

POWER AHEAD.



OWNER'S MANUAL

500 WATT PORTABLE POWER STATION

FOR MODEL: DH-20002-01



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CONGRATULATIONS!

You have just purchased a DieHard® portable power station. Please read this manual carefully before operating the power station. Model and serial number may be found on the bottom of your portable power station. You should record both model and serial numbers and keep them in a safe place for future use.

KEEP THIS OWNER'S MANUAL FOR REFERENCE. CUSTOMER SUPPORT AND A COPY OF THIS OWNER'S MANUAL CAN ALSO BE FOUND AT WWW.DIEHARDPOWERSTATIONS.COM/PRODUCT-SUPPORT

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A CHARGING INSTRUCTIONS

Fully charge power station before first use.

Highly recommend to charge power station when battery indicates less than 20%. See How To Charge Power Station section of this manual for specific instructions.

IMPORTANT SAFETY INSTRUCTIONS

READ AND UNDERSTAND THIS MANUAL AND ALL INSTRUCTIONS AND LABELS ON THE PORTABLE **POWER STATION BEFORE OPERATING.**



WARNINGS



WARNING

Please read the following instructions for safety before use. Improper use may result in fire, property damage, personal injury, or death. DO NOT use the product with incompatible components or alter the product in any way.



WARNING

Improper use may result in fire, property damage, or personal injury. Make sure to use the product according to the following safety instructions and guidelines.



WARNING

Do not expose the product to any liquid or submerge in water. If the battery comes into contact with water, it may cause chemical decomposition of the battery. This may cause the battery to catch fire or explode.

SAFETY INSTRUCTIONS

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, INJURY, OR DEATH:

- Read all the instructions before using the power station.
- Use only as described in this manual.
- Do not disassemble, repair, or modify the power station or the battery.
- Do not place the power station close to or in a fire or expose it to heat. Keep out of direct sunlight.
- Do not charge, use, or store the power station in a bathroom or an area exposed to rain or moisture.
- Use and store the power station only in a clean and dry environment. Do not use and store in a dusty or wet environment.
- Do not use the power station in or near water. Do not allow rain or other moisture to fall on the power station.
- Only use the output socket to power external devices.
- Never connect the output to main power supply under any circumstances.
- Do not touch the power station or the plug-in points if your hands are wet.
- Do not connect any metallic objects to the AC input or output.
- Should fluid inside the power station come in contact with your skin or clothing, wash the affected areas with tap water. Do not rub your eyes if fluid inside the power station should get in your eyes.
- Do not dispose of the power station together with household waste.
- Do not use any inappropriate power cords.
- Do not operate or charge the device through a power system other than the rated voltage.
- Only use the power station if it is functioning correctly.
- Do not move the power station if it is recharging or in use.
- Check the power station before every use. Do not use the power station if it is damaged or broken.
- Do not use a power station that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior, resulting in fire, explosion, or risk of injury.



WARNINGS (CONT.)

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, INJURY, OR DEATH:

- Do not use the power station if the power cord is damaged or broken.
- Do not use the power station if an input or output cable is damaged.
- Do not put your fingers or hands into the power station. Keep loose clothing, jewerly, etc away from openings.
- Keep the power station away from children. Do not let children use the power station.
- This portable power station is not intended for use by persons (including children) with reduced physical, reduced sensory, or reduced mental capacities, or lack of experience or knowledge, unless they have been given supervision or instruction concerning use of the power station by a person resposible for their safety.
- Keep this product away from pets.
- Do not use or store the power station in an area or environment with high temperatures. See operating, charging, and storage temperatures in the Technical Specifications section of this manual.
- Only charge, use, and store the power station within the temperature ranges in the Technical Specifications section of this manual.
- To reduce the risk of damage to the electric plug and cord, pull the plug rather than the cord when disconnecting the power.
- In a storm, unplug the power cord from the socket.
- Do not place the power station on its side or upside down while in use or when storing.
- Do not use accessories for other uses.
- If rust, peculiar odors, overheating, or other abnormal circumstances are observed, stop using the power station immediately and contact customer service.
- Do not disassemble the portable power station. Reassembly may result in a risk of fire or electric shock.
- The power station complies with all legal requirements for the transport of dangerous goods.
- Ensure the power station is adequately secured when transporting it in a motor vehicle.
- Switch the power station off immediately if it has accidentally fallen, was dropped, or was exposed to vibrations.
- Once the power station is fully charged, unplug the AC charging cable.
- Use of different cables will void the product's warranty and may cause damage or serious bodily injury.
- Manufacturer is not liable for any damage caused by using different brand charging cables.

