface " ⋮ ", to enter more settings.

4、Click **"Modify device name"** and enter a new name.

5、Click on the save icon " " in the upper right corner of the interface to permanently assign the new name to the multimeter.



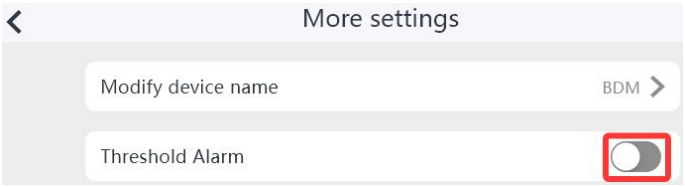
Setting threshold alarm

The threshold alarm function is used to monitor and alarm abnormal measurement readings.Users can set the range and alarm mode for each connected multimeter device.

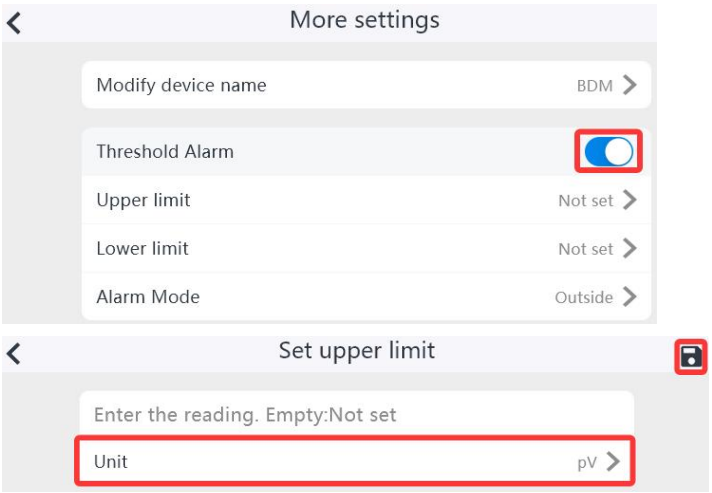
When this function is enabled, the program monitors whether the readings of the corresponding multimeter are within the set range (or outside the range, depending on the alarm mode). If it exceeds the range, an alarm will be triggered. Alarm effect includes alarm sound, and measurement reading text will flash on the interface (including device control interface and device list interface).

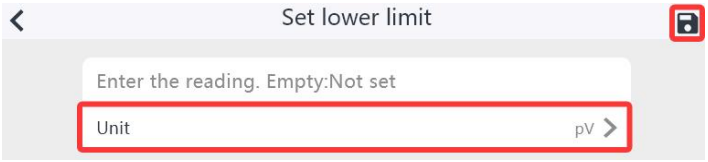
1、Click the shortcut key at the upper of the control interface to turn the threshold alarm on or off.

2、Click on the upper right corner of the control interface screen " ", click the **"Threshold Alarm"** switch ,turn threshold alarms on or off.



3、Set the upper and lower range limits.Click the **upper/lower** limit setting item in the settings list to set the threshold alarm range.Click **"** **"** button to save entries.





1、Click on**"Alarm Mode"**and select a range condition：

- **"Within":** sound alarm if reading falls within the lower and upper limit；
- **"Without":** sound alarm if reading falls outside the upper or lower limit.

After selecting,click on**"Save"**,the range condition is set.

Description：The upper and lower limits can be set separately without setting both conditions. Here is an example：

Set the upper limits to 1V, the alarm mode is Without: The alarm is triggered when the reading is greater than 1V, and the alarm is not triggered when the reading is less than or equal to 1V;

Set the upper limits to 1V, the alarm mode is Within: The alarm is triggered when the reading is less than 1V, and the alarm is not triggered when the reading is greater than or equal to 1V;

Set the lower limits to 1V, the alarm mode is Without: The alarm is triggered when the reading is less than 1V, and the alarm is not triggered when the reading is greater than or equal to 1V;

Set the lower limits to 1V, the alarm mode is Within: The alarm is triggered when the reading is greater than 1V, and the alarm is not triggered when the reading is less than or equal to 1V.

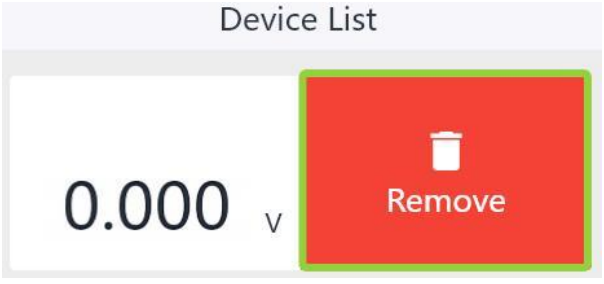


You have set and enabled the threshold alarm and it remains activated until you disabled it or the device is disconnected.

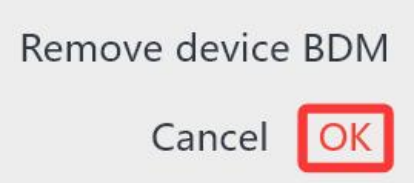
Delete multimeters

1、Click on **"Device List"** in the left navigation bar.

2、In the list of devices, select the multimeter you want to disconnect,hold down the mouse and slide to the left.Click the **"Remove"** button that slides ou.



3、Click on **"OK"** in the pop-up prompt to disconnect the multimeter.

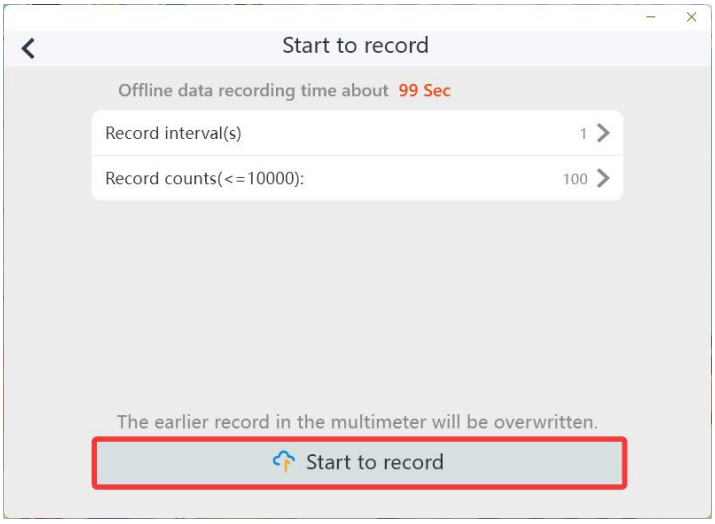


Recording offline reading

You can record offline readings on the multimeter while the multimeter is disconnected from the PC app.After recording,you can reconnect the multimeter to the PC device and import records into the PC.
Note: If recording is in progress, the multimeter will be disconnected from the computer terminal,you cannot connect the multimeter to the PC app until recording stops.

