

# SBS-8400 Battery Capacity Tester with Monitoring

10–300 Vdc, 0–120 Amp Constant Current Load Bank with Individual Cell Monitoring Capabilities



The SBS-8400 is a versatile and fully programmable constant current discharge load bank with detailed data acquisition and display capabilities. The unit features a user-friendly touch screen menu and a complete built-in data monitoring/acquisition system when paired with wireless modules and software.

Unlike basic load banks, the SBS-8400 is a high-tech solution for easy, efficient collection of data and generation of records for archiving.

## Benefits

- Automatically discharges batteries unmanned without danger of over-discharging
- Individual cell monitoring capabilities via wireless modules
- Can be used on a variety of systems with lead acid and/or nickel cadmium batteries
- Test parameters are adjustable during test without stopping test
- Automatically protects and saves data from an unexpected test stop/end
- Easy to navigate unit menu and computer software
- Download data after discharge to USB drive
- Generates custom reports for trending, records and reporting with included software
- Can be slaved with other load banks to increase amp draw up to 720 Amps



Touch Screen Menu

## Features

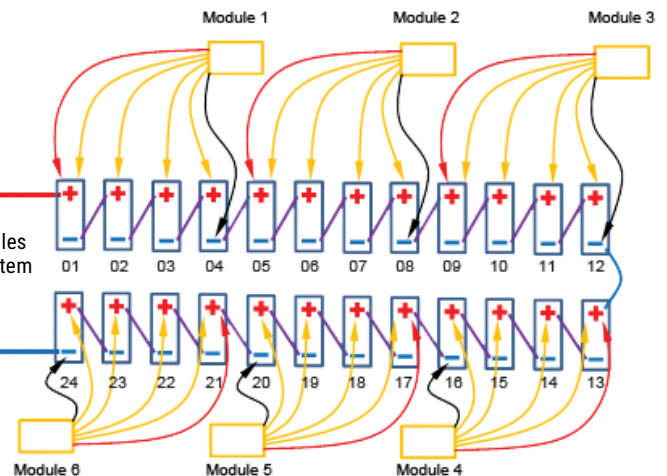
- Wide voltage and current range: 10–300 Vdc / 0–120 Amps
- Wireless module connection that measures and records individual cell voltages
- 5.7 in. LCD touch screen
- 30 parameter presets that can be adjusted during testing
- Selectable discharge mode: constant current (amps) / power (kW)
- 4 adjustable stop points and multiple alarm designs to control the process intelligently
  - Low system voltage: 0–250 Vdc
  - Discharge time: 0–99 Hour 99 Min.
  - Discharge capacity: 0–9999 Ah
  - Low cell voltage: 0–15.00 V
- View test data in real time on screen or with computer via RS232

## Applications

- Telecommunications
- Utility
- UPS
- Battery manufacturing
- Industrial maintenance
- Critical power
- Data center



Example of how the wireless modules would be installed on a 48 Vdc system consisting of qty. (24) 2 volt cells



Video available at [www.sbsbattery.com/videos](http://www.sbsbattery.com/videos)

## Specifications

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| DC Volt Range           | 10–300 Vdc                                               |
| DC Current Range        | 10–15 / 150–300 Vdc: 0–60 Amps<br>15–150 Vdc: 0–120 Amps |
| Accuracy and Resolution | ±1.0%, 0.1 Amp                                           |
| Display                 | 5.7" LCD Color Touch Screen                              |
| Power Supply            | 110 Vac, 60 Hz                                           |
| Communications Port     | USB / RS232                                              |
| Internal Memory         | 8MB Flash                                                |
| Size (main unit)        | 9.0" x 14.5" x 27.0"; 53 lb.                             |
| Size (with case/acc.)   | 12.5" x 23.0" x 31.0"; 93 lb.                            |

