

# Alber

*Trust Your Batteries*

## **Saving you money by:**

- Preventing battery failure
- Optimizing useful battery life
- Reducing maintenance cost
- Increasing safety

## **EASY TO INSTALL**

Designed and optimized for UPS battery cabinets, the BDS-40 is the perfect choice. With the monitor mounted on top of the cabinet and custom cables with each connection point identified to battery, installation is quick and easy.

## **EASY TO CONFIGURE**

Each BDS-40 unit will monitor all batteries in one cabinet. Two different BDS-40 units are available. The BDS-40 Base Unit is the central point where power and communication connections are made. Each additional battery cabinet in the system may then use a BDS-40 Plus Unit, which transfers the data to the Base Unit for alarm and data storage. Each Base Unit can manage up to five Plus Units, for a total of six battery cabinets. There is a choice of an internal network card and/or a dial-up modem as standard.

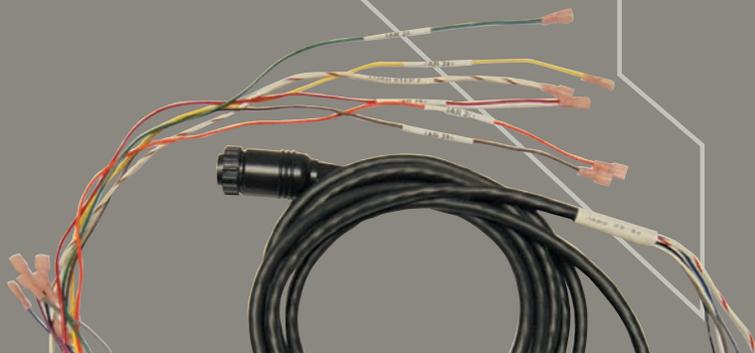
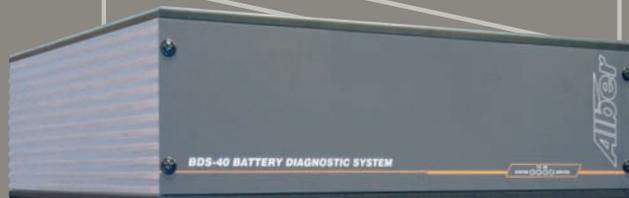
## **EASY TO USE**

Alber's BDS system makes hard-to-interpret data more understandable. Programmed thresholds flag problem batteries by making bar graphs turn red, triggering alarms and distributing alerts to email lists as soon as abnormal conditions are detected. The report has built-in decision support that analyzes the data and provides suggestions for the best cause of action.

**Technology that lets you  
Trust Your Batteries**

For more information, log on to  
**[www.alber.com](http://www.alber.com)**

**BDS-40**  
*Battery Diagnostic System*



# BDS-40 Battery Diagnostic System

## EARLY WARNING FOR BATTERY PROBLEMS

Like all Albér monitors, the BDS-40 uses a patented Internal DC Resistance test method that bypasses the limitations of outdated AC based impedance testing. Like an ultrasound for a battery, Albér technology lets you "look inside" and assess the battery's true state of health. It tests the condition of each module by performing a proactive resistance test—the most reliable indicator of battery performance.

It is essential to detect deterioration at an early stage to prevent catastrophic failures when dealing with 12 volt sealed batteries. This makes measurement technology the most important consideration when selecting a monitoring system. Other battery monitors' internal ohmic readings become inconsistent as the UPS load varies because of variations in AC ripple on

the battery. The Albér DC resistance test method is not influenced by ripple and thus provides data that is repeatable and reflects the true condition of the battery.

## OPTIMIZING USEFUL BATTERY LIFE

Sealed batteries are also sensitive to temperature and float voltage settings, and battery life can be extended by optimizing these conditions. The BDS system will monitor these conditions and continuously provide the user with information that allows for considerable cost savings by optimizing useful battery life. Instead of waiting for an inevitable failure or replacing batteries prematurely, you can continue to use your battery longer and with confidence by knowing the true condition.

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### BDS-40 Specifications

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#### Power

- Less than 2.0 amps at 115 VAC  $\pm 10\%$  60Hz (for a maximum configuration of one Base unit and five Plus units with a total of 40 jars).

#### Inputs

- Remote alarm reset: User-supplied 12 to 32V signal. (Less than 50ma.) Momentarily applying voltage initiates the reset action.

#### Outputs

- 24 VAC power: For up to five Plus units.
- Alarm contacts: Two Form C: 2A at 30VDC. (One for critical alarm; one for maintenance alarm.)

#### Communication

- Modbus protocol, ASCII to PC,
- LAN port, RJ-45
- RS-232 DB-9 connector for local PC connection.
- RJ-11 Telco line, internal modem (optional).

#### Data Storage

- SRAM (8 MB) nonvolatile memory for all configuration settings and test data. Holds up to one year's worth of data.
- Flash memory for firmware upgrades.

#### Operating Environment

- Temperature range: 5°C to 40°C (41°F to 104°F)
- Indoor use only.

#### Packaging

- Base unit: 19"W (482,6mm) x 16.2"D (411,5mm) x 7.8"H (198,1mm)
- Plus unit: 19"W (482,6mm) x 16.2"D (411,5mm) x 6.1"H (155mm)

#### Electrical

##### Parameters / Features

- Number of cell channels: Up to six strings of 40, 12 volt jars..

##### Measurement Range / Accuracy

- Cell voltage: 0 - 16V, 0.15% of reading  $\pm 4\text{mV}$
- Cell Resistance: 0 - 32000  $\mu\Omega$ , 5% of reading  $\pm 5\mu\Omega$
- String voltage: 0 - 600V, 0.2% of reading  $\pm 0.5\text{V}$
- Discharge Current: 0 - 600A  $\pm 6\text{A}$       0 - 1000A  $\pm 10\text{A}$   
Note: An optional current transducer is required. Transducer accuracy affects overall current reading accuracy.
- Float Current: 0 - 5000mA,  $\pm 0.1\%$  of reading  
Note: An optional current transducer is required.

\*Specifications subject to change without notice / Made in U.S.A.

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