

Celltron Essential™

Stationary Battery String Analyzer

The Celltron Essential provides the key test features used for stationary battery applications and makes it easier to perform quick battery maintenance.

Benefits:

- Quick, simple, safe & accurate operation
- 2000 Ah testing capability
- Stores 480 consecutive test results and overall string statistics
- Enhanced backlit display and screen resolution
- Quick reset option for erroneous test entries
- Measures individual cell and overall string health and voltage
- Menu driven test sequence
- Consistent, repeatable on-line testing without discharge to batteries
- Tests 2, 6, 12-volt batteries on-line or off-line
- Provides advanced warning of potential battery failures
- Test each cell in under 10 seconds and entire string of batteries in just minutes
- Helps prioritize battery replacements for more cost-effective system management
- Tests both battery cell and intercell strap integrity
- No external power source needed
- Portable IR wireless printing

CTE-1000 includes:

- Protective carrying case
- Probe cables
- Spare fuses, 9-volt battery, probe tips

CTE-1500 includes:

- Everything that comes with CTE-1000
- High speed printer

Other accessories

available (not included in CTE-1000)

- Custom interfaces
- Connectorized test cable
- Protective boot
- Rechargeable battery pack
- Infrared printer
- Temperature sensor
- Clamp cables



CTE-1000



Celltron Essential™

Model Number:
CTE-1000

Applications:
Tests individual 2, 6, and 12-volt lead acid cells or monoblocs in any common configuration

Voltage:
1.0 - 15.0 Volts DC

Conductance:
100 - 9,999 Siemens

Test Data Storage:
Up to 480 consecutive test results can be stored internally

Accuracy:
± 2% across test range

Voltmeter Resolution:
10 mV DC

User Programmable Functions:

- Low voltage alarm setting
- Low conductance warning
- Low conductance failure
- Day/date/time formats (USA/international)
- Test mode (push button/auto start)

Calibration:
Auto-calibration prior to every test, no future calibration required

Connectorized Test Cable Options:

- Dual contact clamps
- Dual contact probes
- Custom cables by quotation

Power Requirements:
One 9-volt high capacity lithium battery or rechargeable battery pack accessory

Environmental Operating Range:

0 to +40°C, 95% relative humidity, non-condensing

Storage Temperature:
-20 to 82°C

Over Voltage Protection:

- Fused protection to 16 volts DC
- Reverse polarity protected

Housing Material:
Acid resistant ABS plastic

Tester Dimensions:
9" x 4" x 2.5"
230 mm x 102 mm x 65 mm

Case Dimensions:
19" x 15.5" x 5"
750 mm x 610 mm x 200 mm

Tester Weight:
1 lb / 500 gm

Special Features:

- Impact resistance tested
- Connection interfaces tested for durability and endurance
- No-Ox grease petroleum product resistance

Conductance Technology

Conductance describes the ability of a battery to conduct current. It is a measurement of the plate surface available in a battery for chemical reaction, which determines how much power the battery can supply. High relative conductance is a reliable indication of a healthy battery, while conductance declines as the battery deteriorates.

Years of laboratory and field test data have determined that battery conductance is an indicator of battery state-of-health showing a linear correlation to a battery's timed-discharge capacity test result. If conductance can be measured, discharge capacity can be predicted, giving a reliable predictor of battery end-of-life.

Other testing alternatives like voltage and specific gravity testing are not predictive. Timed discharge testing is very time-consuming and expensive, and impedance testing does not correlate directly and linearly with discharge capacity. Thus, conductance testing is a very effective and economical battery management tool.

Conductance Technology Industry Approvals and Recommendations:

- IEEE Standards 1188 and 484
- EPRI (Electrical Power Research Group)
- Guide for Testing Stationary Batteries International Telecommunications Energy Conference
- Bellcore T1Y1
- Presentation for American National Standards Institute
- International Lead Zinc Research Organization
- Battery Council International

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