

# PORTABLE POWER STATION

**LITHIUM  
CUBE™ EX18**



## User's Manual

We are constantly improving our products so specifications are subject to change without notice. Visit our website for the latest product information.

## 1. INTRODUCTION

Congratulations on your purchase of Wagan Tech®'s Lithium Cube™ EX18. The Lithium Cube EX18 is an advanced electrical system that can power AC appliances and charge a variety of communication and entertainment devices. In an emergency it can power home appliances. On the job site it can power tools where no power lines or generators exist. At night it can power a variety of light sources from DC spotlights to AC floodlights. At the campground it can power a microwave oven, water pump, and entertainment equipment.

Read and understand all warnings, cautions and notes included in this manual before using the Lithium Cube. Follow instructions provided by your vehicle and other device manufacturers intended to be used with the Lithium Cube.

Keep these instructions for future reference.

Fully charge the Lithium Cube before first use.

## 2. IMPORTANT SAFETY INSTRUCTION

READ AND SAVE THIS OWNER'S GUIDE FOR FUTURE REFERENCE.

This guide contains important safety instructions that must be followed during installation, operation, maintenance, and troubleshooting.

Read these instructions carefully and look at the equipment to become familiar with the device before installing, operating, configuring, maintaining, and troubleshooting it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### DANGER

**DANGER** indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

### WARNING

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

### CAUTION

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

## NOTICE

**NOTICE** is used to address practices not related to physical injury.

## 3. PRODUCT SAFETY INFORMATION

### ⚠ WARNING

- Shock or fire hazard—The Power Cube generates the same potentially lethal AC power as a normal household wall outlet. Treat it with the same respect that you would any AC outlet.
- Explosion Hazard—Do not use this product around flammable fumes or gasses, such as in the bilge of a gasoline powered boat, or near a propane tank. Do not use the Power Cube in an enclosure containing automotive-type lead-acid batteries. These batteries, unlike the sealed battery pack in the Power Cube, vent explosive hydrogen gas, which can be ignited by sparks from electrical connections or disconnections.
- When working on electrical equipment, always make sure that someone is nearby to help you in an emergency.
- Limitations on Use—The Power Cube has not been tested for use with life support systems or other medical equipment or devices. The user assumes all risk if medical devices are used with this product.
- Unit is Not Waterproof—Do not expose this unit to rain or heavy moisture.
- Do not disassemble the product in any way or pierce the product with sharp objects.
- During thunderstorms or stormy weather, please disconnect the AC charging or solar charging. If the product is struck by lightning, it may cause electric shock, fire, and other accidents.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## ⚠ CAUTION

- Liquids should be avoided. Avoid immersing the product in water or getting it wet. The product should not be used in humid or rainy environments. In the event that the product falls into the water during use, please place it in a safe open area and do not operate until it is completely dry.
- If the product catches fire, it is recommended to use dry powder and carbon dioxide fire extinguishers.
- Do not block, obstruct, or impede the fan's flow. Do not use or place this product in an unventilated or dusty area. Do not block vent holes on side of unit.
- Rest the product on a flat surface to prevent damage from falling over. In the event that the product is severely damaged, turn it off immediately and stop using the product, place it in an open area, keep it away from combustible materials and people, and dispose of it in accordance with local laws and regulations.
- Do not move the product during use. Movements may lead to poor contact with output ports of the product.
- If the product input or output ports are dirty or if it needs to be cleaned, please wipe the product with a dry, soft, clean cloth or paper towel after it has been turned off.
- Be sure to check the product's integrity and the integrity of the accessories before each use. If the product or the accessories are damaged or broken, do not use them.
- Ensure that the product is kept out of reach of children and pets.
- When the power supply is connected to the refrigerator load in the conventional mode, the power fluctuation property of the refrigerator may cause the power supply to shut down automatically. It is recommended that the refrigerators storing medicines, vaccines or other high-value items, when connecting to the power supply product, please long press and hold the light button to turn on the "NEVER OFF" state to ensure continuous power supply, and the user should pay attention to the status of the power supply power loss.
- Do not insert an automotive cigarette lighter into the socket. There is no pop-out feature and excessive heat may damage the socket.