Start offline recording

1、Click on **"Device List"** in the left navigation bar.
2、Select the multimeter that you want to record the offline readings and enter the device control interface.
3、Click on **"Start to record"**,enter the offline recording configure interface.
4、Click on **"Record interval(s)"**,click on the right **>**,enter the recording interval time in seconds in the popped-up input box.
5、Click on **"Record counts(<=10000)"**,click on the right **>**,enter the number of records to be written in the popped-up input box.
6、Click **"Start to record"** at the bottom to start recording offline measurement data.
Note: When the offline recording starts, the connection between the multimeter and the computer terminal will be disconnected.

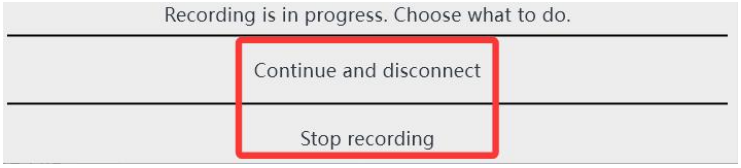


Stop offline recording

There are two ways to stop offline recording：

- Stop offline recording by turning off the multimeter;

- After the multimeter and the computer terminal are connected,if the current multimeter is still recording offline, the PC application will pop up a reminder window that the current multimeter is recording offline.The prompt window has two options, **"Continue and disconnect"** and **"Stop recording"**, as shown below.



Read offline recording

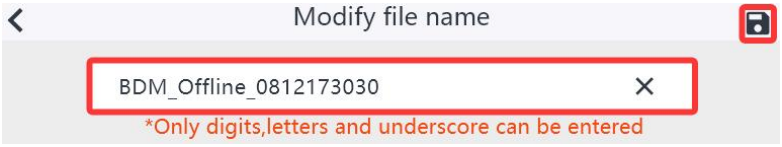
After offline recording completes,you can transfer the readings from the multimeter to the PC app for viewing and storage.

1、Reconnect the multimeter that has recorded offline data to the PC app.

2、On the screen **"Device List"**,click on the multimeter to open its controls screen.

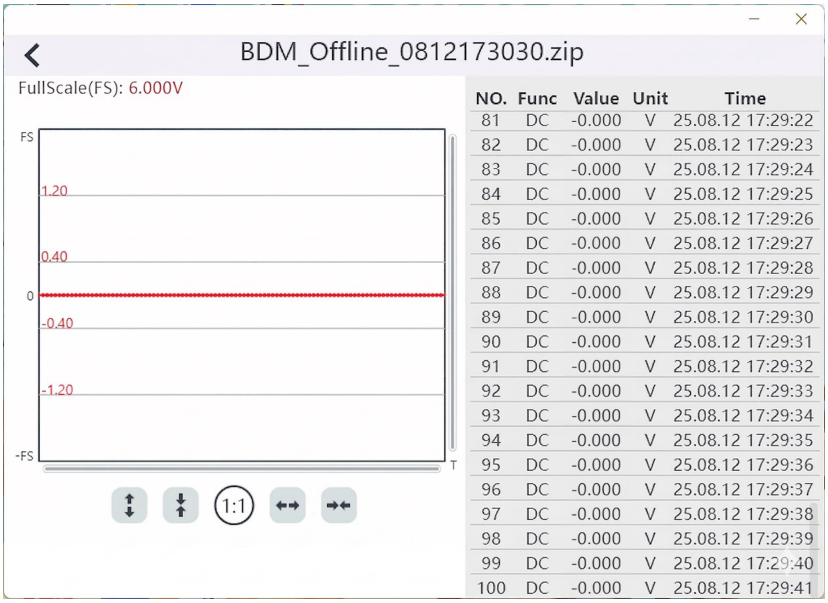
3、Click on **"Record read"** to open the offline record interface.

4、In the reading offline record interface,click on **"Save as:"** can change the file name.Click "" icon in the upper right corner to save the new name.



5、At the bottom of offline record interface,click on **"Read data"** will transfer the records to the PC app.

6、At the bottom of offline record interface,click on **"Display Chart"** to chart the recordings.

