User Manual

Intelligent Power Circuit Probe Tester
(3rd Generation)

CP30

Support 0-80V Electrical System Testing

Version: A02

FCC REQUIREMENT

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, whi-ch can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARINING

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End user must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The mobile device is designed to meet the requirements for exposure to radio waves established by the Federal Communications Commission (USA). These requirements set a SAR limit of 1.6W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.733W/kg.

For body operation, this device has been tested and meets FCC RF exposure guidelines when used with any accessory that contains no metal and that positions a minimum of 15mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

COPYRIGHT INFORMATION

This equipment is used by professional technician or maintenance personal.

REGISTERED TRADEMARK

You can visit the website: https://www.obdresource.cn for information about OBDResource products.

Contents

Note: Due to different product versions, some descriptions, icon interpretations, and diagrams in the manual are slightly different, so we hereby explain.

Safety Precautions and Warnings

To prevent personal injury or damage to the vehicle and the troubleshooting instrument, please read this user manual carefully and observe the following safety precautions when operating the vehicle.

1) Always conduct vehicle testing in a safe environment.

2) Do not attempt to operate or observe the tool while driving the vehicle. Operating or observing tools can be distracting for drivers and can lead to fatal accidents.

3) Wear safety goggles that comply with ANSI standards.

4) Keep clothing, hair, hands, tools, test equipment, etc., away from all moving or hot engine parts.

5) Operate the vehicle in a well-ventilated work area. Exhaust gases are toxic.

6) Place stoppers in front of the drive wheels and never leave the vehicle unattended while testing.

7) Use extreme caution when working around ignition coils, distributor covers, ignition wires, and spark plugs. When the engine is running, these components create hazards.

8) Put the transmission in P (for A/T) or N (M/T) and make sure the parking brake is engaged.

9) Place a fire extinguisher nearby that is suitable for petrol/chemical/electrical fires.

10) Do not connect or disconnect any test equipment while the ignition is on or the engine is running.

11) Keep the troubleshooter dry, clean, and free of oil/water or grease. If necessary, use a mild detergent on a clean cloth to clean the outside of the troubleshooter.

12) Our company is not responsible for any damage caused by the unintentional or intentional misuse of our products or tools.

1. Overview

1-1. About the Product

This product is a new generation tester for intelligent electrical system circuit testing, which is specially designed to test all 0 - 80V vehicle electrical systems. This product is professional, accurate and intelligent.

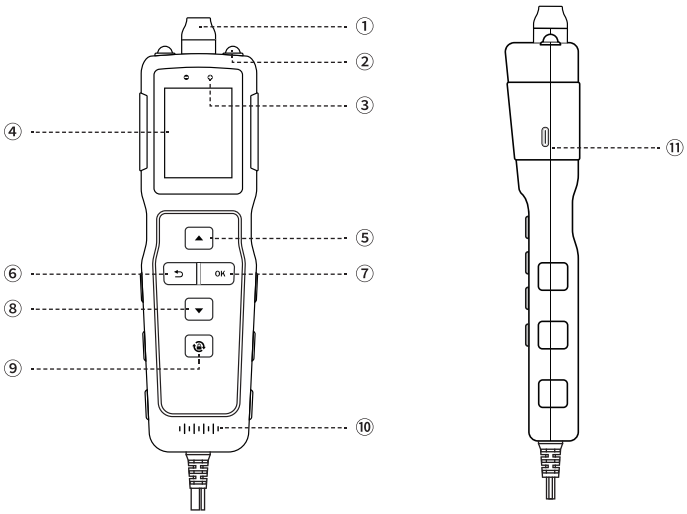
This product boasts a well-crafted design, ease of operation, and full functionality. It features a 2.4-inch high-resolution color screen with backlighting, providing an intuitive and clear display of the test process and results. The instrument is designed with robust protection against common errors, such as incorrect signal line connections, reverse polarity, overvoltage, and excessive load current, ensuring safer and more convenient use.

This product is a next-generation handheld intelligent electrical system tester that combines the functionalities of a digital multimeter, digital oscilloscope, automotive circuit tester, fuel injector diagnostic tool, and component activation functions.

1-2. Product Introduction

2. Product Description

2-1. Product Structure and Panel Description



				
Up Key	Down Key	Back Key	Confirm Key	Lock/Rotate Key

（1）Probe hole —— Used for replacing the probe when testing different circuits or components.

（2）Front LED light —— Provides illumination in dark work areas for convenient testing.

（3）LED status indicator —— Indicates the test results with green or red lights for guidance.

（4）Display —— Visual display, 2.4-inch TFT color screen.

（5）Up Key —— Used to navigate between different interfaces, increase values, and flip through pages.

（6）Back key —— Used to cancel selected content or return to the previous interface.

（7）Confirm key —— Confirms selected content and returns to the main function interface.

（8）Down Key —— Used to navigate between different interfaces, decrease values, and flip through pages.

（9）Lock/Rotate Key —— Lock/unlock the current interface to facilitate the accurate identification of real-time data. **A long press will rotate the screen by 180°, a feature available exclusively in the multimeter function interface.**

（10）Buzzer —— Emits a warning sound based on the test results, providing an auxiliary alert.

（11）Type-C port —— Connect the Type-C cable to the computer, launch the software, and follow the steps to upgrade (See Section 4-9).

