

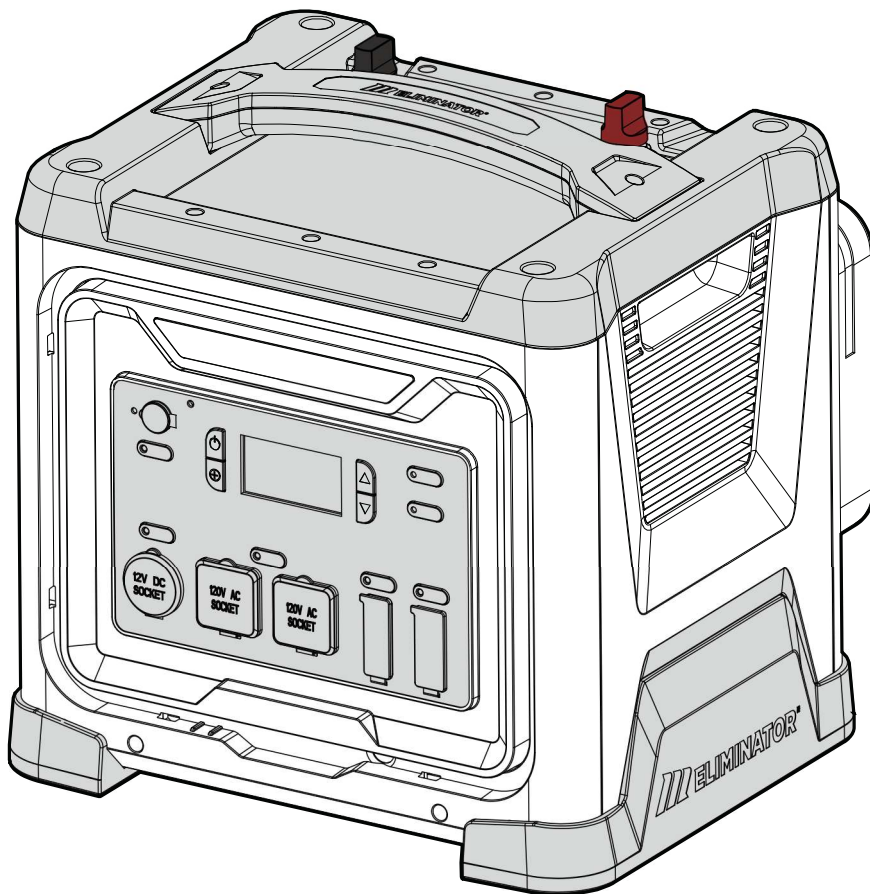


**MOTOMASTER**

# ELIMINATOR

## POWERBOX MAX™

### PORTABLE BOOSTER & POWER STATION



Model no. 011-2073-8

**IMPORTANT SAFETY INSTRUCTIONS.  
SAVE THESE INSTRUCTIONS.**

This manual contains important safety and operating instructions.

**INSTRUCTION  
MANUAL**

IF ANY PARTS ARE MISSING OR DAMAGED, OR IF YOU HAVE ANY QUESTIONS,  
PLEASE CALL OUR TOLL-FREE HELPLINE AT 1-888-942-6686



Read and understand this instruction manual thoroughly before using the product. It contains important information for your safety as well as operating and maintenance advice. Keep this instruction manual for future use. Should this product be passed on to a third party, this instruction manual must be included.



This MotoMaster Eliminator product carries a one (1) year warranty against defects in workmanship and materials. At its discretion, MotoMaster Canada agrees to have any defective parts(s) repaired or replaced free of charge, within the stated warranty period, when returned by the original purchaser with proof of purchase. This product is not guaranteed against wear or breakage due to misuse and/or abuse.

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This manual contains information that relates to protecting personal safety and preventing equipment problems. Please read carefully and follow the guidelines in the manual, specifically the CAUTION and WARNING statements.

ABBREVIATIONS AND ACRONYMS	
A	Amp (Ampere)
AC	Alternating current
Ah	Amp-hour
DC	DC Direct current
LED	Light-emitting diode
mm	Millimetre
cm	Centimetre
V	Volt
W	Watt
mA	Milliampere

**EXPLOSION AND FIRE HAZARD**

Do not use the power box to power life support systems or other medical equipment and devices.

**EXPLOSION SHOCK, FIRE AND CHEMICAL HAZARDS**

- Do not allow children to handle the power box. The AC power generated by the power box may pose a safety risk.
- Do not expose the power box to water, rain, snow, spray, or condensation.
- Do not use the power box if it is hit, worn, broken or damaged.
- Do not attempt to service or disassemble the power box except to replace the battery. It does not have user-serviceable parts.
- Disconnect the power source from the power box before attempting to clean or operate the power box. Turning OFF the power box does not reduce the risk of electric shock.
- Have a qualified technician perform any service work.
- Do not insert any foreign objects into the AC outlet, 12 V DC outlet, jump start cable port or ventilation hole. Failure to comply may result in serious injury.
- Ensure there is a minimum of 3" (7.5 cm) of clearance around the power box when in use.
- Keep the power box away from materials that may be affected by high temperatures and may catch fire such as blankets, pillows and sleeping bags.

