

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



## DIGITAL BATTERY ANALYZER

### FOR CUSTOMER SERVICE

Technical Question?

**CALL 1-866-458-2472**

**customerservice@oem-tools.com**

### UNPACKING

After unpacking unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing, or damaged parts. If any damage is observed, a shipping damage claim must be filed with carrier. Do not use Battery Tester if broken, bent, cracked or damaged parts (including labels) are noted. Any Battery Tester that appears damaged in any way, operates abnormally or is missing parts should be removed from service immediately. If you suspect that the Fluid Dispensing System was subjected to a shock load (a load that was dropped suddenly, unexpectedly, etc.) immediately discontinue use until it has been checked by a factory authorized service center.



### WARNING

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



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Thank you very much for choosing an OEMTOOLS Product!

For future reference, please complete the owner's record below:

**Model:** \_\_\_\_\_ **Purchase Date:** \_\_\_\_\_

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it. This machine is designed for certain applications only. OEMTOOLS cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted OEMTOOLS to determine if it can or should be performed on the product.

**For technical questions please call 1-866-458-2472.**



### IMPORTANT INSTRUCTIONS AND SAFETY RULES

1. Know your tool. Read this manual carefully. Learn the tool's applications and limitations, as well as, potential hazards specific to it.
2. Keep work area clean and well lit. Cluttered or dark work areas invite accidents.
3. Keep children away. All children should be kept away from the work area. Never let a child handle a tool without strict adult supervision.
4. Do not operate this tool if under the influence of alcohol or drugs. Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to operate.
5. Use safety equipment. Eye protection should be worn at all times when operating this tool. Use ANSI approved safety glasses. Everyday eyeglasses are NOT safety glasses. Dust mask, non-skid safety shoes, hard hat or hearing protection should be used in appropriate conditions.
6. Wear proper apparel. Loose clothing, gloves, neckties, rings, bracelets or other jewelry may present a potential hazard when operating this tool. Keep all apparel clear of the tool.
7. Don't overreach. Keep proper footing and balance at all times when operating this tool.
8. Check for damage. Check your tool regularly. If part of the tool is damaged it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, the part should be repaired. Refer all servicing to a qualified technician. Consult your dealer for advice.
9. Keep away from flammables. Do not attempt to operate this tool near flammable materials or combustibles. Failure to comply may cause serious injury or death.
10. Store idle tools out of the reach of children and untrained persons. Tools may be dangerous in the hands of untrained users.
  - Maintain tools with care.
  - Keep tools dry and clean.
  - Properly maintained tools are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
  - Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation.
  - If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
  - Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.
  - Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
  - When servicing a tool, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
  - Maintain a safe working environment. Keep the work area well lit. Make sure there is adequate surrounding workspace. Keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use this product in a damp or wet location.
  - Maintain labels and nameplates on this product. These carry important information. If unreadable or missing, contact OEM for a replacement.
  - Keep the handle dry, clean, and free from brake fluid, oil, and grease.



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- Before use, read and understand all warnings, safety precautions, and instructions as outlined in the vehicle manufacturer's service manual. It is beyond the scope of this manual to properly describe the correct procedure and test data for each vehicle.
- Always perform vehicle service in a properly ventilated area. Never run an engine without proper ventilation for its exhaust. Stop work and take necessary steps to improve ventilation in the work area if you develop momentary eye, nose, or throat irritation as this indicates inadequate ventilation.
- Engine parts that are in motion and unexpected movement of a vehicle can injure or kill. When working near moving engine parts, wear snug fit clothing and keep hands and fingers away from moving parts. Keep hoses and tools clear of moving parts. Always stay clear of moving engine parts. Hoses and tools can be thrown through the air if not kept clear of moving engine parts. The unexpected movement of a vehicle can injure or kill. When working on vehicles always set the parking brake or block the wheels.
- Avoid accidental fire and/or explosion. Do not smoke near engine fuel and battery components.
- The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- For safety purposes and the prevention of damage to expensive components it is advised that the user have an understanding of basic automotive repair and a working knowledge of automotive systems.
- We believe the information contained herein to be reliable. However, general technical information is given by us without charge and the user shall employ such information at his own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part. Always refer to specific instructions and technical information supplied by vehicle manufacturer.
- The manufacturer declines any and all responsibility for damage to vehicles or components if said damage is the result of unskillful handling by the operator or of failure to observe the basic safety rules set forth in the instruction manual.

