JDiag®

User's Manual

M100 Moto Scanner

Universal Motorcycle Scan Tool

Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and / or the scan tool, read this user's manual first carefully and observe the following safety precautions at a minimum whenever working on a vehicle:

- Always perform automotive testing in a safe enviroment.
- Do not attempt to operate or observe the tool while driving a vehicle, Operating or observing the tool will cause driver distraction and could cause a fatal accident.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands , tools , test equipment, etc. Away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area. Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ingniton coil, distributor cap, ignition wires and spark plugs. These compo nents create hazardous voltages when the engine is running.
- Put the transmission in P (for A/T) or N(M/T) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline /chemical / electrical fires nearby.
- Don't connect or disconnect any test equipment while the ignition is ON or the engine is running.
- Keep the scan tool dry, clean free from oil/ water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool when necessary.

About M100

1. M100 Motorcycle Scanner

1.1 M100 Moto Scanner Universal Motorcycle Scan Tool

1) M100 Moto Scanner is the new generation Handheld Motorcyle diagnostics tool, it covers virtually all major manufacturers' diagnostic functions. It helps the technician to diagnose problems and make repairs faster;many common procedures are written into the tool so the technician can follow them (injectors, ignition, coils, fuel pump, etc.).
2) It allows the technician to perform factory service procedures such as re-setting the service light, encoding keys, unlocking the immobilizer and configuring the immobilizer/alarm, making injection adjustments (COTrimmer), adjusting the throttle valve position sensor(TPS),re-setting auto adaptive parameters, and making idling adjustments.
3) The tool shows live data, displays ECUdata, reads stored faults(history) or live data (RPM,batteryvoltage,throttleangle).

2. Features & Function:

2.1 Features

- Handheld operation, convenient and flexible to use.
- Support for SD cards to store data and upgrades.
- Reserved CAN bus interface.
- 3.2-inch color screen, clear display.
- Dynamic data with numerical and waveform.

2.2 Function

- Read system information
- Read fault code
- Freeze data
- Actuators test
- Trouble shooting guidance
- DTC lookup
- Read data stream
- Erase fault code
- CO idle speed adjustment
- ABS system test
- Waveform display
- ABS system test

Support Motorcycle list: AEON, APPRILIA, BENELLI , hartford , HONDA, KAWASAKI, KTM, KYMCO , PIAGGIO , PGO, SUZUKI, SYM, VESPA, YAMAHA, OBDII .

Support Multi Languages: English , Chinese, Thai, Indonesian, Vietnamese,Spanish

3. Specifications

Power	DC10–15V
Operating Current	250mA
Storage temperature	–20 to 70℃ (–4to 158℉)
Operating temperature	–20 to 60℃ (–4 to 140℉)
Humidity	<90%
Upgrade Ports	USB port
Communication ports	COM port

4. Tool Description

1). **OBDII Connector** – Connects the scan tool to the vehicle's data link connector– DLC

2). **LCD Display** – Displays menus and test results.

3). **Green LED** – indicates that engine System are running normally , The number of monitors on the vehicle which are active and performing their diagnostic testing is in the allowed limit, and no DTCs are present.

4). **Yellow LED** – indicates there is a possible problem , A Pending DTC is present or some of the vehicle's emission monitors have not run their diagnostic testing.

5).  **Red LED** – indicates there is a problem in one or more of the vehicle's system , The Red LED is also used to show that DTCs are present , DTCs are shown on the scan tools emission monitors have not run their diagnos tic testing.

6). 

EXIT BUTTON – Return to previous menu.

7). 

F1 BUTTON – Provides help information and Code Breaker function.

8). 

F2 BUTTON – Backspace function .

9).  **LEFT SCROLL BUTTON** – Move cursor left for selection or turn page up when more that one page is displayed.

10).  **UP SCROLL BUTTON** – Move cursor up for selection.

11). 

OK BUTTON – Confirms a selection or action from a menu list.

12).  **RIGHT SCROLL BUTTON** – Move cursor right for selection, or turn page down when more than one page is displayed.

13).  **DOWN SCROLL BUTTON** – Move cursor down for selection.