- Never operate the power box near flammable items or explosives, or near propane/fuel tanks, in compartments containing batteries of flammable materials, or locations that require ignition-protected equipment, joints, fittings or any connections between fuel system components.
- Make sure the area around the vehicle battery and engine is well-ventilated and free from sparks or flame.
- Do not operate the power box in an enclosed area containing automotive type lead-acid batteries. These batteries emit hydrogen gas that may be explosive when ignited by sparks.
- Do not allow the clamps of the jumper cables to touch or other conductive materials as it may cause sparks and/or damage the equipment.
- Always connect the clamps to the correct terminals. A reverse polarity connection damages the unit and/or creates a spark or explosion.
- DO NOT use DC to DC charging cable to charge power box if your vehicle's electrical system operates above 15 V. This may lead to accumulations of hydrogen, causing exposure to fire and explosion hazards. This condition is typically found in marine appliances or portable generators with DC output.

- Do not work near lead-acid batteries. The batteries generate hydrogen gas that may be explosive during normal operation
- Do not drop a metal tool on the battery. Doing so may create sparks or a short circuit, and may pose a safety risk.
- When removing the battery, make sure to disconnect the positive terminal first before disconnecting other electrical connections.
- Always have assistance nearby when working with lead-acid batteries.
- Do not use this device to charge nickel cadmium batteries.
- If skin or clothing comes into contact with battery acid by accident, wash immediately with soap and water. If battery acid comes into contact with eyes, wash immediately with running cold water for a minimum of 20 minutes and seek medical attention.
- Always wear proper eye and clothing protection. Avoid touching your eyes while working with the batteries.
- Always keep baking soda on hand for emergency purposes. It neutralizes the lead-acid battery electrolytes.
- Recycling of the battery is recommended to prevent inappropriate disposal of the battery.

**Maximizing Battery Life**

Charge the power box immediately after purchase for at least 48 hours. Recharge the unit after every use or once every 60 days when not in use. Failure to do so may shorten battery life and may void warranty.

### EQUIPMENT DAMAGE

- Do not use the jumpstart feature for more than 5 seconds. It is meant only for short-term operations. Failure to comply may cause damage to the equipment. Allow power box to cool for at least 3 minutes after each jump start operation.
- Do not connect the power box to any AC device with neutral conductor connected to ground. Doing so may damage the power box even if it is switched OFF.
- Do not expose the power box to temperatures over 104°F (40°C).
- Make sure the area around the vehicle battery or engine is well-ventilated and free from sparks or flame.
- Do not allow the clamps of the jumper cables to touch each other or other conductive materials as it may cause sparks and/or damage the equipment. Store the clamps in the accessory bag attached to the power box when not in use.
- Make sure the positive clamp of the boosting cable is connected to the positive terminal of the battery and the negative clamp is connected to the negative terminal of the battery. A reverse polarity connection may cause sparks and/or damage the equipment.
- Do not use this power box with battery chargers intended to recharge battery packs used in hand power tools (with nickel cadmium batteries). The battery chargers provided for the tools may require a higher voltage.

- If any issues persist when using your rechargeable appliance with the power box, contact the equipment manufacturer to determine the appliance's compatibility with the pure sine wave AC.
- Make sure the power box is turned OFF when not in use to prevent unnecessary battery discharge.

### SAFETY PRECAUTIONS WHEN WORKING WITH BATTERIES

Follow all instructions as provided by the manufacturer.

- Remove all metal items such as rings, bracelets, and watches when working with lead-acid batteries. The batteries may produce short circuit current that may cause metals to attach to the skin, thereby causing severe burns.

### SAFETY PRECAUTIONS WHEN USING RECHARGEABLE APPLIANCES

Most battery operated equipment use a separate charger or transformer that is plugged into an AC receptacle and produces a low-voltage charging output. Some chargers for smaller batteries may be damaged if connected to this power box. Ensure device is compatible before charging with this power box.

### GENERAL USE

These safety features ensure safe and trouble-free operation of the power box.

**AC OUTPUT OVERLOAD SHUTDOWN**—This feature automatically turns OFF the power box within 15 seconds if a short circuit occurs or if the load attached to the power box exceeds the operating limit. The unit restarts automatically, and if the loads are not removed from the outlets, the unit turns ON and OFF repeatedly until the load that exceeds the limit is removed from the outlet.

**LOW BATTERY VOLTAGE SHUTDOWN**—This feature automatically shuts down the power box if the battery voltage drops below 10.5 V. This feature prevents the battery from being completely discharged and being permanently damaged.

