ISO 9001

C8000

Advanced Programmable Battery Testing System

The **Cadex C8000** delivers the versatility needed to ensure you get the right performance from the batteries used in your applications. The C8000 is a multi-purpose tool that allows you to optimize batteries at every stage of product life:
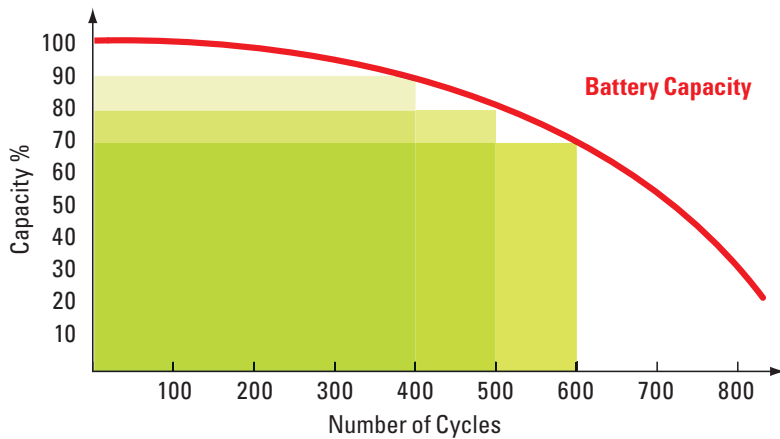
- Device Simulation helps you **choose** the right battery
- Life Cycle Testing helps you **characterize** the battery
- Custom Programming helps you **monitor** quality and performance
- Service Programs help you **maintain** the battery

A VERSATILE TOOL FOR THE LIFE OF THE BATTERY

Device Simulation

Learn how your battery will respond to your device

- Load capture and playback capability
- Internal loads to 10A or external loads to 240A
- Standard (GSM) or custom waveforms

Load response of a power drill.

Battery life cycle test.

Battery Characterization

Learn how your battery performs in operation

- Standard or custom programmed life cycle tests
- Environmental chamber testing control

Quality Monitoring

Ensure your battery is performing as planned

- Set up application specific test protocols

Battery Service

Ensure your battery is maintained

- Basic and advanced service programs

Control External Peripheral Equipment

- Cadex Load Capture Unit (LCU)
- High Power Digital Load
- Thermal Chamber
- Other digital or analog I/O devices

Control a Cadex Load Capture Unit (LCU) to test and simulate a battery response as it will be used in your device.

Control an external digital load to test high current/high power applications.

Control an environmental chamber to test the effects of temperature cycling on battery performance.

Service smart SMBus batteries by reading and displaying the register settings of the digital circuit.

A VERSATILE TOOL THAT PROVIDES FLEXIBLE PROGRAMMING

The **Cadex C8000** is intuitive to use and requires minimal training. Chemistry-specific programs provide safe operation for all major battery types.

Take advantage of a large selection of standard programs or create your own custom routine to meet your exact testing requirement.

Service Programs

Format, condition and restore batteries.

- **Charge** — Applies fast charge; terminates charge when the battery is full; applies trickle charge (depending on battery chemistry).
- **Auto** — Exercises batteries and applies recondition if the user-set target capacity cannot be reached (nickel-based batteries).
- **Prime** — Prepares batteries by repeated cycling until maximum capacity is reached.
- **Extended Prime** — 16-hour trickle charge prior to Prime. Prepares difficult to charge batteries.
- **Boost** — Activates seemingly dead batteries.

