



PORTABLE GENERATOR

1800 W | INDOOR + OUTDOOR

OPERATOR'S MANUAL

A Division of Snow Joe®, LLC

Model SJ1440SG

Form No. SJ-SJ1440SG-880E-M

IMPORTANT! Safety Instructions

All Operators Must Read These Instructions Before Use

Misuse of the generator may result in injury to the user and/or damage to property. Read, understand and follow all **CAUTION** and **WARNING** statements contained in this manual.

⚠️ WARNING! This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

⚠️ CAUTION! This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

⚠️ DANGER! This indicates a hazardous situation, which, if not followed, will result in death or serious injury.

Improper use of the generator will invalidate the warranty, relieve the manufacturer from all liabilities. The user will consequently be liable for all and any damage or injury to himself/herself or others.

General Safety

⚠️ WARNING! This generator is not intended for use by children or by unassisted, unsupervised persons whose physical, sensory or mental capabilities prevent them from using it safely. Children should be supervised to ensure that they do not play with the appliance.

Before using, be sure that everyone using this generator reads and understands all safety instructions and other information contained in this manual. Save this manual and review it frequently prior to using this generator and when instructing others on the proper operating procedures.

⚠️ WARNING! Do not modify or attempt to repair the generator or the battery pack (as applicable) except as indicated in the instructions for use and care.

⚠️ WARNING! When using the generator, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. These include:

- 1. Keep work area clean and well-lit** – Cluttered, dark areas invite accidents.
- 2. Do not operate or store the generator in rain, snow, or wet weather** – Using a generator or electrical appliance in wet conditions, such as rain or snow, or near a pool or sprinkler system, or when your hands are wet, could result in electrocution.
- 3. Generator produces powerful voltage** – DO NOT touch bare wires or receptacles.
- 4. DO NOT use electrical cords that are worn, damaged or frayed.**
- 5. Keep children, bystanders, and pets away** – DO NOT allow children or unqualified persons to operate or service the generator.
- 6. Use the right appliance** – Do not use the generator for any applications other than those for which it was intended.
- 7. Operate only on level surfaces.**
- 8. Keep away from high humidity, dusty places** - DO NOT expose generator to excessive moisture, dust, or dirt.
- 9. Avoid unintentional starting** – Accidental starts can cause severe injury or death.
- 10. DO NOT allow any material to block the cooling slots** – If connected devices overheat, turn them off and disconnect them from the generator.
DO NOT use the generator if:
 - Electrical output is lost
 - Equipment sparks, smokes or emits flames
 - Equipment vibrates excessively
- 11. Check for damaged parts** – Before starting up the generator, please check it carefully for any defects. If you find any, do not start up the generator. Contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.
- 12. Do not short-circuit the generator** – To avoid short-circuiting, keep the generator away from all metal objects (e.g. coins, hair-pins, keys, etc.)

Limitation on Use

⚠️ WARNING! The generator is not intended for use in connection with life support systems or other medical equipment or devices.

Shock or Fire Hazard

⚠️ WARNING! The generator generates the same potentially lethal AC power as a normal household wall outlet. Please use it carefully like using a normal AC socket on the wall.

- Do not insert any foreign objects into generator's AC outlets, its DC power socket, or the ventilation holes.
- Do not remove the covers on the power DC terminals, unless connecting cables.
- Do not, under any circumstances, connect the generator's AC receptacle to power utility AC distribution wiring.
- Failure to follow the above safety instructions may result in personal injury and/or damage to generator.

Electric Shock Hazard

⚠️ WARNING! Do not use generator where there are flammable fumes or gases, such as in the bilge of a gasoline powered boat, or near propane tanks.

- Do not use generator in an enclosure containing automotive-type lead acid batteries. These batteries, unlike the sealed battery pack in the generator, vent explosive hydrogen gas, which can be ignited by sparks from electrical connections.
- When working on electrical equipment always ensure someone is nearby to help you in an emergency.
- NEVER connect the power output into a wall outlet, a practice known as "backfeeding." This is extremely dangerous and presents an electrocution risk to utility workers and neighbors served by the same utility transformer. It also bypasses some of the built-in household circuit protection devices.
- Generators pose a risk of shock and electrocution, especially if they are operated in wet conditions. Operate the generator under an open, canopy-like structure on a dry surface where water cannot reach it or puddle or drain under it. Dry your hands, if wet, before touching the generator.
- Connect appliances to the generator using heavy-duty extension cords that are specifically designed for outdoor use. Make sure the wattage rating for each cord exceeds the total wattage of all appliances connected to it. Use extension cords that are long enough to allow the generator to be placed outdoors and far away from windows, doors and vents to the home or to other structures that could be occupied. Check that the entire length of each cord is free of cuts or tears and that the plug has all three prongs. Protect the cord from getting pinched or crushed if it passes through a window or doorway.

- Make sure the generator is properly grounded and placed in a dry location. If improperly grounded, the entire generator could become electrically charged and cause electrocution.

Heat Hazard

⚠️ WARNING! The generator's internal inverter components may become uncomfortably warm, reaching 140°F (60°C) during prolonged operation. Ensure at least 6 in. (15 cm) of air space is maintained on all sides and on top of generator. During operation, keep away from materials that could be ignited by high temperatures such as blankets, pillows and sleeping bags, etc.

⚠️ CAUTION! This system should not be operated in environments where the ambient air temperature is over 104°F (40°C).

Precautions for Using Rechargeable Appliances

⚠️ WARNING! Most rechargeable battery-operated equipment uses a separate charger or transformer that is plugged into an AC receptacle and produces a low voltage charging output. Some chargers for small rechargeable batteries can be damaged if connected to the generator.

Equipment Damage

⚠️ CAUTION! The generator produces modified sine wave electricity, which is different from pure sine wave utility-supplied electricity. Certain types of load equipment may be damaged by modified sine wave electricity. Some examples include:

- Small battery-operated appliances like flashlights, razors, and night lights that can be plugged directly into an AC receptacle to recharge.
- Speed controllers found in some fans, power tools, kitchen appliances, and other loads may be damaged.
- Metal halide arc (MHI) lights may be damaged.

⚠️ IMPORTANT! If you are unsure about using your appliance with the generator, contact an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance to find out if there are high voltages at the battery terminals or if the appliance incorporates the use of transformers.

Battery + Charging Safety Instructions

We pay a great deal of attention to the design of every battery pack to ensure that we supply you with batteries that are safe, durable and have a high energy density. The battery cells have a wide range of safety devices. Each individual cell is initially formatted and its electrical characteristic curves are recorded. This data is then used exclusively to be able to assemble the best possible battery packs.

Despite all the safety precautions, caution must always be exercised when handling batteries. The following points must be obeyed at all times to ensure safe use. Safe use can only be guaranteed if undamaged cells are used. Incorrect handling of the battery pack can cause cell damage.

⚠️ WARNING! Use only approved replacement batteries; other batteries may damage the generator and cause it to malfunction, which can lead to serious personal injury.

- **Do not disassemble** – Incorrect reassembly may pose a serious risk of electric shock, fire or exposure to toxic battery chemicals. If the battery is damaged, contact an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.
- **Charge in a well-ventilated area** – Always maintain at least 6 inches (15 cm) of space around all sides of the generator's cabinet for proper cooling during all charging time.

⚠️ CAUTION! The system should not be operated in an environment where the ambient air temperature is over 104°F (40°C).

- **Maintain AC charging cable** – When unplugging the AC charging cable, pull the plug, not the cord, from the receptacle to reduce the risk of damage to the electrical plug and cord. Never carry the generator by the AC charging cable. Keep the cable away from heat, oil and sharp edges. Make sure the cable will not be stepped on, tripped over or subjected to damage or stress when the charger is in use. Do not charge the generator with a damaged cord or plug. Have damaged cords repaired without delay by a qualified technician at an authorized Snow Joe® + Sun Joe® dealer or call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).
- **Do not use an extension cord unless it is absolutely necessary** – Using the wrong, damaged or improperly wired extension cord poses a risk of fire and electric shock. If an extension cord must be used, plug the AC charging cable into a properly wired 16 gauge or larger extension cord with the female plug matching the male plug on the charger. Make sure that the extension cord is in good electrical condition.

- **Electrical plugs must match the outlet** – Never modify the plug in any way. Do not use any adapter plugs with grounded appliances. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- **Do not use the supplied battery charger to charge other cordless tools.**








⚠️ WARNING! Electrical Shock Hazard – Before starting up the generator, please check it carefully for any defects. If you find any, do not start up the generator, contact the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563) for assistance.

Ground fault circuit interrupter (GFCI) protection

This generator is provided with a ground-fault circuit-interrupter (GFCI) built into the plug of the power-supply cord. This device provides additional protection from the risk of electric shock. Should replacement of the plug or cord become necessary, use only identical replacement parts that include GFCI protection.

