

4Patriots

User Manual

Patriot Power Generator 1800

TRADEMARKS

4Patriots product names are a trademark of 4Patriots. Other trademarks, registered trademarks and product names are the property of their respective owners and are used herein for identification purposes only.

NOTICE OF COPYRIGHT

Patriot Power Generator User Manual. Copyright © 2015 4Patriots, LLC. All Rights Reserved.

EXCLUSIONS FOR DOCUMENTATION

Unless specifically agreed to in writing, 4Patriots and the Patriot Power Generator:

- A.** Make no warranty as to the accuracy, sufficiency or suitability of any technical or other information provided in its manuals or other documentation
- B.** Assumes no responsibility or liability for losses, damages, costs or expenses, whether special, direct, indirect, consequential or coincidental, which might arise out of the use of such information. The use of any such information will be entirely at the user's risk.
- C.** Cannot guarantee the accurate translation of this manual into languages other than English. Approved 4Patriots content is contained within the English language version, which is posted at www.patriotpowergenerator.com

DATE AND EDITION

May 2019, 1st Ed.

CONTACT INFORMATION

Billing & General Customer Service

Patriot Power Generator
1204 Elmwood Avenue,
Nashville, TN 37212
USA

1-800-680-8504
help@patriotpowergenerator.com
www.patriotpowergenerator.com

Technical & Warranty Support

Lion Energy
735 S Auto Mall Drive
American Fork, UT 84003
USA

1-844-311-5466
help@lionenergy.com
www.lionenergy.com

CONTENTS

7	ABOUT THE PATRIOT POWER GENERATOR
8	SYMBOLS AND TERMS
9	SAFETY INSTRUCTIONS
10	GETTING STARTED
11	UNIT OVERVIEW
17	TROUBLESHOOTING/FAQ
28	TECHNICAL SPECIFICATIONS
30	MANUFACTURER WARRANTY INFORMATION

PLEASE READ THIS ENTIRE MANUAL BEFORE ATTEMPTING TO USE THIS PRODUCT.

WARNING

- 1. Avoid dangerous environments.** Do not charge this item in rain, snow or other damp environments. Do not use this item or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when charging or discharging this item, possibly causing fire.
- 2. Charge in a well-ventilated area.** Do not allow smoking or open flames near a charging battery. Caution when charging outdoors; surface of generator may get very hot. Handle with care.
- 3. Do not burn or incinerate this item.** This item may explode, causing personal injury or damage. Toxic fumes and materials are created with batteries are burned.
- 4. Do not crush, drop or damage this item.** Do not use this item if it has received a sharp blow or has been dropped, run over or damaged in any way (e.g., pierced with a nail, hit with a car, etc.)
- 5. Do not disassemble.** There are no serviceable parts. Disassembly increases the risk of electric shock, fire and exposure to battery chemicals that may cause personal injury or damage.
- 6. Battery chemicals cause serious burns.** Never allow battery chemicals into contact with skin, eyes or mouth. If this item leaks battery chemicals, use rubber or neoprene gloves to dispose of the leaked chemicals. If skin is exposed to battery fluids, wash with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose of contaminated clothing. Do not inhale vented fumes or smoke. Please contact the manufacturer immediately for instructions on returning or disposing of the defective unit.
- 7. Do not short-circuit.** This item will short-circuit if a metal object makes connection to the AC or DC output ports. Do not place this item near anything that may cause a short circuit, such as coins, keys or nails. A short-circuited battery may cause fire and personal injury.
- 8. Never charge or jump-start a frozen battery.**
- 9.** Store this item in a cool, dry place. Do not store this unit for more than 10 days in an environment where temperatures may exceed 120° F (49° C), such as direct sunlight, a vehicle or metal building during the summer. Doing so may cause damage to the unit.
- 10. This product is not intended for commercial applications.**

4Patriots



Before using this unit, please read ALL instructions and information in this user manual.

ABOUT THE PATRIOT POWER GENERATOR 1800

The Patriot Power Generator is a seamless solution that protects you when outages leave you powerless for an extended period of time. The quiet, portable device is all about practicality and endurance, lasting for 2,000+ lifecycles. Other generators try, but none can match the power of the Patriot Power Generator and still offer all of the following:

SAFETY:

No emissions — none. Unlike fossil fuel powered generators and lead-acid batteries, the Patriot Power Generator has no carbon footprint, emits no greenhouse gases and causes no damage to the environment. It's even safe enough to use indoors.

QUIET:

The protected lithium core produces wattage without the loud, continuous sound made by other gas or diesel generator engines.

RENEWABLE:

Powered and replenished by natural resources such as the sun, wind and water, as well as mechanical devices. Unit retains charge for one year, but you should charge your unit every 3-6 months for optimal long-term care.

