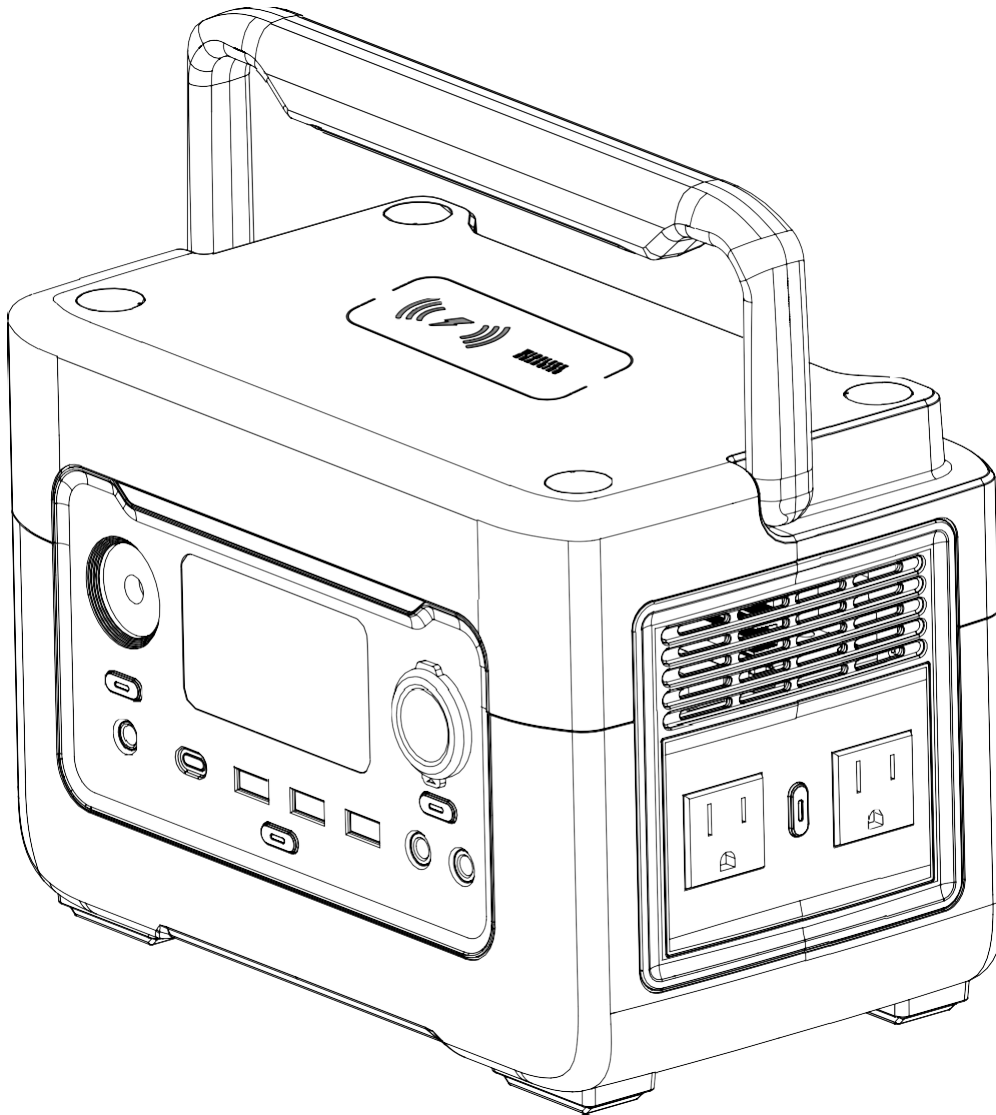


# DUCAR<sup>®</sup>

POWER WITH VISION

## POWER STATION

Model: DPS300L-B-C




**IMPORTANT:** Your new tool has been engineered and manufactured to DUCAR highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

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# INTRODUCTION

Thanks for purchasing the DUCAR Power Station. We know you are excited to put your tool to work, but first, please take a moment to read through the manual. Safe operation of this tool requires that you read and understand this operator's manual and all the labels affixed to the tool. This manual provides information regarding potential safety concerns, as well as helpful assembly and operating instructions for your tool.

 Indicates danger, warning, or caution. The safety symbols and the explanations with them deserve your careful attention and understanding. Always follow the safety precautions to reduce the risk of fire, electric shock or personal injury. However, please note that these instructions and warnings are not substitutes for proper accident prevention measures.

**Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.**

Model Number	DPS300L-B-C
Capacity	16V/18Ah(288Wh)
Total output power	AC 300W + DC 228W
AC output (×1): Rated power	300W(peak 600W), 120V±5V,60Hz±1Hz
DC output(×2) and Vehicle adapter output	12V, 10A, Max 120W
Type-C output (×1)	20V, 3 A, Max.60W
USB-A output (x2)	5V, 2.4A, Max 12W
USB-A Quick Charge (X1)	12V, 2A, Max. 24W
Adapter rating AC input	100-240V,50/60Hz, 1.5A Max.
Adapter rating DC output	17.5Vdc,3.7A
Solar charging input	12V-30Vdc, Max. 100W
Charging Ambient temperature	0°C ~40°C (32°F~104°F)
Discharge Ambient temperature	-10°C ~40°C (14°F~104°F)
Wireless charging output	Max. 15W

# GENERAL SAFETY RULES

**⚠ WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## SAVE THESE SAFETY INSTRUCTIONS.

### WORK AREA SAFETY

- 1. Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

### ELECTRICAL SAFETY


- 1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- 2. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- 3. Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- 5. When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

**6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

### PERSONAL SAFETY

- 1. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- 2. Use personal protective equipment. Always wear eye protection.** Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.
- 3. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- 4. Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- 5. Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.

# GENERAL SAFETY RULES

 **WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Safety is a combination of common sense, staying alert and knowing how your item works. The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## SAVE THESE SAFETY INSTRUCTIONS.

**7. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

### POWER TOOL USE AND CARE

**1. Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.

**2. Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

**3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

**4. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

**5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

**6. Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

**7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

**8. Use clamps to secure your workpiece to a stable surface.** Holding a workpiece by hand or using your body to support it may lead to loss of control.

**9. KEEP GUARDS IN PLACE** and in working order.

### SERVICE

**1. Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.


### CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

# POWER STATION SAFETY WARNINGS

 **WARNING!** Do not operate the power station until you have read and understood the following instructions and the warning labels.

## POWER STATION SAFETY

1. Always operate the power station on a dry, firm, level surface.
2. Do not expose the power station to rainy, wet, or snowy conditions; doing so significantly increases the risk of electrical shock.
3. Do not allow children or non-qualified persons to operate the power station.
4. If any part of the power station is broken, damaged, or defective, make sure it is repaired or replaced before operation. Service should only be performed by a qualified technician. Do not use receptacles or cords that show signs of damage, such as broken or cracked insulation.
5. The power station contains no user-serviceable parts. Do not attempt to open the power station. Doing so will void the warranty.
6. Do not drop the power station. Doing so may cause damage to the lithium-ion battery.
7. Do not store items on top of the power station.
8. Do not place food or drinks on top of the power station. It may look like a table, but it's not.
9. Turn off the AC outlets when not in use. This will save power and prolong the power station's life.
10. Leave room around the station so its cooling fans operate properly.
11. The power station contains lithium-ion batteries. Keep away from fire.
12. Do not charge the power station in temperatures below freezing.
13. Do not operate or charge the power station at altitudes above 6500 feet.

# ELECTRICAL INFORMATION

## GUIDELINES AND RECOMMENDATIONS FOR EXTENSION CORDS

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
2.5A	18 gauge	16 gauge	16 gauge	14 gauge

**1. Examine extension cord before use.** Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

**2. Do not abuse extension cord.** Do not pull on cord to disconnect from receptacle; always disconnect by pulling on plug. Disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

**3. Use a separate electrical circuit for your tool.** This circuit must not be less than a 12-gauge wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

