

multicomp^{PRO}

Programmable DC Electronic Load

MP710771 / MP710772 / MP710773 / MP710778



USER MANUAL revision 11/22

Table of Contents

Introduction.....	1
I. Home screen.....	2
II. Steady state mode.....	3
III. Dynamic test mode.....	5
IV. Sequential operation mode.....	9
V. Battery test mode.....	10
VI. OCP mode.....	11
VII. OPP mode.....	12
VIII. WAVE mode.....	14
IX. Parameters function setting.....	15
X. U-disk storage function.....	18

Introduction

MP710700 series is an intelligent programmable DC single channel electronic load, including 300W, 500W, and 1000W stand-alone models and 50KW in tern a I combination models. The voltage in eludes 150V popular series and 500V high voltage series. And it provides a variety of high-end test functions, such as the output of various dynamic waveforms, the oscilloscope waveform display function, the direct import of U disk editing data, the data U disk storage, the battery test record function, etc., and the USB software upgrade function. Equipped with common interfaces such as USB, RS232 and LAN, it can meet the testing requirements of various occasions, for example, factory testing, automated application testing, new energy testing, laboratory testing, battery testing, etc.

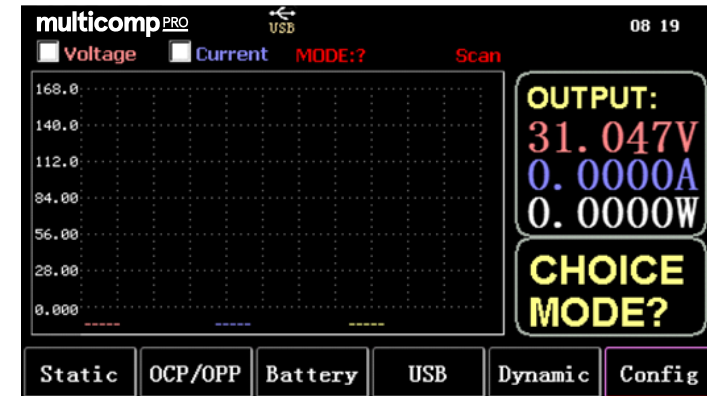
Features:

- IDynamic mode 25K
- ICommonly used CV/CC/CW/VR mode
- IIncluding 150V series and 500V high voltage series
- IHigh voltage and current resolution and accuracy
- IIntuitive display of dynamic voltage and current waveforms
- IDynamic data can be imported and exported via U disk
- IBattery test function
- IMultiple communication interfaces
- IVI curve test function

Models		MP710773		MP710778	
Input Rating	Power	1000W		1500W	
	Voltage	0-150V		0-150V	
	Current	0-40A		0-40A	
CC Mode	Range	0-3A	0-40A	0-3A	0-40A
	Resolution	0.1mA	1mA	0.1mA	1mA
	Accuracy	±(0.05% of set+0.045% off.s)			
CV Mode	Range	0-18V	0-150V	0-50V	0-150V
	Resolution	0.1mV	1mV	0.1mV	1mV
	Accuracy	±(0.05% of set+0.025% off.s)			
CR Mode	Range	0.05Ω-7.5KΩ		0.05Ω-7.5KΩ	
	Resolution	16 bit		16 bit	
	Accuracy	±(0.05% of set+0.025% off.s)			
CW Mode	Range	1000W		1500W	
	Resolution	0.01W		0.01W	
	Accuracy	±(0.1% of set+0.1% off.s)			
Slope	Range	0-3A	0-60A	0-3A	0-60A
	Rising	0.0001-0.3A/us	0.001-2A/us	0.0001-0.3A/us	0.001-2A/us
	Falling	0.0001-0.3A/us	0.001-2A/us	0.0001-0.3A/us	0.001-2A/us
Voltage measurement	Range	0-18V	0-150V	0-18V	0-150V
	Resolution	0.1mV	1mV	0.1mV	1mV
	Accuracy	±(0.03% of set+0.025% off.s)			
Current measurement	Range	0-3A	0-60A	0-3A	0-60A
	Resolution	0.1mA	1mA	0.1mA	1mA
	Accuracy	±(0.05% of set+0.045% off.s)			
Power measurement	Range	1000W		1500W	
	Resolution	0.1W		0.1W	
	Accuracy	±(0.1% of set+0.1% off.s)			
Over power protection	1020W		1550W		
Over current protection	62A		62A		
Over voltage protection	155V		155V		
Over temperature protection	85°C		85°C		
Input impedance	150KΩ		150KΩ		
Dimension(W*D*H)	430mm*388mm*150.5mm				

Note: Specifications are subject to change without notice.