Rapid Tests
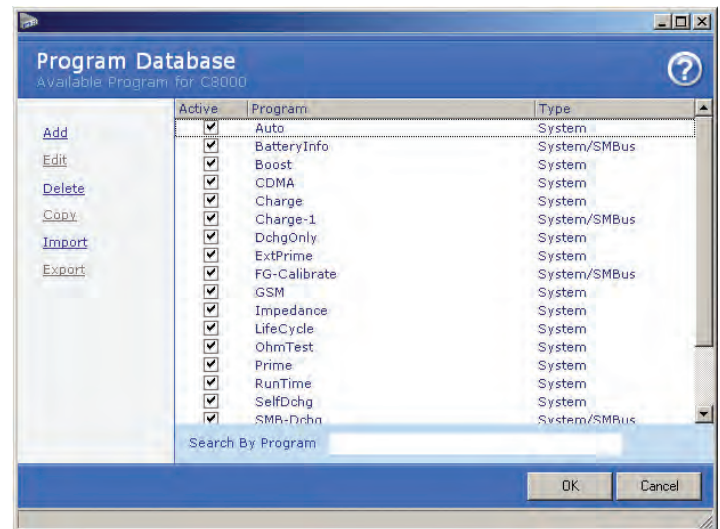
Checks battery without discharging.

- **OhmTest™** — Measure battery resistance with DC pulses (based on IEC61436), 13 seconds.*
- **Impedance** — Measures battery resistance with 1000Hz signal. (Channel 1 only.)*

* *A battery is an electrochemical device and the reactance readings will vary with different test methods.*

Advanced Programs

Automated testing for specialty requirements.

- **Waveform Tests** — GSM, CDMA or customized tests.
- **Runtime** — Allows three different discharge levels, programmable in hours and minutes.
- **Life Cycle** — Cycles battery until end-of-life.
- **Self-Discharge** — Measures self-discharge.
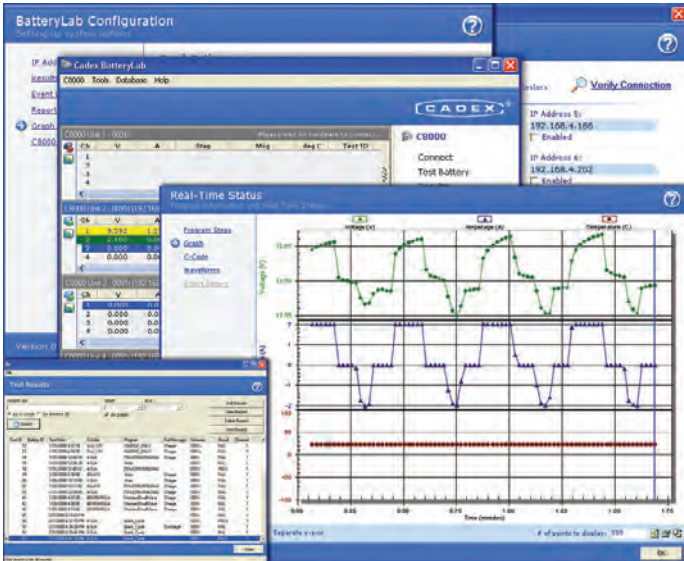- **Discharge Only** — For storage, test applications.

Custom Programs (via PC)

Create your own test routines for your specific requirements.

