User manual JDS8102A

Channel Number: 2

Bandwidth: 100M

Sampling Rate: 1G/S (when CH1 is on alone), 500M/S (where CH2)

Vertical Resolution: 8 bit

Vertical accuracy: 1%

Impedance: 1 MΩ 25pF

Coupling: DC/AC

Display mode: YT, XY, FFT

Vertical adjustable parameter (voltage level): 10mV-5V (X1 mode) 1-2.5-5 step

Horizontal adjustable parameters (time base): 10s-5ns 1-2-5 step (10s-200ms scan mode)

Display input voltage: 40V (x1); 400V (x10); 4000V (x100) (220V in x1 gear)

Storage depth: 16K per channel

Trigger mode: automatic, normal, single

Rising: edge and falling edge of trigger type

Automatic Detection: 50Hz-100MHz

Measurement parameters: Maximum, Minimum, Peak and Peak, Frequency, Duty Ratio, etc.

Cursor measurement: time, voltage

Multimeter:

Maximum input voltage: pen (theoretical DC 1000V AC 750V)

Maximum input current: test pen (theoretical value 200A)

Full-scale reading: 6000 count

DC voltage: 60.00mV, 600.0mV, 6.000V, 60.00V, 600.0V, 6000V

AC voltage: 60.00mV, 600.0mV, 6.000V, 60.00V, 600.0V, 6000V

Direct current: 600.0 uA/6000 uA, 60.00 mA/600.0 mA, 6.000 A/60.00 A, 600.0 A/6000 A

Alternating current: 600.0 uA/6000 uA, 60.00 mA/600.0 mA, 6.000 A/60.00 A, 600.0 A/6000 A

Resistance: 600.0Ω, 6.000kΩ, 60.00kΩ, 600.0kΩ, 6.000MΩ, 60.00MΩ, 600.0MΩ, 6000MΩ

Diode: 0V-2.0V

On-off detection: Less than 30 Ω voice

Capacitance: 40.00nF, 400.0nF, 4.000uF, 40.00uF, 400.0uF, 4000uF (30 seconds)

Signal generator parameters:

Universal oscilloscope

Output waveform: sine wave, square wave, triangle wave, ramp wave, step wave, trapezoidal wave

Output frequency: sine wave (1 Hz – 20 MHz)

Square wave (1 Hz - 5 MHz)

Other waveforms (1 Hz – 1 MHz)

Amplitude: 100 mV – 4 V

Offset: 0 V - 2V

Duty cycle: 0% - 100%

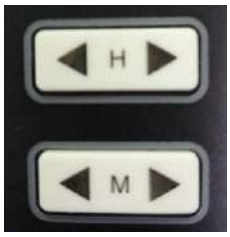
Key function description:

Press the red power button until "di", let go and enter the oscilloscope interface. At any time in the oscilloscope interface

The above button controls the movement and gear position of CH1.

