MR CARTOOL®

# User's Manual

## Universal Battery Tester B100


Universal Battery Tester

# 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 Battery Tester B100

The latest Universal Battery Tester B100 was developed to test 12V / 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 Conve–nient 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(BT280), 12V/24V(BT300) |

## Package Included

1) Scan Tool main unit 2) Alligator Test cable

3) USB Cable 4) User Manual 5) Protective ABS Toolbox

# 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

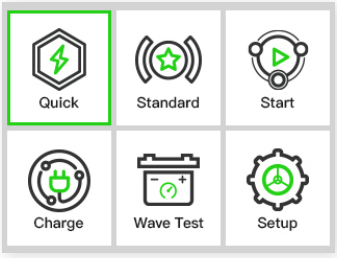
## 1 Battery Test

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.

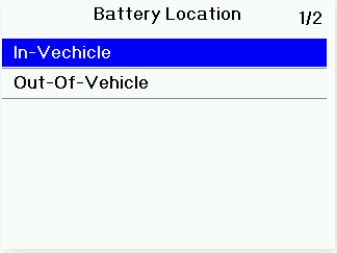
2. if you are testing battery on vehicle , please do not insert key or keep it to OFF position. Make sure all electrical devices and doors are closed .

Device Working Screen as below:

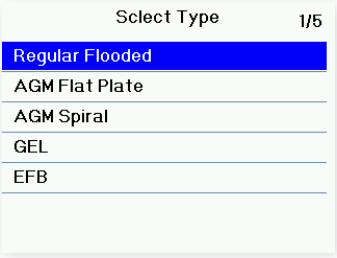



For battery test with 2 modes Quick test and Standard Test. Select Quick test if do not know the battery type , (the test values may be a little deviation with the standard test result),

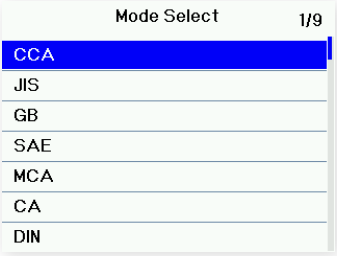
Select < Standard >to perform Battery Test, Press < OK > button to continue .



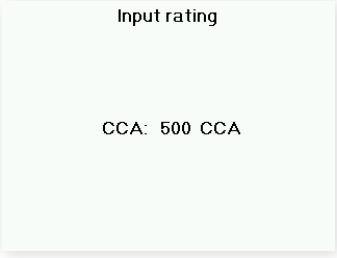
Select Battery in Vehicle or out of Vehicle. Press < OK > button to continue.




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



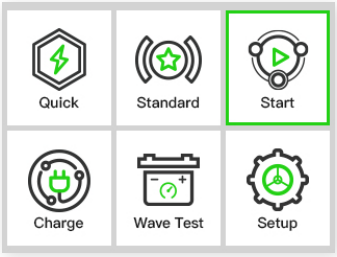

Select Correct Battery Model (you can find this information labeled on the battery ).Press < OK > button to continue.



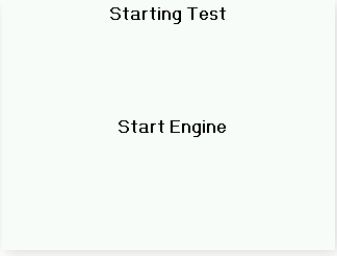

Input the correct CCA values with arrow keys. (you can find CCA information labeled on the battery )


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

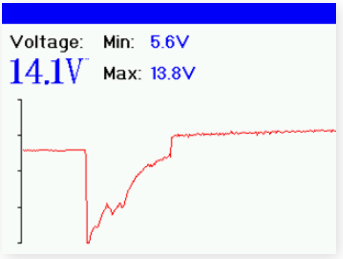
## 2. Cranking Test：




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

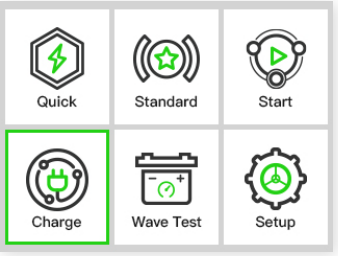


Turn key ON to Start Engine.

