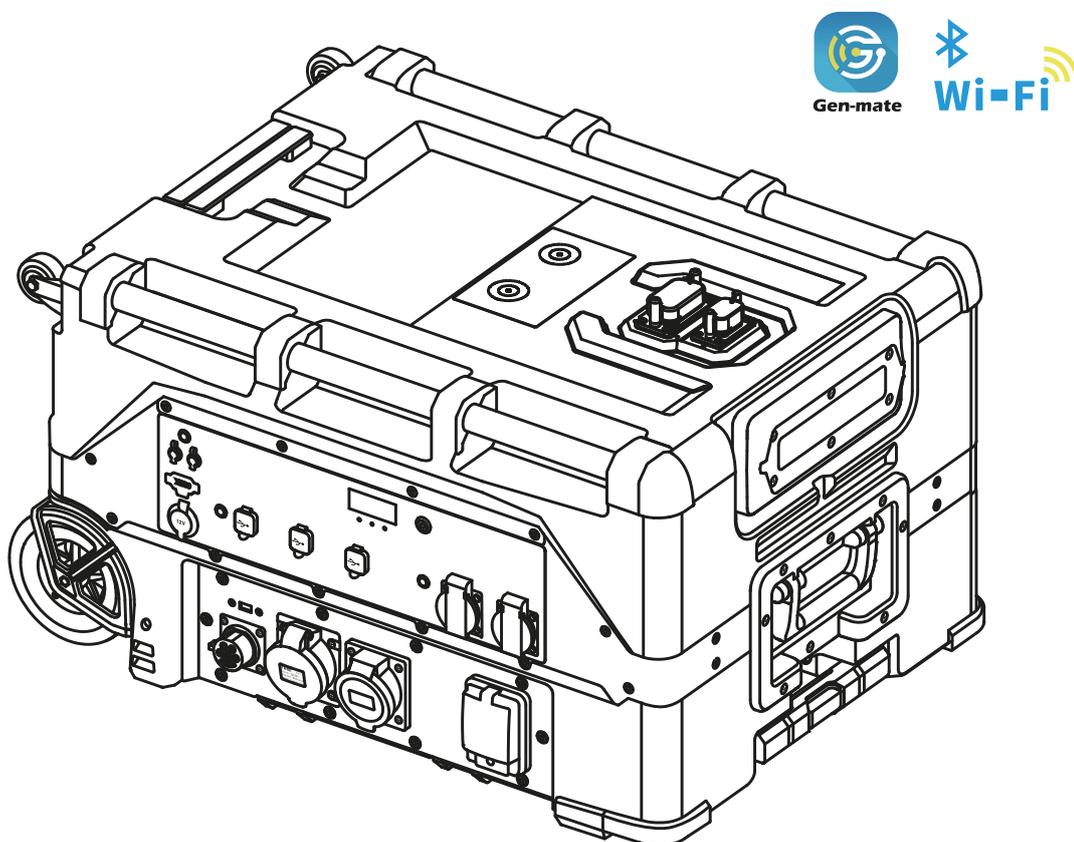


GENZERO

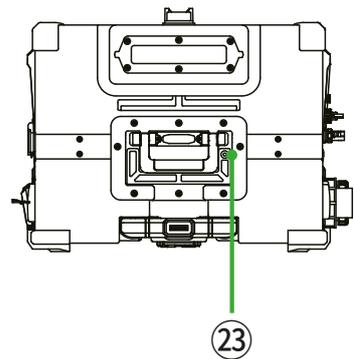
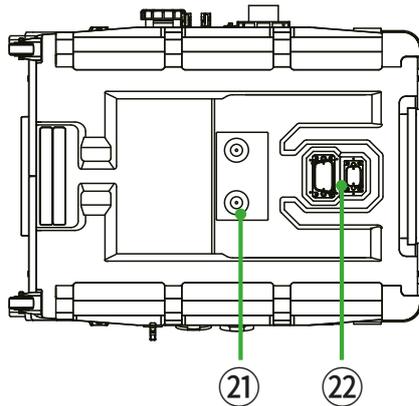
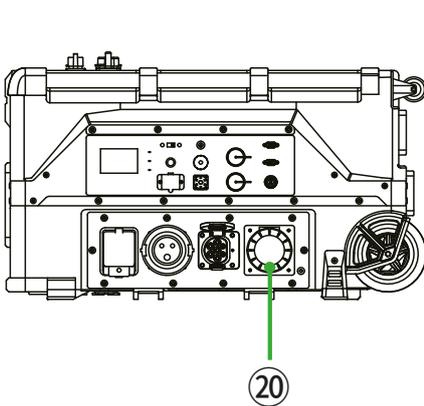
