

PowerMax 700 Portable Power Station



User Manual



1. Please keep the portable power station and accessories dry and away from fire.
2. Do not disassemble or collide the product, or operate the product per to its instructions.
3. Do not get caught in the rain or water. If it happens, stop using the product immediately.
4. Please recycle and dispose the product subject to local laws and regulations.
5. Children and special group of people may use the product under the supervision of guardian.
6. Do not cover or block the radiator when using the product.

Glossary

The following terms are statement of the hazard level caused by improper operation.

Attention

If the instructions are not followed in operation, the product performance or the product itself may be slightly damaged.

Caution

If the instructions are not followed in operation, the product performance or the product itself may be seriously damaged.

Warning

If the instructions are not followed in operation, the product performance or the product itself may be seriously damaged, or it may cause an accident.

Warning

Please read the whole User Manual before using the product, and operate it after getting familiar with its functions. OSCAL will not be liable for any injury, product damage or property loss caused to the user or others due to improper operation of this product. Do not use parts not provided or recommended by OSCAL. Install and use the product in strict accordance with OSCAL's guidelines. Otherwise, OSCAL after-sales service will not be available. These guidelines contain instructions on safety, operation and maintenance. Be sure to read the User Manual carefully before assembly, setting and use.

Guidelines for Safe Use of Products

Improper use may cause fire, damages or injuries. Be sure to use the product according to the following guidelines for safety.

Disclaimers

Please read all safety tips, warning messages, terms of use and disclaimers carefully. Before use, please refer to the terms of use and disclaimer on the Manual and the label on product. User shall be fully liable for all use and operation. Be familiar with the relevant laws and regulations in your area. User shall be fully liable to understand all relevant regulations and use OSCAL products in a compliant manner.

Use of product:

1. It is strictly prohibited to make the product contact any liquid. Do not immerse the product in water or wet it. Do not use the machine in rain or wet environment. Otherwise, it may cause spontaneous combustion of the battery and even explosion.
2. It is strictly prohibited to use unofficial parts. If it is in need of replacement, please go to the OSCAL official website to check the information concerned. OSCAL will not be liable for product accidents or failures caused by using the products not officially provided by OSCAL.
3. Before plugging other modules to/from the machine, please keep the machine power off. Do not plugging other modules or parts when the machine is power on. Otherwise, the power port may be damaged.
4. If the ambient temperature is too high ($\geq 40^{\circ}\text{C}$), the battery may catch fire or even explode. If the ambient temperature is too low ($\leq -10^{\circ}\text{C}$), the product performance will be seriously declined and cannot meet the normal use requirements. It can be used normally after normal temperature recovers.
5. It is prohibited to use the product in the environment of strong static electricity or magnetic field. Otherwise, some protective functions of the product may fail, leading to serious failure of the machine.
6. It is prohibited to disassemble or puncture the product with sharp objects in any way. Otherwise, it will cause product failure, fire or even explosion.
7. The product may not be used again when it is bumped by strong fall or external force.

8. If the product accidentally falls into the water during use, place it in a safe open area, and stay away from the product until it is completely dry. The dried products may not be used again, but shall be properly disposed according to the method stated in this document. If the product catches a fire, it is recommended to use fire extinguishers in the following order: water or spray, sand, fire blanket, dry powder extinguisher, carbon dioxide extinguisher.
9. Do not place the machine in the microwave oven or pressure cooker.
10. It is prohibited to use wires or other metal objects to cause short circuit of the product.
11. Do not bump the product. Do not place heavy objects on the product.
12. If there is dirt at the port, clean it with a dry cloth. Otherwise, it will cause poor contact, resulting in power loss or failure to recharge.
13. After the power of the product is used up, please recharge the product immediately. Otherwise, it will cause irreversible damage to the battery, or the battery will not be usable.
14. If the product is not used, please turn off the main switch in time.

Recharging

1. The product must be recharged with the adapter officially designated by OSCAL. OSCAL will not be responsible for any consequences caused by recharging with adapters not officially designated by OSCAL.
2. Please place the product on the ground without inflammable and combustible materials when recharging. Please look after the product on the spot when recharging to prevent accidents.
3. After continuous discharge with full load, the battery may be at a high temperature. Please wait for the product to drop to ambient temperature before recharging. Do not use the adapter of other series products to recharge this series of products. Otherwise, the warranty will be disabled. If user does not follow the instructions in this Manual, OSCAL will not be liable for any injuries or losses caused therefore.