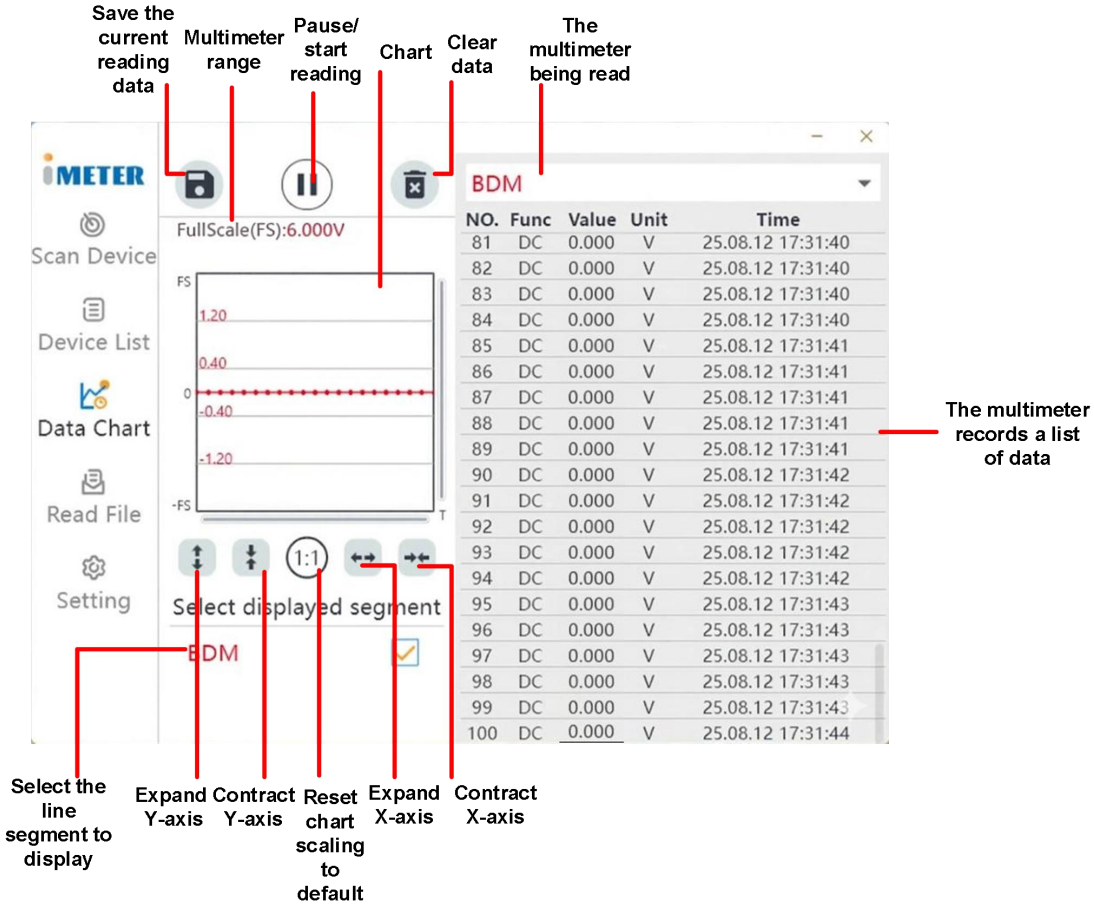


Data chart

With the charting function,you can chart and tabulate readings.You can chart online readings(under **"Data Chart"**) or recorded readings(under **"Read File"**).

Chart view

1、Click on **"Data Chart"** in the left navigation bar to open the online charting interface.



2、The full scale on the chart is set according to the measuring range of the current multimeter. The following pictures all measure about 5 volts, but the scale of the drawing will be different under different ranges.

