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CAR DIAGNOSTIC SCANNER

MODEL:KW681

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"Save Half", "Half Price" or any other similar expressions used by us only represents an estimate of savings you might benefit from buying certain tools with us compared to the major top brands and doses not necessarily mean to cover all categories of tools offered by us. You are kindly reminded to verify carefully when you are placing an order with us if you are actually saving half in comparison with the top major brands.

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NEED HELP? CONTACT US!

Have product questions? Need technical support? Please feel free to contact us:

CustomerService@vevor.com

This is the original instruction, please read all manual instructions carefully before operating. VEVOR reserves a clear interpretation of our user manual. The appearance of the product shall be subject to the product you received. Please forgive us that we won't inform you again if there are any technology or software updates on our product.

	Warning-To reduce the risk of injury, user must read instructions manual carefully.
	**Statement:** 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, and (2)this device must accept any interference received, including interference that may cause undesired operation.
	**Correct Disposal:** This product is subject to the provision of European Directive 2012/19/EC. The symbol showing a wheelie bin crossed through indicates that the product requires separate refuse collection in the European Union. This applies to the product and all accessories marked with this symbol. Products marked as such may not be discarded with normal domestic waste, but must be taken to a collection point for recycling electrical and electronic devices

Safety Precautions and Warnings

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

1) Always perform automotive testing in a safe environment.

2) Wear safety eye protection that meets ANSI standards.

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

4) Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.

5) Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.

6) Use extreme caution when working around the ignition coil, distributor cap, ignition wires, and spark plugs. These components create hazardous voltages when the engine is running.

7) Put the transmission in **PARK** (for automatic transmission) or **NEUTRAL** (for manual transmission) and make sure the parking brake is engaged.

8) Keep a fire extinguisher any test equipment while the ignition is on or the engine is running.
9) 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.
10) This equipment is not suitable for use in locations where children are likely to be present.

Product Profile

KW681 Car battery tester & car OBDII Diagnostic Tool 2 in 1.
KW681 Works on all 1996 and newer 12V gasoline and diesel that are OBD II compliant. It can identify the cause of your CHECK ENGINE and perhaps fix it without going to see your dealer. It also assists you in easily passing annual emissions tests and SMOG CHECK. It covers full OBDII/ EOBD diagnostic functions for engine system. O2 sensor test, EVAP systems test, and board monitoring test give you full control of your vehicle's running status, while a graphical and numeric live data stream display will help you to find out the faulty sensor readings.

KW681 Battery Tester can test all automotive cranking lead acid battery, including ordinary lead acid battery, AGM flat plate battery, AGM spiral battery, and Gel battery, etc. It adopts the state-of-the -art conductance testing technology in the word to easily, quickly and accurately measure the actual cold cranking amps capability of the vehicle starting battery, healthy state of the battery itself, and common fault of the vehicle starting system and charging system, which can help maintenance personnel to find the find the problem quickly and accurately, thus to achieve quick vehicle repair.

It Support multi-languages, customer can select different language which includes English, French, German, Dutch, Spanish, Russian, Portuguese, Italian.

Technical Parameters

Working voltage: 6-16V DC, Max 120mA

Operating Temperature: 0℃ to 50℃

Storage Temperature: -20℃ to 70℃

Cold Craning Amps Measurement Range

Measurement Standard	Measurement Range
CCA	100-2000
BCI	100-2000
CA	100-2000
MCA	100-2000
JIS	26A17-245H2
DIN	100-1400
IEC	100-1400
EN	100-2000
SAE	100-2000