1. Home screen



1.1 Menu soft keys

Static	Enter the steady state CC, CV, CW, CR, and SHORT modes
OCP/OPP	OCP and OPP form called
Battery	Battery measurement mode
USB	Save data, import and export LIST
Dynamic	Dynamic CC, CV, CW, CR, RL, PL
Config	Parameter setting

1.2 Keyboard function

ESC	Exit and delete keys
F1~F6	Function selection
TAB	Change focus
STOP	1. Pause during waveform display 2. Long press to take a screenshot

LOCK	1. Short press for zero calibration
	2. Long press to lock the keyboard
CC	1. Short press to enter steady state CC
	2. Long press to SHORT
CV	Enter the steady state CV
CW	Enter the steady state CW
CR	Enter the steady state CR
0~9	1. Short press the number input key
	2. Long press 1~6 keys to call static storage 1-6 units, respectively
	3. Long press 7 key for RTC setting
	4. Long press 8 key for TFT backlight setting
	5. Long press 9 key to start USB storage
WAVE	Press TAB key to select voltage or current for waveform measurement
ON	Turn on and off Enter
Enter	1. Short press the OK key
	2. Long press save key

II. Steady state mode

2.1 Steady state CC

In the constant current mode, the load consumes a constant current regardless of whether the input voltage changes.

Operation method:

- 1). Press CC on the keyboard or press the soft key F1 to select Static or CC
- 2). Numeric keypad 0~9 and knob setting
- 3). Press ◀▶ to move the cursor, and press ▲▼ and knob to adjust the corresponding value
- 4). Press Enter to confirm and turn ON/OFF.

Specifications

Note: The specifications below are tested under the conditions of temperature 25°C±5°C and the warm-up for 20 minutes.

Models		MP710771		MP710772	
Input Rating	Power	300W		500W	
	Voltage	0-150V		0-150V	
	Current	0-40A		0-40A	
CC Mode	Range	0-3A	0-40A	0-3A	0-40A
	Resolution	0.1mA	1mA	0.1mA	1mA
	Accuracy	±(0.05% of set+0.045% off.s)		±(0.05% of set+0.045% off.s)	
CV Mode	Range	0-18V	0-150V	0-18V	0-150V
	Resolution	0.1mV	1mV	0.1mV	1mV
	Accuracy	±(0.05% of set+0.025% off.s)		±(0.05% of set+0.025% off.s)	
CR Mode	Range	0.05Ω-7.5KΩ		0.05Ω-7.5KΩ	
	Resolution	16 bit		16 bit	
	Accuracy	±(0.05% of set+0.025% off.s)		±(0.05% of set+0.025% off.s)	
CW Mode	Range	300W		500W	
	Resolution	0.01W		0.01W	
	Accuracy	±(0.1% of set+0.1% off.s)		±(0.1% of set+0.1% off.s)	
Slope	Range	0-3A	0-40A	0-3A	0-40A
	Rising	0.0001-0.3A/us	0.001-2A/us	0.0001-0.3A/us	0.001-2A/us
	Falling	0.0001-0.3A/us	0.001-2A/us	0.0001-0.3A/us	0.001-2A/us
Voltage measurement	Range	0-18V	0-150V	0-18V	0-150V
	Resolution	0.1mV	1mV	0.1mV	1mV
	Accuracy	±(0.03% of set+0.025% off.s)		±(0.03% of set+0.025% off.s)	
Current measurement	Range	0-3A	0-40A	0-3A	0-40A
	Resolution	0.1mA	1mA	0.1mA	1mA
	Accuracy	±(0.05% of set+0.045% off.s)		±(0.05% of set+0.045% off.s)	
Power measurement	Range	300W		500W	
	Resolution	0.01W		0.1W	
	Accuracy	±(0.1% of set+0.1% off.s)		±(0.1% of set+0.1% off.s)	
Over power protection	320W		520W		
Over current protection	42A		42A		
Over voltage protection	155V		155V		
Over temperature protection	85°C		85°C		
Input impedance	150KΩ		150KΩ		
Dimension(W*D*H)	215mm*388mm*150.5mm				

Note: Specifications are subject to change without notice.

NO.	DATA (A)	UNITS	EXPLAIN
1	1.132	A/uS	UP SLOPE
2	1.248	A/uS	DOWN SLOPE
3	1.51	A	LEVEL A
4	3.201	A	LEVEL B
5	6.813	S	TIME WIDHT

