

1.792kW Balcony Stacking Instructions

Model: TDS-1792WH04-MH4

Contents



1. Disclaimer	01
2. Safety Guidelines.....	02
3. Scrapping.....	04
4. Product Display.....	05
5. App Download And Usage Steps	07
A. APP Download	
B. Steps	
6. Product Specifications.....	10
7. Packing List.....	12
8. Operation Mode 1 – Balcony Solar Energy Storage System	13
A. Recommended System Configuration	
B. Product Installation	
9. Operation Mode 2 – Balcony Solar Energy Storage System	18
A. Recommended System Configuration	
B. Product Installation	
10. Operation Mode 3 – Portable	23
A. Recommended System Configuration	
B. Product Installation	
11. Operation Mode 1–3 Specifications	28
12. Frequently Asked Questions	29
13. Maintenance	30
14. Warranty.....	31

01-Disclaimer



- In order to protect your legal rights, please read the user manual of this product carefully before using this product to ensure that it is used correctly with a full understanding of this manual, and please keep it properly for future reference. If you are injured or others are injured or the product is damaged or property is lost due to the operation of this product, you are deemed to have read and approved the contents of this product manual, disclaimer and safety instructions. The user promises to bear full responsibility for his or her actions and any consequences arising therefrom. We are not responsible for any losses caused by the user's failure to use this product in accordance with this manual.
- If the product is damaged or property is lost due to natural disasters such as force majeure, lightning strikes, earthquakes, floods, or failure to use the balcony solar energy storage system as required due to local policy restrictions, the user shall bear all consequences caused thereby, and we shall not bear all losses caused thereby.
- According to laws and regulations, we have the final right of interpretation of this manual and all related documents of this product. This manual is subject to update, revision or termination without further notice.

02-Safety Guidelines



- Store in a cool, dry place and do not use near sources of ignition.
- Do not immerse the product in water. It is not recommended to use the product in rainy or humid conditions.
- Do not use in flammable, explosive or corrosive environments such as petrol, gas, chemical agents, etc., as this may endanger safety.
- Always follow regulations, instructions and signs in potentially explosive environments.
- Never store flammable liquids, gases or explosive substances in the case in which this product is placed.
- Do not use this product in an environment with strong static electricity or strong magnetic fields.
- Do not disassemble or puncture the product with sharp objects in any way.
- Do not use wires or other metal objects to connect the wires privately, which may cause the product to short-circuit.
- Do not use unofficial parts or accessories.
- When using this product, please strictly follow the ambient temperature of this user manual. If the temperature is too high, the battery may catch fire or even explode; if the temperature is too low, the performance of the product will be seriously reduced and may even stop running.
- Prohibit stacking other heavy objects on this product.
- Please avoid impact, fall, violent vibration, if there is a serious external shock, please turn off the power immediately and stop using. Please fix it when transporting, avoid vibration and impact. If long distance transport, it is recommended to use the original packaging.
- If there is dirt on the interface of the product, wipe it off with a dry cloth.
- This product is not recommended for personal safety related medical emergency equipment power supply.
- Keep the product out of the reach of children and pets to avoid accidental contact.



- If the product accidentally falls into water during use, please place it in a safe open area, and do not approach the product before it dries. Do not use the product again until it has dried. Dispose of the product properly as described in the 'Disposal of the product' section below. If the product catches fire, use fire extinguishing equipment in the following recommended order: water or water spray, sand, fire blanket, dry powder, carbon dioxide extinguisher.
- Please place the product carefully to prevent it from falling over and causing damage. If the product falls over and is seriously damaged, please turn off the product immediately, place it in an open area away from combustible materials or people, and scrap it according to the requirements of local laws and regulations.
- If you find water inside the product, do not switch it on again and use it again, please take precautions against electric shock before touching the product, and immediately place it in a safe, waterproof and open area and contact customer service immediately to deal with it.
- The power supply product will inevitably generate electromagnetic fields during use, and these electromagnetic fields may affect the normal operation of implanted medical devices or personal medical equipment, such as pacemakers, cochlear implants, hearing aids, defibrillators, etc. If such medical devices are used, consult with their manufacturers about the restrictions on the use of the devices in question to ensure that this product operates at a sufficiently safe distance from implanted medical devices (e.g. pacemakers, cochlear implants, hearing aids, defibrillators, etc.).
- Modifications to home electrical wiring when installing this product should only be performed by trained professionals.
- Use the original factory-configured cable. When disconnecting the cable, if the plug is threaded, loosen the nut connection before disconnecting the cable. Do not operate the product with damaged cables.