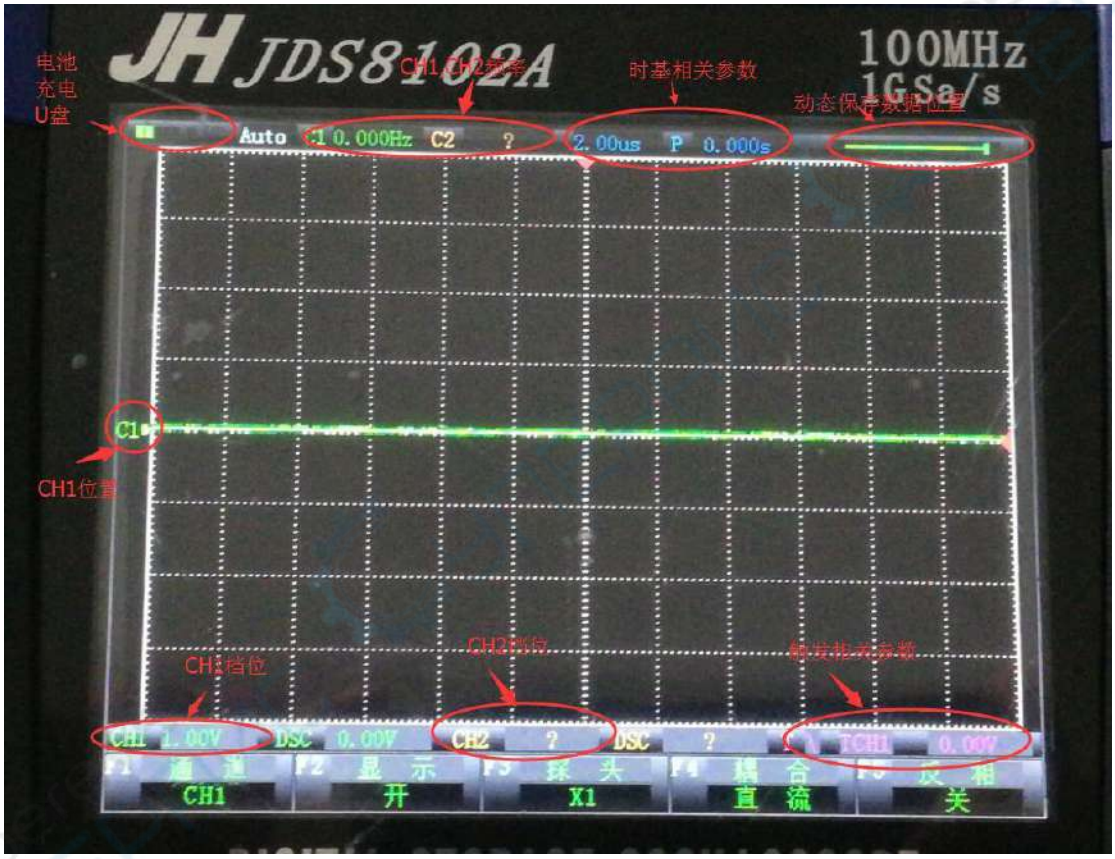
The above button controls the movement and gear position of CH2.

The above button controls the movement of the trigger position



The above picture controls the movement and switching of the time base.

Press CH1 to enter channel 1 control interface. As shown below:



Description of each button function under CH1 interface:

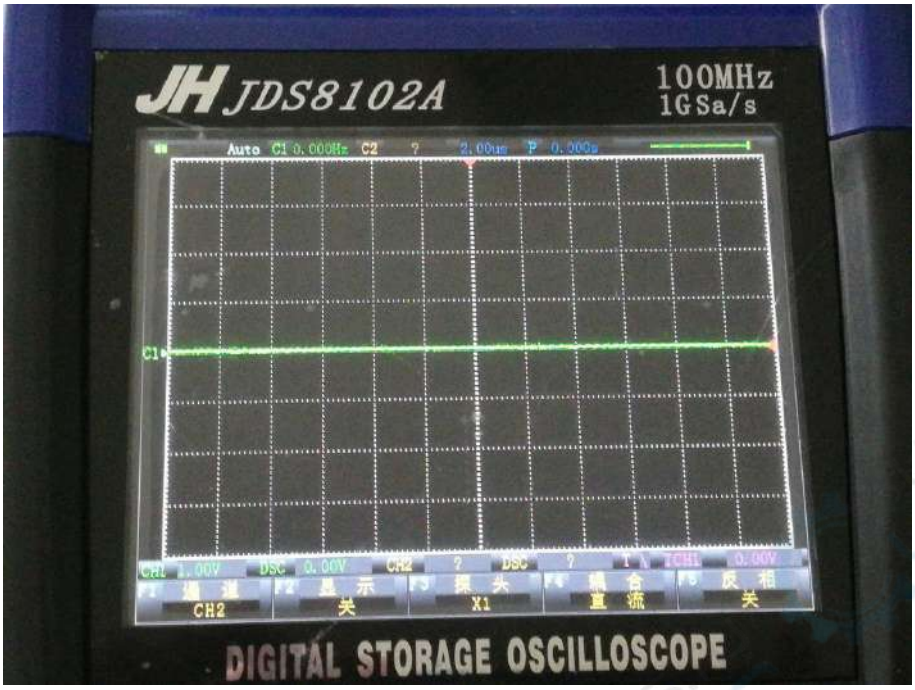
Button F1: No function

Button F2: CH1 waveform display on or off

Button F3: CH1 corresponds to the value displayed by the

Button F4: Coupling status of CH1 DC/AC

Press CH2 to enter channel 2 control interface. As shown below:



Description of each button function under CH2 interface:

Button F1: No function

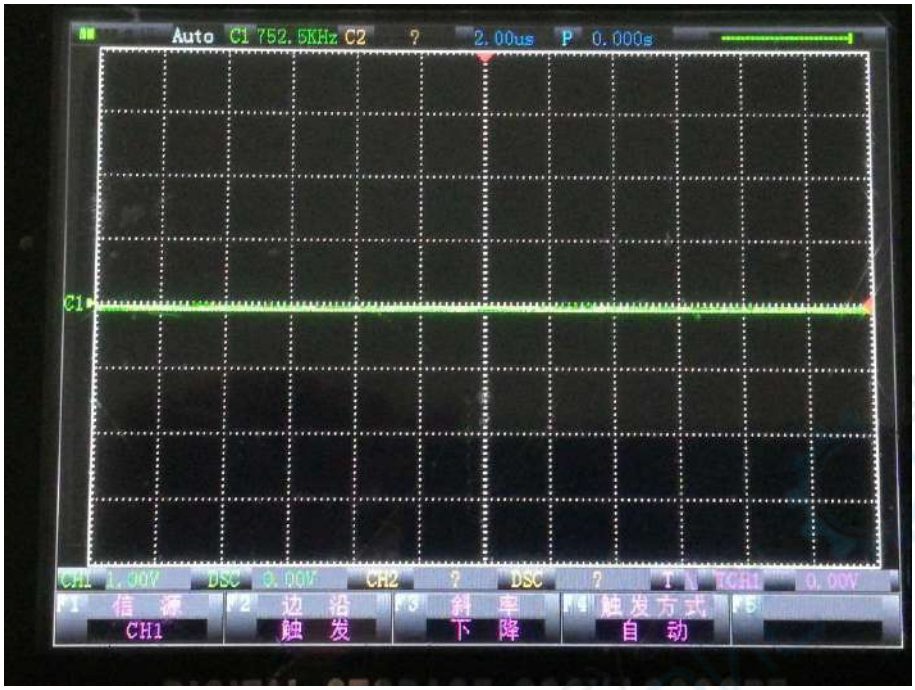
Button F2: CH2 waveform display on or off

Button F3: CH2 corresponds to the value displayed by the parameter x1 or x10 or x100

Button F4: Coupling state of CH2 DC/AC

Button F5: CH2 waveform display is inverted

Press the TRIG button to enter the trigger control interface. As shown below:



Description of each button function under the trigger interface:

Button F1: Select the trigger source is CH1 or CH2

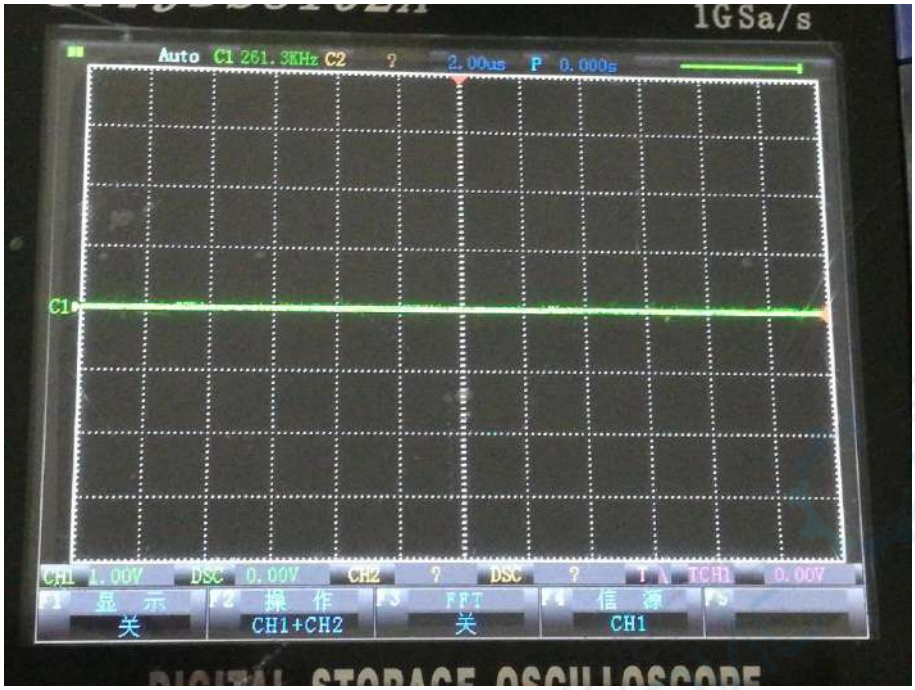
Button F2: No function

Button F3: Select the trigger method as rising edge or falling edge

Button F4: Select whether the trigger mode is automatic or normal or single

Button F5: No function

Press the MATH button to enter the math control interface. As shown below:



Description of each button function under the math interface:

Button F1: Select whether the display of the M channel is on or off

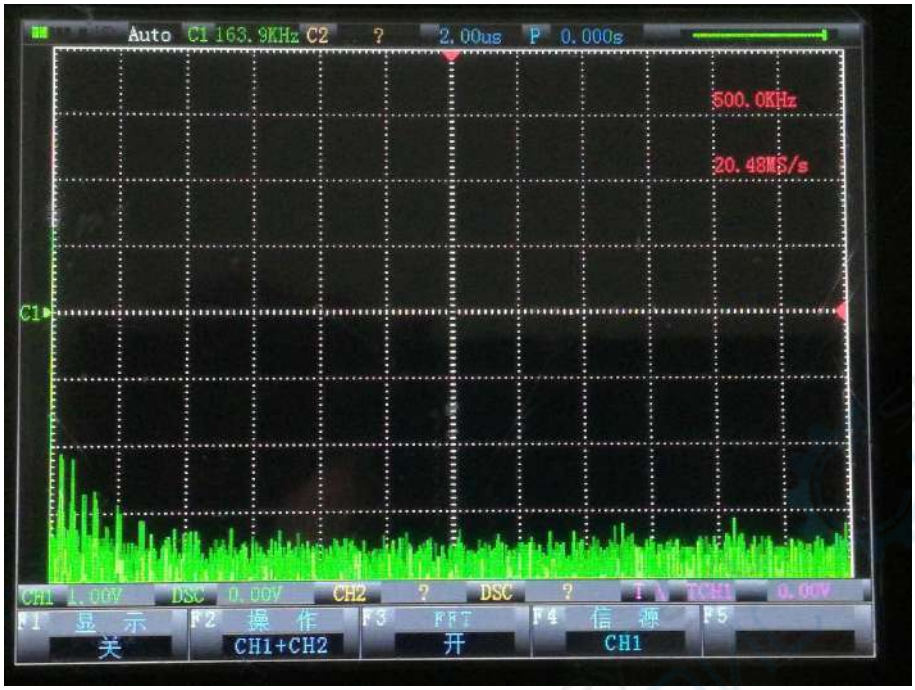
Button F2: Select the value displayed by the M channel as the settlement result

