

CE FCC RoHS  

Made in China

T400

USER MANUAL
Car Scanner



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Precautions

To prevent personal injury or unnecessary damage while using the tool, please read this Owner's Manual carefully first and observe at least the following safety precautions when using the vehicle:

- * Always perform vehicle testing in a safe environment.
- * Do not attempt to operate or observe tools while driving the vehicle, as it can cause to the operator and may result in a fatal accident.
- * Wear safety goggles that meet ANSI standards.
- * Keep clothing, hair, hands, tools, test equipment etc., away from all rotating or heated parts of the engine.
- * Operate the vehicle in a well-ventilated work area. Exhaust gases are toxic.
Place a block in front of the drive wheels, and never leave the vehicle unattended during testing.
- * Be extra careful when working around the ignition coil, distributor cap, spark wires, and spark plugs. These components can produce dangerous voltages when the engine is running.
- * Place the transmission in P (for A/T) or N (for MT), and make sure the parking brake is engaged.
- * Have a suitable fire extinguisher for gasoline/chemical/electrical fires nearby.
- * Do not connect disconnect any test equipment with the ignition switch on or the engine running.
- * Keep the diagnostic tools dry, clean, and free from oil/water or grease. When necessary, the exterior of the diagnostic tools with a neutral cleaner on a clean cloth.

Product Introduction

This manual is based on the product (T400_V1.0.01) for editing.

T400 Multifunctional Scanner, integrates OBD II scanning and battery diagnosis functions. It supports various special functions such as relay test, simulation, fuel injector detection, battery diagnosis, etc., equipped with a 3.5-inch high-brightness TFT color display, built with the latest generation processors and ultra-large memory, and responds more quickly. It has more than 50,000 built-in fault codes, suitable for all vehicles that comply with OBD II protocol (with a model matching rate of up to 97%), and is an ideal tool for repair work.

Function:

- | | | | |
|--------------------|-------------------------------|------------------|-------------------------------|
| * Read fault code | * Vehicle monitor test | * DTC lookup | * OBD voltage |
| * Clear fault code | * Oxygen sensor | * Cloud printing | * Battery test |
| * I/M status | * Component test | * Relay test | * Voltage waveform monitoring |
| * ECU information | * Freeze frame | * Injector test | * CO idle adjustment |
| * Live Data | * Vehicle year identification | * Signal output | * Troubleshooting guide |

Supported Protocols:

- | | | |
|--------------------------------------|--|---|
| ● ISO9141-2(5 baud init, 10.4 Kbaud) | ● ISO14230-4 KWP (5 baud init, 10.4 Kbaud) | ● ISO15765-4 CAN (29 bit ID, 500 Kbaud) |
| ● SAE J1850 PWM (41.6 Kbaud) | ● ISO14230-4 KWP (fast init, 10.4 Kbaud) | ● ISO15765-4 CAN (11 bit ID, 250 Kbaud) |
| ● SAE J1850 PWM (41.6 Kbaud) | ● ISO15765-4 CAN (11 bit ID, 500 Kbaud) | ● ISO15765-4 CAN (29 bit ID, 250 Kbaud) |

Battery Diagnosis:

- Precise, fast, simple operation with intuitive display.
- Main functions include: Quick Test, Standard Test, Cranking Test, Charging Test, Voltage Waveform Monitoring, Load Test.
- Can test all automotive starting lead-acid batteries, including ordinary lead-acid batteries, AGM flat batteries, AG spiral batteries, and gel batteries, etc.
- Polarity reverse protection, reverse polarity will not damage the tester or affect the vehicle and battery.
- Test standards include of the battery standards in the world at present: CCA, JIS, GB, SAE, MCA, CA, DIN, IEC, EN, BCI.