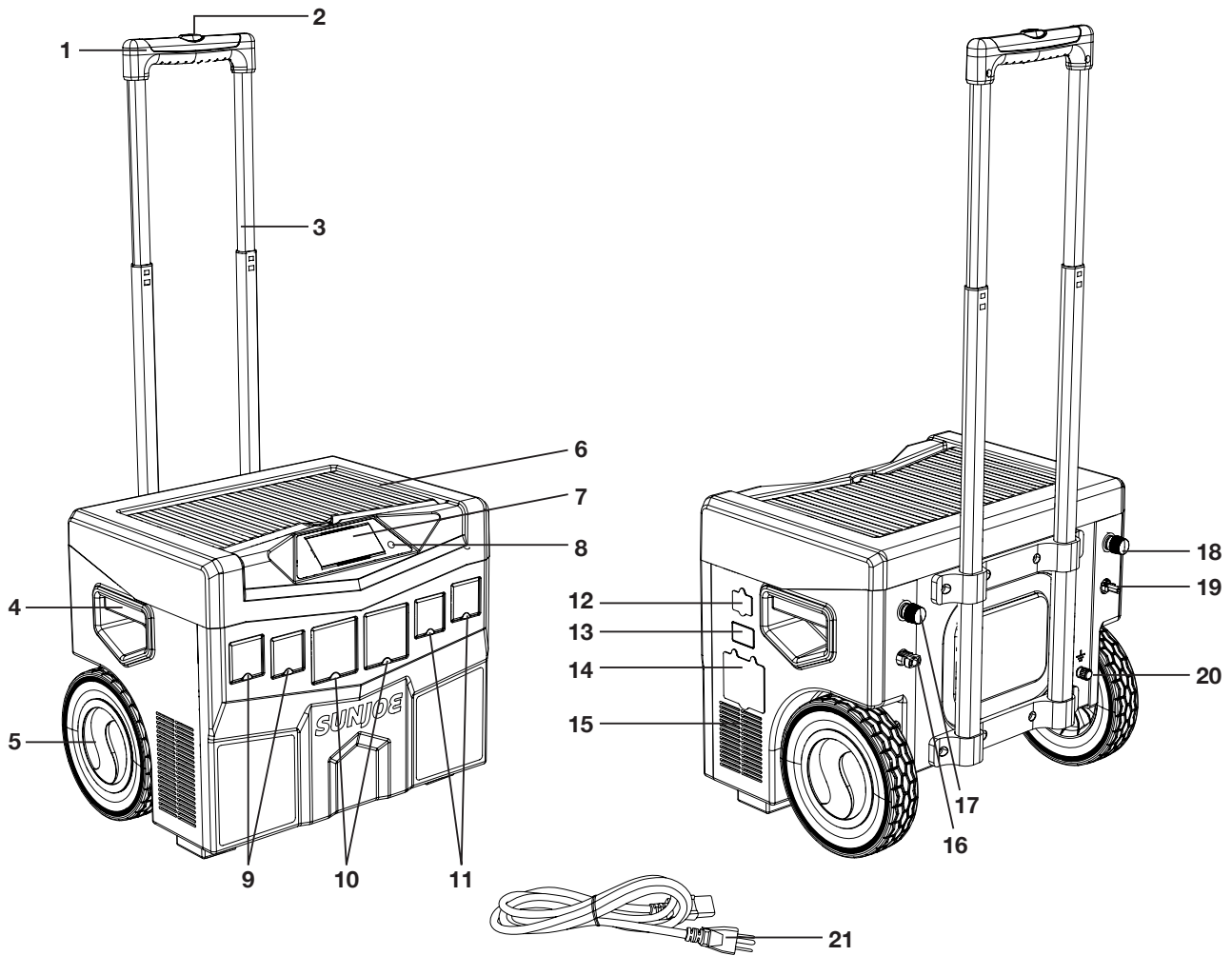
Safety Symbols

The following table depicts and describes safety symbols that may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbols	Descriptions	Symbols	Descriptions
	READ THE OPERATOR'S MANUAL(S) – Read, understand, and follow all instructions in the user manual(s) before attempting to assemble and operate.		WARNING! Electrical shock hazard.
	SAFETY ALERT – Indicates a precaution, a warning, or a danger.		WARNING! Do not expose the unit to rain or wet conditions. Keep dry.
	WARNING! Turn the machine OFF and disconnect it from the power supply before inspecting, cleaning, changing accessories, or conducting any other maintenance task.		Always keep the power cable away from heat sources, oils, or sharp edges. Immediately remove plug from the mains if the cable is damaged, frayed, or entangled.
	Store indoors. Never store the generator outdoors.		

Know Your Portable Generator

Read the owner's manual and safety instructions carefully before operating the portable generator. Compare the illustration below to the portable generator in order to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.



- | | | |
|----------------------------|---------------------------------|--------------------------------|
| 1. Handle Grip | 8. On/Off button | 15. Vent |
| 2. Handle releasing button | 9. 5 V DC USB outlets | 16. Solar charging input (+) |
| 3. Retractable handle | 10. 120 V AC outlets | 17. Jump starter terminal (+) |
| 4. Side carry handle (2) | 11. 12 V DC car lighter outlets | 18. Jump starter terminal (-) |
| 5. Wheel (2) | 12. AC charging input | 19. Solar charging input (-) |
| 6. On-board storage | 13. Built-in GFCI | 20. Earth terminal (grounding) |
| 7. LCD Display | 14. Safety automotive fuses | 21. AC charging cord |

Technical Data

Inverter Generator

Input Voltage Range	10.7 – 15.5 V D.C.
Rated Input Voltage	12.5 V D.C.
Max Input Current	190 A
AC Output Voltage (no-load)	120 ± 5 V
AC Output Frequency	60 ± 1 Hz
Max AC Output Power	1800 W
Continuous AC Output Power	1440 W (continuous)
Max AC Output Current	15 A
Continuous AC Output Current	12 A (continuous)
Internal Battery	Sealed Lead Acid (SLA) (deep cycle)
Internal Battery Voltage	12 V D.C.
Internal Battery Capacity	100 Ah
Surge Rating	3600 W
Surge Current	30 A
Output Waveform	Modified Sine Wave
Inverter Output Efficiency	> 85%
USB Output Voltage	2 x 5 V D.C.
AC Output Voltage	2 x 120 V A.C.
Car Lighter Output Voltage	2 x 12 V D.C.
DC Car Lighter Output Fuses	2 x 15 A/32 V D.C.
Jump Start Fuses	7 x 30 A/32 V D.C.
Solar Input Fuse	1 x 20 A/32 V D.C.
GFCI	20 A
Storage Temperature	< 77°F (25°C)
Exchange Efficiency	> 85%
Protection	7 x 30 A/32 V D.C. fuses protecting the jump starter output terminal
Weight	107 lbs (48.6 kg)

AC Input Charger

Input Voltage Range	90 – 130 V A.C.
Rated Input Range	120 V A.C.
Max Charging Power	80 ± 10 W
AC Charging Cord Length	6 ft (1.8 m)
Input Frequency	60 ± 1 Hz
Peak Charging Voltage*	14.7 V D.C.
Output Voltage	Bulk: 14.7 ± 0.2 V D.C. Absorption: 14.7 ± 0.2 V D.C. Float: 13.7 ± 0.2 V D.C. Recharge: 12.6 ± 0.2 V D.C.
Charging Process	3-stage: Bulk, Absorption, and Float
Max AC Charging Time	5 A, 24 hrs
Exchange Efficiency	> 75%
Protection	High temperature, input-limited

Solar Charger

Input Voltage Range	10 – 24.5 V D.C.
Max Output Current	20 A (continuous)
Peak Charging Voltage	14.7 V D.C.
Output Voltage	Bulk: 14.7 ± 0.2 V D.C. Absorption: 14.7 ± 0.2 V D.C. Float: 13.7 ± 0.2 V D.C. Recharge: 12.6 ± 0.2 V D.C.
Charging Process	3-stage: Bulk, Absorption, and Float
Max Solar Charging Time (14.7 V, 60 W)	3.4 A, 60 hrs (full sun)
Exchange Efficiency	> 95%
Solar Input Fuse	1 x 20 A
Protection	1 x 20 A/32 V D.C. fuse protecting the solar charging input terminal

*Initial no-load voltage, when fully charged, peaks at 14.7 volts; nominal voltage under typical load is 12.5 volts.

Appliances Runtimes

Generator output 120 V A.C. can be used to drive electrical appliances such as lamps, computers, electric tools, etc.

USB output 5 V D.C can supply power to cellular phone and digital products such as MP3 players, tablets, etc.

Car lighter plug output 12 V D.C. can supply power to electrical products using 12 V D.C.

Working time of load: using 100 Ah battery as example (these examples are for reference only):

Laptop	25 W, 36 hrs
Desktop	75 W, 12 hrs
Light Bulb	60 W, 15 hrs
12" Fan	60 W, 15 hrs
20" LCD Monitor	50 W, 18 hrs
Inkjet Printer	8 W, 110 hrs
20" LCD TV.....	75 W, 12 hrs
Internet Modem.....	6 W, 150 hrs
Cell Phone	1 W, 750 hrs
Radio	8 W, 110 hrs
13" CRT TV.....	45 W, 20 hrs
Pump	300 W, 3 hrs
Home Alarm System	5 W, 180 hrs
Microwave	1000 W, 35 min
Circular Saw	800 W, 50 min
Drill	250 W, 3.6 hrs

Unpacking

Carton Contents

- Portable generator
- AC charging cord
- Manuals with registration card

1. Carefully remove the portable generator and check to see that all of the above items are supplied.
2. Inspect the product carefully to make sure no breakage or damage occurred during shipping. If you find damaged or missing parts, DO NOT return the unit to the store. Please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

NOTE: Do not discard the shipping carton and packaging material until you are ready to use your new portable generator. The packaging is made of recyclable materials. Properly dispose of these materials in accordance with local regulations.

IMPORTANT! The equipment and packaging material are not toys. Do not let children play with plastic bags, foils, or small parts. These items can be swallowed and pose a suffocation risk!

Charging Operation

There are two charging options for your Sun Joe® portable generator:

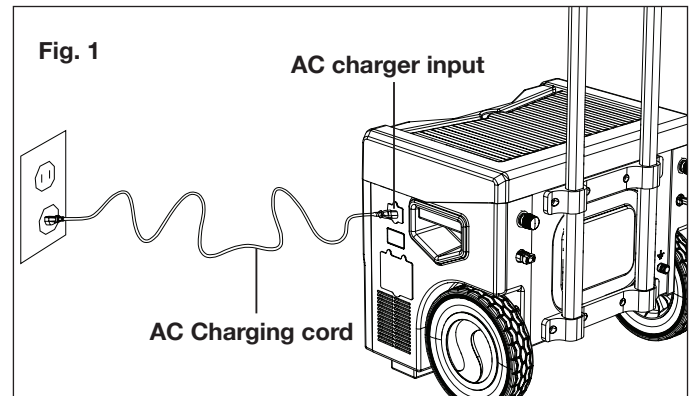
- Charging with the built-in AC charger.
- Charging with Sun Joe® foldable solar panels (Model SJ1440SP) designed specifically for this model, sold separately. Visit snowjoe.com to purchase.