**Failure to follow these instructions can result in injury, or equipment damage.**

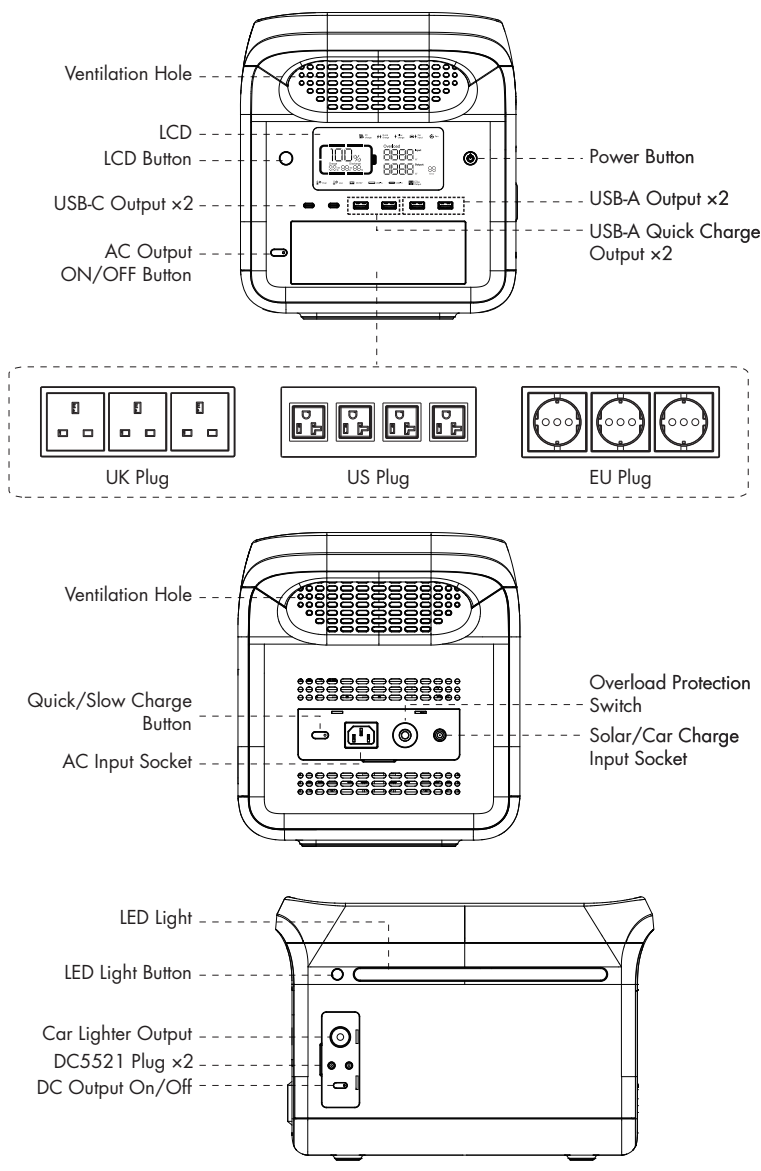
## 4. PRODUCT DETAILS

### MAJOR FEATURES

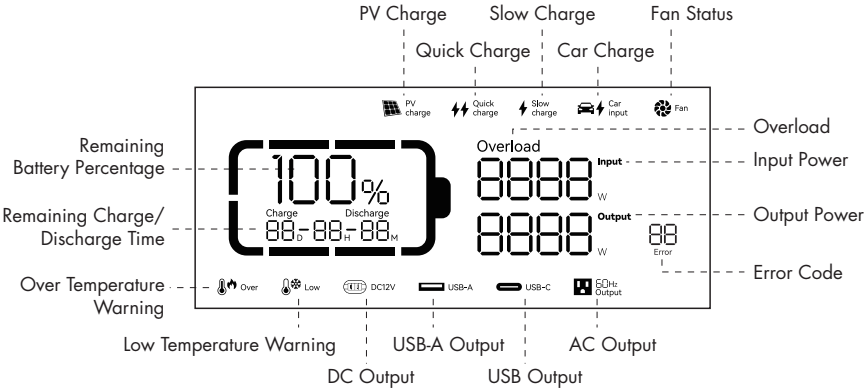
- 1,800 watt pure sine wave inverter (3,000 watts peak)
- Four AC outlets
- One 12 volt automotive socket for powering DC appliances (up to 10 amps)
- Six USB power ports for charging/operating cell phones and tablets
- DC charging cable (fused)

# User's Manual—Read before using this equipment

- Comprehensive display shows charge status and power consumption
- LED light, reading light and SOS mode

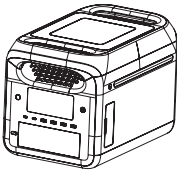


LCD DISPLAY

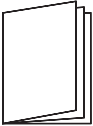


- \* Battery capacity: When power station is being charged, SOC (remaining battery capacity) icon will flicker.
- \* Please refer to clause 10 for more details regarding error message.

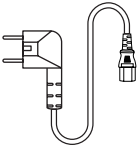
WHAT'S INCLUDED?



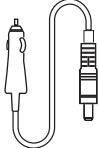
Lithium Cube



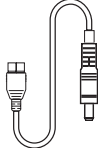
User's Manual



AC Charging Cable



DC Charging Cable



Solar Charging Cable

## 5. PRODUCT OPERATION

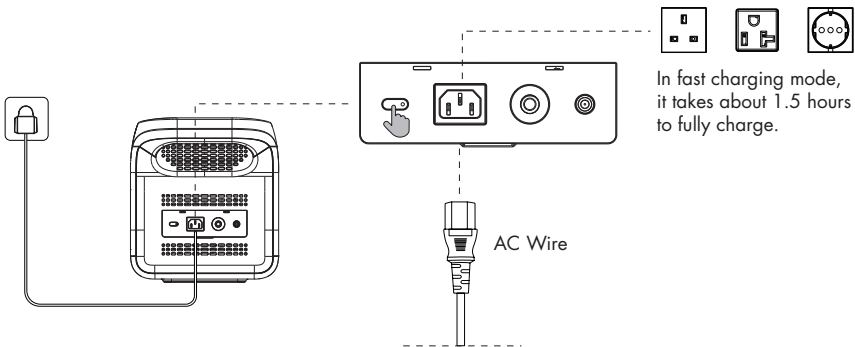
### CHARGING THE CUBE

#### AC Charging (It takes about 1.5 hours to fully charge)

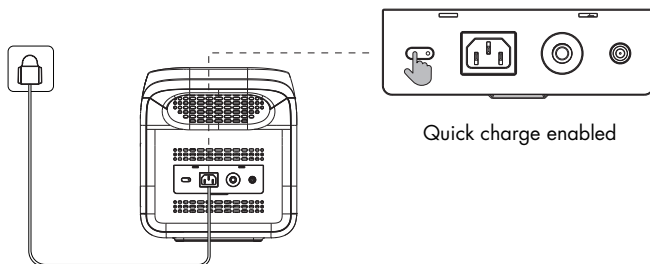
The intelligent fast-charging technology of Wagan supports an AC input power of 1380W. The smart charging system will preferentially harness solar power whenever the Lithium Cube is being recharged simultaneously by AC power and solar power.