Product Specifications:

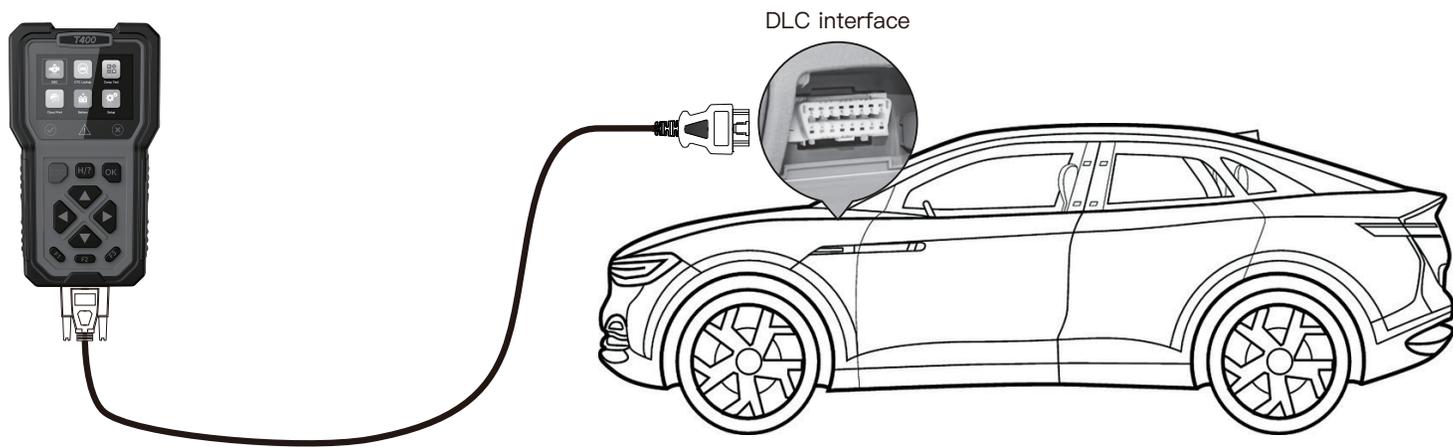
Display	3.5 inch TFT color screen
Operating temperature	-10~85°C (14~185°F)
Storage temperature	0~70°C (32~158°F)
External power	8~30V DC
Range CCA	20~2000CCA
Battery range	10~300AH

Tool Description



Connected Car

1. Turn off the ignition switch.
2. Find the 16-pin data link connector of the vehicle.
3. Plug the DB15 the device's DB15 interface.
4. Plug the OBD II cable into the vehicle's DLC.
5. Turn on the ignition switch and the engine.
6. Select **[OBD]** to enter the interface on the main menu.



Automobile Diagnosis

Read Fault Code

When the engine fault light on the car's dashboard lights up (Fig. 1), the T400 can be used to read vehicle faults, and after repairing the fault, the tool can be used to clear the fault light prompt.

Select **[OBD]** → **[Read DTC]** , press **[OK]** to confirm, enter the read fault code function, if there is a fault code, the screen will display the code (Fig. 3), if multiple DTC fault codes are found, please use **[◀]****[▶]** to page through and check all codes.



Fig. 1

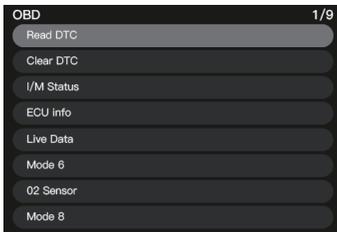


Fig. 2

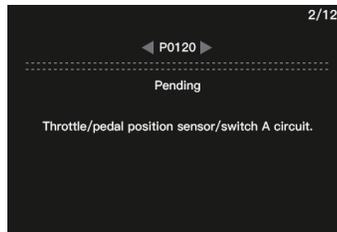
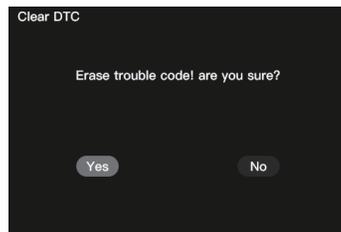


Fig. 3

Clear Fault Code

Before clearing the fault code, please inspect the vehicle according to the fault code prompt, and the vehicle inspection can be performed after the vehicle inspection is completed.