Product storage and transportation

1. Please keep the product out of the reach of children. If a child accidentally swallows parts, seek medical attention immediately.
2. If the product prompts a message of serious low battery after use, please recharge it before storing it. Long-term storage may cause damage to the battery inside the product due to over-discharge, which will make the product unusable.
3. It is forbidden to place the product close to thermal source, such as the car in hot days, fire or furnace.
4. Keep the product in a dry environment. Do not place the product in water or where water may leak.
5. It is forbidden to store or transport the product together with glasses, watches, metal necklaces, hairpins or other metal objects.
6. If it is necessary to use express delivery and logistics service to transport battery, please reduce the product power to less than 30%.

Dispose of battery

Make sure that the battery is completely discharged before putting it in the designated battery recycling box. Batteries have dangerous chemicals, and they are strictly prohibited to be disposed in ordinary dustbins. Please follow the local battery laws and regulations on recycling and disposal.

Maintenance

1. The ambient temperature for use/storage of the product is +10℃ to 40℃, and the optimal ambient temperature for use/storage is 20℃ to 25℃.
2. If the product is idle for a long time, its performance may be affected.
3. Please recharge and discharge the battery every 3 months. First discharge the battery to 30%, then recharge to 80%. This operation will keep performance of battery.

Precautions for boarding

This product may not be carried aboard.

Guidelines for Use, Maintenance and Safety

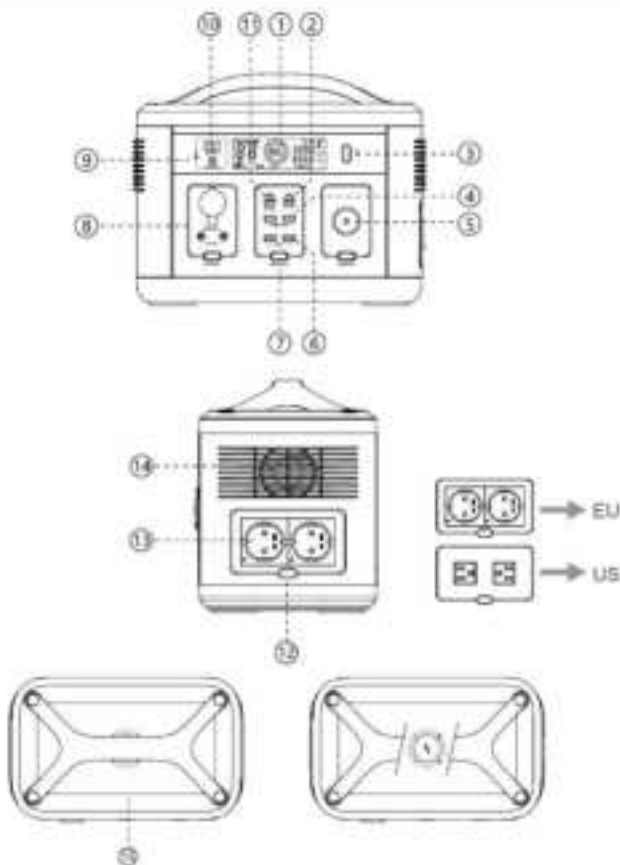
Congratulations!

Congratulations to you on becoming an OSCAL user! This short Manual will help you. Please take a moment to read the Manual, use the product according to the instructions, and transfer the page!

Attention

Press and hold the main power switch to turn on/off the product. To enable the AC output power socket, you need to press and hold the AC power key when the product is turned on. This is designed to save battery power, so that the product's power can be saved for need. Please follow this Manual to learn about each port, key and display of the product one by one. (Please recharge the product to 100% before further operation.)

Description of Product Functions



1. LCD

Display the remaining power, recharging/discharging power and other information of the product.

2. PD 30W TYPE-C output port

Support the output port of PD 3.0 protocol, through which various devices (tablets, mobile phones, etc.) using the TYPE-C interface can be recharged, with max output of 30W.

3. Main switch

Press and hold this switch for 3.5S to turn on/off the product. After the product is turned on, other keys can work normally. When the product is turned on, the LCD lights up. If other keys have not enabled the corresponding output ports at this time, and the battery is not recharged, the LCD will go out after 30s. If a key is pressed to enable the corresponding output port without discharge, the system will sleep after 8H and the LCD will go out. Press any key to wake up the power. The system does not sleep when recharging and discharging, and the LCD does not turn off when recharging. When the product is turned off, the LCD goes out.

4. 22.5W USB-A output port

USB-A output up to 22.5W max, through which various devices (tablets, mobile phones, etc.) can be recharged.