2-2. Power Connection

This product is powered by a vehicle battery or other external power source. Connect the red clip to the positive terminal of the battery and the black clip to the negative terminal. The device will automatically boot into the work interface, and the front LED will illuminate for easy operation in dark areas.

2-3. Automatic Short-circuit Protection

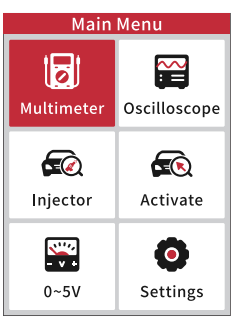
If the current is overloaded, the internal circuit breaker system will automatically trip for protection. The circuit breaker continuously monitors the tool to prevent overload, providing a critical safety measure with practical functionality.

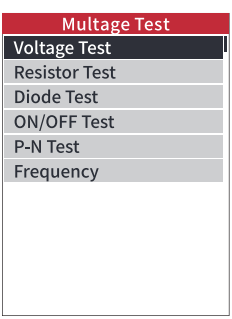
3. Use and Description of Functions

3-1. Multimeter mode

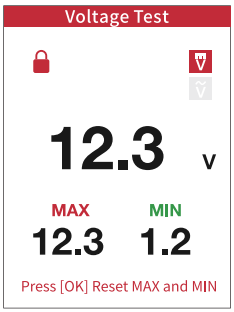
The device features a 2.4-inch large color screen and a 6-grid interface design, providing a clear display, simple operation, and convenient use. You can select the function menu using the navigation button and press the "OK" key to enter.

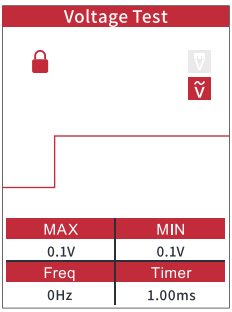
Press the "Up/Down" key in the main menu to select the function menu, and then press the "OK" key to enter.





1. Voltage Test: Select the voltage test mode, connect the ground clip (auxiliary grounding wire) to the negative terminal, and attach the probe tip to the positive terminal to measure the voltage. Use the "Up/Down" keys to switch between test modes. Once the probe tip is connected to the circuit, the display will show the maximum voltage, minimum voltage, frequency, and duty cycle.



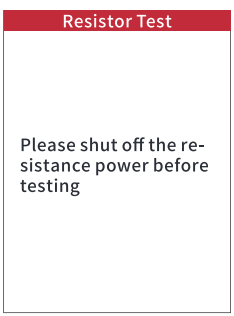


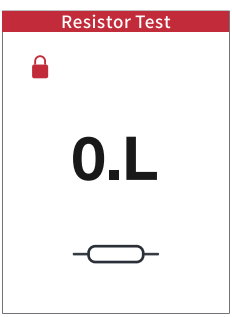
As Shown in the Figure Above:The display shows the current measured value, with the maximum and minimum values recorded automatically. If voltage fluctuations are significant, press the Lock button to freeze the instantaneous value for closer inspection.

In voltage test mode, the device automatically adjusts its measurement range to accommodate varying voltages, allowing it to accurately measure up to a maximum of 100V.

During voltage testing, the probe only receives signals and does not emit any pulse signals, ensuring that the measurement process does not interfere with the tested point.

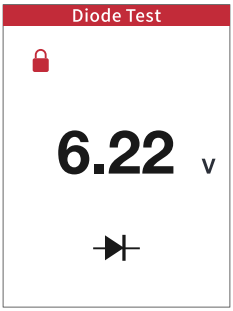
2. Resistance Test: Enter the resistance test option: connect the ground clip (auxiliary grounding wire) to one side of the resistor being measured, and connect the probe tip to the other side. The device will display the resistance value. (Please turn off the power of the test unit before entering the resistance test).



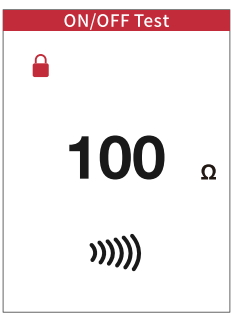


The displayed resistance value indicates the resistance measured during the test. If the detected resistance exceeds the meter's measurement range, the display will indicate "0.L" to signify an out-of-range reading.

3. Diode Test: Connect the ground clip (auxiliary grounding lead) to the negative terminal of the diode being tested, and connect the probe tip to the positive terminal. The display will show the measured value of the diode.



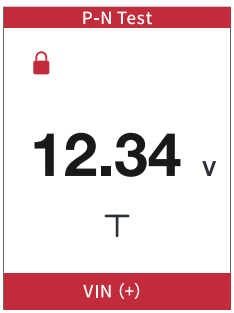
4. Open/Short Circuit Test: To perform an open/short circuit test, connect the ground clip (auxiliary grounding lead) to one end of the circuit to be tested, and connect the probe tip to the opposite end. The display will indicate the measured resistance value, which can help identify whether the circuit is open or shorted.

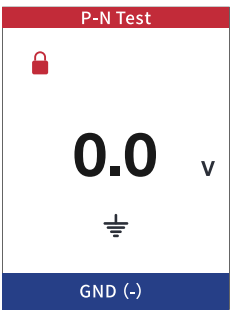


If the resistance between the two test points is ≥100Ω, the circuit is considered open, and the buzzer will remain silent. If the resistance between the two test points is <100Ω, the circuit is considered to have good continuity, and the buzzer will sound continuously. Simultaneously, a red LED will illuminate to indicate this condition.