Main Menu Description

OBDII Diagnostic Menu

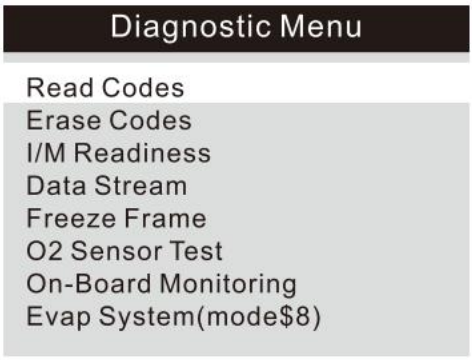
Car Battery Tester Menu

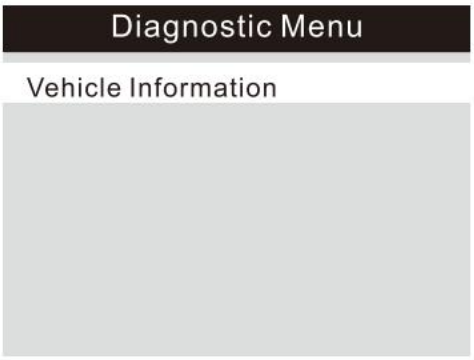
Motorcycle Battery Tester Menu

1. Choose "Diagnostic" For OBDII Diagnosis.

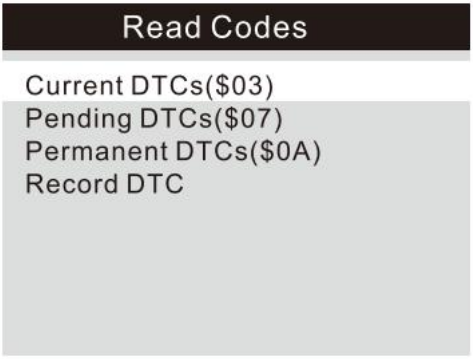
Monitor Status	
MIL Status	OFF
DTCs in this ECU	0
Readiness Completed	0
Readiness Not Completed	0
Readiness Not Supported	10
Datastream Supported	114
Lgnition	Spark
Protocol Type	CAN

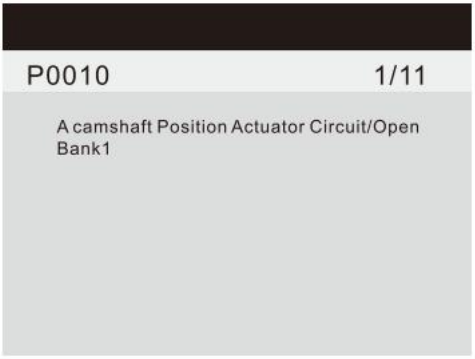
2. After OBDII connected well on car, show "Monitor Status", and click "Enter" for next step to look through below 9 functions.



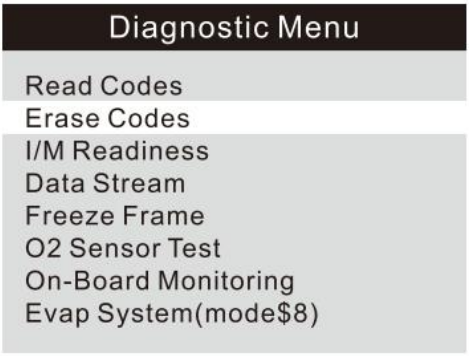


3.**Read Codes:** Check the car fault problem: Select [Read Codes] and press **OK** button in Diagnostic Menu. If there are some codes, the screen will display the codes as shown below:

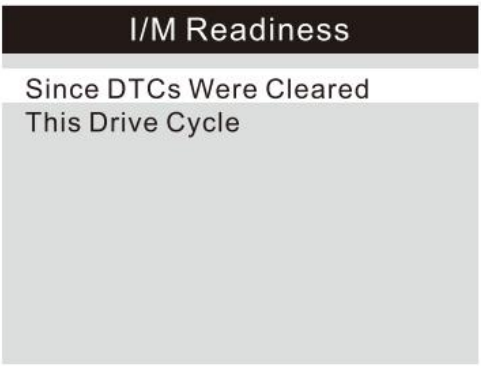


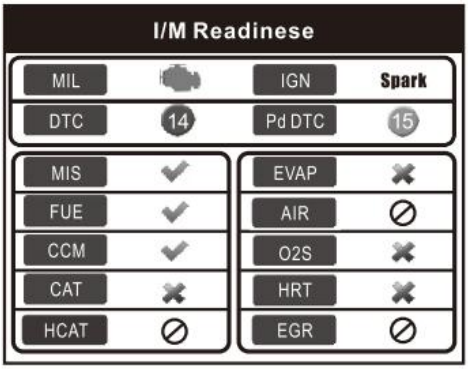


4.**Erase Codes:** Select [Erase Codes], until the emission-related diagnostic information has been cleared!