WARNING - RISK OF EXPLOSIVE GASES

To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and manufacturer of any equipment you intend to use in the vicinity of the battery. Review cautionary marking on these products and on engines.



WARNINGS (CONT.)

PERSONAL PRECAUTIONS

- Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
- Wear complete eye protection and clothing protection. Avoid touching eyes while working near the battery.
- If battery acid contacts skin or clothing, wash immediately with soap and water. If acid enters the eye, immediately flood the eye with running cold water for at least 10 minutes and get medical attention immediately.
- NEVER smoke or allow a spark or flame in the vicinity of the power station or engines.
- Be extra cautious to reduce the risk of dropping a metal tool onto the battery. It might spark or short circuit battery or other electrical parts that may cause an explosion.
- When charging the internal battery, work in a well-ventilated area and do not restrict ventilation in any way.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs on skin or clothing, wash immediately with soap and water. If liquid enters the eye, immediately flood the eye with running cold water for at least 10 minutes and get medical attention immediately. Liquid ejected from the battery may cause irritation or burns.
- Do not expose the power station to fire or excessive temperature. Exposure to fire or temperature above 265°F. may cause an explosion.

NOTE:

A photovoltaic panel as input for charging the internal battery shall be provided with an inverter and/or a charge controller in accordance with UL 1741 or UL 62109-1; The external power supply shall be a power source in accordance with the standard UL 60950-1 and CAN/CSA C22.2 No.1, CAN/CSA C22.2 No. 223; A vehicle adapter that complies with the enclosure and input contacts requirements in the Standard for Vehicle Battery Adapters, UL 2089, and Power Supplies, CAN/CSA C22.2 No. 107.1. The connector plug shall incorporate a fuse or other protective device having a current rating not greater than 15A.

SAVE THESE INSTRUCTIONS

Please carefully read the instructions for the electric devices you are going to connect to your power station.

Product Maintenance and Storage:

- 1. Battery life may be reduced or become nonfunctional if not adequately maintained.
- 2. Fully charge and discharge at least every three months to ensure battery life.
- 3. Do not store battery with less than 50% charge.



PRODUCT INTRODUCTION

The DieHard 500 Watt Portable Power Station (Model: DH-20002-01) is convenient for emergency off-grid demand such as during sudden power failure, snowstorm, or hurricane. It is also a great addition for outdoor adventures, camping, or tailgating. With power output up to 500W, fast charging, and a long cycle life the DieHard 500 Watt Portable Power Station is a reliable and durable solution for all your portable power needs.

PACKING LIST





Power Station User Manual

WHAT IT POWERS

Mini Fridge (80W)

Around

5.5 hours

AC 100-240V wall plug power



Laptops (50Wh) 32" TV (60W) 65" TV (140W) **CPAP** Without Heated Around Around Around Humidifier (30W) **9** Recharges 8 hours Around 15 hours 3.5 hours



GoPro (5.9Wh) Around 74 Recharges





NOTE: Wattage listed for different electronic devices are examples only. All wattage, hours, and recharges are approximate. Charging times and number of recharges vary and are dependent on numerous factors.

Smartphone (10Wh)

Around

44 Recharges

adapter

Small Drone (30Wh)

Around

16 Recharges

MC4-7909

Connector Cable Charger Cable

LED Light (20W)

Around

23 hours



PRODUCT DESCRIPTION



- 1.LCD Screen Display
- 2.DC Output
- 3. Cigarette Lighter Socket Output
- 4.USB-A Output
- 5.USB-C Output
- 6.PV Input
- 7.DC Input
- 8. Anti-collision Strip



- 9. Air Intake Vent with Cooling Fan
- 10. Wireless Charge
- 11. Handle
- 12. AC Output x 2
- 13. SOS Mode & LED Light

NOTE: No user-servicable parts inside. NOTE: Fully charge power stations before use.