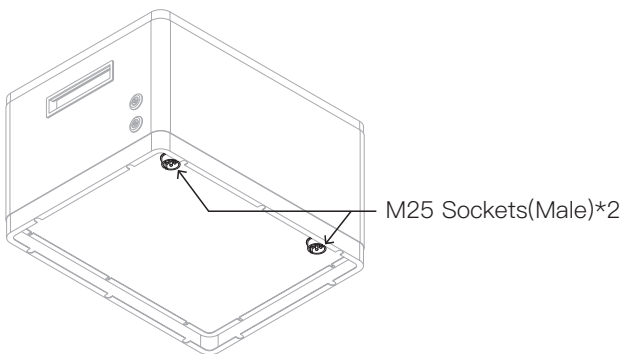
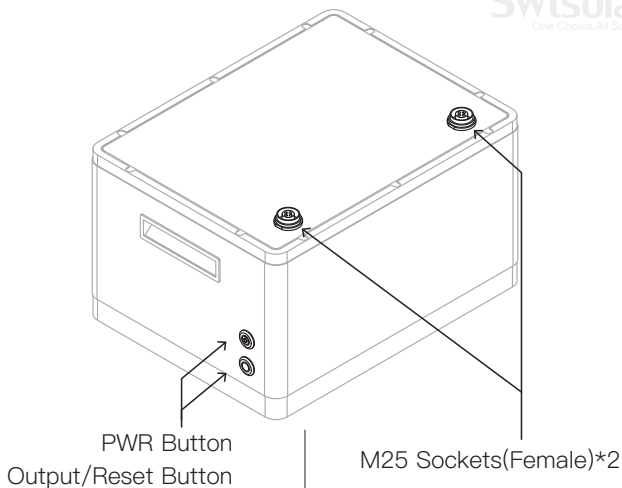
03-Scrapping



- If conditions permit, the battery of this product will be completely discharged and placed in the designated battery recycling bin. This product contains batteries, which are hazardous chemicals. Please do not discard them in ordinary trash cans. Please follow local laws and regulations on battery recycling and disposal for specific circumstances.
- If the battery cannot be completely discharged due to a malfunction of this product, please do not discard it directly in the battery recycling bin, but contact a professional battery recycling company for further processing.

04-Product Display

Description of keys and functions

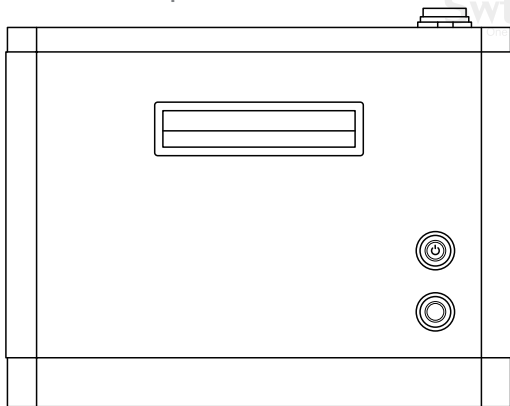


04-Product Display

Functional Description



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- **Power on:**
Press the Power(PWR) button, the battery indicator light is on (if multiple modules are connected in parallel, please turn them on one by one).
- **Power off:**
Press the Power button, the battery indicator light is off (if multiple modules are connected in parallel, please turn them off one by one).
- **Network connection:**
After the smart lithium battery pack is turned on, Please refer to pages 9–10 for Network connection.
- **Turn on the power output function:**
After power on, please press the “Output/Reset Button” briefly to turn on the power output function of the product.
- **WiFi reset:**
When you encounter problems and can't connect to the network, you can try to press and hold the “Output/Reset Button” for 5 seconds to reset the WiFi.

05-App Download And Usage Steps

05.a - APP Download



1. Please make sure that your area allows the use of balcony solar energy storage systems. Before installing this product, you may need to obtain an official permit from your local government department.
 2. Please check all accessories before installation.
 3. Before installing or removing the Smart Li-ion Battery Pack, please ensure that the Smart Li-ion Battery Pack is powered off and disconnect the PV panels and the micro-inverter.
 4. You can download the "Tuya Smart" app by scanning the QR code below and follow the "Steps for Use" below to add this product to the app.
-

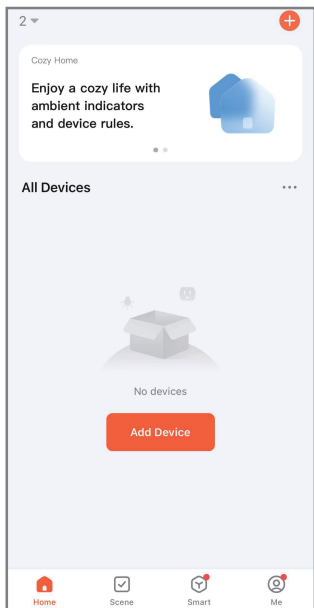


Scan it!

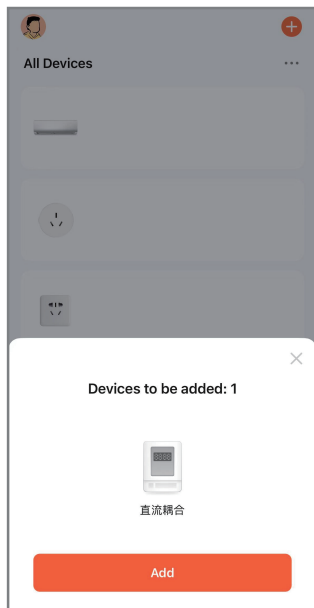
05-App Download And Usage Steps

05.b - Steps

- Power on the product
- Open the “Tuya Smart” App
- Register and log in to the app
- Click the “+” button in the upper right corner.
- Add the device “DC Coupling”.
- Set Charge/discharge power limit value
- Set time period for charging and discharging



Click the “+” button on the upper right corner.







Add the device “DC Coupling”.



