User Manual

Pure Sine Wave Power Inverter

- PMX-1000
- PMX-2000
- PMX-3000

IMPORTANT SAFETY INFORMATION, SAVE THESE INSTRUCTIONS

TO REDUCE THE RISK OF INJURY, USER MUST READ AND UNDERSTAND THIS INSTRUCTIONAL MANUAL. THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING THE OPERATION OF PRODUCT. PLEASE RETAIN FOR FUTURE REFERENCE.

DC To AC POWER INVERTER

List of contents

Important Safety Instructions

⚠Warning! **Before you install and use your inverter, be to read and save these safety instructions.**

General Safety Precaution

A. Do not expose the inverter to rain, snow, spray, bilge or dust. To reduce risk of hazard, do not cover or obstruct the ventilation openings. Do not install the inverter in a zero-clearance compartment. Overheating may result.

B. To avoid a risk of fire and electronic shock. Make sure that Existing wiring is in good electrical condition, and the wire size is not undersized.
Do not operate the inverter with damaged or substandard wiring.

C. This equipment contains components that tend to produce arcs or sparks. To reduce the risk of fire or explosion, do not install in a compartment containing batteries or flammable materials, or in a location that requires ignition protected equipment.

D. Never smoke of allow a spark or flame in vicinity of battery or engine.

E. Not installing a fuse can result in fire that may cause severe injuries and/or damages.

F. You may observe a spark when making the cable connections since current may flow and charge capacitors in the presence of flammable fumes; it may result in explosion and / or fire.

G. Shock Hazard. Before proceeding further, carefully check the inverter is not connected to any batteries, and that all wiring is disconnected from any electrical sources. Do not connect the output terminals of the inverter to an incoming AC source.

Where to install:

Your inverter should be installed in a location that meets the following requirements:

A. Dry: Keep the inverter away from any water or moisture.

B. Cool: Ambient air temperature should be between 32 F and 85 F (0 C and 30 C).

C. Ventilated: Ensure that the unit is located in a well-ventilated compartment. At least 6 inches (15cm) of clearance are required around the inverter for air flow. Verify that all ventilation openings on the unit (front and rear panels) are not obstructed.

Making DC cable connections:

Your cables should be as short as possible (ideally, less than 10 feet/3 meters) and large enough to handle the required current in accordance with the electrical codes or regulations applicable to your installation.

Cables that are not an adequate guage (too narrow or too long) will cause decreased inverter performance such as poor surge capability and frequent low input voltage warnings and shutdowns.

These low input voltage warnings are due to DC voltage drop across the cables from the inverter to the batteries.

To longer and narrower these cables, the greater the voltage drop.

Pure sine wave graph

Features:

a. pure sine wave output (<2% thd).
b. input & output fully isolation design.
c. max high efficiency 87%~90%.
d. high surge in motor start capacity.
e. thermal control fan.
f. auto restart function.

Suitable Appliances:

a. power tools-circular saws, drills, grinders, sanders, buffers, weed and hedge trimmers, air compressors.
b. office equipment-computer, printers, monitors, facsimile machines, scanner.
c. kitchen appliances-microwave ovens, refrigerators and freezers, coffee makers, blenders, ice markers, toasters.
d. industrial equipment-metal halide lamp, high-pressure sodium lamp.
e. household items-vacuum cleaners, fans, fluorescent and incandescent lights, sewing machines.
f. home entertainment electronics-tv, vcr, video games, stereos, musical instruments, satellite equipment.

Protection function:

Low Voltage Protection:
Automatically protect when be in low voltage: first alarm, then the voltage continuously reduce. LED red on, and the machine shuts down. When the voltage rise to 12V+/-0.5V, the machine auto-restart.

Over Voltage Protection:
Automatically protect when be in high voltage: LED red on, the machine automatically shuts down. When the voltage drop to 14V+/-0.5V, the machine auto-restart.

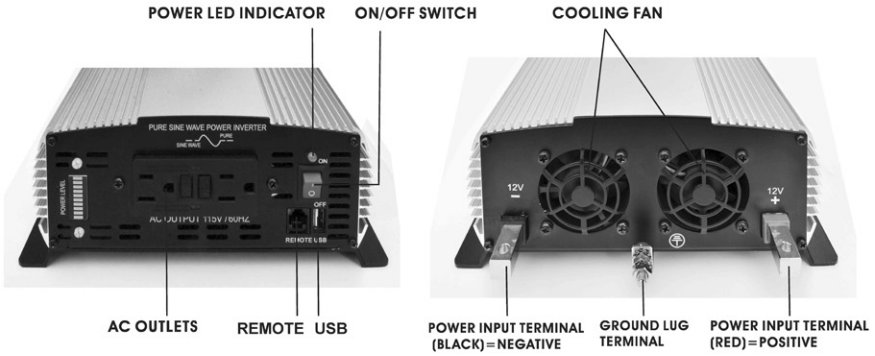
Overload Protection:
Automatically self protect when load too much power: first alarm, LED red on, the machine automatically shuts down. No auto-reset.