⚠WARNING! Charge the generator only by the accessories that provided and approved by the manufacturer. Other charging methods may cause damage to the unit.

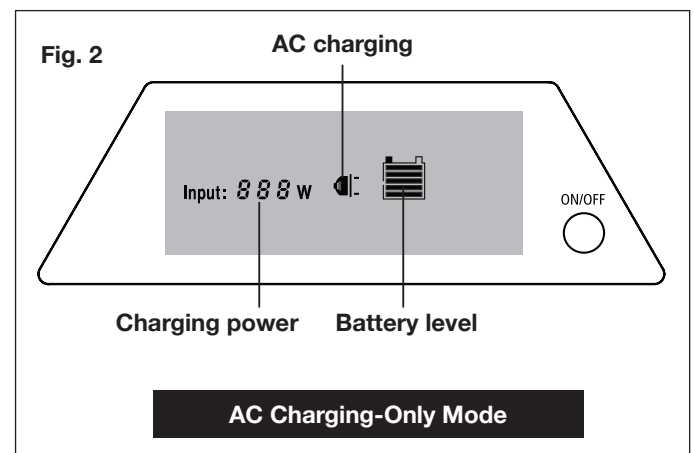
Charging with the Built-in AC Charger

To use the built-in AC charger, follow these steps:

1. Insert the AC charging cord into AC charging input (Fig. 1).
2. Plug the AC charging cord into a standard 120 VAC receptacle (Fig. 1).

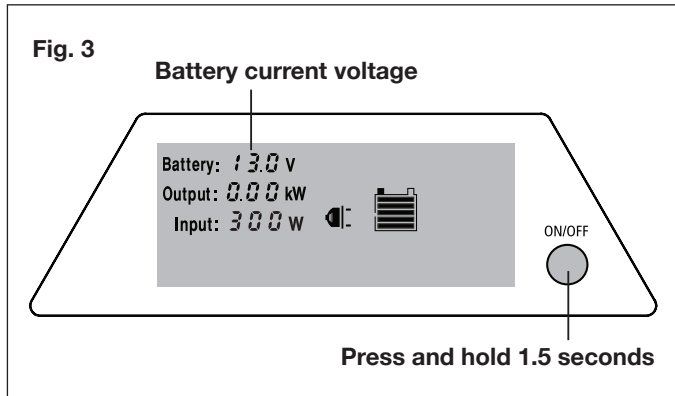


3. While the system is charging, the AC charging indicator will be illuminated, the backlight will be illuminated for 5 seconds and the beeper will sound.
4. While in charging-only mode, no output loads/devices are connected, only input power, battery level and AC charging indicators will be displayed (Fig. 2).



NOTE: Battery level indicator readings will not be accurate until the batteries have "rested" for 15 minutes after charging.

- To read the battery current voltage, turn the unit on. Push and hold the ON/OFF button for approximately 1.5 seconds and release the button when the unit beeps (Fig. 3).



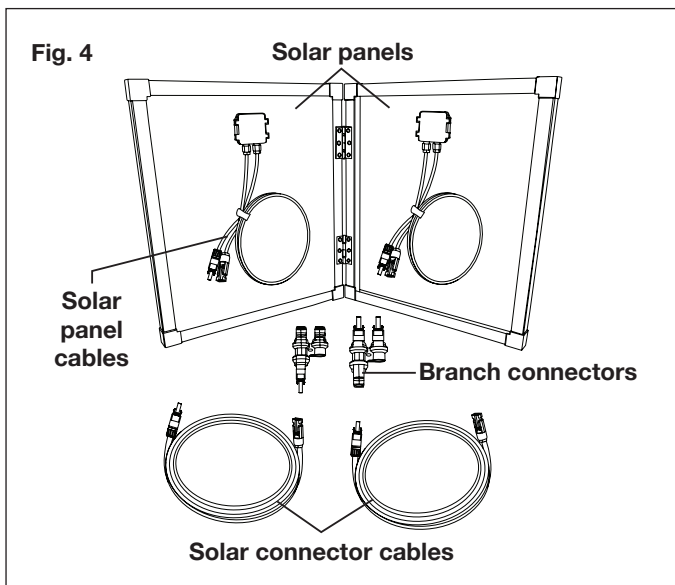
- A full recharge may take up to 24 hours. The battery indicator will display the battery level during the charging stage.
- To turn the unit off, press and hold the ON/OFF power button for approximately 1.5 seconds, release when the unit beeps. LCD display indicators will turn back to charging-only mode.

Charging with Sun Joe® Foldable Solar Panels (OPTIONAL - Sold Separately)

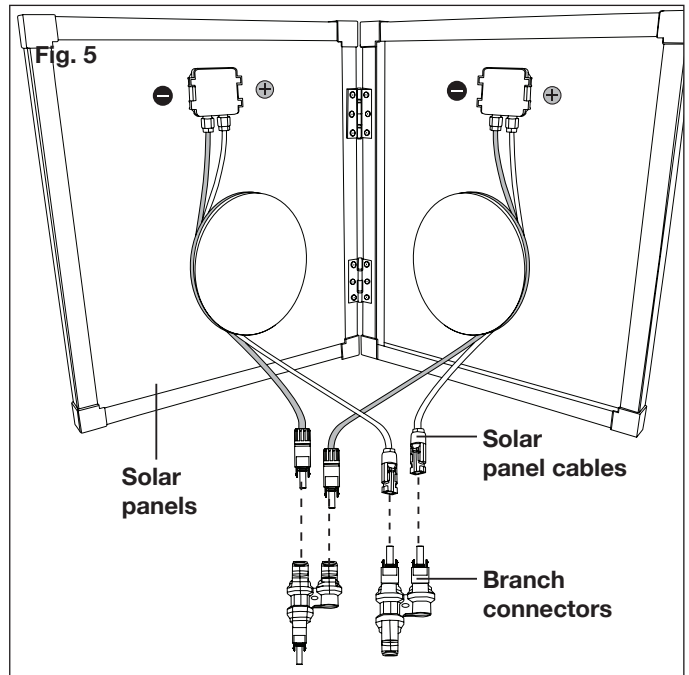
The portable generator is equipped with a solar charging input and can be charged by 12 V DC solar panels rated to produce a maximum of 20 A current, such as Sun Joe® Foldable Solar Panels (SJ1440SP). Visit snowjoe.com or call customer service at 1-866-SNOWJOE (1-866-766-9563) to purchase.

To charge the generator by Sun Joe® foldable solar panels, follow these steps:

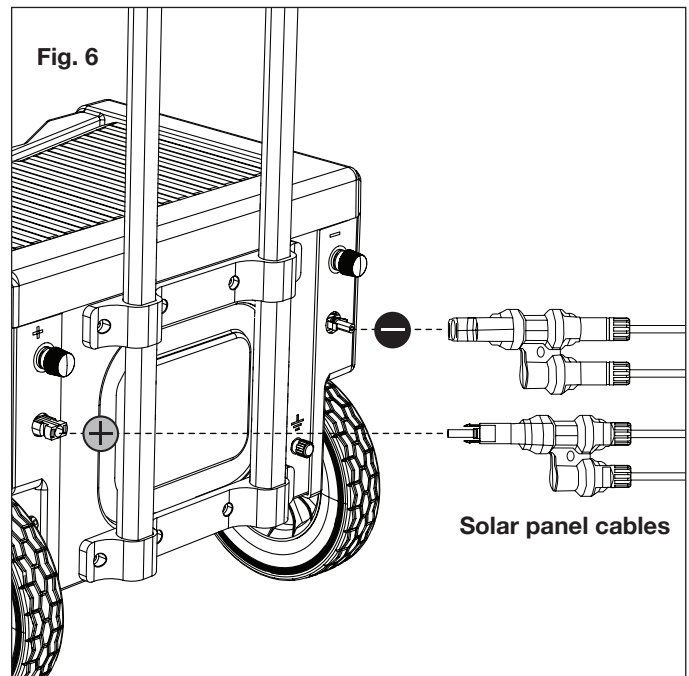
- Unfold the solar panels (Fig. 4). There are 2 x 25 ft (2 x 7.6 m) solar connector cables inside the package.