Enter Wi-Fi Information


Choose Wi-Fi and enter password



 TP-LINK_FC22 

 SWT123456 

Next

Connect to WiFi



 Grid-connected Switch 

Charge Power

1200 W

Discharge Power

300 W

text	text	text
text	44.1V	330W
text	0.0V	0W
text	0.0V	0W
text	0.0V	0W

Realtime Charge Power

330W

Realtime Discharge Power

0W

Output Voltage




3.7V

Battery Voltage

45.3V

Battery Temperature

SOC

 Status  Charts  Alarm

Equipment-related
parameters

Attention:

- When you adjust the **Discharge Power** of the device in the APP settings. The **Realtime Discharge Power** may have an error of plus or minus 20.
- After installation, Please download the App and connect to the network, before adding the device on App, please make sure enable the WiFi and Bluetooth function on your phone.
- If the product can not be searched, please long press the Output/Reset button for 5 seconds, the device will restore the factory mode.

06-Product Specifications

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No.	Parameter	Specifications
1	Battery Module	[1P14S]
2	Nominal Energy	1.792 kWh
3	Nominal Output Voltage	44.8V
4	Output Voltage Range	39.9~50.4V
5	Input Voltage Range	18~60V (DC)
6	Maximum charge/Discharge Current(PV)	15A
7	Input Power(PV Input)	1200W Maximum
8	Output Power(Micro Inverter)	800W Maximum
9	Battery Type	Lithium Iron Phosphate (LFP)
10	Operating Temperature Range	-10~50°C
11	Recommended Operating Temperature	10°C~35°C
12	Storage Conditions	10°C~45°C
13	Cooling	Natural Cooling
14	Waterproof Rating	IP65
15	Dimension	430*330*260.5mm

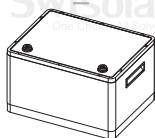
No.	Parameter	Specifications
16	Weight	25KG
17	Installation Method	Stacked Installation
18	Battery Safety Certification	CE
19	UN Transportation Test Standards	UN38.3
20	Product Warranty	5 years
21	Wireless	WiFi
22	Battery Lifespan	>4000Times (25°C)

07-Packing List

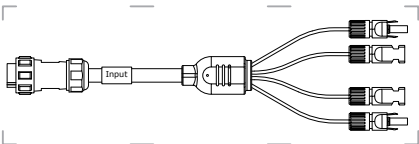


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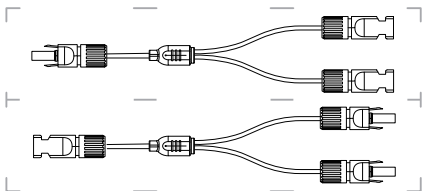
- Smart lithium battery pack(Master)
- Qty: *1
- Model: (TDS-1792WH04-MH4)



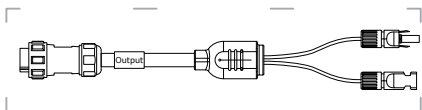
- PV Connection Cable (M25 to MC4)
- Qty: *1
- L: 2m
- Spec: 1 to 4



- Y-Cable
- Qty: *2
- L: 30cm
- Spec: 1M to 2F
- Spec: 1F to 2M



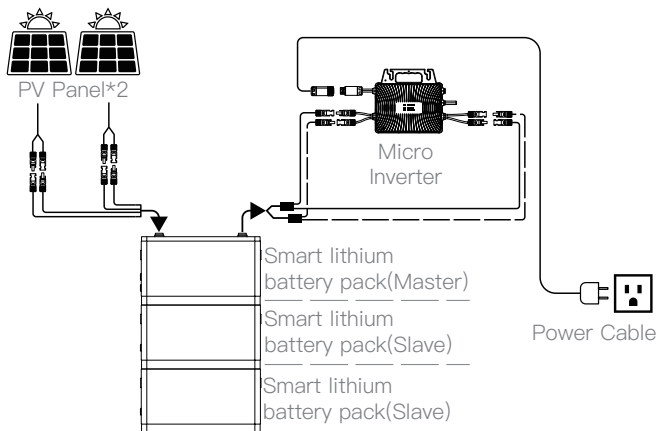
- Micro Inverter Connection Cable (M25 to MC4)
- Qty: *1
- L: 2m
- Spec: 1 to 2



08-Operation Mode 1

08.A - Recommended System Configuration

Recommended operating modes:



08.A-1 Diagram of Recommended RunMode Configuration Method

Install Guide:

1. Smart Lithium Battery Pack(Master) can connect multiple battery packs(slaves) in parallel to expand capacity, up to 5 battery packs can be connected in parallel.
2. Please place the Smart Li-ion Battery Pack on a flat surface and pay attention to the following matters before choosing the installation location:
 - A. Avoid direct sunlight.
 - B. No risk of water accumulation.
 - C. With good WiFi network.

08-Operation Mode 1

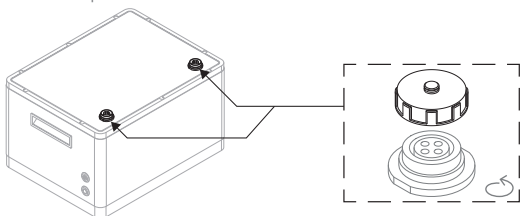
08.B - Product Installation



1. Ensure that all smart lithium battery packs to be installed are switched off before paralleling them.

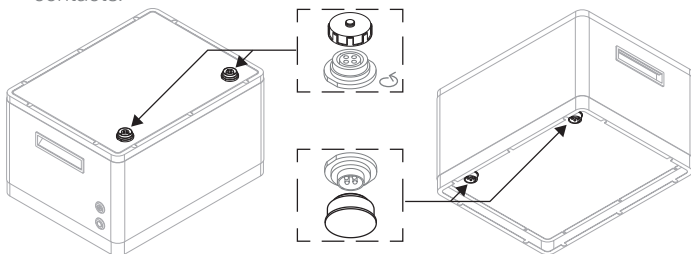
2. Please stack the Smart Li-ion battery packs for parallel connection and then connect the PV panels and the microinverter via cables. Please install according to the following requirements.