Quick charging technology is designed for AC charging. You can control the charging power via the AC charging speed switch. The slow charge mode is on by default when power station is turned on, and can be switched to quick charge mode by the button. If the current is continuously higher than 20A, the charging input port will start the self-protection function, and the charging overload protection switch will automatically trip. Press the charge overload protection switch to restore charging after confirming no fault.

Please use the official Wagan cable for AC charging. Using the supplied AC Charging Cable, plug one end of the cable into the AC Charging input port on the back of the Lithium Cube, then plug the other end of the cable into an AC Wall outlet that supports a current of 10A or greater. Wagan is not responsible for any damage caused by using an unofficial charging cable or operating the product outside of specifications.



## QUICK CHARGE AND SLOW CHARGE CAN BE SWITCHED BY THE BUTTON



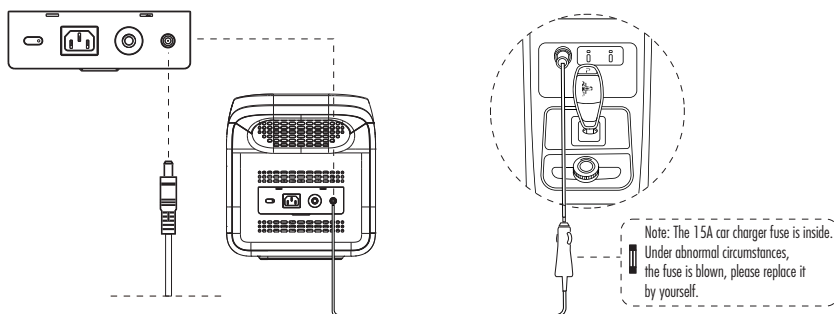
## THE CHARGING POWER RANGE CAN BE ADJUSTED BY APP

Please use the standard AC charging cable for fast charging. AC charging cable should directly plug into 10A (or above) wall-mounted socket. We take no responsibilities for any damage caused by using unofficial AC charging cable, and other failures to follow instructions.

## DC Charging (It takes about 6.5 hours to fully charge)

The DC Charging cable is fused at 15 amps to prevent damage if there is an inadvertent short. Users can charge the product through the cigarette lighter port. Be sure to start the vehicle before using the DC Charging Cable to reduce the risk of depleting your vehicle's battery.

To charge the Lithium Cube using the DC Charging Cable:



## ONLY USE THE DC CHARGING CABLE SUPPLIED WITH THIS UNIT.

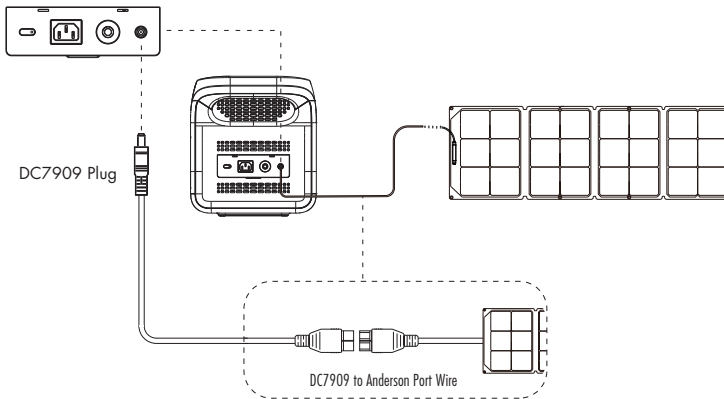
1. Note that the engine must be running while charging the Lithium Cube to avoid discharging the vehicle's battery.
2. Plug the DC charging cable into the Lithium Cube's DC charging input port.
3. Plug the other end of the DC charging cable into the vehicle's accessory socket (cigarette lighter socket).
4. Support 12V/24V car charger.

## Solar Charging (It takes about 4 hours to fully charge)

The Lithium Cube's DC input circuit is designed to maximize the charging profile based on the available power supplied, whether charging by the AC charger or solar panels via the 7909 port.

The Lithium Cube comes with a built-in 12A MPPT solar controller capable of charging up to 400W. Do not use solar panels with their own built-in solar controller. Wagan is not responsible for any damage caused by using an unofficial charging cable.

1. To charge the Lithium Cube using a single solar panel, connect the solar panel using an 7909 connector compatible with the one built into the unit. The charge status will update on the display automatically.
2. To charge using multiple panels, the best way to do this is by connecting the panels in series.
3. The Wagan Series Solar Cable is wired to connect multiple panels in series. If only two panels are connected, you must connect the jumper cable to the third cable set in order for the panels to charge. You can connect this cable to any cable set on the panel side of the cables.

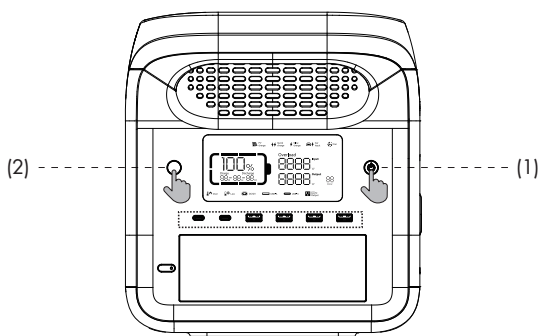


## 6. CONSTANT POWER

With the constant power output function, you can use the product to power appliances that exceed the rated power of the device without disruption caused by overload protection. When the power supply needs to drive high-power electrical appliances, the inverter will intelligently regulate the output power of the power supply to maintain a constant actual output power, ensuring that the electrical appliances can still operate reliably.