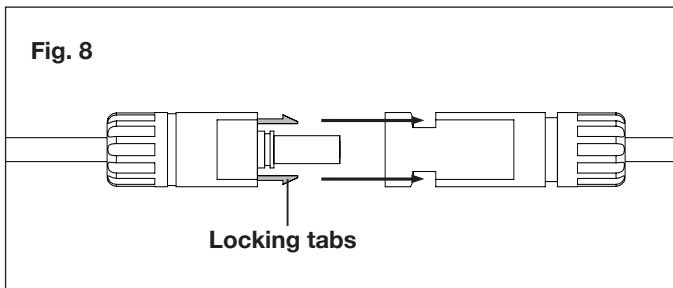
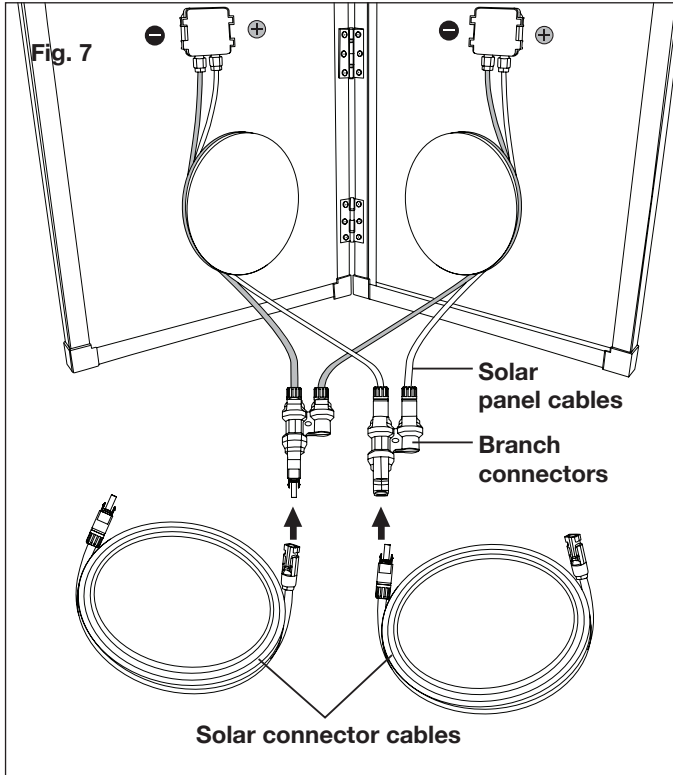
- Plug the branch connectors into the solar panel cables (Fig. 5). (one-way connectors ensure the polarity is correct).



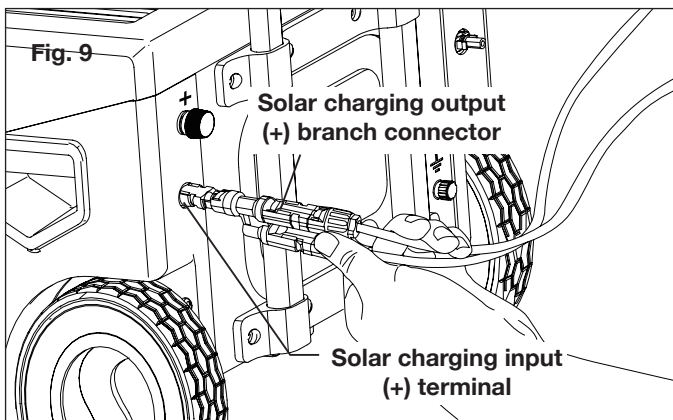
- Connect the solar panel cables into the solar charging inputs (Fig. 6).



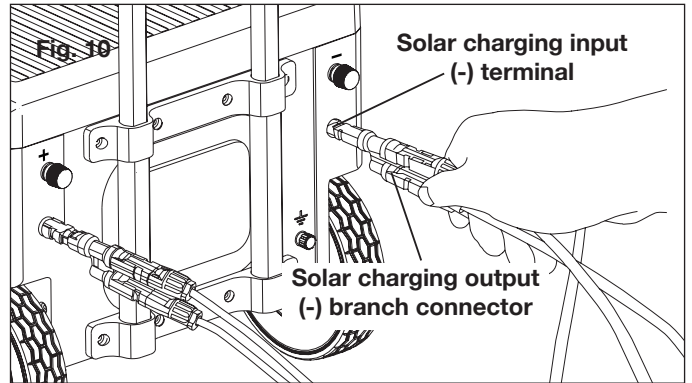
- Use 2 x 25 ft (2 x 7.6 m) solar connector cables if necessary.
- Align the branch connectors with solar connector cables, insert male end and press firmly until the locking tabs 'click' together securely (Figs. 7 & 8).



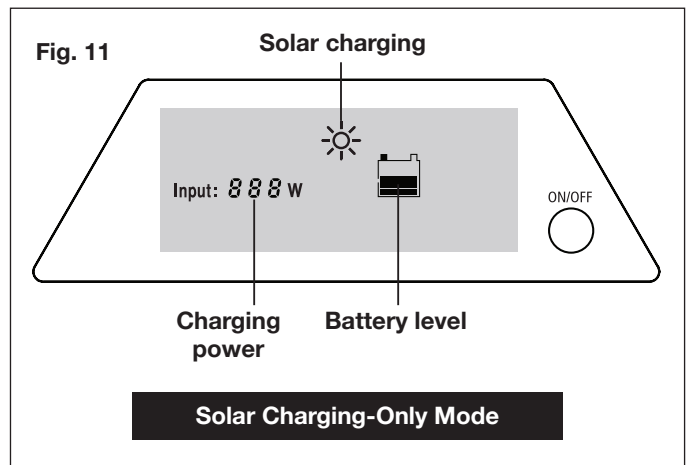
- Plug the other end of the solar charging output of the solar panels. Positive branch connector to solar charging input POSITIVE (+) terminal (Fig. 9).



- Plug the negative branch connector to solar charging input NEGATIVE (-) terminal (Fig. 10).

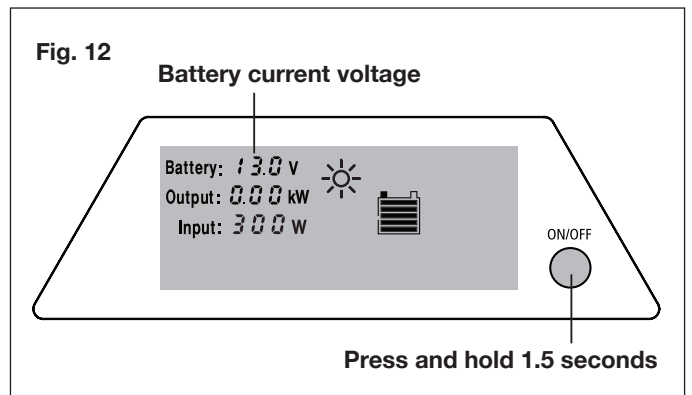


- While the system is charging, the solar charging indicator will be illuminated, the backlight will be illuminated for 5 seconds and the beeper will sound (Fig. 11).

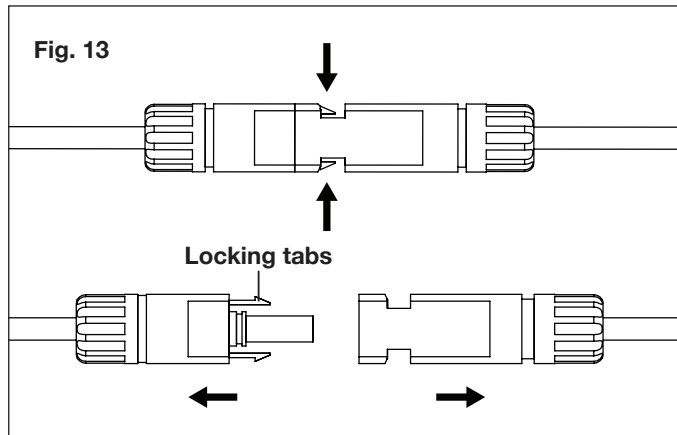


- While in charging-only mode, no output loads/devices are connected, only input power, battery level and solar charging indicators will be displayed (Fig. 11).

- To read the battery current voltage, turn the unit on. Push and hold the ON/OFF button for approximately 1.5 seconds and release the button when the unit beeps (Fig. 12).



11. With direct sunlight, a typical 60 W solar panel may take up to 60 hours to fully recharge the generator depending on the intensity of the sunlight on the solar panel.
12. The battery indicator will display the battery level during the charging stage.
13. To turn the unit off, press and hold the ON/OFF power button for approximately 1.5 seconds, release when the unit beeps. LCD display indicators will turn back to charging-only mode.
14. To disconnect solar panels, depress locking tabs while pulling connectors apart (Fig. 13).

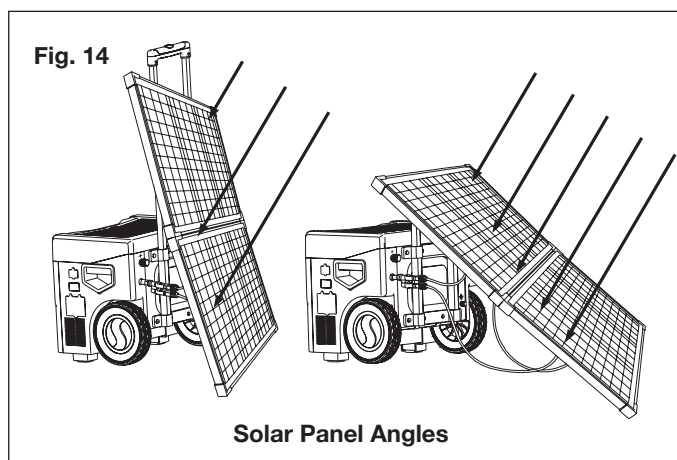


Solar Panel Angle (Fig. 14)

Solar panels must be pointed at the sun for maximum power and it is best to move the panel from time to time during the day to track the sun.

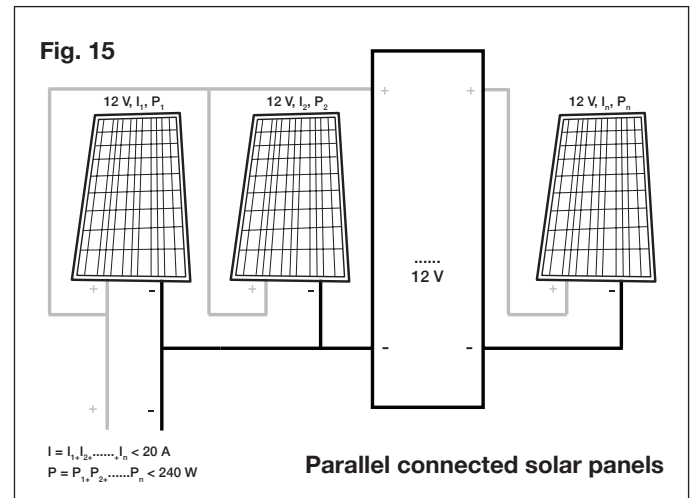
To get the most from solar panels, you need to point them in the direction that captures the most sun.