Select **[Clear DTC]** , press the **[OK]** to continue, and the display is as follows:

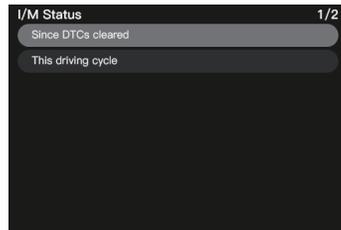


Note: Clearing the fault code does not mean that the fault code in the ECU has been completely eliminated, as long as the vehicle is faulty, the fault will continue to appear.

I/M Status

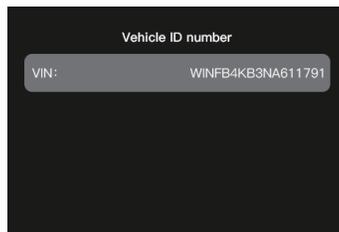
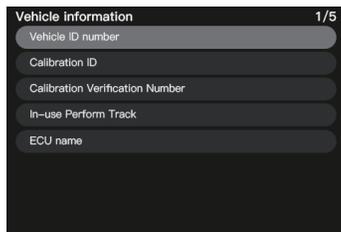
【I/M Status】 function is used to check the operation of the emission system on vehicles that comply with OBD II. It is a splendid function to whether the vehicle complies with national emission testing. You can select the 【Since DTCs cleared】 and 【This driving cycle】 . You can also set the I/M key to check in one key.

Select 【I/M Status】 , press the [OK] key to continue, and the display is as follows:



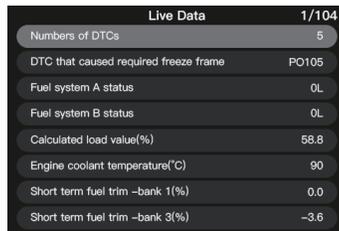
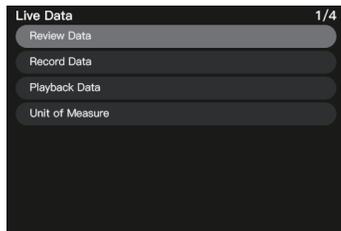
ECU Information

Select **【ECU info】** to enter the interface, there are **【Vehicle ID number】**、**【Calibration ID】**、**【Calibration Verification Number】**、**【In-use Perform Track】**、**【ECU name】** to choose, enter to view information.



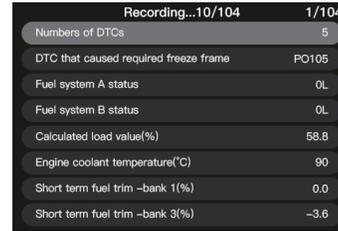
Live Data

【Live Data】 displays real-time vehicle PID data, all supported data will be displayed, you can quickly browse by pressing the [◀][▶], or you can select custom data for comparison. Select **【Live Data】** to enter the interface, there are **【Review Data】**、**【Record Data】**、**【Replay Data】**、**【Unit of Measure】** to select.



Record Data

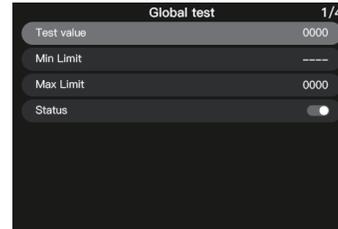
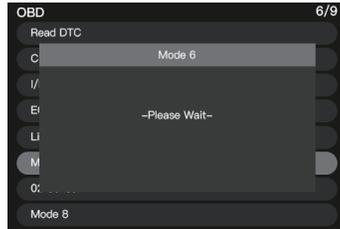
Select **【Live Data】** → **【Record Data】** → **【Complete Data Set】** → **【Manual Trigger】** → **【Location#1】** to continue, as follows:



In-Vehicle Monitoring Test

After repair or clearing of trouble codes, the vehicle monitor test is useful, the tool allows access to the vehicle monitor test results of specific components, vehicle manufacturers responsible for assigning MID, CID, used to test different systems and components.