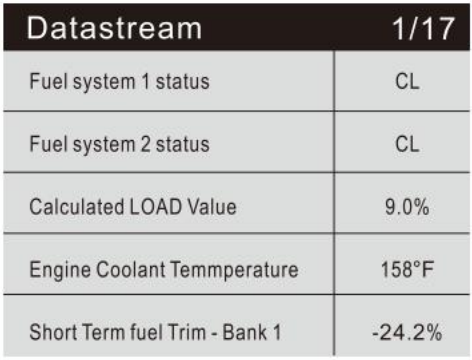


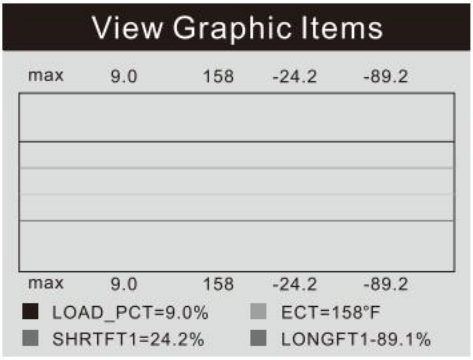
5.**I/M Readiness:** Select [I/M Readiness] and press OK button, the screen will display the interface as shown below:



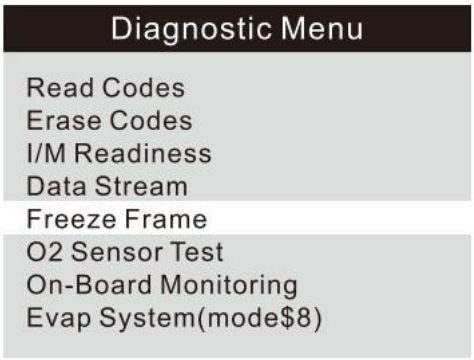


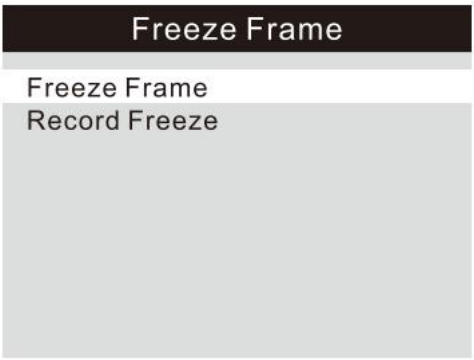
6.**Data Stream:** Press UP or DOWN button to select Data Stream in main menu interface and then press OK button to confirm, the screen will display the interface as shown below:



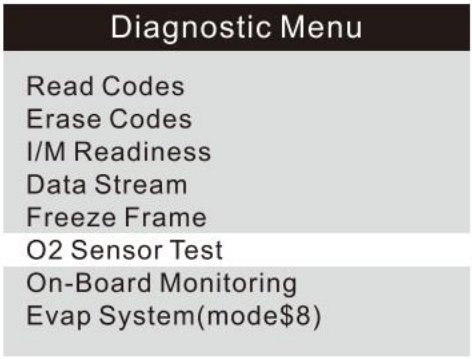


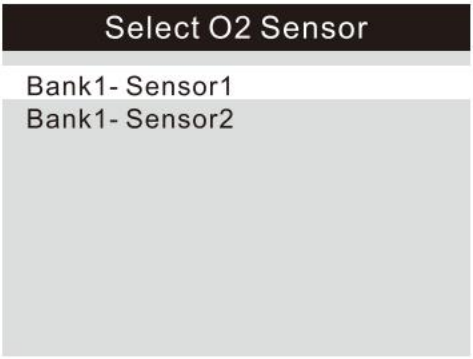
7.**Freeze Frame:** When and emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data. Freeze Data is a snapshot of the operating conditions at the time of an emission-related fault.