Button F3: Select whether the FFT function is on or off

Button F4: Select the signal source corresponding to the FFT function

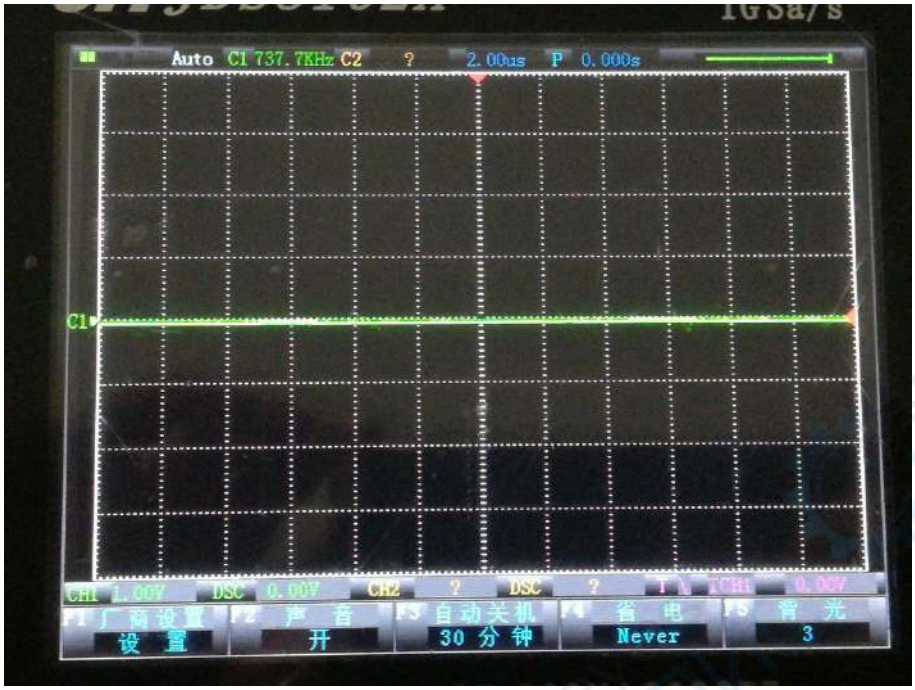
Button F5: No function

Press F3 to enter the FFT display interface and display the interface. As shown below:



In this interface, the sampling frequency can be modified by modifying the value of the time base.

Press the MENU button for the first time to enter the setup menu 1. As shown below:



Set the function description of each button under the menu 1 interface:

Button F1: Restore factory settings

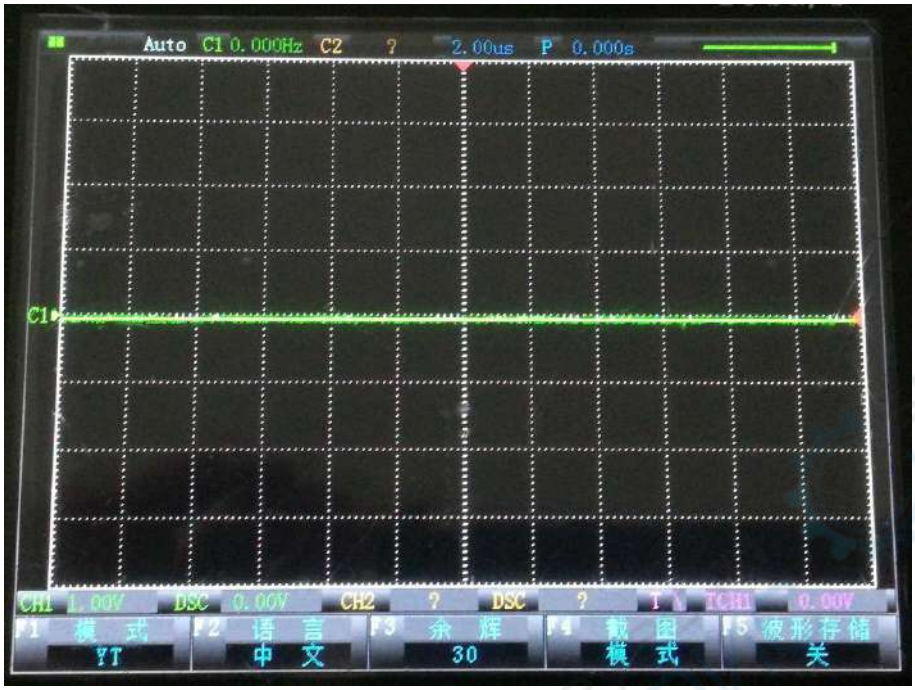
Button F2: Select whether the sound is on or off

Button F3: Select the time for automatic shutdown

Button F4: Select the time for automatic power saving

Button F5: Backlight brightness of the screen

Press the MENU button for the second time to enter the setup menu 2. As shown below:



Set the function description of each button under the menu 2 interface:

Button F1: Select display mode XY mode or YT mode

Button F2: Select language type

Button F3: Select the time of the afterglow

Button F4: Enter the screenshot interface

Button F5: Turn on the display of the stored waveform

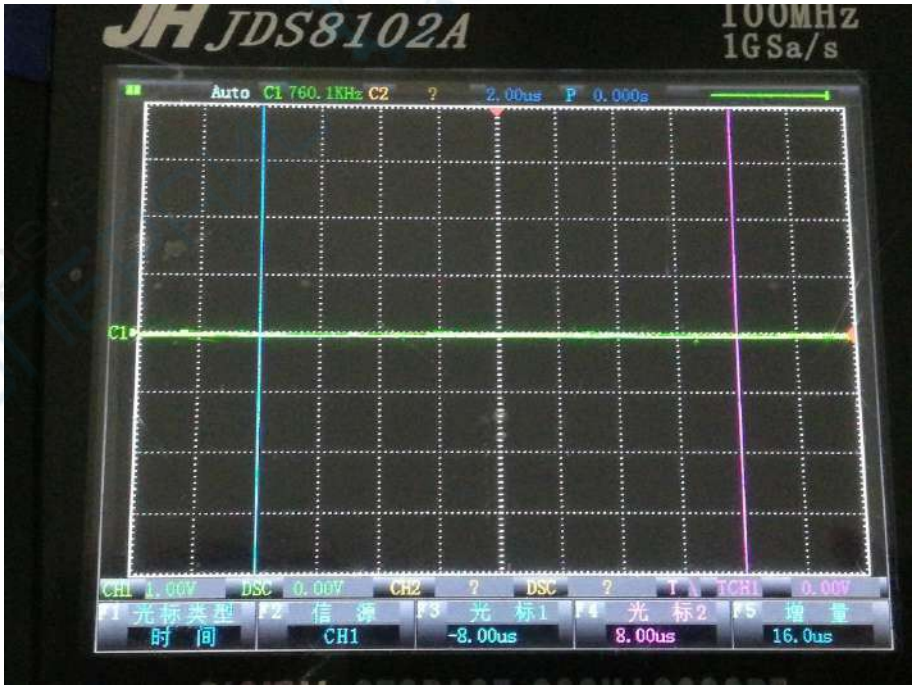
Note: When the waveform storage is on, press the ↑ key to save the waveform (s1, s2) displayed on the current interface. At the same time, after the screenshot is turned on, press the ↑ key to perform the screenshot operation (when the waveform storage and the screenshot are

simultaneously turned on). , with waveform storage as the main function). Afterglow function will be introduced later.

Description of the screenshot function: In the screenshot interface, F1 open function F2 select picture number F3 Select to read the corresponding number of pictures (↑ button is the screenshot button, you can take screenshots at any time in the oscilloscope interface).

The screenshot must be inserted into the U disk to capture the picture. After the U disk is successfully inserted, the following picture will be displayed.

Press the MENU button for the third time to enter the cursor menu. As shown below:



Description of each button function under the cursor menu interface:

Button F1: Select to turn the cursor on or off, and select the cursor label type.

Button F2: Select the source of the cursor label

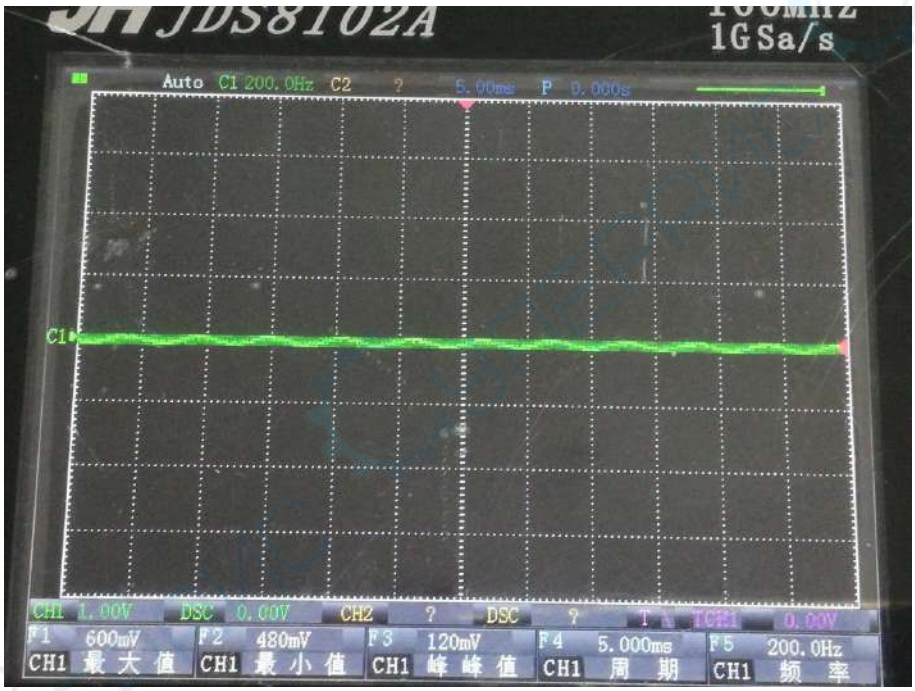
Button F3: No function

Button F4: No function

Button F5: No function

The data of the cursor is read under the cursor interface F3, F4, F5.