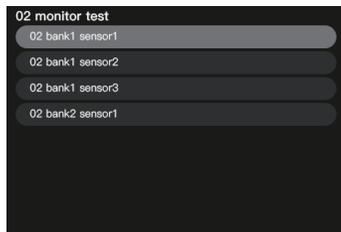
Select **【Mode 6】**, press the **【OK】** to continue, the display changes follows:



Oxygen Sensor

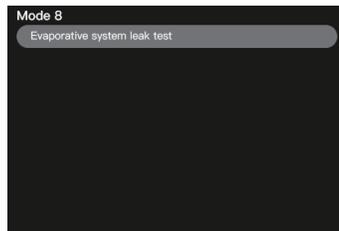
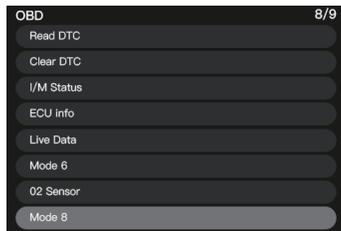
The Oxygen Sensor are tested to identify problems related to fuel efficiency and vehicle emissions. The Oxygen Sensor test does not support CAN communication protocol, CAN communication protocol vehicles can be tested in **【Mode 6】** .

Select **【O2 Sensor】** and ensure the ignition switch is in the ON position, the vehicle is powered on but not, select O2 bank1 sensor 1, select enter the threshold display interface:



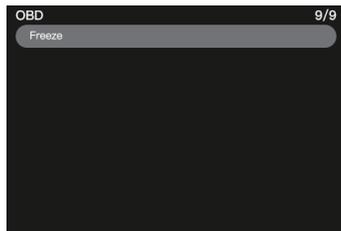
Component Test

Select **【Mode 8】** to enter the interface, which can perform evaporative system leak test.



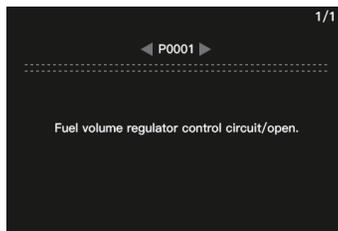
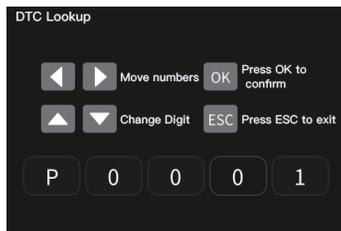
Freeze Frame

Select **[Freeze]** to enter the interface, view vehicle operating parameters when DTC is detected, and you can quickly browse by pressing the **[◀][▶]**.



DTC Lookup

Select **[DTC Lookup]**, follow the prompts on the screen to operate, enter the fault code and press **[OK]** to confirm, can quickly find the corresponding problem of the fault code.



Component Detection

Relay Test

Select the **[Relay Test]** function, press **[OK]** to enter, and connect the host to the relay test box via Type-c. The relay can be used with 5-terminal relays or 4-terminal relays.

Tip: Before testing the relay, we should first check whether the relay is 12V or 24V. If it is a 12V relay, we should choose a 12V battery to power the test. For a 24 relay, please select a 24V battery to power the device.



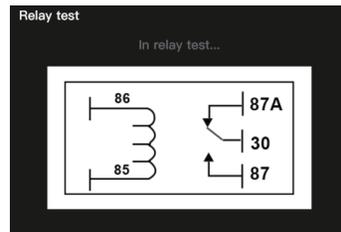
1. Connect the relay test box and device via USB-C.
2. Find the appropriate hole and insert the relay.
3. Press **[OK]** start the test.



(5-terminal relay)



(4-terminal relay)