**OVER TEMPERATURE SHUTDOWN**—This feature automatically turns the power box OFF if the internal component temperature reaches 212°F (100°C). Excessive temperatures may be caused by high ambient temperatures or poor ventilation.

### TROUBLE LOADS

The electrical appliances mentioned below will be damaged when connected to this power box.

- Electronics that modulate RF (radio frequency) signals on the AC line will not function and may be damaged.
- Speed controllers found in some fans, power tools, kitchen appliances, and other loads may be damaged.
- The chargers used for small nickel cadmium rechargeable batteries may be damaged.
- Metal halide arc (HMI) lights may be damaged.

### HIGH SURGE LOADS

Some induction motors used in freezers, pumps, and other motor-operated equipment require high surge current to start. This power box may not be able to start these motors even though their rated current is within the power box's limits.

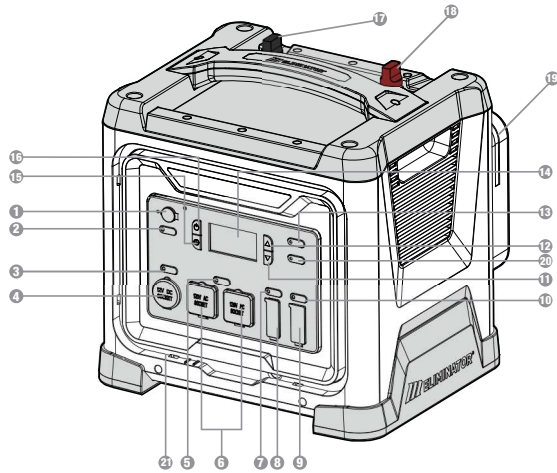
The power box will start single phase induction motors rated at horsepower of 1/2 or less.

### NOTE:

If a high-capacity load is not removed from the AC outlet of the power box immediately after an overload shutdown, the power box will shut OFF and then turn ON again and again. This will lead to ON-OFF-ON-OFF condition which could be noticed through wattage displayed in the digital display. It is recommended to disconnect the load from the AC outlet immediately after the occurrence of an overload shutdown. The power box will then automatically resume its operation. In case of difficulty in using your rechargeable appliance with the power box, contact our customer support at 1-888-942-6686.

Even though the power box can supply momentary surge power up to 1,000 W, some appliances may exceed capabilities of the power box and trigger the safety overload shutdown circuit. This shutdown is intermittent. The power box will automatically restart and shutdown until the load does not exceed the surge rating. It is recommended to check the output of your appliance.

## KNOW YOUR POWER BOX



- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| 1 Charging Port                     | 11 'Down' Button                     |
| 2 Flashlight Button                 | 12 'Up' Button                       |
| 3 DC Output (12V) Port Power Button | 13 Jump Start/Manual Override Button |
| 4 DC Output (12V) Port              | 14 LCD Screen                        |
| 5 AC Output Port Power Button       | 15 '⊕' Button                        |
| 6 AC Output Port                    | 16 Power Button                      |
| 7 USB C Output Port Power Button    | 17 Negative (-) Terminal — Black     |
| 8 USB C Output Port                 | 18 Positive (+) Terminal — Red       |
| 9 USB A Output Port                 | 19 Storage Bag                       |
| 10 USB A Output Port Power Button   | 20 Inflator Button                   |
|                                     | 21 Inflator Hose                     |

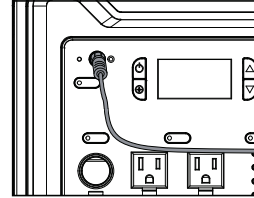
## GETTING STARTED

### Before First Use

This product comes partially charged and needs to be fully charged prior to use.

### Charging After Each Use

To prolong battery life and ensure unit is ready for use, it is recommend to charge the product immediately after each use and at least every 6 months when in storage. Charge times vary depending on the discharge level of the battery and output of charging port. It may take up to 8 hours to fully charge the unit.

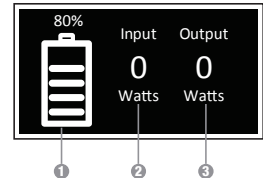


## Language Selection

When the unit is reset, a language selection screen will be presented. To change the selected language, press the ▲ and ▼ buttons to toggle between the two language options: English (EN) and French (FR). To select the language, press the ⊕ button.



## Home Screen Info















- |    |                  |
|----|------------------|
| 1. | Battery Capacity |
| 2. | Input wattage    |
| 3. | Output wattage   |

### NOTE:

1. Press and hold the main power button ⊕ for 2 seconds to turn the unit on.
2. Press and hold the ⊕ button for 5 seconds to enter language selection mode.

