Established 1981

# Advanced Test Equipment Rentals

www.atecorp.com 800-404-ATEC (2832)

MIDTRONICS

*Battery Management Innovation*

*Tests Stationary Batteries in All Applications*

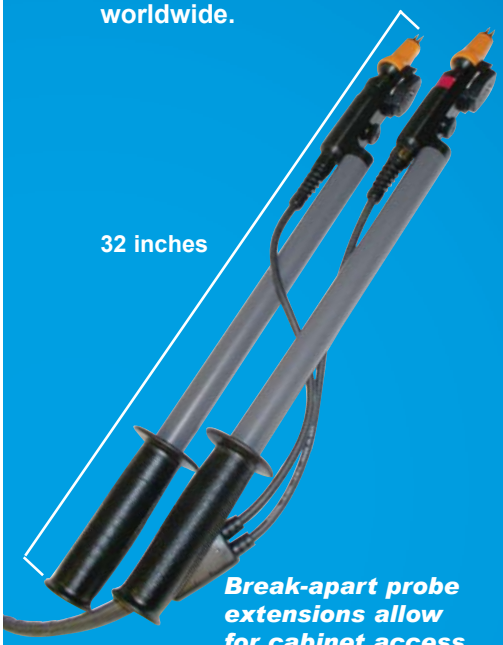
celltron®

ULTRA

## About Conductance

Midtronics' conductance technology utilizes an electrical measurement of the plate surface and other reactive elements available within the battery—a proven determinant of the ability to supply power. Years of laboratory and field research have proven that conductance provides a reliable indication of battery state of health and a correlation to battery capacity.

Conductance can be used to detect cell defects, shorts, normal aging, and open circuits which can cause the battery to fail. Midtronics' conductance technology is recognized globally as a standard for determining battery condition and controlling battery charging. Additionally, conductance is the required test method for battery warranty decisions at most automotive OEMs worldwide.




***Break-apart probe extensions allow for cabinet access and easy storage***

celltron®
# ULTRA

## Stationary Battery Maintenance—Made Easy

Midtronics battery testing products have been the industry leaders in the automotive, telecommunications, power utility and commercial transportation for more than a decade. Built upon this experience and proven technology, the Celltron ULTRA offers advanced battery testing capabilities for effective evaluation and maintenance of uninterruptible power supplies.

Batteries have been demonstrated to be the "weakest-link" in most UPS systems, and historic methods for evaluation have been cumbersome, confusing and inconclusive. The Celltron ULTRA combines advanced conductance technology, state-of-the-art portable electronics and convenient data management to facilitate fast, simple, safe and accurate battery management.

## Improved Battery Testing & Management

Effective battery maintenance involves much more than monthly, quarterly or annual testing. Since the battery is often the most mysterious variable in a power system, regular testing must be combined with data trending and analysis. Further compounding the difficulties in analyzing battery systems are the often unique configurations and attributes in each system.

The Celltron ULTRA helps technicians and facility managers overcome these challenges by offering advanced analysis tools and data management capabilities all in a package designed for universal application, regardless of system configuration.

## Key Features and Benefits: Reference Free Testing & More!

In order to develop the Celltron ULTRA to meet the needs of the technician, Midtronics completed extensive field testing and obtained input from technicians in the UPS, electric utility, and telecommunications industries. As a result, the Celltron ULTRA includes many key new features that meet both the reporting needs of management and the simplicity and accuracy demanded by technicians.

| *FEATURES* | *BENEFITS* |
|---|---|
| Advanced Conductance Technology | Enhanced conductance methodology enables accurate and repeatable testing in the presence of ultra-high electrical interference applications. |
| Battery Data Manager | Software and data management techniques allow for the easy establishment of battery reference/baseline values when pre-determined data is not readily available, allowing for "reference-free" testing. |
| Lighted Probes | The industry's first lighted probes increasing visibility in confined battery cabinets and racks. This advance improves technician safety and test reliability while reducing risk of equipment damage. Length of probes–32". |
| Memory Card | 32 megabyte card stores data up to 500 battery strings/ locations |
| Digital Multi-Meter | Versatile features allow for the measurement of AC & DC Voltage and Current. Scope mode displays AC ripple current and more. |
| Battery Manufacturer Information | Data on 12 battery manufacturers pre-loaded to expedite testing and record-keeping process. |
| Battery Reference Values | ULTRA stores over 250 pre-established reference/benchmark values to assist in the development of battery pass/fail thresholds. |
| Internal Battery | ULTRA includes two rechargeable battery packs-each providing power for more than 1000 full test sequences. |