14). 

+ 

– Press both buttons together to perform screen capture .

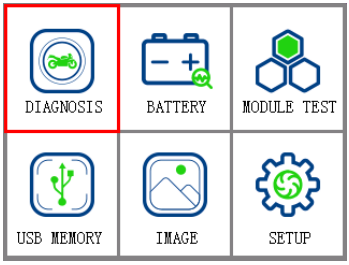
15). **USB CNNECTOR** – Connects the scan tool to the PC for printing and upgrading.

Operation instructions

1. Connect M100

1.1 Turn the ignition on.

1.2 Locate the Moto Data Link Connector(DLC).



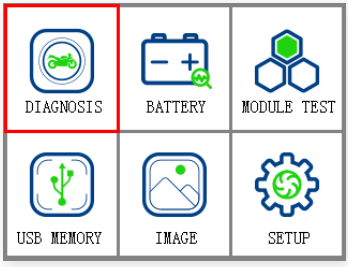
1.3 Main menu

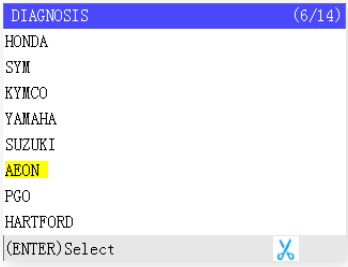
- Diagnosis
- Battery
- Module Test
- Usb Memory
- Image
- Setup

2. M100 Features

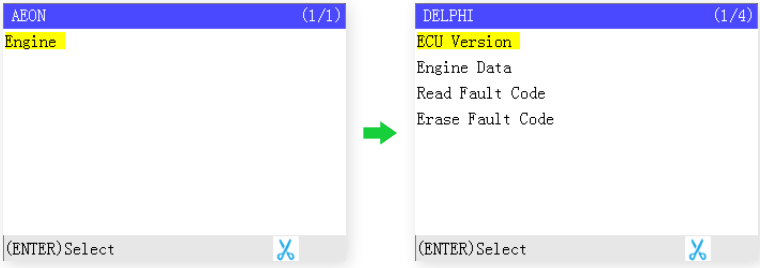
2.1 Diagnosis （Take AEON as sample)

Choose **[Diagnosis]** then press **[OK]** button. The Screen will display as follows:



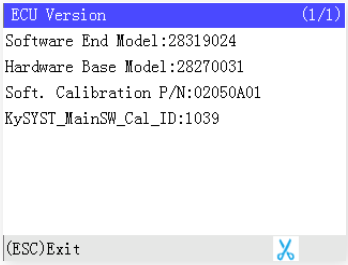


Select [AEON], press [OK] button. The screen will display as below:



2.1.1 ECU Version

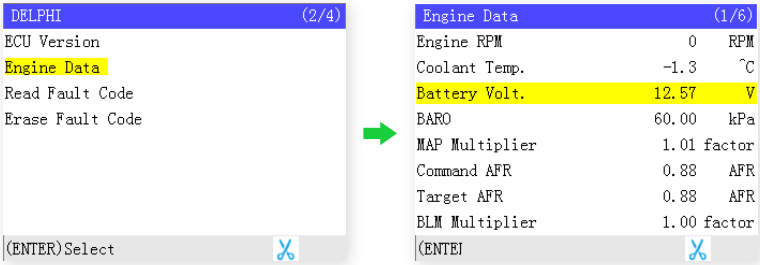
Choose [ECU Version] then press [OK] button. The Screen will display as follows:



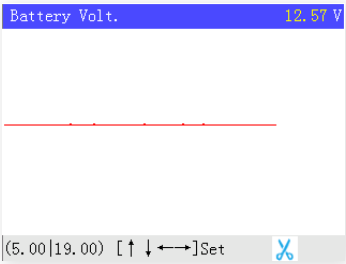
2.1.2 Engine Data

Current data is the numeric figures of the working status for motor engine, through this data we can konw whether motor normally.