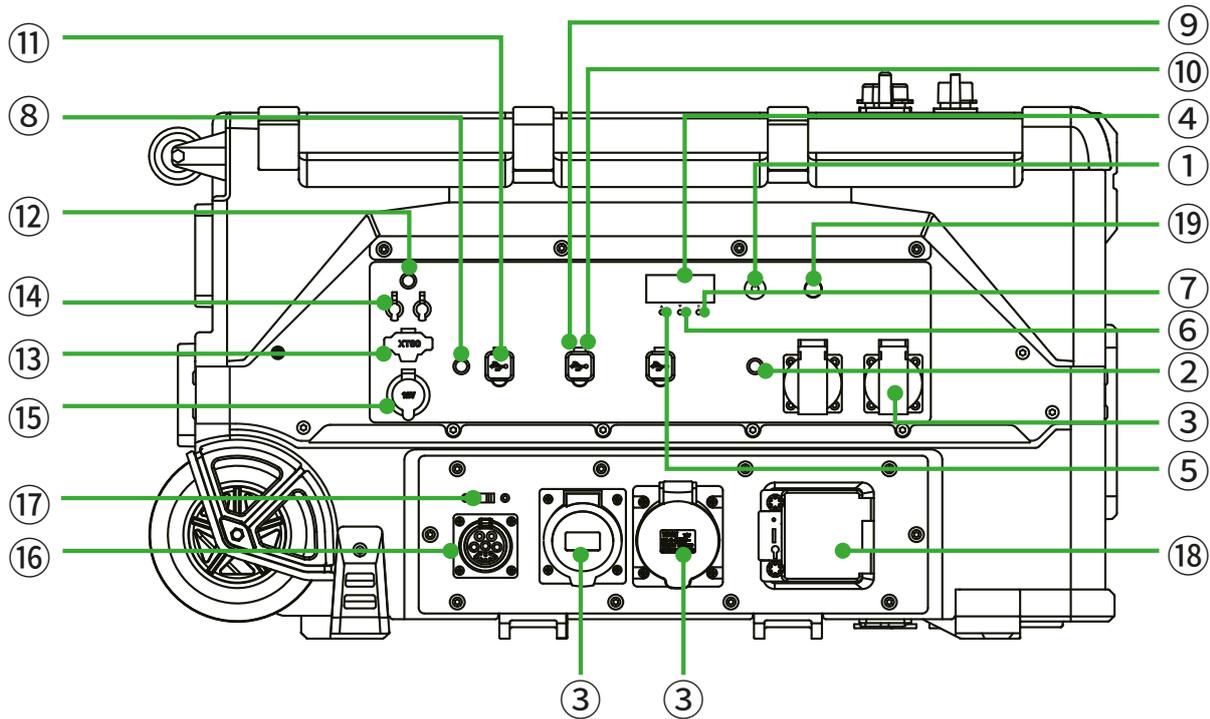
PORTABLE POWER STATIONS

GZ-COBALT-12000-230V/110V



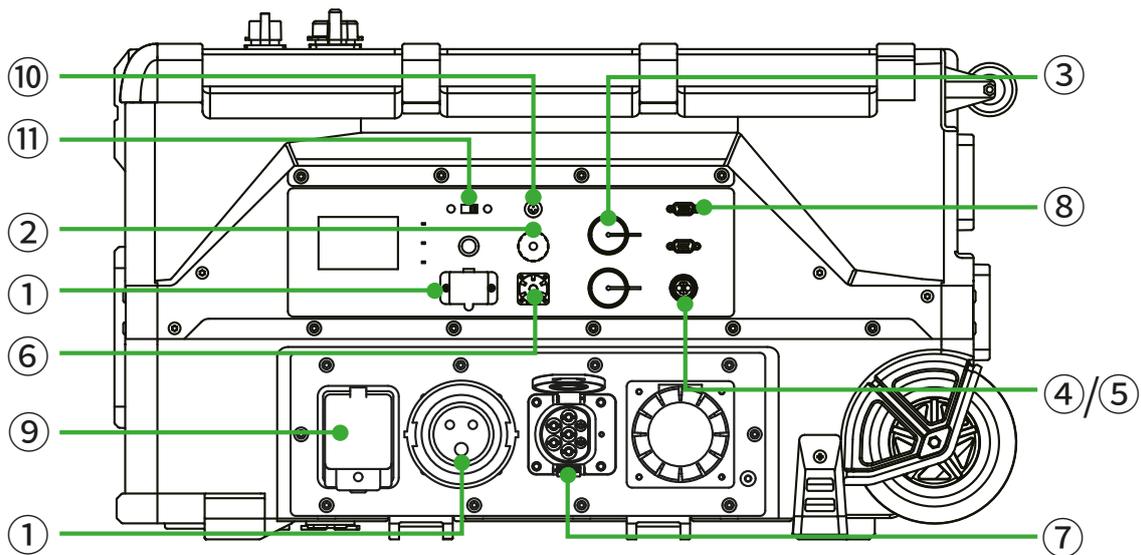
Before using, please read the manual carefully.