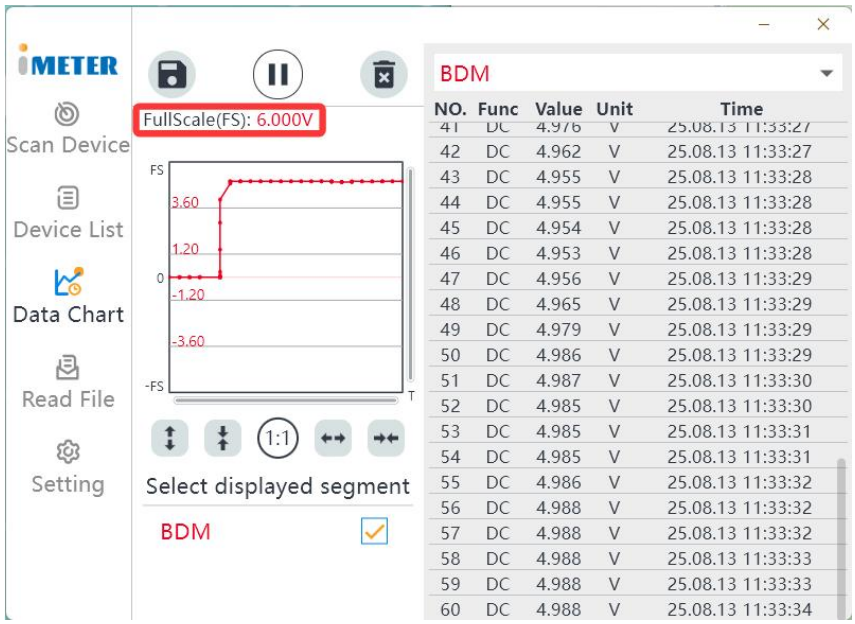


Figure 1

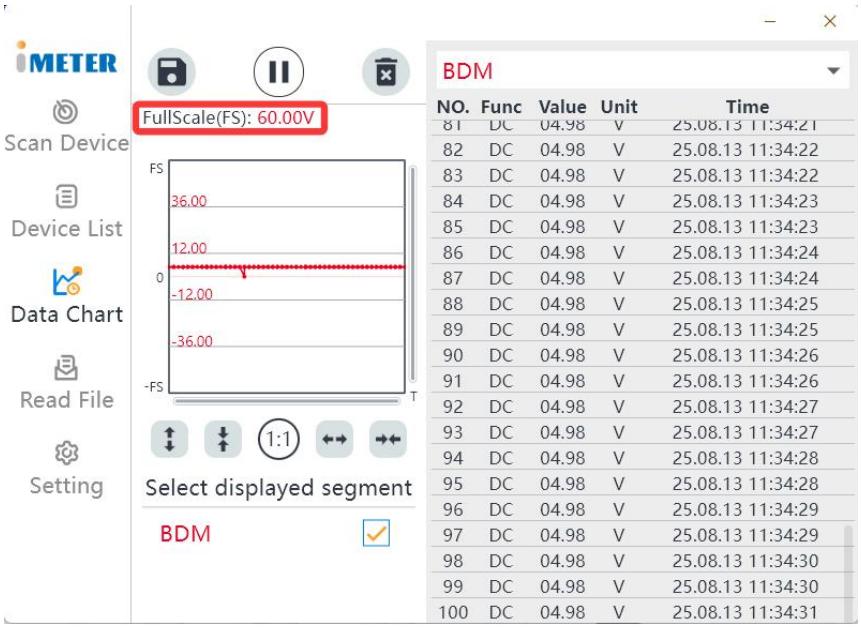


Figure 2

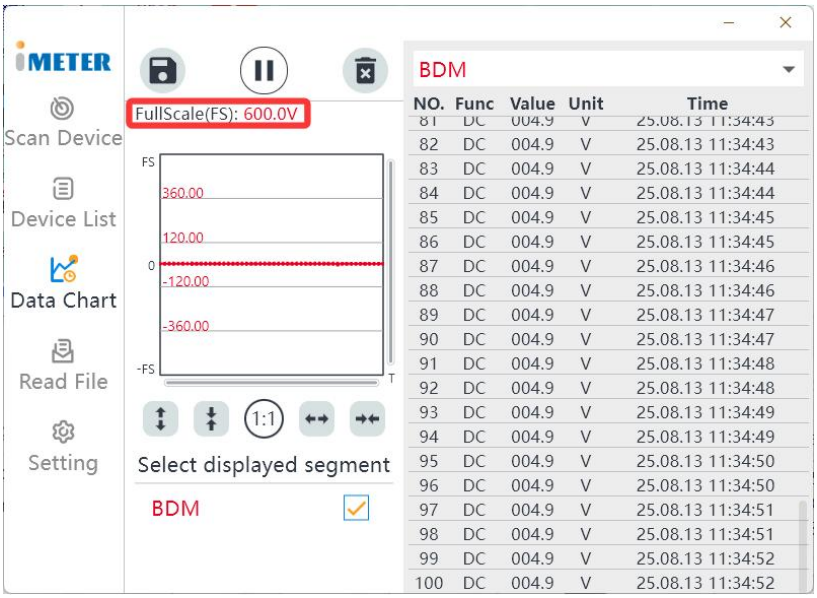


Figure 3

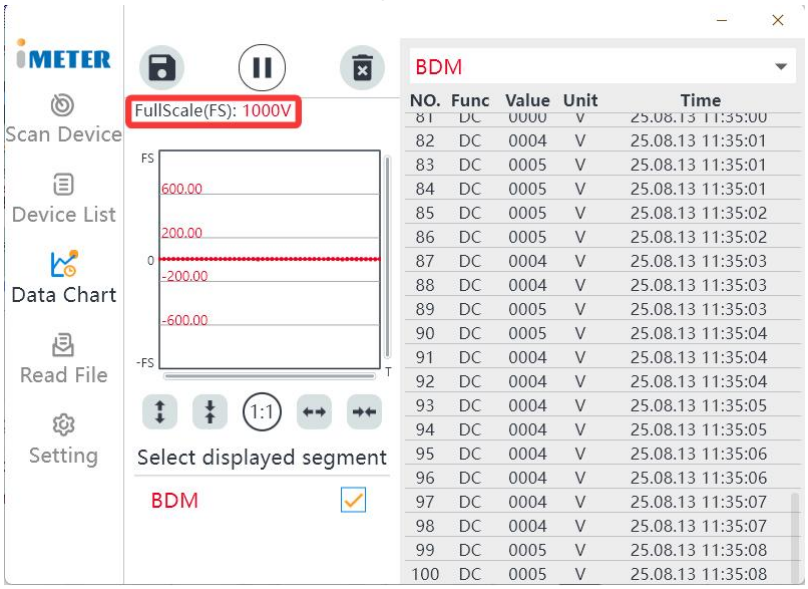


Figure 4

Note: In the example,demonstration with 6000 reading multimeter.Observe the position of the decimal point following the reading after FullScale at the top, as well as the position of the decimal point in the reading table below..

- Figure 1：The reading is 4.988V,the decimal point comes before the second place in the reading. Adding a decimal to the second digit of 6000 gives a full scale of 6.000V.
- Figure 2：The reading is 04.98V. Adding a decimal to the third digit of 6000 gives a full scale of 60.00V.
- Figure 3：The reading is 004.9V. Adding a decimal to the four digit of 6000 gives a full scale of 600.0V.
- Figure 4：The reading is 0004V, there's no decimal point. In this case, the full scale value should be 6000. However, the multimeter used in this example can only measure up to 1000V at most, so the full scale is shown as 1000V.

(1) To display the appropriate line chart on the chart, it is necessary to select the

appropriate measurement range or select the automatic range.For example,if 12V voltage is to be measured, a range of 60.00V should be selected to ensure proper scaling of the chart.

(2) The range shown on the chart is determined based on the maximum range measured in the record.For example,if 2.000V is initially measured, the full scale on the chart will be 6.000V.If the subsequent measurement of 12.00V exceeds the 6.000V range, the range is automatically changed to 60.00V.If a larger voltage is measured later, the multimeter automatically switches to a larger range when the measurement exceeds the current range.

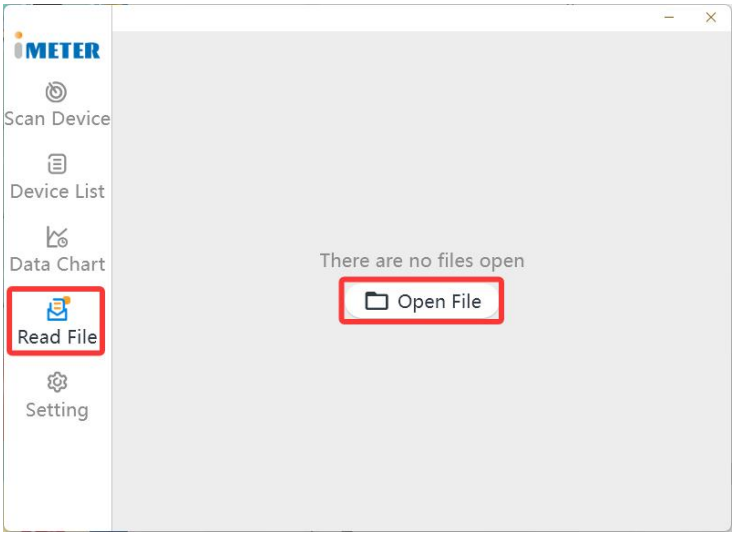
(3) If you have finished measuring the higher voltage and now want to measure the lower voltage and reset the range of the chart to a smaller value, you can click the delete icon " " in the upper right corner to clear the previously recorded data.When the instrument receives new data with smaller measurements, the range is adjusted accordingly.