## PACKAGE CONTENTS

NO.	MATERIAL NAME	QUANTITY	ILLUSTRATION
1	Power Box	1	
2	Home AC Charger	1	
3	Jumper Cables	1	
4	Vehicle DC Charger	1	
5	SAE Solar Charging Cable	1	
6	Owner's manual	1	
7	Inflator Accessory: Sports Ball Needle	1	
8	Inflator Accessory: Presta Valve Adaptor	1	
9	Inflator Accessory: Valve Stem Cap	1	
10	Inflator Accessory: Inflation Nozzle	1	
11	Screw (For battery replacement)	1	
12	Nut (For battery replacement)	2	

## OPERATING ENVIRONMENT

The power box should be operated only in locations that meet the following requirements:

ENVIRONMENT	DESCRIPTION
Dry	Avoid splashing of water or other liquids on the power box.
Temperature	Maintain ambient air temperature between -4 and 104°F (-20 and 40°C).
Well-ventilated	Leave at least 3" (7.5 cm) of space around the power box for airflow. Ensure that the ventilation openings are not obstructed. Do not mount the power box in a place where it is exposed to gases produced by the batteries. Prolonged exposure to these gases will damage the power box, as they are very corrosive.
Safe	Do not place the power box in any compartments containing batteries or flammable liquids such as gasoline.

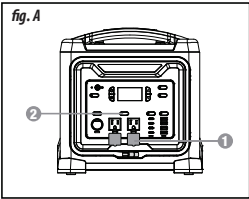
## PURE SINE WAVE INVERTER

This unit is equipped with a Pure Sine Wave 700 W inverter. Pure Sine Wave, when compared to Modified Sine Wave, is a more efficient and reliable type of waveform output. It reduces audible and electrical noise in sensitive electronics. Also, it allows inductive loads like motors and microwave ovens to run faster, quieter and cooler. Pure Sine Wave provides reliable power to devices that will normally not work with modified sine wave inverters, including:

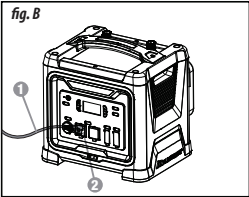
- TVs and amplifiers
- Certain laptop computers and laser printers
- Power tools with "solid state" power or variable-speed control
- Some battery chargers for cordless tools
- Medical equipment, such as CPAP and oxygen concentrators
- Audio equipment

**OPERATION OF AC APPLIANCES**

- 1. Turn power box ON to check battery capacity. Ensure that the unit is fully charged.
- 2. Remove the AC output port cover ❶. Press the AC output port power button ❷ to activate the port. When the port is activated, the pin light will turn on. See fig. A.



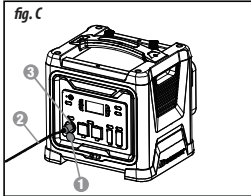
- 3. Connect the AC appliance ❸ into the AC output port ❹. See fig. B.



- 4. Turn ON the AC appliance.
- 5. Ensure that the power box is charged immediately after use. Refer to Recharging the Power Box section below for more instructions.

**OPERATION OF 12 V DC APPLIANCES**

- 1. Turn power box ON to check battery capacity. Ensure that the unit is fully charged.
- 2. Remove the DC output port cover ❶. Press the DC output port power button to activate the port. When the port is activated, the pin light will turn on. See fig. A. Connect the DC appliance ❷ into the DC output port ❸. See fig. C.
- 3. Turn ON the DC appliance.
- 4. Ensure that the power box is charged immediately after use. Refer to Recharging the Power Box section below for more instructions.
- 5. Disconnect the 12 V DC appliance after use to avoid over-discharge of the power box.



**NOTE:**

- External appliances may be plugged directly into the AC output ports. An external AC power bar may also be connected to the AC output ports to increase the number of outlets.
- When using an external AC power bar, please ensure that the combined load is less than 700 W. The power box will be able to operate for a longer period of time when used with lower wattage appliances.
- Some appliances with high surge and AC output waveform requirements may not be compatible with the power box.
- Contact the appliance manufacturer to determine compatibility.

**WARNING! SPARK AND EXPLOSION HAZARD**  
Do not operate the power box in compartments containing batteries or flammable materials, or in locations that require ignition-protected equipment.

**CAUTION! EQUIPMENT DAMAGE**

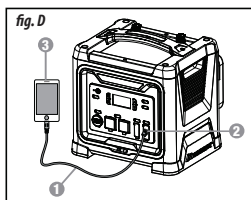
- Read all operating instructions before operating the MotoMaster® Eliminator power box.
- Do not use the power box to operate any AC appliances or 12 V DC appliances while recharging the power box battery with the AC charger. The AC charger may fail if the appliances are being used while the AC charger is connected.
- Do not use the power box as an UPS (Uninterruptible Power Supply).

**NOTE:**

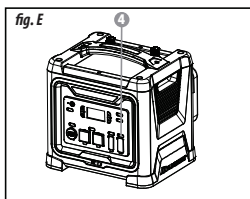
- The DC output port does not automatically turn off the power supply to the DC appliance, even if the internal battery of the power box is discharged.
- The power box is able to work with auto, RV, or marine portable 12 V DC appliances that draw 12 A or less. The combined load of the appliances, including the flashlight activation and USB output ports must not exceed 115 W.