5. P- N Test: Connect the ground clip to the vehicle's grounding point, and use the probe to touch the positive and negative terminals of the vehicle system. The figure below shows the pre-test setup.

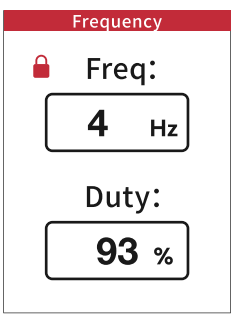
When the probe contacts the positive terminal, the display shows the voltage value and positive polarity (+). When the probe contacts the negative terminal, it shows the negative voltage value and negative polarity (–).





6. Frequency test: Connect the ground clip to the vehicle's grounding point, and use the probe to contact the location to be measured. The display will show the frequency and duty cycle of the measured signal.

Note: During the use of the multimeter, you can long-press the freeze button to rotate the display 180° for easier viewing, as shown in the figure below.

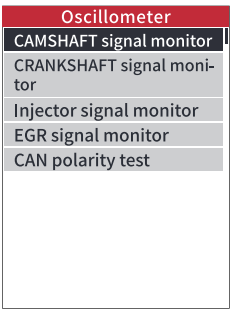


3-2. Oscilloscope mode

In the main menu, use the "Up/Down" keys to select the oscilloscope function, then press the "OK" key to enter.

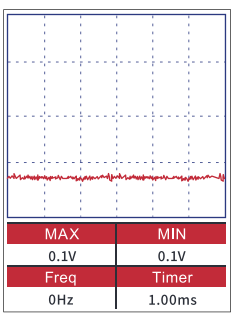
Upon entering the function, the display will show the following:

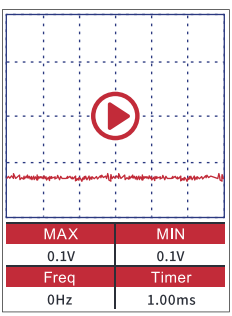
Use the "Up/Down" keys to select the test function. Press the "Back" key to exit.



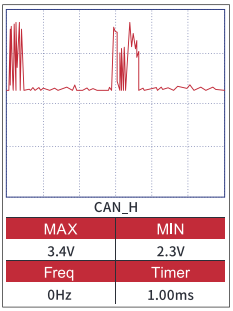
Display the current signal waveform, MAX for maximum value, MIN for minimum value, Freq for frequency, Timer for time. Press the "Lock" key to pause the waveform display for easier comparison and observation.

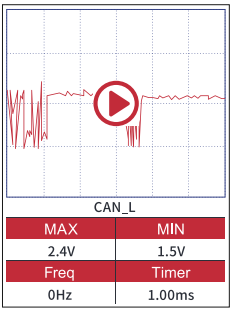
During voltage signal measurement, the meter automatically adjusts the range, with a maximum measurement of 100V.





If the measured maximum value is around 3.5V and the minimum value is around 2.5V, the measured line is CAN_H. If the measured maximum value is around 2.5V and the minimum value is around 1.5V, the measured line is CAN_L.





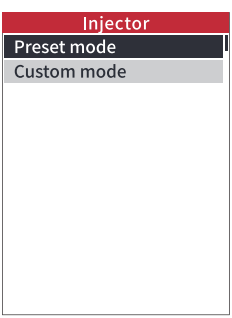
3-3. Injector Test

The product probe outputs different pulse signals to the fuel injector to check its status. This function helps diagnose the fuel injector's condition, determining if it is stuck, leaking, or has completed combustion, as well as its injection status. It can be used in conjunction with any fuel pressure tester.

Press the "Up/Down" keys to select the fuel injector test. Press the "OK" key to enter.

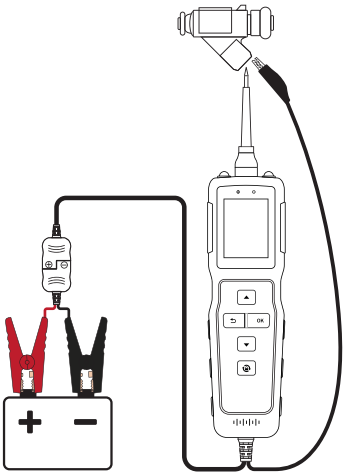
Note: Before using this function, be aware that all fuel injector off-vehicle tests should be conducted in an appropriate environment. It is recommended to use it with a fuel injector cleaner. To avoid damaging the fuel injector, in non-professional settings, the test duration should not exceed 5 seconds per test.

In the main menu, use the "Up/Down" keys to select the test mode. Then press the "OK" key to enter.



1. Preset Mode (Off-Vehicle Fuel Injector Test): Use the "Up/Down" keys to select the preset mode. Press the "OK" key to enter.

First, insert the multifunction test cable into the multifunction port (located at the top of the machine). Then, connect the battery clamp cable, attaching the red clamp to the positive terminal of the car battery and the black clamp to the negative terminal. Finally, connect the removed fuel injector to the multifunction cable.



Press the "Up/Down" keys to select the mode, then press the "OK" key to start the test.

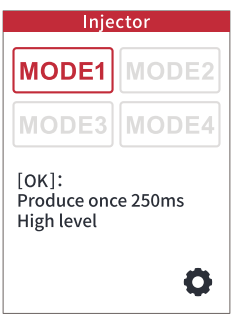
Signal Output Mode:

Mode 1: Press the "OK" key to activate the probe and output a high voltage level for 250ms.