# UNPACKING

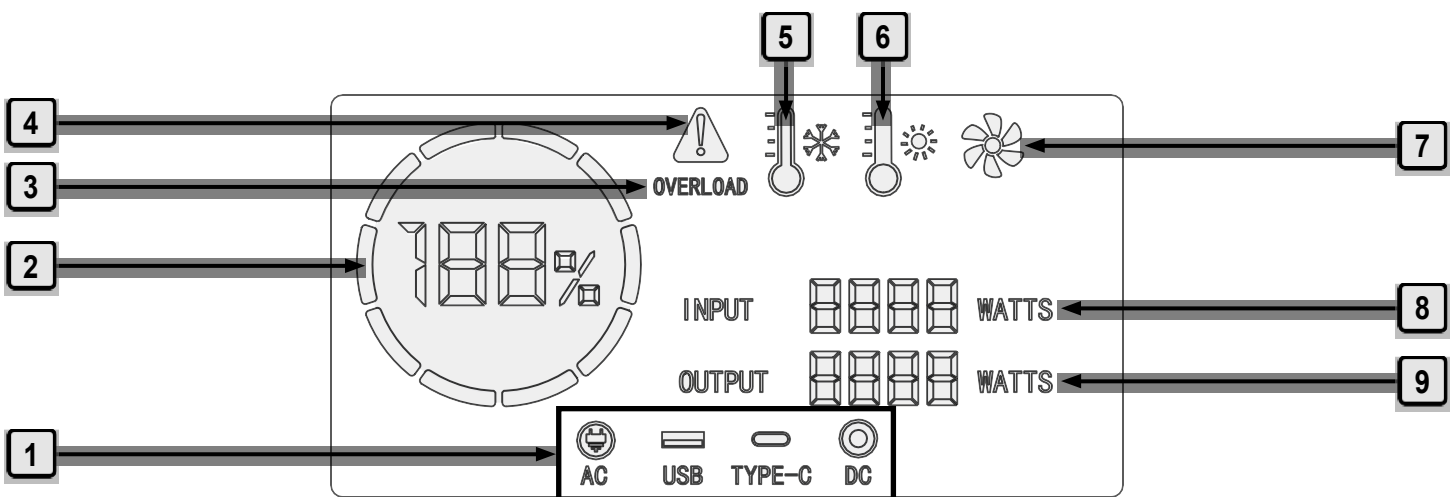
## UNPACKING

Carefully remove the power station from the packaging and place it on a sturdy, flat surface. Make sure to take out all contents and accessories.

# KNOW YOUR POWER STATION

Refer to the following diagrams to become familiarized with all the parts and controls of your power station. The components will be referred to later in the manual for assembly and operation instructions.

## DISPLAY SCREEN

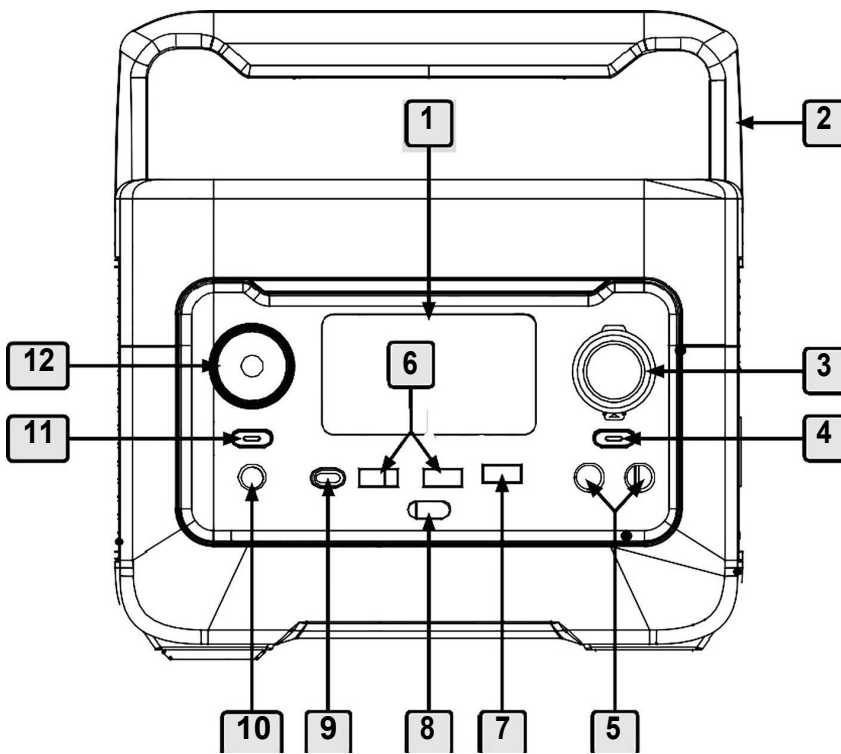


- 1. Outlet Icons:** Icons appear when a given outlet type is turned ON.
- 2. Battery Charge Level:** Shows how much charge is left in the battery.
- 3. Overload Alarm Icon:** Appears when the power station is overloaded.
- 4. Short Circuit Alarm Icon:** Will appear and stay on when coming across a fault. Will disappear after the fault relief.
- 5. Low Temperature Alarm Icon:** Low temperature warning.
- 6. High Temperature Alarm Icon:** High temperature warning.
- 7. Fan Indicator:** Appears when the fan is running.
- 8. Power Input:** Displays total power input (watts) in real time.
- 9. Power Output:** Displays total power output (watts) from all outlets in real time.

