

PowerMax 2400 Pro Portable Power Station User manual (V1.0)



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 port 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.

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 técnica preocupación-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

当社の製品に何か問題がございましたら、コードをスキャンしてお気軽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！

Scan the QR code below to get FREE-technical support

Scannen sie den QR code unten, um KOSTENLOSEN technischen support zu erhalten

Scansiona il codice QR sotto per ottenere supporto tecnico GRATUITO

Scannez le code QR ci-dessous pour bénéficier d'un soutien technique gratuite.

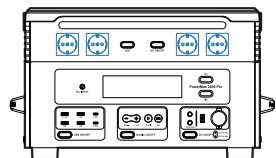
Escanee el siguiente código QR para obtener asistencia técnica GRATUITA

以下の QR コードをスキャンして、無料の技術サポートを受けられます



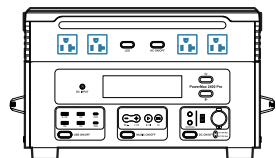
afterservice@oscal.hk

English text.....	1-16
日本語デキスト.....	17-32
Текст на русском.....	33-48
Texte en français.....	49-64
Texto en español.....	65-80
Deutscher Text.....	81-96
Testo in italiano.....	97-112
Texto em português.....	113-128
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PowerMax 2400 Pro (EU)

European standard products are only suitable
for 210-240V~ voltage input and output#



PowerMax 2400 Pro (US) (JP)

US and Japanese standard products are only suitable
for 100-120V~ voltage input and output#

FCC Caution:

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.

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 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.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance 20cm between the radiator and your body: Use only the supplied antenna.

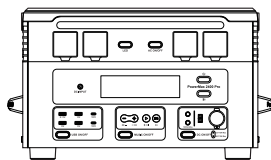


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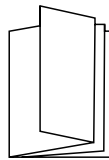
Manufacturer: Shenzhen Doka Communication Co., Ltd

Address: 1301-1302, 13th Floor, Block B, WeiDongLong Business Building, Meilong Road
2113, Longhua District, Shenzhen, P. R. C

