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.



100A BATTERY TESTER

UNPACKING

After unpacking the 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 the carrier. DO NOT use the OEMTOOLS[™] 24338 100A 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 Battery Tester was subjected to shock load (a load that was dropped suddenly, unexpectedly, etc.), immediately discontinue use until it has been checked by a factory authorized service center.



The following safety information is provided as a guideline to help you operate your Battery Tester under the safest possible conditions. Any tool or piece of equipment can be potentially dangerous to use when safety or safe handling instructions are not known or not followed. The following safety instructions are to provide the user with the information necessary for safe use and operation. Please read and retain these instructions for the continued safe use of your Battery Tester. Failure to follow instructions listed below may result in serious injury. In addition, make sure that anyone who uses the equipment understands and follows these safety instructions as well.

Explanation of Safety Signal Words

AWARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
ACAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
CAUTION: Used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTES: Provide clarity and helpful information.

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 product is designed for certain applications only. OEMTOOLS[™] cannot be responsible for issues arising from modification. We strongly recommend this product 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 product until you have first contacted customer service to determine if it can or should be performed on the product.



<u>O=MTOOLS</u>

IMPORTANT INSTRUCTIONS AND SAFETY RULES

- 1. Know your product. Read this manual carefully. Learn the product'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 tools or equipment without strict adult supervision.
- DO NOT operate this product 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, neck-ties, rings, bracelets or other jewelry may present a potential hazard when operating this product. Keep all apparel clear of the product.
- 7. DO NOT overreach. Keep proper footing and balance at all times when operating this product.
- 8. Check for damage. Check equipment regularly. If part of the product is damaged, it should be carefully inspected to make sure that it can perform its intended function correctly. If in doubt, discontinue use of product.
- 9. Keep away from flammables. DO NOT attempt to operate this product near flammable materials or combustibles. Failure to comply may cause serious injury or death.
- 10. Store this product out of the reach of children and untrained persons. This product may be dangerous in the hands of untrained users.
- 11. Keep this product dry and clean.
- 12. Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one product may become hazardous when used on another product.
- 13. Service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- 14. When servicing a product, use only identical replacement parts. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of injury.
- 15. 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 OEMTOOLS[™] for a replacement.
- 17. Keep this product dry, clean, and free from brake fluid, oil, and grease.
- 18. Avoid accidental fire. DO NOT smoke near this product.
- 19. 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

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which cannot be built into this product, but must be supplied by the operator.

- 20. 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 their own discretion and risk. We assume no responsibility for results or damages incurred from the use of such information in whole or in part.
- 21. The manufacturer declines any and all responsibility for property damage or injury 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.
- 22. The procedures documented in this manual are to serve as guidelines for the use of this equipment.
- 23. The use of this equipment is simple and straightforward if you follow the instructions. When operating this equipment, use common sense, and only use this equipment for its intended purpose.

PRODUCT DESCRIPTION

The OEMTOOLS[™] 24338 100A Battery Tester is designed to easily test load, battery condition, or starter motor draw.

PRODUCT SPECIFICATIONS

| | • | | | | |
|--------------------------|--------------------|--|--|--|--|
| Compatibility | 6V & 12V Batteries | | | | |
| 6V Load | 50A | | | | |
| 12V Load | 100A | | | | |
| Testing Capacity (CCA) | 1,000 | | | | |
| Maximum Testing Duration | 10 seconds | | | | |
| | | | | | |

CONTENTS

(1) Battery tester, (1) Instruction manual

SPECIFIC SAFETY INSTRUCTIONS

AWARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

AWARNING: Thoroughly read and understand the provided product manual before attempting to use this product.

AWARNING: ALWAYS perform vehicle maintenance in a well-ventilated area.

AWARNING: DO NOT attempt to repair or disassemble the tester. Contact customer service or a qualified service professional.

AWARNING: DO NOT attempt test on battery with a broken case or cover.

AWARNING: DO NOT smoke in the vicinity of a battery or engine.

AWARNING: DO NOT submerge the battery tester.

AWARNING: DO NOT allow the battery tester to contact any liquids.

AWARNING: Remove all metal items from your body (ex. rings, bracelets, watches, etc.) to avoid risk of electric shock and severe burns.

AWARNING: During use, the metal casing will get hot enough to burn skin or cause property damage. Always carry the product by the handle. If the handle becomes hot, allow the tester to cool prior to attempting use.



AWARNING: ALWAYS wear eye protection and protective clothing when working with or in the vicinity of a lead-acid battery. It is recommended that you have fresh water, soap and baking soda in the immediate vicinity of the workspace. If battery acid contacts your eyes, skin or clothing, wash immediately with water and soap; contact medical professionals. Neutralize any lead acid spills with baking soda prior to clean-up.

TESTING PREPARATION INSTRUCTIONS

AWARNING: To prevent overheating, allow the tester to cool for 5 minutes between tests.

NOTE: This product does not require assembly.