***1-800-776-1995***

# Key Tester Features & Specifications

- **a** ***Durable, professional grade cable connector*** built for industrial environment
- **b** ***IR data transfer*** enabled for portable printing
- **c** ***Fully graphical backlit LCD display*** allows for effective analysis and high contrast adjustment for the darkest environments
- **d** ***Rugged, thermoplastic ABS housing*** with internal santoprene overmold tested to survive everyday use
- **e** ***Exchangeable NiMH battery pack*** enables extended test time
- **f** ***Industrial membrane keypad*** resists acid and grease tested to more than 1,000,000 cycles
- **g** ***Memory card*** allows for data storage and software updates as well as transfer to PC
- **h** ***Serial connection*** provides easy data transfer and connection to bar code reader (optional)
- **i** ***Modem connection capability*** available as an option
- **j** ***The industry's first lighted probes*** improve cabinet visibility

**Model Number:**
CTU-6000 (Tester); CTU-6000 KIT

**Applications:**
Tests individual lead acid cells or monoblocs (up to 16 Volts) in any common configuration

**Voltage:**
1.5 - 20.0 Volts DC

**Conductance:**
100 - 19,990 Siemens

**Test Data Storage:**
500 string locations of 480 test results stored internally

**Accuracy:**
± 2% across test range

**Voltmeter Resolution:**
5 mV

**User Programmable Functions:**
- Preset values for over 250 battery types
- Low voltage alarm setting
- Low conductance warning
- Low conductance failure
- 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:**
9.6V, 1600mAH, NiMH
Internal swappable battery & charger

**Display:**
LCD - FSTN
2.619" x 1.309", 128 x 64 pixels, 40 degree viewing angle, contrast ratio 8, Green LED backlight

**Keypad:**
Stainless-steel dome, polycarbonate overlay, 1,000,000 actuations

**Data Transfer:**
Infra-red HP protocol, Infra-red, half-duplex IRDA protocol, RS-232 printer, MMC Secure Digital card

**Environmental Operating Range:**
0 to +40°C, 95% relative humidity, non-condensing

**Storage Temperature:**
-20 to 82°C

**Over Voltage Protection:**
- Auto-reset disconnect
- Reverse polarity protected

**Housing Material:**
Acid resistant ABS plastic santoprene overmold

**Tester Dimensions:**
11" x 4" x 3"
280 mm x 105 mm x 80 mm

**Case Dimensions:**
19" x 15.5" x 7"
485 mm x 395 mm x 180 mm

**Tester Weight:**
2.6 lbs.

**CTU-6000 Test Kit Shipping Weight:**
approximately 11 lbs.

# Midtronics Industrial Battery Analyzers—
# Test Equipment for Every Application

**Midtronics offers professional battery analysis tools for a variety of industrial/stationary power applications. From the smallest 1.2 ampere hour VRLA to 6000 Ah flooded cells, Midtronics can provide equipment for effective battery assessment.**

| | UPS Systems—120, 220/240, 480, 600 Volts | Telecom Central Office (-48 Volts) | Telecom OSP (-48/+24) | CATV | Power Utility (Switching, SCADA, Etc.) | Generator/Vehicle SLI (starting) batteries | Small Systems (Fire/security alarms, lighting) |
|---|---|---|---|---|---|---|---|
| **Celltron® Ultra** CTU-6000 | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| **Celltron® Advanced** CTA-2000 | • | ✓ | ✓ | ✓ | ✓ | | |
| **Celltron® Essential** CTE-1000 | • | | ✓ | ✓ | ✓ | | • |
| **Celltron® Start Series** CTS-400XL | | | | | | ✓ | |
| **SecurePower 6/12™** SCP-100 | | | | | | | ✓ |

✓ Designed for universal use in this application

• Not a primary application, but will perform given constraints—contact Midtronics for details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