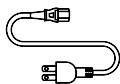
Package Contents



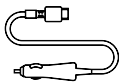
PowerMax 2400 Pro



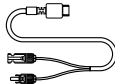
User Manual



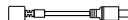
Power cord



Vehicle charging cable

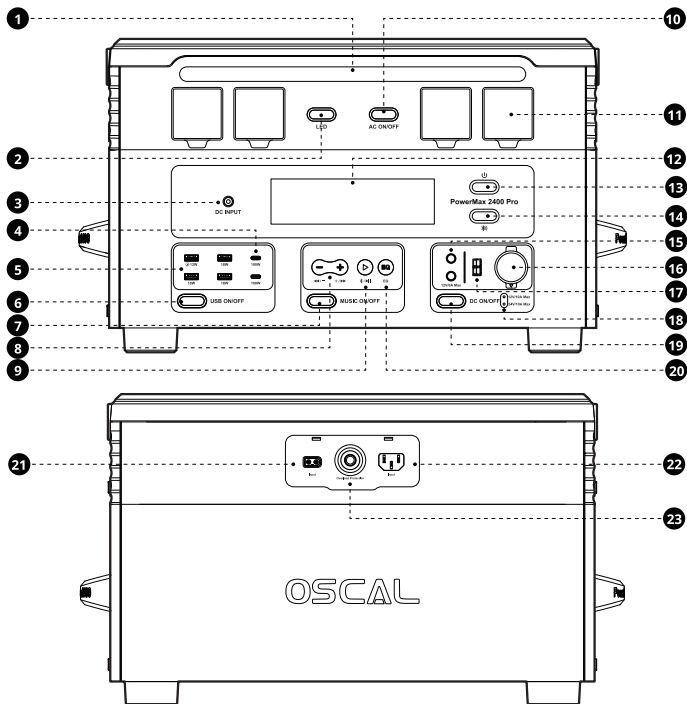


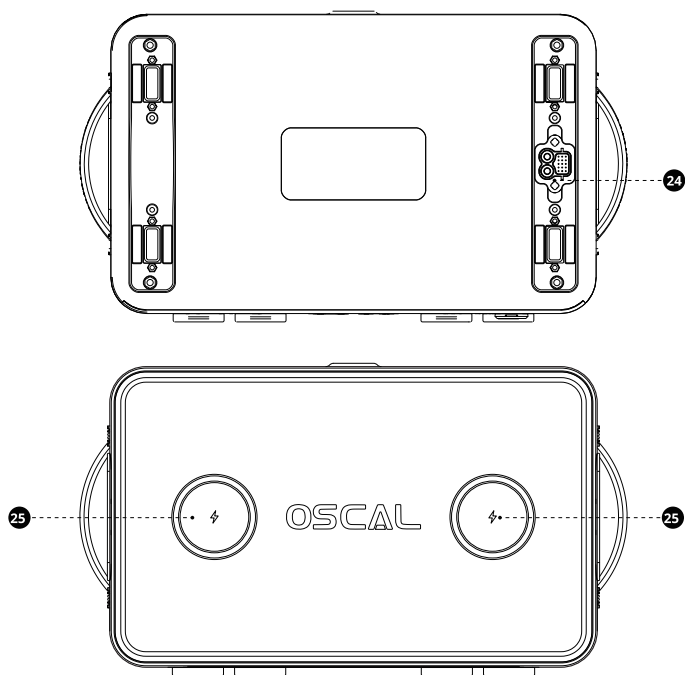
Solar charging cable



XT60U-M to DC7909 adapter cable

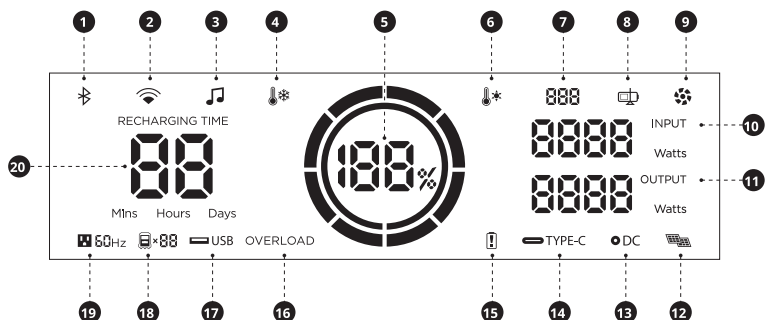
Product Introduction





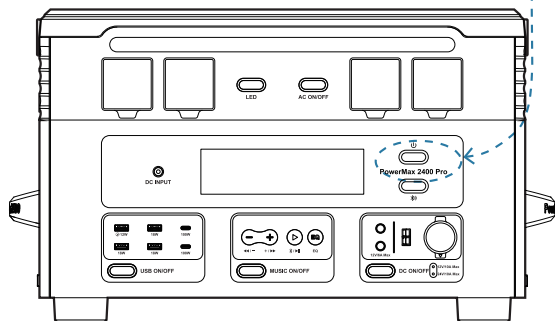
- | | | |
|---|--------------------------------------|--|
| 1. LED lamp | 10. AC output switch | 19. DC output switch |
| 2. LED lamp switch | 11. AC output socket *4 | 20. EQ switch button |
| 3. DC7909 input port | 12. Display screen | 21. Solar energy/vehicle charging input port |
| 4. USB-C output port *2 | 13. Control switch | 22. AC input port |
| 5. USB-A output port *4 | 14. APP Bluetooth/WIFI link switch | 23. Overcurrent protector |
| 6. USB/Wireless charging and outputting switch | 15. DC5521 output port *2 | 24. Wireless parallel connector port |
| 7. Bluetooth speaker switch | 16. Cigarette lighter output port | 25. Wireless charging *2 |
| 8. Volume+/-song switch | 17. Anderson output port | |
| 9. Music pause/play/Bluetooth connection reset button | 18. DC output voltage indicator lamp | |