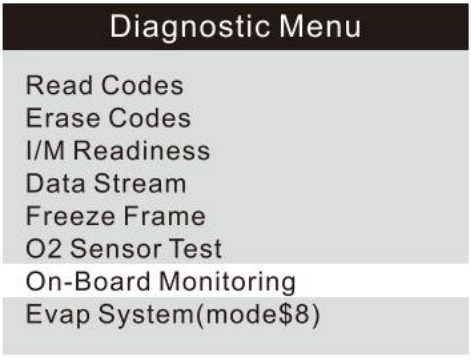


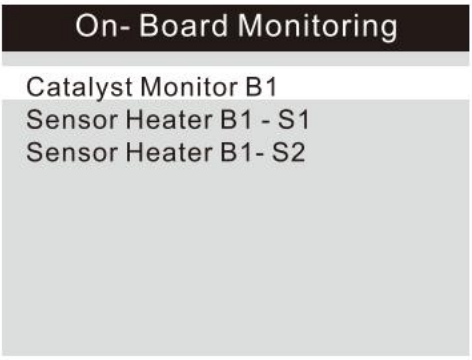
8.**02 sensor Test:** The results of 02 sensor test are not live values but instead the results of the ECU^ last 02sensor test. For live 02 sensor readings, refer to any of the live sensor screens such as Graph Screen.



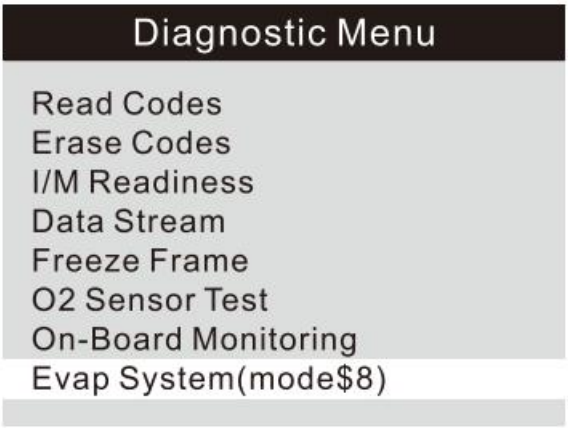


9.**On-board monitoring:** This function can be utilized to read the results of on-board diagnostic monitoring tests for specific components/ systems.

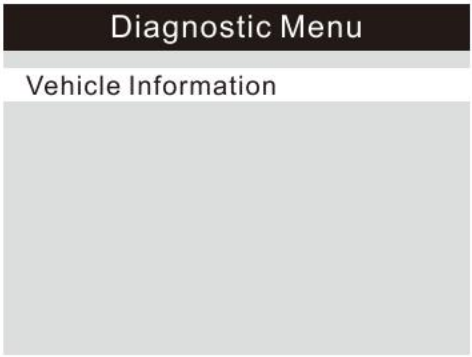


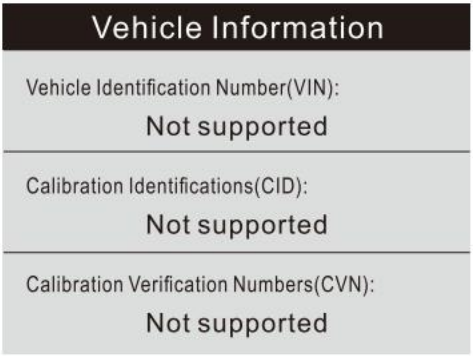


10.**Evap System:** The EVAP test function lets you initiate a leak test for the vehicle^ EVAP system. The scan tool does not perform the leak test, but signals to vehicle's on-board computer to initiate the test. Before using the system test fimction, refer to the vehicle^ service repair manual to determine the procedures necessary to stop the test.



11.**Vehicle Information:** Select [Vehicle Information] and press OK, the screen will display the information.





