

User Manual for YZXStudio ZY1270

Please read the user manual carefully before using.

CAUTION: Don't calibrate the Voltage and/or Current benchmark unless you have the professional high-accuracy equipment.

Technical Specification:

Model: ZY1270	Display Screen: 1.3 inch 128*104 FSTN LCD Display
Firmware Version: 3.0	Screen Refresh Frequency: 3 times/second
Input Voltage Range: DC 4-24V	Quiescent Current: 6mA (10mA with Backlight)
Input Current: Continuous -3A to 3A	Resistor of Current Sampling: 12mΩ
Voltage Resolution: 0.0001V	Circuit Resistance: 42mΩ
Current Resolution: 0.0001A	Memory Type: Ferroelectric FRAM
Ah/Wh Range: 0-99999Ah; 0-99999Wh	Rewrite Cycle: 10 Billion Times
Ah/Wh Resolution: 0.0001Ah; 0.0001Wh	Recording Pattern: To record once Ah/Wh changed +
Accuracy: Voltage 0.2%+2d; Current 0.1%+2d;	Load Balancing

Operation Instruction

Totally 6 operating modes, which can be shift from one to another by clicking the button.

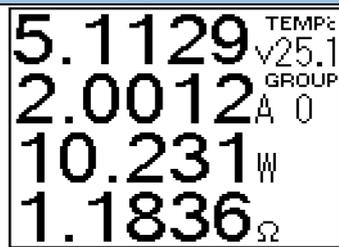
Mode 1 To test Voltage, Current, the Ah, Wh and Temperature of the Current Ah/Wh recording group (currently group 0 as shown in the pic middle right)



Ah/Wh Recording Group(s):

- Totally 6 recording groups available, indicated by number from 0 to 5.
- To shift among the recording groups, Press and Hold the button for 2 seconds and release once the group number changed.
- To clear the Ah data of current recording group, Press and Hold the button for 5 seconds and release once the Ah data being zeroed.

Mode 2 To test Voltage, Current, Power, Resistance and Temperature of Current Ah/Wh recording group (currently group 0 as shown in the pic middle right)



Power of Load and Equivalent load resistance:

- Totally 6 testing groups available, indicated by number from 0 to 5.
- To shift among the testing groups, Press and Hold the button for 2 seconds and release once the group number changed.

Mode 3 To test Micro Resistance value and voltage drop through charging cable

In-time Voltage		Temperature
Current		Testing Group
Current Recognition Type		Reference Voltage and Current Value
		Resistance, and voltage drop

Testing Method:

- Connect the meter between the adapter/power bank and the constant current load, so as to get the Reference Voltage and Current Value
- Keep the constant current load on meter, unplug the meter and load combo from the adapter/power bank, connect the target testing cable(micro USB type) between the adapter/power bank and the meter and load

combo, so as to get the In-time Voltage and Current

3. The meter will calculate and display the cable resistance and voltage drop.

Mode 4 To verify Charging Recognition Type (Apple 1A, Apple 2.1A, Apple 2.4A, DCP, QC2.0, QC3.0 etc.)

Voltage thru meter		Meter temperature
Current thru meter		Testing Group
D+ Voltage		Recording Time
D- Voltage		Trickle current filter value(0.10A as in the picture)
Current Recognition Type		

Trickle current filter value: Ah/Wh Value and Time only can be recorded when the current thru meter is above the trickle current filter value, which can be set in the Setting Mode.

Operations:

Press and Hold for 2 seconds respectively to shift the display way between Normal display and Rotate display.

Mode 5 To draw the dynamic Voltage and Current curve

	<p>Operation:</p> <p>To Press and Hold the button for 2 seconds respectively to shift among:</p> <ol style="list-style-type: none"> Express curve drawing D+/D- curve drawing Off-line curve drawing (can be set ON/OFF in Settings)
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Mode 6 To switch off the screen display while Ah/Wh recording

Settings Mode

To enter Settings, Press and Hold the button while the meter is energized, and don't release the button until the screen shows the "Extended Press To Settings" Then, release the button and the screen shows "Settings" and the meter gets into Settings Mode successfully.



There are totally 16 settings marked from 00 to 15. Once entered the Settings Mode, the setting 10 will display on the screen as the default page to show the model number, firmware version and manufacturer. (At this setting item, Press and Hold of the button could EXIT the Settings.)



Click the button, the settings will shift from 11 to 15 and then back to 00 to start a new circle. In each settings, Press and Hold the button for 2 seconds until "Keep Settings?" appear on the screen, then click the button to make the changes of the current settings. Once done, Press and Hold the button again until the "Keep Settings?" disappear which means already exit the current setting item and the click of the button will shift to another setting item. Here after are the 16 settings and the operation method.

	<p>Voltage Benchmark Calibration</p> <p>Operation: Input the high-accuracy 10V voltage, and Press and Hold the button to calibrate.</p> <p>CAUTION: Please DON'T calibrate unless with professional high accuracy power supply.</p>
	<p>Current Benchmark Calibration</p> <p>Operation: Input the high accuracy 2A current, and Press and Hold the button to calibrate.</p>

	CAUTION: Please DON'T calibrate unless with professional high accuracy power supply.
02-00.36s Curve Refresh Rate	Curve Refresh Rate Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set. Another Press and Hold to exit.
03-018 Brightness	Brightness Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set brightness between 001 and 002, and to set the time interval of serial port uploading data. Another Press and Hold to exit.
	Rotate/Invert Display Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set. Another Press and Hold to exit.
05-0.00A Ignore Trickle Charge	Ignore Trickle Charge Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set minimum trickle to filter while recording Ah. Another Press and Hold to exit.
06-003Mins Auto Backlight	Auto Backlight Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set. Another Press and Hold to exit.
07- Factory Settings	Factory Settings Operation: Press and Hold the button to reset to the Factory Settings (uncalibrated).
08- Backup Settings	Backup Settings Operation: Press and Hold the button to backup the current settings.
09- Restore Settings	Restore Settings Operation: Press and Hold the button to restore the backup settings.
10-00249 ZY1270 V3.0+ By YZXstudio	Model Number and Firmware Version Operation: Press and Hold the button to EXIT settings.
11- Digital Font 1.2345A 6.7890	Digital Font Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set. Another Press and Hold to exit.
12-00.00s 000 Serial Upload	Contrast Ratio Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set. Another Press and Hold to exit.
13-00H 000.00s/Dot Offline Curve	Offline Curve Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set time interval between dots. Another Press and Hold to exit.
14- Clear All Data?	Clear All Data Operation: Press and Hold the button to clear all data.
15-01.80s Startup Delay	Startup Delay Operation: Press and Hold the button, until "Keep Settings?" appear. Click button to set the time of LOGO displaying at startup. Another Press and Hold to exit.