PORTABLE:

The Patriot Power Generator is a relatively small device measuring just over a cubic foot and weighing only 46 pounds (20.9 kilo). That's small enough to carry or store just about anywhere. Most generators surpass this weight by more than double yet offer less power.


AFFORDABLE:


No other generator offers the same quiet power output and device versatility for the same value.

SYMBOLS AND TERMS

IMPORTANT SYMBOLS

The following symbols are used in this guide:

 **WARNING** Warnings are conditions and practices that could result in personal injury.

 **CAUTION** Cautions are conditions and practices that could result in damage to the unit or other equipment.

IMPORTANT TERMS


The following terms are helpful for you to know and are used in this guide.


Term	Definition
A	Ampere or Amp
Ah	Amp-hour
AC	Alternating Current
DC	Direct Current
Hz	Hertz
kW	Kilowatt; one thousand Watts
kWh	Kilowatt-hour
LED	Light Emitting Diode
mA	Milliampere; one thousandth of an ampere
PV	Photovoltaic
VAC	Volts AC
VDC	Volts DC
W	Watts
Wh	Watt-hour


ADDITIONAL INFORMATION

You can find additional information about this product at www.patriotpowergenerator.com

SAFETY INSTRUCTIONS

 **WARNING** This section provides important safety and operating instructions. Any improper use of the generator can result in serious injury and possibly death in extreme situations.

 **CAUTION** Check with manufacturer of medical devices before powering any life-support systems or other medical devices or equipment to ensure it is compatible with the power supplied by the Patriot Power Generator.

 **CAUTION** Check with tool and/or equipment manufacturer before powering any of their products to ensure they are compatible with the power supplied by the Patriot Power Generator.

- Before using your unit, read ALL instructions and information in this user manual.
- To prevent overheating, provide a minimum of 6 inches of clearance on all sides of the unit. Take special care not to cover or obstruct the cooling fan or exhaust vents located on each side.
- When using unit outdoors, maintain the 6-inch clearance, but shelter the generator to prevent rain, snow, dust, dirt, loose debris and other particles from entering the generator. Such particles present a fire hazard.
- You may simultaneously connect up to 2 DC loads and up to 2 AC loads within the parameters enforced by the limits on page 29.
- To reduce the risk of electrical shock while cleaning the unit, disconnect all inputs and power down the generator using the main power button on the back of the unit. SWITCHING OFF ALL POWER DISCHARGE PORTS WILL NOT ELIMINATE RISK. TURN OFF MAIN POWER.
- Inspect all power cords and connectors before attempting to connect them to your generator. If cords are frayed, burnt or otherwise damaged, DO NOT connect the cord to your generator. Using damaged cords or connectors increases the risk of fire and electrical shock.
- DO NOT use if your unit has been dropped or damaged in any way. If unit is damaged, contact us for next steps (information on pg. 2).
- DO NOT attempt to disassemble the generator. There are NO serviceable parts, in the unit, and opening the generator can expose the user to internal components that could cause severe injury or death. Opening the generator is very dangerous and WILL VOID THE WARRANTY.
- Repairs should be done ONLY by a qualified Patriot Power Generator repair technician.

GETTING STARTED

- Thank you for your purchase of the Patriot Power Generator. The 1,800-watt pure sine wave AC inverter output in this unit makes it compatible for use with many of today's high-tech electronic devices. It also allows appliance motors to operate more efficiently and at cooler temperatures.
- Be sure to carefully read this user manual. Even though your Patriot Power Generator has many advanced built-in safety features, it is still important to take some time to become familiar with the Safety Instructions on Page 9 of this guide before operation.
- If you still have any questions, please contact our support team. See Contact Information on page 2.

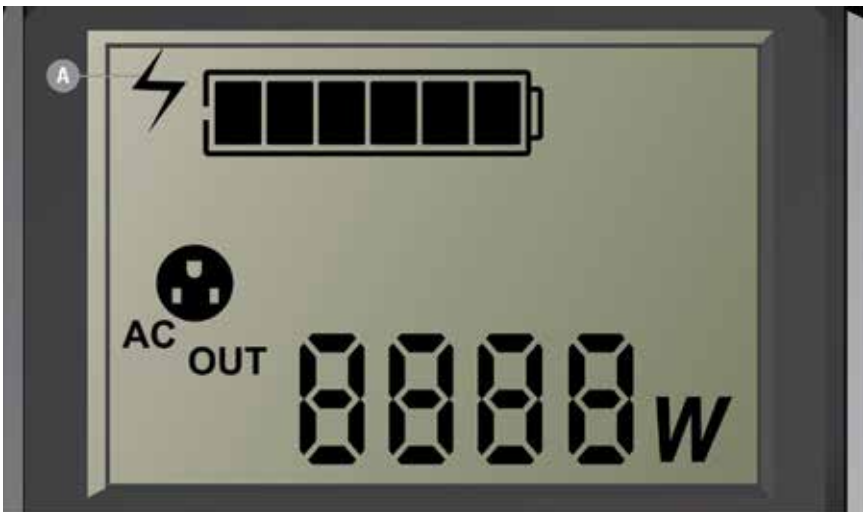
UNIT OVERVIEW

You should have received the following items in your Patriot Power Generator:

- Unit
- AC wall-outlet charging cord
- User manual
- Accessory pouch

ON/OFF PROCEDURES

- Depress the master power button on the back of the unit to power the unit on and illuminate the LCD display. The button will remain depressed and illuminated with a blue light in the on position.