5. LED light and LED key

Press and hold the key 1.5S to turn on LED lighting. The LED lights include four modes: weak, strong, slow flash and SOS. Press the key to switch the modes.

6. 18W USB-A output port

USB-A output up to 18W max, through which various devices (tablets, mobile phones, etc.) can be recharged.

7. Key for USB (USB-A, TYPE-C) output ports

Press the key for 1S to turn on/off output of all USB-A, TYPE-C and wireless recharging.

8. Key for on-board recharging port, two DC5521 output ports and DC on-board recharging port

Press the key for 1S to turn on/off the on-board recharging and DC output. The on-board recharging port and DC5521 ports share 12V/10A 120W output.

9. DC6530 recharging port

Use power adapter or on-board charger to recharge the power bank via the DC6530 port, with max recharging power of 150W.

10. Solar recharging port

Use solar recharging panel to recharge the power bank via this port, with max recharging power of 150W.

11. Two-way TYPE-C port

Support PD 3.0 protocol, through which various devices (laptops, tablets, mobile phones, etc.) using the TYPE-C interface can be recharged, with max output of 100W. A charger that supports the PD protocol can be used to recharge the power bank via this TYPE-C port.

12. AC output key

Press the key for 1S to turn on/off the AC output.

13. Two 110V(US) / 220V(EU) AC output sockets

Able to supply the equipment with voltage of 110V(US)/ 220V(EU), with rated output of 700W and peak of 1200W.

14. Ventilation and radiation outlet

There is a fan at the radiation outlet to cool the product and prevent overheating. Do not block the radiation outlet.

15. Wireless recharging output

Max output of 15W.

Guidelines for quick start

Please fully recharge it before using

1



Press the key to turn on the main power

2



Press the key to enable DC on-board recharging

3



Press the key to enable USB (USB, Type-C) output

4



Press the key to turn on the LED

5



US



EU

Press the key to enable AC output

Interface of product display



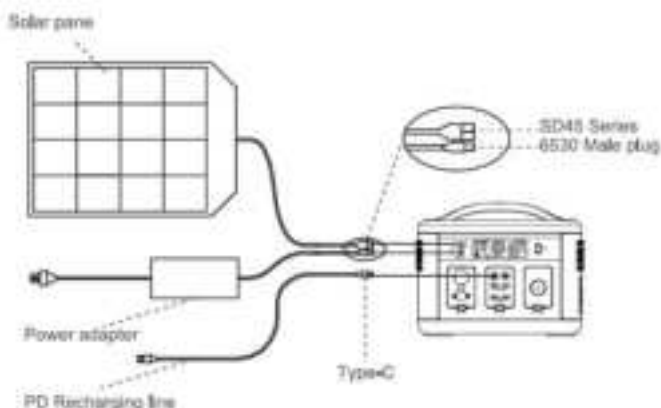
1. Display the percentage of dump power.
2. Use a ring icon to display the dump power, and the icon lights up and flashes in turn when recharging.
3. When the product fails, corresponding fault code will be displayed.
4. When the fan is turned on, it will display the icon of fan.
5. Display the current input power of the product in W.
6. Display the current output power of the product in W.
7. When the product is overloaded, the screen displays warning characters of overload.
8. When the on-board recharging output port or DC5521 output ports are used, it will display the icons of DC output-on-board recharging output.
9. When any USB-A port or TYPE-C port is used for discharging, it will display the icon of USB-A/TYPER-C output.
10. After the AC output is turned on, it will display the icon of AC output.
11. Judge the dump rechargeable/discharging time based on the current power consumption of the product, and display it accurately to minute.

The product displays different fault codes on LCD to indicate the cause of equipment protection.

No.	Fault description	Fault code
1	Input over-current protection	E01
2	Input over-voltage protection	E02
3	Input under-voltage protection	E03
4	Overload protection of the whole unit	E04
5	Inverter over-temperature protection	E05
6	Inverter low-temperature protection	E06
7	Inverter over-load protection	E07
8	Battery recharging low-temperature protection	E08
9	Battery recharging over-temperature protection	E09
10	Battery discharging low-temperature protection	E10
11	Battery discharging over-temperature protection	E11
12	Battery over-voltage protection	E12
13	Battery under-voltage protection	E13
14	Cell over-voltage protection	E14
15	Cell under-voltage protection	E15
16	Battery over-current protection	E16
18	OC over-current protection	E18
19	MOS over-temperature protection	E19
20	BMS recharging over-temperature protection	E20
21	BMS cell over-voltage protection	E21
24	BMS total voltage over-voltage protection	E24
28	BMS recharging over-current protection	E28
32	BMS recharging MOS failure	E32
36	BMS cell unbalanced	E36
37	Inverter communication abnormal	E37
40	BMS communication abnormal	E40