12.**Car Battery Tester Menu:** After entering car battery test program, tester displays Main Menu, Tester will display the following contents in a sequence, select accordingly: "Battery In-vehicle or Out-of-Vehicle". Press UP/DOWN key to select the battery location, in vehicle or out of vehicle, then press ENTER key to confirm

Battery Location
In - Vehicle
Out - OF - Vehicle

- For example, select "Battery Test out-of- vehicle", then show below data

Battery Location
Regular Flooded
AGM Flat Plate
AGM Spiral
GEL
EFB

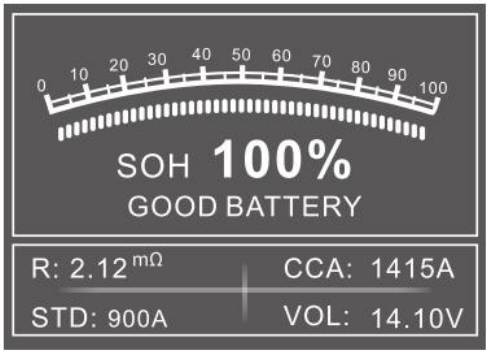
Select Standard
CCA
IEC
EN
DIN
CA
BCI

Cold Craning Amps Measurement Range

Measurement Standard	Measurement Range
CCA	100-2000
BCI	100-2000
CA	100-2000
MCA	100-2000
JIS	26A17-245H2
DIN	100-1400
IEC	100-1400
EN	100-2000
SAE	100-2000

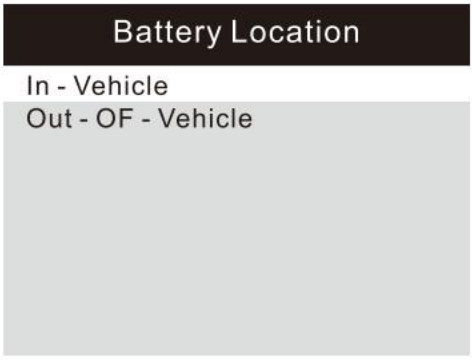
1. CCA: Cold Cranking Amps, specified by SAE&BCI, most frequently used value for starting battery at 0°F(-18℃)
2. SCI: Battery Council international standard
3. CA: Cranking Amps standard, effective starting current value at 0℃
4. MCA: Marine Cranking Amps standard, effective starting current value at 0℃
5. JIS: Japan Industrial Standard, displayed on the battery as combination of the numbers and letters, e.g.55D23, 80D26
6. DIN: German Auto Industry Committee Standard
7. IEC: Internal Electron technical Commission Standard
8. EN: European Automobile Industry Association Standard
9. AE: Society of Automotive Engineers Standard

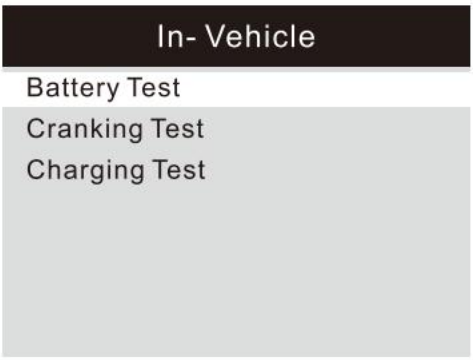
Now select one of them (CCA, IEC, EN, DIN, CA, BCI, MCA, SAE, JIS) (Please check your own battery standard). The test result will be showed as below, press the up and down keys to switch between SOH and SOC.



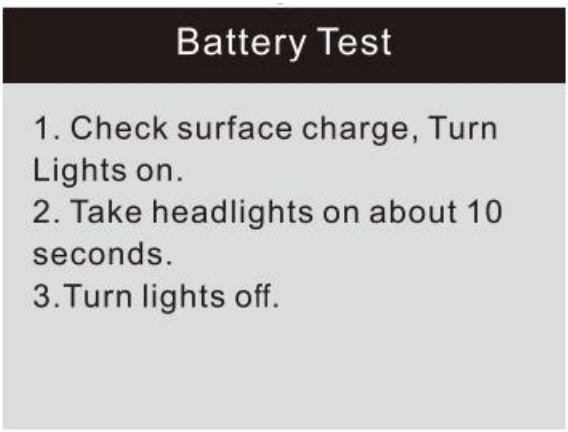
The battery test result will show different type: (Good Battery/ Good, Recharge/ Replace/ Bad cell, Replace/ Charge, Retest)