The energy from direct radiation collected by a solar panel decreases with increasing angle of incidence, as indicated by the width of the shaded areas. A panel tilted 90 degrees from the direction of the sunlight cannot collect any of the direct radiation.



Adding More Sun Joe® Foldable Solar Panels (Optional - Sold Separately)

Connecting solar panels in parallel up to 240 W for a 12 V DC system is recommended to shorten the charging time. The maximum output current is limited to 20 A (Fig. 15).



NOTE: Solar input exceeding 20 A will trip the generator's solar charging fuse.

⚠ CAUTION! Risk of damage to battery pack.

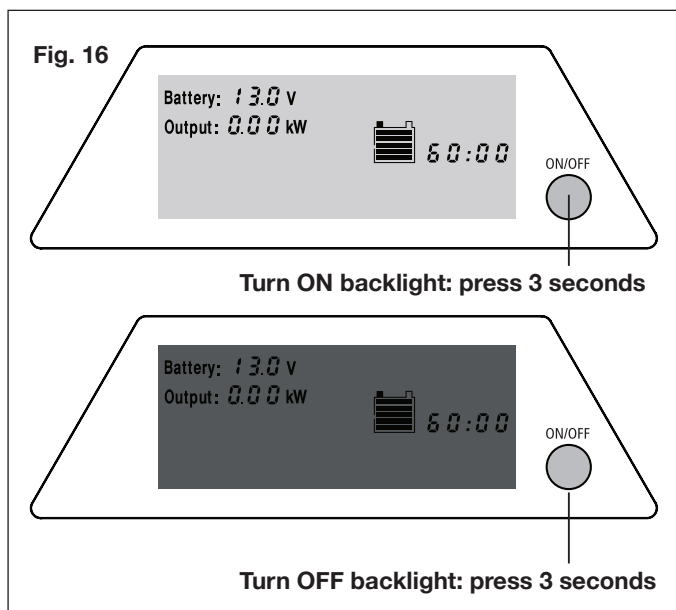
Polycrystalline or Monocrystalline modules for 12 V DC system may be used for charging the generator. Using higher voltage panels or amorphous modules can damage the battery pack.

- **Battery self-discharge and shelf life** – All rechargeable batteries gradually discharge when left idle. Periodic charging is necessary to maintain maximum battery capacity. The AC charger built into the generator is designed to regulate the charging process, ensuring the battery pack is always fully charged, but never overcharged.
- Due to inherent self-discharge, lead acid batteries must be charged at least every three (3) months, especially in a warm environment. Leaving a battery in a discharged state, or not recharging every 3 months, may cause permanent damage to the battery.
- Do not attempt to charge the generator's battery if it is frozen. A frozen battery should be gradually warmed to 32°F (0°C) before charging.

Features







LCD Display Backlight

1. The generator LCD display backlight comes pre-programmed from the factory to briefly light the panel and then turn off automatically.
2. To reprogram the backlight to stay on until turned off manually, press and hold the ON/OFF button for approximately 3 seconds (Fig. 16).
3. After approximately 1.5 seconds, the unit will beep once, but continue pressing ON/OFF button down for approximately three more seconds until the unit beeps again and the backlight is illuminated (Fig. 16).



4. To reprogram the backlight so that it turns off automatically, repeat the steps above.

LCD Display Indicators

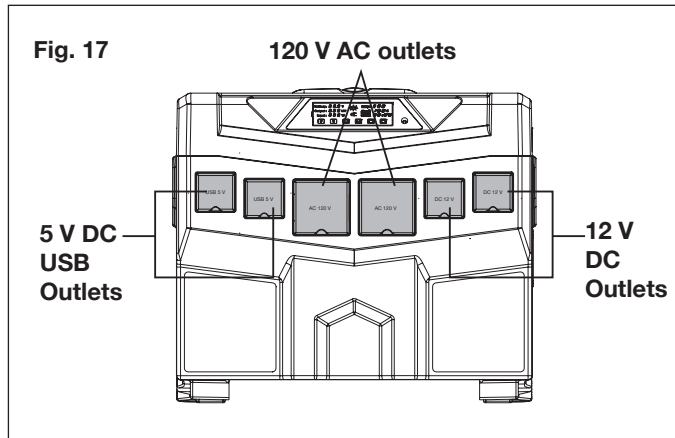
Battery	13.0 V	The battery indicator displays the battery's current voltage level. The battery's voltage is shown in DC volts.
Output Power	1.00 kW	The output indicator displays the total power being pulled from the AC inverter or the DC terminals (consumption power).
Input Power	300 W	The input indicator displays the total power being input into the generator from the solar panel(s) or the AC charger (charging power).
Error	E01	The error indicator displays an error code, if any. See troubleshooting section on page 19. NOTE: If error code "E05" is displayed, the battery should be recharged using the AC charger, solar charge controller, or any of the other available charging options.
Time Remaining	60:00	The time remaining indicator displays the expected amount of time the battery will last based on current usage. NOTE: Remaining time is calculated based on 100 Ah battery. There will be a discrepancy between the display and the actual working time if you use or replace with any other kind of lead-acid battery.
Battery Capacity	100 %	The battery indicator displays the percentage of battery's capacity remaining based on current usage.
Solar Charging		When the generator is connected to a solar panel, the solar charging indicator will be illuminated. When the solar panel is initially connected (or disconnected), the LCD display's backlight will be illuminated for approximately 5 seconds and the generator will beep.
AC Charging		The AC charging indicator will be displayed when connecting to any sources of AC power. Upon initial connection, the AC charging indicator will be illuminated, the LCD display's backlight will be illuminated for approximately 5 seconds and the generator will beep.
Battery Level		The battery level indicator displays the battery's approximate remaining capacity.
USB Output		The USB indicator will be illuminated if output loads (devices) are connected to any of the USB ports. If nothing is connected to any of the USB ports, the indicator will be dimmed.
AC Output		If a load (device) is connected to any of the AC outlets, the AC output indicator will be illuminated. If no loads/devices are connected to any of the AC outlets, the indicator will be dimmed. NOTE: There is no AC output power if the inverter is not turned on.
DC Car Lighter Output		The DC car lighter output indicator will be illuminated if any load/device greater than 1 amp is plugged into the DC car lighter port. If no load/device greater than 1 amp is plugged into the port, the indicator will be dimmed. NOTE: The DC car lighter indicator will not be illuminated if the generator is turned off, but power will still be available at the DC car lighter port.

Operation

Output Panel

The generator contains a total of 6 electrical outlets (Fig. 17):

- Two 5 V DC USB outlets provide power whether or not the generator is powered on.
- Two 120 V AC outlets provide 120 V 60 Hz power only when the generator is powered on.
- Two 12 V DC car lighter outlets provide power whether or not the generator is powered on.

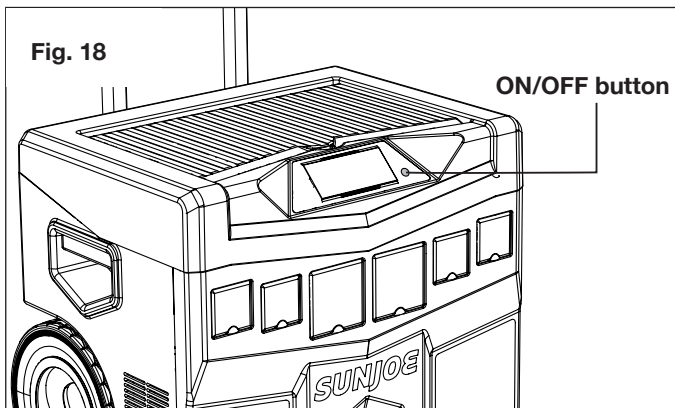


NOTE: If the generator's battery voltage is lower than 10.2 V DC, the USB and 12 V DC outlets will turn off automatically.

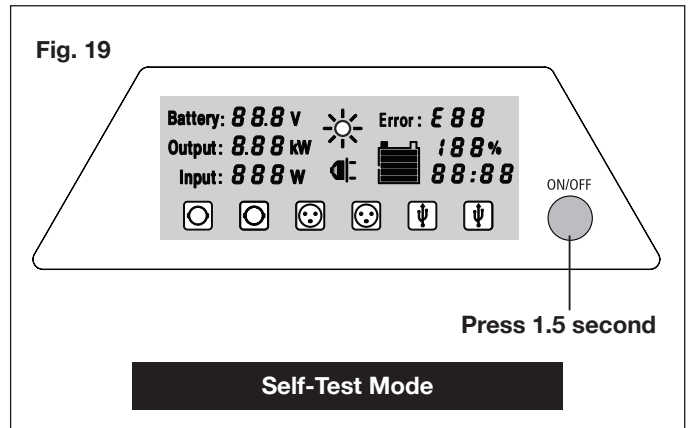
Power On/Off

⚠ WARNING! Always maintain at least 6 in. (15 cm) of empty air space around all sides of the generator's cabinet to allow for proper cooling whenever the unit is operating.

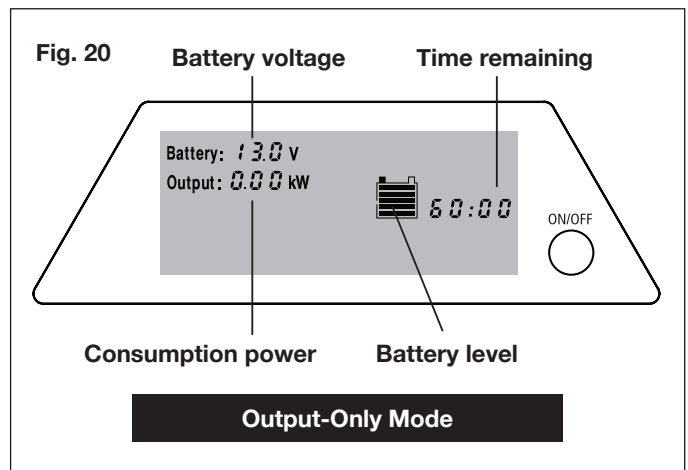
1. Unplug the AC charging cord or solar panels.
2. To power on the generator, press and hold the ON/OFF button for approximately 1.5 seconds and release the button when the unit beeps (Fig. 18).



