

**RACKPOWER 100-RX**  
*AC FILTER AND SURGE PROTEC-*



**POWER**  
JUICEGOOSE<sup>TM</sup> **X**

## *OWNERS MANUAL*

*Transformer Based AC Power Filter  
and  
Surge Suppressor*

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## CONGRATULATIONS

You have purchased a high performance solution to AC line noise problems. The Juice Goose Rackpower 100-RX is a single space, rack mountable AC power distribution and protection module that features patented AC filter technology.

## FEATURES SUMMARY

RP100-RX features include:

- \* Less than 1 volt surge potential between neutral and ground
- \* Less than 10 volt surge potential between neutral and line
- \* Over voltage and wiring fault shut down
- \* An all steel Tour Class<sub>(tm)</sub> chassis
- \* Eleven 120 volt power outputs
- \* Fifteen amp, 1200 watt current rating

## SAFETY PRECAUTIONS

The Rackpower 100-RX is designed to operate with 120VAC, 60 Hz. Operation with 220 or 240 volts will damage the unit and possibly cause personal injury.

## CAUTIONS

1. The Rackpower 100-RX must be grounded to operate. Defeating the unit's grounding capability could create a hazard.
2. There are no user serviceable parts inside the Rackpower 100-RX. Do not attempt service yourself. Contact Juice Goose as directed in this manual if service is required.
3. Do not expose the Rackpower 100-RX to moisture. Avoid severe physical impacts to the unit.

## DISCLAIMER

Juice Goose shall under no circumstances be held responsible for any loss, damage or injury resulting from the use of the Rackpower 100-RX in a manner inconsistent with any of the procedures outlined in this document. The user is responsible for determining whether this product is appropriate for the intended application.

Juice Goose is not responsible for any indirect, secondary or ancillary loss or damage, including personal injury, loss of or damage to property or loss of income resulting from the operation or failure of this unit.

## RP100-RX SPECIFICATIONS

DIMENSIONS (INCHES)	1.72 x 19.00 x 7.00
WEIGHT (LBS)	12
POWER INPUT	120 VAC, 60Hz
POWER OUTLETS	11 SINGLE NEMA 5-15R
CURRENT CAPACITY	15 AMPS
POWER CORD	7 FOOT, 14/3 SJT
TRANSIENT ENERGY ABSORPTION (JOULES)	1020
MAXIMUM APPLIED SURGE CURRENT (AMPS)	3000
MAXIMUM APPLIED SURGE PULSE VOLTAGE	6000
SURGE LET THROUGH RATE (VOLTS)	
L-N	10
N-G	0.5
COMMON MODE (N-G) LINE NOISE REJECTION (dB)	
100 kHz	30
300 kHz	77
1 MHz	80
10MHz	80
30MHz	80
NORMAL MODE (L-N) LINE NOISE REJECTION (dB)	
100 kHz	21
300 kHz	56
1 MHz	60
10MHz	60
30MHz	60
CHASSIS DESIGN	TOUR CLASS – UNIBODY
CHASSIS FINISH	POWDER COAT ENAMEL

## FRONT PANEL

**Power On/Off Switch** – This lighted rocker switch is located on the left hand side of the chassis. The switch will light when the Rackpower 100-RX is on.

**Light Connector** – A BNC style connector is located on the right side of the chassis and will accommodate a 12 volt AC gooseneck type work light such as the style manufactured by CAE under the brand name “Littlite”. (The light is not included with the Rackpower 100-RX.)

**Light Control Switch** – When this switch is in the “Up” position it will activate power to the light connector.

### Indicator Lights

**TBF Protection** – This green light indicates the Rackpower 100-RX protection circuit is functioning and the main AC power source is correct.

**Wiring Fault** – In the event of continuous high voltage or incorrect wiring of the line, neutral or ground leads supplying the Rackpower 100-RX, the unit will disconnect equipment plugged into it. The green light will be OFF and the red Wiring Fault indicator will light.

## REAR PANEL

**AC Outlets** – These eleven outlets (NEMA 5-15R) are rated for current loads up to 15 amps at 120 volts.

**Breaker** – A resettable, thermal circuit breaker protects the unit from current overloads. If the breaker trips check for a malfunction in equipment plugged into the Rackpower 100-RX. Also check to be certain the total current requirement of the equipment plugged into the Rackpower 100-RX does not exceed 15 amps.