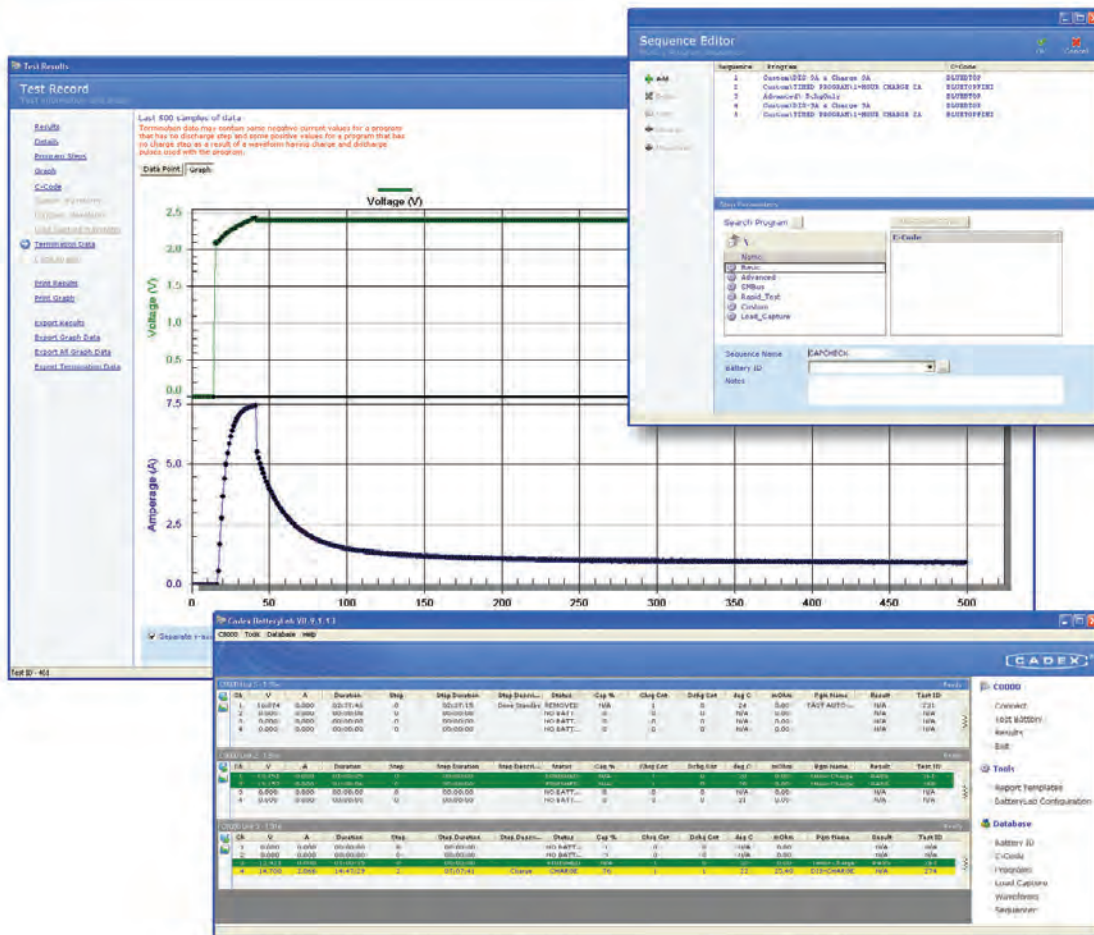- **100 Programs** — allows up to 100 user-defined programs.

A VERSATILE TOOL WITH ADVANCED BATTERYLAB™ SOFTWARE

No test instrument is complete without effective software. **Cadex BatteryLab™** provides a simple, yet powerful interface to control and monitor the C8000. With a PC, control shifts from the analyzer's front panel to the PC. Programming begins by entering the required battery parameters or choosing a battery from an existing list. BatteryLab™ displays the test results and displays them using real-time graphics.

BatteryLab™ Software

- Operates up to eight C8000 testers = 32 batteries
- Control and monitor your tester from a PC
- Allows custom program development
- Readings and graphic results in real time
- Manage and print results
- Compatible with Windows XP

Optional Adapter Unit

Interfaces with SnapLock™ Battery Adapters

- Each adapter can be programmed to 10 different battery types
- Over 1000 Battery Adapters available
- Provides quick and dependable interface
- Allows the sharing with other Cadex systems

2-Bay SnapLock™ Adapter Unit and Custom SnapLock™ Adapters.

Power & Auxiliary Port Cables

Included as standard interface components. The Power Port Cable is used for power while the Auxiliary Cable is used for data.

Power Port and Auxiliary Cables are standard.

Dual Power Port Cables (DPPC)

Used to combine 2 channels in order to double discharge capability to 20A/160W.

Dual Power Port Cable.

