Model B300

12V Battery Condition & Charging System Tester

Tests 12V Auto/Truck and Non Auto Batteries and 12V charging systems

User Manual

CE

Made in USA

INTRODUCTION

Your new Model B300 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 B300 will immediately display BOTH the percent available capacity of the battery and the condition of the battery. The B300 also tests 12V alternator and starter systems in VOLTS ONLY Mode.

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FEATURES

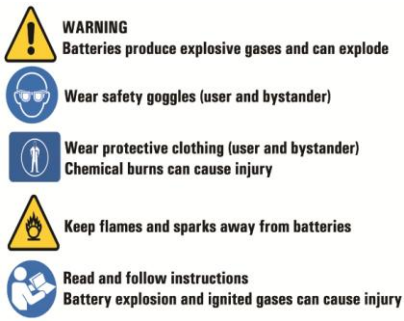
- **Displays % of available battery capacity**
- **Tests all 12V lead acid batteries**
- **100 CCA to 1200 CCA battery size range**
- **Color Coded LED Bar Graph**
- **3 Range Battery Size Selection**
- **5.5V to 19.9V operating range**
- **Tests discharged batteries down to 5.5V**
- **No need to input battery CCA's**
- **Patented conductance technology**
- **Tests 12V Start/Charging Systems**
- **LCD Display with Backlight**
- **Chemical/Abrasion Resistant Cables**
- **Reverse polarity protection**
- **Bad cell is detected and displayed**

SPECIFICATIONS

Stock part number	B300
Description	Battery Condition **&** Starter Charging Tester
Battery Size Range:	100 to 1200 CCA
Battery Selection Range	Small/Non Auto, Auto, Truck
Battery Voltage Range :	12V Batteries
DC Voltage: Range Volts Mode	5.5V to 19.9V
Accuracy (Volts	+/- 2% of reading
LCD Display	1 line 16 character with backlight
Battery cable length	24"
Dimensions	7.25" x 4"
Weight	.8 lbs

Model B300


Heavy Duty Abrasion Resistant Cables
Tech Professional Service Tools
85 % GOOD
Displays % Capacity & DC Volts
REPLACE
GOOD
Bar Graph Indicator
TEST OPTIONS
Test Option Selections
TEST
Press to Test Battery
B300
Battery System Tester


WARNING
Batteries produce explosive gases and can explode
Wear safety goggles (user and bystander)
Wear protective clothing (user and bystander)
Chemical burns can cause injury
Keep flames and sparks away from batteries
Read and follow instructions
Battery explosion and ignited gases can cause injury

TESTING BATTERY STATE OF CHARGE

Connect the red clip to the positive battery post and the black clip to the negative post*. Following the model number briefly displayed, the battery's State of Charge (SOC) voltage will be displayed as follows:

12.4V to 12.9V = "GOOD", Bar Graph Green
11.0V to 12.3V = "LOW", Bar Graph Yellow
<11.0V = "LOW", Bad Cell, Bar Graph Red (FLASHING)
>13.0V = "HIGH", Surface Charge

**Note: for side mount batteries, use adapter posts P/N B555 (not included-*sold separately*).*

TESTING BATTERY CONDITION

1. Select the battery size range by pressing the TEST OPTIONS button. The B300 will scroll the three ranges on the display each time the TEST OPTIONS button is pressed as follows:

   AUTO: 390 to 749 cca
   TRUCK: 750 to 1200 cca
   NON AUTO: 100 to 389 cca

2. Once the correct battery size range is displayed, Press the TEST button and the battery condition will be displayed as percent available capacity.

   80% to 100%* = GOOD, bar graph- 1 or more green leds
   70% to 79% = MARGINAL, bar graph- 1 or more yellow leds
   < 70% = REPLACE, bar graph- 1 or more red leds

Notes:
1. Some batteries may display above 100%. This means that the available capacity is greater than the rated capacity.

2. Recharge and retest MARGINAL batteries that show SOC LOW voltage.

3. New Batteries: Nearly all new batteries will not reach full capacity until cycled 10-30 times. A brand new battery will have a capacity of about 5-10% less than the rated capacity. Inactivity can be extremely harmful to a battery. New batteries that have been on the shelf for many months may show "marginal" or "replace" when tested, depending on the storage conditions. In that case, always charge and retest the battery before replacing.

STARTER TEST (VOLTS ONLY MODE)

Note: Check the battery condition to make sure it is in good condition before performing this test.

1. Connect the red clip to the positive battery terminal and the black clip to the negative terminal. The battery's State of Charge (SOC) voltage will be displayed.

2. Press the TEST button. In this VOLTS ONLY MODE only the real-time voltage at the battery will be displayed.

3. Disengage the ignition. (Check manufacturer's instructions). Read the voltage on the display while cranking the starter.

4. For 12V systems the normal cranking voltage at the battery should be equal to or greater than 9.6 volts*.

5. If the cranking voltage is less than 9.6 volts*, starting system has a problem. Check wires, connections and starter.

** Check manufacturer's specifications for 12V systems.*

Note: Pressing the TEST button again can return the user to the SOC screen.

CHARGING SYSTEM TEST (VOLTS ONLY MODE)

Note: Check the battery condition to make sure it is in good condition before performing this test.

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. The battery's State of Charge (SOC) voltage will be displayed.

3. Press the TEST button. In this VOLTS ONLY MODE only the real-time voltage at the battery will be displayed.

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

5. If charging voltage is low: check belts for slippage. Check connections from the alternator to the battery. If no problems are found, replace the alternator.

6. If charging voltage high: 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.

Note: Pressing the TEST button again can return the user to the SOC screen.

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 B300 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.

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