● For example, select "Battery in-vehicle", then show below data



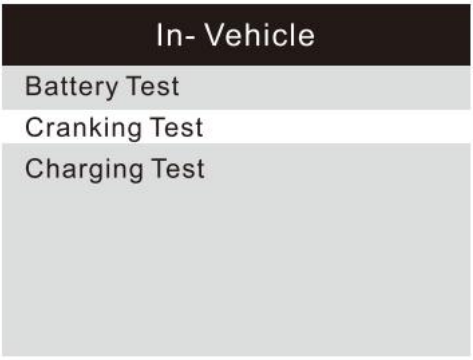


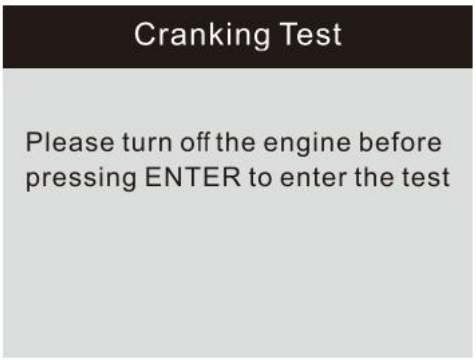
● For example, select "Battery Test", the current health status of the battery can be directly detected.

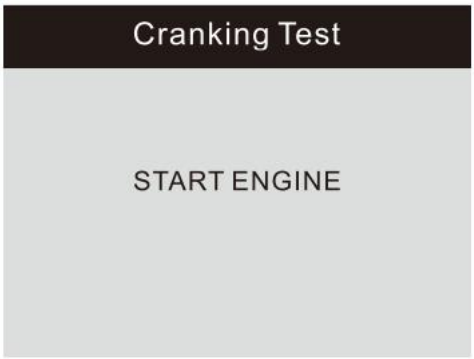


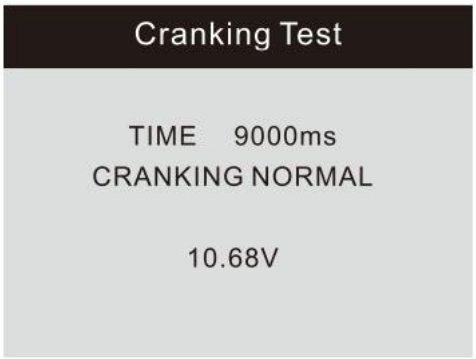
There will be a prompt after entering, please proceed to the next step according to the prompt.

● For example, select "Cranking Test", the data will be showed as below:



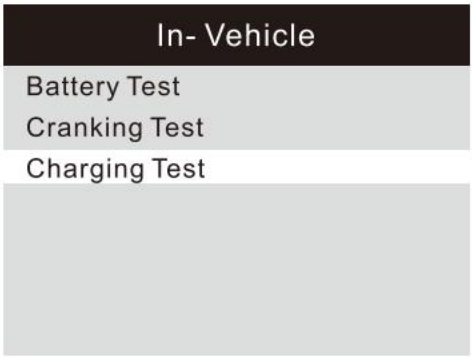


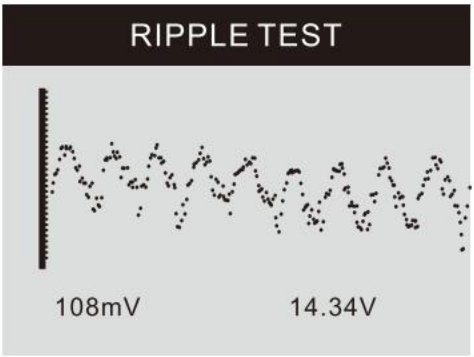


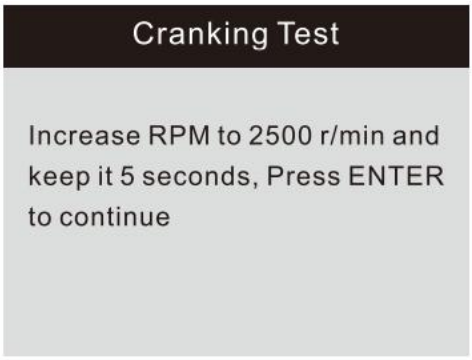


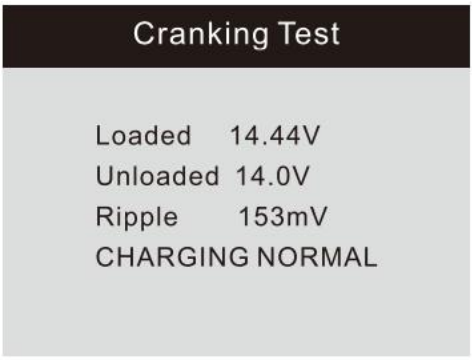
There will be a prompt after entering, please proceed to the next step according to the prompt.

● For example, select "Charging Test", the data will be showed as below:







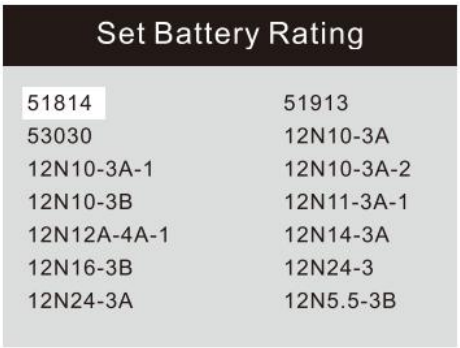


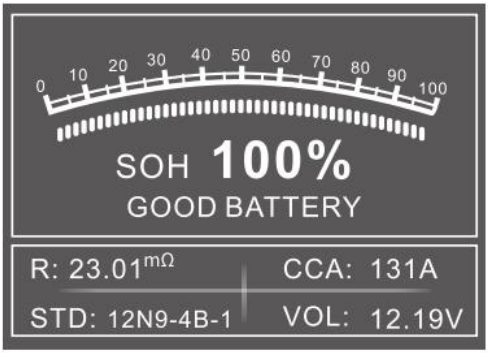
There will be a prompt after entering, please proceed to the next step according to the prompt.

13. Motorcycle Battery Tester Menu

It can make sure the battery status, including voltage, CCA, electronic resistance, rated CCA, charging value, healthy value and testing result in one second. From the startup screen, or press ESC button to enter Main Menu. After select "Battery Rating", the screen will display the test result as below:

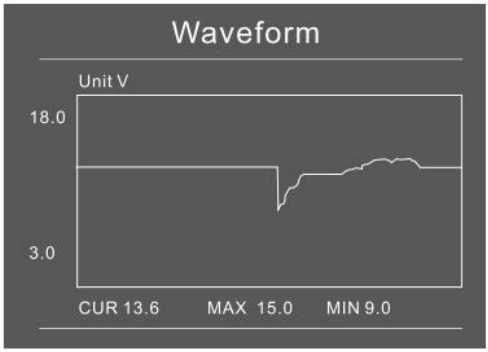
Press the up and down keys to switch between SOH and SOC





Battery test result includes 5 types as following: (Good Battery/ Good, Recharge/ Replace/ Bad cell, Replace/ Charge, Retest)

● Waveform: press WAVEFORM FUNCTION button, the screen will display the interface as shown below:



CUR: Current Voltage
MAX: Maximum Voltage during Ignition.
MIN: Minimum Voltage during Ignition.
The waveform will stay in static until there's changes in the voltage changes detected.
Various vehicle voltage analyses.

● Discharge Voltage: When the ignition OFF, engine OFF (Over 20 Minutes), the discharge voltage should be around 12V. If the discharge voltage is lower than 11V, it will be hard to turn the ignition ON. If the discharge voltage continuously stay under 11V, it means the battery is aging and replacement is needed.
● Starting Voltage: During ignition, the voltage will drop to a certain point, at this minimum point is starting voltage(Around 7.5- 9.5V). If the starting voltage continuously stay under 7.5, it means battery capacity is low and needs to be replaced.
● Charging Voltage: When the ignition ON, engine ON. The alternator will continuously charge the car battery, normally is around 14V.
Battery Status corresponding with Battery Voltage (Before Ignition).