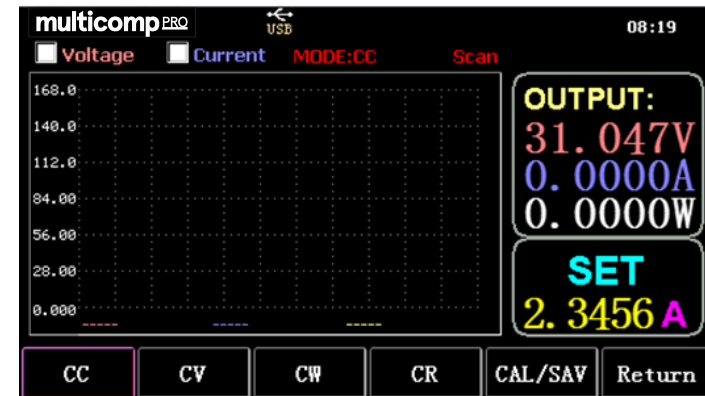
Fig. 10.2 DYN_PL_Set.csv

- 1). Press TAB to switch LOAD, turn the knob to select DYN mode; press ◀ and ▶ keys to select Group. Turn the knob to select PL.
- 2). Press ◀ key to select the file list tree. Turn the knob to select the file DYN_PL_Set.CSV to be imported.
- 3). With (F4) LOAD CSV pressed, a message will be displayed when the file is imported successfully.

10.3 Save data

The operation of saving data 5 times per second in U-disk is as follows;

- 1). Open the configuration interface and modify the UsbStore time to 0.2S;
- 2). There are two ways to create a file.
 - <1> Open the U-disk setting interface and press (F1) SartSaveDa, and press (F2) StopSaveData to stop.
 - <2> Long press the number 9 key to turn on U-disk to save, and long press the 9 key again to stop saving



2.2 Steady-state CV

In the constant voltage mode, the load maintains the device under test at the set voltage regardless of whether the input current changes.
Operation method: Same as above

2.3 Steady-state CW

In the constant voltage mode, the load maintains the device under test at the set power regardless of whether the input voltage or current changes.
Operation method: Same as above

2.4 Steady-state CR

In the constant resistance mode, the load maintains the device under test at the set resistance regardless of whether the input voltage or current changes
Operation method: Same as above

2.5 Short circuit simulation SHORT

In SHORT mode, the load is output at maximum current.
Operation method:
Long press the CC button, and the interface displays MODE: SHORT; press Return key to exit SHORT.

2.6 Steady state storage called

100 sets of steady-state set values can be stored and called for load.

- 1).Storage operation

- (1). Press CAL/SAV to switch the state to SAVE.
- (2). Enter the number keys to index a certain line of the list, press the TAB key to select, and press ENTER to enter the edit mode. Editing area displays a red background, and ◀ and ▶ move keys are used to select.
- (3). Edit MODE. Press CC, CV, CW, or CR on the keyboard to modify.
- (4). Edit data. Press 0~9 and ESC on the keyboard to modify.
- (5). Press Enter key after modifying, and then long press Enter to save data.

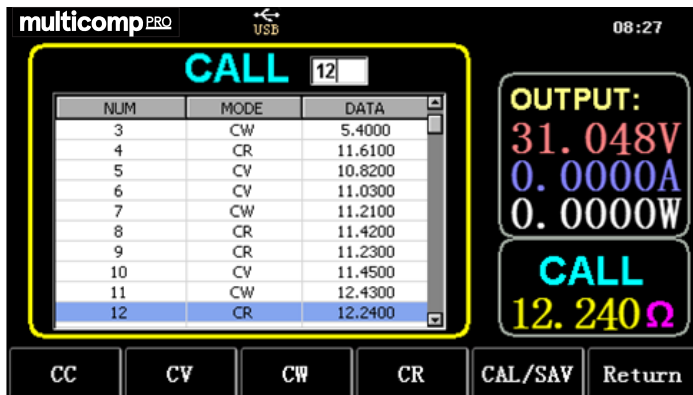
2).Call operation

- (1). Press CAL/SAV to switch to CALL.
- (2). Enter a number key to index a line or press TAB to switch the list through the knob.

Find the line, and press Enter for confirmation.

3).M1~M6 quick keys call

- (1). Long press number keys 1~6 to call the corresponding M1~M6.

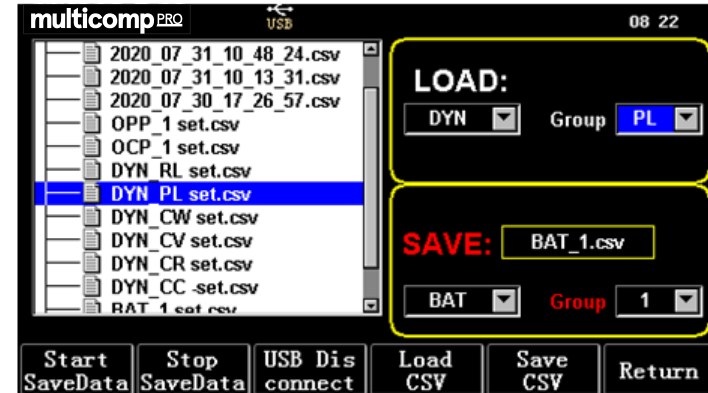


In dynamic mode, the load constantly switches between two different values of A and B.