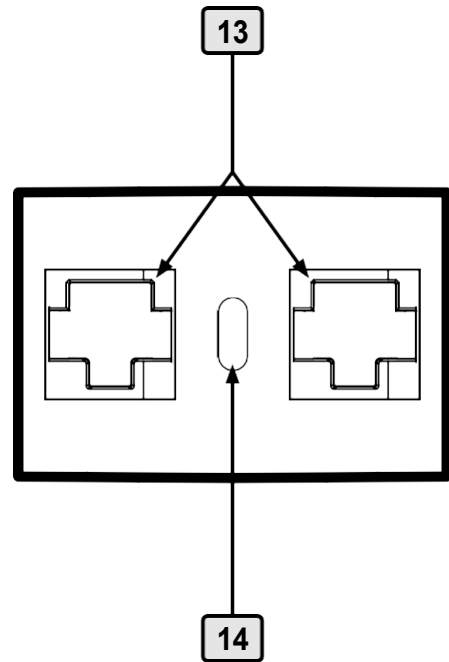


# KNOW YOUR POWER STATION

## FRONT CONTROL PANEL



## SIDE CONTROL PANEL



- 1. Display Screen**
- 2. Carrying Handle**
- 3. DC 12V Automotive Outlet:** 12V, 10A, 120W (max)
- 4. DC Power Button:** Press to turn ON the DC 12V outlet, DC barrel outlets, and all USB outlets.
- 5. DC Barrel Outlets:** 12V, 10A (Combined). 6514, positive inside, negative outside.
- 6. USB-A Outlets:** 5V DC, 2.4A, 12W
- 7. USB-A Quick Charge Outlet:** 12V DC, 2A, 24W
- 8. Main Power Button:** Press and hold to turn the power station ON / OFF. Press and release to toggle the screen backlight ON / OFF. Once pressed, the screen will remain lit for 30 minutes.
- 9. USB-C Outlet:** 5 / 9 / 12 / 15 / 20V DC, 60W max. Automatically adjusts to required voltage.
- 10. DC Charging Input:** 12V - 30V DC, 100W max. 5525, positive inside, negative outside.
- 11. LED Power Button:** Press to turn the LED light ON. Press again to switch to SOS mode. Press again to turn OFF.
- 12. LED Light**
- 13. AC 120V NEMA 5-15R Receptacles:** Standard household outlets provide 120V, 60 Hz, 300W power.
- 14. AC Power Button:** Press to turn the AC receptacles ON or OFF.

# OPERATION

## CHARGING THE POWER STATION

1. Your power station has been shipped partially charged, in order to maximize its service life. Charge it before using it for the first time. Connect the AC charger and cord to the DC input port to charge the station. When charging from 0% to 100%, the power station will take about 4-1/2 hours to charge using the included charger. This time may vary based on temperature, the power station's age, etc.
2. Use the included charger to charge the power station, when possible. Alternatively, you may use a DC charger to charge the power station. Make sure the DC charger has an output voltage of 12V – 30V, 8.5A or less, and a 5525 jack. DO NOT use a charger with an output voltage over 30V or output amperage over 8.5A; you may damage the power station.
3. When the charger is connected, the battery charge level on the display screen will begin to increase.
4. You may also charge the power station using a solar panel. The power station includes a built-in MPPT charge controller. Use a solar panel with an output between 12V - 30V, a 5525 jack, and a maximum output power of 100W. All types of solar panels (monocrystalline, polycrystalline, thin-film, etc.) are acceptable. The solar panel's output may vary depending on temperature, latitude, time of day, panel cleanliness, shade, and other factors. **NOTE:** It is OK to connect a solar panel with an output greater than 100W; however, the power station can only use a maximum of 100W from the panel.
5. Pass-through charging is supported (you can use the power station while it is being charged). However, to prolong the power station's life, we recommend not doing this, if possible.
6. The power station cannot be charged if it is too warm or too cold. Do not charge the power station in temperatures below freezing. At temperatures above 120° F, the power station will prevent itself from being charged to avoid damaging the battery.

## USING THE POWER STATION

1. The power station can supply up to 300W of AC power and 228W of DC power continuously, and up to 600W of AC power for a very short time. To estimate power requirements (watts), multiply each device's rated voltage by current (watts = volts x amps). Add all devices together to get total wattage. If there is no output, the station may have cut off power to protect itself. Turn unit off and back on to reset the circuit. Reduce the load on the station.
2. Turn the power station on by pressing and holding the main power button. The screen will illuminate.

