

User Manual

Of

Smart Charger (20A) for 51.2V (16 cells) LiFeP04
Battery Pack (110V only, **SB50A Anderson connector**)



AA Portable Power Corp (<http://www.batteryspace.com>)

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WARNING

Wiring precautions

If failure or error of this instrument could result in a critical accident of the system, install an external protection circuit to prevent such an accident.

In order to prevent instrument damage or failure, protect the power line and the input/output lines from high currents by using fuses with appropriate ratings.

Power supply

In order to prevent instrument damage or failure, supply power of the specified rating.

In order to prevent electric shock or instrument failure, do not turn on the power supply until all of the wiring is completed.

Never use the instrument near inflammable gases

In order to prevent fire, explosion or instrument damage, never use this instrument at a location where inflammable or explosive gases or vapour exist.

Never touch the inside of the instrument

In order to prevent electric shock or burns, never touch the inside of the instrument. Only authorized service engineers can touch the inside of the instrument to check the circuit or to replace parts. High voltage and high temperature sections inside the instrument are extremely dangerous.

Never modify instrument

In order to prevent accident or instrument failure, never modify the instrument.

Maintenance

In order to prevent electric shock, burns or instrument failure, only authorized service engineers may replace parts. In order to use this instrument continuously and safely, conduct periodic maintenance. Some parts used in this instrument have a limited service life and may deteriorate over time.

Introduction

AA Portable Power Corp (<http://www.batteryspace.com>) specialized in the research & development of the intelligence battery charger in the long terms.

The series battery charger is based on MCU technology, with pulse charging mode, the charging voltage has temperature compensation automatically. It could be used in the various electric cars the field of tourism, railway, mine, post and telecommunication.

Main Feature

- INPUT
 - AC input voltage 99 to 121 VAC , single phase
 - Input frequency 45 to 63 Hz
 - Efficiency 72%(min) at rating power, 115Vac 60Hz
- OUTPUT
 - CCCV charging mode
 - Cut-off voltage: 58.2VDC
 - 20A current Max.
 - Charge terminal: 4' long 8AWG wire SB50A Andersen connector
 - ◆ SB50A Anderson plug dimension (LxWxH): 1.9" (48.0mm) x 1.5" (38.0mm) x 0.6" (15.0mm)
 - ◆ **Included 1 pcs** 1.9" x 1.5" x 0.6" SB50A Anderson connector **without wire** for DIY use.
 - **Tip:** In order to match up the charger's connector, You may connect the battery pack charge terminal with **Included 1 pcs SB50A** Andersen connector.
 - Make sure the charge DIY wire will be acceptable for 20A Max charge current.
 - **Warning: Wrong polarity will damage the charger, and Batteryspace are not responsible for the damage or losses caused by misusing**
 - ◆ **Note:** Anderson connector has no difference in male and female, which can mate each other
- CHARGE
 - The Battery range is between 20AH to 120AH
 - Reverse Polarity Protection
 - Short Circuit Protection
 - No trigger voltage requirement
- Built in cooling fan to ensure charger long service life
- Max Dimension(LxWxH): 282mm(11.1")x 158mm(6.2") x 78mm(3.1")
- Max Weight: 8.0lbs 0.60z (3650grams)

How to use

1. Turn on : Make sure the pack voltage is suitable for charger. Then connect to the pack with correct polarity.
2. Check the voltage of the AC input is suitable for the input voltage of the charger or not.
- 3 The charger start ramp charging after auto-testing in 1 minutes
4. Indicating LED signification
5. Power indicating and battery test LED:
 - Green LED = Fully charged / Correct Polarity Connection
 - Red LED = Charging / Wrong polarity Connection
 - Orange LED = 90% fully charged.
6. Turn off: After Battery is fully charged, must disconnect the AC power supply before disconnect battery

Operation environment

- ◆ Above the sea-level $\leq 2000\text{m}$.
- ◆ Ambient temperature $-10^{\circ}\text{C} \sim 50^{\circ}\text{C}$
- ◆ Ambient humidity $5\% \sim 70\% \text{RH}$
- ◆ Storage temperature $-10^{\circ}\text{C} \sim 60^{\circ}\text{C}$
- ◆ Without conductive dust
- ◆ Without explosive dust
- ◆ Without corrosive gas and steam damaged to metal and isolator
- ◆ keep away from rain and snow
- ◆ Mounting slop ≤ 5 degree

Maintenance and service

- ◆ The charger must be set at ventilated, dry and dust-less place to prevent the reduction of the performance of the charger.
- ◆ For technical support, please contact us via sales@batteryspace.com.