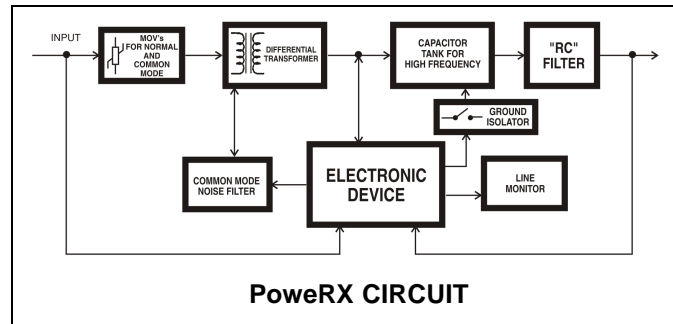
The circuit breaker may be reset. Wait 30 seconds after the breaker trips, turn off the main unit power switch and push the center button on the breaker back into its original position. Then turn on the main power switch.

## INTERNAL PROTECTION COMPONENTS

The Rackpower 100-RX is one of the RX Series products which feature PowerRX AC power protection. PowerRX protection uses a new, patented Transformer Based Filter™ technology to clean up both Normal Mode and Common Mode noise without contaminating the ground. Normal Mode noise occurs between the line and neutral leads of an electric power circuit. Common Mode noise occurs between either the line or neutral and the safety ground lead.

UL 1449 limits the amount of current that can pass between line and safety ground to 0.5 milli amperes. This is called "leakage current". The Transformer Based Filter process control board, by using a differential transformer and capacitors, acts as a low pass, "line conditioning" filter which performs in the same way as a series mode inductor. These components, along with a capacitor between neutral and ground comprise the foundation of the Transformer Based Filter design which conditions incoming AC power, removing normal and com-

mon mode noise without adversely affecting the ground line.



### TROUBLESHOOTING

The Rackpower 100-RX is ruggedly designed and constructed from high quality components to give years of dependable power for your equipment. It requires neither maintenance nor adjustment. It is unlikely to malfunction. However, there is one potential event to note:

**The Rackpower 100-RX will not come on or turns itself off.**

- a. Check the status of the power supplied to the unit. If line voltage exceeds 165 volts for 3 seconds protection circuitry will disconnect power to the AC power outputs. This will also occur if the line and neutral leads are reversed. Use a voltage meter and/or polarity tester to examine the status of incoming power.
- b. Check that the circuit breaker is not tripped and that the current load on the unit does not exceed its rated 15 amp capacity. If the breaker is tripped, remove sufficient current load to reduce the total to no more than 15 amps, wait approximately 30 seconds after the tripping, turn off the main power switch and push in the circuit breaker button.

If an observed problem can not be remedied, particularly if the problem seems severe or dangerous, discontinue use of the Rackpower 100-RX and contact Juice Goose directly.

### REPAIR

Should your Rackpower need service contact Juice Goose for assistance and authorization to return the unit. PLEASE NOTE: a return authorization number is required in order for the service personnel to correctly and promptly identify, repair and return your unit.

You may obtain a Return Authorization Number by calling: 713-772-1404 or sending email to [info@juicegoose.com](mailto:info@juicegoose.com).

## OTHER HIGH QUALITY PRODUCTS FROM



**JG SERIES** – Rack mountable power distribution in a 19” configuration. Five models to choose from. Feature options include rack lighting and voltage meter. The JG11-20A has a 20 amp capacity, 2 unswitched outlets and a 15 foot power cord. All units contain a basic level of power conditioning.

**RP SERIES** – Professional grade rack mountable power distribution. The 19” rack mountable Tour Class <sup>(TM)</sup> chassis is a uni-body construction of extra sturdiness. The RP100 has 11 outlets across the back. The RP200 includes two slide out rack lights and a voltage meter. The RP200-L includes a connector for a work light on the back of the chassis. All RP Series models include enhanced components for EMI filtration in addition to voltage spike protection across hot, neutral and ground leads.

**PD SERIES** – Custom configured power strips with up to 12 circuits per unit. The PD1A, PD1B and PD3 offer various options regarding size, number and arrangement of circuits, length and location of wire harness and mounting configuration. Select exact configuration with a features menu.

**CQ SERIES** – Power sequencing and remote control products. No master controller is required. Very flexible, economical and easy to install. Models include rack mount, four circuit and 30 amp designs. Optional remote controls include key or rotary switch and secure 12 position keypad.

**FE SERIES** – The highest quality power conditioning available, isolation + regulation transformers provide safe and stable power with a long service life. Models are available for plug-in and hard wired applications in a wide range of sizes and voltages. FE Series transformers maintain a constant output voltage when incoming voltage swings +10% or – 20%.

**UPS MODELS** – When protection against power outage is needed, Juice Goose is a valuable resource. Juice Goose has manufactured and supplied power conditioning and distribution products since 1983 and provides consulting and distribution service for our customers needing a UPS from APC, Liebert or PowerWare. Call Juice Goose to discuss the best technology, size and configuration for a particular application.