



# S1500

PFC programmable Power supply  
High efficiency wide input voltage  
90V~265VAC Input  
10V~30V DC Output  
60Amps 1500W max.



**Thanks for your purchasing the intelligent and powerful power supply.**

**Read the ENTIRE instruction manual to become familiar with the features/functions of the device before operating.**

**Feel free to send an email to [jasonwang3a@163.com](mailto:jasonwang3a@163.com) or call at 86 755 2643 6165 should you have any questions and suggestions.**

**Jason Wang**

## Features

**S1500** is a high efficiency wide input voltage PFC power supply, the device can output 1500W at AC90V~265V in a smaller size. Many creative technology help to realize up to 94% of efficiency, and the internal temperature is still under 80°C. The following are some new features:

- Intelligent control output voltage and current by microprocessor, 100% calibration before delivery
- $\pm 1\%$  voltage and current accuracy
- **Active PFC**: smaller AC input current less interference, and Conform to European Commission Regulation no 278/2009 and Energy Star Version 2.0
- AC **90-265V** worldwide operation: need not any alternative switcher, worldwide safe operation.
- Low power consumption (**less than 1W**) at idle mode and standby mode
- Up to **94%** of convert efficiency.
- Programmable output voltage from **10V** to 30V
- Programmable output current from **1A** to 60A
- **TFT color LCD** display output Voltage, current, power and internal temperature on time.
- Over current, over voltage, over load, over temperature, and short circuit protection
- Short-circuit protection on output, safer and more reliable.
- 2 Intelligent cooling fans turned on upon the temperature automatically
- 4 outputs can do more chargers simultaneously, 3 pairs 4.0mm gold connector up to 20A each output, one 4.5mm gold connector (XT-90) up to 60A
- ZVS/ZCS and Synchronous Rectification assure the highest efficiency.
- High power density: **652W/Kg**
- Start at no load or full load
- Approved by CE
- 24 months warranty



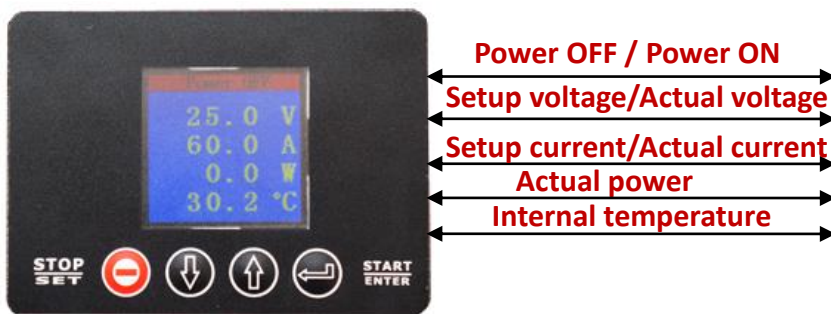
## Application

- Home application

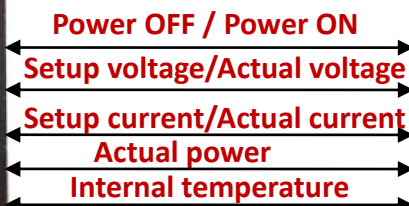
- 10-30V DC charger, balance charger for RC mode
- E-bike, E-scooter battery charger.

## Operation

1. Connect S1500 to AC 110 / 220V outlet by the special heavy power cable, if use other brand cable, please note the wire AWG must be AWG14 at least.
2. 2 seconds later, default output voltage (12V) and maximal output current can be displayed, actual power and internal temperature is also displayed, but S1500 is at idle mode(power off) to save power consumption, as the following picture 1. Confirm the voltage and current is suitable for your charger and other load, then press **START/ENTER** button turn on S1500, the LCD will display actual output voltage, current, output power and internal temperature as the following picture 2.



Picture 1: Idle mode



Picture 2: work mode

If the voltage is NOT suitable for your charger or other load, press **INC** or **DEC** button setup the voltage. It is easy to adjust as same as a potential meter and need not confirm the change, because the voltage will be updated with your operation. Finish the voltage setup, the device can remember the new value till next change.

**You can also change the voltage at any time whether power on or power off status.**

**If need change the maximal current or other items, please operate according to the following steps.**

3. Press **STOP/SET** button for 2 seconds enter into Program Setup menu, The LCD displays the following information in sequence and you can change the value. When you want to alter a parameter value, press the **Start/Enter** button to the value blink then change the value with the **DEC** or **INC**



Picture 3 Program setup

buttons. The new value will be confirmed and saved by pressing the **Start/Enter** button again. Press **DEC** or **INC** buttons alternate different items, and press **STOP/SET** to quit the setup menu.

Max current ---> 60A	Setup the maximal output current, range from 1A~60A, step 0.1A, default 60A. The maximal current can protect your charger or loads from damaged.
Fan ON Temp. ---> 40°C	Setup the fan starting temperature, range from 30~50°C, step 1°C, default 40°C.
Shut Down Temp. ---> 80°C	Setup over temperature protection, range from 70~ 90°C, step 1°C, default 80°C.
Buzzer ---> ON	The beeper sounds for each button press to confirm your action. These sounds can be ON or OFF. Default ON.
BACK-LIGHT TIME ---> 5MIN	This menu sets the back-light time of LCD screen backlight. Options: <b>1MIN, 5MIN, 10MIN, 20MIN and Always on, default 5MIN.</b> At default 5min, LCD back-light will be off to save the power, <b>press any button resume the back-light.</b>
Temp. Unit ---> °C	Setup the Temperature unit, °C or °F, default °C.