OUTPUT FUNCTION



- ① Main Switch
- ② AC Switch
- ③ AC Output
- ④ LCD Display
- ⑤ Display Button ▲
- ⑥ Display Button ▼
- ⑦ Display Button S
- ⑧ USB Switch
- ⑨ QC3.0*2 Output
- ⑩ Type-C*2 Output
- ⑪ USB*2 Output
- ⑫ DC Switch
- ⑬ DC Output
- ⑭ 5521 Port*2 Output
- ⑮ Cigarette Lighter Output
- ⑯ EV Charger Output (optional)
- ⑰ EV Charging Output Transfer Switch
- ⑱ AC Output Breaker
- ⑲ AC Charging Power Adjustment Knob
- ⑳ AC Output For Parallel (optional)
- ㉑ Wireless Output
- ㉒ Connection Port For Parallel (optional)
- ㉓ Light Switch

INPUT FUNCTION

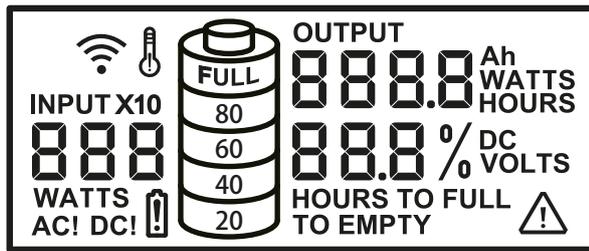


- | | |
|-----------------------------------------------|---------------------------------------------|
| ① AC Charging Input | ⑥ Wind Charging Input (optional) |
| ② Low-voltage Solar Charging Input (optional) | ⑦ EV Charger Input (optional) |
| ③ High-voltage Solar Charging Input | ⑧ AC Parallel Communication Port (optional) |
| ④ Driving Charging Input (optional) | ⑨ AC Input Breaker |
| ⑤ DC Charging Input (optional) | ⑩ Dry Contact Port |
| | ⑪ Single/Split-Phase Transfer Switch |

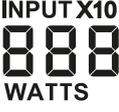
USAGE INSTRUCTIONS

- (1). Main Switch: Turns all outputs of the power station ON or OFF. The "AC/DC/USB switches" have power output only after the Main Switch is turned ON. Press and hold until the switch indicator lights up, then release to power ON. Press and hold until the switch indicator turns off, then release to power OFF.
- (2). AC Switch: This switch turns ON or OFF AC output of the power station. When parallel stacking three-phase units, press and hold the AC switch for over 3 seconds. Parallel operation is only possible when the AC switch indicator is flashing.
- (3). DC Switch: This switch turns ON or OFF DC output of the power station.
- (4). USB Switch: This switch turns ON or OFF USB output of the power station.
- (5). Display Button ▲: You can activate the display backlight or value display for remaining capacity of the battery by pressing the button once, and for total running time by pressing the button twice.
- (6). Display Button ▼: You can activate the display backlight or value display for battery voltage by pressing the button.
- (7). Display Button S: You can activate the display backlight by pressing the button, and the factory or authorized dealer can use this button to initialize the LCD Display.
- (8). EV Charging Output Transfer Switch: This switch can only be toggled to the parallel position when two units are connected for AC parallel operation.
- (9). Light Switch: Press this switch to turn on the light. Each press changes the mode. Press and hold to turn off.
- (10). Charging Power Adjustment Knob: Rotate the knob to change the AC charging power of the power station. Press the knob to start charging the power station at the selected power level by default.
- (11). Dry Contact Port: Used to control the automatic start stop charging of the generator.
- (12). Single/Split-Phase Transfer Switch: When the transfer switch of a split-phase machine is set to "Single Phase," both the input and output are single-phase. In this mode, only single-phase power can be used for charging. When the switch is set to "Split Phase," both the input and output are split-phase, and only split-phase power can be used for charging.
- (13). AC Input/Output Breaker: Provides overload protection and short-circuit protection to ensure electrical safety. The circuit breaker must be turned ON after startup to enable charging/output.