BUTTON DESCRIPTION



14. Power ON/OFF

Master switch. Press the "Power ON/OFF" Button to turn on the power, and the DC output, USB output, and wireless charger will be activated. Press the "Power ON/OFF" Button again to turn off.

15: SOS Mode & LED Light

Press the "Power ON/OFF" Button to turn on the power station. Press the "Light On/Off" Button once for LED mode; double press button for SOS Mode; press button again to return to LED mode; press button again to turn off light.

16: AC Output Power ON/OFF

Before pressing the button to turn on AC Output, make sure the "Power ON/OFF" is ON. To stop AC Output, press again.







1. Battery Level Indicator

Displays the current battery level as bar + percentage. The main switch is turned on, and the battery quantity is displayed.

2. Input Status

Displays charging power when charging.

3. DC Output:

When the DC Output is used, the display shows the output's total power being used.

4. AC Outputs:

When the AC Output is used, the display shows the output's total power being used.

5. USB Output:

When the USB Output is used, the display shows the output's total power being used.

6. LED Light Status:

When LED light is on, icon will be displayed.

7. Cooling Fan Status:

When cooling fan is on, icon will be displayed.

8. Overload Condition:

If overload condition occurs, this icon will be displayed.

NOTE: The LCD Screen will enter Sleep Mode after 120 seconds of inactivity, and will wake up when inputting a charging cord or when any button is pressed.





POWER AHEAD.

HOW TO CHARGE THE POWER STATION

NOTE: Do not connect device via AC Output port while charging the power station. NOTE: Disconnect the power station when fully charged. NOTE: Only charge the power station with the provided charging cables.

It is recommended to fully charge the power station every three months to maintain the life of the power station.

When you first plug in a power source, solar panel, or wall charger, the power station may take one minute to detect and adjust its charge circuitry before it starts drawing power from the source.



AC Adapter Charging

Use the AC charging cable provided to charge the power station. It takes approximately 6 to 7 hours to fully charge. When the LCD shows that the battery power has reached 100%, it means that the battery has been fully charged.



Recharging times are approximate and can vary depending on numerous factors.



HOW TO CHARGE THE POWER STATION (CONT.)

12V Car Charger Charging

Use the car charger cable to charge. It takes approximately 7 to 8 hours when car is running to charge fully. When the LCD shows the battery power is 100%, the battery is fully charged.



Solar Panel Charging

NOTE: Do not charge the power station via a solar panel (or a series-parallel connection) whose voltage exceeds DC12-26 V.

Place the solar panel in direct sunlight as much possible.

If using a DieHard Solar Panel (sold separately), plug the solar panel into the PV Input.

Supports 120 Watt and 200 Watt DieHard solar panel charging.

The sunlight intensity determines the charging time.



Separately - (Not included)

Recharging times are approximate and can vary depending on numerous factors.



OPERATING INSTRUCTIONS

How To Power/Charge Devices

Make sure the power station is on by pressing the Power On/Off Button.

If powering or charging a device via DC Output or USB Output, plug the device into the DC Output. When done powering or charging a device via DC Output or USB Output, disconnect the device from the power station.

If powering or charging a device via AC Output, plug the device into the AC Output. Then, press the AC On/Off Button to turn on the AC Output. When done powering or charging a device via AC Output, turn off the device and disconnect from the power station. Then, press the AC On/Off button to turn off the AC Output.

To charge a cell phone with the wireless charger, make sure power station is turned on then place the cell phone on the wireless charging icon on the top of the power station. NOTE: some phone cases may prevent the phone from charging.

When activated, the LCD display will provide details on the charging output. The LCD screen will automatically shut down when no outputs are activated or charging are activated.

Pass-through Charging

The advanced battery management system of the power station allows it to charge a connected device via DC Output and USB Output while charging the power station.

NOTE: Do not connect devices via AC Output while charging the power station.