- Bottom smart lithium battery pack (slave) with M25 socket protection cap to be removed.



08.B-1 Diagram of how to remove the protective cap

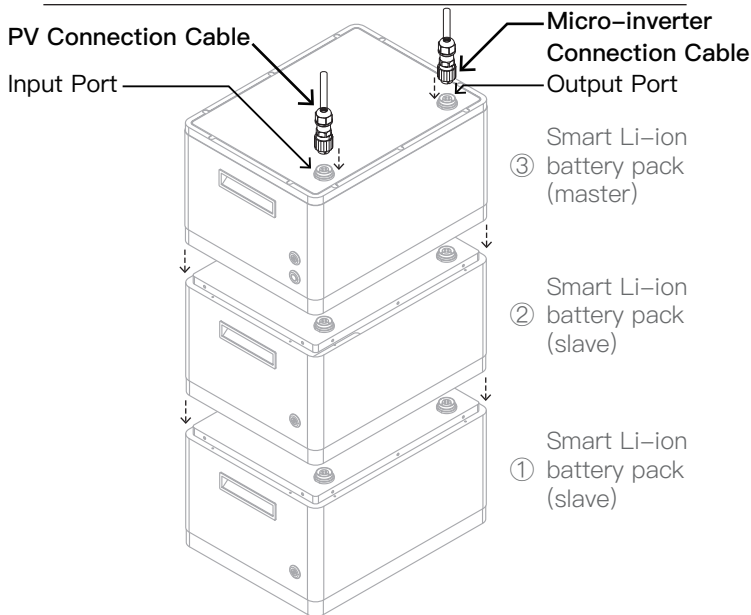
- For other Smart lithium battery pack(slaves), remove the M25 socket protection caps on the top and bottom of the product. Stack onto the lower Smart Li-Ion pack in order to ensure that the Smart Li-Ion battery packs are oriented in the same direction and have good contacts.



08.B-2 Diagram of how to remove the protective cap

- For the top smart Li-ion battery pack (master), please remove the M25 socket protection caps on the top and bottom, and for the top input, please connect the **[PV connection cable]** and connect to the PV panel; and for the output, please connect the **[Micro Inverter Connection Cable]** with the **[Y-Cable]** and connect to the micro-inverter.

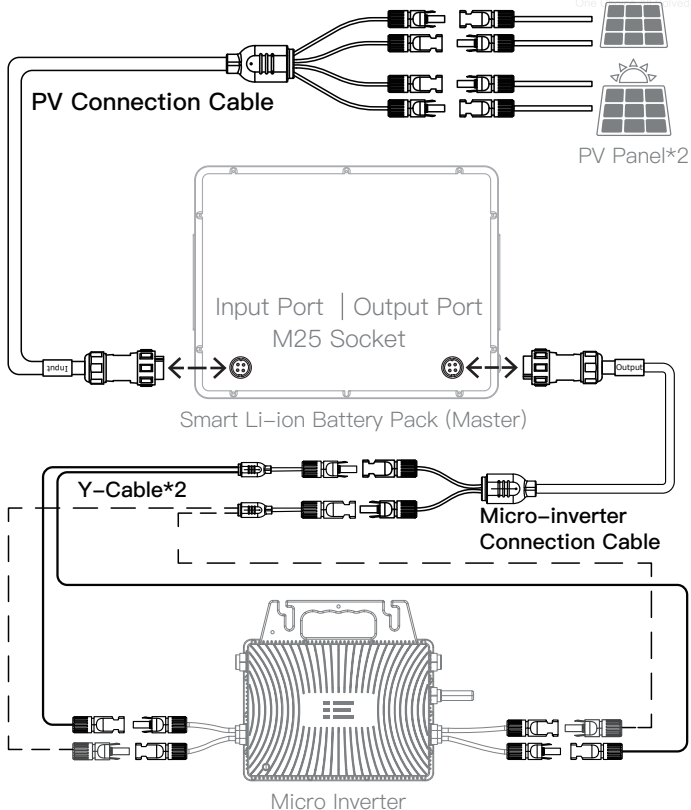
⚠ NOTE: In any case, the Port of the Smart Li-ion Battery Pack (Slave) do not access any cables!



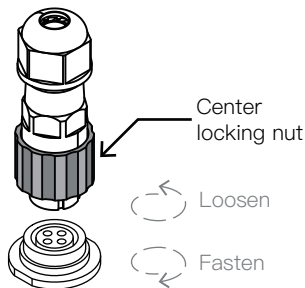
08.B-3 diagram of the method of connecting inputs and outputs and parallel connection of smart lithium battery packs



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08.B-4 Diagram of input and output cable configuration method



When connecting the input/output connection cables, insert them by aligning them with the grooves on the top M25 sockets, and then tighten the center locking nut in the direction of the arrow as shown in the figure. Tighten the center lock nut clockwise and loosen the center lock nut counter-clockwise.

08.B-5 Diagram of fixing method of connecting cable plug

3、Re-confirm that all cables are tightened and connected correctly. Turn on the power of the master and the slaves. short press the output/reset button of the master after powering on, if the indicator light of the micro-inverter turns green at this time, it represents that The output function of the product is working.