Over Temperature Protection:
It can automatically self protect when at high temperature: first alarm, LED red on, and the machine shuts down. The machine auto-restart after 10 minutes.

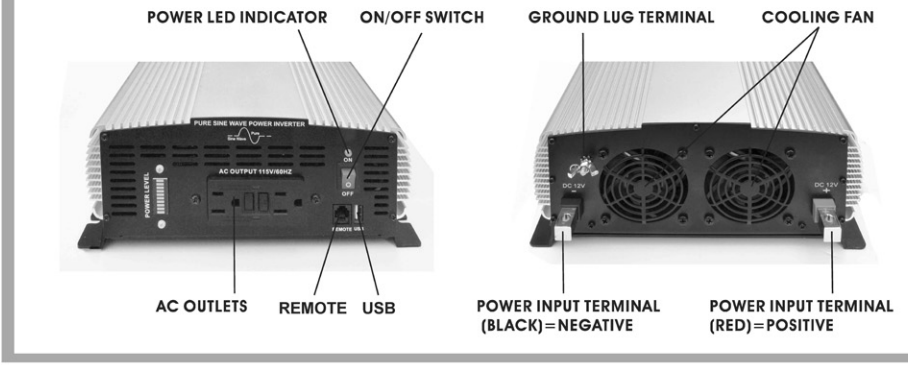
Short Circuit Protection:
Automatically self protect when short circuit, no output. Auto-restart after shut-down when the short circuit removing.

Reverse Polarity Protection:
Automatically protect when positive and negative cables are reverse connected: fuse burns out, the unit protected.

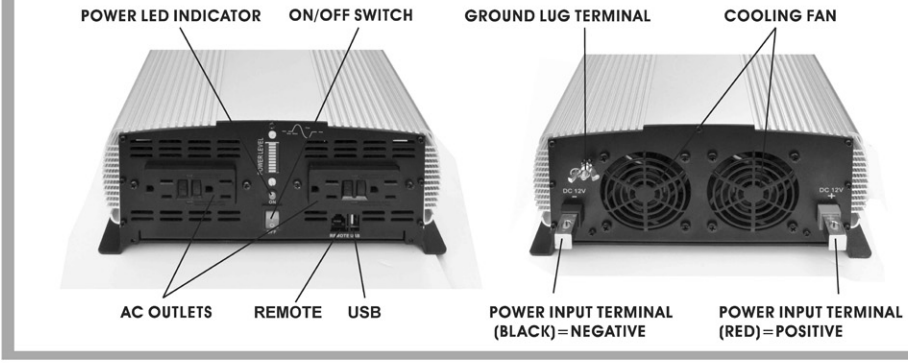
PMX-1000



PMX-2000



PMX-3000



Pure sine wave spec.

SPECIFICATIONS			
Model No.	PMX-1000	PMX-2000	PMX-3000
Continuous power	1000W	2000W	3000W
Max surge power	2000W	4000W	6000W
AC Output Voltage	115V±10% RMS		
Working DC input Voltage	11-15V		
Output wave form	 ~~Pure Sine Wave~~		
Frequency	60Hz±1Hz		
Efficiency	>80%		
Temperature protection	<65℃		
Input low voltage alarm	10.5±0.5V		
Input low voltage shut-down	10±0.5V		
Input high voltage protection	15-16.5V		
Output short circuit protection	Auto Shut-down		
THD (Distortion)	<2%		

Troubleshooting guide

Problem	Possible cause	Solution
Low output voltage	Using a voltmeter which can not properly read the RMS voltage well	Use a true RMS reading meter
Low input voltage and watts indicator in the red zone	Poor battery condition Overload Improper Installation	Check the batteries and the vehicle alternator condition Reduce load Check each inverter'ss installation steps
No output voltage and volt indicator in lower red zone	Low input voltage	Recharge the battery, check the connections and cables.
No output voltage and no voltage indication	Inverter off No DC power to the inverter Reverse DC polarity	Turn the inverter on Check the wiring Check battery fuse and the installation Replace the inverter. Damage caused by reversed polarity is not covered by the warranty
Low battery alarm on all the time	Poor battery condition Poor DC wiring Poor DC terminal connections	Charge or change battery Use proper cables and check connection Use proper tool
No output voltage and overtemp indicator on	Thermal shutdown Improper installation	Reduce load Allow inverter to cool off Improve ventilation Install properly
No output voltage and overload indicator	Short circuit or wiring error Inverter overload Improper installation	Check AC wiring Remove or reduce load, switch the inverter OFF at least 5 seconds and restart the inverter Check the AC wires and improper polarity