Choose [Engine Data] then press [OK] button. The Screen will display as follows:

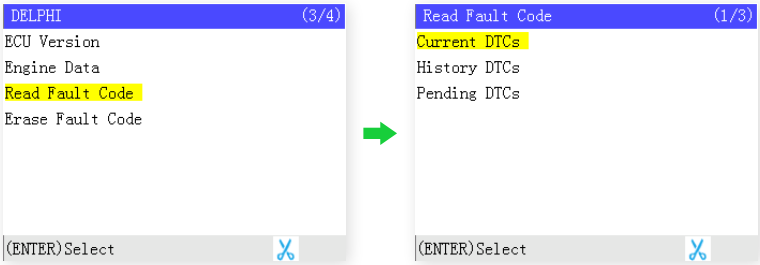


In the current page, you can press YES to enter waveform function, it is able to display numerical changes of the selected item. As below:

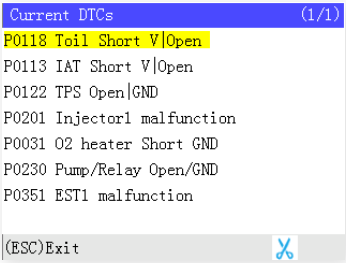


2.1.3 Read Fault Code

Choose **[Read Fault Code]** then press **[OK]** button. The Screen will display as follows:

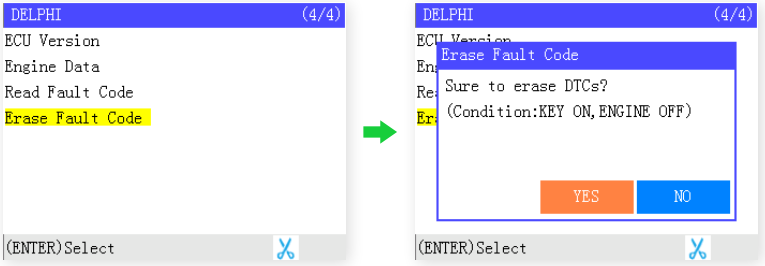


Select **[Current Fault Code]**, press **[OK]** button. The screen will display as below:



2.1.4 Erease Fault Code

Choose **[Erease Fault Code]** then press **[OK]** button. The Screen will display as follows:

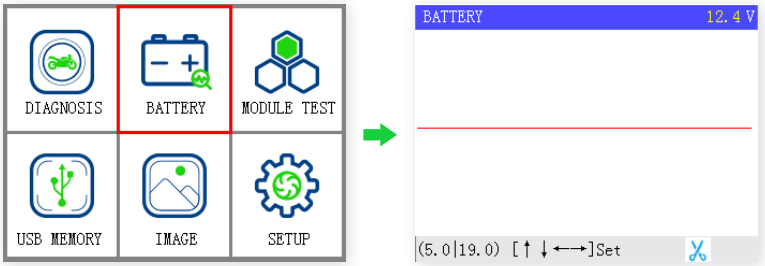


Note ! before erase fault code please switch on the key and not to start engine.

Press **Yes** to erase fault code.

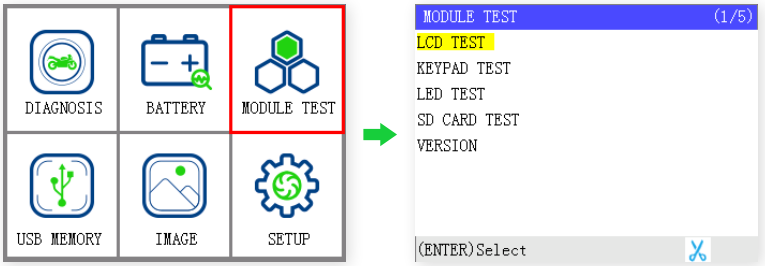
2.2 Battery

Choose **[BATTERY]** then press **[OK]** button. The Screen will display as follows:



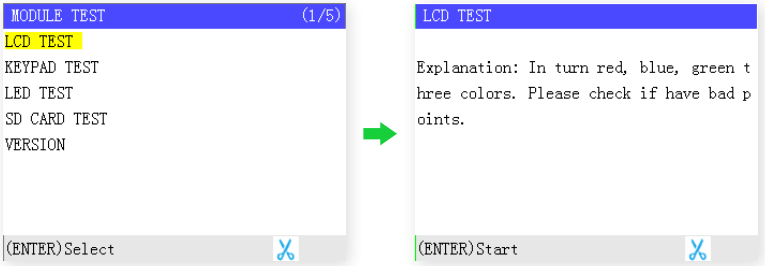
2.3 Module Test

Choose **[MODULE TEST]** then press **[OK]** button. The Screen will display as follows:



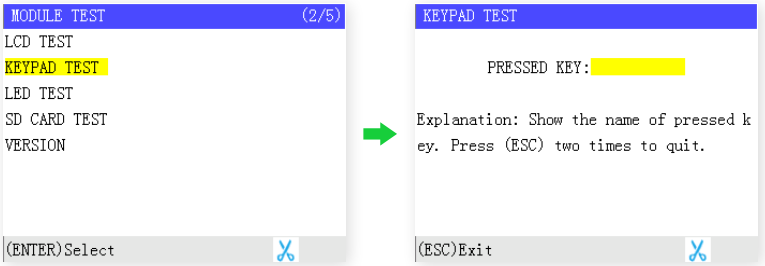
2.3.1 LCD Test

Choose [LCD TEST] then press [OK] button. The Screen will display as follows:



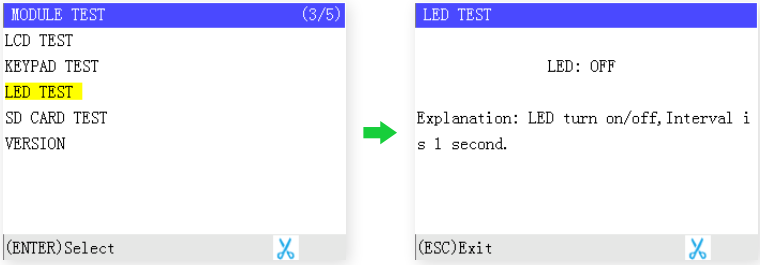
2.3.2 KEYPAD Test

Choose [KEYPAD TEST] then press [OK] button. The Screen will display as follows:



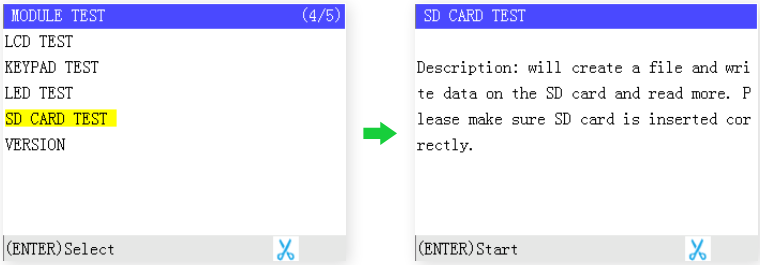
2.3.3 LED Test

Choose [LED TEST] then press [OK] button. The Screen will display as follows:



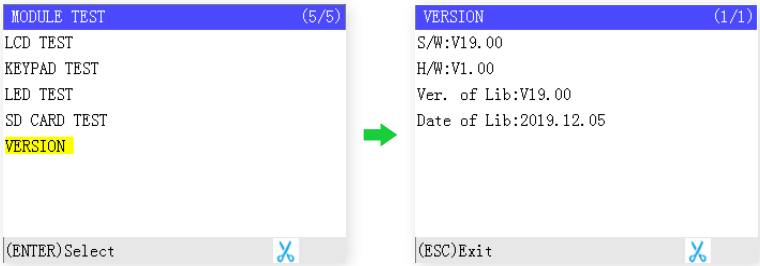
2.3.4 SD CARD TEST

Choose [SD CARD TEST] then press [OK] button. The Screen will display as follows:



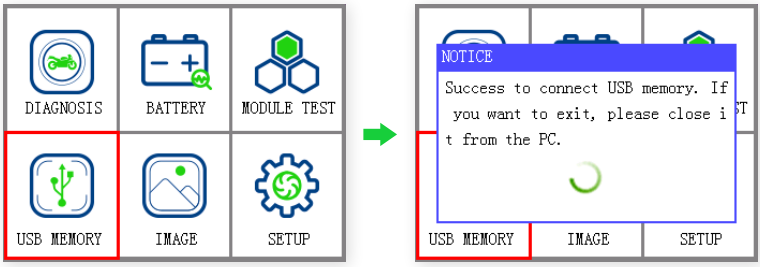
2.3.5 VERSION

Choose [VERSION] then press [OK] button. The Screen will display as follows:



2.4 USB MEMORY

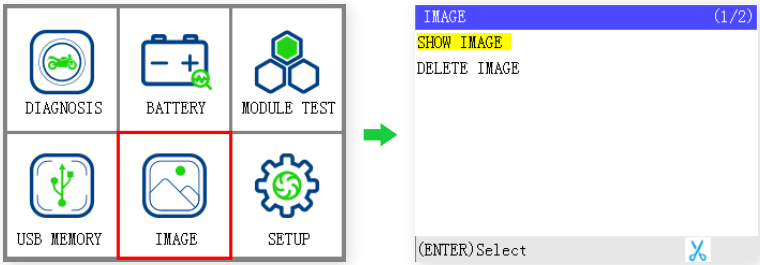
Choose **[USB MEMORY]** then press **[OK]** button. The Screen will display as follows:



Note: Select USB storage and connect USB cable with computer , then computer will detect device storage automatically .

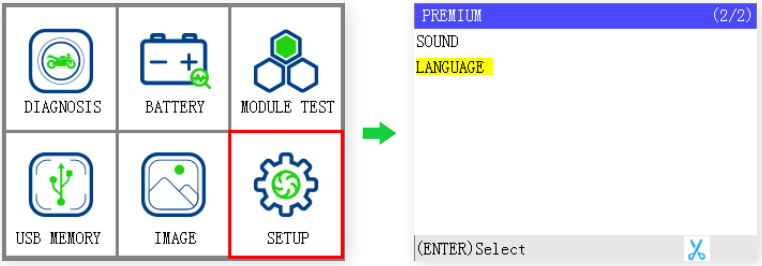
2.5 IMAGE

Choose **[IMAGE]** then press **[OK]** button. The Screen will display as follows:



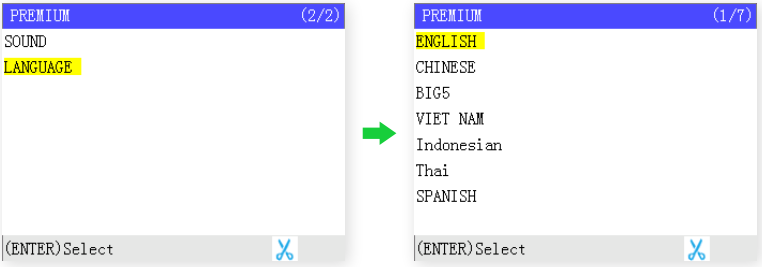
2.6 SETUP

Choose [SETUP] then press [OK] button. The Screen will display as follows:



2.6.1 Language Setting

Choose [LANGUAGE] then press [OK] button. The Screen will display as follows:



ABOUT Battery Tester M100

The latest Universal Battery Tester M100 from JDiag is developed to test 12V&24V batteries , Cranking and Charging system . Apply with the newest technology, it capable of measuring resistance and voltage of a battery using the same input channel, Fast and Convenient for users and technicians to operate and provides accurate test result.
Function include: Battery Test, Cranking Test and Charging Test.

Why the Voltage of a car battery is important ?

