

# **TRIPLETT**

## ***Chek-A-Cell***

***Sealed Lead Acid  
Battery Tester***



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## FEATURES

- **Load Tests both 6 volt and 12 volt sealed lead acid batteries**
- **Works for batteries from 1 to 10 Amp Hours**
- **Measures within 0.01 volts**
- **Polarity reversal indication and protection**
- **Powered by battery being tested**
- **Large, bright LED display (0.56")**
- **Lightweight**
- **One Year Warranty**

## INTRODUCTION

The **CHEK-A-CELL** is a digital tester for 6 volt or 12 volt sealed lead acid batteries, ranging in size from 1 Amp Hour to 10 Amp Hours. These types of batteries are often used for backup power in Emergency Lighting, Security Systems, and Uninterruptible Power Supplies (UPS). They are also used as a power source in many portable household appliances and power tools.

By applying a load to the battery and measuring the battery's voltage, the **CHEK-A-CELL** helps to determine the battery's condition.

### **Lead Acid Battery Notes:**

The **CHEK-A-CELL** contains an internal "load" for testing batteries. This load will heat up while the battery is being tested. The test time must be limited to prevent the load from overheating. Generally, 5 seconds is a sufficient test duration to determine a battery's condition. 12 volt batteries will heat the load more quickly than 6 volt batteries.



### **WARNING!!!**

**Do not apply battery voltage to CHEK-A-CELL for longer than 10 seconds.  
Allow CHEK-A-CELL to "cool" for 3 minutes between measurements.**

The battery to be tested **MUST BE FULLY CHARGED** prior to the test. In backup power applications, the battery is usually under constant charge, and should be fully charged at any time (unless just recovering from prior usage). In other applications, make sure the battery is fully charged before testing.

An undercharged battery will fail the **CHEK-A-CELL**'s test. A fault in the battery charging circuitry could cause a battery to fail the test. Make sure the charging circuit is operating properly.

Lead acid batteries can exhibit a "float" or "surface" charge immediately after "fast charging" or after extended standby charging. The surface charge causes the battery voltage to be higher than normal. The surface voltage usually collapses rapidly under load, or will gradually dissipate by itself if the battery is allowed to set for several hours after being disconnected from the charging circuit.

## **Using the CHEK-A-CELL**

*Disconnect the battery from the charging circuit. It is only necessary to disconnect one side of the battery . . . either positive or negative.*

*Using the test probes and observing proper polarity . . . red is positive (+), black is negative (-) . . . touch the CHEK-A-CELL's probes to the battery terminals.*

*Observe the reading on the digital display.*

*If no display is obtained, the battery is not producing the minimum voltage required to operate the CHEK-A-CELL (about 4.5 volts). The battery is either "dead" or requires charging.*

*If a "minus" (-) symbol lights in the digital display, the polarity of the test probes is reversed, or the battery is reversed charged. Reverse the test probes to obtain a reading.*

*If testing a 6 volt battery, and the reading drops below 6.20 volts in several seconds, the battery is "weak" and may need to be replaced (or the charging circuitry may have a fault).*

*If testing a 12 volt battery, and the reading drops below 12.40 volts in several seconds, the battery is "weak" and may need to be replaced (or the charging circuitry may have a fault).*

*If a 6 volt battery displays a voltage in excess of 6.8 volts, it has a surface charge. If the voltage does not drop to 6.3 volts in one or two seconds, the battery must be allowed to set for several hours for the surface charge to dissipate.*

*If a 12 volt battery displays a voltage in excess of 13.6 volts, it has a surface charge. If the voltage does not drop to 12.6 volts in one or two seconds, the battery must be allowed to set for several hours for the surface charge to dissipate.*

*Lead Acid batteries can develop internal shorts that discharge the battery. If the battery is charged using a trickle charger (usually takes 12 to 16 hours to charge), the internal shorts often prevent the battery from obtaining a full charge. When tested with the CHEK-A-CELL, the battery's voltage will be low, and it will drop quickly, indicating that the battery is bad.*

*However, a battery with an internal short can sometimes be fully charged if a rapid charger is used (charges the battery in an hour or less). The high charge rate can overpower the short and charge the battery. If such a battery is tested with the CHEK-A-CELL right after being charged, the battery may appear to be OK. However, if the battery is allowed to set for a few hours, the internal short will drain the charge from the battery. Testing with the CHEK-A-CELL at this time will show the battery is bad.*

## **SPECIFICATIONS**

<b>Operating Voltage</b> . . . . .	5.75 to 19.99 volts DC
<b>Resolution</b> . . . . .	0.01 volts
<b>Accuracy</b> . . . . .	+/- 0.03 volts (at 25 degrees C, +/- 5 degrees)
<b>Load Current</b> . . . . .	typically 600mA at 6 volts, 1.2 Amps at 12 volts
<b>Duration of Measurement</b> . . . . .	10 seconds maximum
<b>Display</b> . . . . .	3 1/2 digit, 0.56" high, red LEDs
<b>Test Leads</b> . . . . .	approx 28" long, one black alligator clip supplied
<b>Dimensions</b> . . . . .	approx 3 1/4" x 6" x 1 3/8"
<b>Weight</b> . . . . .	approx 11 ounces

## **TRIPLETT PRODUCT RETURN INSTRUCTIONS**

*In the unlikely event that you must return your Triplett equipment for repair, the following steps must be taken.*

- 1) Call 1-800-TRIPLETT to obtain a Return Material Authorization (RMA) number from Customer Service.**
- 2) Enclose a copy of the original sales receipt showing date of purchase.**
- 3) Clearly print the RMA number on the outside of the shipping container.**
- 4) Return to:**  
**Triplett Corporation**  
**One Triplett Drive**  
**Bluffton, OH 45817**  
**ATTN: Repair Dept.**

## **Triplett One Year Limited Warranty**

The Triplett Corporation warrants instruments and test equipment manufactured by it to be free from defective material or workmanship and agrees to repair or replace such products which, under normal use and service, disclose the defect to be the fault of our manufacturing, with no charge within one year of the date of original purchase for parts and labor. If we are unable to repair or replace the product, we will make a refund of the purchase price. Consult the Instruction Manual for instructions regarding the proper use and servicing of instruments and test equipment. Our obligation under this warranty is limited to repairing, replacing, or making refund on any instrument or test equipment which proves to be defective within one year from the date of original purchase.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries and fuses, not of our manufacture used with this product are not covered by this warranty.

To register a claim under the provisions of this warranty, contact Triplett Corporation's Customer Service Department for a Return Authorization Number (RMA) and return instructions. **No returned product will be accepted without an RMA number.** Upon our inspection of the product, we will advise you as to the disposition of your claim.

**ALL WARRANTIES IMPLIED BY LAW ARE HEREBY LIMITED TO A PERIOD OF ONE YEAR FROM DATE OF PURCHASE, AND THE PROVISIONS OF THE WARRANTY ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES EXPRESSED OR IMPLIED.**

The purchaser agrees to assume all liability for any damages and bodily injury which may result from the use or misuse of the product by the purchaser, his employees, or others, and the remedies provided for in this warranty are expressly in lieu of any other liability Triplett Corporation may have, including incidental or consequential damages.

Some states (USA ONLY) do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. No representative of Triplett Corporation or any other person is authorized to extend the liability of Triplett Corporation in connection with the sale of its products beyond the terms hereof.

Triplett Corporation reserves the right to discontinue models at any time, or change specifications, price or design, without notice and without incurring any obligation.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.