Overload condition

If an overload condition occurs on the ouput port, the power station will automatically turn off AC Output power. The blue indicator light of LCD screen will still be illuminated and the DC Output status will be the same as usual. If this occurs, check the input cable. The port will be efficient when the input charge cable meets the specification outlined in the General Specifications section.



CLEANING, STORAGE, AND TRANSPORTING

Cleaning

Make sure that the power station is disconnected from all input power sources and output devices. Wipe with a clean, dry, soft, lint-free cloth.

Remove any foreign objects, dirt, or other obstructions on the vents on both sides. While cleaning foreign objects in the side vents, do not allow debris, dirt, or other blockages to enter the power station. Do not use corrosive cleaners or solvents.

Do not use compressed air to clean the side cooling vents, as it will cause foreign particles to enter the interior and cause a short circuit.



WARNING

Note: To avoid the risk of electric shock, do not use metal objects to clean the ports.

Storage

Battery life may be reduced if not used for a long time. It is recommended to fully charge and discharge the power station at least once every three months to maintain the health of the battery.

If power station will be stored for over a month, charge it to 50% capacity and keep it indoors at normal temperatures. The maximum storage time should not exceed six months.

Store the product in dry environments. Do not place the power station where it may come in contact with water.

Keep the power station away from direct sunlight.

Excessive temperature will lead to reduced service life, overheating, and fire. Extremely cold conditions below the specified storage range can also impair the performance and service life of the power station.

Keep away from corrosive chemicals and gases.

After taking it out of storage, perform a visual inspection to ensure that the appearance of the power station and all accessories are in working order. Check the vents on the intake and exhaust sides to make sure they are free of foreign objects.



CLEANING, STORAGE, AND TRANSPORTING (CONT.)

Transporting

Do not transport the power station with a battery power level higher than 30%.

≭≈	Not permitted on aircrafts	5 5	Avoid dropping
	To preserve the battery lifespan, please use and recharge at least once every 3 months	℅	Do not disassemble
œ Ç ⊗	Use an original or certified charger or cable	●*	lt's not waterproof, do not expose to liquids
	Avoid extreme temperature		Please dispose of batteries and electronic goods in accordance with local regulations

This power station meets all legal requirements for the transportation of dangerous goods. The capacity of the lithium battery pack exceeds 100Wh. According to international standards, if the power station is transported by air, it must be transported in accordance with IATA standard packaging. The instructions and labeling requirements of the International Air Transport Association and related declarations must be completed.

MAINTENANCE

Check as needed:

- If the power station is unused regularly, please charge and discharge it every three months under average temperature to keep the service life.
- Regularly check all ports and wall chargers for debris, dirt, damage, and corrosion.
- Do not disassemble the power station.
- Do not cover the power station with towels, clothes, or other items.
- Regularly observe the side vents for dust and foreign matter and clean them according to the cleaning procedures specified in the manual.



IMPORTANT:

Disposal/recycling Do not put the power station and its accessories in the trash can. Items must be properly handled in accordance with local laws and regulations. For additional information, please see www.epa.gov



TROUBLESHOOTING

The power station will not charge or operate connected devices

Check that the DC/USB/AC output ports are activated Check whether the connecting wire has been inserted in the right place Confirm that the connected device is suitable for the power station by reviewing the output specifications in the Specifications section of this manual Check whether the total output power exceeds the rated output power Verify the watt data displayed on the LCD screen for overload condition Confirm the power station is charged by reviewing the battery level indicator Check whether the temperature of the equipment is too high

The power station is not charging with the AC Adapter

Confirm that the AC Adapter's charging cable is inserted fully into the DC Input. Confirm that the wall plug power adapter is the one provided with the power station.

The power station is not charging with the 12V Car Charger Connection

Confirm that the car charger connector is inserted fully into the DC Input. Confirm that the car charger connector is the one provided with the power station.

The power station is not charging with the Solar Panel Connection

Confirm that the solar panel connector is inserted fully into correct input. Check that the solar panels are in direct sunlight. NOTE: sunlight intensity determines charging.

