



## KEY FEATURES

- SMBus level three smart charger
- Standard battery footprints available
- Onboard LED indications
- Multichannel power sharing
- Available in embedded PCBA format

# SBS-2502

## SMART BATTERY SERIES

The SBS-2502 is a two bay, level 3, stand alone battery charger that is compliant with the standard SMBus protocols. It can charge any type of battery chemistry provided that the pack adheres to the SMBus specifications. The two bays are charged simultaneously and a discharge can be performed in either bay. The SBS-2502 uses an external universal switching power supply and can be supplied with any line cord .

<b>SMBus</b>	Level 3
<b>Charge Rate</b>	4000mA (max)
<b>2 Bays</b>	2 (simultaneous)
<b>Recalibration</b>	User activated
<b>Input Connector</b>	2.5mm (center positive)
<b>Weight</b>	13.6oz (358g)
<b>Material</b>	ABS GSM
<b>Color</b>	Black
<b>Dimensions</b>	6.89" x 4.89" x 2.30" 175mm x 124mm x 58mm

### TARGET BATTERIES:

- ▶ Any battery pack that is SMBus compliant

### STANDARD SBS-2502 KIT INCLUDES:

- ▶ Charger
- ▶ Universal switching power supply
- ▶ Line cord
- ▶ Instruction sheet

### OPTIONAL COMPONENTS:

- ▶ Vehicle power adaptor

### CARTON DIMENSIONS:

- ▶ 12.62" x 7.75" x 2.50"

## QUALITY THAT COUNTS

Dedicated to quality and backed by on-time delivery, Energy Access offers customizable solutions to fit any charging need. Our reach is world-wide. Working within a broad range of markets including medical, military, industrial, security, safety and robotics. Working closely with cell manufacturers and battery assemblers, our customers have helped shape the cornerstone of our success.

## CHARGER KIT: PRODUCT PART NUMBERING

XXX	CCBB	HHHHH	PPPPPP	LLLL
SBS	2502	00202	PS2524	LCUL

*\*Not all part numbers displayed*

### KEY

XXX - Charger platform  
 CC - Input current (C.CA)  
 BB - Number of battery bays  
 HHHHH - Housing  
 PPPPPP - Power supply  
 LLLL - Line cord

## ABSOLUTE MAXIMUM RATINGS

Input voltage – 40VDC (max)

## GENERAL

Maximum battery voltage	30V ±0.2VDC
Minimum battery voltage	4VDC ±0.05VDC
Maximum charge current	4000mA ±100mA
Minimum battery current	0mA
Current granularity	16mA
Operating temperature	0° C to 50° C
Emergency shutdown temp.	>65° C (either bay)

## PHYSICAL AND ENVIRONMENTAL

Dimensions	6.89" x 4.89" x 2.30" 175mm x 124mm x 58mm
Weight	13.6oz (358g)
Material	ABS GSM
Battery bay geometry	Various available
Input connector	2.5mm (center positive)
Storage temperature	-20° C to 70° C
Humidity	15% to 95% (non-condensing)

## RECALIBRATION

Implementation	SMBus batteries only
Activation	Push button
Basic algorithm	Charge-Discharge-Charge
Discharge rate	1000mA (max)
Discharge termination	Status register= xxxx xxxx xx1 xxxx (Binary)

## LED INDICATIONS

Off	No battery detected
Green flashing	Fast charge
Green solid	Fully charged
Yellow flashing	Recalibrating
Yellow/green	Recalibrated
Yellow solid	Standby or suspend
Red flashing	Error

SBS-4002	Smart Batteries (SMBus)	Non-SMBus
Chemistry	Any	N/A
Termination Algorithm	Status register=xxxx xxxx xx1x xxxx (Binary)	N/A
Termination Value	Determined by battery	N/A
Wake-up Current	~250mA	N/A
Wake-up Period	3 minutes (max)	N/A
Charge Current	Determined by battery	N/A
Charge Voltage Limit	Determined by battery	N/A
Communications Polling Rate	6 seconds	N/A
Suspend Charging	Dependent on battery alarm bits	N/A
Override Timer	None	N/A

