ProTek RC

A higher level of performance

Thank you for purchasing the ProTek R/C "Super Pro 2000" Power Supply. This is the most powerful, easiest to operate, feature-packed power supply made for the hobby industry. With proper care, the Super Pro 2000 will provide years of efficient and reliable operation.

Operating Instructions:

- **IMPORTANT!** Verify that the voltage output adjustment is correct and compatible with the equipment you are going to connect to the power supply.
- For all battery charging applications, the amp rate should be left at full power. This only needs to be adjusted if a specific piece of equipment requires a current rating of less than 80 amps.
- Ensure that no load is connected to the power supply before connecting to a 110V/240V AC power source.
- Always place on a stable, flat surface.
- Do not overload the power supply (no more than a 80 amp load).
- Verify the correct polarity of the output terminals before connecting any device (Red = Positive / Black = Negative) and DO NOT reverse the polarity.
- Verify that the LED is on and that the cooling fan is operating.
- The power supply may become warm during operation or emit a slight buzzing sound; these actions are normal. If the unit becomes hot to the touch, disconnect immediately.

Safety Precautions:

- Do not leave the power supply unsupervised during use.
- Keep the power supply away from heavy vibration, moisture, dust, or excessive heat.
- Do not move the power supply while in use.
- Do not operate near fire or water.
- Use care when transporting to avoid any kind of impact.
- Do not operate with wet hands.
- Do not modify, disassemble, or service the power supply, this is dangerous and will void the warranty.
- Do not use the power supply to directly charge a battery, or connect a battery directly to the terminals.
- Do not connect incompatible chargers to the power supply (do not exceed the amperage load of the power supply).
- Verify that the power cord being used is the correct type for your region.

The most important factor to consider when using any power supply is to ensure that the unit can supply sufficient wattage and amperage to efficiently operate your charger. There is a simple equation that you can use to determine the wattage necessary to supply the charger with the power needed to charge a battery. This equation should be performed before you charge any battery with specifications that differ from the battery you are familiar with.

Step 1: Volts x Charge Rate in Amps = Watts
For an example of this equation, we are going to use a 6S 5000mAh battery charging at a 1C amp rate. A 2S battery is 22.2 volts, and a 1C charging amp rate for a 5000mAh battery is 5 amps. You will need to multiply 22.2V x 5 amps, which equals 111 watts.

Step 2: Watts / Power Supply Output Voltage = Amperage
Start by taking the watt value from part 1 of the equation (in our example, 111 watts), and divide it by the output voltage provided by the power supply. We will be using 30V as our baseline. Because the wattage determined in part one is 111W, we will divide that by 30V. When you perform the 111W / 30V equation, you get a amp rate of 3.7 amps. Your power supply would need to be capable of producing 3.7 amps, to charge a 6S, 5000mAh battery, at a 5 amp Charge Rate (1C).

The complete equation is: Power Supply Amperage = (Battery Volts x Charge Rate) / Power Supply Voltage

Now as a second example we will do the equation with a more powerful battery. Let's say you want to find the necessary supply amperage for a 8S, 4400mAh battery at a 2C charging amp rate. 29.6V x 8.8A = 260.48 watts. Then divide 260.48W by 30V; which equals 8.68 amps.

Equation:

- **Step 1:** Voltage x Charge Rate in Amps = Watts
- **Step 2:** Watts / Power Supply Output Voltage = Necessary Power Supply Amperage
- **Proper Equation:** Power Supply Amperage = (Battery Volts x Charge Rate) / Power Supply Output Voltage

While this calculation may seem complicated at first, it gets easier the more you do it. With today's high energy Lithium Polymer Cells and evolving battery technology it is important that you learn this math to ensure peak performance and maximum life span from your batteries and support gear.

Super Pro 2000 Specifications:
Input Voltage: 110-240V
Output Voltage: Adjustable 12 - 30V DC (+/- 5%)
Wattage: 2000W
Current: 66A @ 30V / 80A @ 25V
Frequency: 50/60Hz
AC Inrush Current: Cold start: 60A @ 100%
Output Connections: (4) High output 80 amp 4mm banana plug clamp terminal outputs
Size (LxWxH): 285x190x198mm
Weight: 10.41 lbs. (4.72kg)