Mode 2: Press the "OK" key to activate the probe and output a high voltage level for 1.4s, 7ms high, 20ms low.

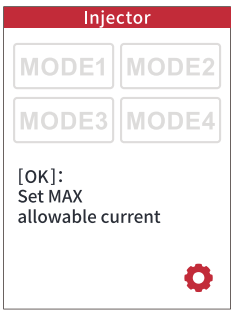
Mode 3: Press the "OK" key to activate the probe and output a high voltage level for 1.4s, 4ms high, 10ms low.

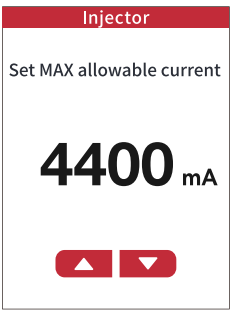
Mode 4: Press the "OK" key to activate the probe and output a pulse, 4ms high, 10ms low.



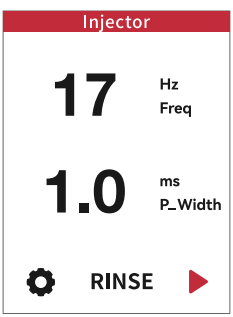
During the testing process, a red LED illuminates as an indicator.

Press the "Up/Down" keys to select the settings icon, then press the "OK" key to enter the settings. Use the "Up/Down" keys to adjust the value, and press the "OK" key to confirm the value, setting the maximum allowable current.





2. Custom Mode (Off-Vehicle Fuel Injector Test): Press the "Up/Down" keys to select the custom mode. Press the "OK" key to enter.



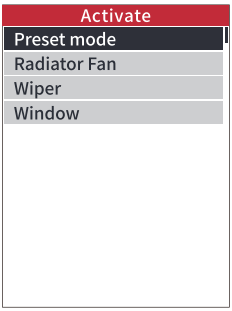
Press the "Up/Down" keys to select the frequency and pulse width, and to set, start, or pause the test. Adjust the frequency or pulse width values using the "Left/Right" keys. Hold the "Up/Down" keys to continuously adjust the values. Press the "OK" key while adjusting the frequency and pulse width to switch to the start icon.

Entering the settings allows you to set the maximum allowable current (same as the maximum allowable current setting page). During the test, you can also adjust the values when pausing the test, and the test will continue with the updated values. By adjusting the fuel injector's pulse width and frequency, you can significantly observe the injection interval frequency, thereby analyzing whether the fuel injector is stuck, leaking, or has completed combustion.

3-4. Component Activation

In the main menu, press the "Up/Down" keys to select component activation. Then press the "OK" key to enter.

1. Select Mode: Press the "Up/Down" keys to select the mode. Press the "OK" key to enter.



Warning: Activation mode is only for power supply and should not be used for any sensitive electronic devices (such as ECUs or sensor modules), as there is a risk of damaging components.

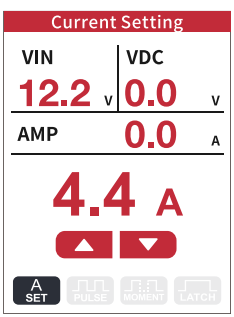
Warning: Do not perform any tests on ECU modules or SRS (Supplemental Restraint System) systems before the system is completely disabled or disconnected.

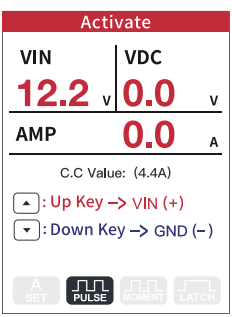
Warning: Powering the electrical system can damage sensitive electronic components in the vehicle. Therefore, it is strongly recommended that you refer to the vehicle manufacturer's diagrams and diagnostic procedures.

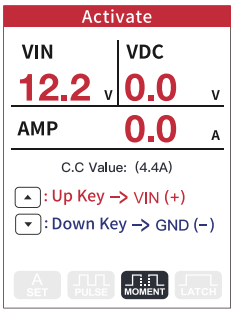
The component activation function is designed to generate activation signals for test components, such as indicator lights, motors, and other vehicle electrical devices.

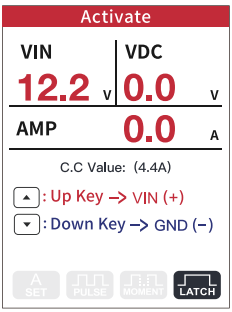
Display Values:

VIN: Detected Voltage **AMP:** Detected Current **VDC:** Power Supply Voltage









“SET” Circuit Breaker : Press the "OK" button to activate the mode selection as "SET" mode. Use the "Up/Down" buttons to adjust the overcurrent value from 0.1A to 8A.

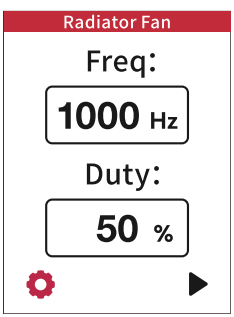
“PULSE” Mode : Press the "OK" button to select and activate the "PULSE" mode. Press the "Up" button to apply power, and press it again to stop.

