

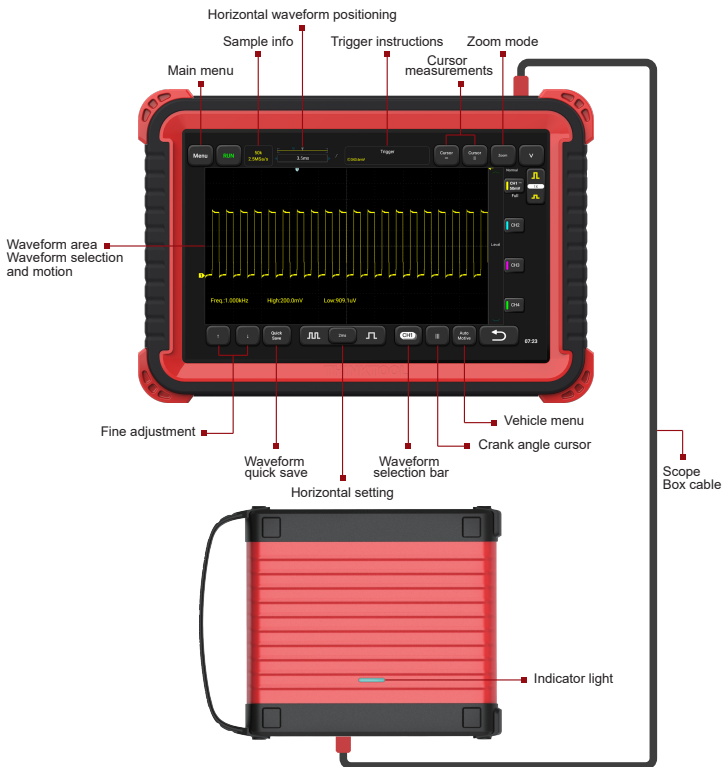


THINKTOOL Scope Box

Quick Start Guide

All information, illustrations and specifications contained in this manual are based on the latest information at the time of publication and we reserve the right to change without notice.

Overall Description of Appearance and Interface

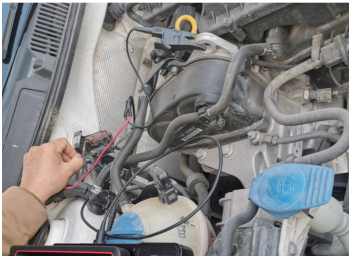


- View all terminal ratings: To avoid fire and the impact of excessive current, please check all ratings and labeling instructions on the product. Please refer to the product manual for details of the rating before connecting the product.
- Connect and disconnect the probe correctly: Connect to the probe correctly. The ground terminal (or black line) of the probe is the ground phase. Do not plug in or out when the probe or test end is connected to the voltage source. Disconnect the probe input terminal and probe reference conductor from the circuit before disconnecting the probe from the testing device.
- The 4 channels of the Scope box and probe calibration signal ground is common ground, please do not connect with non-ground line!

1 Wiring Instructions for Voltage Measurement



Clip the clamp to the battery negative (ground), insert the needle into the charge connector of the required test connection plug, and connect the BNC wire signal end to the needle, or hook the high-frequency probe on the needle;



Connect BNC terminal to the scope box.

Please connect probe to the BNC port.



⚠ Note: 4 channels are common ground, do not connect to the wrong line.

2 Description of Connection for Current Measurement

According to different test positions, select the appropriate current clamp, and select the appropriate gear, set the corresponding attenuation in the probe of the scope box. Please connect the BNC end to the scope box, clip the current clamp on the measuring cable, and make the current direction indicated by the head of current clamp consistent with the actual current direction.



3 Instructions of Secondary Ignition Probe Connection

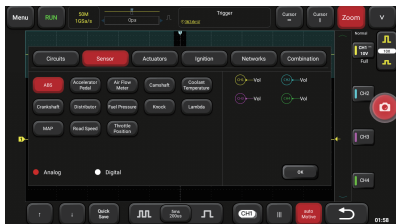


- Please connect the BNC to the scope box, and the ground clamp to the battery negative(Ground);
 - For the model with cylinder wire, clamp the secondary ignition probe on the cylinder wire;
 - For COP independent ignition models, place the ignition probe directly above the ignition coil and ensure good contact.
- ⚠ Note: Additional cost are required for Secondary Ignition Probe.