Display screen functions

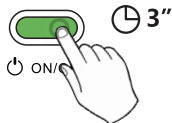


1		Bluetooth connection	11	OUTPUT	Output power
2		WIFI connection	12		Solar panel DC charging
3		Music mode	13	● DC	DC output
4		Low-temperature warning	14		USB-C output
5		Battery level percentage	15		Battery pack fault
6		High-temperature warning	16	OVERLOAD	Output overload warning
7	888	Error code	17		USB-A output
8		Charging status indicator	18		Connected battery packs
9		Fan status	19		AC output
10	INPUT	Input power	20		Remaining charge / discharge time

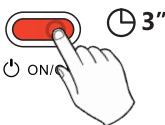
Product On/Off



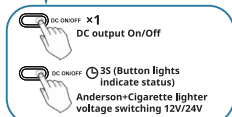
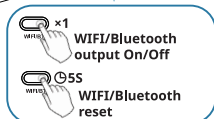
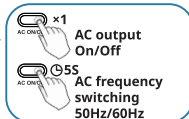
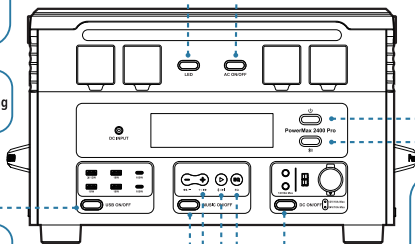
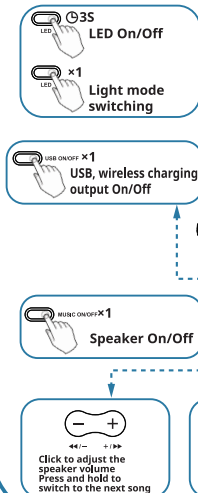
Power On