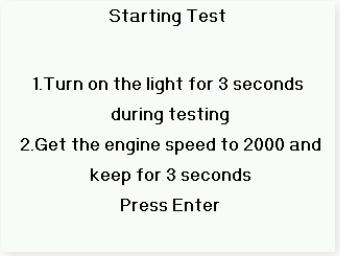



Test Result display values with Minimum Start Voltage , Maximum Start Voltage and Real Voltage

## 3. Charging Test：

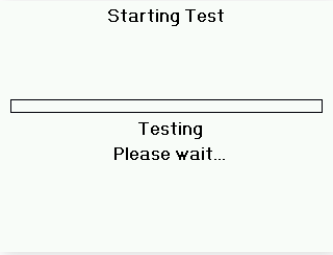



Select < Start> to perform Cranking Test, Press < OK > button to continue .

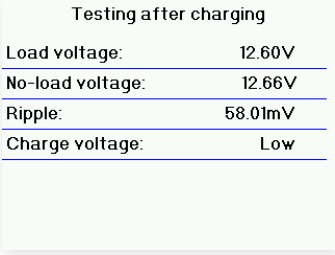


Do the operation as indicated on the Screen,

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.

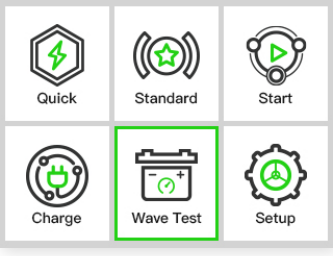



Start Testing . Wait for few seconds .

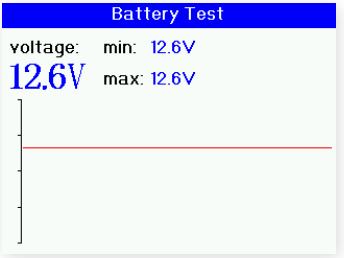



Test Result display values with Load Voltage, No–Load Voltage, Diodes Ripple Voltage and Charge Voltage Status.

## 4. Wave Test :

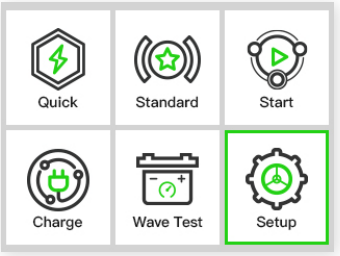


Select <Wave Test > to perform battery voltage Monitoring.

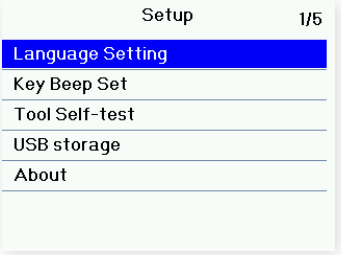



Test Result display as picture.

## 5. Setup：

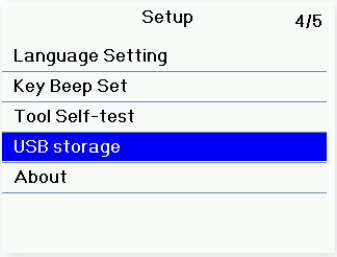



Select <Setup > to perform settings. Such as Language setting. Key Beep setting, Tool self–test.



## 6. Language Setting：

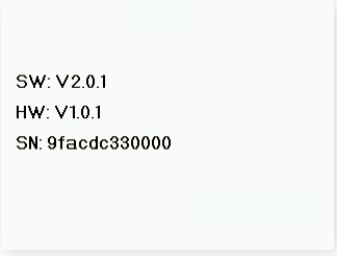

## 7. USB Storage：




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.

## 8. About：



# 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) Put the file to be upgraded into the “updatefile” folder .
2) Let the device enter the upgrade mode.
3) Click “Refresh” to find the virtual serial port generated by the device
4) Click “upgrade” to start the upgrade until 100%


## 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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