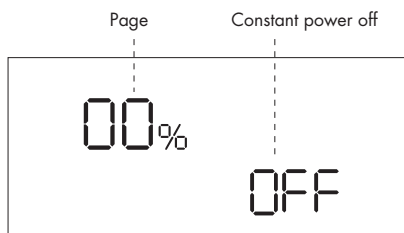
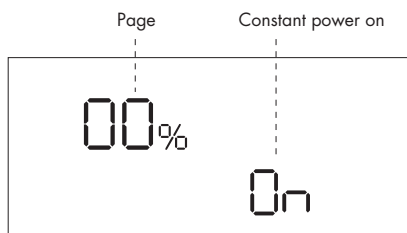
Enter/exit the constant power output function setting interface:

Short press the (1) POWER button and (2) LCD button at the same time to enter the setting interface, and short press the (2) LCD button to cycle through the pages.

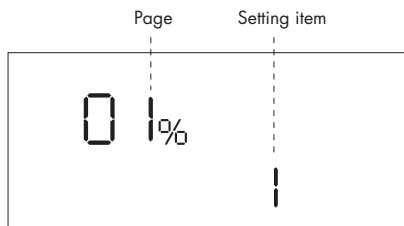
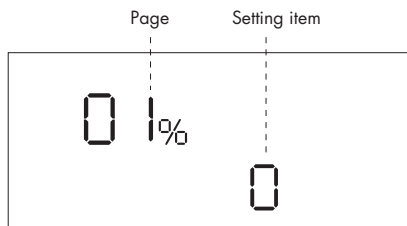


Page 0 can set the constant power mode On and Off.

In this page, short press the (1) POWER button to enter the modification state which is indicated by the flashing power percentage icon  $\%$ . Short press the (2) LCD button to set the constant power mode on or off in the modification state. Press the (1) POWER button again to save the modified setting and exit the modification state.



In the setting interface, short press the (2) LCD button to Page 1 to set the Restore Factory Setting, the default display is 0. Short press the (1) POWER button to enter the modification state, which is indicated by the flashing power percentage icon  $\%$ . In the modification state, short press (2) LCD button to switch 0/1. When the displayed value is 1, press the (1) POWER button to exit the modification state and perform the operation of restoring the factory settings. On completion of this, the displayed value will jump to 0.



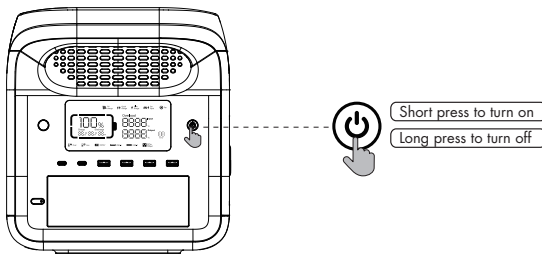
Please take note of the following when using the constant power output function:

1. The constant power output function is not enabled by default.
2. In the following cases, constant power output function is not enabled:
  - i. AC output is turned on in charging status (bypass mode).
  - ii. Constant power output function is turned off.
3. When using an appliance that exceeds rated power of the device, please connect only one appliance. When connecting more than one electrical appliance, the change of voltage may affect the usage of other electrical appliances.
4. Constant power output function is more suitable for heater and motor instead of all electrical equipment. It is not suitable for some electrical appliances with voltage protection (such as precision instruments). Constant power output function application is subject to actual testing.

## 7. OUTPUT POWER

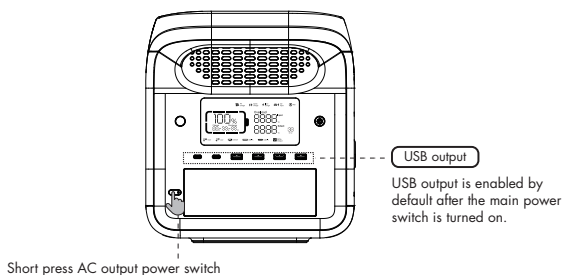
Note: Long press the Power button to turn off the Lithium Cube and clear the fault information.

Before using the Lithium Cube, please make sure the main power has been turned on.



1. Press the main power switch to turn on the device, then the screen will be lit and the main power indicator will enter the breathing light mode.
2. If no operation is performed to power station for 5 minutes, power station will enter hibernation state and the LCD will automatically turn off. When there is load change or operation to power station, the LCD screen will be automatically lit. To turn the LCD display on or off, press the display control button.
3. Press and hold the main power switch will turn off power station.
4. In the normal mode (the power is above 5%), the default standby time of this product is 2 hours; when the AC output switch is not turned on, and there is no charge or discharge for 2 hours, the product will automatically shut down; when the power is 5% or below, the product will be forced to enter the low power mode. In the case of no charge or discharge, the product will adjust the standby time according to the power and automatically shut down.

Note: When no AC input, long press the above AC output button, you can switch the AC off-grid output frequency (50Hz/60Hz), long press 2s to switch, the AC output icon will flash 3 times after successful switching.



## AC OUTPUT

The Lithium Cube's inverter can operate most AC Appliances or a combination of appliances up to 1,800 watts. Operating time (run time) is dependent on the AC load (watts) and the charge and condition of the Lithium Cube's internal battery. Be sure to turn off or disconnect any AC appliance not in use.

Converting DC battery power to AC generates heat. To minimize heat buildup and possible thermal shutdown, remove obstacles blocking or hindering airflow between the intake and exhaust sides of the Lithium Cube. Ambient temperatures above 77 °F will reduce the Inverter's ability to cool effectively, thus affecting operating times.