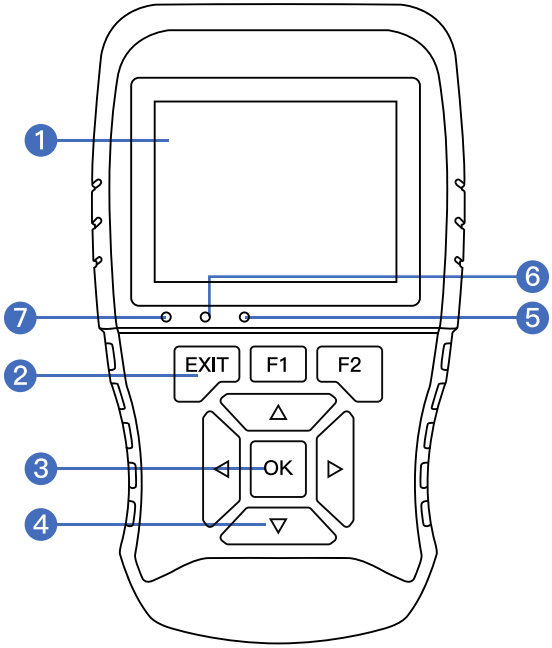
Knowing your car batteries voltage and conditions is important . you car battery provides your vehicles electrical needs when the engine isn't running and importantly it provides the necessary Spark to get the engine turning over when starting your car.

We advise that you check your car battery a couple of times each year , It is worth reminding you to avoid unable to start the car.

Specification:

Display Screen	3.2 inchTFT Color (320*240)
Operating Temperature	-20 to 60℃ (32 to 140℉)
Storage Temperature	-20 to 70℃ (-4to 158℉)
External Power	12V/24V(M100)

Tool Description



① LCD Display – Display test result and operation tips.
② EXIT Button – Exit or return to previous menu.
③ OK Button – Perform the selected option
④ Arrow Button – Up, Down , Left , Right – Select menu, increase/–decrease values and page turning.

⑤ Green LED – Indicates the State of Battery (SOH) > 50%
⑥ Yellow LED – Indicates the State of Battery (SOH) 40%–50%
⑦ Red LED – Indicates the State of Battery (SOH) <40%

Operation Instructions

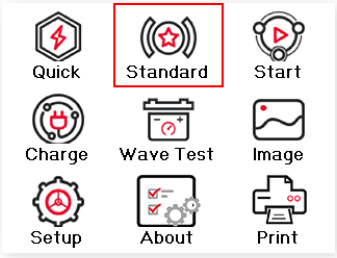
1 Battery Test

Connect the Red Clip to the battery Positive(+) pole, and the Black Clip to the battery Negative (–)Pole, Then device will power up automatically and ready to test.

Note: 1. Device will not working properly if the voltage of battery is under 7V.

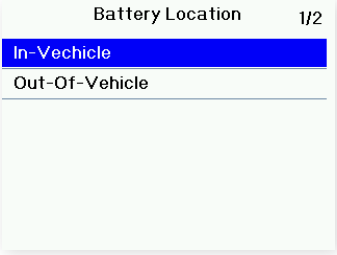
2. if you are testing battery on vehicle , please do not insert key or keep it to OFF position. Make sure all electrical devices and doors are closed .

Device Working Screen as below:

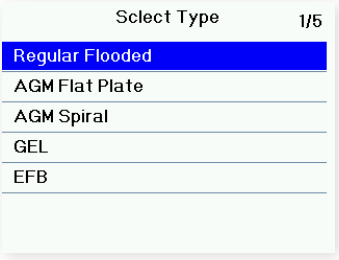


For battery test with 2 modes Quick test and Standard Test. Select Quick test if do not know the battery type , (the test values may be a little deviation with the standard test result),

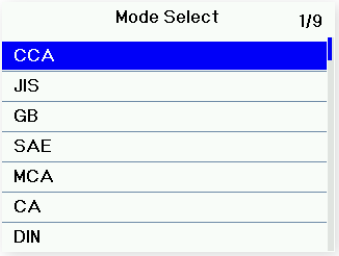
Select < Standard >to perform Battery Test, Press < OK > button to continue .



Select Battery in Vehicle or out of Vehicle. Press < OK > button to continue.

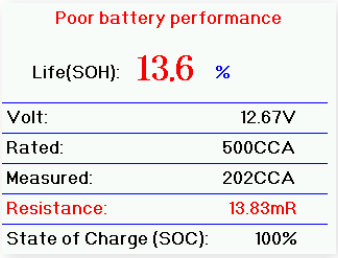


Select correct battery type in this interface (Normally are regular Flooded batteries).Press < OK > button to continue.