How to recharge the battery

The recharging port is located on the front of the product, including a DC6530 recharging port, an Anderson recharging port, and a TYPE-C recharging port. The product can be recharged by adapter, PD charger, on-board charger, or solar panel. (Note: 1. DC6530 recharging port and Anderson recharging port cannot be used at the same time, 2. The TYPE-C recharging port can only be used with a PD20V charger). The recharging connection diagram is shown as follows:



How to discharge

The AC discharge socket is located on the side of the product. The function of AC discharge can be turned on/off via a key. When AC discharge is enabled, the discharge connection diagram is shown as follows:



Specifications

Model: PowerMax 700

Output

AC Output*2	(EU) AC220V/50Hz, Rated power:700W (US) AC110V/60Hz, Rated power:700W
Type-C1PD3.0Output	DC5-15V/3A, DC20V5A
Type-C2PD3.0Output	DC5-9V/3A, DC12V/2.5A, DC15V/2A
USB-A1/A2QC3.0Output	DC5V/4.5A, DC9V/2A, DC12V/1.5A
USB-A3/A4QC3.0Output	DC5V/3A, DC9V/2A, DC12V/1.5A
ChargerandDC5521Output	DC12V/10A, 120WMax,
DC5521Output	DC12V/5A
Wireless Output	15WMax.
Total DC Output	347WMax,
Total Output Power	800W
LED lighting	Support four modes (lowlight, stronglight, solo flash, SOS)

Input

DC Input	DC24V/5A, 120W
Solar Input	12-28V, 150WMax.
Type-CPD3.0Input	DC20V/3.25A, 65WMax.

Battery

Working Environment temperature	-10℃~40℃(-4℉~104℉)
Charging temperature Of cells	0℃~45℃(32℉~113℉)
Lifespan	After 500 cycles, battery capacity≥80%

Net weight	7.5±0.2kg
Size	312x180x248mm (12.3x7.5x9.7in)
Battery designcapacity	666Wh

Warning

Changes or modifications to this unit 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 Class B digital devices pursuant to Part 15, Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, 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 and 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 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.

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, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Packing list

S/N	Diagram	Name	Quantity
1		Portable power station	1
2		Power adapter	1
3		On-board recharging line	1
4		Instructions	1

Dear customer,

If you are in any problems with our products, please feel free to contact us by scan the code or Email us to get professional worry-free technical support & Customer Service immediately.

We always do our best to maintain the interests of each customer and hope you get the most benefit from us!

Sehr geehrter Kunde,

wenn Sie irgendwelche Probleme mit unseren Produkten haben, kontaktieren Sie uns bitte, indem Sie den Code scannen oder uns eine E-Mail schicken, um sofort professionelle und sorgenfreie technische Unterstützung zu erhalten & Kundenservice.

Wir tun immer unser Bestes, um die Interessen eines jeden Kunden zu wahren und hoffen, dass Sie den größten Nutzen aus uns ziehen!

Gentile Cliente,

Se hai domande sui nostri prodotti, non esitare a contattarci scansionando il codice QR o inviando un'e-mail per ottenere immediatamente supporto tecnico e servizio clienti professionale.

Facciamo sempre del nostro meglio per mantenere gli interessi di ogni cliente e speriamo che tu possa ottenere il massimo beneficio da noi!

Cher client,

si vous avez aucun problème avec nos produits, n'hésitez pas à nous contacter en scannant le code ou nous envoyant un courriel pour obtenir un soutien technique professionnel & Service client immédiatement.

Nous faisons toujours de notre mieux pour maintenir l'intérêt de nos clients et espérons que vous obtiendrez le plus d'avantages de nous!

Estimado cliente,

Si usted está en cualquier problema con nuestros productos, por favor sienta libre de enterarnos en contacto con nosotros por la exploración del QR código o del email nuestro para conseguir profesional soporte técnico preocupacion libre & servicio al cliente inmediatamente.

Siempre hacemos todo lo posible para mantener intereses de cada cliente y esperamos que obtenga el máximo beneficio de nosotros.

当社の製品に何かが問題がございましたら、コードをスキャンしてお客様にお問い合わせください。或は、メールでお問い合わせください。

お客様の利益を守るために最善を尽くし、お客様によりよいサービスを提供して力を尽くします！

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