Injector Test

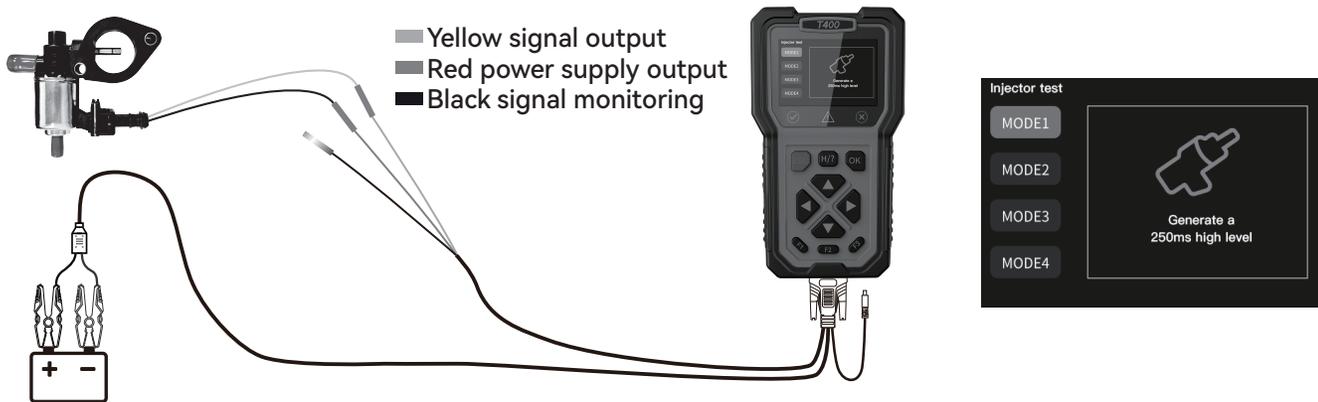
Connect the Injector, which requires an external power source, as shown in the figure below. Then enter the **[Injector test]** interface, press **[▲]****[▼]** to select among the four detection modes.

Pattern 1: Press **[OK]** , the equipment will output 1 pulse signal, pulse width of 250ms.

Pattern 2: Press **[OK]** , the equipment will output 50 pulse signals, pulse width of 7ms.

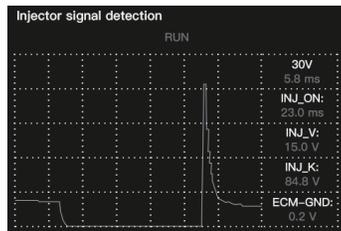
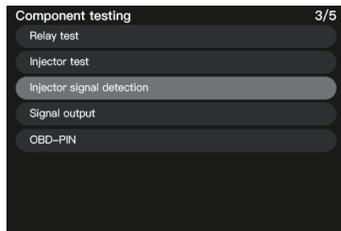
Pattern 3: Press **[OK]** , the equipment output 100 pulse signals, pulse width of 4ms.

Pattern 4: Press **[OK]** , the equipment will continuously output pulse signals, each pulse of 7ms. Press **[OK]** again to stop.



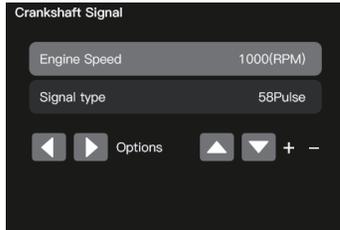
Injector Signal Detection

Connect the signal detection to the signal line of the injector, start the engine to make the injector work normally, and then enter the **[Injector signal detection]** function, at this time, the device can collect the injector signal and analyze its parameters, and draw the waveform of its signal.



Signal Output

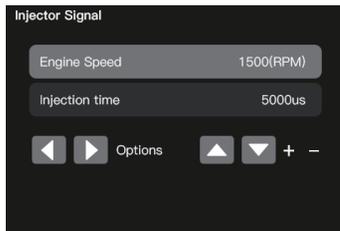
1.Camshaft Signal: Signal type output 58 pulse signal,engine speed adjustable



2.PWM Signal: Signal type can output adjustable frequency and duty cycle, generally used to test two-wire solenoid valves



3.Injector Signal: Signal type can output adjustable injection time and engine speed, professional test injector.



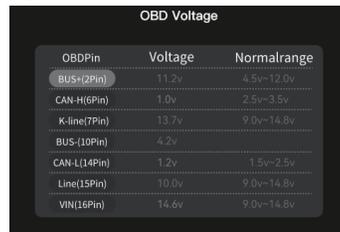
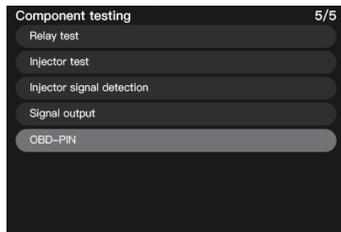
4.Ignition Signal: signal type fixed ignition time and adjustable engine speed, professional testing of ignition coils



OBD Voltage

When the vehicle is unable to be diagnosed, the OBD voltage function can be used to check the voltage of each pin of the OBD to help us find vehicle fault more quickly.