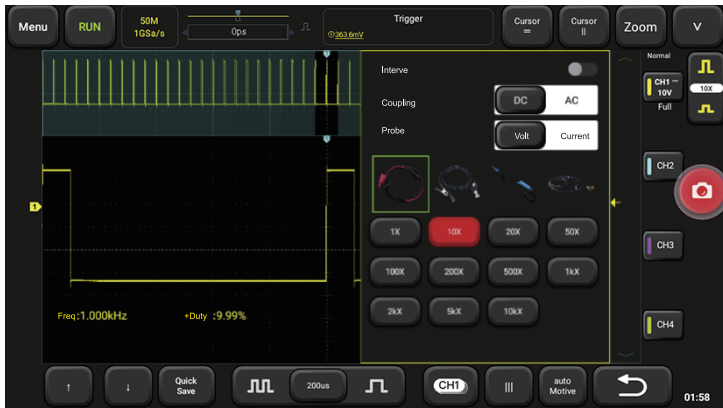
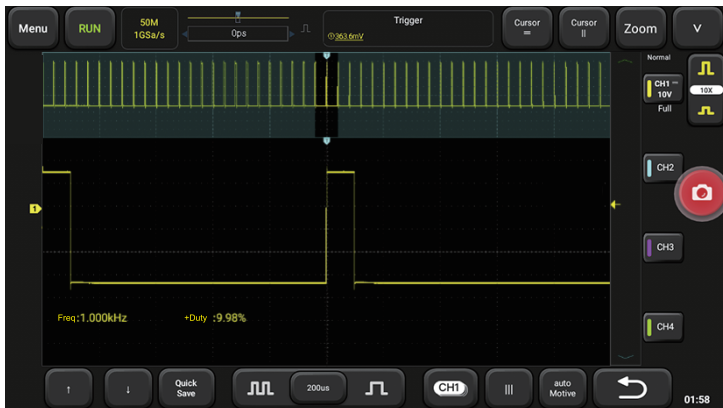
4 Use the Vehicle Menu

Click the vehicle menu button, select the type of test, and further select the test part or signal. According to the requirements of wiring, press "OK", then start the vehicle test.



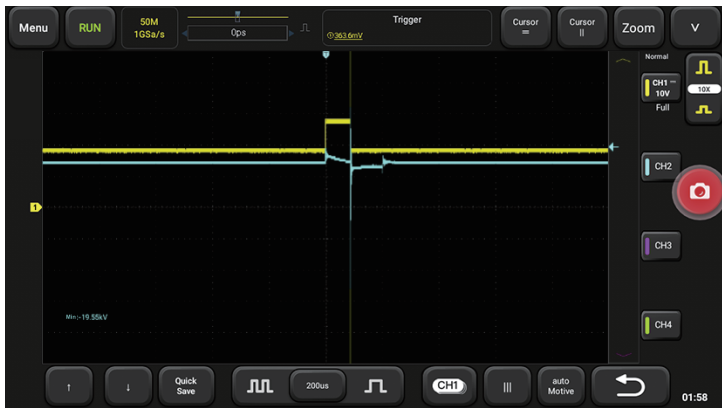
5 Open and Close Channels and Use Vertical Menu

Click the channel button to open or close the channel display, or to open the channel Settings menu.



6 Waveform Selection and Motion

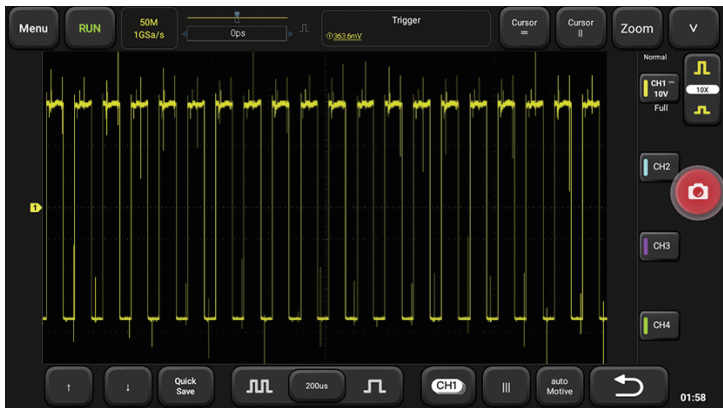
Click on the waveform to select the waveform, holding down the waveform to move the waveform horizontally or vertically.



