# **MSI120**

## 120 Watt DC TO AC Power Inverter with two USB charging port Instruction Manual



Please read this user manual carefully before using your

**MSI20 DC TO AC Power Inverter** 

### Important Safety Information SAVE THESE INSTRUCTIONS

This manual contains safety and operation instructions for the Inverter. Misusing or incorrectly connecting the inverter may damage the equipment or create hazardous conditions for users. Read the following safety instructions and pay special attention to all Caution and Warning statements in the guide. Failure to follow these safety guidelines may cause personal injury and/or damage to the Inverter. It may also void your product warranty.

**Warnings:** Identify conditions that may result in personal injury or loss of life.

**Cautions:** Identify conditions or practices that may damage the unit or other equipment.

**WARNING:** This guide contains important safety and operation instructions in how to use the Inverter to power loads using the AC outlet and USB port. Read this guide fully for safe operation of this Inverter.

- DO NOT expose the Inverter to moisture, rain, or snow.
- DO NOT operate the inverter if it has received a sharp blow, been dropped, or otherwise damaged in any way; contact the manufacturer for repair or replacement.

• DO NOT disassemble the inverter. Incorrect reassembly may result in shock of fire hazard. To reduce risk of electric shock unplug the inverter from the DC accessory outlet before attempting any maintenance or cleaning.

### WARNING: BURN and FIRE HAZARD

The inverter housing may become warm and may reach temperatures approaching or beyond 140°F(60°C) under extended high power operation. During operation, keep it away from materials that may be affected by these temperatures. Do not use the inverter in ambient temperatures above 104°F(40°C). Allow for proper ventilation and do not cover the ventilation openings with anything that may overheat the inverter during operation.

### WARNING: MEDICAL EQUIPMENT

This product is NOT tested, designed nor intended to be used with life support systems or any other medical devices.

### WARNING: PROPER APPLICATION

DO NOT use this production for any application except that for which it is intended.

# **Inverter Operating Instructions**

### WARNING: RISK OF UNSAFE OPERATION

When using tools or equipment, basic safety precautions should always be followed to reduce the risk of personal injury. Improper operation. maintenance or modification of equipment could result in serious injury and property damage. We strongly recommend that this product NOT be modified and/or used for any application other than for which it was designed. Read and understand all warnings and operating instructions before using any equipment.

### CAUTION: VEHICLE BATTEY DISCHARGE

Some vehicles' DC accessory socket remain powered even when the ignition switch or engine is turned off. To avoid discharging the vehicle's battery always remove the inverter from the DC accessory socket when not in use.

- Plug the inverter into your vehicle's accessory socket.
- Plug and AC-powered device into the three-prong AC receptacle and turn it on. Make sure that the power rating of the device is less than the "peak power" of the inverter.
- Plug a USB-powered device(s) into the USB port(s). The USB port(s) can be used separately and simultaneously while AC loads are connected and running via the AC receptacle.

## Troubleshooting

This section will help you identify the source of most problems that can occur with the inverter. If you have a problem with the inverter, please review this section before contacting your retailer.

Possible cause	Remedy
An overload/over-temperature shutdown has occurred.	Use an AC-powered device that has a power rating of less that the rated "peak power". Allow the inverter to cool down. or try to reduce the ambient temperature and try again. Do not cover the inverter's ventilation openings.
High starting surge has caused and overload shutdown.	Use an AC-powered device that has a surge power rated less than the surge power rating of the Inverter.
Vehicle's ignition switch is turned off thus the DC accessory socket is also off.	Turn the vehicle's ignition switch to ON. Consult your vehicle's manual for instructions.
Poor contact with the DC accessory socket	Adjust the inverter's DC plug to ensure a snug fit. If needed, clean the DC accessory socket.
Vehicle battery is discharged.	Recharge the vehicle battery.
Vehicle fuse blown due to heavy load on the accessory socket	Replace the blown fuse. Consult your vehicle's Manual for fuse location, fuse type, and instructions.
USB connection is not inserted properly into the USB port	Ensure that the USB cable's connectors are properly fitted into the USB ports of either device.

# Specifications

Note: Specifications are subject to change without notice.

DC Input Specifications		
Input voltage	12V DC	
Internal Fuse/Replacement Fuse	15A	

AC and USB Output Specifications	
Output	120V ,120W
Output Frequency:	60±3HZ
Output Waveform:	Modified Sine Wave(MSW)
Continuous Power:	120W
Peak Power:	240W
Efficiency:	85%
No Load Draw:	<1.0A
Low Battery Shutdown:	10V±0.5V
USB Output Port:	5V/2.4A
USB-C Output Port	5V/3.0A
AC Output Sockets:	120V±10V
Operating Temperature:	Ideally32º-104ºF
Battery Low Alarm:	No