RigidArm™ Universal Adapter

The RigidArm™ simplifies connecting small (e.g. cellular phone) batteries. Spring-loaded arms meet the battery contacts from the top down and lockable mechanism allows quick and repetitive testing. The retractable floor holds the battery in vertical or horizontal position.

RigidArm™ Universal Adapter.

4 Independent Channels

- I/O Capability
  - 4 differential analog inputs: up to 50V
  - 4 digital inputs: 0–5V
  - 2 general purpose analog outputs: 0–5V
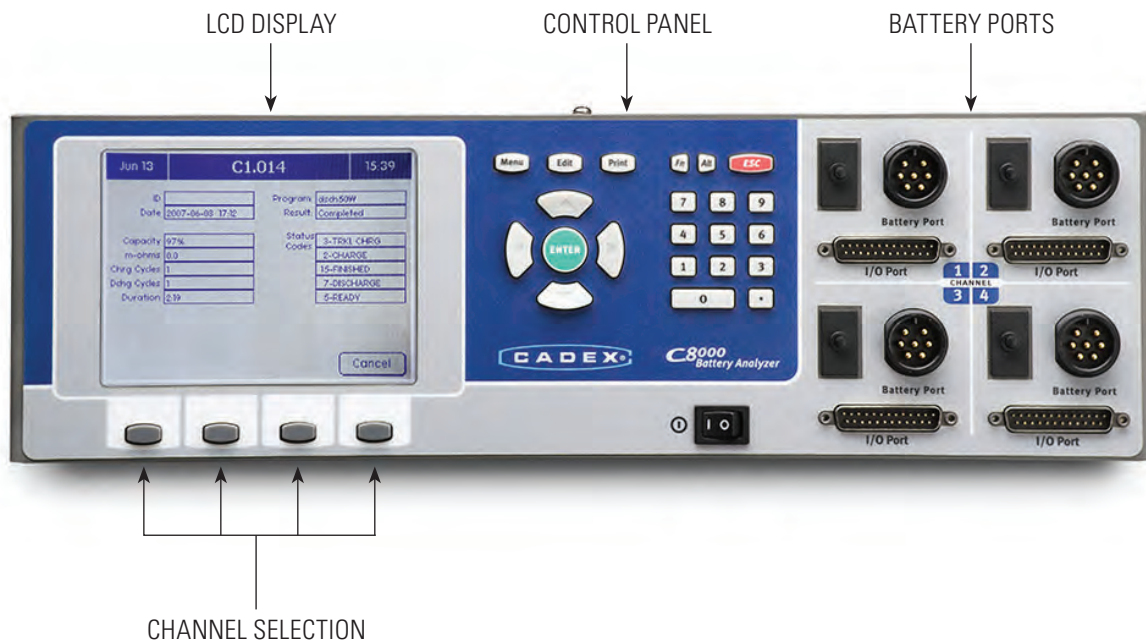 - SMBus Enabled: 5 possible termination signals

Detailed technical specifications are available upon request.

Power Sources

- All standard battery types
  - Lead Acid
  - Ni-based: NiMH, NiCd
  - Li-based: Li-ion, Li-Phosphate

Range

- Voltage: Nominal 1.2V – 36V
- Current
  - Up to 10A charge and discharge
  - 20A with Dual Port Power Cables (DPPCs) to combine channels
  - Up to 240A discharge with external digital load
- Battery Capacity: 50 mAh – 1000 Ah
- Accuracy
  - Voltage = ±0.1%
  - Current = ±0.25% full scale

LCD DISPLAY　　CONTROL PANEL　　BATTERY PORTS

CHANNEL SELECTION

Cadex Electronics Inc. is an established global leader in battery management products. With 30 years of experience developing and commercializing technologies for testing and servicing batteries, Cadex has delivered solutions to many of the world's largest companies in diverse industries that include radio and wireless communications, medical devices, portable computing, and aviation.

Cadex is also the lead sponsor for BatteryUniversity.com, the pre-eminent source for general battery information available on the web (www.batteryuniversity.com).

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