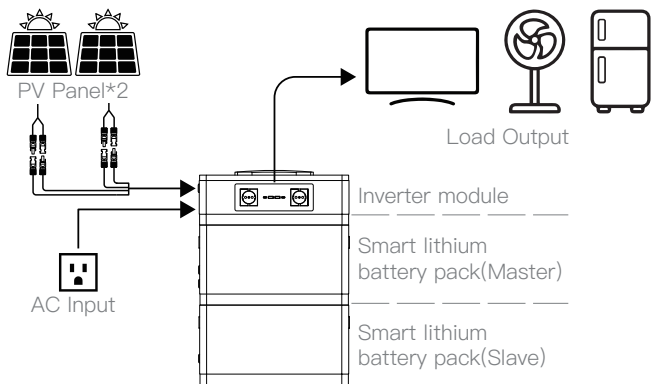
Attention:

1. Before paralleling the smart lithium battery pack, please make sure that the master and slave are in the off state, and stack the master on the top.
2. This mode only allows up to one Smart Li-ion battery pack (master) to be installed.
3. When connecting the input and output cables, please refer to Figure 08.B-4 for connection.
4. The plugs are of anti-dulling design, so make sure that they are connected in the correct direction. Tighten the center lock nut clockwise after connection. Connecting the wrong cable will cause the smart lithium pack to malfunction. Please use the original connection cable
5. When the cable is not long enough at the installation site, please purchase the original extension cable.
6. Do not touch the metal contacts of the terminals with your hands or other objects.
7. When removing the system, turn off the smart lithium battery pack, disconnect the photovoltaic panel connection, and disconnect the micro-Inverter connection in order.
8. Please keep the removed protective caps properly for subsequent use.
9. There is no lock between the intelligent lithium battery packs, if you need to move the whole system, please turn off the system sequentially from top to bottom, disconnect the cables and then carry them separately.

09-Operation Mode 2

09.A - Recommended System Configuration

Recommended operating modes:



Note: In operation mode 2, please note that the off-grid inverter cannot be used at the same time with the microinverter. As shown in the figure, the off-grid inverter module is connected to the intelligent lithium battery pack to form a portable power station.

09.A-1 Diagram of Recommended RunMode Configuration Method

Install Guide:

1. The inverter module can connect one battery pack (master) in parallel with multiple battery packs (slaves) to expand the capacity, up to 5 battery packs can be connected in parallel.
2. Please place the Smart Li-ion battery pack on a flat surface and pay attention to the following matters before choosing the installation location:
 - A. Avoid direct sunlight.
 - B. No risk of water accumulation.
 - C. With good WiFi network.

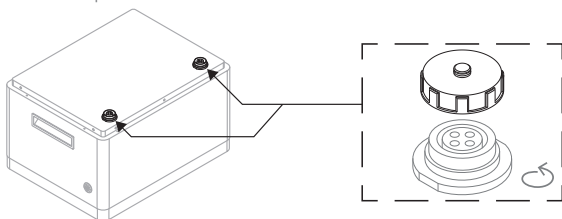
09-Operation Mode 2

09.B - Product Installation

1. Ensure that all smart lithium battery packs and inverter modules to be installed are in the off state before paralleling.

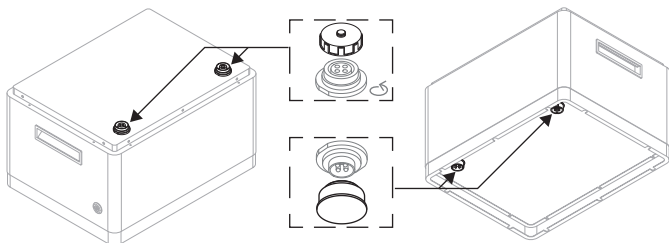
2. Please stack the Smart Li-ion battery packs for parallel connection and then connect the PV panels and the Inverter module. Please install according to the following requirements.

- Bottom smart lithium battery pack (slave) with M25 socket protection cap to be removed.



09.B-1 Diagram of how to remove the protective cap

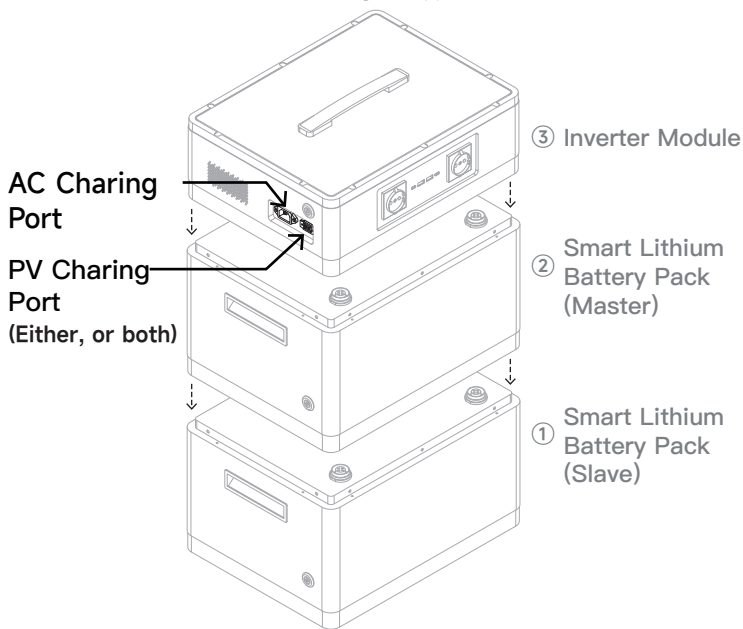
- For other Smart lithium battery pack, remove the M25 socket protection caps on the top and bottom of the product. Stack onto the lower Smart Li-ion pack in order to ensure that the Smart Li-ion battery packs are oriented in the same direction and have good contacts.



