

PROTECT YOUR POWER INVESTMENT

SBS-2502-00204

Smart Battery Series



Protected by Design. Powered by Intelligence.

The SBS-2502 is a two-bay, level 3, standalone SMBus battery charger for 204 style batteries 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.

Why Choose Energy Access & Quality That Counts

- ⚡ Customizable for your exact requirements
- ⚡ Global certifications for worldwide deployment
- ⚡ Smart battery communication (SMBus Level 3)
- ⚡ Multi-chemistry support (Li-ion, LFP, NiMH, NiCd, Lead Acid)
- ⚡ (Optional) Shipping mode termination (30%SOC)

Key Features

Complete protection includes:

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

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

Target Batteries

- 204 style
- SM204
- DR204
- NC204
- NF204
- Ni204
- RH204
- RRC204
- Compatible with additional battery models

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"

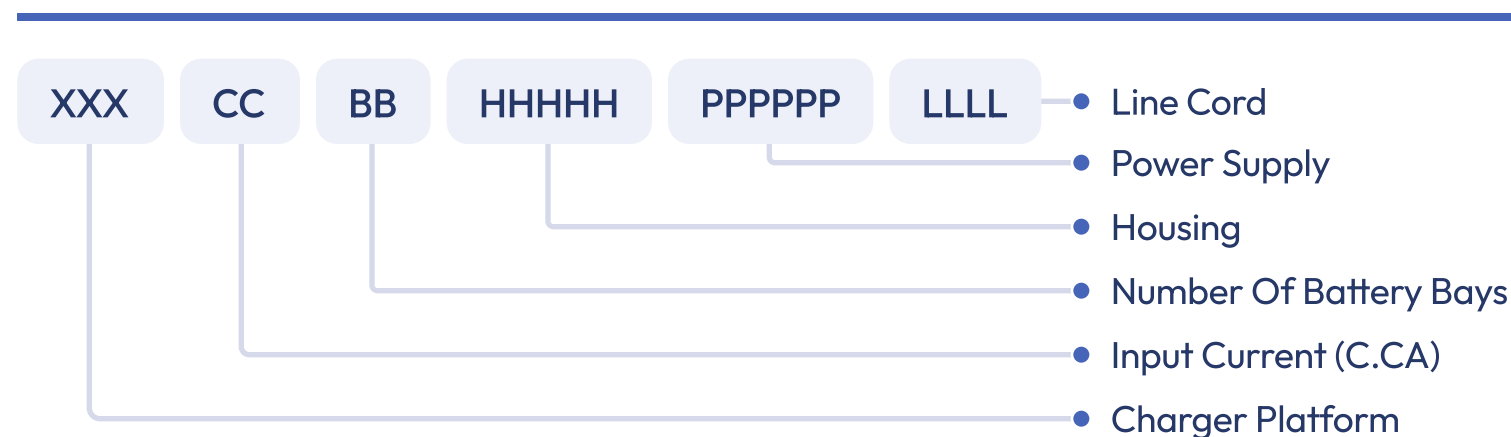
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Charger Kit: Product Part Numbering

XXX	CCBB	HHHHH	PPPPPP	LLLL
SBS	2502	00204	PS2524	LCUL

Key



Absolute maximum ratings

Input voltage – 40VDC (max)

General

Maximum Battery Voltage	30V ±0.2VDC
Minimum Battery Voltage	4VDC ±0.05VDC
Maximum Battery 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 & 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 xx1x xxxx (Binary)

LED Indications

Off	No Battery Detected
Green Flashing	Fast Charge
Green Solid	Fully Charged
Yellow Flashing	Recalibrated
Yellow/Green	Recalibrated
Yellow Solid	Standby or Suspend
Red Flashing	Error

SBS-4002	Smart Batteries (SMBus)	Non-SMBus
Termination Algorithm	Status Register=xxxx xxxx xx1x xxxx (Binary)	N/A
Chemistry	Any	N/A
Wake-up Current	Determined by battery	N/A
Wake-up Period	~250mA	N/A
Charge Current	BMS-0503-04250	N/A
Charge Voltage Limit	Determined by Battery	N/A
Communications Polling Rate	6 Seconds	N/A
Termination Value	Determined by Battery	N/A
Override Timer	None	N/A
Suspend Charging	Dependent on Battery Alarm Bits	N/A

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