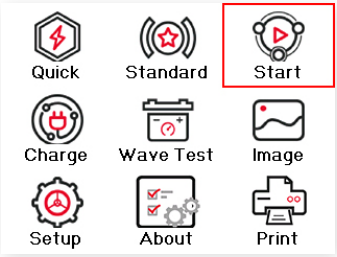
Select Correct Battery Model (you can find this information labeled on the battery).Press < OK > button to continue.

Input the correct CCA values with arrow keys. (you can find CCA information labeled on the battery)

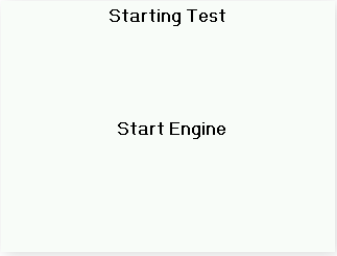


Test Result display values with Real Voltage, Rated CCA value, Measured CCA value, Resistance Value, SOH and SOC.
SOH: STATE OF HEALTH SOC: STATE OF CHARGE

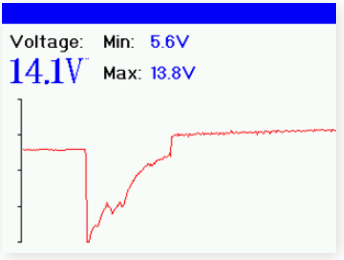
2. Cranking Test：



Select < Start> to perform Cranking Test, Press < OK > button to continue .

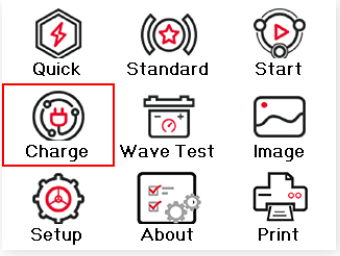


Turn key ON to Start Engine.

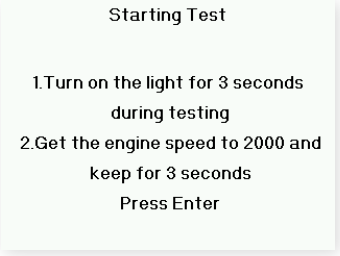


Test Result display values with Minimum Start Voltage , Maximum Start Voltage and Real Voltage

3. Charging Test：

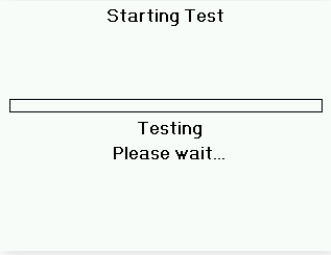


Select < Start> to perform Cranking Test, Press < OK > button to continue .

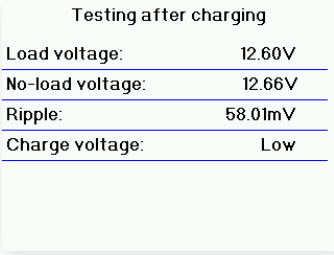


Do the operation as indicated on the Screen,

1. Turn on the Light for 3 seconds,
2. Start engine and keep rpm to 2000KM/H for 3 seconds.
3. Press < OK > button to continue.

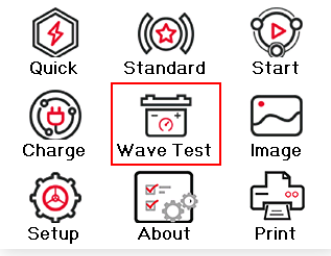


Start Testing . Wait for few seconds .

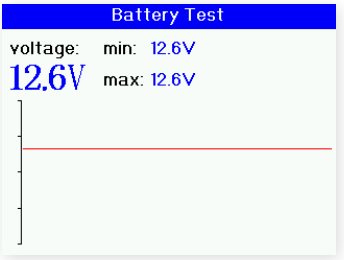


Test Result display values with Load Voltage, No–Load Voltage, Diodes Ripple Voltage and Charge Voltage Status.