### OPERATION OF USB DEVICES

1. Turn power box ON to check battery capacity. Ensure that the unit is fully charged.
2. Connect one end of the USB cable ① of the appliance into the USB output port ②. Plug the other end of the USB cable into the appliance ③. See fig. D.



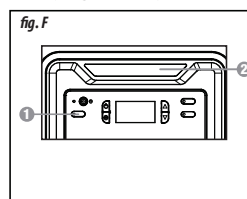
3. Press the USB output port power button ④ to activate the port. When the port is activated, the pin light will turn on. See fig. E.



4. Ensure that the power box is charged immediately after use. Refer to Recharging the Power Box section below for more instructions.

### OPERATION OF FLASHLIGHT

1. Press the flashlight button ① to turn the flashlight ② ON. See fig. F.



### JUMP STARTING AN ENGINE

1. Usually, it is recommended that the red (+) clamp connect the vehicle battery, and black (-) clamp connect the vehicle chassis to reduce the risk of spark and explosion.
2. Make sure your vehicle is a negative ground system. If it is a positive ground system vehicle, or you are unsure, please consult the vehicle's owner's manual.
3. Ensure the power box is fully charged before each use.
4. Ensure the vehicle is parked and all accessories (lights, audio, etc.) are turned off.
5. Ensure the power box is placed on a flat, stable surface.
6. Ensure the battery terminals are free of corrosion.
7. Ensure the clamps are connected and seated properly to the proper terminals.

#### NOTE:

- The flashlight is meant for use in emergency situations. Excessive use may shorten the life span of the flashlight.



#### WARNING! SHOCK AND FIRE HAZARD

- Never allow the positive and negative clamps to come into contact with each other or other conductors. This may cause a short circuit, cause equipment damage and may cause an explosion.
- Do not crank the engine for more than 5 seconds per attempt. Failure to comply may damage the power box and the vehicle.
- Do not connect the jumper cables in reverse. Failure to comply may damage the power box and the vehicle.



#### CAUTION! EQUIPMENT DAMAGE

- Ensure all other functions (AC output, DC output, USB outputs) are powered OFF before jump starting.
- Use only the supplied jumper cables to jump start 4 cylinder engines with a 12 V starting battery.

#### NOTE:

- The USB output ports are able to provide power to compatible 5 V devices such as MP3 players, digital cameras, camcorders, etc.
- Ensure that the USB output port is powered OFF after use. Failure to do so may damage the internal battery due to overdischarge.

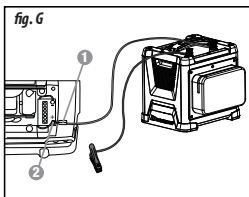


#### CAUTION! EQUIPMENT DAMAGE

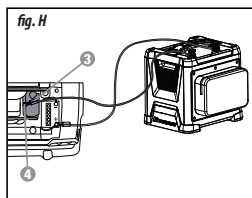
Do not connect the USB output ports directly to a computer USB outlet. Failure to comply may result in damage to both devices.




8. Connect the ring terminal of the positive (+) battery cable (red) to the positive (+) DC terminal (red) of the power box. Then connect the positive (red) clamp ① from the power box to the positive (+) terminal ② of the battery in the vehicle (fig. G).



9. Connect the ring terminal of the negative (-) battery cable (black) to the negative DC terminal (black) of the power box. Then connect the negative (black) clamp ③ from the power box to the chassis ④ of the vehicle (fig. H).
10. Disconnect the clamps from the battery of the vehicle if the connections are reversed, and repeat the steps 8 and 9, or proceed to step 11.



11. Press the jump start button  and follow on-screen instructions.
12. Crank the engine for 4 to 5 seconds or until the vehicle starts, whichever comes first.
13. Power OFF the power box after the jump start is successful.
14. Disconnect the positive (red) (+) clamp and then the negative (black) (-) clamp from the battery of the vehicle. Then disconnect the battery cables from the power box.
15. Store the clamps separately after use.
16. Ensure that the power box is charged immediately after use. Refer to Recharging the Power box section below for more instructions.

### MANUAL OVERRIDE



When in manual override mode, all safety features will be disabled. Ensure clamps are connected to the appropriate terminals before proceeding.

The power box is designed to jump start 12 V lead-acid batteries down to 2 V. If your battery is below 2 V, the LCD screen will display as below:

#### JUMP START MODE



Vehicle battery not detected.  
Double check connections.

Press  to proceed.

After pressing the " " button, follow the on-screen message as seen below and hold the " " button for 3 seconds to activate manual override.

#### JUMP START MODE

Manual override required.  
All safety features are disabled.

Press  to exit.  
Press and hold  for 3 seconds to proceed.



The manual override feature will be disabled after 60 seconds.