Select **【OBD-PIN】** , press **[OK]** to confirm, and you can view the voltage status of each pin of the OBD:



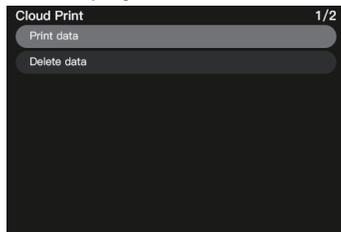
The screenshot shows a table titled 'OBD Voltage' with three columns: OBDPin, Voltage, and Normalrange. The data is as follows:

OBDPin	Voltage	Normalrange
BUS+(2Pin)	11.2v	4.5v~12.0v
CAN-H(6Pin)	1.0v	2.5v~3.5v
K-line(7Pin)	13.7v	9.0v~14.8v
BUS-(10Pin)	4.2v	
CAN-L(14Pin)	1.2v	1.5v~2.5v
Line(15Pin)	10.0v	9.0v~14.8v
VIN(16Pin)	14.6v	9.0v~14.8v

Cloud Print

Cloud Print can print the results of the inspection wirelessly.

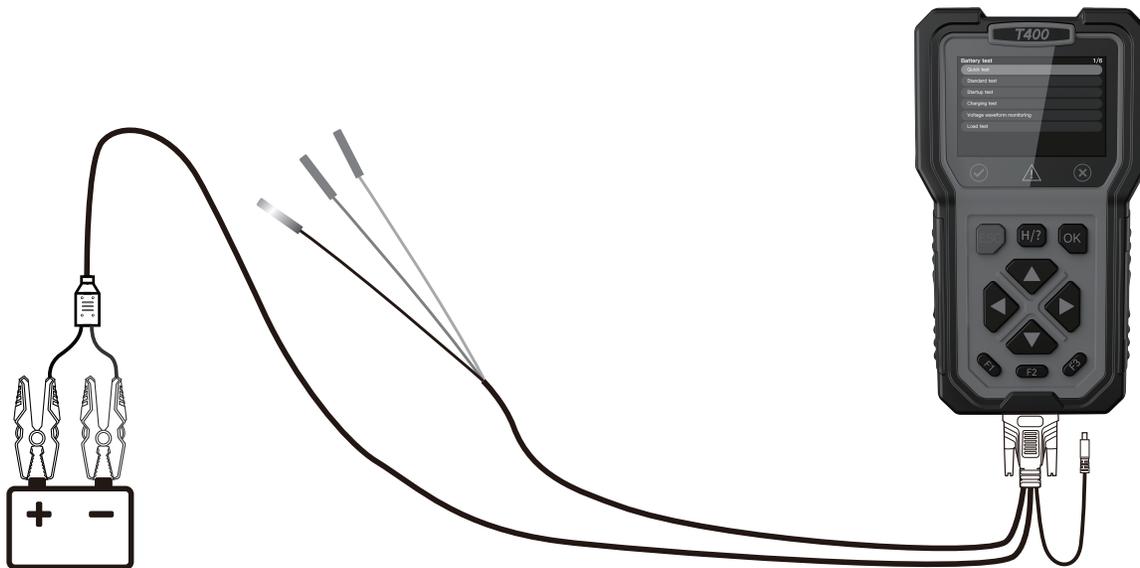
Select **【Cloud Print】** , press **[OK]** to select **【Print data】** , operate according to the prompts, and finally select **【QR Code】** interface will display the QR code, scan the QR code with your cell phone to display the test data, and then convert the data into PDF format to connect to the printer to print out. The display is as follows:



Battery test

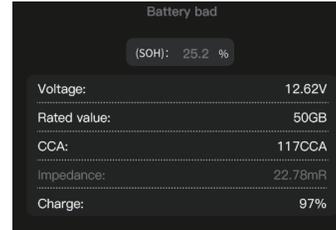
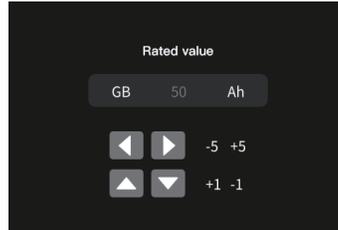
Connect to the Battery

Turn off the engine, connect the red clamp to the positive terminal and the black clamp to the negative terminal as shown in the figure below, and then connect the scanner to the clamp cable.



Quick Test

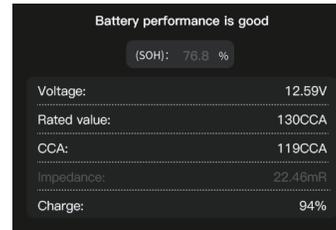
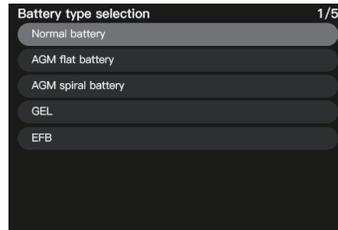
Select **【Quick test】** and press [OK], select [OK] according to the prompt, use the direction keys to enter the actual AH of the battery and press [OK] to quickly detect the health status of the battery.



Standard Test

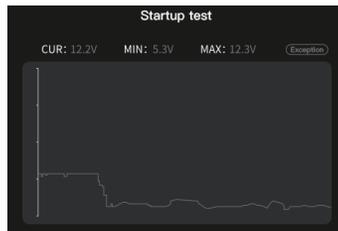
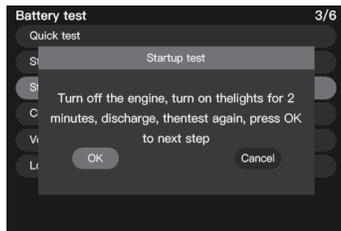
Standard tests can detect different types of battery conditions.

Select **【Battery test】** → **【Standard test】**, press [OK] to confirm, select the battery mode according to the battery type, and operate according to the prompts to analyze the health status of the battery.



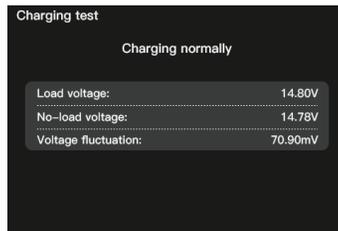
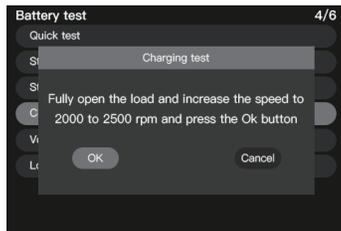
Startup Test

Select **[Startup test]** and press **[OK]**, start the engine according to the prompt, and wait for the device to analyze the results of the current battery start.



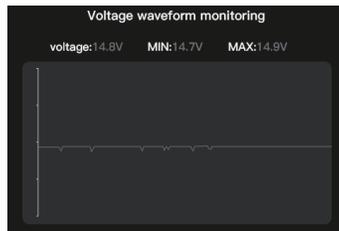
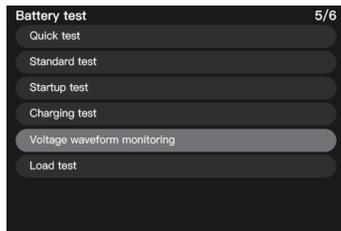
Charging Test

Select **[Charging test]** and press **[OK]**, press **[OK]** according to the prompt to quickly detect the state of the battery.