⚠ Note: when there is a large number of waveform, you can click the lower channel button to open the channel menu and select waveform. At this point, it's invalid to click on waveform selection.

7 Adjust Size and Density of Waveform

When the waveform is too dense or too sparse, it is not conducive to observe.



8 Adjust Synchronized Electric Level

When the waveform is unstable or cannot be synchronized, it is necessary to adjust the trigger source or trigger level to make it synchronous and stable.

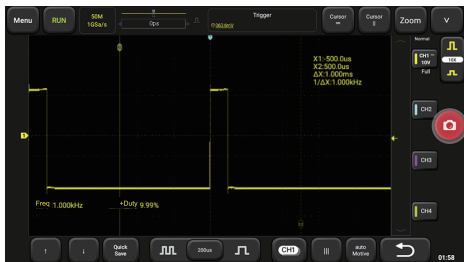


9 Automatic Measurement of Waveform Data

Open the main menu, select the measured channel in the measurement, and add it.



10 Cursor Measurements



In the shortcut menu below, you can quickly open the cursor, by sliding the cursor, measure the waveform of the voltage value, voltage difference, time difference, frequency, etc.

(the difference value between the two vertical cursors is the time. It can measure period, other time difference or the engine speed, etc. Its inverse is the frequency).

11 Number of Waveform lattice

The vertical direction represents the voltage. According to the voltage gear position of each channel and the number of lattice at the zero point of the waveform distance from the channel, the voltage at the required position can be calculated.

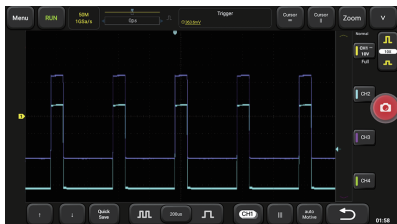
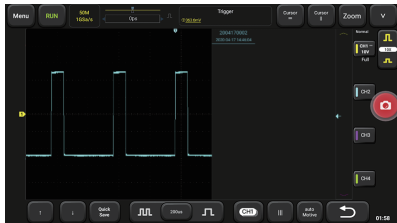
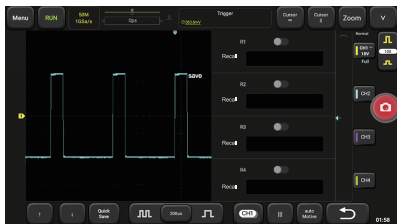


The horizontal direction represents the time, and the time is calculated according to the time base position of each lattice.

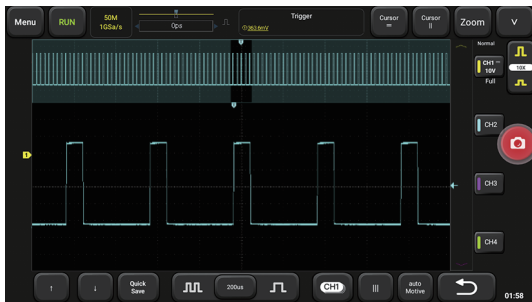
12 Save and View Waveform



Save: main menu - > save - > select saving channel and saving type, input waveform name - > click on "save"
View: switch the channel interface, open Ref and select the waveform to be viewed.



13 Zoom



Sometimes it is necessary to check and organize the waveform, such as the entire period of the crankshaft/camshaft; also, you need to look at the details, such as the waveform of one or two waveform of the crankshaft, and you need to use zoom. Click the "zoom" button to enter/exit zoom.

14 Open and Close Menu

Click the "menu" button to open/close the menu, or click anywhere blank to close the menu. Click the function button in the menu to switch functions.



15 Probe Compensation

While testing high frequency signal, it is necessary to calibrate the high frequency probe. Clamp the probe at the calibration signal end and adjust the adjustable capacitance on the probe to make the waveform at the same level (such as channel 3). Channel 1 and channel 2 are not normal waveform.



Please connect probe with probe calibration port.

16 Warranty Card

1. The device is guaranteed for one year.
2. Before replacement, please ensure complete package; Before replacement/repair, please call the service number to confirm the shipping address.
3. Product warranty starting date is based on the purchase date.

Service Line: 1-833-692-2766

Customer Service Email: support@thinkcarus.com

Official Website: www.thinkcar.com

Products tutorial, videos, Q&A and coverage list are available on Thinkcar official website.

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