Power Off

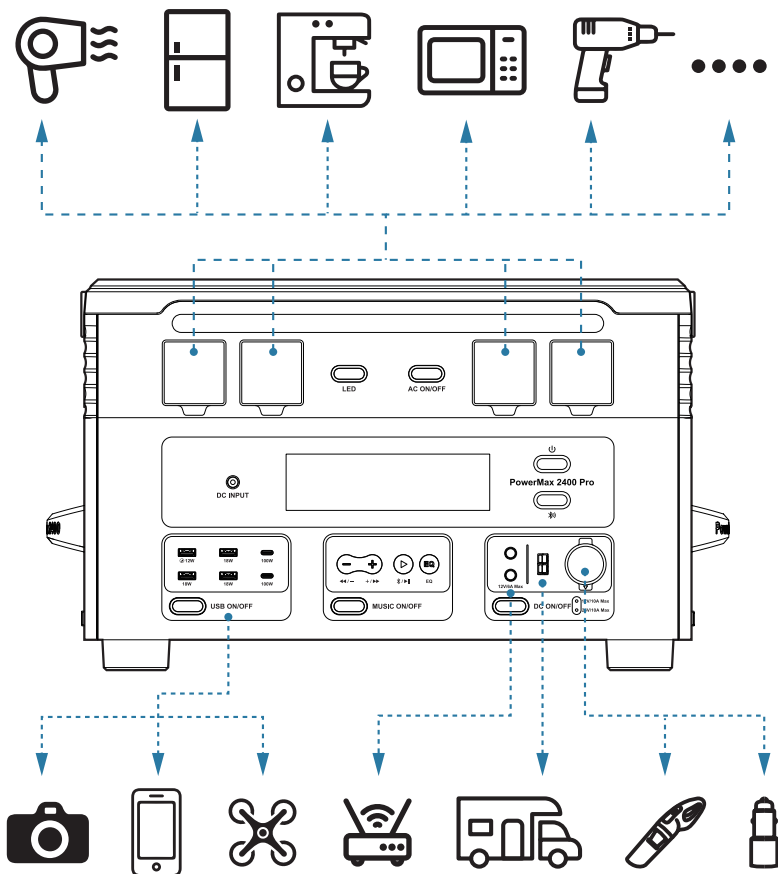


Button Introduction

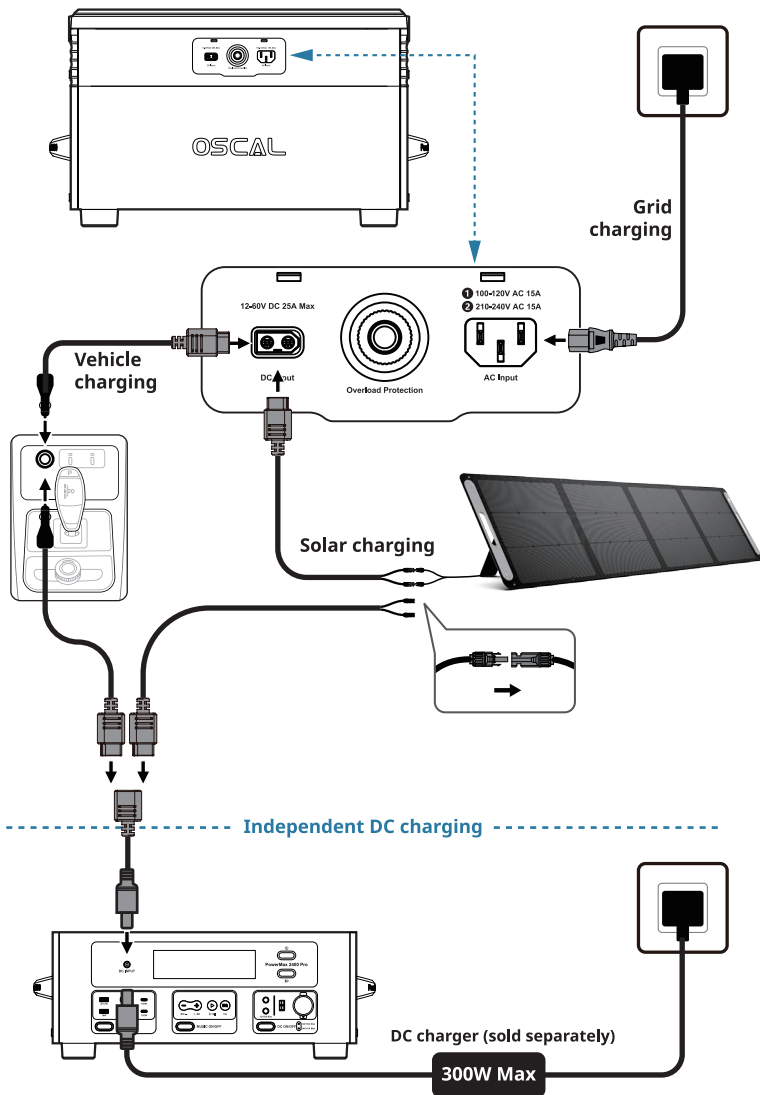


Anderson+Cigarette lighter voltage switching 12V/24V

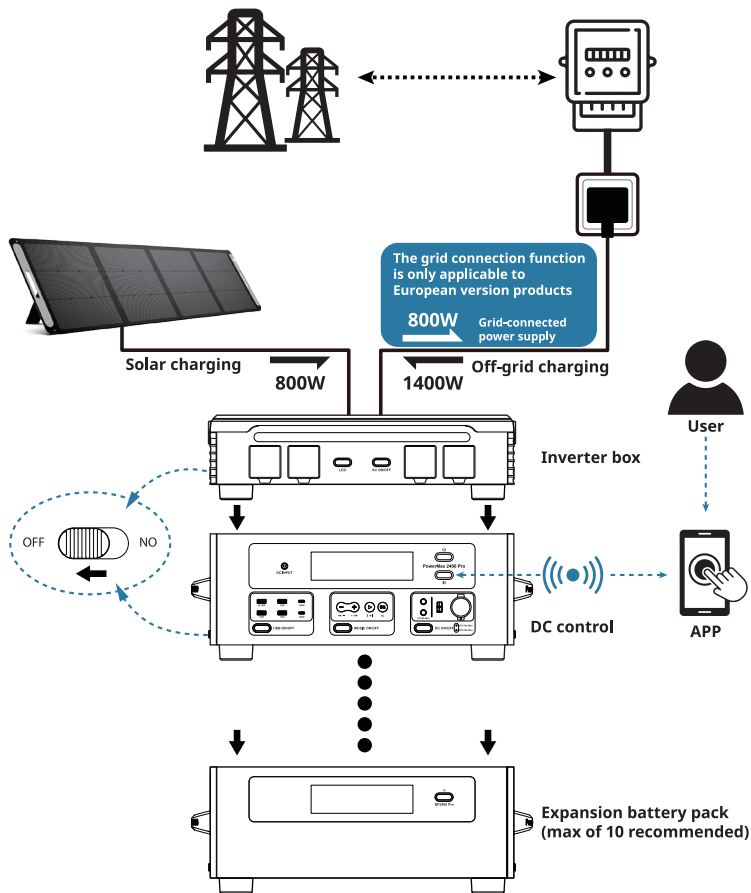
Powering Devices



PowerMax 2400 Pro Charging

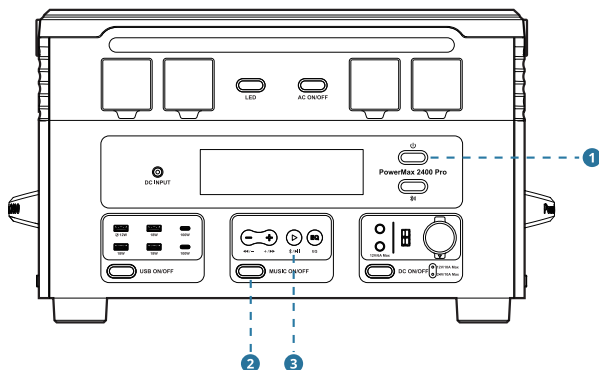


Grid-Connected vs. Off-Grid / BP2400 Pro Charging

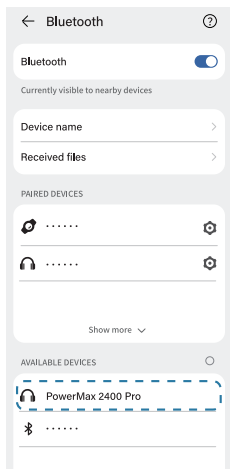


1. After the main unit and the expansion battery pack(s) are successfully combined in parallel, the user will be asked to enter the number of combined packs on the display screens of both the main unit and the expansion battery pack.
2. When combining multiple packs, connect them sequentially downward.
3. After successful combination, only the main pack will display the charging and discharging power, whereas the slave pack will only display the SOC; (If the order of the main pack and the slave pack is reversed, neither of the two packs will display the charging and discharging power.)