NOTE: If the input does not comply with the requirements located in the Specifications section, the Low Watt range 0 to 10 may be displayed.

CUSTOMER SUPPORT

For customer service, please visit: www.diehardpowerstations.com/product-support



AFFIRM

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FCC NOTE

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure conditions without restriction. FCC ID: Please see the label on product





TECHNICAL SPECIFICATIONS

General Specs			
Rated Capacity	519.48Wh		
Net Weight	17.3 lbs		
Product Size	12.3" x 7.5" x 7.5"		
Battery			
Standard Capacity of Cells	3.7V/140400mAh		
Operating Temp	14 to 104 °F (-10 to 40°C)		
Charging Temp	32 to 104 °F (0 to 40°C)		
Storage Temp	-4 to 113° F (-20 to 45° C)		
Input			
Recharging Input Voltage	12-26V		
Recharging Input Power	105W Max		
AC/DC Adapter	AC 100-240V, DC 12-26V 4A		
Solar Charge Input	12V - 26V (105W Max)		
Car Charger	12V 8A Max		



TECHNICAL SPECIFICATIONS (CONT.)

Output			
AC Output Voltage	110V <u>+</u> 10%/60Hz		
Rated Output Power	500W		
Output Waveform	Pure Sine Wave		
Overload Protection Power	550 <u>+</u> 40W		
Cigarette Lighter Socket Output	12V10A Total 10A		
DC 55*2.5 Output x 2	12V5A		
USB-A Output x 3	QC3.0/18W		
USB-C Output	PD 60W		
Wireless Charge	10W		

WARNING: This product can expose you to chemicals including Nickel (Ni), which is known to the State of California to cause cancer, and Bisphenol A (BPA), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Due to constant technology updates, product specifications and configuration changes, please refer to the actual product.



LIMITED WARRANTY

Equity Sales & Marketing, Inc., ("ESM") warrants this product. We assure the original purchaser that our products are free of defects in workmanship and materials during the applicable warranty period determined in the "Warranty Period" section below, but the exclusions set below are excluded.

This warranty is only valid in the United States and its territories.

This warranty statement sets our total and exclusive obligations of ESM. We will not assume nor authorize any person to assume for us any other liability related to the sale of our products.

Further, this warranty does not cover cosmetic damage to the product.

Warranty Period

The warranty is for 12 months for the original consumer-use purchaser from the date of purchase. For California residents, this warranty commences on the delivery date of product to the consumer, instead of the date of purchase. To determine the start date of the warranty period, a sales receipt from the first consumer purchase or other reasonable documentary proof is required.

For commercial use or rental service the warranty is 90 days from date of purchase.

Repair or Return Processing

We will repair or replace any products that cannot be operated due to defects in workmanship or materials within the applicable warranty period. If a valid claim is filed within the applicable period, we can choose:

- 1. Repair of the product; or
- 2. Replacement or exchange for products of equal value. The replacement product bears the remaining warranty period of the original product or replaces it for 90 days from the date of receipt by customer after the return, whichever is greater. The customer is responsible for the shipping cost of the return.

Exclusions

The warranty does not apply to any product modified, altered, tampered with, misused, abused, damaged by accident, damaged by acts of nature, or used for anything other than everyday consumer use as authorized in current product literature or any product purchased through an online auction house. The warranty does not apply to the battery cell unless you fully charge the battery cell within seven days after you receive the product and at least every six months thereafter.



LIMITED WARRANTY (CONT.)

This limited warranty is the sole and exclusive warranty for the ESM product. No employee, agent, dealer, or other person is authorized to alter this warranty or make other warranty on behalf of ESM.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY TO THE CONSUMER. WE SHALL NOT BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. OUR LIABILITY UNDER ANY CIRCUMSTANCES WILL NOT EXCEED THE PURCHASE PRICE FOR THE PRODUCT FOR WHICH LIABILITY IS CLAIMED.

The foregoing obligations are in lieu of all other obligations and liabilities including negligence and state our entire exclusive liability and the customer's exclusive remedy. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, if so, the above limitations or exclusions do not apply to you.

Customer Service

For customer service, please visit: www.diehardpowerstations.com/product-support