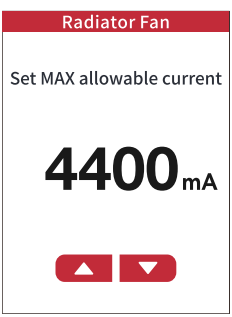
“MOMENT” Mode : Press the "OK " buttons to select and activate the "MOMENT" mode. Press the " Up" button to apply power, and release the "Up" button to stop.

“LATCH”Mode : Press the "OK" button to select and activate the "LATCH" mode. Press the "Up" button to apply power, and press it again to stop.

Note : When applying power by pressing the "Up" button, a red LED will illuminate as an indicator. If the current through the probe exceeds the set value, the power will be cut off and activation will stop, with an "Overcurrent Protection" prompt appearing.

2. Radiator Fan, Windshield Wipers, Electric Windows: Press the "Up/Down" keys to select this option. Press the "OK" key to enter. (The following example uses the radiator fan.)





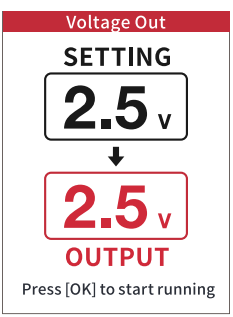
Press the "Up/Down" keys to select values, settings, start, or pause. Press the "OK" key to confirm. After selecting a value, use the "Up/Down" keys to adjust it. Holding the "Up/Down" keys allows for continuous adjustment. You can customize the corresponding values, including setting the maximum allowable current (same as the maximum allowable current setting page), for easy activation.

3-5. 0~5V Power Supply

The 0-5V power supply function is very useful for checking the wiring of the ECU/ECM. After using a multimeter to check the sensors, if there are still issues, you can simulate the sensor output voltage to verify the ECU connections. You can use an OBD scanner to diagnose the results in the ECU. The power supply voltage can be set from 0 to 5V (current < 100 mA), with increments of 0.1V.

Note: The 0-5V power supply mode is designed as an active mode, but its function differs from the component activation mode. It can regulate voltage outputs below 5V and limit the current to less than 100 mA. (This is a safety measure to prevent damage to electronic components).

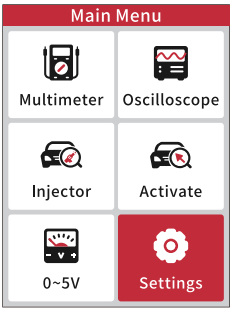
Press the "Up/Down" keys to select the sensor voltage simulation mode (maximum voltage is 5V). Press the "OK" key to output the set voltage.

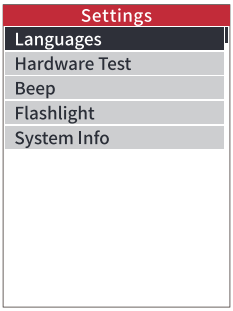


Press the "Up/Down" keys to adjust the set voltage and output voltage. Press the "OK" key to start the sensor voltage simulation test. During the test, a red LED will illuminate as an indicator.

3-6. Settings

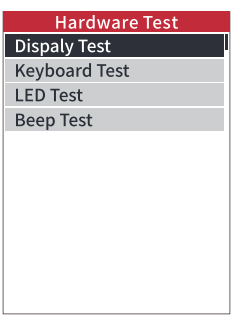
In the main menu, press the "Up/Down" keys to select the settings item, then press the "OK" key to enter the settings.





1. Language Selection : Press the "Up/Down" keys to select the desired language. Press the "OK" key to confirm.

2. Hardware Self-test : Press the "Up/Down" keys to select the hardware self-test. Press the "OK" key to enter the test.



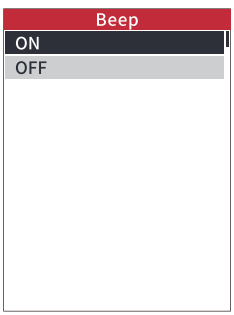
Screen Self-Test : Used to detect if the device's display screen has any dead pixels, ensuring that the screen content is fully displayed.

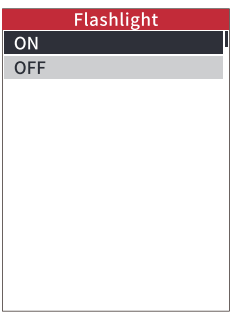
Button Self-Test : Used to detect if the device's buttons are unresponsive or unusable.

LED Light Self-Test : Used to detect if the device's LED lights can be illuminated, ensuring functionality in dark environments.

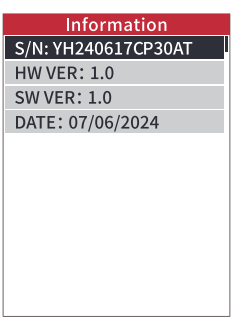
Buzzer Self-Test : Used to detect if the device's alert tones are functioning normally.

3. Buzzer/Flashlight : Press the "Up/Down" keys to select this option, then press the "OK" key to confirm. You can choose to turn the buzzer or flashlight on or off.





4. System Information : Press the "Up/Down" keys to select system information, then press the "OK" key to confirm. View the device information.



4. Test Applications

4-1. Continuity Test

When the probe is in "Multimeter Mode" and the resistance test function is selected, connect the probe tip to the vehicle chassis ground or auxiliary ground wire. This allows testing the continuity of the "DODE" mode on the wires and components of the vehicle's electrical system during connection or disconnection.