- Push the main power button again to power down the unit. The button will not remain depressed in the off position.
- When the generator is not in use, turn the unit off. Verify that the LCD screen is off to ensure that the unit is completely powered down.
- You should always be close enough to your unit to monitor its function. Stay close whether you are discharging the unit or charging it after use.
- Store unit fully charged.

PATRIOT POWER GENERATOR INTERFACE

Front



Back



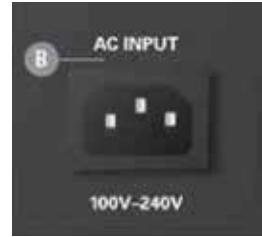
INTERFACE KEY

1. AC output power switch and LED indicator
2. LCD display
3. AC outlets
4. 12 VDC cigarette lighter outlet (10A)
5. 12 VDC Anderson Powerpole outlets (20A)
6. USB outlets
7. USB power switch and LED indicator
8. Front-panel air vents (DO NOT OBSTRUCT)
9. Ventilation fan (DO NOT OBSTRUCT)
10. Master power button
11. 12 VDC Anderson Powerpole charging inputs
12. 100V-240V AC charging input

AC CHARGING

WARNING

Check cord for damage prior to use. Never use a damaged or frayed AC cord; electrical shock can occur if AC cord is damaged or frayed. If AC cord is damaged, replace with a new cord before proceeding with AC usage (request replacements via Contact Information on page 2). Improper charging may result in serious injury and or death.



Charging your unit:

1. Plug the provided AC cord into the back of the unit (see B); then plug the cable into the AC wall outlet.
2. While unit is charging, the lightning bolt will appear, and the battery indicator will animate.
3. The lightning bolt icon will remain illuminated as long as the unit is plugged into a charging source.
4. Wait 10-15 minutes for the cells to settle. If you notice the battery indicator drop down to 5 bars, reset the unit by pressing the main power button so the unit is off and then again to power the unit back on.
5. When your unit is fully charged, turn the unit off. Then remove the plug from the wall and back of generator.
 - Never leave your unit unattended while it is charging.
 - Never let your charge via AC for more than five hours at a time. Charging more than five hours may damage the unit.
 - Never store your unit in a charging state.
 - If the unit is plugged into an AC outlet at the same time it is being used to power an AC device, the unit will continue to function as normal and charge during use. However, you must still stop charging the generator after five hours.
 - Caution: Do not charge your unit via AC and DC simultaneously. The unit does not accept both.
 - DO NOT leave your generator unattended while charging through the AC port.

DC CHARGING

WARNING

Never use damaged or frayed DC cord; electrical shock can occur if DC cord is damaged or frayed. If DC cord is damaged, replace with a new cord before proceeding with DC usage (request replacements via Contact Information on page 2).



Charging your unit:

1. Plug the provided Anderson extension cable into the back of the unit (see C); then plug the cable into the output of your charging source (for example, solar panel, handcrank, windmill, etc.).
2. Depress the master power button on the back of the generator to the ON position.
3. While unit is charging, the lightning bolt will appear, and the battery indicator will animate.
4. Once the unit is fully charged, the battery symbol will display all six bars as full. The lightning bolt icon will remain illuminated as long as the unit is charging and will disappear when the unit is fully charged.
5. Once the unit is fully charged, wait 10-15 minutes for the cells to settle. If you notice the battery indicator drop down to 5 bars, reset the unit by pressing the main power button so the unit is off and then again to power the unit back on. This will turn the charger back on so that it can fill up the balanced cells.
6. When your unit is fully charged, turn the unit off. Then disconnect the charging cables. Attention, The acceptable DC charging voltage range is 16.5 - 32 VDC. If any other VDC is used, the unit will be damaged.

AC USAGE OUTLETS

WARNING

Never use damaged or frayed AC cord; electrical shock can occur if AC cord is damaged or frayed. If AC cord is damaged, replace with a new cord before proceeding with AC usage (request replacements via Contact Information on page 2).