Read file

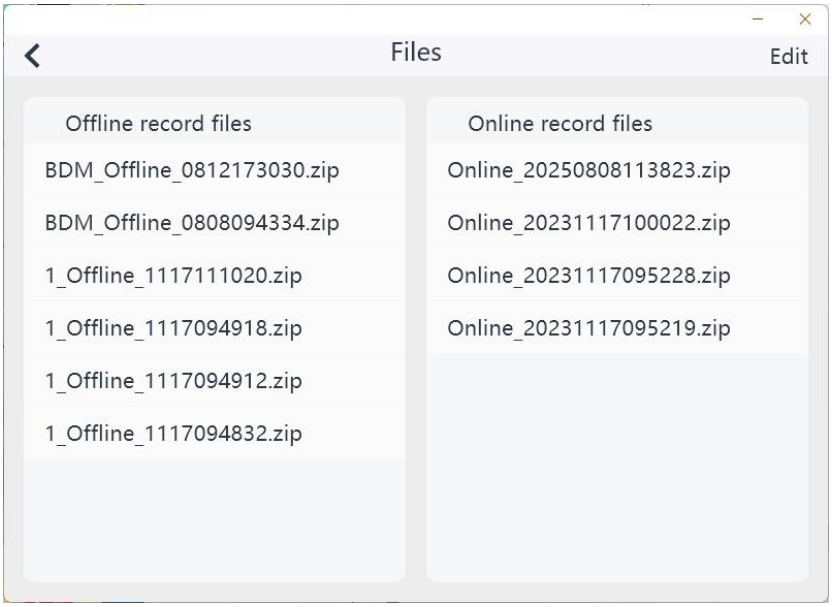
Files that are recorded and saved, and can be edited and opened by file reading.The files that can be read through files are offline data files and online data files.

1、Click on **"Read File"** in the left navigation bar.

2、Click on **"Open File"**.

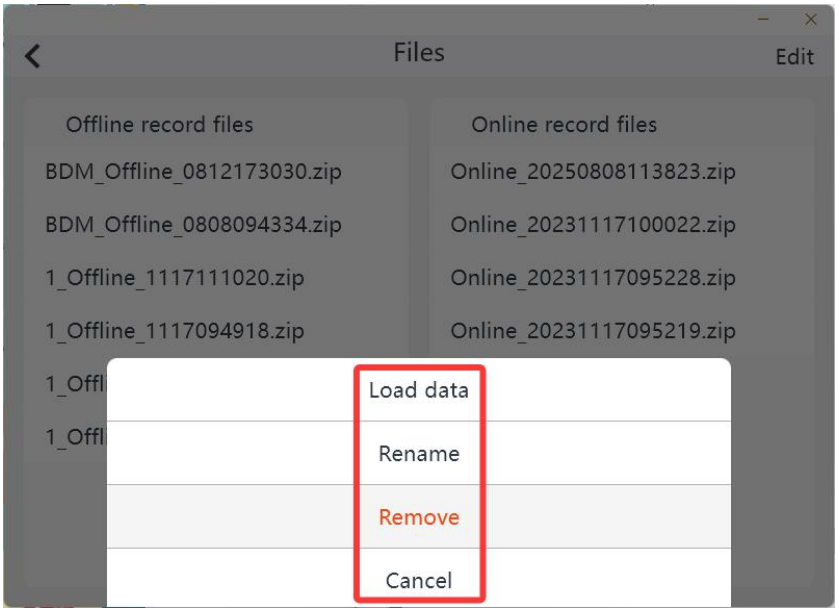


3、Enter the saved **"Files"** interface.



- Select the data file as desired(offline record file&online record file),select **"Online record files"** as an example,the steps are as follows:

1、In the list of **"Online record files"** in the local file interface, click the required file to open the data file operation menu.You can perform the following operations on the data file: Load data, Rename and Remove.



Load data

1、Click on **"Read File"** in the left navigation bar.
2、Click on **"Open File"**.
3、Select **"Offline record files"** or **"Online record files"**,and then click on **"Load data"** in the file menu.