**JUMP START MODE**  
Manual override activated.  
Start your vehicle.

Time left: 60 s

After a 60-second countdown, the manual override feature will be disabled. If manual override is unsuccessful, you may attempt to retry. If it still does not work, contact roadside assistance.

#### JUMP START MODE

Jump start complete.  
Press  to exit.  
If jump start unsuccessful, press  to try again.

### NOTE:

- Allow the power box to cool down for at least 3 minutes after each jump start.
- Follow the instructions outlined above to jump start your vehicle. These instructions may vary from other products.
- When jump starting a boat engine, ensure the engine compartment is purged and fumes are vented before jump starting.
- Ensure that the power box is placed away from any moving parts in the engine bay and that the jump start button is in OFF before attempting to jump start.
- If the jumper cables are connected in reverse, the LCD screen will display a reverse polarity warning.



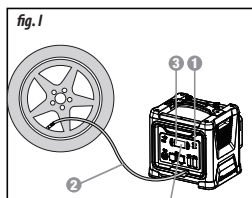
### CAUTION!

Use this mode with extreme care. This mode is for 12 V lead-acid batteries only. Both the spark proof and reverse polarity protection features are disabled. Pay very close attention to the polarity of the battery before using this mode. Do not allow the positive and negative battery clamps to touch or come in contact with each other as the product will generate sparks. This mode uses very high current (up to 1500 A) that can cause sparks and high heat if not used properly. If you are unsure about using this mode, do not attempt and seek professional help.




### INFLATING TIRES

1. Remove the cap from the valve stem on the tire.
2. Screw the compressor air-hose nozzle onto the tire air valve stem, make sure that the nozzle is pushed onto the tire stem as far as possible and is seated properly. Press down the locking-thumb lever to engage as shown in the illustration. If necessary, use the valve stem adaptor.
3. Press the Inflator Button to activate the inflation sequence.
4. In the event that the tire is completely flat, raise the vehicle using a recommended rated jack and jack stands before inflating the tire.




5. Monitor the tire pressure on the LCD screen display. It is recommended that a separate gauge be used to verify the actual tire pressure.
6. Turn the inflator off by pressing the inflator button when the desired tire pressure is reached.
7. Unscrew the air-hose nozzle from the tire valve stem (also, remove any air-hose nozzle adaptor, if any).
8. Place the cap back on the valve stem.
9. Stow the air-hose back into the device storage compartment.

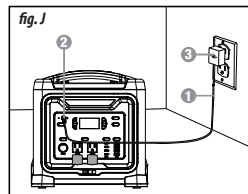



Pre-set:	Actual:
35.0	20.0
Psi	Psi

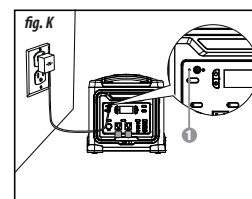
Press  to adjust pressure.  
Press  once to inflate.  
Press  again to exit.

### RECHARGING THE POWER BOX RECHARGING THE POWER BOX WITH AC CHARGER

1. Plug the 115 V AC charger  into charging input port  of the power box. Plug the adaptor of the 115 V AC charger into 115 V AC electrical socket  (fig. J).



2. The charging indicator  flashes green intermittently to indicate that the battery is charging (fig. K). The charging indicator turns solid green when charging is complete.



#### NOTE:

- The charging indicator shows a solid green when charging is complete.
- It may take 5 to 18 hours (based on a 115 V AC supply) to charge the unit depending on the state of discharge.
- Once fully charged, the charging current automatically reduces to a floating charge mode. If there is power interruption during the charging process, it will resume when power returns.



#### CAUTION! EQUIPMENT DAMAGE

- The internal battery of the power box gradually discharges when left idle. Lead-acid batteries should be charged at least once every 60 days even when not in use. Failure to do so may result in permanent battery damage due to excessive discharge.
- Do not operate AC or DC appliances while the power box is being charged.
- Do not attempt to recharge the power box when it is frozen.
- Use only the supplied charger to recharge the power box to ensure safe operation and to maximize battery life.

**RECHARGING THE POWER BOX WITH DC CHARGING CABLE**

The power box can also be recharged using the DC charging cable from a 12 V accessory outlet of a vehicle. This is recommended only during emergency situations.

1. Open the DC output port of the power box.
2. DC output port of the power box.
3. Plug the other end of the DC charging cable into the 12 V DC output port (12 V) of the power box.
4. DC output port (12 V) of the power box.

**RECHARGING THE POWER BOX WITH A SOLAR PANEL**

The power box can be recharged with a solar panel using two different methods.

1. If the solar panel has a SAE end, connect that to the SAE-DC cable provided.
2. If the solar panel has a DC end, connect that directly into the input port of the unit.
  - Input port inside diameter: 8 mm
  - DC pin outside diameter: 8 mm

**NOTE:**

- The charging indicator not flash green when the power box is recharged using the DC charging cable.
- The battery capacity shown in the LCD display of the power box is accurate only when the power box has been disconnected from all appliances and all charging sources for at least 15 minutes.