- To use your AC outlets, plug in the devices you want to run. Then turn on the inverter by switching the main AC power switch (see D) to the ON position. A green LED indicator will light up to confirm the

- power has been switched on. Once on, the outlets will work like normal
- AC wall outlets in your home.
- In order to protect the inverter and battery, any sustained discharge over 1800w will cause the unit to shut down. It can subsequently be reset.
- The watt meter, found on the bottom row of the LCD display, shows the amount of energy being used by the inverter. Please note this energy output is an estimation, and actual output may vary from displayed values.
- Because the watt meter measures inverter output, it will show wattage only for loads plugged into the AC output ports. This meter will never display energy output from DC ports.

DC USAGE OUTLETS

WARNING

Never use a damaged or frayed DC cord; electrical shock can occur if DC cord is damaged or frayed. If DC cord is damaged, replace with a new cord before proceeding with DC usage (request replacements via Contact Information on pg. 2).



- How you use the DC Anderson Powerpole outlets (see E) depends on the amperage of your chosen load. For loads between 0 and 15 amps, you can use an Anderson Powerpole extension cord. First, plug the extension cord into the desired device. Then, plug the other end of the extension cord into the Anderson Powerpole outlet on the front of the generator (plug black into black and red into red). Do not use an Anderson Powerpole extension cable for loads greater than 15 amps. For loads greater than 15 amps but less than the 20-amp max, plug the device directly into the Anderson Powerpole outlets.
- To use the DC cigarette outlet (see F), simply plug in any 12-volt device that is rated for a maximum of 10 amps and operates as normal.

Please check with 4Patriots Customer Service for proper power requirements and compatibility. See Contact Information on page.

DC USB OUTLETS

- To use your USB outlets, first plug the device you want to use into one of the available outlets. Then, turn the power switch to the ON position. A green LED indicator will light up to confirm the power is on.



TROUBLESHOOTING/FAQ

1. My Patriot Power Generator won't turn on.

- Please make sure the main power button is turned on. The button should remain depressed and illuminate with a blue light when the unit is on.
- Make sure the main AC power switch, found to the right of the LCD display, has been switched to the ON position. When the green LED is lit, your Patriot Power Generator AC outlets are on and ready for use.
- For the Patriot Power Generator to function at its highest ability, it must be charged after being used and must not be abused, misused or damaged. Please ensure all of these conditions are met.
- Should you encounter further trouble please contact our customer service department (see Contact Information on page 2).

2. I used the Patriot Power Generator once, and now it won't charge when I plug it into the wall.

- The Patriot Power Generator is designed to work for over 2,500 full discharge and charge cycles. If it will not charge, follow these steps:
 - Please make sure the main power button is turned on. The button should remain depressed and illuminate with a blue light when the unit is on.
 - Disconnect the power cable from the unit and wall outlet.
 - Inspect the cable for damage to both ends and the cable itself.
 - Inspect the Patriot Power Generator and the wall outlet for damaged sockets or disfigurement.

- After ensuring all connections are clean and free of any debris that may prevent a solid connection, reconnect the Patriot Power Generator and check the LCD display for a charging status.
- If the Patriot Power Generator will not function after following these steps, contact customer support (see Contact Information on page 2).

3. My Patriot Power Generator won't hold a charge.

- Please make sure when you store your unit that the master power button is turned off. Verify that the power button is not depressed and not illuminated blue to ensure that the unit is turned off.
- The Patriot Power Generator will retain 80 percent of its 768 watt-hour capacity after one year of storage. However, please fully charge your unit every 3-6 months to extend the life of the battery. After storing your unit for an extended period of time, it will need to be recharged before use. It will accept a charge from either an AC or DC source plugged into their respective ports.
- While the Patriot Power Generator has a very large energy capacity, it is not limitless and after being used will need to be recharged. Think of the Patriot Power Generator as a glass and energy as water: When you drink water from a glass, it does not refill itself. You have to refill it if you want it to hold more water.
- If the Patriot Power Generator will not function after you have followed these steps, contact customer support (see Contact Information page 2).

4. My Patriot Power Generator battery doesn't last as long as I thought it would.

- The Patriot Power Generator battery, which runs on DC power, has a full capacity of 768 watt-hours (12.8 volts/60 amp-hours) and will be able to provide that full capacity to any DC device connected to it. When you are using the generator to power a device using the AC 120V outlets, the generator's battery must use a portion of its capacity to convert its native DC power into AC 120V power, meaning the battery has a slightly shorter life while running AC devices. Yet the Patriot Power Generator battery uses one of the most efficient conversion processes available to keep the generator working at an impressive 90.6% capacity (691 watt-hours) while using the AC 120V outlet.
- To calculate how long (in hours) a device can be powered by the Patriot Power Generator, divide the capacity of the Patriot Power Generator (768 watt-hours [DC] or 691 watt-hours [AC]) by the

power consumption of the device (in watts) that is displayed on the LCD once you plug in the device. Capacity (Wh) / Consumption (W) = Life of the device (h).