III. Dynamic test mode

3.1 Dynamic CC

X. U-disk storage function



10.1 U-disk Storage

Start Save	DataCreate a CSV file named date
Stop Save	Data Stop writing files
USB Disconnect	Disconnect the USB connection
LoadCSV	Import csv format file from U-disk
SaveCSV	Export table from load
Return	Exit

10.2 Import and save LIST

Take the table with BAT 1 exported as an example.

- 1). With the U-disk inserted, the USB button will be displayed on the home screen. Press (F4) USB.
- 2). Press TAB key to switch to SAVE, turn the knob to select BAT mode, press ◀ and ▶ keys to select Group, and turn the knob to group 1.
- 3). With (F5) SAVE CSV pressed, a message prompts that it has been exported. Import the DYN_PL_Set.csv form from the U-disk to DYN PL.

Note: When the voltage and current are small, setting the voltage of 18V and current of 3A or below will improve the accuracy.
Setting - Press (F6) Save Exit to save and exit.

9.7 RTC Setting

Long press the number 7 key to display the date on the e screen as shown in Fig. 9.2.

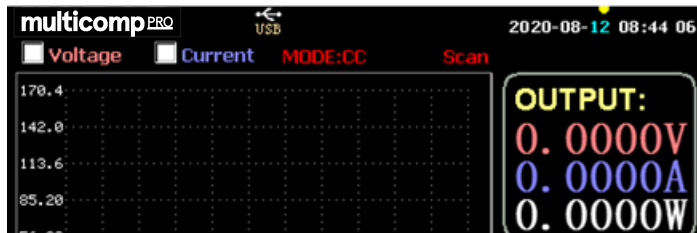


Fig. 9.2 RTC date

Press ◀ and ▶ keys to move the focus and modify it through the knob. After the modification, press and hold ENTER to save, and press ESC to exit.

9.8 Backlight setting

When the number 8 key pressed and hold, the progress bar is displayed on the screen as shown in Fig. 9.3.

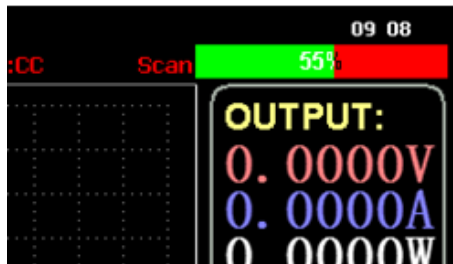


Fig. 9.3 Backlight

Modify through the knob; after modification, long press ENTER to save and press ESC to exit.

Used in the different duty cycle output of two different current at a certain frequency.

Operation method:

Select (F5)Dynamic to enter the interface as shown in Fig. 3.1. Take A current change slope 0.001A/Us, B current change slope 0.002A/uS, A current 1A, second B current 2A, cycle frequency 1HZ, and duty cycle 40% as examples.

- (1). Press (F1)DYN/CAL, TAB key to select the CALLDYN drop-down box, and turn the knob to CC.
- (2). Press (F2) DYN/SAV to display SAVE on the screen.
- (3). Press the TAB key to switch the focus. Turn the knob to select the first line.
- (4). Press ENTER to select the highlighted red background.
- (5). Enter 0-9 number keys, ESC delete key.
- (6). After editing 0.001, with ENTER press, the background of 0.0010 displayed on the screen turns back to blue.
- (7). Repeat the above steps to set 0.002A/uS, 1A, 2A; 1HZ, 40% respectively.
- (8). Long press ENTER to save the edited data.
- (9). Press the soft key (F1) DYN/CAL to display CALL.
- (10). Press ENTER to start calling.
- (11). Turn ON/OFF.

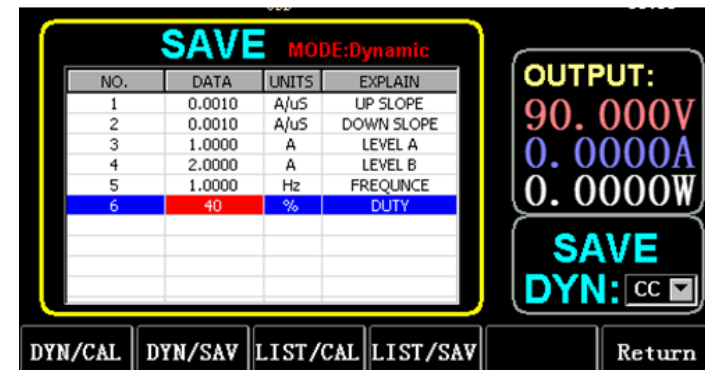


Fig. 3.1 DYN CC

Note: The size of the set data is related to the current maximum value of the set current.