4. It is recommended that when using the power packs in parallel, the difference in battery power between the power pack and the main unit should be within $\pm 30\%$.
5. Before charging, please ensure that each battery pack component is properly connected via power cable. Do not directly disconnect or connect components such as the expansion battery pack when charging.

Bluetooth speaker function



- Step 1:** Press and hold the power button for 3 seconds to turn on the main power of the PowerMax 2400 Pro.
 - Step 2:** Click the MUSIC ON/OFF button to turn on the Bluetooth speaker.
- Step 3:** Open the Bluetooth list on your mobile phone, find the PowerMax 2400 Pro device, and click to connect.



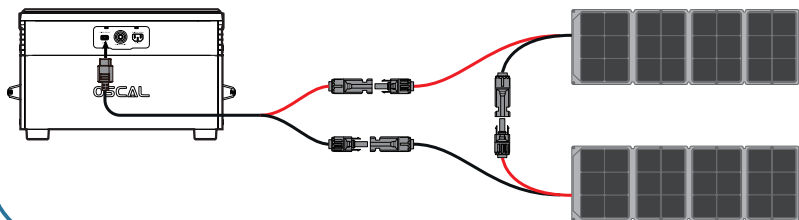
? Connection failures

Unable to connect to the PowerMax 2400 Pro. The possible reason(s) are as follows:

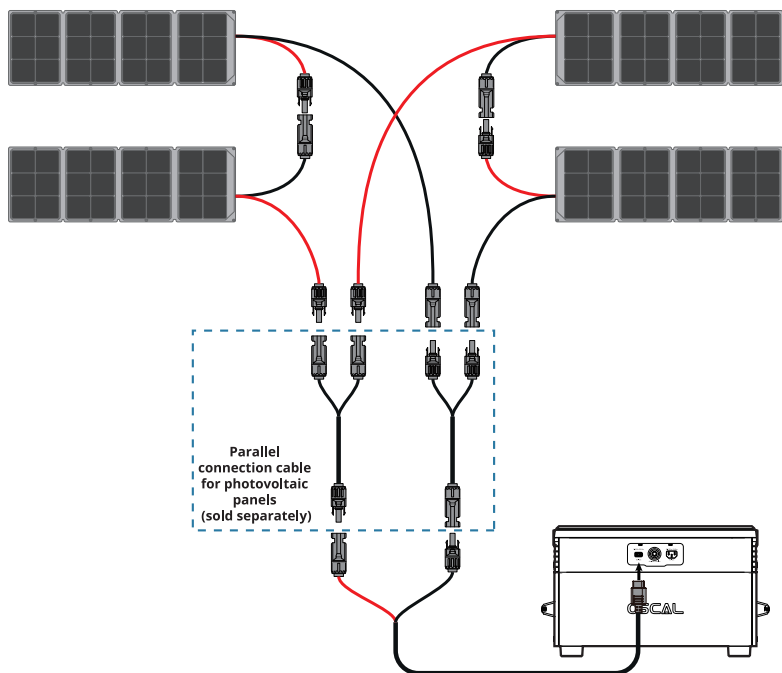
1. The device's Bluetooth is turned off, or it is out of the communication range (10 meters).
2. This device is already connected to other devices. You need to disconnect the current connection and try again.

Press and hold the | Pause/Play button to disconnect. When a prompt appears indicating that the Bluetooth has been disconnected, you can attempt reconnection.

Schematic Diagram: Series Connection of Photovoltaic Panels



Schematic Diagram: Parallel Connection of Photovoltaic Panels



Parameter Specifications

Basic Information	
Net weight	Approx. 26.5kg (6.3kg+20.2kg)
Dimensions (L×W×H)	530×290×302mm
Capacity	2016Wh
WIFI	Frequency range: 2400-2483.5MHz Maximum output power: 20dBm
Bluetooth	Frequency range: 2400-2483.5MHz Maximum output power: 20dBm
Output Specifications	
AC output (×4)	Pure sine wave, 2400W in total, 120V ^① , 230V ^② (50/60Hz)
Wireless charging (×2)	Max power 15W
USB-A	5V ^③ 2.4A, max 12W
USB-A fast charging (×3)	5V ^③ 3A, 9V ^③ 2A, 12V ^③ 1.5A (constant voltage), max power 18W each, 54W in total
USB-C fast charging (×2)	5/9/12/15/20V ^③ 3A, 20V ^③ 5A,Max power 100W each, 200W in total
Vehicle charging output	12/24V ^③ 7.8A, max power 240W
DC5521 (×2)	12V ^③ 6A, max power 72W
Anderson port	12/24V ^③ 10A, max power 240W
Input Specifications	
AC input power	Max power 1400W
AC input voltage	100-120V ^① 15A, 210-240V ^② 10A, 50Hz/60Hz
Solar charging input	12-60V 20A Max, 1200W Max
Vehicle charging input	12V/24V ^③ 10A, max power 240W
DC7909 input	DC/Solar charging: 12-60V, rated power 300W, max current 10A
AC+Solar+DC7909	Max power 1500W
Battery Specifications	
Cell material	LFP (LiFePO4)
Cycle life	More than 80% capacity remaining after 3500 cycles
Protection type	High-temperature protection, low-temperature protection, overdischarge protection, overcharge protection, overload protection, short-circuit protection, overcurrent protection, overvoltage protection, undervoltage protection, excessive voltage difference protection.