### 3A. DC Operation:

1. Press the DC power button to turn on the DC 12V outlet, DC barrel outlets, and all USB outlets.
2. Connect your device to the outlet you want to use, then turn it on. The screen will display the current load (in watts).
3. If there is no output, the station may have cut off power to protect itself. Turn the device off, disconnect it from the outlet, and press the DC power button to turn DC output off. This will reset the DC circuit.
4. When using the USB-C or USB-A QC outlets, the power station will automatically put out the proper voltage and current, depending on the device connected. **These outlets operate at the following voltages and currents:**
  - a. USB-C PD, 60W max: 5V 3A / 9V 3A / 12V 3A / 15V 3A / 20V 3A
  - b. USB-A QC: 12V DC Max, 2A, 24W

# OPERATION

## 3B. AC Operation:

1. Press the AC power button to turn on the 5-15R outlets.
2. Connect your device, then turn it on.
3. If there is no output, the station may have cut off power to protect itself. Turn the device off, disconnect it from the outlet, and press the AC power button to turn AC output off. This will reset the AC circuit.
4. The AC outlets use a floating ground, which is normal.
5. If the fan comes on when the AC outlets are turned on, or when they're being used, this is normal.
6. You can use any or all of the outlets at the same time, as well as the light.
7. Once all outlets are turned off, the power station screen backlight will turn off within 30 minutes to conserve power. Press any button to turn the screen back on.
8. As long as at least one of the circuits (AC, DC, or LED light) is kept on, the power station will remain on until it is turned off, to allow use of devices with low power consumption, such as CPAP machines. To conserve power and make sure the station is ready to go when needed, make sure to turn it OFF after use. If all circuits are turned off, the station will automatically turn off after 2 hours without input, in order to conserve power.
9. Do not use the power station at altitudes above 6500 feet, in temperatures below 14°F (-10°C), or in temperatures above 113°F (40°C).
10. Charge the power station when its charge level drops below 20%. When charging from 0% to 100%, the power station will take about 5 hours to charge using the included charger. This time may vary based on temperature, the power station's age, etc.

## OVERLOAD

If you overload the power station (too much power is drawn), the station will cut off power to protect itself and the battery. The overload alarm icon will appear on the display. Disconnect the load and press the appropriate power button on the panel to reset the circuit.

For some devices, especially those with motors (e.g. power tools, refrigerators, etc.), the power estimation equation (watts = volts x amps) mentioned previously is not always applicable. These devices, especially on startup, require more power than this equation would suggest – up to 3 times more power. Therefore, they may be difficult or impossible to use with the power station. If you have any questions about this, contact customer service.

## OVERHEATING

If the power station's battery gets too warm, the overheating alarm icon will appear on the panel. If you're using the power station in a very hot environment, remove the load, let it cool down, and use it in a cooler environment, if possible. Press the appropriate power button on the panel to reset the circuit. Let the power station's fans run for a few minutes to cool down the inverter, then reduce the load and try again.

## STORAGE

The power station can hold a charge for several months. We recommend storing it at full charge. If not using it for a long time, periodically check the charge level. Your power station is meant to be used – using it will give the best long-term performance. Charge it at least every 3 months. Store the power station in a cool, dry place, out of the reach of children.

As the battery cells age, you may experience a loss of capacity. Your power station is rated to last for several hundred charge/discharge cycles to 80% capacity. When the power station drops below 80% capacity, it has reached the end of its life and should be recycled. Take the power station to a local electronics recycling facility; make sure it is one that can safely and responsibly handle lithium-ion batteries.

# TROUBLESHOOTING GUIDE

**⚠ WARNING!** Stop using the tool immediately if any of the following problems occur. Repairs and replace-ments should only be performed by an authorized technician

PROBLEM	CAUSE	SOLUTION
<b>No output from outlets.</b>	1. Power button for desired outlets is off.	1. Press power button to turn outlets on.
	2. Power station has been overloaded, or load has an internal short.	2. Press power button for desired outlets twice to reset the circuit. Check load.
	3. Internal electronics problem.	3. Contact customer service for as-sistance.
<b>Power station cannot support devices connected.</b>	1. Load is too high.	1. Reduce load.
	2. Using a complex AC load.	2. Consult device nameplate rating; load may be too high (especially on startup) to be supported by power station.
<b>Power station is not charging.</b>	1. The station is too warm or too cold.	1. Move the station to a room-temperature location for at least 1 hour, if possible, and allow the temperature to adjust. Try again.
	2. A charger with an output over 30V was connected.	2. Station charging circuit may be dam-aged. Contact customer service for assistance.
	3. Defective charger.	3. Contact customer service for as-sistance.
<b>Power station is taking a very long time to charge.</b>	1. Not using the included charger, or using a charger with the wrong specifications.	1. Try using the included charger. Make sure the charger's polarity is correct; the station requires a positive (+) inside and negative (-) outside charger.
	2. The station is too warm or too cold.	2. Move the station to a room-temperature location, if possible, and allow the tem-perature to adjust. Try again.
	3. Internal electronics problem.	3. Contact customer service for as-sistance.