09.B-2 Diagram of how to remove the protective cap



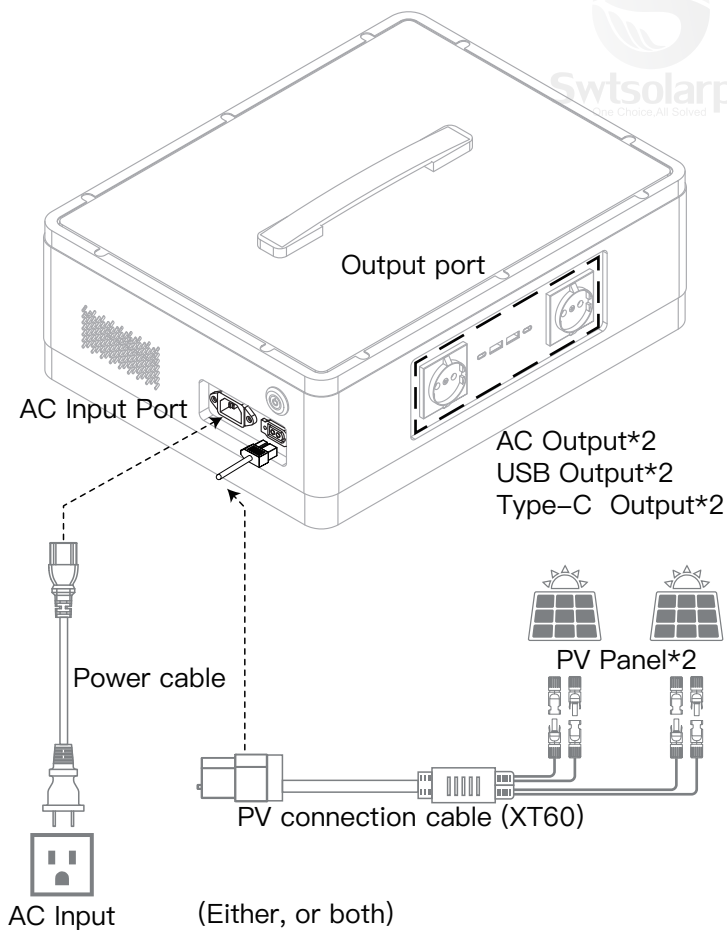
- For the top inverter module, remove the M25 socket protection cap on the bottom. The **[PV connection cable (XT60)]** can be connected to the PV panel, or the **[Power cable]** can be connected to the AC Charging Port (**either one of the two charging methods can be used, or both**). Connect the output to the desired electrical appliances, and do not exceed 2000W in total when using AC appliances.



09.B-3 Diagram of inverter module charging method and method of parallel connection of Smart lithium battery packs



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3. Re-confirm that all cables are tightened and connected correctly. Turn on the power of the inverter module, the master, and the slave.

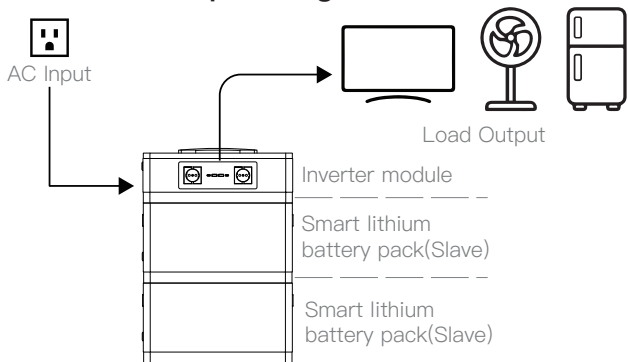
Attention:

1. Before paralleling the smart lithium battery pack, make sure the inverter module, master and slave are in the off state.
2. This mode only allows up to one smart lithium battery pack (Master) to be installed.
3. Please strictly follow the order of installing the topmost layer as inverter module, the second layer as master, and downward as slaves, as shown in Figures **09.A-1** and **09.B-3**.
4. When connecting the input and output cables, please refer to Figures. **09.B-4** for connection.
5. The plugs are of anti-dulling design, so make sure that they are connected in the correct direction. Tighten the center lock nut clockwise after connection.
6. If the cable is not long enough at the installation site, please purchase the original extension cable.
7. Do not touch the metal contacts of the terminals with your hands or other objects.
8. When removing the system, please turn off the power of the inverter module and intelligent lithium battery pack first; then disconnect the PV panel connection or power adapter.
9. Please keep the removed protective cap properly for subsequent use.
10. There is no lock between the intelligent lithium battery pack and the inverter, if you need to move the whole system, please turn off the power in order from top to bottom, disconnect the cables and then carry them separately.

10-Operation Mode 3

10.A - Recommended System Configuration

Recommended operating modes:



Note: In operation mode 3, please note that the off-grid inverter cannot be used at the same time with the microinverter. As shown in the figure, the off-grid inverter module is connected to the intelligent lithium battery pack to form a portable power station.