In the "Main Menu," when the probe is in good contact with the ground, the LCD screen will display "0.0Ω." In "SMART" mode, if the sound is enabled in the settings, the buzzer will emit a beep simultaneously.

In other cases, the LCD screen will only display the resistance value. If the resistance is greater than 200 kΩ, the LCD screen will display "0.L."

Warn : Do not perform any tests on any ECU modules or SRS (Supplemental Restraint System) systems until the system is completely disabled or disconnected.

Note : You can use the probe tip to pierce through the plastic insulation layer of the wire for testing.

4-2. Signal Circuit Test

Use an OBDII scanner to read fault codes (DTC) from the vehicle. If an issue is detected in a specific sensor circuit, there is a quick method to test the sensor condition using the probe.

For example, if you suspect there is a problem with the vehicle's intake manifold absolute pressure (MAP) sensor circuit, follow these steps to test the sensor:

1. Enter the oscilloscope mode and use the probe with a chassis ground or auxiliary ground wire.
2. Connect the vacuum pump to the M.A.P. sensor.
3. Touch the probe tip to the positive terminal of the M.A.P. sensor and observe the LCD screen. Normally, there should be a well-formed sine wave.
4. Apply the vacuum pump.
5. Release the vacuum pump and observe the readings on the LCD screen.

4-3. Activate Components in Hand

Example: Testing the Working Condition of a Bulb.

1. Connect the battery clips to the power source.
2. Enter component activation mode and select the MOMENT function.
3. Connect the auxiliary ground wire to the negative terminal of the component being tested, and connect the probe to the positive terminal. Press the "Up" key to trigger the activation test.
4. The screen will display the values of VDC, AMP, and VIN.

Note: To avoid damaging components, please refer to the specifications and parameters of the components, and then set the overcurrent value.

If the probe circuit breaker trips, it indicates an overcurrent condition. The reasons for this are as follows:

1. You have connected the probe tip to a direct ground or negative voltage.
2. The component you are testing is short-circuited.
3. The component being tested has a very high current (such as a starter motor).

4-4. Activate Vehicle Components

Warn :

Activation mode is only for power supply and should not be used for any sensitive electronic devices (such as ECUs or sensor modules), as there is a risk of damaging components.

Do not perform any tests on ECU modules or SRS (Supplemental Restraint System) systems until the system is completely disabled or disconnected.

Supplying power to the electrical system can damage the vehicle's sensitive electronic components. Therefore, we strongly recommend that you refer to the vehicle manufacturer's schematics and diagnostic procedures.

Test Procedure :

1. Connect the battery clips to the power source.
2. Enter component activation mode and select the MOMENT function.
3. If necessary, connect the auxiliary ground wire to the negative terminal of the component being tested.
4. Connect the probe tip to the positive terminal and press the "Up" key to start the test.
5. The screen will display the values of VDC, AMP, and VCC.

If the circuit breaker probe trips or the LCD screen displays an overload message, you can adjust the overcurrent value and repeat the above steps for further activation.

Note: To avoid damaging components, please refer to the specifications and parameters of the components, and then set the overcurrent value.

If the probe circuit breaker trips, it indicates an overcurrent condition. The reasons for this are as follows:

1. You have connected the probe tip to a direct ground or negative voltage.
2. The component you are testing is short-circuited.
3. The component being tested has a very high current (such as a starter motor).

Warn : Contacting a protected circuit and grounding it may blow the vehicle's fuse or trip the probe.

4-5. Check for Damaged Ground Contacts

Using the Probe Tip to Find Available Ground Wires.

1. Enter the component activation interface. Select the MOMENT mode function and set the overcurrent value to 1A.

2. Connect the probe tip to the available wire.

3. Press the "OK" key to trigger the power.

The screen will display the values of VDC, AMP, and VCC. If the VDC value is almost the same as VCC and the AMP value is close to 0A, this indicates a good ground. If the probe circuit breaker trips or the display shows an overload, it may indicate a ground.

Note : High-current components like the starter motor can also trip the circuit breaker.

4-6. Trace and Locate Short Circuits

In most cases, a short circuit will manifest as a blown fuse or a tripped electrical protection device (such as a circuit breaker).

Here are the best starting points for checking for short circuits:

1. Remove the blown fuse from the fuse box.

2. Use the probe tip to activate each fuse contact.

3. When the circuit breaker trips, it indicates a short circuit. Record the wire number or color.

4. Trace the wire as far as possible.

Here is an example of how to use this application:

1. If you are tracing a short circuit in the brake light circuit, you need to know that the wire must pass through the door switch. Find the color-coded wire in the wiring harness and expose it.

2. In the component activation interface, select the MOMENT mode. Use the probe tip to contact the marked wire and press the "Up" key to trigger the power.

3. If the circuit breaker trips, you have confirmed the short circuit wire. Use the probe tip again to cut the wire and power.

4. Trace the wire in the direction of the short circuit, repeating the process until the short circuit is found.

4-7. Trailer Lights and Connection Test

When the probe is in multimeter or smart test mode, connect the probe's auxiliary ground wire to the trailer light and insert the probe tip into the OBDII socket to display the current voltage. Using this method, you can check the functionality and direction of the connectors and trailer lights. If you find that the trailer light connection is correct, you can use the "Component Activation" function to test whether the trailer light is working.