### DISPOSAL

At the end of the useful life of the Battery Tester, dispose of the components according to all state, federal, and local regulations

### PURPOSE

A safe, fast, simple, and portable Battery, Starting and Charging System Analyzer.

### PRODUCT SPECIFICATIONS

Battery CCA	200-1200
Voltage Testing Range	7-15VDC
Maximum Power Consumption	.5W
Operating Temperature	14 – 122 Degrees Fahrenheit
Testing Standards	SAE, DIN, EN, IEC, CA



# DIGITAL BATTERY ANALYZER

Figure	Description	Quantity
24368A	Positive Battery Clamp (Red)	1
24368B	Negative Battery Clamp (Black)	1
24368C	Lead Set	1
24368D	Menu Button	1
24368E	Increase Button	1
24368F	Decrease Button	1
24368G	Display	1



## WARNING

Always wear safety glasses and gloves!

## OPERATING INSTRUCTIONS

- WORKING NEAR A LEAD ACID BATTERY IS DANGEROUS. BATTERIES CAN GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. BATTERY EXPLOSION CAN KILL, INJURE, AND CAUSE PROPERTY DAMAGE! TO REDUCE RISK OF BATTERY EXPLOSION, READ THE FOLLOWING OPERATING INSTRUCTIONS AND THOSE PUBLISHED BY THE BATTERY MANUFACTURER AND THE PREVIOUS SAFETY INSTRUCTIONS PRIOR TO OPERATING THIS TESTER.
- **RISK OF CONTACT WITH BATTERY ACID.** BATTERY ACID IS A HIGHLY CORROSIVE SULFURIC ACID.
- BE SURE AREA IS WELL VENTILATED WHILE THE BATTERY IS BEING TESTED.
- WHEN WORKING NEAR THE BATTERY, PLEASE MAKE SURE THERE ARE OTHERS AROUND WHO CAN PROVIDE HELP IF NEEDED.
- PLEASE BE READY WITH WATER AND SOAP NEAR YOU, IN CASE BATTERY ACID COMES INTO CONTACT WITH SKIN, CLOTHES OR EYES.
- PLEASE WEAR PROTECTION AND SAFETY EQUIPMENT.



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- IF BATTERY ACID COMES INTO CONTACT WITH SKIN OR THE CLOTHES, PLEASE IMMEDIATELY WASH WITH SOAP AND WATER. IF THE BATTERY ACID GETS INTO EYES, PLEASE RINSE EYES WITH WATER RIGHT AWAY FOR AT LEAST 10 MINUTES THEN GO TO THE HOSPITAL.
- This equipment is intended only for professional use by personnel trained in performing the service functions for which it is has been designed
- This equipment is designed for servicing a variety of vehicles in a safe, convenient manner. However, differences in vehicle makes and models may make it impossible to use this equipment as it is intended. Do not attempt to force the use of this equipment on an application for which it is not designed to perform.
- The procedures documented in this manual are to serve as guidelines for the use of this equipment.
- In addition to these guidelines, always follow the manufacturer's recommended procedures when servicing each unique vehicle.
- The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and always stop to think before connecting the Battery tester or performing any tests
- Position cords to reduce risk of damage by hood, door or moving engine parts.
- Stay clear of fan blades, belts, pulleys, and other moving parts that can cause injury to persons.
- Check polarity of battery posts.