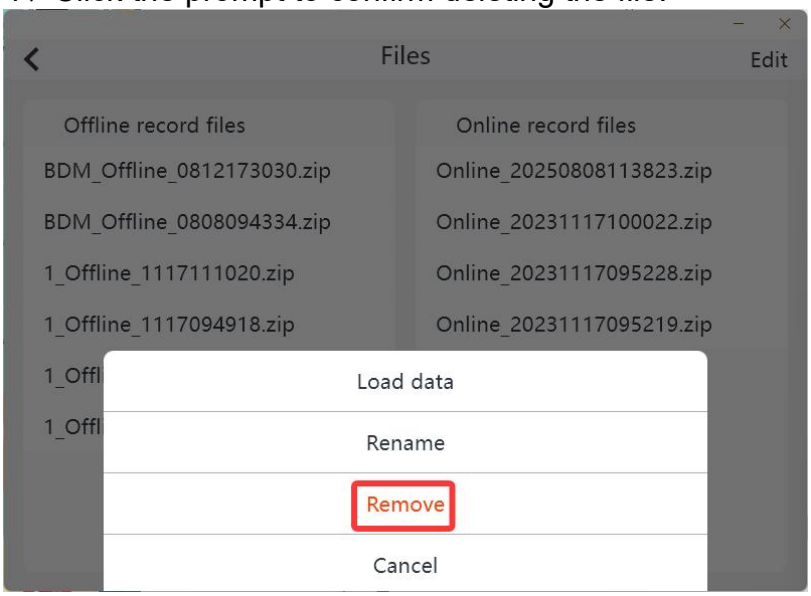
Rename file

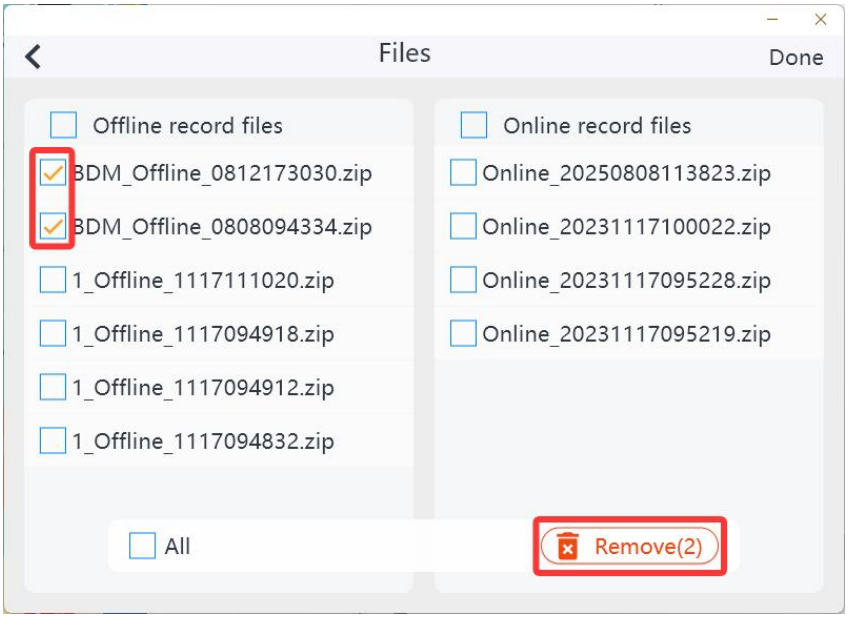
1、Click on **"Read File"** in the left navigation bar.
2、Click on **"Open File"**.

3、Select **"Offline record files"** or **"Online record files"**,and then click on **"Rename"** in the file menu,customize the file name as desired.

Delete recording

1、Click on **"Read File"** in the left navigation bar.
2、Click on **"Open File"**.
3、Select **"Offline record file"** or **"Online record file"**,and then click on **"Remove"** in the file menu.Or click on **"Edit"** in the upper right corner , select multiple file and click on **"Remove"**.
4、Click the prompt to confirm deleting the file.

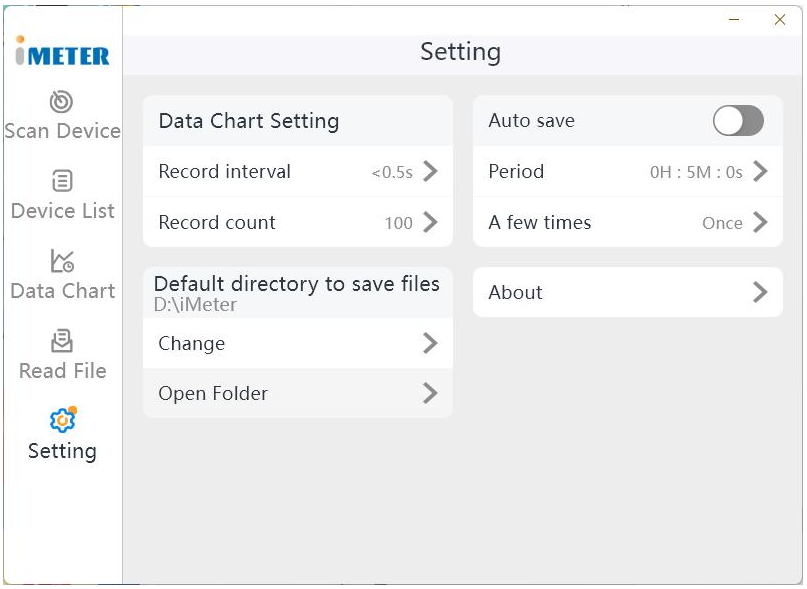




Function setting

Set online record interval and count

1、Click on **"Setting"** in the left navigation bar.



2、Under **"Data Chart Setting",**click **"Record interval"** to set the interval between two consecutive records in the data chart interface.For example: Setting 1s, the minimum interval between each data chart record is 1 second.Click on **"Save"** to finish setting.

3、Under **"Data Chart Setting",**click **"Record count"**,click to set the maximum number of data records for each connected multimeter on the data chart interface.Click on **"Save"** to finish setting.

Note: When the number of recorded data reaches the configured number of records, the earliest data will be deleted while the subsequent new data is added.

Save online data record

You can record online readings by outputting them to a file while the multimeter is connected(online) to the PC app.

Recording online data manually

1、Click on **"Data Chart"** in the left navigation bar.

2、Control recordings：

- lick on the button " ",save the measurements to a local file and delete the saved data on the screen.



- Click on / button to Start/Pause recording.



- Click on the button" ",the measurement data will be cleared from the screen.



Recording online data automatically

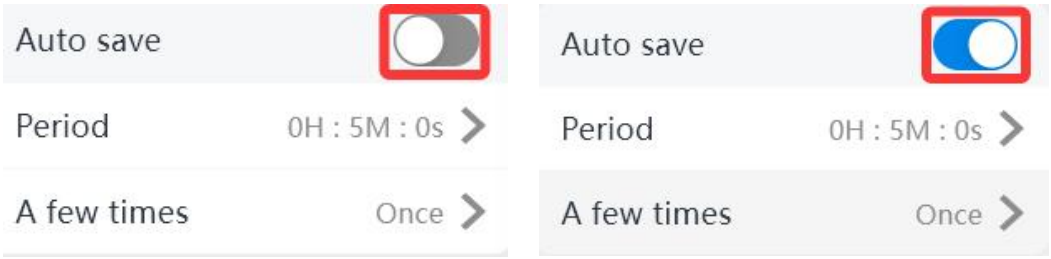
Before turning on automatic recording of online readings,first, set the parameters of **"Period"** and **"A few times"** according to the need.Otherwise, after the automatic storage function is enabled, it will not be set.

1、Click on **"Setting"** in the left navigation bar.

2、Click on **"Period"**, set the interval time for data chart records to be saved to the file and then click on **"Save"**.

3、Click on **"A few times"**,set the storage counts for data chart records to be saved to the file and then click on **"Save"**.

4、Click on **"Auto save"** slide to open or close the automatic storage function.



When you enable the automatic storage function,online records are automatically saved to a file;

When the number of storage reaches the set number of times, the automatic storage function will be turned off by itself.Meanwhile,if all the multimeters to which the app is connected are disconnected, automatic storage will turn itself off.

Save long data to file

Because a single multimeter device can only save 3000 real-time data, when you need to save more than this limit, you can use the automatic saving function to achieve.