For example: If the maximum set current is 3A, and the load current change frequency is 25KHz, the maximum values of the current A value and B value can be set to 3A;

The maximum slope can be set to $3/20=0.15A/uS$;

The maximum frequency can be set to 25KHz; when the frequency is set to 25K, the maximum duty cycle is 50%.

Maximum set current refers to section 9.6 Maximum load setting.

3.2 Dynamic CV

Used in the different duty cycle output of two different voltage at a certain frequency. Take the first A voltage 1V, the second B voltage 2V, the cycle frequency 1HZ and the duty cycle 40% as examples.

Operation method:

- (1). Press (F1)DYN/CAL, TAB key to select the CALLDYN, and turn the knob to CV.
- (2). Press (F2) DYN/SAV to display SAVE on the screen.
- (3). Press the TAB key to switch the focus. Turn the knob to select the first line.
- (4). Press ENTER to select the highlighted red background.
- (5). Enter 0-9 number keys, ESC delete key.
- (6). After editing 0.001, with ENTER press, the background of 1.0000 displayed on the screen turns back to blue.
- (7). Repeat the above steps to set 2V,1HZ,40% respectively.
- (8). Long press ENTER to save the edited data.
- (9). Press the soft key (F1) DYN/CAL to display CALL.
- (10). Press ENTER to start calling DYN CV.
- (11). Turn ON/OFF.

3.3 Dynamic CW

The operation is the same as above.

3.4 Dynamic CR

The operation is the same as above.

3.5 Dynamic PL

9.1 Communication interface settings

1). Serial port baud rate setting

Select the TAB or (F1) SelBaudrate through the knob.

2). IP address setting

ESC delete key, 0~9 input numbers on the keyboard.

3). Port number setting

The ESC delete key and 0~9 input numbers on the keyboard; the maximum value is 65535 and the minimum value is 1000; the value cannot be set to 18191.

9.2 Storage time setting on U-disk

Press TAB to switch Sel UsbStore, ESC delete, 0~9 input number, and edit time.

The minimum value is 0.05s; the maximum value is 9999s;

9.3 Buzzer settings

Press the TAB to BEEP, and turn the knob to select ON/OFF.

9.4 Remote compensation settings

Press TAB to switch to Remote Comp, and turn the knob to select ON/OFF.

9.5 External trigger setting

Press the TAB key to switch to EXIP TRIG, and turn the knob to select ON/OFF.

9.6 Maximum load set value

1). Maximum voltage

Press the TAB to switch to VOLTage, edit by entering 0~9 through the keyboard, delete using ESC key; the maximum value is 200V.

2). Maximum current

Press the TAB to switch to Current, edit by entering 0~9 through the keyboard, delete using ESC key; the maximum value is 40A.

3). Maximum power

Press the TAB to switch to Power, edit by entering 0~9 through the keyboard, delete using ESC key; the maximum value is 300W.

4). Maximum resistance

Press the TAB to switch to Resistance, edit by entering 0~9 through the keyboard, delete using ESC key; the maximum value is 7500R.

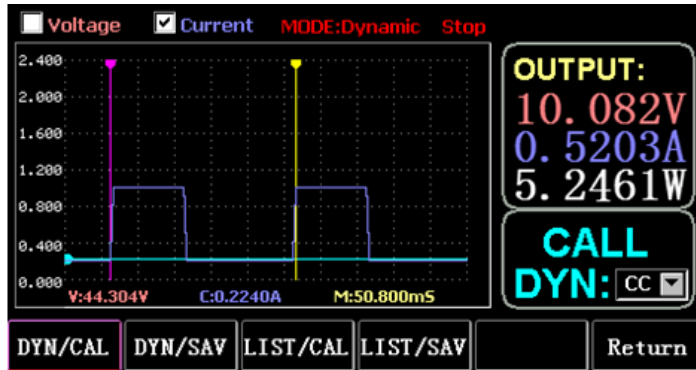


Fig. 8.2 Waveform measurement

IX. Parameters function setting

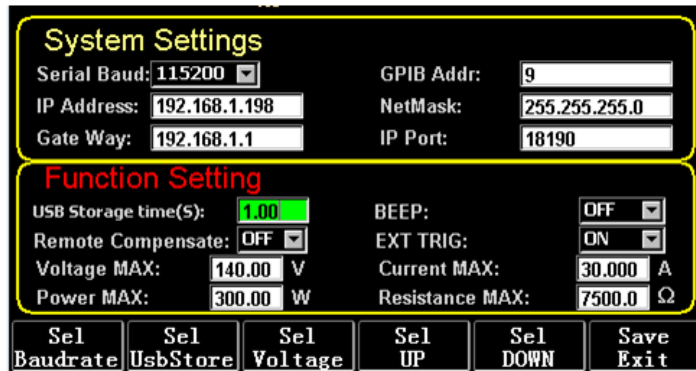


Fig. 9.1 Parameters setting

Sel Baudrate	Select the baud rate parameters
Sel UsbStore	Switch the focus Select USB storage
Sel Voltage	Select voltage MAX
Sel UP	Press UP to switch the focus
Sel DOWN	Press DOWN to switch the focus
Save Exit	Save Exit