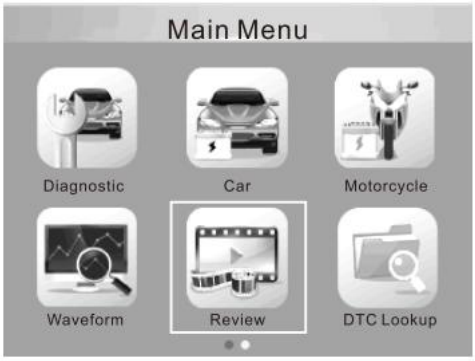
Battery Voltage	Battery Status	Effects and Measures
<10BV	Too Low	Hard to start vehicles, replace battery
108V-118V	Slightly Low	Hard to start vehicles

Battery Status corresponding with Battery Voltage(After Ignition)

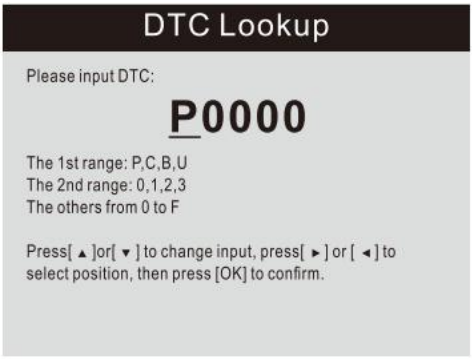
Battery Voltage	Battery Status	Effects and Measures
12.8V-13.2V	Too Low	Battery may not be charged; Check alternator or other electrical load
13.2-14.8V	Normal	Normal
>14.8V	High Voltage	May damage the battery, Check alternator stabilizer

Notice: If the current detected battery voltage is 11.9V, after a few hours trip, the battery voltage is still stay low, the cause could battery damage (Under circumstance of normal alternator). Please replace the battery ASAP.

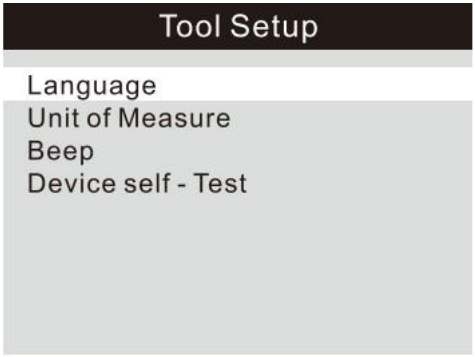
Review: From the startup screen, or press ESC button to enter Main Menu, press UP/ DOWN button to select the [Review] function in the Main Menu and press ENTER button, the screen will display the interface as shown below.



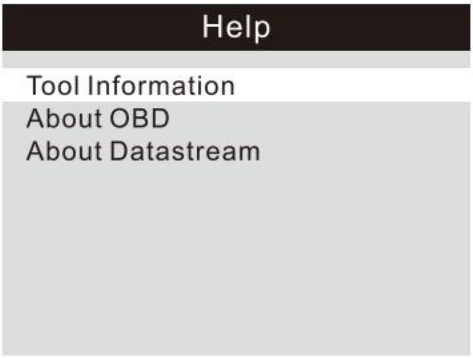
● DTC Lookup: check all test result



● Setup: Select language English, French, German, Dutch, Spanish, Russian, Portuguese, Italian.



● Help：



Print & Update

This function allows you to update and print the tool software through a computer.
To update and print your tool, you need the following items:
1. Tester tool
2. A PC or laptop with USB ports
3.USB cable

Step:

1) Downloading the applications from our website
2) Run uplink.exe in your computer(Mac OS and linux does not compatible)
3) Press and hold any button until theUSB cable is connected with computer and release it after the tool display a message "Update Mode"
4) Open the uplink software, click "Check update" button, it will download the upgrade file from internet, then update to tester tool
5) Wait for a few minutes until update succeed
6) During the update procedure
7) Restart tester tool to finish the whole update

Packing List

1.Nylon Bag
2.USB Cable
3.Battery Test Clamp
4.User Manual

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