## Includes

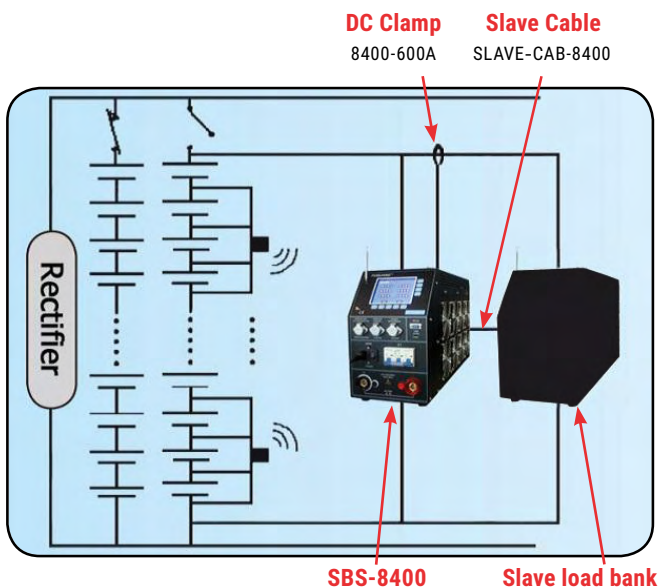
- Main unit
- Instruction manual
- Computer analysis software
- 6 ft. DC cable set (pos. & neg.)
- 3 ft. AC cable
- RS232 wire
- Case with wheels



Portable case included

## Computer Analysis Software

- User-friendly and easy to navigate
- Data downloading and analyzing through real-time communication or USB memory devices
- Software interface includes: battery voltages curve and bar chart, battery resistances bar chart, group voltage curve, current curve, capacities histogram data form, etc.
- Generate custom and detailed Excel reports with USB and software



## Paralleling Load Banks

The SBS-8400 has a 0–120 Amp current range; however, it is possible to parallel additional compatible load banks with the SBS-8400 to increase the current.

With the optional P/N 8400-600A DC clamp the user can discharge up to 720 Amps and the SBS-8400 will monitor the total DC current being drawn by up to two (2) additional load banks in parallel.

## Accessory Ordering Information

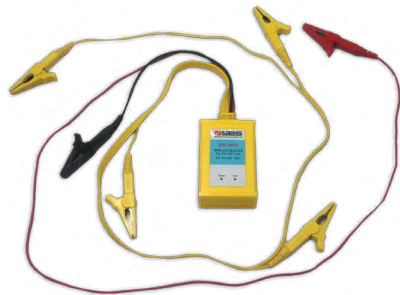
| Part No.                       | Description                                             |
|--------------------------------|---------------------------------------------------------|
| MODULE-1.2/2-25                | 1.2/2V Wireless module kit w/ case Qty. 25 (+2 spare)*  |
| MODULE-1.2/2-30                | 1.2/2V Wireless module kit w/ case Qty. 30 (+2 spare)*  |
| MODULE-2/6/12-15               | 2/6/12V Wireless module kit w/ case Qty. 15 (+2 spare)* |
| MODULE-2/6/12-30               | 2/6/12V Wireless module kit w/ case Qty. 30 (+2 spare)* |
| 8400-600A                      | 600 DC Current Clamp                                    |
| SLAVE-CAB-8400>8400            | Paralleling Cable, SBS-8400 to SBS-8400/ SBS-4815       |
| SLAVE-CAB-8400>S               | Paralleling Cable, SBS-8400 to S-Series                 |
| SLAVE-CAB-8400>(2)S            | Paralleling Cable, SBS-8400 to (2)S-Series              |
| BCT110/220-1000                | 750 Watt Voltage Transformer 110/220 Vac 50/60 Hz       |
| Pelican case upgrade available |                                                         |

## Ordering Information

| Part No. | Description                    |
|----------|--------------------------------|
| SBS-8400 | 0–300 Vdc, 0–120 Amp load bank |

## SBS Wireless Modules

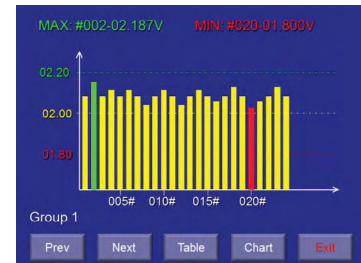
Individual Cell Monitors (Accessory for Compatible Battery Capacity Testers)