4. Wave Test :

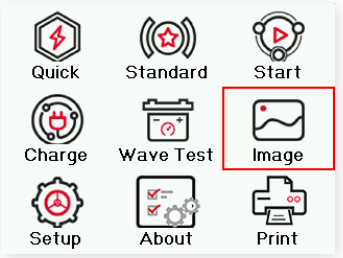


Select <Wave Test > to perform battery voltage Monitoring.

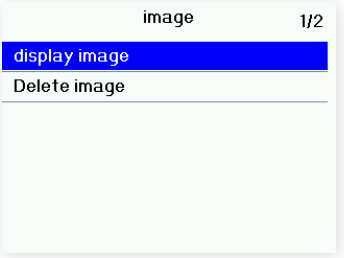


Test Result display as picture.

4. Image :

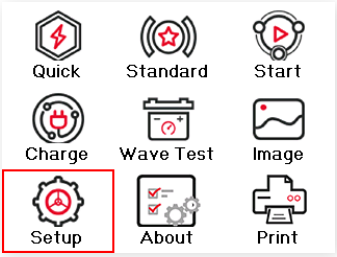


Select <Image > to view the Screen capture images . (Press F1+ F2 to capture screen images)

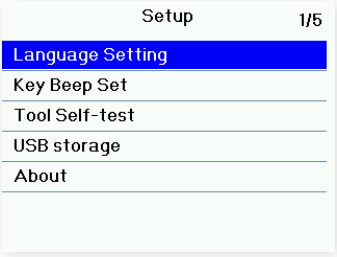


You can view the captured images and Delete images.

6. Setup：

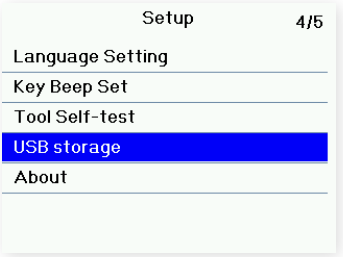


Select <Setup > to perform settings. Such as Language setting. Key Beep setting, Tool self-test.



7. Language Setting：

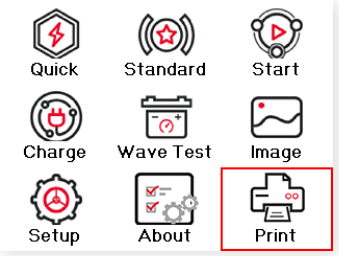
8. USB Storage：



Select <Setup > and enter in <USB Storage> , Connect USB Cable to PC to read the memory storage in TF card,
Note: You can share the test result images or print via PC.

9. About：

10. Print：



Note: You can print the TEST RESULT quickly by connect with laptop (Press F1+ F2 to capture screen images of TEST RESULT)

1. Connect device to PC with USB cable
2. Select <Setup > and enter into <USB Storage> , Will indicate succeed read the memory storage in TF card,
3. Select the picture of TEST RESULT in the folder of SNAP to perform print .

Update Mode

1 Update Mode

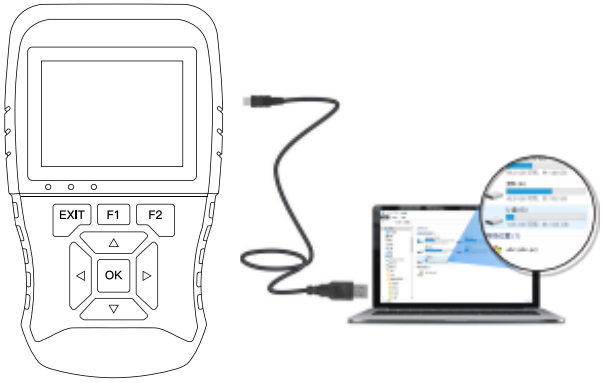
This function allows you to update the scan tool software and DTC Library through a computer.

· To update your scan tool, you need the following items.

1. Scan Tool
2. PC or Laptop with USB port
3. USB Cable

· Upgrade steps

1) Download the upgrade file from the website.
2) Connect device with computer via USB cable
3) Enter [Setup] – Select USB Storage
4) Copy the upgrade files to the correct folder in the device TF Storage Card.



2 Service Procedures

If you have any questions, Please contact your local store, distributor or visit our website.

If it necessary to return the scan tool for repair. Contact your supplier for more information.

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