Assuming that the real-time data recording interval of the current configuration is 1s and the number of records is 3000, it will be full of data after 50 minutes.If you want to save 30,000 entries, you can configure the following to store them automatically：

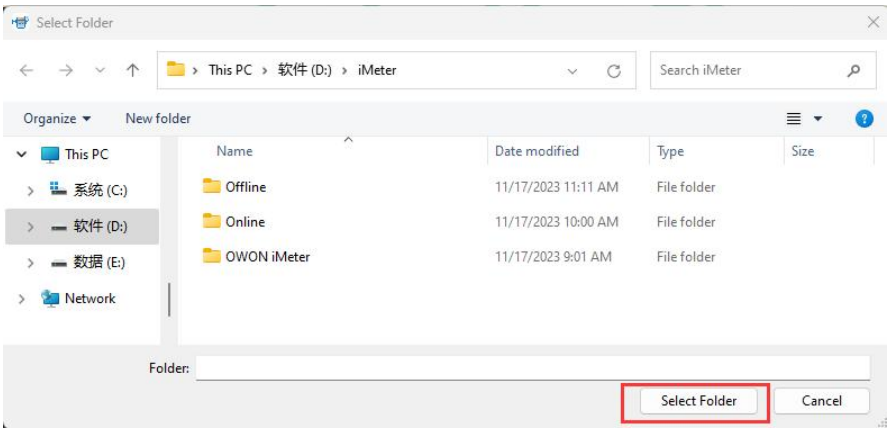
1、Set the period to 0H：50M：0s

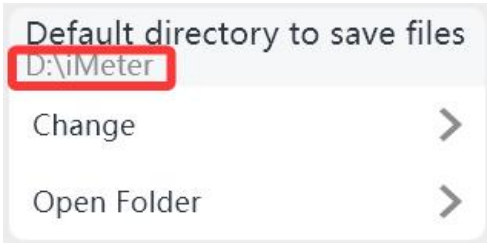
2、Set the few times to 10.

3、Click on **"Auto save"** to open the function.As long as the multimeter device is connected, 30,000 pieces of real-time data can be stored in 10 files.You can read or share each file independently.

Set the file save location

1、Click **"Change"**, select the location of the file to be saved, click **"Select Folder"**, save the settings.





2、Click **"Open Folder"** to open the required "offline record files" or "online record files" from the file saving location.

About

Click to view information about the application.

7. Technical Specifications

All these specifications apply to the multimeter unless otherwise explanation.

Note: "T" in the model indicates true RMS (optional).

Standard conditions: The environment temperature is 18℃ to 28℃, the relative humidity is less than 80%.

35 series multimeter

Function		Measurement Range	Resolu-tion	Accuracy
DC Voltage (V)	mV	60.00mV/600.0mV	0.01 mV	±(0.5%+2dig)
	V	60.00mV/600.0mV/6.000V/60.00V	0.1 mV	
		600.0V/1000V	0.1 V	
AC Voltage (V)	mV	60.00mV/600.0mV	0.01 mV	±(0.8%+2dig)
	V	60.00mV/600.0mV/6.000V/60.00V	1 mV	±(0.8%+2dig)
		600.0V/750V	0.1 V	±(1%+3dig)
DC Current (A)	μA	600.0μA	0.1 μA	±(0.8%+2dig)
	mA	600.0μA/6.000mA/60.00mA/ 600.0mA/6.000A	0.01 mA	±(0.8%+2dig)
	A	20.00A [1]	1 mA	±(1.2%+3dig)
AC Current (A)	μA	600.0μA	0.1 μA	±(1%+3dig)
	mA	600.0μA/6.000mA/60.00mA/ 600.0mA/6.000A	0.01 mA	±(0.8%+2dig)
	A	20.00A [1]	1 mA	±(2%+3dig)
Resistance (Ω)		600.0Ω/6.000kΩ/60.00kΩ/600.0kΩ/ 6.000MΩ/10.00MΩ	0.1 Ω	±(0.8%+2dig)
		60.00MΩ	0.01 MΩ	±(2%+3dig)
Capacitance (F)		40.00nF	0.01 nF	±(2.5%+3dig)
		400.0nF/4.000μF/40.00μF	0.1 nF	±(2.5%+3dig)
		400.0μF/4000μF [2]	0.1 μF	±(3%+5dig)
Frequency [3] (Hz)		9.999Hz/99.99Hz/999.9Hz/9.999k Hz/99.99kHz/999.9kHz/9.999MHz	1 mHz	±(0.8%+2dig)
Duty Cycle [4] (%)		0.1% - 99.9% (Typical: Vrms=1 V, f=1 kHz)	0.1%	±(1.2%+3dig)
		0.1% - 99.9%(≥1 kHz)		±(2.5%+3dig)
Temperature (°C/°F)		－50 ℃ to 400 ℃	1 ℃	±(2.5%+3dig)
		－58 ℉ to 752 ℉	1 ℉	±(4.5%+5dig)

[1] When measuring current, for 10 A to 15 A, the measuring duration should not be over 2 minutes within 10 minutes, and in this 10 minutes, no other current should flow through except within the measuring duration; for 15 A to 20 A, the measuring duration should not be over 10 seconds within 15 minutes, and in this 15 minutes, no other current should flow through except within the measuring duration.

[2] When measuring capacitance, for the 4000 uF range, the measuring duration should be over 30 seconds.

[3] When measuring frequency, the typical waveform is Square or Sine. The signal meets the following conditions.

Frequency	Amplitude (rms)
1 Hz – 4 MHz	≥ 300 mV
4 MHz – 8 MHz	≥ 600 mV
8 MHz – 10 MHz	≥ 750 mV

[4] When measuring duty cycle, the typical waveform is Square.