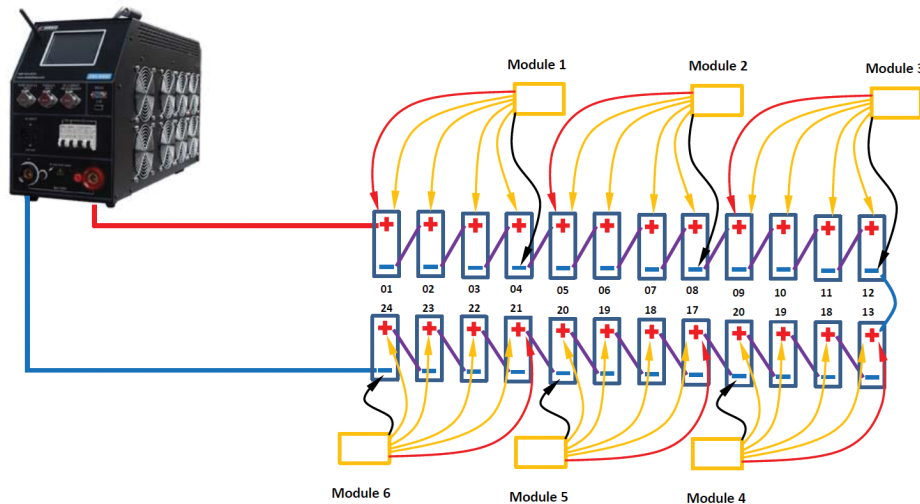
During capacity testing, the wireless modules measure each cell's voltage and wirelessly send the data back to the paired load bank. All voltage values are displayed on the load bank's LCD screen and listed in the test report, which is created with the computer software. Wireless modules make it easy to locate failed or problematic cells in the battery bank.

### Features

- Real-time cell voltage measurement during discharge test
- Advanced technology that wirelessly communicates readings between modules and load bank
- Wide range for 1.2/2V or 2/6/12V battery applications
- One module supports voltage measurements for up to 4 cells
- Supports monitoring up to 120 cells/batteries in a single test
- Protective storage included



Voltage bar chart on load bank screen

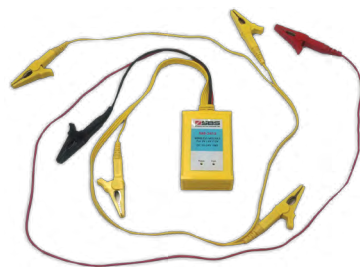


### Specifications

| Type                                       | SBS-2/6/12                                                                  | SBS-1.2/2                                                              |
|--------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|
| Support Cell Voltage                       | 2/6/12V                                                                     | 1.2/2V                                                                 |
| Wires                                      | Six (1 Red, 1 Black, 4 Yellow)                                              | Five (4 Red, 1 Black)                                                  |
| Power Supply Wire                          | Red & Black<br>Operating Voltage: 5-24 V<br>Max. Voltage: <400V             | Red No. 1 & Black<br>Operating Voltage: 3.5-20 V<br>Max. Voltage: <60V |
| Measure Voltage Range                      | 0-16 V for each channel                                                     | 0-5 V for each channel                                                 |
| Accuracy and Resolution                    | ±0.5%, 0.01 V                                                               | ±0.5%, 0.01 V                                                          |
| Dimensions / Weight                        | 3.9 x 2.6 x 1.3 in. (100 x 65 x 32 mm) / 0.66 lb. (0.3 kg)                  |                                                                        |
| Operation Temp. / Storage Temp. / Humidity | 23° to 122° F (-5° to 50° C) / -40° to 158° F (-40° to 70° C) / 5% - 95% RH |                                                                        |