This inverter produces Pure Sine Wave (PSW) AC, which mimics the same power coming from your wall outlets at home.

To use the AC Power Inverter:

1. Connect the AC appliance or appliances to any AC Outlet.
2. Turn the power inverter ON by pressing the AC power button.
3. Turn on one AC appliance and observe the power indicator.
4. After appliance use, turn OFF the AC power button.
5. Remove AC appliance plug(s) from the AC outlets on the Lithium Cube.
6. Recharge the Lithium Cube as soon as convenient.  
The default standby time of the AC output port is 1 hour. After 1 hour without any load on the AC output port of this unit, the AC output power will be automatically turn off. In normal mode, long press the LED light button to exit the automatic shutdown setting, and the battery icon  on the screen will flash. Long press again to enter the automatic shutdown setting, and the battery icon  does not flash. (The automatic shutdown setting is to protect the battery from low power, exiting this setting may damage the battery life, please use it with caution.)
7. Long press the LED light button to exit the AC automatic shutdown setting: it is applicable to AC equipment below 10W and pulse working equipment.

Note: The cooling fan turns off and on when needed to keep the internal components cool. The cooling fan helps maintain the Lithium Cube's internal temperature when products with high power requirements are in use.

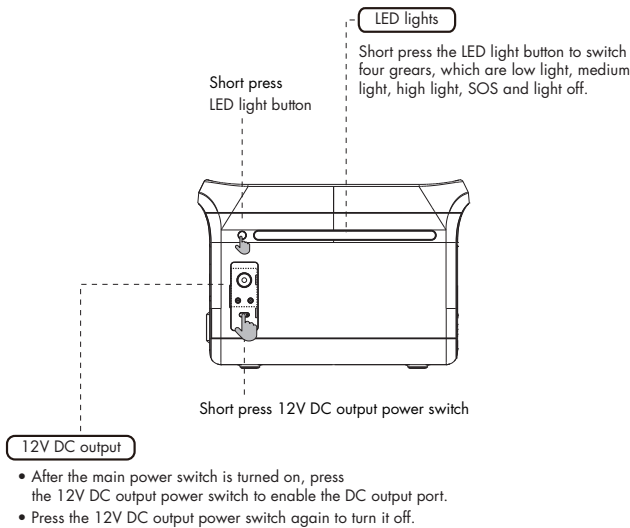
## DC OUTPUT

The Lithium Cube is equipped with 12V DC output ports to power various DC appliances via a standard DC socket (10A max shared).

Overloading the DC port will trip a safety circuit. Remove the overload to restore power to the DC output ports.

To use an accessory outlet:

1. Insert the 12V DC accessory plug into either the DC port or 5521 DC port.
2. Press the DC power button. DC symbol should show on display.
3. Operate the appliance as usual.
4. After use, disconnect the accessory plug and store the accessory.
5. Recharge the Lithium Cube as soon as convenient.



## USB OUTPUT

With 2x 12W USB-A ports, 2x 18W USB-A fast charging ports, and 2x 100W USB-C PD charging ports, the product supports most fast-charging protocols.

Note:

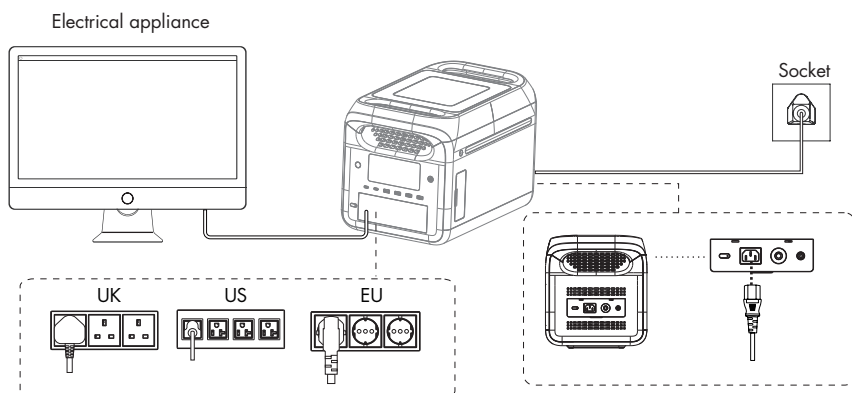
- When the USB output exceeds 3W, the USB output wattage will be displayed on the screen.

How to use the USB ports:

1. Press the USB power button. The screen will indicate that the USB output is enabled.
2. Insert USB cable into port.
3. After use, turn off USB power button and remove plugs from port.
4. Recharge the Lithium Cube as soon as convenient.

## EPS FUNCTION

This product supports the EPS authenticated by UL and UPS functionable (emergency backup power). You connect the power grid and the AC input port of this product through the AC charging cable; Bypass mode (AC power comes from the grid, not the battery); when the grid suddenly loses power, the product can automatically switch to battery power supply mode within 10ms, at this time it is the inverter mode (AC power comes from the battery, not the grid). This function does not support 0ms switching. Please do not connect it to devices that require high uninterrupted power supply, such as data servers and workstations, or use it after multiple tests to confirm whether it is compatible, and it is recommended to use only one device during use, and do not use multiple devices at the same time to avoid overload protection of the product. If the device does not operate normally or data is lost due to failure to follow the instructions, our company will not bear the corresponding responsibility.



## 8. OPERATING TIMES

Below are typical products that can be operated by the Lithium Cube with estimated operating times. The operating times will vary depending on the internal battery charge level, ambient temperature and the actual AC or DC powered product being operated. The Lithium Cube will not continuously operate AC appliances rated at more than 1,800 watts, such as air conditioners or motors over 12 amps. 12V DC output is limited to 120W through the cigarette lighter or 5521 port connector. Operating times can be extended if charging cable is connected to the Lithium Cube.