10.A-1 Diagram of Recommended RunMode Configuration Method

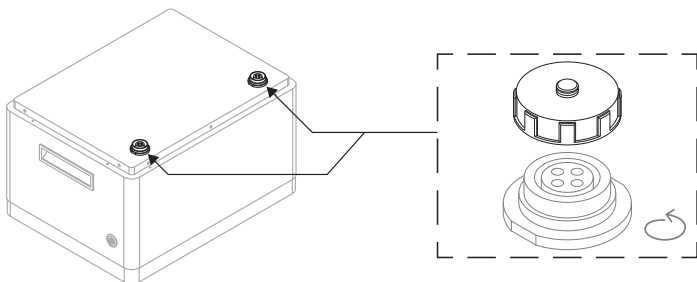
Install Guide:

1. The inverter module can connect one battery pack (master) in parallel with multiple battery packs (slaves) to expand the capacity, up to 5 battery packs can be connected in parallel.
2. Please place the Smart Li-ion battery pack on a flat surface and pay attention to the following matters before choosing the installation location:
 - A. **Avoid direct sunlight.**
 - B. **No risk of water accumulation.**
 - C. **With good WiFi network.**

10-Operation Mode 3

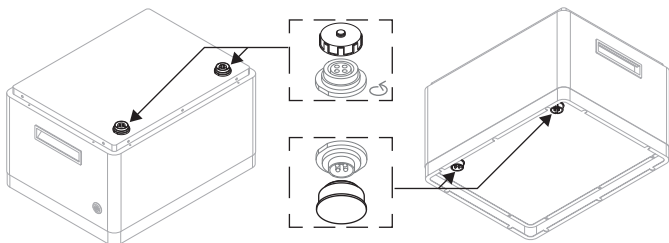
10.B - Product Installation

1. Ensure that all smart lithium battery packs and inverter modules to be installed are in the off state before paralleling.
2. Bottom smart lithium battery pack (slave), remove top M25 socket protection cap.



10.B-1 Diagram of how to remove the protective cap

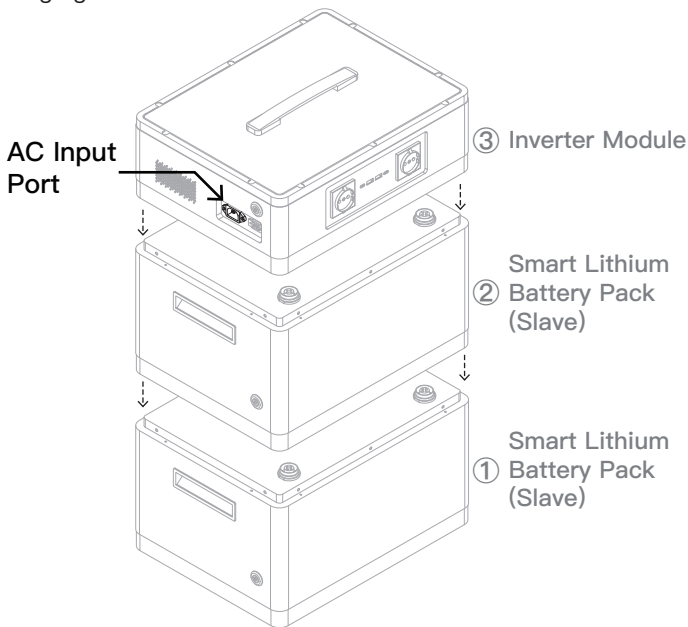
- For other Smart lithium battery pack, remove the M25 socket protection caps on the top and bottom of the product. Stack onto the lower Smart Li-Ion pack in order to ensure that the Smart Li-Ion battery packs are oriented in the same direction and have good contacts.



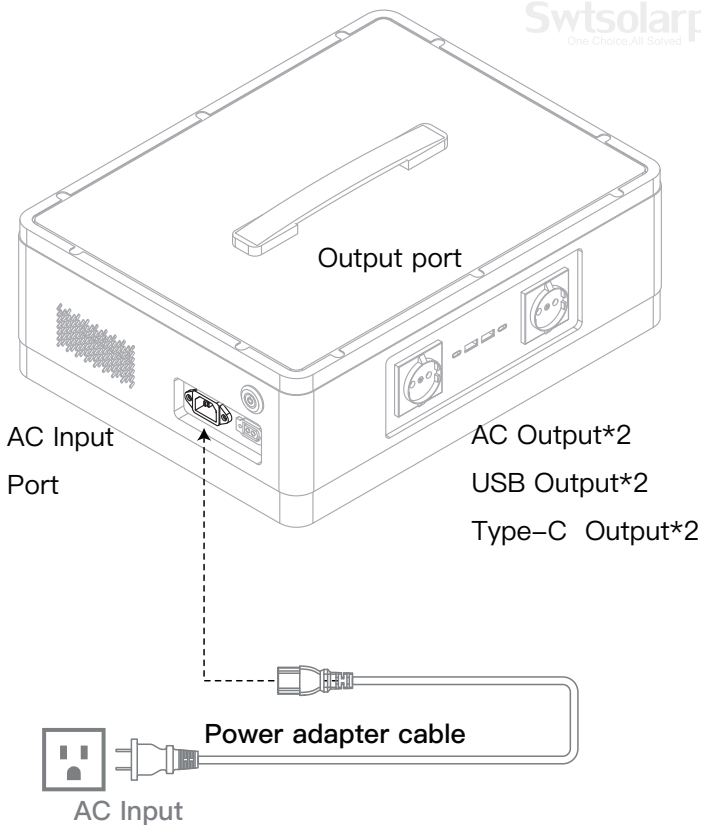
10.B-2 Diagram of how to remove the protective cap

- Please remove the protective cover of the M25 connector on the bottom of the inverter module and charge the product using the [Power cable] charging cable. And the total power of the AC appliances should not exceed 2000W.

