BTECH

SWITCHING MODE
DC REGULATED POWER SUPPLY

RPS-30PRO

INSTRUCTION MANUAL

Thank you for purchasing the switching mode DC regulated power supply RPS-30PRO.
The instruction manual contains important safety and operating instructions. Read this manual carefully before using this product. Keep the manual for future reference.

INTRODUCTION

RPS-30PRO is a high efficiency, compact, lightweight, high performance switching mode power supply. It is also engineered to minimize the switching noise specifically for communication use. Even when noise occurs, it may be eliminated with the Noise-Offset function. Also convenient functions like pre-set voltage, and a highly visible back lit meter are standard in this power supply.

CAUTION

1. Even though the chassis of the unit is negatively grounded, use the correct terminals to connect cable.
2. When plugging the unit into a wall outlet, it must be turned off.
3. Place the unit in a dry and well ventilated area.
4. Never touch the unit while in use. Even though it is designed for high efficiency, the unit will still get hot. If the unit reaches a certain temperature the "extreme temperature protection" function will protect the unit.
5. A current limiting system will protect the unit from overloading.
6. If a short circuit occurs at the output the unit is protected by a short circuit protection function. Immediately turn off the unit and repair the cause of the short circuit, then turn it back on.
7. Do not use the unit for devices that require high current input at the start, such as motorized equipment. Do not use the unit to charge a car battery.
8. Do not use a car cigarette lighter in the cigarette plug socket on the unit.
9. Before replacing a fuse make sure the unit is turned off and unpluged. Be sure to use the specified type of fuse.
10. Make sure the product is always suitably grounded to prevent electric shock and to reduce noise.
11. Never disassemble, modify, or touch the inside of the unit unnecessarily. This could cause damage to the product and will void the warranty.

SPECIFICATIONS

Input voltage:	110VAC 60Hz
Output voltage:	9-15VDC variable
Output voltage regulation:	Less than 2% variance from set voltage
Protection:	Short-circuit, Automatic current limiting over 30A
Output current:	30A(max), 25A(continuous)
Ripple:	Less than 80mV(p-p) at rated load
Fuse:	8A
Meter:	Single Volt/Current meter, Back-lit
Dimensions:	190(W)×69(H)×181(D)mm (Main Unit Only)
Weight:	Approx. 2.3kg

Caution

Compulsory — Use this unit in room temperatures (10 to 35 degrees centigrade or 50 to 95 degrees Fahrenheit). Keep the unit in a dry and well ventilated place. Do not use the unit in direct sunlight, or where it may come in contact with water or in a poorly ventilated area. It may cause heat, fire and damage to the unit.

Prohibited — Never leave the unit within a child's reach. This may injure them or burn their skin.

Prohibited — Make sure that the devices that are to be connected meet the specifications of this unit, otherwise it may cause damage to the product.

Prohibited — Never insert any metal or flammable objects inside the unit. It may cause damage, shock and/or fire. If any foreign objects get into the unit, turn it off and unplug it and contact an authorized service center.

Compulsory — Place the unit on a secure and horizontal surface. If it is placed on an unstable surface, the unit may drop and cause damage and injury. This will also be helpful in getting accurate meter readings.

Prohibited — Do not cover the air vent on the chassis or the fan. This may cause extreme heat, fire and/or damage.

Prohibited — Do not use the unit for devices that require high current input at the start, such as motorized equipment. Do not use the unit to charge a car battery. This may cause damage to the unit.

Prohibited — Never try to use a car cigarette lighter in the cigarette ligher socket of this product. Otherwise, the product may become damaged.

Prohibited — Insert the cigarette plug securely and completely into the socket. Insufficient connection may cause damage to the product.

FOR YOUR SAFETY

The following pages explain how to avoid possible accidents and damage to the user and his property. They will explain the proper manner in which to use this product.

Explanation of caution indications

Caution	Indication Meaning
⚠ Danger	Improper handling presents an immediate danger of death or serious injury.
⚠ Warning	Improper handling may lead to death or serious injury.
⚠ Caution	Improper handling presents a risk to physical health *1 and/or property. *2

*1: Injuries, skin burns, electric shocks, etc. not requiring hospitalization or extensive medical treatment.
*2: Extensive damage to buildings and possessions; injury to domesticated animals and pets.

