User Manual of

Lead Acid Smart Fast Charger (6 A) for 36V Lead Acid Battery 6Ah- 60Ah (110V Only, Standard Female Tamiya plug)

AA Portable Power Corp

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 a 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 .

The Smart Charger is designed for charging 6Ah - 40Ah 36V Lead Acid battery pack. It features with three stages charging and promise 36V lead acid battery to get full without overcharged.

- INPUT
  - AC input voltage 99 to 121 VAC , single phase
  - Input frequency 47 to 63 Hz
  - Efficiency 72%(min)at rating power,115Vac 60Hz
- OUTPUT
  - CCCV (Constant Current Constant Voltage) charging mode
  - Cut-off voltage: 43.8VDC
  - 6 A current Max.
  - Charge terminal: 14AWG wire Standard female Tamiya plug.
    - **Do not** detach Standard female Tamiya plug from charger
  - **Included** one pcs connector adaptor, convert from Standard Male Tamiya plug to alligator Clip
    - Must plug Standard Male Tamiya end to the Standard Female Tamiya plug of the charger with correct polarity.
    - Must plug Clip end to the connector of the battery pack with correct polarity
      - Red Clip = Positives
      - Black Clip = Negative
    - **Warning: Wrong polarity will damage the charger, and Batteryspace are not responsible for the damage or losses caused by misusing**
    - **Optional for** Connector/Adaptor: From Stand Tamiya Male to 5.5 mm x 2.1 mm Barrel Male. Please click here to order seperately
- CHARGE
  - The Battery range is between 6AH to 40AH
  - Reverse Polarity Protection
  - Short Circuit Protection
  - No trigger voltage requirement
- **Included** 1 pcs replacement 8A 250V fuse
- Built in cooling fan to ensure charger long service life
- 6 LED indicator installed to indicate "Initial", "Ready to charge/ Wrong polarity connection", "Perform Charging/ Correct Polarity connection / 20% - 100% Fully Charge" status
  - Initial: All 6 LED indicator "Flashing" for 5 sec
  - Ready to charge/ Wrong polarity connection: 1st green LED = Solid green, Red LED = "Flashing Red"
  - Perform Charging/ Correct Polarity connection: 1st green LED = "Flashing Green", Red LED = "Off" *(Cooling Fan turn on)*
    - 20% full charge: 1st green LED = "Solid Green", 2nd green LED = "Flashing Green", Red LED = "Off"

        - 40% full charge: 1st & 2nd green LED = "Solid Green", 3rd green LED = "Flashing Green", Red LED = "Off"
        - 60% full charge: 1st & 2nd & 3rd green LED = "Solid Green" , 4th green LED = "Flashing Green", Red LED = "Off"
        - 80% full charge: 1st & 2nd & 3rd & 4th green LED = "Solid Green", 5th green LED = "Flashing Green", Red LED = "Off"
        - 100% full charge: 1st & 2nd & 3rd & 4th &5th green LED = "Solid Green",Red LED = "Off"
- Dimension (LxWxH): 174mm(6.8") x 138mm(5.4") x 67mm(2.6")
- Weight: 3.0lb (1361 grams)

How to use

1. Plug to AC outlet. Before connect to AC outlet, Must Check the AC input voltage of the wall AC outlet if match up with AC input voltage of the charger .
2. Turn on: Make sure the battery pack voltage is suitable for charger. Then connect to battery pack with correct polarity
3. 6 LED indicator installed to indicate "Initial" , "Ready to charge/ Wrong polarity connection" , "Perform Charging / Correct Polarity connection / 20% - 100% Fully Charge" status

    1. Initial: All 6 LED indicator "flashing" for 5 sec
    2. Ready to charge/ Wrong polarity connection: 1st green LED = Solid green, Red LED = "Flashing Red"
    3. Perform Charging / Correct Polarity connection : 1st green LED = "Flashing Green", Red LED = "Off" *(Cooling Fan turn on)*
        - 20% full charge: 1st green LED = "Solid Green", 2nd green LED = "Flashing Green", Red LED = "Off"
        - 40% full charge: 1st & 2nd green LED = "Solid Green", 3rd green LED = "Flashing Green", Red LED = "Off"
        - 60% full charge: 1st & 2nd & 3rd green LED = "Solid Green" , 4th green LED = "Flashing Green", Red LED = "Off"
        - 80% full charge: 1st & 2nd & 3rd & 4th green LED = "Solid Green", 5th green LED = "Flashing Green", Red LED = "Off"
        - 100% full charge: 1st & 2nd & 3rd & 4th & 5th green LED = "Solid Green", Red LED = "Off"

4. Turn off: After battery is fully charged, must disconnect the AC power supply before disconnect battery

Operation environment

- Above the sea-level≤2000m.
- Ambient temperature -10℃～50℃
- Ambient humidity 5%～70%RH
- Storage temperature -10℃～60℃
- 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.