B41T(+) multimeter

Function		Measurement Range	Resolution	Accuracy	
DC Voltage (V)	mV	220mV	0.01 mV	±(0.1%+5dig)	
	V	2.2V	0.1 mV	±(0.1%+2dig)	
		22V	1 mV		
		220V	10 mV		
		1000V	0.1 V	±(0.1%+5dig)	
AC Voltage (V)	mV	220mV	0.01 mV	≤1kHz	±(1.0%+10dig)
				>1kHz	±(1.5%+50dig)
	V	2.2V	0.1 mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		22V	1 mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		220V	10 mV	≤1kHz	±(0.8%+10dig)
				>1kHz	±(2.0%+50dig)
		750V	0.1 V	≤1kHz	±(1.2%+10dig)
				>1kHz	±(3.0%+50dig)
DC Current (A)	μA	220μA	0.01 μA	±(0.5%+10dig)	
		2200μA	0.1 μA		
	mA	22mA	1 μA		
		220mA	10 μA	±(0.8%+10dig)	
	A	20.00A [1]	1 mA	±(2%+25dig)	
AC Current (A)	μA	220μA	0.01 μA	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
		2200μA	0.1 μA	≤1kHz	±(0.8%+10dig)
				>1kHz	±(1.2%+50dig)
	mA	22mA	1 μA	≤1kHz	±(1.2%+10dig)
				>1kHz	±(1.5%+50dig)
		220mA	10 μA	≤1kHz	±(1.2%+10dig)
				>1kHz	±(1.5%+50dig)
	A	20.00A [1]	1 mA	≤1kHz	±(1.5%+10dig)
				>1kHz	±(2.0%+50dig)

Resistance [2] (Ω)	220Ω	0.01 Ω	±(0.5%+10dig)
	2.2kΩ	0.1 Ω	
	22kΩ	1 Ω	
	220kΩ	10 Ω	
	2.2MΩ	100 Ω	±(0.8%+10dig)
	22MΩ	1.2 kΩ	±(1.5%+10dig)
	220MΩ	100 kΩ	±(5.0%+10dig)
Capacitance (F)	22nF	1 pF	±(3.0%+5dig)
	220nF	10 pF	
	2.2μF	100 pF	
	22μF	1 nF	
	220μF	10 nF	
	2.2mF	100 nF	±(4.0%+10dig)
	>220mF [3]	Undefined	Undefined
Frequency [4] (Hz)	22.00Hz	0.01 Hz	±(0.1%+4dig)
	220.0Hz	0.1 Hz	
	22.000kHz	1 Hz	
	220.00kHz	10 Hz	
	2.2000MHz	0.1 kHz	
	22.000MHz	1 kHz	
	≤220MHz	0.01MHz	Undefined
Duty Cycle [5] (%)	5.0% - 94.9% (Typical: Vrms=1 V, f=1 kHz)	0.1%	±(1.2%+3dig)
	5.0% - 94.9% (≥1 kHz)		±(2.5%+3dig)
Temperature (°C/°F)	−50 ℃ to 400 ℃	0.1 ℃	±(1.0%+5℃)
	−58 ℉ to 752 ℉	0.1 ℉	±(1.2%+6℉)

[1] When measuring current, for 10 A to 15 A, the measuring duration should not be over 2 minutes within 10 minutes, and in this 10 minutes, no other current should flow through except within the measuring duration; for 15 A to 20 A, the measuring duration should not be over 10 seconds within 15 minutes, and in this 15 minutes, no other current should flow through except within the measuring duration.

[2] Without relative operation, add ±0.50 Ω additional error in resistance function.

[3] When measuring capacitance, for the 220 mF range, the measuring duration should be over 25 seconds.

[4] When measuring frequency, the typical waveform is Square or Sine. The signal meets the following conditions.

Frequency	Amplitude (rms)
1 Hz – 4 MHz	≥ 300 mV
4 MHz – 8 MHz	≥ 600 mV
8 MHz – 10 MHz	≥ 750 mV

[5] When measuring duty cycle, the typical waveform is Square.

Characteristics	Instruction		
Display	35 series	6000	
	B41T(+)	22000	
Frequency Response (Hz)	The model without "T"	(40 - 400) Hz	
	The model with "T"	35 series	(40 - 1000) Hz
		B41T(+)	(40 - 10000) Hz
Sample rate for digital data	35 series	3 times/second	
	B41T(+)	2 times/second	
Sample rate for analog bar graph	35 series	30 times/second	
	B41T(+)	Undefined	
Bluetooth	B35(T)(+) B41T(+)	√	
	D35(T)	Without	
Auto ranging	√		
True RMS	The model with "T" has this function.		
Diodes Test	√		
Measuring Transistor	35 series	√	
	B41T(+)	Without	
Sleep Mode	√		
Continuity Test	√		
Low battery indication	√(The "  " is displayed when the battery is under the proper operation range.)		
Data Hold	√		
Relative Measurement	√		
MAX/MIN Value	√		
LCD Backlight	√		
Analog bar graph	35 series	61 Segments	
	B41T(+)	45 Segments	
Input Protection	√		
Input Impedance	10 MΩ		
Battery	3 V (1.5 V × 2) AA alkaline batteries		
LCD Size	69 mm * 52 mm		
Weight (without package)	0.32 kg		
Dimension	85 mm * 185 mm * 30 mm		
Working temperature	0℃ to 40℃		
Storage temperature	－10℃ to 60℃		
Relative Humidity	≤ 80%		

Altitude	Operating: 3,000 m Non-operating: 15,000 m

Interval Period of Adjustment:
One year is recommended for the calibration interval period.

8. Appendix

Appendix A: Enclosure

(The accessories subject to final delivery.)

Standard Accessories:



Test lead



Crocodile clip



Multi-functional test socket
(Not available for B41T(+))



K-type thermocouple



Quick Guide



Soft Bag

Options:



Thin-tipped test lead



Bluetooth USB dongle

Appendix B: General Care and Cleaning

Warning: To avoid electrical shock or damage to the multimeter, ensure that the insides of the casing stay dry at all times.

Cleaning

To clean the instrument exterior, perform the following steps:

Wipe the dust from the instrument surface with a soft cloth. Do not make any scuffing on the screen when clean the LCD. Clean the instrument with a wet soft cloth not dripping water. It is recommended to scrub with soft detergent or fresh water. To avoid damage to the instrument, do not use any corrosive chemical cleaning agent.

Dirt or moisture in the terminals can distort readings. Follow the steps below to clean your multimeter.

1. Turn the multimeter off and remove the test leads.
2. Turn the multimeter over and shake out the dirt in the terminals.
3. Wipe the contacts in each terminal with a clean swab dipped in alcohol.