

LCV

Full-Featured Battery Testing System

BITRODE

PARTNER IN POWER

Applications

- Configurations for testing to industry standards: IEC, SAE, BCI
- Life Cycle Testing: Perform charge/discharge cycling of batteries or modules to obtain charge and discharge capacity, energy and DC internal resistance
- Automotive Battery Testing
- Starting, Lighting and Ignition (SLI) Testing
- Traction Battery Testing

Features & Benefits

Bitrode's model LCV is a full-featured life cycle test system for development of automotive, industrial and consumer batteries. The LCV provides increased laboratory accuracy, flexibility and efficiency, making it an ideal solution for testing needs in designing consistently high quality batteries, verifying rigorous battery specifications and research and development of new battery materials.

Additional features include:

- No performance loss under voltage control
- Bipolar capacity for discharging to below zero volts
- Test control and data management with Bitrode's VisualCN Lab Client software suite
- Constant current, constant power or constant voltage control
- Parallel circuit operation for greater flexibility in test specification
- Optional inputs can be assigned to any channel
- Program execution is independent from the PC with VisualCN software
- Remote Binary Protocol via Ethernet connection available for 3rd party software control
- Discharge power recycled to AC line for cooler, more energy-efficient operation

General Specifications

Voltage:	0-200V
Current:	Up to 1000A (8000A in parallel)
Power:	up to 480kW
Accuracy:	±0.1% of FS*
Circuits:	up to 16
Data Sampling Rate:	up to 10mS

*Accuracy values are conservative assuming operation will be through the standard temperature range of 0-40° C and RH from 10-90% (non-condensing). Units calibrated and maintained in a temperature and humidity controlled environment can expect an accuracy of 0.02-0.05%FS.



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System Options

- Up to three current ranges per circuit
- Temperature, pressure, flow rate, and cell voltage monitoring
- Digital inputs and Digital outputs with function assigned per individual program
- Expression-based program limit conditions
- Internal resistance calculation
- Temperature compensation adjusts voltage per battery temperature
- Integration with Battery Management Systems: CAN
- Ramp charge/discharge
- Constant resistance discharge
- Remote Input Output (RIO) box reduces excessive cable lengths when connecting to remote test stations
- Module-front LCD display
- Custom-designed test leads
- Drive Cycle Conversion utility automates test program development from acquired battery usage data