## Connection Drawings

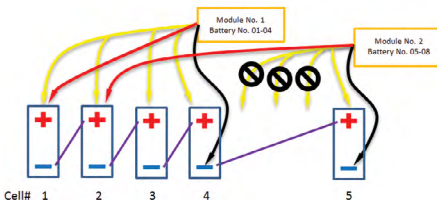
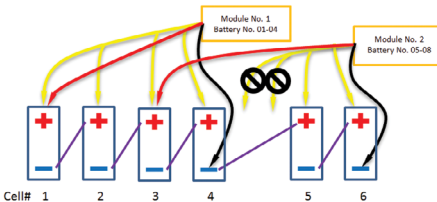
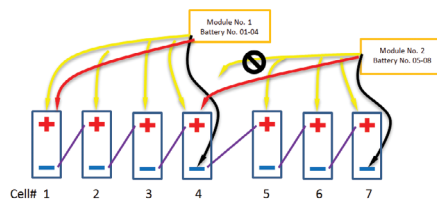
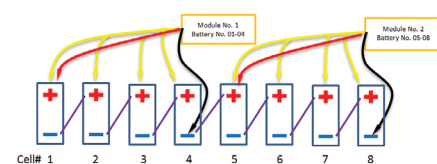
**SBS-2/6/12  
For Lead Acid Battery Monitoring**



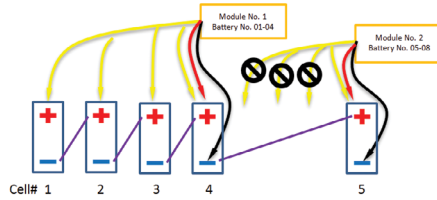
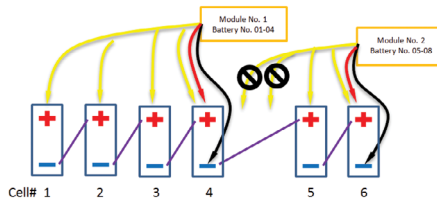
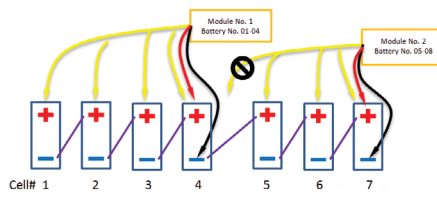
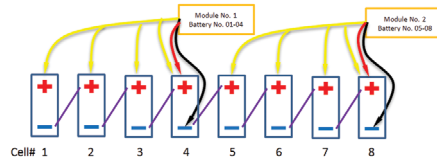
**SBS-1.2/2  
For Single-Cell Monitoring**



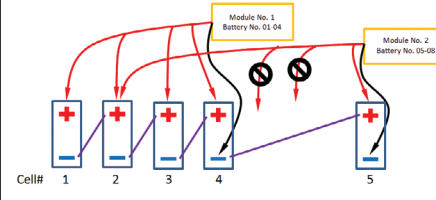
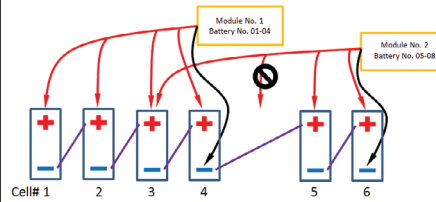
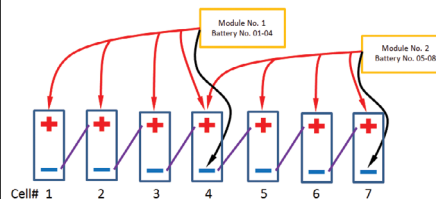
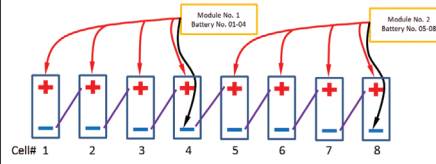
**Monitoring 2Volt Cells with 2/6/12V Module**



**Monitoring 6 or 12V Blocks with 2/6/12V Module**



**Monitoring 1.2 or 2V Cells with 1.2/2V Module**



## Wireless Load Bank Module Kits Ordering Information

| Battery Type                      | DC Voltages of Systems to be Tested | Module Package(s) Required (Part No.) | Qty. of Modules (+2 spares) |
|-----------------------------------|-------------------------------------|---------------------------------------|-----------------------------|
| Lead Acid Only (2/6/12V)          | 12-125 Vdc                          | MODULE-2/6/12-15                      | 15                          |
|                                   | 12-250 Vdc                          | MODULE-2/6/12-30                      | 30                          |
| NiCd/Single Cell LA Only (1.2/2V) | 12-125 Vdc                          | MODULE-1.2/2-25                       | 25                          |
|                                   | 12-250 Vdc                          | MODULE-1.2/2-30                       | 30                          |