- Example: A 100-watt light bulb used in the AC 120V port would last about 6.9 hours ($690\text{Wh} / 100\text{W} = 6.9\text{h}$); a 9-watt LED bulb with a 100-watt equivalency rating would last 76.7 hours ($690\text{Wh} / 9\text{W} = 76.66\text{h}$).
- When comparing how long different devices will function on the Patriot Power Generator, remember that all devices consume different amounts of energy. For example, a newer 60-inch LED television may consume less energy than a 42-inch LCD television manufactured 5 years ago and consume much less than a 10-inch CRT (tube) television manufactured 15 years ago. Always use the actual wattage consumption displayed on the LCD when using the specific device to measure the life of that device on the battery of the Patriot Power Generator. Please note that the wattage consumption displayed on your Patriot Power Generator is not perfectly accurate and run times may vary from the mathematical ideal.
- To extend the life of your Patriot Power Generator battery, consider using more energy-efficient devices or connecting it to solar panels during use.

5. How do I know when my Patriot Power Generator is fully charged?

- To calculate how long it will take to fully charge the Patriot Power Generator from empty, use this formula: Capacity of the generator (768 Wh / Output power of your charging source (e.g. solar panel, hand crank, windmill, etc.) = Hours needed to fully charge
- To ensure the Patriot Power Generator is fully charged while using the AC 120V charger:
 - Turn all power switches and buttons to the OFF position. Leave the master power button in the ON position.
 - Plug the provided three-pronged AC cable into the unit, then insert the other end into an AC outlet.
 - The LCD display should show a lightning symbol on the left side of the battery charging status bar (see I).
 - Continue charging the Patriot Power Generator for 3.5 to 4.5 hours.
 - After that point, the Patriot Power Generator will be finished charging. The LCD should show a full battery charge with no bars blinking. Note: the lightning bolt only indicates that the

generator is plugged into a power source. It does not mean the unit is still charging. The unit is finished charging when the bars on the battery indicator stop blinking.



- If you remove the cable from the Patriot Power Generator while it is charging, you may need to wait one minute for the Patriot Power Generator to recalibrate and prepare to accept a charge again. This feature protects the battery from surges of power, harsh disconnections and over/undercharging. Charging should resume normally.
- To ensure the Patriot Power Generator is optimally charged when using a DC 12V power source:
 - Ensure all power switches and buttons are in the OFF position. Leave the master power button in the ON position.
 - Connect the DC power source to one of the Patriot Power Generator's DC 12V Anderson Powerpole input ports on the back of the generator (plug black to black and red to red).
 - Know how much current (in Amps or Watts) is being transferred to your Patriot Power Generator through the 12V Anderson port. If you know the watts, divide 768 watt-hours by that number, and you will know how many hours it should take (with 3-30 percent accuracy depending on weather conditions and physical placement of the panel). If you know the amps, divide 60 amp-hours (the full Ah capacity of the battery) by that number and you will know how many hours it should take the Patriot Power Generator to charge (again, with 3-30 percent accuracy).
 - Let the Patriot Power Generator charge for the estimated time. When the lightning symbol disappears and the battery charge bar symbol indicates a full charge, continue to charge the unit for 30 to 60 minutes (depending on sunlight conditions) to ensure that the battery cells are optimally balanced. The Patriot Power Generator has a cutoff built into it that will stop current from flowing to it after the Patriot Power Generator is fully charged. Even with this safety feature, do not leave a generator to charge unattended. Keep the unit in a place you can monitor as you charge the unit to ensure proper charging.
 - Do not attempt to charge the Patriot Power Generator beyond the 30-60 minutes allotted to balance the battery cells. You cannot overcharge the Patriot Power Generator without damaging the battery and creating an unsafe environment that may lead to serious injury or death.
- Some energy sources are more reliable than others. Know the type of electricity and the current you are putting into your Patriot Power Generator. For instance, if you have a Patriot Power Generator and

two DC 12V 100-watt solar panels, you know that when connected to the Patriot Power Generator and in direct sunlight, the panels will give 200 Watts of DC at 12V energy to the battery. The battery has a capacity of 768 watt-hours, so it will take roughly 3.5–4.5 hours of direct sunlight to charge the Patriot Power Generator. When the battery meter indicates a full charge with no bars blinking, continue to charge the unit for 30 to 60 minutes (depending on sunlight conditions) to ensure that the battery cells are optimally balanced.

- Caution: The Patriot Power Generator will NOT accept a charge from both AC and DC sources at the same time. The AC charge alone will max the charging capacity of your unit. If you attempt to charge the unit too quickly by adding a DC charging source, the unit will stop all charging (AC and DC) to protect itself.