NOTE: You may notice a slight burning smell during the first few uses of this product. This is normal and will fade.

- 1. Turn the ignition OFF. Turn OFF all accessories that may place load on battery.
- 2. Clean the battery terminals.
- 3. Clip the Red Clamp to the Positive (+) battery terminal.
- 4. Clip the Black Clamp to the Negative (-) battery terminal.

6V BATTERY TESTING INSTRUCTIONS

- 1. After the proper preparation steps have been taken, read the meter and confirm battery voltage is in the green "OK" area. See image of meter below.
- 2. Press and hold the load switch ON for a maximum of 10 seconds. Read the meter while the load switch is ON. The needle should remain in the green area.

12V BATTERY TESTING INSTRUCTIONS

- 1. Check the Cold Cranking Amps (CCA) of the battery being tested.
- 2. Connect the tester as described in the Testing Preparation Instructions.
- 3. Press and hold the load switch ON for a maximum of 10 seconds. Read the meter while the load switch is ON. Refer to Battery Analysis Table in this manual or on the back of the unit.

BATTERY ANALYSIS TABLE

| Indication | Battery Condition |
|----------------------------------|--|
| GREEN | OK - Battery may or may not be fully charged. Check the specific gravity of the battery to determine charge level, recharge if necessary. |
| YELLOW / RED (STEADY NEEDLE) | WEAK - Battery capacity is not satisfactory. Check the specific gravity of the battery. If full charge cannot be reached after attempting recharge, the battery should be replaced. |
| YELLOW / RED (FALLING NEEDLE) | WEAK OR DEFECTIVE - Release the load switch. If immediate voltage recovery (to 12V or above) is noted, the battery may be defective. Check the specific gravity. |

TEMPERATURE COMPENSATION

| BATTERY TEMPERATURE | +20°F | 0°F | -20°F |
|---|-------|-----|-------|
| DECREASE BATTERY RATING BY (CRANKING AMPS) | 200 | 400 | 600 |

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TESTING THE CHARGING SYSTEM

AWARNING: Be cautious of moving parts while the engine is running.

- 1. Connect the tester as described in the Testing Preparation Instructions.
- 2. Turn off all lights and electrical accessories. Run the engine at 1,200 to 1,500 RPM.

NOTE: DO NOT press the load switch.

- 3. Read the meter voltage. Meter should be within the green "OK" band.
- 4. Turn on the high beams and turn the A/C blower on high. Meter should remain within the green "OK" band.
- 5. If the meter does not read within the green "OK" band, the charging system is not operating correctly.

STARTER MOTOR TEST

NOTE: The engine must be at normal operating temperature to perform this test.

- 1. Perform the battery load test; if the battery is in weak or bad condition, this test cannot be performed. Record the exact voltage of the load test.
- 2. Determine the minimum cranking voltage using the voltage recorded in step 1.

| Starter Test Voltage | | | | | | | |
|-----------------------------|------|------|------|------|------|------|------|
| LOAD VOLTAGE | 10.2 | 10.4 | 10.6 | 10.8 | 11.0 | 11.2 | 11.4 |
| MINIMUM CRANKING VOLTAGE | 7.7 | 8.2 | 8.7 | 9.2 | 9.7 | 10.2 | 10.6 |

NOTE: If possible, disable the vehicle's ignition system. The starter motor test is most accurate if the starter cranks for 2-5 seconds.

- 3. Crank the engine and record the voltage reading.
- 4. If the cranking voltage is below the minimum cranking shown in the Start Test Voltage Table, the starter current draw is excessive. This may be due to bad connections or a failing starter motor.



- 1. Range for 6 Volt battery load testing
- 2. Range for 12 Volt battery load testing
- 3. Cold cranking amps range
- 4. Charging system test range
- 6 5. Voltage scale
 - Starter voltage test table

PRODUCT STORAGE

Always store the battery tester in a well-protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, fire, or any other harmful elements.

PRODUCT MAINTENANCE

AWARNING: DO NOT attempt to repair or disassemble the tester. Contact customer service or a qualified service professional.

- 1. Disconnect from battery and allow the unit to cool.
- 2. Use a clean, dry cloth to wipe the outer surfaces of the battery tester clean.

DISPOSAL

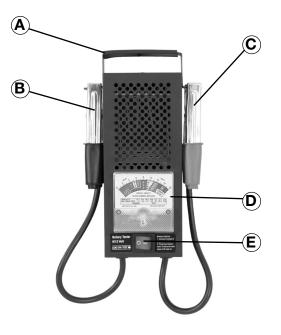
At the end of the useful life of the OEMTOOLS[™] 24338 100A Battery Tester, dispose of the components in accordance with all federal, state and local regulations.





100A BATTERY TESTER

PRODUCT LAYOUT



PARTS DESCRIPTION

| Figure | Description |
|--------|--------------------|
| Α | Carrying Handle |
| В | Negative (-) Clamp |
| С | Positive (+) Clamp |
| D | Meter |
| E | Load Switch |