3. The generator will then be activated and the LCD panel will display the self-test's progress. All indicators will be illuminated at the same time when the generator initially powered on (Fig. 19).



4. After the self-test completes (approximately 5 seconds), the LCD display panel will be illuminated and then turn off after approximately 5 seconds.
5. The generator is in output-only mode when the unit is turned on, no input power is connected, but loads/devices are connected to the system (Fig. 20).

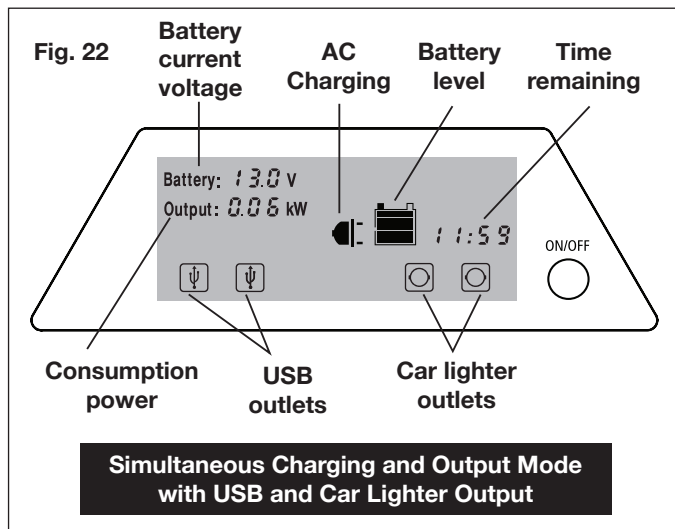
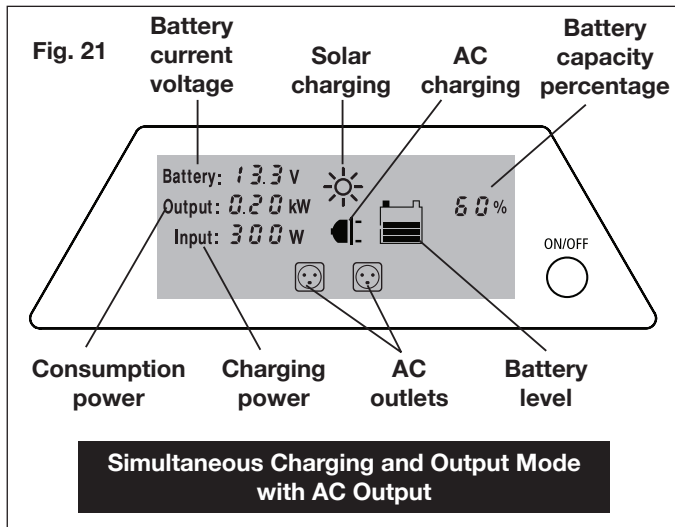


6. Whenever a device/load is plugged in or unplugged, the related output indicator will be illuminated or dimmed, the backlight will be illuminated for 5 seconds and the beeper will sound.
7. If the generator detects an error, the LCD display's backlight will turn red and begin flashing. The relevant error code will be displayed and the beeper will sound every second.
8. If the generator's level falls below 10.5 V, the unit will automatically shut off.

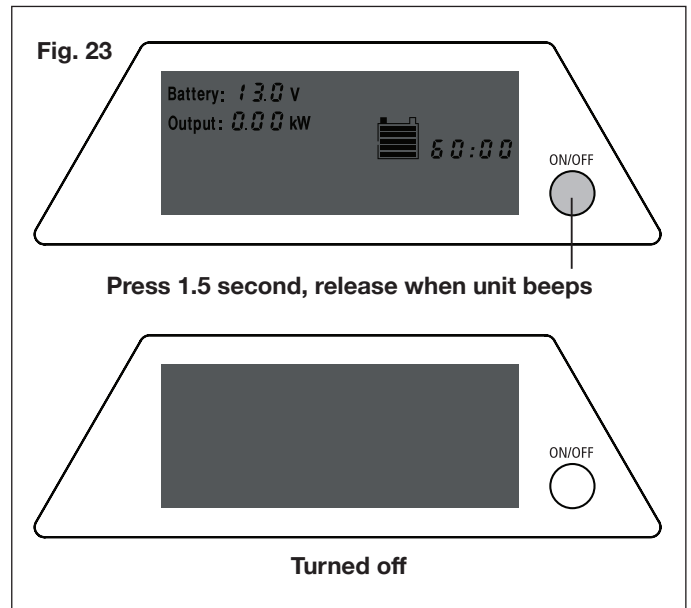
Simultaneous Charging and Output Mode

1. One or more loads/devices are connected to outlets and one or more sources of input power are connected.
2. While in simultaneous charging and output mode, the indicators will be displayed as shown (Fig. 21).

NOTE: Depending on the outlets being used, the related indicators will be illuminated (Figs. 21 & 22).

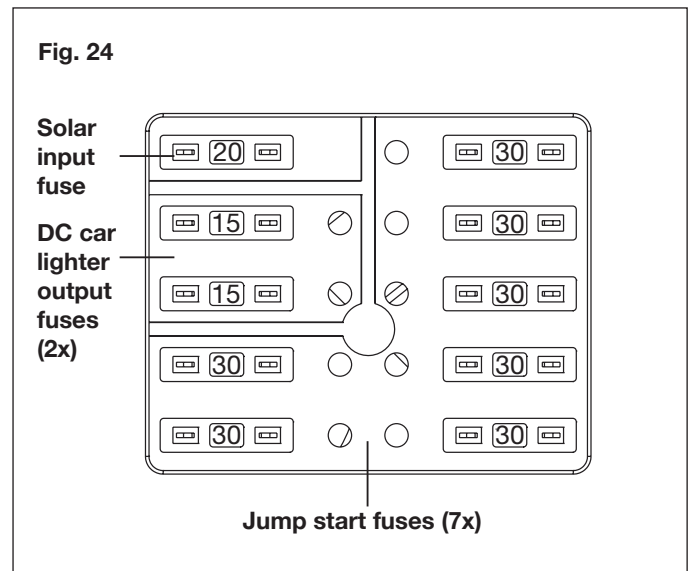


3. To turn it off, press and hold the ON/OFF power button for approximately 1.5 second, release when the unit beeps (Fig. 23).



Safety Automotive Fuses

1. Fuse set (Fig. 24):
 - Solar input fuse: one 20 A/32 V D.C.
 - D.C. car lighter output fuses: two 15 A/32 V D.C.
 - Jump start fuses: seven 30 A/32 V D.C.

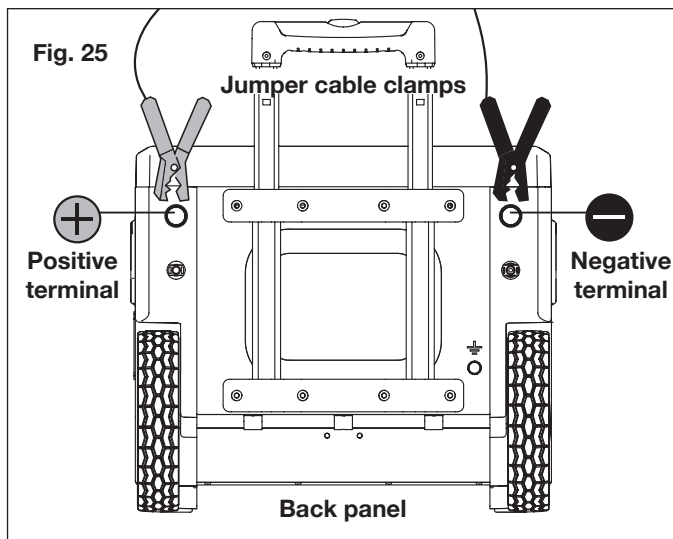


Jump-starting a Vehicle Battery (Fig. 25)

IMPORTANT! If possible, park the vehicle as close to the generator as possible.

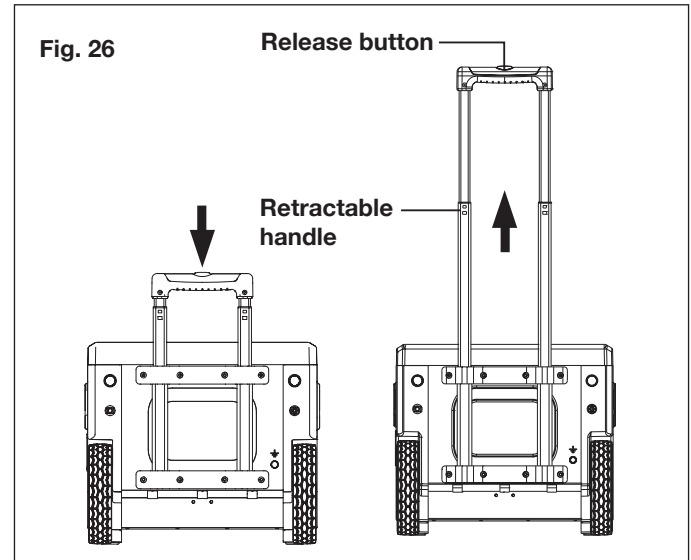
1. Remove covers from the battery terminals.
2. Connect the red positive (+) jumper cable clamp to the car's red positive (+) battery terminal.
3. Connect the other end of the red positive (+) jumper cable clamp to the generator's red positive (+) battery terminal.
4. Connect the black negative (-) jumper cable clamp to the generator's black negative (-) battery terminal.
5. Connect the other end of the black negative (-) jumper cable clamp to a grounded metal area in the car away from the battery and any moving parts.
6. Press and hold the ON/OFF button for approximately 1.5 second to turn on the generator, release when the unit beeps.
7. Disconnect the jumper cables from both the vehicle and the generator immediately once the vehicle has been started.
8. Replace covers from battery terminals.