4-8. Jumper Function

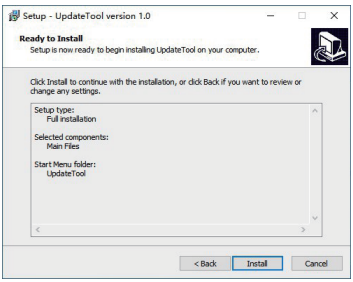
The black clip and auxiliary ground wire are directly connected through the device, while the red clip is disconnected from the vehicle's battery. This device can be used as a long jumper.

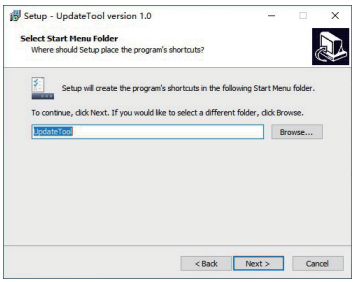
Note: When using this device for the jumper function, please avoid short circuits and overcurrent. The jumper function is not protected by the device's circuit breaker.

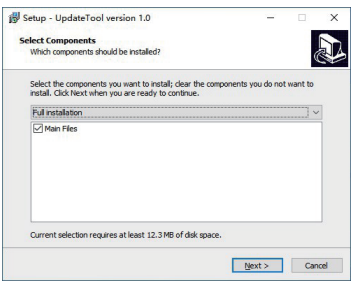
4-9. Device Upgrade

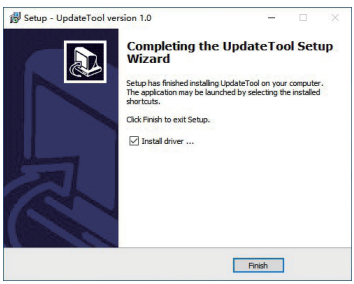
Software Installation :

1. Go to the URL "https:/www.obdresource.cn/support/software.html" and click on "Update Tool Setup V1.0.zip" to download the software. After downloading, click on the software to start the installation, During the installation process, select the default path and then click the "Next" button, as shown in the following figure.

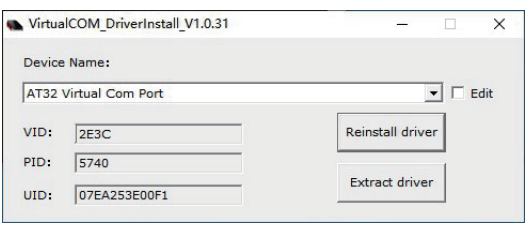




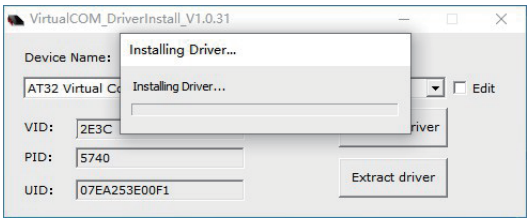


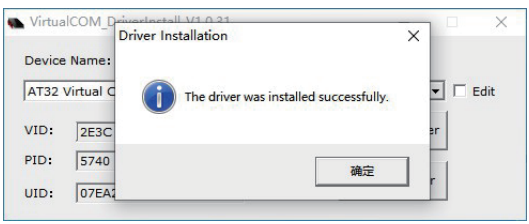


2. Install the serial port driver software by clicking the "Reinstall driver" button. If it is already installed, you can skip this step.



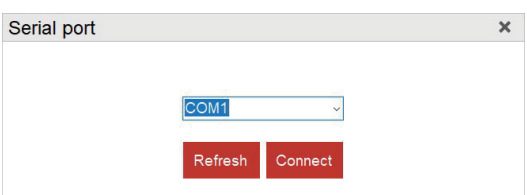
3. If the software fails to start normally after installation and displays an error message indicating "Missing. Net Framework V4.72 environment," you need to download "ndp472-kb4054531 -web.zip" from the URL "https://www.obdresource.cn/support/software.html" and instal it. Alteratively, you can download .Net Framework V4,72 or a higher version from the internet.



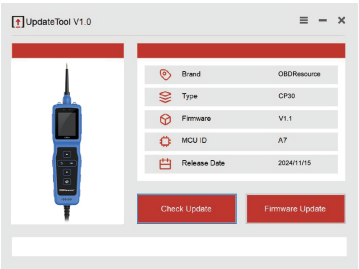


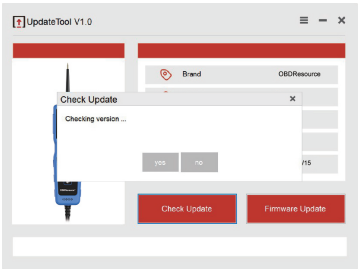
Software Usage :

1. Use a Type-C USB cable to connect the device to the computer. Select the correct serial port and click the "Connect" button to enter the software. If the connection fails, click the "Refresh" button to update the serial port list and select a new serial port to try connecting again.