Operation Temperature

Charging temperature 0°C~45°C

Discharging temperature -10°C~45°C

Storage temperature -10°C~45°C (ideally 20°C~30°C)

Other Specifications

Expansion battery pack BP2400 Pro 2.016kWh, stackable in parallel with up to 10 battery packs (including the main battery pack, the total capacity is 11*2.016kwh=22.176KWH), each sold separately

Solar panel Optional, 200W/400W solar panel, sold separately

- ❶ This marking parameter is only applicable to US and Japanese version products. The maximum photovoltaic input voltage is 12-105V DC
- ❷ This marking parameter is only applicable to European version products. The maximum photovoltaic input voltage is 12-150V DC



- 1. Vehicle charging is facilitated by means of an Anderson-style power connection, with a max power of 240W.
- 2. Product charging is dependent upon the actual temperature of the battery pack.



Safety Instructions

1. It is recommended to use original components or parts. If replacement is required, please contact the official OSCAL sales channel for purchase information.
2. Charging, discharging, and recharging the device once every six months is recommended. In addition, do not leave the device with a completely drained battery for a long time.
3. Do not use the Product in rain or in a wet environment.
4. Do not use the Product in strong electrostatic or magnetic-field environments.
5. Do not disassemble the Product in any way or puncture it with sharp objects.
6. Do not insert pins, wires, or other metal objects into the enclosure, sockets, or controls of the Product so as not to cause short circuiting.
7. Do not use the Product near heat sources (such as fire sources or hot furnaces).
8. Strictly abide by the ambient temperature specified in the User Manual when using the Product. If the temperature of the use environment is too high, the battery may catch fire or even explode. If the temperature is too low, the Product performance will be significantly reduced and the Product may even stop running.
9. Do not place heavy objects on top of the Product.
10. Do not forcibly block the fan during use.
11. Please avoid impact, fall, and violent vibration. In case of serious external impact, please immediately turn off the power and stop use. Please secure the Product during transportation to avoid vibration and impact.
12. Do not use the Product in a high-altitude environment.
13. If dirt enters a product port, use a dry cloth to clean it.

14. Please place the Product on a stable surface to prevent damage caused by tipping. If the Product is seriously damaged after tipping, shut it down immediately, put the battery in an open area away from combustible materials or people, and dispose of it in accordance with local laws and regulations.
15. Please keep the Product away from children and pets.
16. Store the Product in a dry and well ventilated area.

19. A power supply product inevitably generates electromagnetic fields when used, which may affect the normal operation of implantable medical devices or personal medical devices, such as pacemakers, cochlear implants, hearing AIDS, defibrillators, etc. If using such medical devices, please consult the manufacturer for restrictions on their use to ensure that the Product is operated at an adequately safe distance from such medical devices (e.g., pacemakers, cochlear implants, hearing AIDS, defibrillators, etc.).
20. When the power supply product is connected to a refrigerator in its normal operating mode, it may automatically turn off due to power fluctuations from the refrigerator. If medicines, vaccines, or other high-value items are stored in the refrigerator, setting the AC output to "Never Turn Off" through the APP is recommended when connecting the Product to ensure continuous power supply. Users are encouraged to give attention to the power consumption of the power supply product.



Using the Product in residential areas may cause disturbances.

Disposal

1. If possible, make sure to completely discharge the battery of the Product before placing the Product in the designated battery recycling bin. The Product contains a battery, which is considered a hazardous chemical substance. Disposal of the Product in a general-use trash receptacle is strictly prohibited. For relevant details, please refer to your local battery recycling and disposal laws and regulations.
 2. If the battery cannot be completely discharged due to the fault of the Product itself, please contact a professional battery recycling company for further processing, instead of disposing of the battery directly in the battery recycling bin.
 3. When an over-discharged battery cannot be activated, please dispose of it as specified.
-

UPS Function

The Product supports UPS (Uninterrupted Power Supply) functionality. When you connect the AC input port of the Product to the grid with the AC charging cable, an appliance can draw power from the AC output port of the Product to operate (at this time the AC power comes from the grid, not the battery). When the grid experiences a sudden power failure, the Product can automatically switch to its battery-powered mode within 10ms.



The UPS functionality of the Product is not that of a professional UPS function and does not support switching in 0ms. Do not connect to devices with high uninterrupted power supply requirements (such as data servers and workstations), or test repeatedly to confirm compatibility before use. Furthermore, it is recommended to use only one device with UPS requirements during use. Do not use multiple devices at the same time to avoid triggering the overload protection features of the Product. OSCAL is not liable for any failure of the device to operate correctly or any loss of data due to failure to follow the instructions.