## Note:

- All parameters will be remembered by the S1500 till next change.
- After increase setup voltage, if actual voltage doesn't increase, please enter into program setup menu, and then increase the maximal current limitation.
- After increase maximal current limitation, if actual current limitation doesn't increase, please increase setup voltage value.
- You can setup all parameters on Power ON and Power OFF status at any time. Voltage can be setup press **DEC** or **INC** button directly, but other items must be enter into the setup menu and then change it.
- At any time you can press the **STOP/SET** button turn off the power supply, S1500 will work in idle mode to save power consumption till disconnect the S1500 to the AC outlet. Generally you needn't disconnect S1500 from AC outlet, because the S1500 consume under 1W power at idle mode. When

you need power your load such as charger and so on, what you do is press the **START/ENTER** button again.

## Environment Requirements

- Ambient Temperature : -10--45°C
- Ambient Humidity : 5%--95%
- Storage Temp. : -20°C--70°C
- Storage Humidity : 30%--90%



## Input

- Rated Voltage : AC110 / 220V
- Voltage allowed: AC90 ~ 265V
- Rated Freq. : 50/60Hz
- Freq. Allowed : 47~63Hz
- Max Current : 18A @90V, 7.5A @220V
- Efficiency: 94% at 65% load and 220Vac input.
- Active PFC: PF>0.99 at 90VAC and 100% of load; PF>0.97 at 220VAC and 100% of load



## Output

- Voltage : 10 ~ 30V programmed
- Voltage accuracy: ±1%
- Current accuracy: ±1%
- Ripple voltage: 150mV.
- Current: 1 ~ 60A programmed
- Power: 1500W max.



## Protection

- Over voltage protection, over 2V setup value.
- Over current protection, over 2A setup value.
- Over load protection, 1500W max.
- Over temperature protection, 90°C max.
- Short- circuit protection on output.



## Mechanical Characteristics

- Size: 252\*145\*68 (L\*W\*H, mm) or 9.9 \* 5.7 \* 2.7 (L\*W\*H, inch)
- Weight: **2.3Kg** without input cable
- Input power cable: AWG14 wire, 1.5m length



- Output DC connector:
  - 3 pairs 4mm gold banana female connector, each connector for up to 20A maximal current
  - One 4.5mm gold male connector (XT90) for up to 60A.

## Packaging Information

- S1500 base unit: 1pcs
- Power cable: 1pcs
- Manual: 1pcs
- XT-90 female connector with AWG10 silicon glue wire: 1pcs



The XT-90 Female connector used to connection of S1500 and your charger or other loads at 60A

## Optional Accessory

The following adapter wire (XT90 female to EC5 female, length 100mm, AWG10) is for Cellpro PowerLab 8 (1344W charge power) and iCharger 4010DUO (2000W charge power). Then S1500 can power the chargers perfectly and get the maximal charge power safety and reliably.



## Error Information

When the following error events triggered, the beeper will sound for 10 seconds and error information will flash, you can press **STOP/SET** to turn off the beeper and flash.

Error information	DESCRIPTION	DISPLAY
Over voltage	Output voltage over 2V of setup value for 2 seconds, S1500 turn off automatically and turn on manually	On power off page, OVER voltage is displayed
Over current	Output current over 2A of setup for 2 seconds, S1500 turn off automatically and turn on manually	On power off page, OVER CURRENT is displayed.
Over temperature	The heat sink temperature over 90°C for 2 seconds, S1500 turn off automatically, and turn on automatically	On power off page, OVER TEMPERATURE is displayed.
Short circuit	Output voltage is under 9.5V for 2 seconds and 3 times repeatedly, S1500 turn off automatically, and turn on manually	On power off page, SHORT CIRCUIT is displayed

## Related parts

The following parts are similar to the S1500 and maybe of interest:

MODEL	DESCRIPTION	COMMENTS
<a href="#">S400</a>	High efficiency wide input voltage PFC power supply	6~15V 25A 400W output
<a href="#">S600</a>	High efficiency wide input voltage PFC power supply	10~18V 33A 600W output
<a href="#">S1200</a>	High efficiency wide input voltage PFC power supply	12~24V 50A 1200W output

## Warnings

- Never leave the power supply unattended when it turn on. If any malfunction is observed, please turn off the power supply as fast as possible.
- Keep away the power supply from dust, damp, rain, heat direct sunshine and vibration. Do not drop it.
- The power supply should be set up on non-inflammable and non-conductive surface. Never

place on a car seat, carpet or similar.

- Keep all the inflammable volatile materials well away from operating area.
- Do not attempt to charge any types of battery including below:
  - Lead acid battery or VRLA
  - NIMH/NICd battery pack
  - Li-ion and lithium polymer battery

### Version history

version	Output Voltage	Output Current	Beeper time on START
V1.2	10~25V	5~60A	5 Seconds
V2.0	10~30V	1~60A	1 second

### Warranty and Service

Chargery Power Co., Ltd. as manufacture of R/C model power warrants S1500 power supply to be free of defects in material and workmanship. This warranty is effective for **24** months from date of purchase. If within the warranty period the customer is not satisfied with the products performance resulting from a manufacturing defect, the accessory will be replaced or repaired. This warranty does not cover the damage due to wear, misuse, incompetent handling or using of incorrect accessories.



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