6. How do I know when my Patriot Power Generator is fully discharged?

- The Patriot Power Generator has an LCD display that will show the wattage being used and the battery status bar. These will let you know the status of your battery while charging or discharging. Do not attempt to discharge the Patriot Power Generator once the battery status bar shows there is no power left. Doing so will cause damage to the unit and will void your warranty.
- If you have a device (such as a laptop computer with AC 120V power cable) connected to the Patriot Power Generator and are using the device as it charges, the generator battery will drain more quickly. To prolong the usable life of your devices on the battery, turn them off while they charge and disconnect them from the generator when you are ready to use them. You should fully drain the battery of each device and turn it off again before connecting it to the Patriot Power Generator to recharge. Leaving the device on while charging may give the illusion of using less energy because the battery of your device will show full charge, but you are in fact using almost three times the energy that you would if you were to disconnect it from the Patriot Power Generator.

7. I can't connect my solar panel to my Patriot Power Generator.

- If a Patriot Power Generator solar panel was included in your order, your solar panel will come with Anderson Powerpole connectors, which the Patriot Power Generator is specifically designed to connect with. There are two sets of these connectors to use with any DC 12V input. These connectors are small and rectangular with one side that is red and another side that is black. Always connect black to black and red to red.

- While the ends of the connectors may appear flat and not able to connect to a similar connector, they are specially made to slide together. Simply match up the colors on the input side and push them together gently to form a solid connection.
- The solar panel connectors that fit your Patriot Power Generator are engineered only for Patriot Power Generator products. They look very similar and fit together easily. If you believe you have a solar panel with a different connector that will not fit your Patriot Power Generator, we will be happy to send you an adapter at no additional cost to you (once we confirm receipt of the incompatible connector).
- If you did not buy your solar panel from us and would like an adapter made, please contact customer service for pricing (see Contact Information on page 2).

8. My Patriot Power Generator won't charge when I connect my solar panels to it.

- Solar panels work best when pointed without obstruction directly at the sun. The solar panel will not produce an adequate charge if it is:
 - Not pointed toward the sun
 - Placed behind a window (30-70 percent less efficient depending on window type)
 - Used indoors
 - Positioned in shade
 - Not connected to the Patriot Power Generator, either directly or by using an approved extension cable.
 - Used with an unapproved or excessively long extension cable
- Please make sure the main power button is turned on. The button should remain depressed and illuminate with a blue light when the unit is on.
- The optimum position of the solar panel is slightly angled to the south (if living in the Northern Hemisphere) at noon in an open area. The panel will produce less power before and after noon and at angles that are not axially tangent to the relative path of the Sun.
- Solar panels will produce little to no power if they are placed in a shaded area, behind a window, or next to a sun-obstructing object. Remember, shadows move, so an object that is next to the solar panel may not create a shadow during one time of the day, but may produce a shadow for some or all of the rest of the day.
- Solar panels will produce little to no power if placed vertically or facing down.

9. I can't connect all three of my solar panels to my Patriot Power Generator at the same time.

- The Patriot Power Generator is designed with only one Anderson input port. To attach more than one solar panel to your generator, the panels need to be daisy-chained with the supplied wires on the panels themselves. If you have questions about daisy chaining, or if your Anderson connector will not insert into your Patriot Power Generator, please contact customer service for help (see Contact Information on page 2).

10. I left my solar panel connected to a battery (not a Patriot Power Generator) overnight and now it has less charge than the evening before.

- Batteries will not gain any power from a solar panel at night. It may even deplete the battery if connected poorly (e.g., without a solar charge controller or to the wrong connections). Electricity is a two-way street and will flow to and from the source and to and from the destination depending on the current, charge, power draw, as well as a few other factors. Unless electricity is governed and controlled with technology such as a solar charge controller, you cannot be assured of the results when charging with solar panels, batteries or other electronic components.
- Solar panels only produce electricity with the presence of sunlight. When a solar panel is not exposed to sun or is connected to a battery without a solar charge controller, the electricity in the battery will flow back to the panel in the form of heat. The panels will become warm, just like an electric blanket would, and may drain the connected battery. Please note: Do not use solar panels as heat sources.
- The other peril of ungoverned solar charging batteries is that you may overcharge and damage the battery. This is unsafe and will not give you more energy. In fact, it will most likely reduce the charge because of the damage caused to the battery. The battery may swell and become warm. Do not use a swollen battery. Instead, carefully dispose of it in a legal and safe manner.
- Disconnect your Patriot Power Generator from any charging source when it is not charging. Unlike lead-based batteries, the lithium-based Patriot Power Generator does not need to be kept on a trickle charger or have the charger plugged in constantly to retain a charge.

11. I turned off the power switches on my Patriot Power Generator, but the unit's fan is still on. Should I be worried?

- You do not need to worry. The fan for your Patriot Power Generator is designed to cool the internal components, even if the unit is powered off. Especially, if you are charging your unit, you can expect the fan to run frequently, even with the main switch off.

