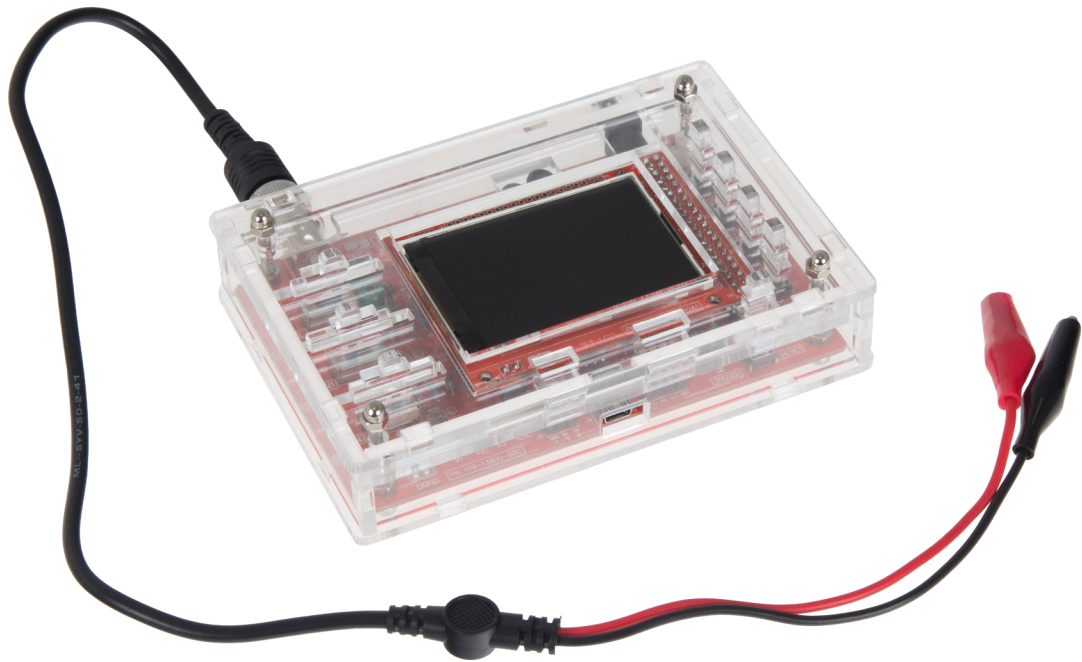


# **JOY-IT**

## DSO-138 Oscilloscope



## Index

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1. Technical specification
2. Usage
3. Safety instructions
4. Security informations

Dear customer,  
thank you for purchasing our product. Please find our instructions below.