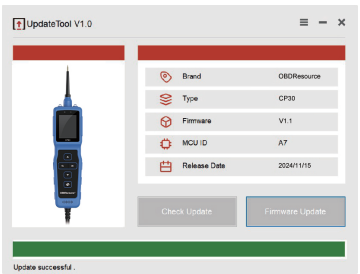


2. Click the "Check for Update" button to download the latest firmware version from the server to your local device.



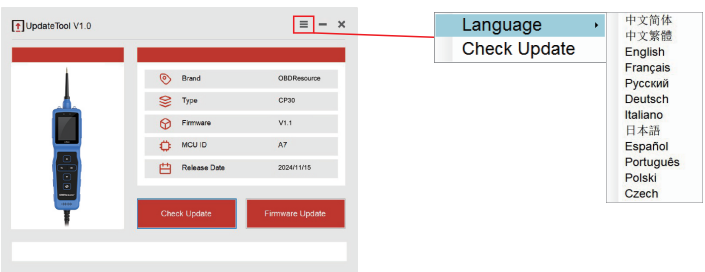


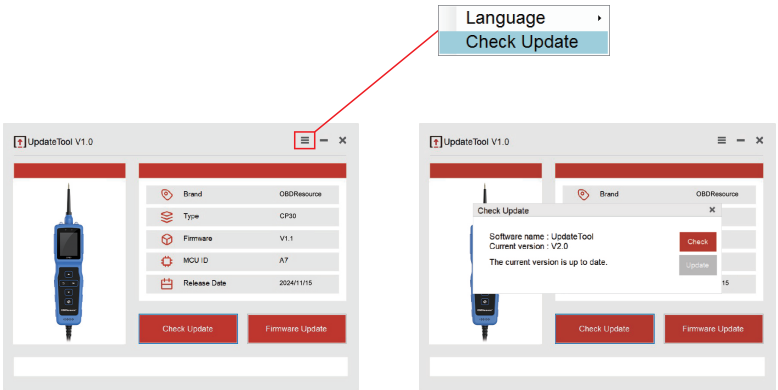
3. Then click the "Firmware Upgrade" button to perform the firmware upgrade and Flash file upgrade.



Function Options:

1. Language Selection: You can choose different languages from the dropdown menu in the top-right corner of the main interface. Supported languages include Simplified Chinese, Traditional Chinese, English, and eleven other languages.





Common Errors and Solutions:

1. Before using this software, you need to connect the product to the computer using a Type-C USB cable.

2. Software Startup Falure: This software runs on the .Net Framework V4.8. Ensure that .Net Framework V4.72 or a higher version is installed on your computer, You can download the software package from "https://www.obdresource.cn/support/software.html" or from the Microsoft official website.

3. Serial Port Not Found: Reinstall the software and ensure that the serial port driver software is selected during installation.

4. Serial Port Opening Failure: First, close the software. Then, in the Computer Device Manager → Port Options, you will see a list of all serial devices connected to the computer. Replug the device in this interface to check the corresponding serial port number. Then, reopen the software and select the correct serial port.

5. Server Connection Failure: Check if you can access www.obdresource.cn normally. If not, please contact the manufacturer.

6. Missing Files: Reinstall the software.

Precautions:

1. Run this software in administrator mode.

2. Before running the software, ensure that antivirus software is closed. If running the software without closing the antivirus software causes missing files, please reinstall the software.

4-10. Overcurrent/Overheat Protection

Overcurrent Protection :

1. When the test current exceeds the set maximum current limit, the device will respond in milliseconds to activate overcurrent protection, thereby preventing damage caused by short circuits.

2. When a short circuit occurs in the test circuit, the device will respond in milliseconds to activate overcurrent protection, thereby preventing damage caused by short circuits.

Overheat Protection :

When the test circuit temperature exceeds the high-temperature threshold, the device will respond in milliseconds to activate overtemperature protection, thereby preventing damage caused by excessive temperature. Overheat protection requires the device to cool down before it can be used again.

5. Specifications

PRODUCT SPECIFICATIONS:	
MIN Supply Voltage	8VDC
MAX Supply Voltage	32VDC
Voltage Test Range	0-80VDC
Voltage Test Resolution	0.1VDC
Probe Tip Resistance to Ground	4.7M
Resistance Test Range	0.1MΩ（Note the error value when greater than 200KΩ）
Frequency Test	5Hz - 20K Hz
Power Supply Test	＜90 mA
Red LED Responds	Probe voltage greater than battery voltage -0.8V
Green LED Response	Probe voltage less than 0.8V and resistance less than 300Ω
Oscilloscope Maximum Sampling Rate	1M Hz
Oscilloscope Maximum Monitoring Frequency	20K Hz
Circuit Breakers	8A Thermal — Self-Recovery
Operating Temperature	-20°C (-4°F) ~ 50°C (122°F)
Storage Temperature	-40°C (-40°F) ~ 65°C (149°F)
Operational Altitude	Maximum 3048meters (M)
Store Elevation	Maximum 12000meters (M)
Product Dimensions	64.5 x 240 x 43.5mm

6. Warranty and Service Statement

6-1. Warranty Card

Hello! Thank you for purchasing our product. To better serve you, please read and fill out this warranty card carefully and keep it for future reference.

Name		**E-mail**	
Purchase Date		**Phone**	
Order Number		**Product Name**	
Address			

	Date	**Causes and Solutions to the Faults**
Repair Records		

6-2. Warranty Statement

If the product has any quality issues that require repair, please return this warranty card along with the product to our company for after-sales service.

Manufacturer

OBDResource Electronics Co., Ltd
Email: info@obdresource.com
Tel: +86-755-29071623
Web: www.obdresource.cn
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EU001721038211949SOfo

RoHS

ÉLÉMENTS D'EMBALLAGE À SÉPARER ET À DÉPOSER DANS LE BAC DE TRI

UK CA

Made in China

Tech Support Group

Version number: A02

Digital User Manual