At the beginning, set to value A. Each time a trigger signal is received, the load is switched to value B, and then to value A after the set time expires. Operation method: A current change slope is 0.001A/Us, B current change slope is 0.002A/uS, current A is 1A, current b is 2A, and the current B is maintained for 1S.

- (1). Press (F1) DYN/CAL, TAB key to select CAL DYN, and turn the knob to PL.
- (2). Press (F2) DYN/SAV to display SAVE on the screen.
- (3). Press the TAB key to switch the focus. Turn the knob to select the first line.
- (4). Press ENTER to select the highlighted red background.
- (5). Enter 0-9 number keys, ESC delete key.
- (6). After editing 0.001, with ENTER press, the background of 0.0010 displayed on the screen will change back to blue.
- (7). Repeat the above steps to set 0.002A/uS, 1A, 2A, 1S respectively.
- (8). Long press ENTER to save the edited data.
- (9). Press the soft key (F1) DYN/CAL to display CALL
- (10). Press ENTER to start calling DYN RL.
- (11). Turn ON/OFF.
- (12). Each time the ENTER is pressed, the B value is triggered.

3.6 Dynamic RL

Each time a trigger signal is received, the load will switch between the A value and the B value.

Operation method: Take the first current A change slope 0.001A/Us, current B change slope 0.002A/uS, current A of 1A, and current B of 2A as examples.

- (1). Press (F1) DYN/CAL, TAB key to select CALDYN, and turn the knob to RL.
- (2). Press (F2) DYN/SAV to display SAVE on the screen.
- (3). Press the TAB key to switch to the focus. Turn the knob to select the first line.
- (4). Press ENTER to select the highlighted red background.
- (5). Enter 0-9 number keys, ESC delete key.
- (6). After editing 0.001, with ENTER pressed, the background of 0.0010 displayed on the screen will change back to blue.
- (7). Repeat the above steps to set 0.002A/uS, 1A, 2A respectively.
- (8). Long press ENTER to save the edited data.
- (9). Press the soft key (F1) DYN/CAL to display CALL

- (10). Press ENTER to start calling DYN RL.
- (11). Turn ON/OFF.
- (12). Each time the ENTER is pressed, a overturn will be triggered once.

IV. Sequential operation mode

Up to 7 groups can be stored, and up to 84 dynamically changing currents can be set in each group, and then the set currents can be switched in order. Operation instructions: Take the following items as example: The settings are stored in one group, the maximum current is 4A, and there are 3 dynamic change currents; the first dynamic current is 1A with the change rate 0.001A/uS, and maintained for 1S; the second dynamic current is 2A with the change rate 0.002A/uS, and maintained for 2S; the third dynamic current is 3A with the change rate 0.003A/uS, and maintained for 3S, and the number of repeated runs is 5, as shown in Fig. 4.1.

- (1). Press (F3) LIST/CAL, TAB key to select GROUP, and turn the knob to group 1.
- (2). Press (F4)LIST/SAV to display SAVE on the screen.
- (3). Press the TAB key to switch to the focus. Turn the knob to select the first line RANGE. Through the numeric keyboard 0~9 and the ESC delete key to edit the maximum value of 3A.
- (4). Press TAB key to switch to CYCLE. Through the numeric keyboard 0~9 and ESC delete key, the number of edit cycles is 5.
- (5). Press TAB key to switch to the first line of the LIST table; with ENTER pressed, the background turns red, edit the first item DATA value to 1A, press ◀ and ▶ keys to move to the second item SLOPE (A/uS), edit the value to 0.001A/ uS, press ◀ and ▶ keys to move to the third item TIME(S), and edit the value to 1S.
- (6). After editing, with ENTER pressed, the background will change back to blue.
- (7). Repeat the above steps to set the second and third lines of the table.
- (8). Long press ENTER to save the edited data.
- (9). Press the soft key (F3) LIST/CAL to display CALL
- (10). Press ENTER to call LIST 1.
- (11). Turn ON/OFF.

VIII. WAVE mode

Press the TAB key to select voltage or current.