Press ↓ key to enter the parameter display interface. As shown below:



Description of each button function under the parameter display interface:

Button F1: Select source or parameter

Button F2: Select source or parameter

Button F3: Select source or parameter

Button F4: Select source or parameter

Button F5: Select source or parameter

In this interface, the ↓ key can be switched. The function of F1-F5 is to select the signal source or select the parameter type.

Description of afterglow:

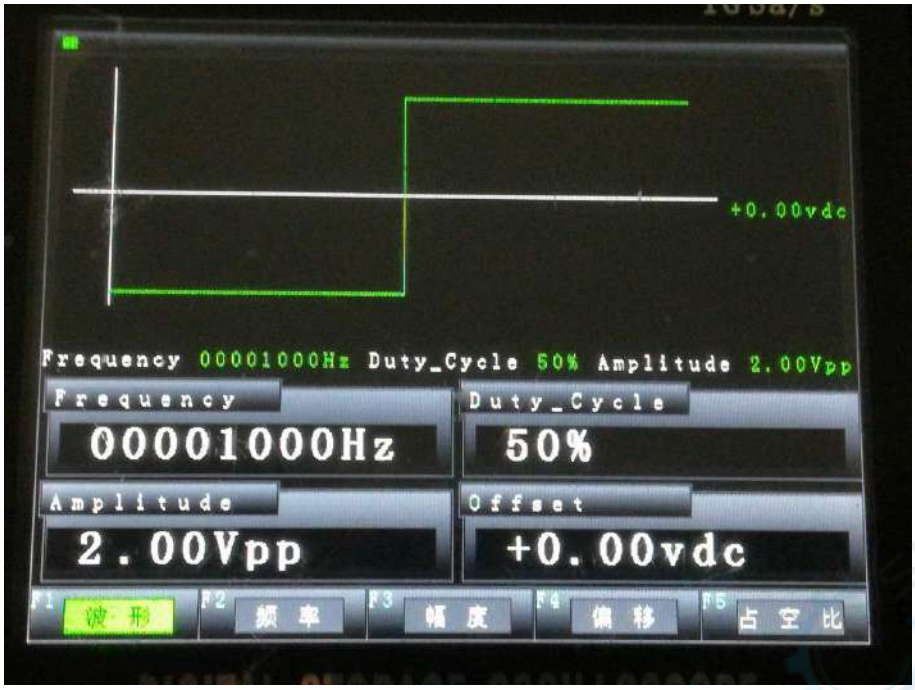
The function of the afterglow is to let the waveform slowly exit the display by the fade of the color, so that the glitch and other information of the waveform can be better checked.

STOP button press:

The waveform stops displaying, and the waveform about 5 minutes before is recorded. The ←, → key can be viewed (this waveform is invalid after shutdown, not saved)

Signal generator:

Press and hold the MENU button to enter the function selection interface. F3 selects the signal generator and enters the signal generator. See the figure below:



The function description of the button in this interface:

Button F1: Select the type of waveform

Button F2: Select the configuration frequency parameter

Button F3: Select the configuration amplitude parameter

Button F4: Select configuration offset parameter

Button F5: Select to configure the duty cycle parameter

Button ↑: Number + in the corresponding configuration parameters

Button ↓: Number in the corresponding configuration parameters -

Button ←: Move position in the corresponding configuration parameter

Press → to move in the corresponding configuration parameter –

MENU button:

When the configuration is completed, press the MNEU button to output.