⚠ **NOTE:** Do not connect the [PV connection cable] for charging in this mode.



10.B-3 diagram of AC input charge method of inverter module and method of paralleling smart lithium battery packs



10.B-4 Inverter Adapter Charge Input Method and
Module Interface Description

3. Re-confirm that all cables are tightened and connected correctly. Turn on the power to the inverter module, and the slave.

Attention:

1. Before paralleling the smart Li-ion battery pack, please make sure the inverter module and slave are off and stack the inverter module at the top.
2. Please strictly follow the order of installing the inverter module on the topmost layer and the rest on the slaves, as shown in Figures **10.A-1** and **10.B-3**.
3. When connecting the input and output cables, please refer to Figures **10.B-4** for connection.
4. The plugs are of anti-dulling design, so make sure that they are connected in the correct direction. Tighten the center lock nut clockwise after connection.
5. Reversing the connection will cause the Smart Lithium pack to malfunction. Please use the original connecting cable.
6. When the cable is not long enough at the installation site, please purchase the original extension cable.
7. Do not touch the metal contacts of the terminals with your hands or other objects.
8. When dismantling the system, turn off the inverter module and intelligent lithium battery pack in order; disconnect the PV panel connection and disconnect the power adapter.
9. Please keep the removed protective cap properly for subsequent use.

11-Operation Mode 1-3 Specifications



Operation Mode 1 –Balcony Solar Energy Storage System

No.	Parameters	Specifications
1	Nominal Output Voltage	44.8V
2	Input Voltage Range	18–60V(DC)
3	Maximum PV Input	600W*2
4	Micro Inverter Output Power	800W Max

Operation Mode 2 –Balcony Solar Energy Storage System

No.	Parameters	Specifications
1	AC Output Voltage	AC220–240V
2	Input Voltage Range	18–60V(DC)
3	Frequency	50 / 60Hz
4	Maximum Pv Input	600W*2
5	AC Output Power	2000W

Operation Mode 3 –Portable

No.	Parameters	Specifications
1	AC Input Power	2000W
2	AC Output Voltage	AC220–240V
3	Frequency	50 / 60Hz
4	AC Output Power	2000W

12-Frequently Asked Questions



1. How many photovoltaic panels can be connected to the Smart Li-ion battery pack?

Intelligent Li-ion battery pack can be connected to 2 PV panels not higher than 600W, and the open circuit voltage of PV panels should be lower than 60V.

2. How to clean Li-ion battery pack?

If it is placed outside the balcony and exposed to the wind and sun, please clean it simply when needed and wipe it with a dry, non-abrasive cloth.

3. How to use the device safely and what precautions should be taken?

When using the lithium-ion battery pack, please pay attention to the temperature range of the environment, in the appropriate temperature range, the lithium-ion battery pack will play a maximum role, if the lithium-ion battery pack in the use of temperature outside the range of work, the performance of the machine will be greatly reduced, and may reduce the service life of the machine.

4. How safe is the equipment?

The Smart Li-Ion battery packs have adequate safety features and certifications for both indoor and outdoor use.

5. What ambient temperatures are the devices suitable for?

It is recommended to use in the range of 0°C to 45°C, too high or too low temperature may affect the charging and discharging efficiency, 10°C ~ 0°C can only be discharged, not charged.

13-Maintenance



1. It is recommended to fully charge the product after receiving it, if you need to store it for a long time, please charge and discharge the product every 3 months.
2. Please store the product away from water and heat sources.
3. To prolong the life of the battery, please try to use or store the product at a temperature of 20°C~30°C. For safety reasons, please do not store the product in an environment above 45°C or below -10°C for a long period of time.
4. If the product is severely low on power and has been left unused for an extended period of time, the product must be recharged before it can be used again.
5. Perform periodic inspections to ensure that all connections and components are intact. If there are signs of wear or damage, contact our customer service.

14-Warranty



Warranty Card

Name	
Email	
Phone Numbers	
Purchase Channel	
Purchase Order	
Purchase Time	
Product Model	
Product SN Code	

Attention:

According to the company's warranty policy, product failure or damage due to non-human factors is warranted for a period of 5 years from the date of purchase. Non-human factors include product design defects, material or workmanship problems, and natural aging or wear and tear under normal use environment. Customers are required to provide valid proof of purchase and warranty card. Damage caused by improper use, improper maintenance or other human factors by the customer is not covered by the warranty.

You can also contact us and get more information via

Email: solar@swt-power.com

Website: www.swtsolarpv.com \ www.swt-power.com

Phone: +86-15959206051

We do not accept warranty claims for damage caused by the following, which are not covered by our warranty obligations.

1. Unable to provide proof of purchase.
2. Major natural disasters (e.g. earthquakes, tsunamis, typhoons, floods, etc.) or major social anomalies (e.g. wars, riots, government intervention, strikes, etc.).
3. Accidental damage or improper use.
4. Failure to install, deploy, test, configure or operate the product in accordance with the instructions in the product installation manual.
5. Damage to the tear-resistant sticker, disassembly or modification of the product.
6. Products purchased from unauthorized distributors or retailers.
7. Free products, prizes or gifts.
8. Products that have not been charged or discharged for more than 6 months.