Voltage Waveform Monitoring

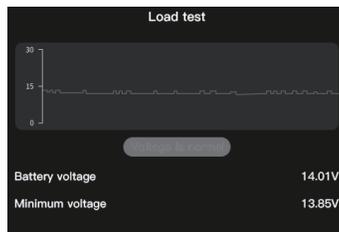
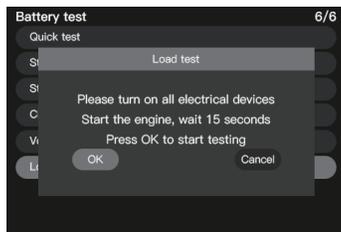
【Voltage waveform monitoring】 can monitor the voltage status of our battery in real time.
Select 【Battery test】 → 【Voltage waveform monitoring】 , [OK] to confirm and view the test results.



Load Test

The load test can record the voltage fluctuations of the car when the load is turned on and off in real time, and can accurately judge the health status of the battery.

Select 【Battery test】 → 【Load test】 , enter the function and operate according to the screen prompts, view the test results:



Setup

Beep With Light

1.Enter **[Setup]** , select **[Beep With Light]** , you can choose to turn on/off the beep sound.

Language

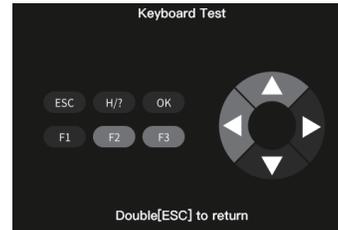
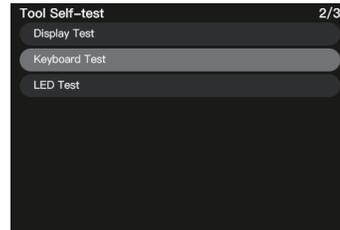
2.Enter **[Setup]** , select **[Language]** , and set the language as needed.

Unit of Measure

3.Enter **[Setup]** , select **[Unit of Measure]** , you can choose between metric or imperial units.

Tool Self-Test

4.Enter **[Setup]** , select **[Tool Self-test]** and then test the display, keyboard, LED according to your needs.



About

5.Enter **[Setup]** , select **[About]** to view the current system version number.

Update Mode

6.Enter **[Setup]** , select **[Update Mode]** , and then use USB to update the instrument.

Select ECU

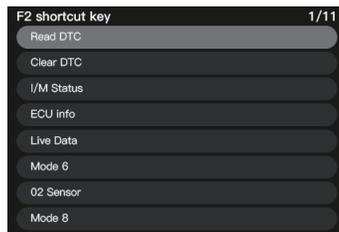
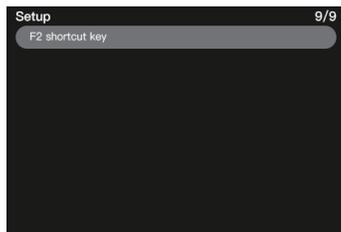
7.Enter **[Setup]** , select **[Select ECU]** , wait for recognition to complete, then you can select the ECU.

F1 Shortcut Key

8.Enter **[Setup]** , select **[F1 shortcut key]** , and then select the desired function, press the **[OK]** key to confirm.

F2 Shortcut Key

9.Enter **[Setup]** , select **[F2 shortcut key]** , and then select the desired function, press the **[OK]** key to confirm.



Warranty & Service

One Year Warranty

Our company promises to provide warranty service for 1 year from the date of original purchase, if the product is purchased from an official source, the following conditions must be met:

- 1) The warranty is limited to repair or replacement of new equipment at no additional cost, provided that the official sales invoice or a copy of the invoice is provided.
- 2) The warranty does not cover the unauthorized disassembly of this product due to flooding lightning strikes, or outside repair shops not authorized by the company, the personnel have repaired it and considered damage caused by improper use.
- 3) Our company is not responsible for any damages caused by use, misuse or installation and testing. Some countries limitations on the duration of implied warranties are not allowed, so the above limitations may not apply to you.
- 4) All information in this manual is based on the latest and effective information at the time of publication, and there is no guarantee of its accuracy or completeness, our company reserves the right to make changes at any time without notice.

Service Process

If you have any questions in the process of using this product, please contact your local authorized distributor directly, or visit our official website for consultation.

For repairs or returns, please contact the dealer or contact your sales representative directly.