### AC OPERATING TIME

| AC Powered Products*        | Watts | Estimated Run time <sup>1</sup> |
|-----------------------------|-------|---------------------------------|
| Clock Radio                 | 10    | 74.3 hours                      |
| WiFi Router                 | 15    | 53.1 hours                      |
| DVD Player                  | 50    | 16.2 hours                      |
| Laptop                      | 65    | 13.1 hours                      |
| Refrigerator (AC ) 40% duty | 80    | 10.1 hours                      |
| CPAP w/ Humidifier          | 90    | 9.8 hours                       |
| 42" LCD TV                  | 120   | 7.5 hours                       |
| Playstation® 5              | 160   | 6.1 hours                       |
| Slow Cooker                 | 200   | 4.5 hours                       |
| 1/2" Drill                  | 500   | 2 hours                         |
| Deep Well Water Pump 1/3 HP | 750   | 1.4 hours                       |
| 1/2 HP Garage Door Opener   | 875   | 1.2 hours                       |
| Coffee Maker                | 1000  | 1.1 hours                       |

- \*Power usages listed are averages. Check your appliance rating for more accurate time estimates.
- 1. Operating times assume a fully charged battery and ambient temperature of 77°F (25°C). Actual results may vary based on model/brand used.  
Assumes continuous operation.

DC OPERATING TIME

| DC Powered Products*        | Watts | Estimated Run time <sup>1</sup> |
|-----------------------------|-------|---------------------------------|
| Starlink®                   | 75    | 13 hours                        |
| Thermoelectric Cooler       | 48    | 21 hours                        |
| Dometic™ CFX3 (DC) 30% Duty | 30    | 34 hours                        |
| Vacuum (handheld)           | 100   | 9 hours                         |

\* Power usages listed are averages. Check your appliance rating for more accurate time estimates.

1. Operating times assume a fully charged battery and ambient temperature of 77 °F (25°C). Actual results may vary based on model/brand used.

Assumes continuous operation.

9. USER MAINTENANCE

- Please use or store the product in an environment with a temperature between 68°F (20°C) to 86°F (30°C), away from water, intense heat, and other sharp objects.
- If the remaining battery is less than 1% after you finish using the product, please recharge it to at least 60% before storing it. If the product is left idle for a long time with a severely low battery, irreversible damages may be caused to the battery cell and the product's service life will be shortened.
- For long-term storage, charge and discharge every 3 months, i.e. discharge to 0% then charge to 100%, and then discharge to 45%~52%.
- For safety, do not store Lithium Cube with temperature above 113°F (45°C) or below 14°F (-10°C).
- After charging or discharging this product, you must wait for more than 30 minutes before using it.
- If the Lithium Cube has been idle for too long and the battery is severely low, it will enter hibernation mode. In such case, please recharge before use.
- Recharge unit every 3 months
- Make sure vents are clean
- Keep unit dry
- For battery replacement, contact [www.wagan.com](http://www.wagan.com)

## 10. FAQs (Frequently Asked Questions)

- What kind of battery is used?**  
Lithium iron phosphate battery (LiFePO<sub>4</sub>).
- What equipment can be connected to the AC output ports?**  
The AC output has high rating power and maximum power, which enables it to supply power to most household appliances. Suggest check the equipment power prior to connecting and make sure power of all equipment lower than rated power.
- How to know the supply time?**  
Time shows in the LCD, which can be referred to for estimation for equipment with stable power consumption.
- How to know it is charging?**  
When in charge, the LCD shows remaining charging time. The SOC flickers, and input power is shown.
- How to clean the unit?**  
Clean the unit with a dry, soft and clean cloth or tissue
- How to store the unit?**  
Turn it off, and keep it in a dry and ventilated place. Do not expose it close to water. For long-term storage, charge and discharge every 3 months, i.e. discharge to 0% then charge to 100%, and then discharge to 48%~52%.
- Can it be taken on board?**  
No.

## 11. TROUBLESHOOTING

| Indicator/Content                                                                                                                                                                                | Problem                                          | Solution                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------|
|  Error code always on                                                                                           | Serious battery fault                            | Turn on and off, contact after sales if still not fixed. |
|  Error code always on                                                                                         | Battery cell voltage difference fault            | Auto shutdown, fault will be cleared after reboot.       |
|  Error code always on                                                                                         | BMS Voltage fault                                | Auto shutdown, fault will be cleared after reboot.       |
|  Over  Error code always on | Battery OTP (over temperature protection) fault  | Auto shutdown, temperature recovery enables starting up. |
|  Low  Error code always on  | Battery UTP (under temperature protection) fault | Auto shutdown, temperature recovery enables starting up. |

