

# INSTRUCTION MANUAL

# eFUEL

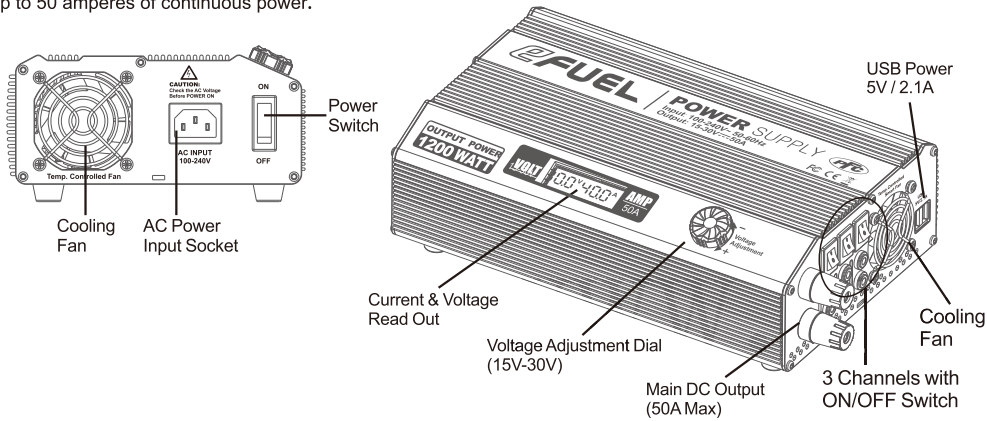
## 1200W, 50A AC/DC SWITCHING POWER SUPPLY V2

SK-200015

### INTRODUCTION

Thank you for purchasing the eFUEL 1200W, 50A AC/DC Switching Power Supply V2. We are confident that you will be very pleased with its performance because our AC/DC Switching Power Supply is designed and manufactured by skilled professionals using the highest standard in workmanship. You can be assured of many years of trouble free service.

Your eFUEL AC/DC switching Power Supply is designed to use household AC power source to power equipments that required DC power. The eFUEL converts standard household power 100-240V AC to 15-30V DC power and can supply up to 50 amperes of continuous power.



### FEATURES

- Active PFC: smaller AC input current less interference, and Conform to CE Regulations
- One main DC power outputs, up to 50 amperes, three output(up to 10 amperes each) with ON/OFF switch.
- Output voltage adjustable 15-30V
- LCD indicates voltage and current amperes output
- AC 100-240V worldwide operation: need not any alternative switcher, worldwide safe operation.
- Two USB ports, 5 volts, 2100mA total for iPad, mobile phone, digital cameras and etc.
- Smart cooling fans turned on upon the temperature automatically
- Over current, over voltage, over load and over temperature protection
- Short-circuit protection on output, safer and more reliable.

### CONNECTIONS

**Caution: Make all other connections before you connect the power supply to standard AC power**

1. Turn the sleeves of the red and black binding output posts counterclockwise to expose the wire hole.
2. Insert the device's positive wire (usually red) into the red binding post's wire hole, then tighten the binding post's sleeve to secure the wire in place.

3. Insert the device's negative wire (usually black) into the black binding post's wire hole, then tightening the binding post's sleeve to secure the wire in place.

4. If you are using the banana plugs connection, insert the plugs into the terminal's jack.

**Warnings: To avoid damage to both the power supply and the device:**

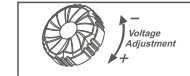
- Follow the correct polarity when connecting the power supply and the device.
- Do not let the ends of the positive and negative wires touch each other.

### OPERATION

To use the power supply after you connect the device to it, set POWER to turn it on with the power switch.

Please check all connections and confirm the wall AC outlet has power before you switch on the power supply.

The LCD will display actual output voltage, current. If the voltage is NOT suitable for your charger or other load, using the dial rotary to change the output voltage.



Output voltage adjustable 15-30V

### How to Adjust the Output Voltage?

Press and hold the dial rotary for 3 seconds, and the output voltage value will start to blink, then turn the dial rotary clockwise or counter-clockwise to change the value, when you find the desired value, press the dial rotary once for confirmation.

NOTE: If you don't press the rotary for confirmation for 5 seconds during the changing process, the power supply will take the present value as your selection and confirm it automatically.

To take advantage of eFUEL 1200W's full power capability, the output voltage should be 24V DC or higher. Per Ohm's law,  $24V \times 50A = 1200W$ . Therefore, if you want to attain 1200W of output power, the output voltage must set to 24V or higher.

The actual amount of output current feeding to the loading is also limited to 1200 Watts. If output voltage is 30V, the max current is 40A.

### Output Power Chart

Output Voltage(V)	Max Current(A)	Max Power(W)
15	50.0	750
16	50.0	800
17	50.0	850
18	50.0	900
19	50.0	950
20	50.0	1000
21	50.0	1050
22	50.0	1100

Output Voltage(V)	Max Current(A)	Max Power(W)
23	50.0	1150
24	50.0	1200
25	48.0	1200
26	46.2	1200
27	44.4	1200
28	42.9	1200
29	41.4	1200
30	40.0	1200

**Warning:** Don't adjust the output voltage when the power supply is under loading. It may cause damage to the charger.

### WARNING AND ERROR MESSAGE

In case of an error the screen will display the cause of error.