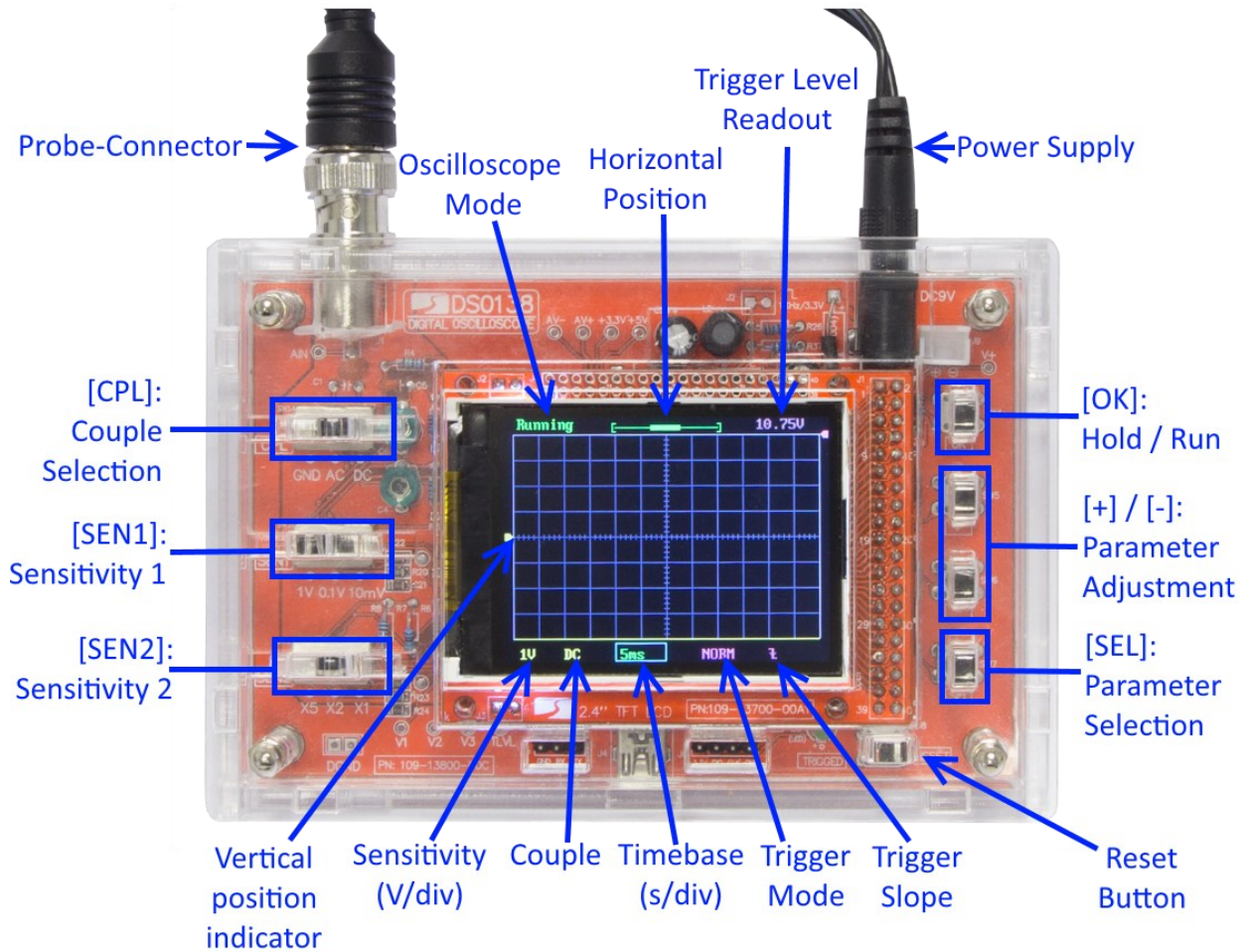
## 1. Technical specification

The DSO-138 offers the fundamental functions of an oscilloscope and shall impress with its simplicity.

<b>Max. sample rate</b>	<b>1 MSa/s</b>
<b>Analog bandwidth</b>	0 – 200 KHz
<b>Sensitivity range</b>	10mV / div – 5V / div
<b>Max. input voltage</b>	50 Vpk
<b>Input impedance</b>	1M Ohm / 20 pF
<b>Resolution</b>	12 Bit
<b>Record length</b>	1024
<b>Timebase Range</b>	500s/ Div – 10 us / Div
<b>Trigger Modes</b>	Auto, Normal, Single
<b>Trigger position range</b>	50%
<b>Power supply</b>	9V DC (8 – 12V)
<b>Current consumption</b>	~ 120mA
<b>Dimension</b>	117 x 76 x 15 mm
<b>Weight</b>	70g

## 2. Usage

The DSO-138 oscilloscope is ready to use and doesn't need any further configurations. Please note the connection-diagram below:



[CPL]: Switch between zwischen AC, DC und GND

[SEN1]: first sensitivity setting

[Sen2]: second sensitivity setting

[OK]: Stop current view

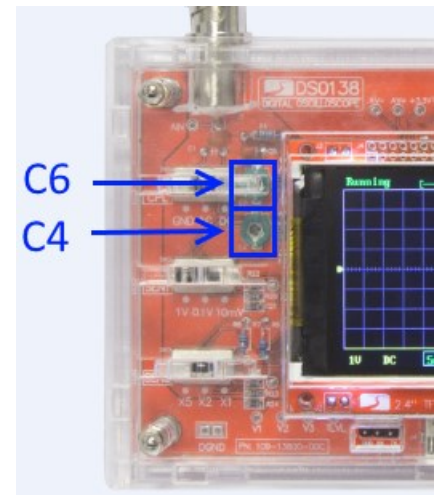
[+] / [-]: Configure the [SEL] parameter

[SEL]: choose parameter

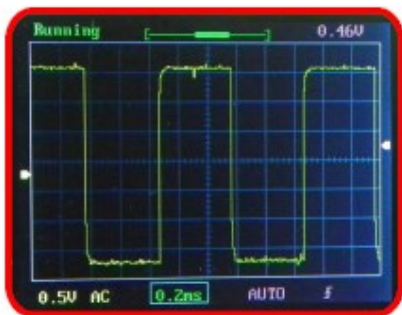
### Calibration:

Because there are always some small tolerances, you are able to calibrate your device.

If this is necessary, please follow the following steps:



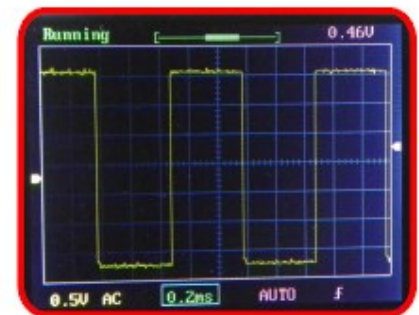
1. Connect the red clip to the test-signal-terminal.
2. Set [SEN1] to 0.1V and [SEN2] to X5.
3. Set [CPL] to AC or DC.
4. Set timebase to 0.2ms. You should now see a wave-diagram (see below).
5. Set C4 with a screwdriver until the signal is good.
6. Set [SEN1] to 1V and [SEN2] to X1. Set C6 until you see a rectangular wave-diagram.



Zu wenig



Zu viel



Richtig

### **Triggermodes:**

Triggers are special events which are toggled when a voltage level is reached.

Oscilloscopes are using triggers as reference-points to display a stable wave-form.

Auto-Mode: Display is refreshed automatically. The triggers are not influencing this.

Normal Mode: Display is refreshed by triggers.

Single Mode: Display is refreshed by a trigger and switches to HOLD.

## 4. Security informations

Please note our security informations: This product is for usage in dry rooms only. It must not get wet or moist.

This is no toy and small parts can be swallowed and lead to death.

We can not ensure a perfect function by using third-party supplies.

The device can be damaged by higher voltage and could cause fire or lead to damage by an electric shock.