**CAUTION! EQUIPMENT DAMAGE**

- Do not operate AC or DC appliances while the power box is being charged with the DC charging cable from the vehicle.
- Do not leave the power box permanently connected to the 12 V accessory outlet of the vehicle.
- Disconnect the DC charging cable from the power box and the vehicle as soon as the battery is fully charged or if the vehicle's engine is turned OFF.

fig. L

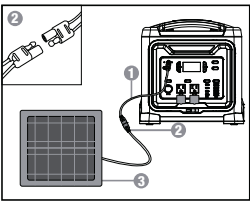
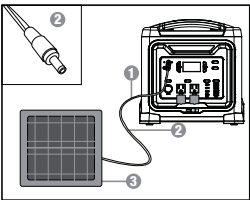


fig. M



**RECHARGING TIME**

Table below lists approximate recharging times from 10.5 V to 14.5 V using different recharging methods.

Methods	Times
AC Charger	7.6 h
DC Charging cable	5.5 h
Solar Charging* based on 100 W solar panel	4.5 h

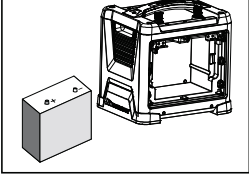
**REPLACING POWER BOX'S INTERNAL BATTERY**

When the battery reaches the end of its service life, purchase a replacement battery. To replace the internal battery:

1. Power the unit off, and ensure no appliances are connected to the power box.
2. Unscrew the 4 screws in the back housing and remove the back panel.
3. Remove the negative terminal (black) followed by the positive terminal (red).
4. Remove the battery and replace with a new battery of similar specifications.
5. Place the new battery with the same size into housing.
6. Connect the positive terminal cable to the positive terminal of the battery. Ensure that the polarity is not reversed to avoid damage to the power box. Ensure that the screw is tightly fastened.

7. Connect the negative terminal cables to the negative terminal of the battery. Ensure that the screw is tightly fastened.
8. Close the lid and tighten all the screws.
9. Fully charge the battery immediately.

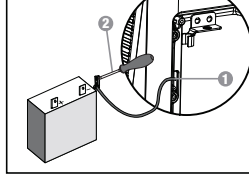
fig. N



Replacement battery SKU # 010-2075-6  
Tools required for disassembly of back cover and replacement of battery:

1. #2 Cross-head Screwdriver
2. #10 socket

fig. O



**CAUTION! BATTERY INSTALLATION**

- Only use 12 V lead acid batteries. 6 V and 24 V batteries are not compatible and will damage the device.
- Batteries contain acid and may produce hydrogen, posing a risk of explosion.
- Improper connections may result in damage to the battery and power box. MAKE SURE TO CONNECT THE BATTERY TERMINAL TO THE CORRECT BATTERY TERMINAL CABLE.

## MAINTENANCE

- Clean the exterior surface of the power box with a damp cloth to prevent accumulation of dust and dirt.
- Make sure the plastic covers on the 12 V DC outlet and AC outlet are closed after use.
- Recharge the unit as soon as possible after every use or every 60 days when not in use. This will extend the durability and efficiency of the battery.

## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Jump start unsuccessful	• The battery in the power box is not fully charged.	• Recharge the battery.
	• The engine start capacity exceeds the power box jumpstart capacity.	• Use a higher capacity power box. Make secure cable connections.
	• The battery of the power box is damaged.	• Replace the power box's battery.
	• Battery of the vehicle is damaged.	• Replace the vehicle battery.
Charging indicator does not light up when charging power box	• No AC power at the AC wall outlet.	• Ensure power is available at the AC wall outlet.
	• The AC charger is faulty.	• Replace the 115 V AC charger.
Unable to turn on power box	• Battery is defective.	• Replace battery.
	• Blown fuse.	• Check and replace fuse.
	• Loose cable connections.	• Check the connection to the battery. Tighten as required.