⚠ WARNING! Prevent the red and black jumper cable clamps from touching one another while both jaws of the other end are still connected to a battery to prevent sparks and damage to the battery.



Retractable Handle (Fig. 26)

1. Use your thumb to press the release button, then pull and extend the telescoping handle.
2. To collapse the retractable handle, press the release button, then push down.



Replacement + Installation of the Battery

1. Use only batteries meeting the following criteria:
 - Battery type: Sealed lead-acid, AGM. (deep cycle)
 - Nominal voltage: 12 V D.C.
 - Capacity: 60, 80, 90 or 100 Ah
 - Battery should comply with UL 1989 standard
 - When installing the battery, make sure the polarity connections are correct.

NOTE: Battery has to be recharged immediately once purchased. All rechargeable batteries gradually discharge when left standing. Periodic charging is necessary to maintain maximum battery capacity.

⚠ WARNING! Study all battery manufacturers' specific precautions and warnings in advance before assembly. Incorrect connection may cause a short circuit and personal injury. Follow all recommended guidelines.

⚠ CAUTION! Risk of explosion if battery is replaced by an incorrect type. Dispose of used battery properly. Do not dispose of battery in a fire. The battery may explode.

⚠ CAUTION! Servicing of battery should be performed only by a factory-authorized service center. When replacing the battery, replace with the same type of battery.

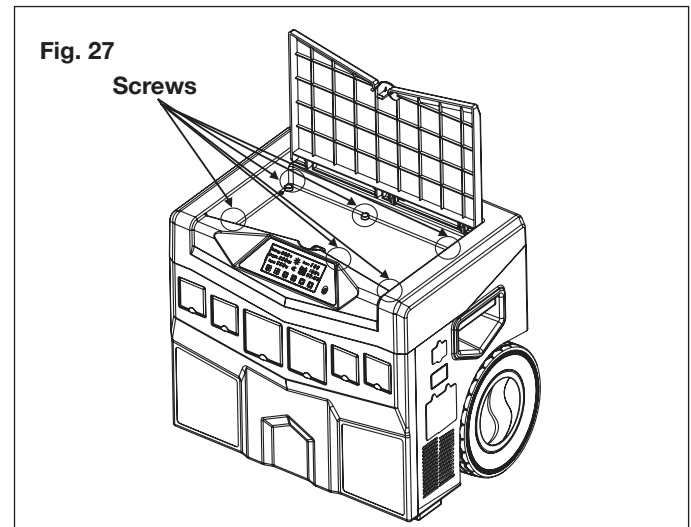
⚠ CAUTION! Do not open or mutilate battery. Released chemicals are harmful to the skin and eyes and are toxic.

⚠ CAUTION! A battery can present a risk of electrical shock.

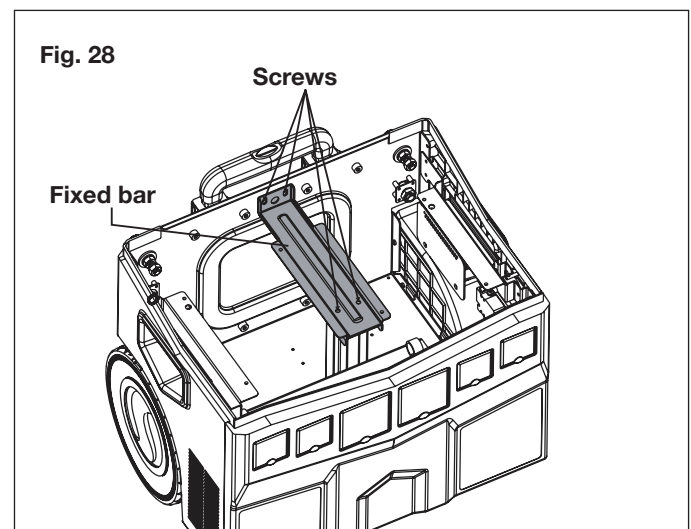
2. The following precautions should be observed when working on battery:
 - Remove watches, rings, or other metal objects.
 - Use tools with insulated handles.
 - Wear rubber gloves and boots.
 - Do not lay tools or metal parts on top of battery.
 - Disconnect charging source prior to connecting or disconnecting battery terminals.
 - Determine if battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance.

Replacing the battery

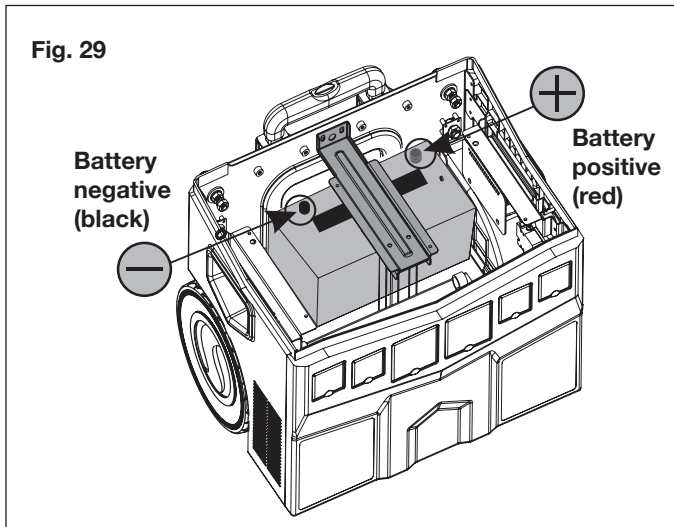
1. Tools required:
 - Phillips screwdriver
 - Electrical tape
 - Adjustable wrench
2. Remove the six screws and open the upper cover (Fig. 27).



3. Unfasten the 4 screws to remove the fixed bar securing the battery (Fig. 28).



4. Remove the connection of the positive (+) red cable from the battery, wrap the lug of the cable with electrical tape (Fig. 29).
5. Remove the connection of the negative (-) black cable from the battery, wrap the lug of the cable with electrical tape (Fig. 29).



6. Remove the battery.
7. Insert the new battery and ensure it is properly positioned.
8. Confirm the batteries positive (+) and negative (-) terminals are aligned with the generator's positive (+) and negative (-) terminals.
9. Unwrap positive (+) red lug, connect the cable to the positive (+) red terminal of the battery and tighten.
10. Unwrap negative (-) black lug, connect the cable to the negative (-) black terminal of the battery and tighten.
11. Secure the battery with the fixed bar using 4 screws.

Battery Caution + Disposal

Always dispose of your battery pack according to federal, state, and local regulations. Contact a recycling agency in your area for recycling locations.

⚠ CAUTION! Even discharged battery packs contain some energy. Before disposing, use electrical tape to cover the terminals to prevent the battery pack from shorting, which could cause a fire or explosion.

⚠ WARNING! To reduce the risk of injury or explosion, never burn or incinerate a battery pack even if it is damaged, dead, or completely discharged. When burned, toxic fumes and materials are emitted into the surrounding atmosphere.

1. Batteries vary according to device. Consult your manual for specific information.
2. Install only new batteries of the same type in your product (where applicable).
3. Failure to insert batteries in the correct polarity, as indicated in the battery compartment or manual, may shorten the life of the batteries or cause batteries to leak.
4. Do not mix old and new batteries.
5. Do not mix Alkaline, Standard (Carbon-Zinc), or Rechargeable (Nickel Cadmium, Nickel Metal Hydride, or Lithium-Ion) batteries.
6. Do not dispose of batteries in fire. The cell of the battery may explode.
7. Batteries should be recycled or disposed of as per state and local guidelines.

Battery Disposal

1. Batteries contain materials that are hazardous to the health, such as mercury, which can lead to health damage.
2. Proper battery storage and disposal:
 - Do not bury batteries
 - Do not burn batteries
 - Do not store them with metal, or different types of batteries.
3. There are several options for properly disposing of used batteries:
 - Return the battery to the place of purchase.
 - Most stores that sell car batteries will also accept them for recycling. There may be a fee for this service.
 - A metal recycler may pay you for your car battery. Look in the yellow pages or internet under "Recycling Centers" for a list of metal recyclers in your area.

Storage

Unused batteries contain the same chemicals as those of used batteries and therefore pose the same threat of contamination and fire. If a battery comes into contact with another object, in particular metal or objects that contain moisture, the possibility of that battery to leak acid or cause a fire is increased. It is important to store batteries (new and used) in a clean, dry enclosed area with their terminals protected from contact with other objects.

Maintenance

Make certain that the generator is kept clean and stored properly. Only operate the unit on a flat, level surface in a clean, dry operating environment. DO NOT expose the unit to extreme conditions, excessive dust, dirt, moisture or corrosive vapors.

⚠ CAUTION! DO NOT use a garden hose to clean the generator. Water can enter the generator through the cooling slots and damage the generator components.

- Use a damp cloth to clean exterior surfaces of the generator. Use a soft bristle brush to remove dirt and oil.
- Use an air compressor (25 PSI) to clear dirt and debris from the generator.
- Inspect all air vents and cooling slots to ensure that they are clean and unobstructed.

Service + Support

- Generator service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel may result in a risk of injury.
- When servicing generator, use only identical replacement parts. Follow instructions in the cleaning and maintenance section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of shock or injury.
- If your Sun Joe® portable generator requires service or maintenance, please call the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

Model + Serial Numbers

When contacting the company or reordering parts, you will need to provide the model and serial numbers of your product. These are found on the decal affixed to the housing or handle of your portable generator. Copy these numbers into the space provided below.

