DSO183 Oscilloscope DIY Kit

User Manual (Rev. 01)

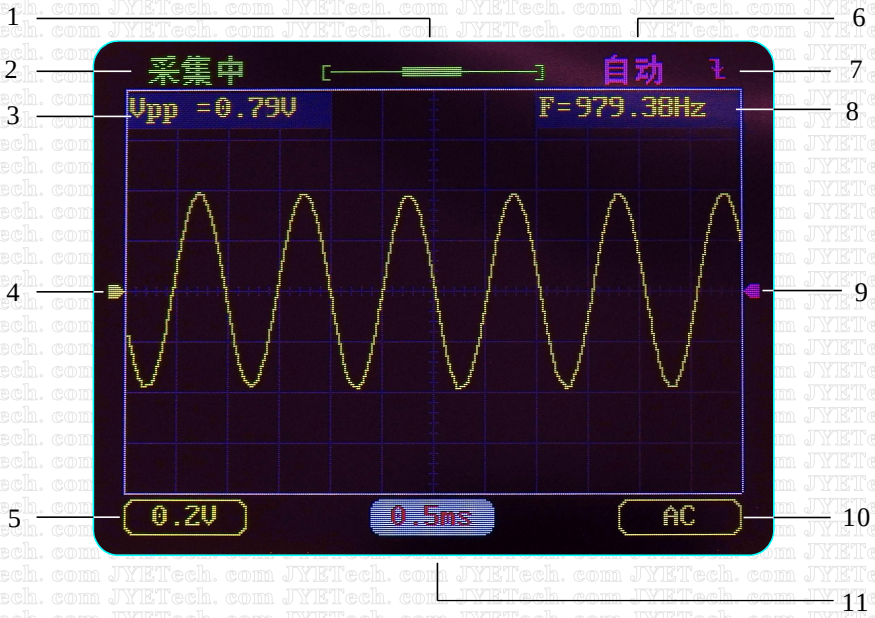
Applicable Model: 18301K

Applicable PCB：109-18300-00H

Applicable Firmware: 113-18301-070 or newer

The Display

Note: The Chinese characters will be replaced by English when JP4 at PCB back is open.



1 **Horizontal position indicator**. The line inside the brackets represents the waveform buffer size. The block indicates the current displayed portion of the buffer.

2 **Oscilloscope working state**. “Running” indicates that capture is undergoing. “HOLD” indicates that capture is stopped.

3 **Measurement 1**. This is a display of signal parameter. It can be selected among 8 parameters and can be turned on or off.

4 **Vertical position indicator**. It represents the 0V position of the waveform after a “Clear Offset” operation has been performed.

5 **Vertical sensitivity display**. This is the voltage value that a vertical major division stands for.

6 **Trigger mode indicator**. Trigger mode can be Auto, Normal, or Single.

7 **Trigger slope indicator**. This indicates which slope, rising or falling, of the signal that is used to generate the triggers.

8 **Measurement 2**. This is another display of signal parameter. It can be selected among 8 parameters and can be turned on or off.

9 **Trigger level indicator**. When a signal intersects with this level, trigger happens.

10 **Couple method**. Couple method can be set to DC, AC, or GND.

11 **Timebase**. This is the time duration that a horizontal major division represents.

WARNING

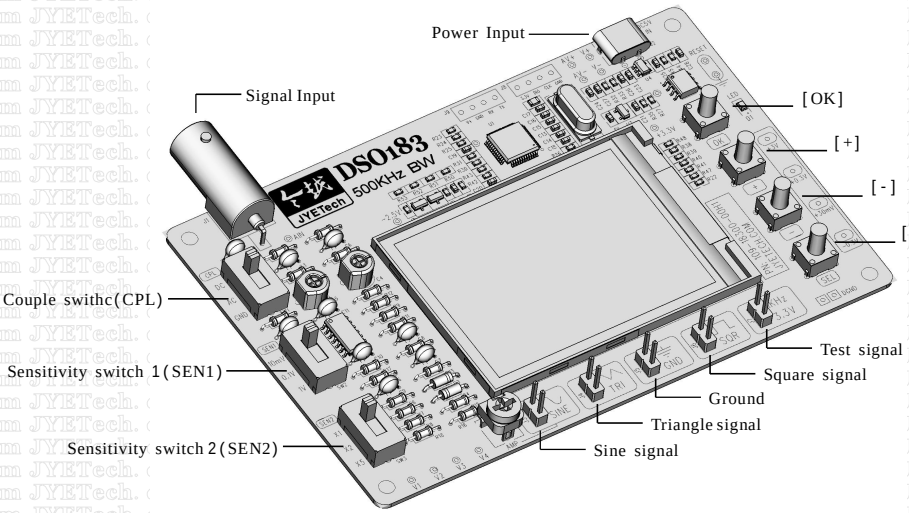
Do not use this oscilloscope to directly measure mains electricity.
JYETech is not responsible for any damages caused by measuring mains electricity with this oscilloscope.

WARNING

The maximum allowed input voltage of this oscilloscope is 50V pk.
JYETech is not responsible for any damages caused by using this device to measure voltages higher than 50V peak.

Specifications	
Realtime sampling rate	1.5MSa/s
Analog bandwidth	0 -- 500KHz
Sensitivity range	10mV/div - 5V/div
Coupling	DC, AC, GND
Maximum input voltage	50Vpk (1X probe)
Input impedance	1M ohm/20pF
ADC resolution	12 bits
Record length	1024 points
Timebase range	500s/Div -- 1us/Div
Trigger mode	Auto, normal, or single
Trigger slope	Rising, falling
Display	2.4 inch 320x240 color LCD
Power suppl voltage	5V DC （USB）
Current consumption	< 100mA
Dimensions	118 x 76 x 12 (mm)（no panels）
Weight	45 gram（no probe and panle）

Connectors, Switches, and Buttons



Basic Operations

[SEL] key: Select the parameter to be adjusted. The selected parameter will be highlighted.

[+] and [-] key: Adjust the highlighted parameter.

[OK] key: Hold waveform (entering HOLD state). Press again will release the hold.

[CPL]: Select DC, AC, or GND couple. When the switch is set to GND, signal input is disconnected and the oscilloscope input is connected to ground (i.e. 0V input).

[SEN1]/[SEN2]: Adjust sensitivity. The product of [SEN1] and [SEN2] is the true sensitivity which is displayed at the lower left corner of the screen.

Manu Operations

Enter menu: Hold down [SEL] for 2 - 3 seconds

Select menu item: Press [SEL] to select the item to be execute

Execute the selected item: Press [+] or [-]

Exit menu: Press [OK]

Menu Functions

Item	Functions
Clr Offset	Align the base line to 0V level. Follow screen instructions after executing the item
Save WF	Save the screen waveform to memory. The original data in the memory will be overwritten
Load WF	Load waveform from the memory and display it in HOLD state
Default	Reset all parameters to their default settings
Display 1	Select the measurement display at the top left corner of the screen
Display 2	Select the measurement display at the top right corner of the screen
All disp.	Turn all measurement display ON or OFF
Info	Display the hardware and firmware information about the oscilloscope

Other Operations

1 Holding down [OK] will set vertical and horizontal positions to their centers. At the same time the trigger level will be set to the middle between the maximum and minimum signal amplitude.

2 Shorting the two pads marked with RESET at the right side of PCB will make a hard reset of the oscilloscope.