| Indicator/Content                                                                                                                                                                                                                                | Problem                         | Solution                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------|
|  Error 06<br>Error code always on                                                                                                                               | Overcurrent/short circuit fault | Auto shutdown, fault will be cleared after reboot.                                                                 |
|  Overload  Error 07<br>High temperature icon always on<br>Error code always on | OTP Fault                       | Auto shutdown, delayed start.                                                                                      |
|  Error 08<br>Error code always on                                                                                                                               | Pre-charge fault                | Auto shutdown, fault will be cleared after reboot.                                                                 |
|  Error 09<br>Error code always on                                                                                                                               | Battery under voltage fault     | Auto shutdown and charge, contact after sales if still not fixed after multiple charging failures.                 |
|  Error 10<br>Error code always on                                                                                                                               | Abnormal parallelization        | Check the connection cable. Contact after sales if still not fixed. Single power station function is not affected. |
|  Error 11<br>Error code always on                                                                                                                               | Abnormal INV battery voltage    | Auto recover after fault is cleared.                                                                               |
|  Error 12<br>Error code always on                                                                                                                               | Grid voltage or frequency fault | The fault is cleared when the grid returns to normal.                                                              |
|  Error 13<br>Error code always on                                                                                                                               | Abnormal INV BUS voltage        | Auto recover after fault is cleared.                                                                               |
|  Error 14<br>Error code always on                                                                                                                               | Abnormal INV output             | Auto recover after fault is cleared.                                                                               |
| Overload  Error 15<br>Overload icon always on<br>Error code always on                                                                                           | INV discharge overload          | Remove over-power device.<br>Auto recover after fault is cleared.                                                  |
| Overload  Error 16<br>Overload icon always on<br>Error code always on                                                                                         | Charge overload                 | Auto recover after fault is cleared.                                                                               |
|  Error 17<br>Error code always on                                                                                                                             | INV Tz                          | Auto recover after fault is cleared.                                                                               |
|  Error 18<br>Error code always on                                                                                                                             | INV input short                 | Fault will be cleared after reboot.                                                                                |
|  Error 19<br>Error code always on                                                                                                                             | INV output short                | Fault will be cleared after reboot.                                                                                |

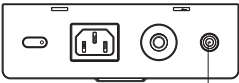
# User's Manual—Read before using this equipment

| Indicator/Content                                                                                                                                                     | Problem                                                 | Solution                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------|
|  Over <b>20</b><br>Error<br>High temperature icon always on<br>Error code always on   | MOSFET OTP fault                                        | Auto recover after product is cooled down.                                     |
| <b>21</b><br>Error<br>Error code always on                                                                                                                            | Fan stop                                                | Turn on and off, contact after sales if still not fixed.                       |
| <b>22</b><br>Error<br>Error code always on                                                                                                                            | Discharge soft start fault                              | Auto recover after fault is cleared.                                           |
| <b>23</b><br>Error<br>Error code always on                                                                                                                            | Charge soft start fault                                 | Auto recover after fault is cleared.                                           |
|  Low <b>24</b><br>Error<br>Low temperature icon always on<br>Error code always on     | MOSFET UTP fault                                        | Turn on and off, contact after sales if still not fixed.                       |
| <b>27</b><br>Error<br>Error code always on                                                                                                                            | DC input hardware overcurrent protection                | Remove DC charge, auto recover after connecting DC and turn on.                |
| <b>28</b><br>Error<br>Error code always on                                                                                                                            | DC input software overcurrent protection                | DC charging stops and will automatically resume after the fault is eliminated. |
| <b>30</b><br>Error<br>Error code always on                                                                                                                            | Car charger output/DC5521 output overcurrent protection | Turn off output, manual recover after fault is cleared.                        |
| <b>31</b><br>Error<br>Error code always on                                                                                                                            | PV output OVP (over voltage protection) fault           | Stop PV, Auto recover after fault is cleared.                                  |
| <b>32</b><br>Error<br>Error code always on                                                                                                                            | DC input voltage overvoltage protection                 | Stop DC, Auto recover after fault is cleared.                                  |
|  Over <b>35</b><br>Error<br>High temperature icon always on<br>Error code always on | DC input over temperature protection                    | Stop DC, Auto recover after fault is cleared.                                  |
|  Over <b>37</b><br>Error<br>High temperature icon always on<br>Error code always on | Car charge output OTP fault                             | Turn off output, manual recover after fault is cleared.                        |

| Indicator/Content |                      | Problem                                               | Solution                                                                                  |
|-------------------|----------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 38<br>Error       | Error code always on | Abnormal communication                                | Turn on and off, or change operation environment. Contact after sales if still not fixed. |
| 39<br>Error       | Error code always on | Abnormal USB                                          | Auto recover after removing abnormal USB.                                                 |
| 40<br>Error       | Error code always on | Abnormal Type-C                                       | Auto recover after removing abnormal Type-C.                                              |
| 43<br>Error       | Error code always on | The battery voltage is too low. The battery is broken | Contact after-sales processing.                                                           |

- If there is a warning occurs during the use of this product, and the warning icon still does not disappear after restarting the device, please stop using it immediately (do not try to charge or discharge).
- If none of the above information can solve problem you encounter, please contact the customer service for consultation.

Note: Both PV and Car Charger are DC input sharing the same DC Ports.



DC input

## 12. RECYCLING/DISPOSAL

If conditions permit, make sure that the battery is fully discharged before disposing of it in a designated battery recycling bin. The product contains batteries with potentially harmful chemicals, it is strictly prohibited to dispose of it in ordinary trash cans. For more details, please follow the local laws and regulations on battery recycling and disposal.

If the battery cannot be fully discharged due to a product failure, please do not dispose of the battery directly in the battery recycling bin. In such a case, you should contact a professional battery recycling organization for further processing.

The Lithium Cube contains materials that are prohibited from being placed in landfills and require recycling. These include batteries, and some components in the inverter. Contact local authorities for disposal/recycling instructions.

## 13. SPECIFICATIONS

Specifications are subject to change without notice.