PROBLEM	POSSIBLE CAUSE	SOLUTION
LCD screen display fault: "Over Load"	<ul style="list-style-type: none"> <li>• The actual output is higher than rated power of inverter. Overload protection has occurred.</li> <li>• The actual output is less than rated power, but high starting surge has caused overload shutdown.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce load to have the actual output lower than rated power of inverter.</li> <li>• Use a product with starting surge power within the inverter's capability.</li> </ul>
"Low Battery"	• The voltage input is too low.	• Charge the battery.
"Over Heat"	• Inverter is overheated due to poor ventilation and has shut down.	• Disconnect the inverter from battery or DC socket and allow to be cooled for 15 minutes. Please ensure to remove objects covering the unit.
"Over Voltage"	• High input of AC charger.	• Replace the AC charger.
AC output port only works with low load appliances, not large load appliances	• Low voltage battery.	• Charge the battery.
Water ingress	• Unit exposed to wet conditions	• Disconnect the inverter and wipe immediately with a dry cloth, or permanent damage can occur from the liquid.
Battery run time is less than expected	• AC product power consumption is higher than rated.	• Use a larger battery to make up for increased power requirement.
	• Battery is old or defective.	• Replace battery.
	• Battery is not being properly charged.	• Some chargers are not able to fully recharge a battery. Make sure you use a powerful charger.
	• Power dissipation in DC cables.	• Use shorter/heavier DC cables.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The run time for appliance is less than expected.	• The internal battery is not fully charged.	• Recharge the power box using the AC charger until the charging status LED indicator glows green.
	• The power consumption of the AC appliance is higher than expected.	• Check the power or wattage rating of the AC appliance (or current draw for 12 V DC appliances).
The charging status LED indicator still flash and has not changed solid after 20 hours of charging.	<ul style="list-style-type: none"> <li>• The output of the AC charger is low.</li> <li>• The internal battery is permanently damaged.</li> <li>• Switches are in the "ON" and an AC or DC load is connected.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the 115 V AC charger.</li> <li>• Check the battery at a car maintenance workshop.</li> <li>• Place all switches in "OFF" position and disconnect all loads.</li> </ul>
The compressor runs slowly.	<ul style="list-style-type: none"> <li>• The compressor may have overheated from excessive use.</li> <li>• Battery voltage is too low.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn off the compressor and let it cool down.</li> <li>• Check the condition of the internal battery. The battery may need to be recharged.</li> </ul>
The compressor runs but won't inflate.	<ul style="list-style-type: none"> <li>• The valve connector may not be securely placed on the valve system.</li> <li>• The item being inflated may have a leak.</li> </ul>	<ul style="list-style-type: none"> <li>• Check the valve connector is securely placed on the valve stem.</li> <li>• Check the item for leaks.</li> <li>• Check the compressor hose .</li> </ul>

## ELECTRICAL SPECIFICATIONS

Continuous AC output power	700 W
Maximum AC output surge power	1400 W
AC output voltage range	115 V± 10%
AC output frequency	60 Hz ±1 Hz
AC output waveform	Pure sine wave
No load current draw	<1 A
Input voltage range	11 – 15 V DC
Low battery shutdown	10.5 V± 0.3 V DC
High battery shutdown	15.5 V± 0.5 V DC
AC bulk charging current	5 A
Peak charging voltage (nominal)	14.4 ± 0.2 V
Charging restart voltage (nominal)	12.9 ± 0.2 V
Internal battery (capacity/type)	33 Ah/12 V sealed lead-acid battery (deep cycle)
DC power socket (maximum continuous load)	12 A with automatic reset
Built-in LED	0.2 W x 6 pcs=1.2 W

**PHYSICAL SPECIFICATION**

Ambient operating temperature range	-4 to 104°F (-20 to 40°C)
Storage temperature range	-22 to 176°F (-40 to 80°C)
Dimension (L x W x H)	13 1/10 x 13 1/5 x 13 1/10" (33.3 x 33.6 x 33.2 cm)
Weight	39.69 lb (18 kg)
Jump start cables (size/length)	19 mm²/0.8 m
AC to DC charging cable	6' (1.8 m)
DC to DC charging cable	5' (1.5 m)

**AC CHARGER SPECIFICATIONS**

Input voltage	115 V AC
Output voltage	12 V DC
Output current	5 A



**IMPORTANT:**  
All specifications are subject to change without notice. The battery capacity was tested in 20 hours mode.

**AC/DC APPLIANCE RUN TIME**

Number of Full Charges			
APPLIANCE	Rating Value	Input type-DC or AC (V)	Number of Full Charges
Wireless earbuds	1.52 W	USB-A/C	218.8
Action camera	4.4 W	USB-A/C	75.6
Smart phone	8.87 W	USB-A/C	37.5
Tablet	42.5 W	USB-A/C	7.8
Bluetooth® speaker	50.0 W	USB-A/C	6.7
Laptop	44.0 W	USB-A/C	7.6
Cordless drill (20 V * 2.0 Ah = 40 Wh)	40.0 W	USB-A/C	8.3

Hours of Runtime			
APPLIANCE	Rating Value	Input type-DC or AC (V)	Hours of Runtime
CPAP	25.0 W	12.0	13.3
Electric cooler	60.0 W	12.0	5.5
Wifi router	6.0 W	120.0	49.6
Table lamp	5.0 W	120.0	59.5
TV	75.0 W	120.0	4.0
Gaming console	70.0 W	120.0	4.3
Pellet stove	600.0 W	120.0	0.5
Fridge (running wattage per day)	150.0 W	120.0	2.0
Aquarium pump	6.0 W	120.0	49.6
Fan (36" blade standing fan)	36.0 W	120.0	8.3

- Actual power consumption as measured on sample products.
- Operating times assume a fully charged battery and may vary based on model/brand used (under 77°F/25°C temperature).