12. The Patriot Power Generator emits a burning odor while operating.

- The Patriot Power Generator should not have any odor while functioning or being stored. Dust, dirt, or debris should not be allowed to enter the Patriot Power Generator, but if it does, it may emit a very light odor similar to a clothes dryer when the generator is powered on. Use electronics-safe compressed canned air to clear the vents of your unit (only while the unit is turned off). If you notice a strong, smoky, or persistent odor, stop use immediately. Do not attempt to remove anything from the interior of the Patriot Power Generator. Do not use the Patriot Power Generator again, and contact customer service for repair or replacement (see Contact Information on page 2).

13. The Patriot Power Generator will not run my microwave after I used it to watch TV.

- The Patriot Power Generator has a battery capacity of 768 watt-hours. After a device has used 500 watt-hours of the battery, another device will only have 268 watt-hours, not 768. Remember to calculate the power consumption of the devices you use and ration the time you plan to use your unit accordingly. The LCD display will help you with these calculations because it shows the wattage used by any appliance plugged in.
- To ensure you are able to enjoy Patriot Power Generator's full battery charge the next time you use it, charge it fully and turn the power off after use.
- To extend the battery life, connect the Patriot Power Generator to solar panels during use.

14. The AC 120V outlet turns off when I use two electronic devices at the same time.

- The Patriot Power Generator has a number of safety features built in to prevent injury to you or damage the unit. One of these safety

features is an automatic cutoff for devices that use more than 1,800 watts (20 Amps) continuously. When the current passes 1,800 watts or 20 amps, power to both AC 120V output ports will be cut off. To begin using the ports again, you will need to turn off the switch next to the AC ports, wait five seconds, switch it back on and proceed using devices with a lower combined wattage.

- Example: Most hair dryers use 1,500 watts on the high setting. If you are using multiple hair dryers, use a lower setting. The same lower setting suggestion applies to toasters, microwaves and electric power tools.

15. My Patriot Power Generator stops working when I turn up the power on my space heater while using it to power my TV.

- The Patriot Power Generator will accommodate all power draws going out of the AC 120V output up to 1,800 watts. Most space heaters draw more than 1,800 watts at the higher settings. Experiment to find the optimal balance between energy conservation and heat output while enjoying your entertainment.
- See question 16 for additional information.

16. My Patriot Power Generator got wet and now will not turn on.

- It is possible to damage the Patriot Power Generator when it is used improperly or in harsh conditions. If your Patriot Power Generator is submerged in water, do not turn it on or touch it. The Patriot Power Generator contains a powerful battery, and when it comes into contact with water or any other conducting equivalent, it will create an unsafe environment, void the warranty and may cause serious injury or death.
- Additionally, the Patriot Power Generator is not rated for dropping from any height.

17. Can I daisy chain my Patriot Power Generator in a series with or parallel to other Patriot Power Generator units or batteries?

- The Patriot Power Generator is designed for use as a stand-alone power unit. It may be recharged by a suitable external power source and may charge a suitable external device, but it is not to be used as a normal battery in a bank, charging/not charging array or any other combination of connected batteries. Doing so will void your

warranty, damage the unit, and may expose the battery to unsafe charging and discharging conditions, which may lead to serious injury or death.

18. The Patriot Power Generator will not function after I charged it with two solar panels, a windmill and the AC 120V charger simultaneously

- The Patriot Power Generator is a versatile and adaptable product and is able to take a charge from most modern sources. We have designed your Patriot Power Generator to accept all charges possible up to 20 amps @ 12V through the DC input and 4 amps @ 100- 240V through the AC input. If the incoming current surpasses these limits, the Patriot Power Generator will reject each offending source. If you knowingly attempt to overcharge the battery, it may damage it, voiding the warranty, and creating an unsafe environment that includes a risk of serious injury or death.
- The number of charging sources does not matter as much as the amount of charge being put in. If you could theoretically connect the Patriot Power Generator to 100 solar panels that each have an output of 4 amps @ 12V and the system would only accept 10 amps @ 12V of the 400 amps @ 12V that are available. Attempting to concentrate 400 amps @ 12V into an insufficient cable diameter (i.e., the diameter of the cables that connect to the Patriot Power Generator), will result in a severe risk of overheating, electrical shock and possibly death. The Patriot Power Generator can, however, accept all of the charge from three 4-amp @ 12V solar panels.
- Always balance the currents you are putting in and taking out of the Patriot Power Generator. This is a sure way to know you are treating your Patriot Power Generator in a way that will prolong the battery life, keep in- warranty, and give you many years of extensive use.
- Should you encounter further trouble please contact our customer service department (see Contact Information on page 2).
- Caution: The Patriot Power Generator will NOT accept a charge from both AC and DC sources at the same time. The AC charge alone will max the charging capacity of your unit. If you attempt to charge the unit too quickly by adding a DC charging source, the unit will stop all charging (AC and DC) to protect itself.

NOTES

This page intentionally left blank for customer notes.

