INTRODUCTION

Your new Model ATD5490 Battery Diagnostic Tester employs conductance testing to determine the condition of the battery. The patented circuit eliminates the need for time consuming CCA input or conversions to other rating systems. When the TEST button is pressed, the ATD5490 will immediately display BOTH the percent available capacity of the battery and the condition of the battery. The ATD5490 also tests 12V alternator and starter systems.

SPECIFICATIONS

Battery Size Range
  Auto/Truck: 390 to 1400 CCA
  Small Non-Auto: 6Ah to 33 Ah

Battery Condition
  Good: 80 to 100%
  Marginal: between 70 to 80%
  Replace: below 70%

DC Volt Range: 7V to 19.9V
DC Volts Accuracy: ± 2% Reading
Capacity/Volts Display: 3 LED's- 2 ½ Digit
Bar-graph Display: 10 color-coded LEDs
Operating Temperature: 32°F to 120°F
Weight: .75 LBS
Dimensions: 7.5” x 3.5” x 1” H
Jaw Opening: 1.25”

RETURN FOR REPAIR POLICY

Every effort has been made to provide reliable, superior quality products. However, in the event your instrument requires repair, forward unit to Service Center freight prepaid to the address below with return address, phone number and/or email address.

SERVICE CENTER
2651 W 81st Street
Hialeah, FL 33016

WARRANTY POLICY

The ATD5490 Battery Diagnostic Tester is warranted to be free of defects in materials and workmanship for a period of two years from the date of purchase. This warranty applies to all repairable instruments that have not been tampered with or damaged through improper use including unauthorized opening of the unit. Please ship warranty units that require repair freight prepaid to Service Center along with proof of purchase, return address, phone number and/or email address.

US PATENT # 6,768,309

Model ATD5490
12V Battery Condition & Charging System Tester
Tests 12V Auto/Truck and Non Auto Batteries and 12V charging systems

User Manual

WARNING
* Batteries produce explosive gases and can explode.
* Wear safety goggles. (user and bystanders)
* Keep flames and sparks away from batteries.
* Read and follow instructions.
* Battery explosion and ignited gases can cause injury.

WARNING
* Battery acid can cause chemical burns.
* Wear protective clothing, (user and bystanders)
  Chemical burns can cause injury.
**Checking Charging System (Alternator)**

**CHARGING SYSTEM TEST**

*Note: Prior to performing this test, check the battery condition to make sure it is in good condition. (See In Vehicle Battery Test Instructions).*

1. Check first for a loose, worn or broken alternator belt. If okay, proceed to #2.

2. Connect the red clip to the positive battery terminal and the black clip to the negative terminal and start engine.

3. With engine running, and lights on, the real time alternator output voltage will be displayed. The reading should display between 13.0 and 15.0 volts for 12V charging systems.

4. **Low charging voltage**: Check belts for slippage. Check connections from the alternator to the battery. If no problems are found, replace the alternator.

5. **High charging voltage**: Check for loose connections including the ground connection. If OK, replace the voltage regulator. Newer alternators house the regulator inside. In this case replacing the alternator is necessary.

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**STARTER TEST**

*Note: Check the battery condition to make sure it is in good condition before performing this test. (See In-Vehicle Battery Test Instructions page 3).*

1. Engine should be off. Turn off all accessory loads.

2. Remove surface charge (battery voltage is greater than 12.8 Volts) by turning on the headlights for 15 seconds.

3. Follow instructions for Out of Vehicle Testing (see Page 2).

**Converting to CCA, DIN, JIS, Ah**

If required, the available CCA, Ah, DIN, & JIS, can easily be determined by multiplying the percent displayed times the battery’s original rating. For example, a 600 CCA battery with 80% capacity available would have 480 CCA (.80 x 600) available. A 20Ah battery with 80% would have 16 Ah available.