Record the following numbers from the housing or handle of your new product:	
	Model #:
S J 1 4 4 0 S G	
	Serial #:

Troubleshooting

The following error codes may be displayed on the LCD display if the described fault conditions occur.

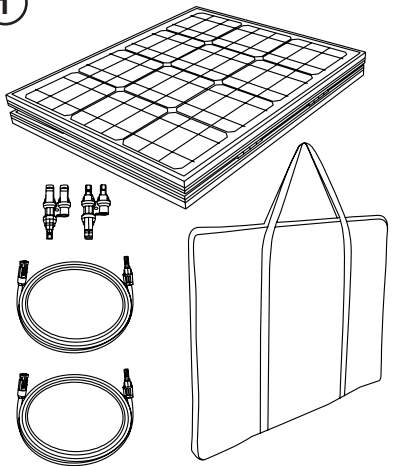
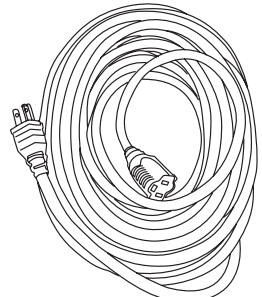
Error Code Displayed	Description of Error	Description of Condition	Solution
E01	DC input under voltage shut down	<ul style="list-style-type: none"> • Unit shuts down • The input voltage has dropped to below the operation voltage limit of 10.7 V DC • An alarm continues to beep once every second until input voltage drops to 10.5 V DC • The backlight turns red and flashes • After the alarm continues for one minute, the backlight and alarm will turn off. Only the error code will be shown continuously 	<ul style="list-style-type: none"> • The unit will automatically reset once the fault condition is removed • If the condition is not corrected and the unit powers down completely, it will be necessary to press the ON/OFF button to turn the unit ON again • Charge the battery immediately
E02	DC input over voltage shut down	<ul style="list-style-type: none"> • Unit shuts down • The input voltage is greater than 15.5 V DC • The backlight turns red and flashes • After the alarm continues for one minute, the backlight and alarm will turn off. Only the error code will be shown continuously 	<ul style="list-style-type: none"> • The unit will automatically reset once the fault condition is removed • Check if the DC input voltage is over the input voltage range
E03	AC output overload shut down and AC output short-circuit shut down	<ul style="list-style-type: none"> • Unit shuts down • An AC load applied to the system in inverter-mode is above operation limit • Flashing backlight changes from pink to red • After the alarm continues for one minute, the backlight and alarm will turn off. Only the error code will be shown continuously 	<ul style="list-style-type: none"> • Remove excess AC loads • Reset of the unit is required • To reset the unit, turn if OFF and back ON
E04	System over temperature shut down	<ul style="list-style-type: none"> • Unit shuts down • System internal temperature is above operation limit • The alarm will continue to beep once every second • Flashing backlight changes from pink to red • After the alarm continues for one minute, the backlight and alarm will turn off. Only the error code will be shown continuously 	<ul style="list-style-type: none"> • Remove excess AC loads • Reset of the unit is required • To reset the unit, turn if OFF and back ON • Check the system ventilation and reduce the load applied to the system

E05	DC output under voltage warning	<ul style="list-style-type: none"> • System is still operating but input voltage has dropped too close to the shut down limit (11.0 to 10.7 V D.C.) • Backlight turns pink color and flashes 	<ul style="list-style-type: none"> • Unit continues to run • If the warning is ignored the generator will eventually go into the E03 fault condition
E06	AC output overload warning	<ul style="list-style-type: none"> • System is still operating, but the AC load applied to the system is excessive and may cause the generator to shut down • Backlight turns pink color and flashes 	<ul style="list-style-type: none"> • Unit continues to run • If the warning is ignored the generator will eventually go into the E03 fault condition
E07	System over temperature warning	<ul style="list-style-type: none"> • System is still operating, but the system's internal temperature is close to the shut down limit • Backlight turns pink color and flashes 	<ul style="list-style-type: none"> • Unit continues to run • If the warning is ignored, the generator will eventually go into the E04 fault condition
E08	Car lighter port #1 fuse is tripped	<ul style="list-style-type: none"> • DC car lighter output current is more than 15 A • Backlight turns pink color and flashes. Alarm continues until the fuse is replaced 	<ul style="list-style-type: none"> • Reduce the load to DC car lighter outlet • Replace fuse
E09	Car lighter port #2 fuse is tripped	<ul style="list-style-type: none"> • DC car lighter output current is more than 15 A • Backlight turns pink color and flashes. Alarm continues until the fuse is replaced 	<ul style="list-style-type: none"> • Reduce the load to DC car lighter outlet • Replace fuse
E10	Car lighter port #1 and port #2 fuses are tripped	<ul style="list-style-type: none"> • DC car lighter output current is more than 15 A • Backlight turns pink color and flashes. Alarm continues until the fuse is replaced 	<ul style="list-style-type: none"> • Reduce the load to DC car lighter outlet • Replace fuse

NOTE: If different errors occur at the same time, E08, E09, and E10 will be displayed with high priority. Other error codes will be displayed only after the highest priority error is resolved and the system is restarted.

Optional Accessories

⚠️ WARNING! ALWAYS use only authorized Snow Joe® + Sun Joe® replacement parts and accessories. NEVER use replacement parts or accessories that are not intended for use with this portable generator. Contact Snow Joe® + Sun Joe® if you are unsure whether it is safe to use a particular replacement part or accessory with your portable generator. The use of any other attachment or accessory can be dangerous and could cause injury or mechanical damage.

Accessories	Item	Model
<p>①</p> 	<p>Sun Joe® 60 W Foldable Solar Panels</p>	<p>SJ1440SP</p>
<p>②</p> 	<p>Snow Joe® + Sun Joe® SJTW-A 14-gauge 50-foot extension cord with lighted end</p>	<p>PJEXT50-B</p>

NOTE: Accessories are subject to change without any obligation on the part of Snow Joe® + Sun Joe® to provide notice of such changes. Accessories can be ordered online at snowjoe.com or via phone by contacting the Snow Joe® + Sun Joe® customer service center at 1-866-SNOWJOE (1-866-766-9563).

NOTES



SNOW JOE® + SUN JOE® CUSTOMER PROMISE

ABOVE ALL ELSE, Snow Joe® + Sun Joe® are dedicated to you, our customer. We strive to make your experience as pleasant as possible. Unfortunately, there are times when a product does not work or breaks under normal operating conditions. We think it's important that you know what you can expect from us. That's why we created the Snow Joe® + Sun Joe® promise.

OUR PROMISE: Snow Joe® + Sun Joe® warrant new products for two years from the date of purchase. If your product does not work, or there's an issue with a specific part, we will fix this by either sending you a free replacement part or by sending you a new or comparable product at no charge. How cool is that! Before you know it, you'll be back in action cutting, sawing, mowing, washing and...?

PRODUCT REGISTRATION:

Snow Joe®, LLC ("Snow Joe® + Sun Joe®") strongly encourages you to register your purchase. You can register online at snowjoe.com/ProductRegistration, or by printing and mailing in a registration card available online from our website, or calling our Customer Service Department at **1-866-SNOWJOE (1-866-766-9563)**, or by e-mailing us at help@snowjoe.com. Failure to register your product purchase will not diminish your warranty rights. However, registering your purchase will allow Snow Joe® + Sun Joe® to better serve you with any of your customer service needs.

WHO CAN SEEK WARRANTY COVERAGE?

This Warranty is extended by Snow Joe® + Sun Joe® to the owner of this Machine (a "Machine" consists of a product powered by a motor) for residential and personal household use only. This Warranty does not apply to products used for commercial, rental or re-sale purposes. Should ownership of this machine change during the 2-year period, please update the Machine's owner information at snowjoe.com/ProductRegistration.

WHAT IS COVERED?

Snow Joe® + Sun Joe® warrants to the owner that if this Machine fails within 2 years from the date of purchase due to a defect in material or workmanship or as a result of normal wear and tear from ordinary household use, Snow Joe® + Sun Joe® will send a replacement part or product, as needed, free of charge and with free shipping to the original purchaser.

If, in Snow Joe® + Sun Joe®'s sole discretion, the failed Machine cannot be repaired with a part, Snow Joe® + Sun Joe® will elect to either (A) send a new Machine at no charge and with free shipping or (B) refund the full purchase price to the owner.

WHAT IS NOT COVERED?

This Warranty does not apply to the Machines that have been used commercially or in non-household applications. This Warranty does not cover cosmetic changes that do not affect performance. This Warranty is only valid if the Machine is used and maintained in accordance with the instructions, warnings and safeguards contained in the owner's manual. Snow Joe® + Sun Joe® will not be responsible for the cost of any unauthorized warranty repairs. This warranty does not cover any cost or expense incurred by the purchaser in providing substitute equipment or service during reasonable periods of malfunction or non-use of this product while waiting for a replacement part or unit under this warranty.

Wearing parts like belts, augers, chains and tines are not covered under this warranty, and can be purchased at snowjoe.com or by calling **1-866-SNOWJOE (1-866-766-9563)**. Batteries are covered in full for 90-days from the date of purchase.

Repair, replacement or refund of the purchase price are the exclusive remedies of purchaser and the sole liability of Snow Joe® + Sun Joe® under this warranty. No employee or representative of Snow Joe® + Sun Joe® is authorized to make any additional warranty or any modification to this warranty which may be binding upon Snow Joe® + Sun Joe®. Accordingly, purchaser should not rely upon any additional statements made by any employee or representative of Snow Joe® + Sun Joe®. In no event, whether based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise, shall Snow Joe® + Sun Joe® be liable for any special, indirect, incidental, or consequential damages, including, without limitation, loss of profit or revenue.

Some states do not allow limits on warranties. In such states, the above limitations may not apply to you.

Outside the USA, other warranties may apply.



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