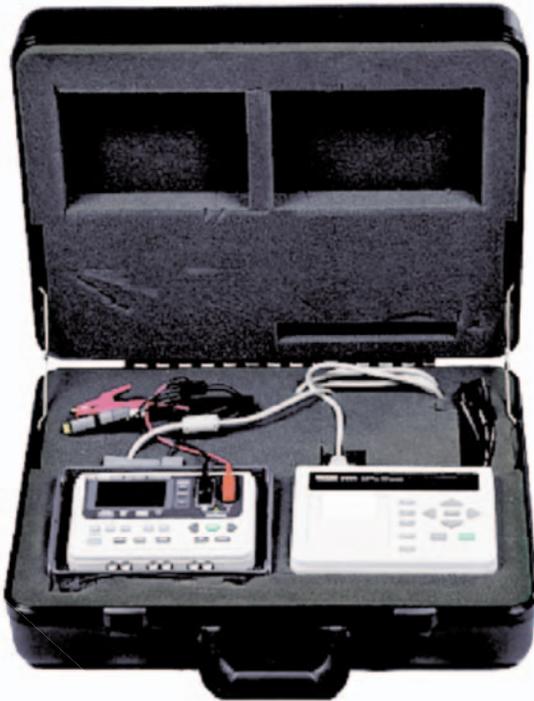


SBS-3003 Series Battery Interrogator

Internal Resistance and Voltage Monitor



SBS-3003 Kit Includes:

- (1) SBS 3003 Battery Tester, 0-12,000AH, 100 Comparators, 25 0 Memory Storage
- (1) 3006 Digital Histogram Printer
- (1) Cable Sets (part No. 9425)
- (1) Custom Carrying and Storage Case

**Installed in heavy duty case with all cables to connect to printer.*

Repeated charging and discharging of a storage battery reduces battery performance over time, and increases the internal resistance until charging is no longer possible. Faults may also be caused by internal short-circuits, resulting in reduced battery voltage, over-heating, or fire. To prevent these issues, the SBS battery interrogator determines the state of the battery immediately, by taking on-the-spot measurements without having to shut off the charger.

Features:

■ **Support for High-Capacity Batteries**
The higher the capacity of a battery, the lower the internal resistance. In the case of high-capacity batteries, the check decision requires accurate measurement of an extremely small internal resistance (e.g. tens or hundreds micro ohms.) The 3003 has a resolution of 1, and special purpose 9465 pin type leads. This enables the user to make better decisions for high-capacity batteries.

■ **Simultaneous Measurement of Resistance, Voltage, and Temperature***

**Temperature measurement with the 3003 requires the optional. 9460 Clip Type: leads with temperature sensor.*

■ **Three-rank Rating of Battery State**

Pass, Warning, or Fail. The Pass/Warning/Fail assessment of a battery's state is based on a 6-way combination of comparisons** against upper and lower resistance limits and a voltage threshold. Results are indicated by the LEDs and a beeper alarm.

***The tester includes circuitry to attenuate noise at frequencies other than the measurement frequency (1kHz). If, however, noise is present at close to the measurement frequency, a stable reading may not be obtained.*

■ **On-Line Measurements**

Measurement without shutting down the battery. Hospital or computing facility UPS systems cannot tolerate a break in the supply. As a result, battery maintenance must be carried out while the battery is in use. SBS 3003 is designed to take measurements while the battery is being charged.

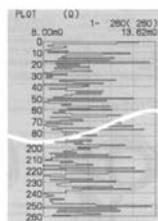
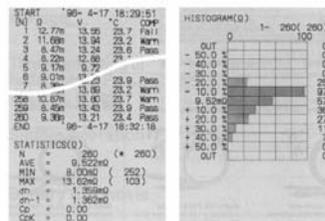
■ **Memory Function and Printed Output**

The tester has an internal memory function, which retains the measurement values and the decision result. The SBS-3003 holds 250 sets of Information that can be recalled on the tester itself, or printed together with statistics, using the 3006 digital printer option.



3003 Interrogator

3006 Interrogator Printer



Sample Printouts

Voltage threshold level	Resistance State			
	Low	In Range	High	High
Low	Warning	Warning	Fail	Fail
High	Pass	Warning	Fail	Fail

**The comparison threshold values depend on the battery manufacturer, type, and capacity, which must be established by the user.*

3006 Printer

In addition to basic data and decision-result printing, this printer can also produce statistics on the data, including maximum, minimum, mean, and standard deviation values. It can also be used to print histograms. You can use this versatile tool for desk analysis and trend spotting in data gathered in the field.

SBS-3003 Specifications Continued	
Battery Capacity (estimate)	0-12,000 AH
Resistance Ranges	3mΩ, 30mΩ, 300mΩ
Resolution	1μΩ
Accuracy	0.8% rdg. 6 digits, 30mΩ to 300Ω ranges; 1/0% rdg. 8 digits, 3mΩ range
Frequency	1kHz +/- 30 Hz
Voltage Measurement	±3V - 30V
Resolution/Accuracy	1mV, 10mV/0.1% rdg. +/- 6 digits
Temperature Measurement	14° to 140° F
Resolution/Accuracy	0.1 C / +/- 0.5% rdg +/-10 digits
Sampling Rate	0.83 times/second
Comparator	
Settings	Resistance upper and lower limits, voltage lower limit
Memory	99 sets of values
Data Memory	250 data sets
Maximum Input Voltage	60V DC
Power Supply or Optional AC adaptor	Six AA alkaline batteries
Battery Charge Life (constant use)	5.5 hours
Size (HWD)	5.12" x 2.56" x 7.72" (130 x 65 x 196mm)
Weight w/ Batteries	1.89 lbs. (860g)

SBS RT-100

Internal Resistance Tester

Determines the condition of your battery in seconds – while the battery is in service.

Features:

- On-line battery testing without shutting down system
- Built-in data logger stores up to 999 tests
- Simultaneously measures battery resistance & voltage
- Windows 95/98/NT/2000/ME/XP compatible software for down loading readings to a PC

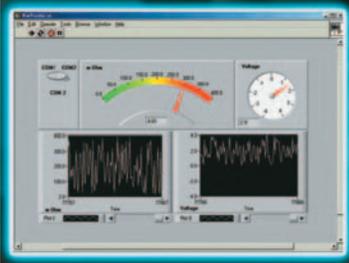


Specifications			
Function	Range	Resolution	Basic Accuracy
Resistance Ranges	40mΩ, 400mΩ,	10μΩ, 100μΩ	±(1% reading ± 8d)
	4Ω, 40Ω	1mΩ, 10mΩ	
Voltage Ranges	4V, 40V	1mV, 10mV	±(0.1% reading ± 6d)
Max Input Voltage	50VDC		
Power	6 AAA batteries		
Battery Life	7 hours		
Warranty/CE	1 year warranty/ CE approved		
Dimensions/Weight	9.75" x 4" x 1.75" - 17.5 oz. (250 x 100 x 45 mm - 500g)		



Kit Includes:

- Software w/ Cable
- Kelvin Alligator Clips
- Kelvin Test Leads
- 6AAA Batteries



Software included to download and store data to a PC