8.1 WAVE measurement

- 8.1 Press the TAB key to turn on the voltage and current waveform display.
- 8.2 Press WAVE to display the measuring column.
- 8.3 To measure the time scale, press ◀ or ▶ key to select the left or right measuring column, turn the knob to move left or right to display the difference between the two measuring lines.
- 8.4 To measure the secondary value of voltage or current, press ▲ or ▼ key to select the upper or lower measuring column, and turn the knob to move up and down to display the secondary value of the current measuring column.
- 8.5 Adjust the current scale value, long press ▼ key, turn the knob to adjust the size, and decrease the current MAX value on the function setting.
- 8.6 Adjust the voltage scale value, long press ▼ key, turn the knob to adjust the size, and decrease the voltage MAX value on the function setting.
- 8.7 Adjust the waveform sampling time, press ENTER, and turn the knob to adjust.
- 8.8 Pause the waveform and press STOP.

Take the measuring DYN CC mode as an example. By editing DYN CC data UP SLOPE 0.012A/uS, DOWN SLOPE 0.08A/uS, set the value A to 0.2A, set the value B to 1A, set the frequency to 20HZ and set the duty cycle to 40%, as shown in figure 8.1.

The waveform measurement is shown in Fig. 8.2.

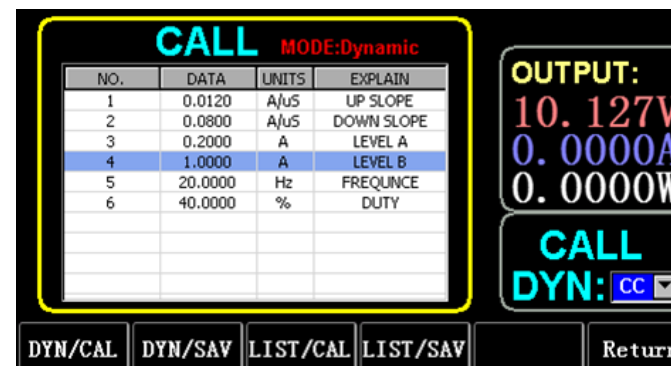


Fig. 8.1 TEST DYN CC

7.1 OPP test setting function

Up to 7 groups of OCP test parameters can be set.

Operation instructions: Take the following items as examples: Store the settings in group 1, set VON voltage to 10V, and delay the VON voltage for 5S; set the current range to 3A, set the starting power to 20W; the power is decremented by 1W and each decrement time is 1S; the end power is 10W, OPP voltage is 8V, the maximum power is 15W, and the minimum power is 10W.

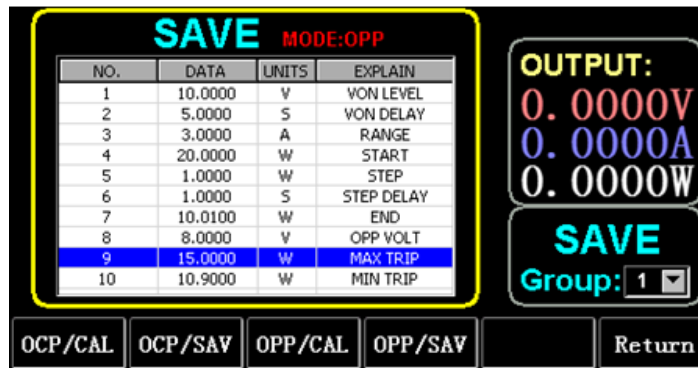


Fig. 7.1 OPP

- (1). Press (F2)OCP/OPP on the home screen.
- (2). Press (F3) OPP/CAL, TAB key to select CALL GROUP group 1.
- (3). Press (F4) OPP/SAV to display SAVE on the form.
- (4). Press the TAB key to switch to the focus. Turn the knob to select the first line.
- (5). Press ENTER to select the first line of DATA, and display a red background.
- (6). Enter the number keys from 0 to 9, and use the ESC delete key.
- (7). After editing VON 10V, with ENTER pressed, the background of 10.000 displayed on the screen will turn back to blue.
- (8). Repeat the above steps to set 5S, 3A, 20W, 1W, 1S, 10W, 8V, 15W, 10W respectively.
- (9). Long press ENTER to save the edited data.
- (10). Press (F3) OCP/CAL
- (11). Press ENTER to call.
- (12). Turn ON/OFF.ON/OFF.

Note. To delete the data after the third line, in the LIST SAVE mode, turn the knob to select the fourth line

Press ENTER to enter the editing. The background turns red. Press ESC at this time to delete all data after the fourth lines, and then long press ENTER to save the edited data.