Error Code and Solution

Error code	Error type	Solution
001	Battery overvoltage	Automatically recovers after charging ceases for a period of time or after discharging
002	Battery undervoltage	Recovers after charging with mains power
007	Battery charging temperature low	Automatically recovers after reaching an appropriate temperature
008	Battery charging temperature high	Automatically recovers after reaching an appropriate temperature
009	Battery discharging temperature low	Automatically recovers after reaching an appropriate temperature
010	Battery discharging temperature high	Automatically recovers after reaching an appropriate temperature
011	BMS Mos tube temperature high	Automatically recovers after stopping charging/discharging for a period of time
012	BMS DCDC fault	Automatically recovers after stopping charging/discharging for a period of time
013	Total battery voltage too high	Automatically recovers after stopping charging
014	Total battery voltage too low	Automatically recovers after charge
015	Battery voltage difference too large	Contact the after-sales service
016	MPPT running fault	Check the light intensity and cable connection
017	MPPT temperature too high	Automatically recovers after stopping charging for a period of time
018	Solar charging disabled	Automatically recovers after stopping charging for a period of time or after discharge
019	Fan error	Contact the after-sales service
020	PCS communication interrupted	Contact the after-sales service
021	MPPT communication interrupted	Contact the after-sales service
025	Output short circuit	Disconnect the load and turn on AC switch. If the problem is persistent, contact the after-sales service
026	Output voltage too low/high	Automatically recovers after charge and discharge
027	Inverter temperature too high	Automatically recovers after a period of time
028	Battery overvoltage / Battery undervoltage / Undervoltage shutdown	Automatically recovers after charge and discharge
030	Overload	Check the load, reduce the load power, and turn on again
037	PCS temperature too high	Wait 30 minutes and turn on again

① Download the Smart Life application

Download method 1

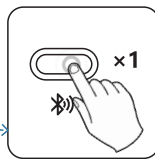
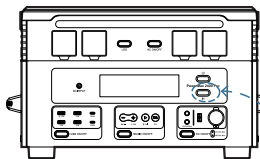
Visit the App Store or the Android app store to search for, download, and install "Smart Life".

Download method 2

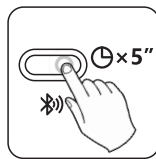


② Select the appropriate version based on country, register, and log in to the Smart Life application.

③ Press and hold the Bluetooth button for more than 5 seconds to initialize Bluetooth

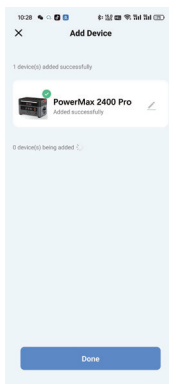
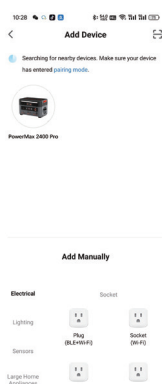
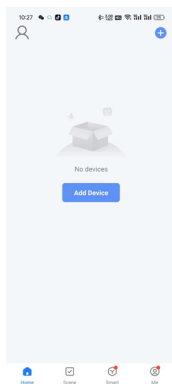


Click the button to turn on Bluetooth



Press and hold the button to reset the Bluetooth connection

④ Click on the APP to add a device



Disclaimer

Before use, please read and fully understand the contents of the User Manual of the Product to ensure correct use. After reading, please store the User Manual in a safe place for future reference. Failure to operate the Product properly may cause serious injury to yourself or others, or result in damage to the Product and property damage. By using the Product, you confirm your understanding, acknowledgment, and acceptance of all the terms and conditions of this document. The user bears complete liability for his/her own actions and all consequences arising therefrom. OSCAL is not liable for any damages caused by the user's failure to use the Product in accordance with the User Manual.

Within the scope of laws and regulations, OSCAL reserves the right to the final interpretation of this document and all related product documents. The contents of the User Manual are subject to change, revision, or termination without prior notice. Please visit OSCAL's official website for the latest product information.