### THESE TEST PROCEDURES ARE FOR NEGATIVE GROUNDED VEHICLES ONLY. FOR POSITIVE GROUNDED VEHICLES, SEE VEHICLE MANUFACTURERS REPAIR MANUAL BATTERY TEST

1. Before you test a battery in a vehicle, turn off the ignition, all accessories and loads.
2. Close all the vehicle doors and the trunk lid.
3. Determine which post of the battery is grounded (connected) to the chassis.
4. Connect NEGATIVE (black) clip to vehicle chassis or engine block away from the battery
5. Connect POSITIVE (red) clip from battery tester to POSITIVE (POS, P, +) ungrounded post of battery
6. Do not connect clip to carburetor, fuel lines, or sheet metal body parts. Connect to a heavy gauge metal part of the frame or engine block.

Note: When disconnecting, remove clip from vehicle chassis FIRST, then remove the clip from the battery terminal.

7. Connect the tester to a vehicle battery, the screen will come on the battery voltage will be displayed with "XX.XX V". Note: If "HI" or "LO" or the screen is blank, refer to the Troubleshooting Section of this manual. Press the "Enter" button to go to next step.
8. Press the "◀▶" button to select Battery Test. The screen will show "BATTERY TYPE" selection. Press the "◀▶" button to select the battery type:  
REGULAR LIQUID, AGM BATTERY or VRLA/GEL BATTERY
9. Press "Enter" button to confirm choice.
10. The screen will show "RATING STANDARD". Press the "◀▶" button to select the battery standard:  
SAE DIN IEC EN or CA (MCA)  
SAE: United States Standard  
EN: European Standard  
DIN: German Standard  
IEC: International electrical science and technology association  
CA (MCA): Normal starting current or maritime starting current
11. Press the "Enter" button to confirm the choice and go to next step.
12. The screen will show "RATING CAPACITY". Press the "◀▶" button to select the battery capacity of CCA. With each press of the button, the value will increase or decrease 5 units
13. This tester's testing range:  
SAE 200 1000CCA  
EN 185 1125CCA  
DIN 110 670CCA  
IEC 130 790CCA  
CA (MCA) 240 1440CA (MCA)
14. Press the "Enter" button to confirm the input value of the battery capacity and begin the test.
15. The screen will show "-----".
16. If the display reads "CHA?" (Asking if the battery is fully charged or not), press the "Enter" button to proceed then press the "◀▶" button to select "YES" or "NO". Press the "Enter" button to confirm your choice and proceed to the next step.

Note: the Tester will judge the battery status & decide whether to show this Step or not, it doesn't appear every time.





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### POSSIBLE RESULTS ARE

- (Green Light On) The battery is in good state and can hold a charge. "XXXX" (CCA Value)/flashing appears on the screen.
- (Green and Yellow Light On) the battery is in good state, but needs to be charged. "XXXX" (CCA Value)/flashing appears on the screen.
- (Yellow and Red Light On) the battery is discharged and the condition cannot be determined. You will need to fully charge the battery and retest. If the test results are the same, the battery cannot take a charge and must be replaced.
- (Red Light On) the battery cannot take a charge and is defective and needs to be replaced.
- ("ERR with Red Light On) the clamps are not connected properly or the battery amp rating exceeds the capacity of the tester. Please fully charge the battery and retest after excluding both previous reasons. If reading is the same, the battery should be replaced immediately.

### STARTING SYSTEM TEST

NOTE: BEFORE BEGINNING THE STARTING AND CHARGING SYSTEM TEST, MAKE SURE THE BATTERY IS IN GOOD CONDITION AND FULLY CHARGED

- Connect the tester to a vehicle battery, battery voltage will be displayed with "XX.XX V". Note: If "HI" or "LO" or the screen is blank, refer to the Troubleshooting Section of this manual. Press the Enter button to go to the next step.
- Press " " button and choose "SySt", press "Enter". Turn off all vehicle accessory loads such as lights, air conditioning, radio, etc. When "CrAn" appears on the screen, press the "Enter" button to begin the test. A progress bar will appear on the screen ("-----"). Within 1 minute, start the engine and read the voltage.

### POSSIBLE RESULTS ARE

- (Green LED On) Voltage is more than 9.6V, starting system is ok.
- (Yellow LED On) Voltage is between 7.2V – 9.6V the starting system is weak and should be checked soon.
- (Red LED On) Voltage is lower than 7.2V, cranking voltage is below normal limits; troubleshoot the starter with manufacturer's recommended procedure.