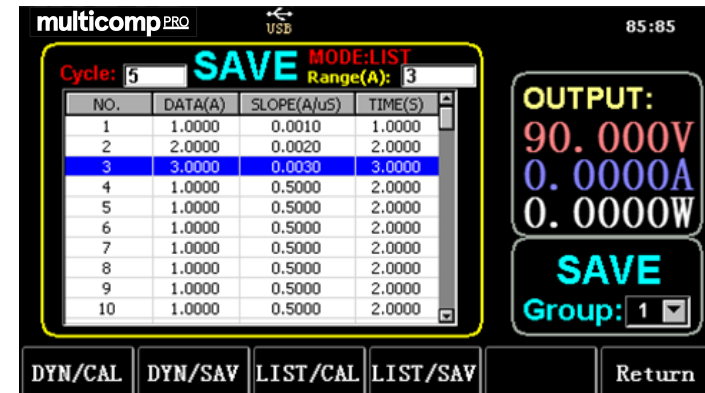


Fig. 4.1 LIST

V. Battery test mode

Up to 7 sets of battery test parameters can be set. Test the battery according to the set current, voltage, capacity and time. The test can be automatically closed when one of the conditions is satisfied.

5.1 Battery test setting function

Operation instructions: Take the settings stored in 1 group, current range 10A, discharge current 1A, discharge cut-off voltage 2V, discharge cut-off capacity 0.5AH, and discharge time 200M as an example.

- (1). Press (F3) Battery on the home screen to enter battery measurement.
- (2). Press (F1) BATT/CAL, TAB key to select CALGROUP group 1.
- (3). Press (F2) BATT/SAV to display SAVE on the form.
- (4). Press the TAB key to switch to the focus. Turn the knob to select the first line.
- (5). Press ENTER to select the highlighted red background.

- (6). Enter 0-9 number keys, ESC delete key.
- (7). After editing the range 10A, with ENTER pressed, the background of 10.000 displayed on the screen will turn back to blue.
- (8). Repeat the above steps to set 1A, 2V, 0.5AH, 200M respectively.
- (9). Long press ENTER to save the edited data.
- (10). Press (F1) BATT/CAL
- (11). Press ENTER to call.
- (12). Turn ON/OFF.

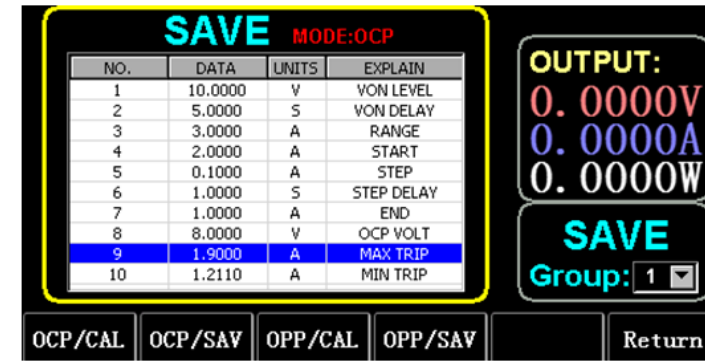
VI. OCP mode

When the voltage reaches the VON value, the current will be output after a delay for long time; the step value is decremented every a period of time until the cut-off current or the voltage is higher than the OCP set voltage; if the voltage after the stop is higher than the OCP voltage and If the current is between the set maximum and minimum values, it is PASS, otherwise it is FAULT.

6.1 OCP test setting function

Note: Up to 7 groups of OCP test parameters can be set.

Operation instructions: Take the following items as examples: Store the settings in group 1, set VON voltage to 10V, and delay the VON voltage for 5S; set the current range to 3A, set the starting current to 2A; the current is decremented by 0.1A and each decrement time is 1S; the end current is 1A, OCP voltage is 8V, the maximum current is 1.9A, and the minimum current is 1.1A.



1. Fig. 6.1 OCP

- (1). Press (F2)OCP/OPP on the home screen.
- (2). Press (F1) OCP/CAL, TAB key to select CALL GROUP group 1.
- (3). Press (F2) OCP/SAV to display SAVE on the form.
- (4). Press the TAB key to switch to the focus. Turn the knob to select the first line.
- (5). Press ENTER to select the highlighted red background.
- (6). Enter 0-9 number keys, ESC delete key.
- (7). After editing VON 10V, with ENTER pressed, the background of 10.000 displayed on the screen turns back to blue.
- (8). Repeat the above steps to set 5S, 3A, 2A, 0.1A, 1S, 1A, 8V, 1.9A, 1.1A respectively
- (9). Long press ENTER to save the edited data.
- (10). Press (F1) OCP/CAL
- (11). Press ENTER to call.
- (12). Turn ON/OFF.

VII. OPP mode

When the voltage reaches the VON value, the powr will be output after a delay for long time; the step value is decremented every a period of time until the cut-off power or the voltage is higher than the OCP set voltage; if the voltage after stop is higher than the OCP voltage and If the current is between the set maximum and minimum values, it is PASS, otherwise it is FAULT.