TECHNICAL SPECIFICATIONS

DIMENSIONS:

15" L x 7.5" W x 10.5" H

WEIGHT:

46 lbs (20.9 kg)

OPERATING TEMPERATURES:

23–111 °F (-5–45 °C)

OPERATING CONDITIONS:

- Keep out of rainy, damp, or snowy conditions.
- When charging outside with a solar panel, use the panel to shade the unit for better charging efficiency.
- Do not store in a hot vehicle for extended periods of time (i.e. anything over 5 hours).

BATTERY:

- Lithium Iron Phosphate Based Chemistry (LFP)
- 60Ah (768 Wh) capacity
- 12V capacity
- Rated for 2,500+ charge and discharge cycles
- Minimum Charge Time: 3.5 Hours
- Charge Retention: 1 Year (80%)
- Integrated Inverter: 120V AC pure sine wave, 1,800W continuous output, slow-start feature protects the inverter from over-current draw
- Maximum of 20A @ 12V AC charging current from AC or DC circuitry
- Maximum AC current pulled from AC source (e.g. a wall outlet): 4A @ 120V AC
- Maximum combined charge from AC and DC circuitry: 20A @ 12V DC
- Maximum DC Output Current: 20A @12V DC
- Prismatic cell geometry

UNIT BODY:

- Steel Case
- Cooled by back-mounted fans

LCD DISPLAY:

- 6-bar battery-shaped gauge
 - Always on so you always know that your battery is charged
 - Displays wattage used while the AC switch is on for easy run time calculations. Will remain at zero when AC switch is in OFF position

POWER CONTROLS:

- Master power control via power button on the back of unit
- AC power ON/OFF switch on front of unit
- DC USB power ON/OFF switch on front of unit

INPUT PORTS:

- AC: 110V–240V, 50-60Hz
- DC: Anderson Powerpole connector ports; 1 set, total of 20A limit using 12V input

OUTPUT PORTS:

- AC: 110V–120V 50-60Hz: 2 outlets share a combined total current limit of 1,800W, including a slow-start feature that protects the inverter from over-current draw
- DC: 4 USB outlets, 8.4A max (4 ports @ 2.1A)
- DC: Anderson Powerpole connectors; 1 set with a total shared current limit of 20A @ 12VDC (240W max output)
- DC: 12V cigarette lighter adapter, capable of 10A (120W) max output

MANUFACTURER WARRANTY INFORMATION

0 to 365 days from the date of delivery:

What is covered?

- Defects in materials or workmanship
- Non-Cosmetic normal wear and tear related damages
- Units authorized for return: To receive authorization, please contact our customer service team (see Contact Information on page 2). We will assign a returned merchandise authorization (RMA) number and arrange a scheduled pickup. Under no circumstances should you return a unit without prior authorization. Authorized returns are not subject to a restocking fee.
- Warranty restarts with replacement unit.

What is not covered?

- Damage or defect caused willfully or through negligence.
- Damage caused through excessive wear and tear.
- Cosmetic blemishes, scratches, or dents caused through the course of regular use.
- Damage caused by use of the unit with unsafe, unregulated, or inappropriate products, devices, power sources, or power consumption.
- Damage resulting from use of the product for anything other than what it is intended for. This warranty does not cover damage caused when the unit is used as a footstool, wheel chock, door jam, or flotation device (It does not float, is not waterproof, and may cause bodily injury or death if used as a flotation device).
- A return not previously authorized by our team. Unauthorized return shipments will be rejected or restocked without notification to the sending party.
- Upgrade to a newer model. All damaged units will be replaced with a unit of the same model that was originally purchased.

ADDITIONAL TERMS:

1. Damage caused willfully or by negligence will void the warranty at any point in the 365-day period. Willful or negligent damage is determined upon receipt and inspection of the unit. All refunds/returns will be processed after inspection for willful or negligent damage.
2. Any unit that has been altered or repaired by an unauthorized service is voided of any warranty.
3. All products must be returned with all included attachments and accessories unless otherwise directed when obtaining a return number. The customer will be billed/charged for any missing attachments or accessories.
4. If proof of purchase, purchase order, receipt, or record of purchase is not available upon request, we will not be responsible for any warranty service.
5. Any returned unit must be packaged safely and labeled clearly. Any damage caused by poor packaging when returning the unit is the responsibility of the customer and may void the warranty.
6. Customers should keep a record of the serial number of any unit sent in for replacement. To facilitate the return process, clearly write the serial number on the shipment box as well.
7. Products that are not authorized for return as per the return instructions will not be accepted.
8. At our discretion, units will be repaired or replaced.
9. If the customer sends a unit in for replacement and it is found to be free of defect or damage after inspection, the customer will be responsible to pay a \$50 service charge, actual handling and shipping costs to and from our facility and any other necessary costs incurred during processing.



1204 Elmwood Avenue, Nashville, TN 37212

4patriots.com · 1-800-304-4202