- The display shows "-----", starting system not detected. Retest.

### Charging System Test

- After the starting system test, press the "Enter" button to proceed to the Charging System Test. "CHAR" will appear on the screen.
- With the engine running increase RPM to between 1200 and 1500, press "Enter" button to get the test results.

### POSSIBLE RESULTS ARE

- (Green Light On) Voltage between 13.4V and 14.6V, The system is showing normal output from the alternator. No problem is detected
  - (Red Light On) Voltage is more than 14.6V; the voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. Check to ensure there are no loose connections and that the ground connection is normal. If there are no connection issues, replace the regulator. Since most alternators have the regulator built-in, this will require you to replace the alternator.
  - (Yellow Light On) Voltage is less than 13.4V, the alternator is not providing sufficient current to the battery. Check the belts to ensure the alternator is rotating with engine running. If the belts are slipping or broken, replace the belts and retest. Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest. If the belts and connections are in good condition, replace the alternator.
- Press "Enter" button to proceed to the next test.
  - Turn on the blower to high (heat), high beam headlights, and rear defogger. Do not use cyclical loads such as air conditioning or windshield wipers. The screen will show LoAD", press the "Enter" button to run test.

### ONE OF THE THREE RESULTS WILL BE DISPLAYED

- (Green Light On) Voltage between 13.4V and 14.6V, the system is showing normal output from the alternator. No problem detected.
- (Red LED On) Voltage is more than 14.6V; the voltage output from the alternator to the battery exceeds the normal limits of a functioning regulator. Check to ensure there are no loose connections and that the ground connection is normal. If there are no connection issues, replace the regulator. Since most



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alternators have the regulator built-in, this will require you to replace the alternator.

- c. (Yellow LED On) Voltage is less than 13.4V; the alternator is not providing sufficient current for the systems electrical loads and the charging current for the battery. Check the belts to ensure the alternator is rotating with the engine running. If the belts are slipping or broken, replace the belts and retest. Check the connections from the alternator to the battery. If the connection is loose or heavily corroded, clean or replace the cable and retest. If the belts and connections are in good working condition, replace the alternator.
- d. Test is complete, turn all accessory loads and engine off. Remove the test clamps from the battery posts

### TROUBLESHOOTING

1. "HI" appears on the screen. Battery voltage exceeds tester capacity, please check battery type.
2. If the battery voltage is less than 7V, tester cannot perform any tests. Charge battery and retest, if still the same, replace the battery.
3. Screen is blank. Battery is completely discharged. Charge battery and retest.

### MAINTENANCE

1. Always store the Battery Tester in a well-protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements.
2. Keep the Battery Tester clean for better and safer performance.
3. Clean clamps and case after each use to prevent corrosion from battery fluid



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### OEMTOOLS™ LIMITED 90 DAY WARRANTY

From 90 days from the original purchase of this product, OEMTOOLS will warranty this item. If you find any defect in material or workmanship, through normal usage, return it to the place of purchase or to OEMTOOLS for repair or replacement at our discretion. In order to obtain this service send your tool and proof of purchase, transportation pre-paid, to OEMTOOLS Q.A. Dept., 3850 Raines Road #3, Memphis. We will not be responsible for lost or damaged goods during transportation, please insure your package. If our inspection verifies the defect, we will either repair or replace the product at our election, or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

OEMTOOLS does not provide warranty for products labeled other than OEM or OEMTOOLS. OEMTOOLS will not provide any warranty for products subjected to abnormal use. Abnormal use includes, but is not limited to, abuse, accident, alteration, neglect, and unauthorized or unreasonable use or repairs. This warranty does not cover bits, blades, files, batteries, or calibration. We recommend that you maintain your tools and sharpen or replace blades, bits, files, and batteries as necessary. OEMTOOLS reserves the right to make any changes in construction or design at any time without any obligation in incorporating such changes to tools or equipment previously sold.

OEMTOOLS makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear or to lack of maintenance.

We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.