OEP

Over temperature protection.

OCP

Over current protection.

OPP

Over power protection.

Your power supply's overload protection circuit automatically shuts down the power supply when it is overload and resets by turning POWER to OFF.

If OCP or OPP shows on LCD screen, set POWER to OFF, reduce the load (by using a device that does not require more than 1200 watts), then set POWER to ON.

## IMPORTANT SAFETY INSTRUCTIONS

**Danger:** To reduce the risk of fire or electric shock, carefully follow these instructions. This manual contains important safety and operating instructions for this power supply. Before you use the power supply, read all the instructions and cautionary markings in this manual, on the power supply, and on the product that you will connect to the power supply, to reduce the risk of injury:

- Do not use the power supply near water (for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or swimming pool).
- Do not place the power supply on an unstable cart, stand or table. If the power supply falls, it could injure a person or cause serious damage to the power supply.
- Do not overload power outlets or extension cords. An overload can result in fire or electric shock.
- Do not disassemble this unit; take it to a qualified service technician when service or repair is required. Improper reassembly may result in a risk of electric shock or fire.
- Do not use an attachment not recommended, this could result in a risk of fire, electric shock, or injury to persons.
- Never push any object into the slot in the power supply. It could touch dangerous voltage points or short out parts resulting in a fire or electrical shock.

**Caution:** To reduce the risk of damage:

- Do not operate the power supply if it has been dropped or damaged in any way. Take it to a qualified service technician for repair.
- The power supply should be operated only from a standard AC outlet that provides 100-240V, 50/60 Hz. If you are not sure of the type of power supplied to your home, consult your local power company.
- To protect the power supply during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the AC outlet. This will prevent damage to the power supply from lightning and power surges.
- Unplug the power supply from the outlet before attempting any maintenance or cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning and then wipe it dry immediately.
- If your power supply does not operate normally, in particular if any unusual sounds or smells come from it, unplug it immediately and contact a qualified service technician for repair.

## SPECIFICATIONS

Voltage	100-240V AC
Input AC Frequency	50-60Hz
Output Voltage	15-30V DC±0.5V
Output Current	50A±1A
Current Overload Protection	≤51A 500MS
Input Fuse	20A Fuse
LCD Display	Voltage Precision ±0.3V Current Precision ±0.5A
Output Voltage Ripple	<300mV
Power Efficiency	89%
Power Factor	>0.98
Over Temperature Protection	<65°C
Cooling Method	Cooling Fan
Operating Temperature	0-40°C
Operating Humidity	0-90%
Dimensions (L*W*H)	305x170x85mm
Net weight	3.08kg

**Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.**

## PRODUCT WARRANTY

The eFUEL 1200W, 50A AC/DC Switching Power Supply V2 is guaranteed to be free from defects in materials or workmanship for period of one year from the original date of purchase (verified by dated, itemized sales receipt). Warranty does not cover incorrect AC voltage input, damage to case or exposed circuit boards, disassembling case, tampering with internal electronics, allowing water, moisture, or any other foreign material to enter this Power Supply or get onto the PC board, incorrect wiring of output, allowing exposed wiring to short circuit, or any damage caused by crash, flooding, or act of God. Because SkyRC has no control over the connection & use of the power supply, no liability may be assumed nor will be accepted for any damage resulting from the use of this product. Every power supply is thoroughly tested & burn-in before leaving our factory and is, therefore, considered operational. By the act of operating power supply, user accepts all resulting liability. In no case shall our liability exceed the product's original cost. We reserve the right to modify warranty provisions without notice.

### Note:

1. The warranty service is valid in China only.
2. If you need warranty service overseas, please contact your dealer in the first instance, who is responsible for processing guarantee claims overseas. Due to high shipping cost, complicated custom clearance procedures to send goods back to China. SkyRC don't provide warranty service to overseas end user directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send email to info@skyrc.cn

### Warning:

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance. **WARNING:** If the surface is cracked, switch off the appliance to avoid the possibility of electric shock.
- For indoor use only.



**Caution:** Your power supply might cause TV or radio interference even when it is operating properly. To determine whether your power supply is causing the interference, turn off your power supply. If the interference goes away, your power supply is causing it.

Try to eliminate the interference by:

- Moving your power supply away from the receiver.
- Connecting your power supply to an outlet that is on a different electrical circuit from the receiver.
- Contacting a qualified service technician for help.

### Helpful Tip:

When working with Revolectrix Cellpro Power Lab 8, in order to maximize efficiency of the power supply but not damage Power Lab 8 or eFuel 1200W at the same time, please do the **Power Source** setting of Power Lab 8 as following:

Power Source  
>DC Power Source

Supply Current  
Limit? > 40.0A

Low Sply Limit?  
>24.0V

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