### General Information

|              |                                                                                                                 |
|--------------|-----------------------------------------------------------------------------------------------------------------|
| Battery Type | LiFePO <sub>4</sub> Cell                                                                                        |
| Cycle Life   | 3000 Cycles to 80% + Capacity<br>(Test conditions: 95% DOD, 0.5C charge & 1.0C discharge at +77±37°F (+25±3°C)) |
| Capacity     | 1229Wh, 51.2V, 24Ah                                                                                             |
| Dimensions   | 17 × 10.6 × 11.8 in.<br>(432 × 270 × 300 mm)                                                                    |
| Net Weight   | 48.5 lbs (22 Kg)                                                                                                |

### Output Ports

|                            |                                                             |
|----------------------------|-------------------------------------------------------------|
| AC US Socket ×4            | Pure Sine Wave, total 1800W (peak 3000W), 120V~ (60Hz), 15A |
| AC US Socket (Bypass Mode) | 100-120V~ (60Hz), 1500W Max., 12A Max.                      |

|                            |                                                                    |
|----------------------------|--------------------------------------------------------------------|
| AC EU Socket ×3            | Pure Sine Wave, total 1800W (peak 3000W), 220-240V~ (50/60Hz), 12A |
| AC EU Socket (Bypass Mode) | 220-240V~ (50/60Hz), 1800W Max., 10A Max.                          |

|                            |                                                                         |
|----------------------------|-------------------------------------------------------------------------|
| AC UK Socket ×3            | Pure Sine Wave, total 1800W (peak 3000W), 220-240V~ (50/60Hz), 13A Max. |
| AC UK Socket (Bypass Mode) | 220-240V~ (50/60Hz), 1800W Max., 10A Max.                               |

|                     |                                  |
|---------------------|----------------------------------|
| USB-A1/A2           | 5V 3A, 9V 2A, 12V 1.5A, 18W Max. |
| USB-A3/A4           | 5V 2.4A, 12W Max.                |
| USB-C1/C2           | 5/9/12/15V 3A, 20V 5A, 100W Max. |
| Car Charger         | 12.6V 10A, 126W Max.             |
| DC 5521 output (x2) | 12.6V 3A                         |

- \* Car charge and DC7909 share power, 126W max.
- \* Inverter mode: the output AC power comes from the battery, not the grid.
- \* Bypass mode: the output AC power comes from the grid, not the battery.

## Input Ports

|                           |                                         |
|---------------------------|-----------------------------------------|
| AC Input Power (US)       | 1500W Max., 12A                         |
| AC Input Voltage (US)     | 100-120V~, 60Hz                         |
| AC Input Power (UK/EU)    | 1800W Max., 10A                         |
| AC Input Voltage (UK/EU)  | 220-240V~, 50/60Hz                      |
| Solar Input               | 13-45V 12A                              |
| Solar/Car Input Port Type | DC 7909                                 |
| Car Charger               | 12/24V battery supported, 8A by default |

## Input Charging

|                          |           |
|--------------------------|-----------|
| Solar/Car Charging Power | 400W max  |
| AC Charging Power        | 1380W max |
| AC+Solar Charging Power  | 1380W max |

## Environmental Operating Temperature

|                         |                             |
|-------------------------|-----------------------------|
| Storage Temperature     | -4°F – 113°F (-20°C – 45°C) |
| Charging Temperature    | 32°F – 113°F (0°C – 45°C)   |
| Discharging Temperature | -4°F – 113°F (-20°C – 45°C) |

## Battery

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Type             | Lithium iron phosphate battery (LiFePO <sub>4</sub> )                                                                                                                                                                              |
| Life Cycle            | Remaining capacity still over 80% after 3,000 cycles (Test conditions: 95% DOD, 0.5C charge & 1.0C discharge at +77±37°F (+25±3°C))                                                                                                |
| Protection Type       | Over Voltage Protection, Overload Protection, Over Temperature Protection, Short Circuit Protection, Low Temperature Protection, Low Voltage Protection, Overcurrent Protection, Over Charge Protection, Over Discharge Protection |
| Charge Temperature    | 32°F – 113°F (0°C – 45°C)                                                                                                                                                                                                          |
| Discharge Temperature | -4°F – 113°F (-20°C – 45°C)                                                                                                                                                                                                        |

\* Whether the product can be charged or discharged is subject to the actual battery pack temperature.

## FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.
3. 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 receiver.
- Connect the equipment into 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 requirement, This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

## ISED Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

## WAGAN Corp. Limited Warranty

### **Warranty Duration:**

Product is warranted to the original purchaser for a period of two (2) years from the original purchase date, to be free of defects in material and workmanship. WAGAN Corporation disclaims any liability for consequential damages. In no event will WAGAN Corporation be responsible for any amount of damages beyond the amount paid for the product at retail.

### **Warranty Performance:**

During the warranty period, a product with a defect will be replaced with a comparable model when the product is returned to WAGAN Corporation with an original store receipt. WAGAN Corporation will, at its discretion, replace or repair the defective part. The replacement product will be warranted for the balance of the original warranty period. This warranty does not extend to any units which have been used in violation of written instructions furnished.

### **Warranty Disclaimers:**

This warranty is in lieu of all warranties expressed or implied and no representative or person is authorized to assume any other liability in connection with the sale of our products. There shall be no claims for defects or failure of performance or product failure under any theory of tort, contract or commercial law including, but not limited to negligence, gross negligence, strict liability, breach of warranty, and breach of contract.

### **Returns:**

WAGAN Corporation is not responsible for any item(s) returned without an official Return Authorization number (RA#). Please contact our customer service team by phone or email to obtain an RA#. You can also visit our website and chat with our team during our normal business hours. For more details and instructions on how to process a warranty claim, please read the "Returns" section under the "Contact" page on our website. WAGAN Corporation is not responsible for any shipping charges incurred in returning the item(s) back to the company for repair or replacement.

Register your product online at <http://tinyurl.com/wagan-registration> to be added to our email list. You will receive previews on our upcoming products, promotions, and events.

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