Multimeter:

Press and hold the MENU button to select F5 and enter the multimeter interface. (After entering the multimeter interface, the multimeter chip has an initial configuration process, so wait a few seconds). As shown below:

The function description of the button in this interface:

Button F1: Select DC or AC voltage

Button F2: Select DC or AC current (A)

Button F3: Select DC or AC current (mA)

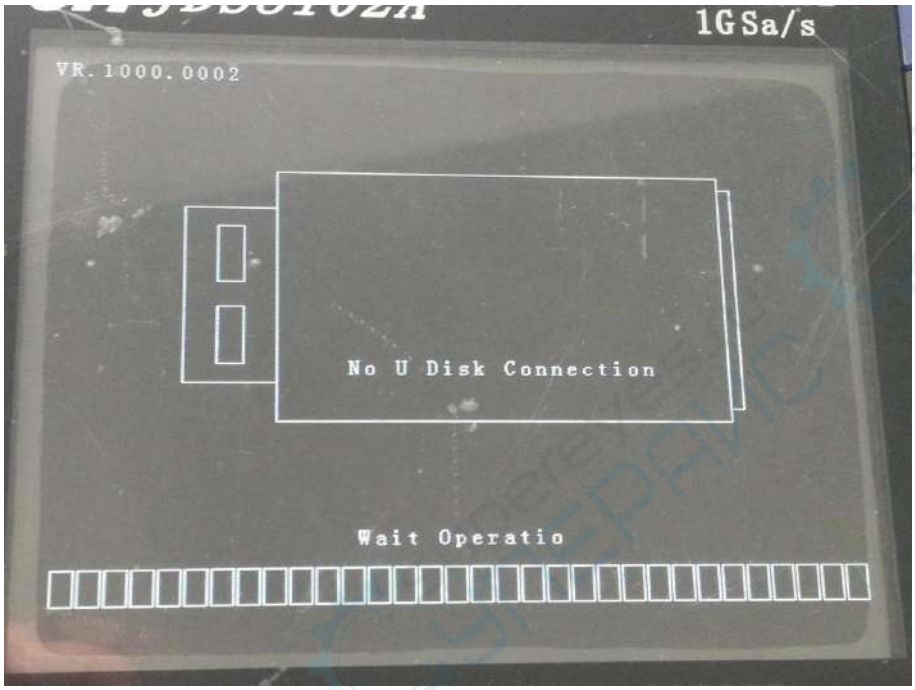
Button F4: Select on or off or capacitor

Button F5: Select resistor or diode

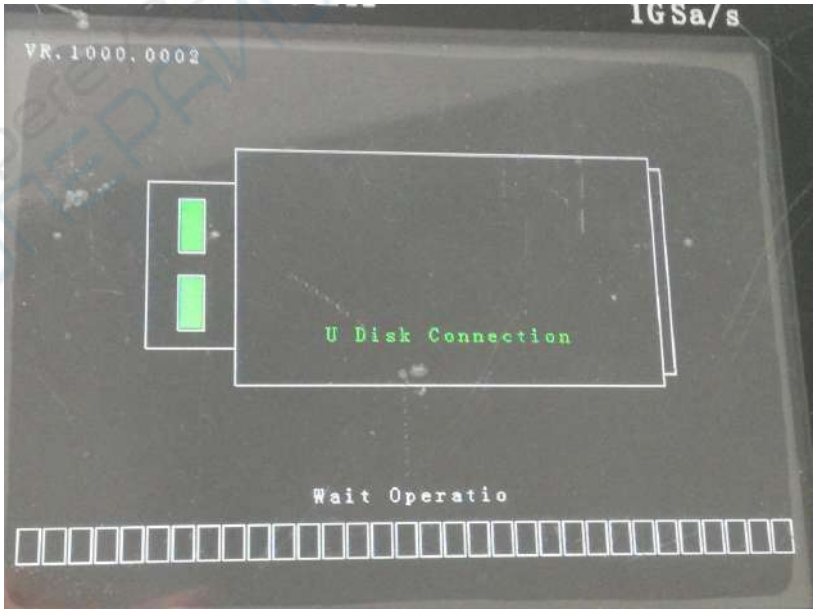
Software upgrade method for this product:

Press the F1 button after powering off, and press the power button at the same time (do not let go of the two buttons in the process). When the sound is “嘀”, enter the upgrade interface, as shown below:

Copy the updata.bin file into the USB flash drive.



After inserting the USB flash drive, the following figure is displayed:



Instructions for charging:

The charging power of this product is 9V (with charger in the accessory).

Inserting the charger in the off state will enter the charging interface (press F5 to enter the program interface at this time). In the charging interface, the black screen will not be automatically used for a short time. Press any key to brighten the screen.

When charging in the program interface, the charging status will be displayed, and the battery status will enter the marquee.