Explanation of symbols

Symbol	Meaning of symbol
	This symbol indicates actions that must be strictly avoided. The details of the actions to be avoided are written in or around the symbol using graphics and/or text.
	This symbol indicates that there are procedures that must be followed without fail. The procedures to be followed are described in or around the symbol using graphics and/or text.
	This symbol indicates that the power plug must be disconnected from the socket. Details of the warning are written in or around the symbol using graphics and/or text.

Before using this product, please note that we shall not assume any responsibility whatsoever for purely economic losses, such as lost communication opportunities resulting from breakdowns, incorrect operation, product problems, or external causes such as power outages.

⚠ Warning


Compulsory

This unit should only be used with a standard wall outlet.
If it is used in any other manner electric shock and/or fire could occur.


Compulsory

Never touch the chassis of the unit during use. The surface of the product may become very hot, especially the heat sink. A burn to the skin may occur.


Compulsory

If any liquid leaks from inside the unit and comes in contact with skin, or clothes, wash immediately with clean water. It may irritate eyes and/or skin. If any liquid gets into the eyes, flush the eyes with clean water, then seek emergency help from a doctor. Eye injury may occur, if not treated properly.


Prohibited

Do not short circuit the cables. Make sure the cables are connected to the correct terminal, (Positive to positive and negative to negative).

Danger

Disassembly prohibited

Do not disassemble, modify or repair the unit unless otherwise specified in the manual. Only an authorized technician may do this.Never modify the cable to extend or shorten it. This may cause fire and/or electric shock, and will void the warranty.

Prohibited

Always hold the plug when plugging and unplugging the unit. Never unplug the unit by pulling the cable. It may cause fire, shock and damage to the unit.

Prohibited

Do not plug or unplug the unit with wet hands. It may easily cause electric shock.

Prohibited

Do not use the unit where there may be flammable gas. This may cause fire and explosion.

Prohibited

Unplug the cable when replacing the fuse. Use the specified fuse only. Using the wrong fuse could cause heat and/or fire.

Use in a wet place is prohibited

Never use the unit outside, in a bathroom, or any other place where the unit could become wet. Do not place anything that contains liquid on the product. If liquid gets inside the unit, it could cause fire, shock and damage to the unit. If this happens, unplug the unit immediately. Do not use the unit in a humid environment. If dew condenses on the unit, dry it completely before use.

Disconnect the power plug from the socket

Unplug the unit during maintenance. Otherwise it may cause shock and damage to the product.

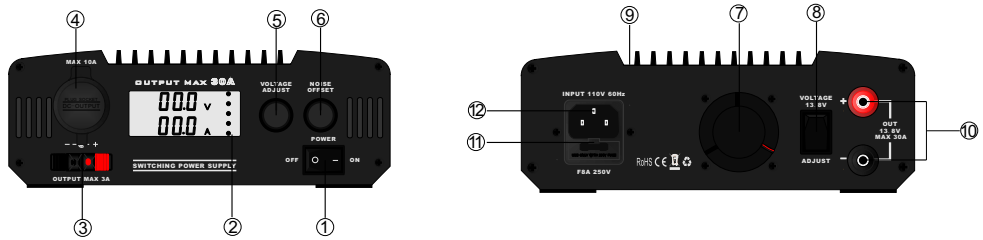
Disconnect the power plug from the socket

Unplug immediately if anything noticeably unusual happens, such as smoke and/or strange odors coming from the unit. Contact our authorized service centers immediately for service.

PART NAMES AND FUNCTIONS

Front View

Rear View



① Power switch: Turns the unit on and off.

② Meter: Displays the output voltage and current draw.

③ Snap in output terminal: 3A max. Red is positive, black is negative.

④ Cigarette plug terminal: 10A max.

⑤ Voltage adjustment: Adjusts voltage between 9.0 and 15.0 volts. Turn clockwise to increase and counter clockwise to decrease the voltage. When it is set at the center position it will supply 13.8 volts.

⑥ Noise offset volume control: Adjust to eliminate the pulse noise of the switching circuit. This patent pending function is specially designed for communication use. (Its effectiveness may vary depending on the frequency and mode.)

⑦ Cooling fan: The fan turns on and off automatically.

⑧ Output control switch: Turn this switch to the adjust position and adjust ⑤ to the desired output level. Fixed output is 13.8V.

⑨ Heat sink: Do not touch the surface when the unit is in use. Let the unit cool down completely before touching it.

⑩ Output terminal: 30A max. Red is positive, black is negative.

⑪ Power Cable(3 pin plug- ground required to operate safely): 110VAC.

⑫ Fuse: 8A