DISPLAY FUNCTION

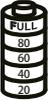


- ①  WiFi connection

②  Charging input power

③  Over temperature

④  DC output short circuit

⑤  Battery icon

⑥  Low battery voltage

⑦  Output power

⑧  Remaining battery capacity

⑨  Remaining charging time

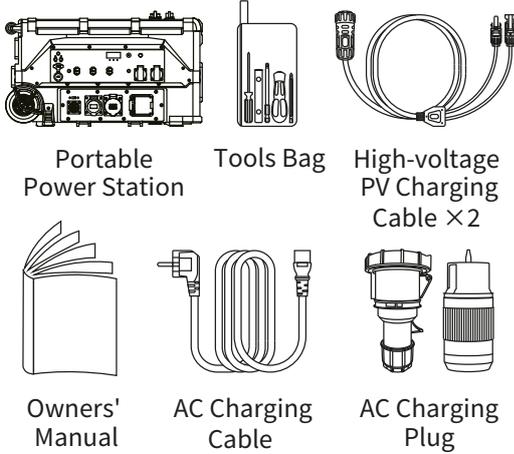
⑩  Remaining discharging time
- ⑪  Shows the value in Ah for remaining capacity of the battery by pressing the button ▲ once, and for total running time in HOURS by pressing the button ▲ twice.
- ⑫  Shows the battery voltage by pressing the button ▼.

FAULT CODES

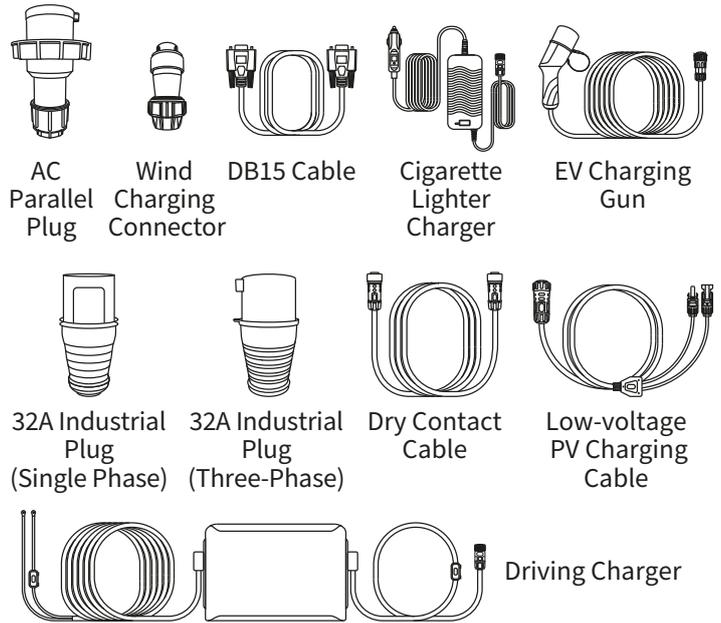
Display Fault Codes	Mainboard Fault List	Fault Source	Troubleshooting Guide	Fault Thresholds
001	Battery Output Over-current	BMS Data	Battery output short circuit: Turn off the main switch, disconnect the battery Anderson connector, check if there is a short circuit at the battery power supply port. After eliminating the short circuit reconnect the battery Anderson connector and power on to use.	/
002	Battery Under-voltage		Battery under-voltage: Immediately connect the charger to charge it (If the battery level is too low to power on and the device does not have charging auto-start function, connect the battery Anderson port to a quick charger to charge the battery directly). After the battery level returns to normal, it can be used normally.	/
003	Battery Over-voltage		Battery over-voltage: Immediately disconnect the charger, check if the charger specifications meet the product requirements. Discharge appropriately to resume normal use.	/
005	Battery Fault (General Fault Flag)		Other battery faults: Disconnect the Anderson connector, wait for 10 seconds, then reconnect. Power on to check if the fault disappears. If it disappears, normal use can resume. If the fault persists, contact technical personnel.	Other BMS faults
004	Ambient Over-temperature	Mainboard Hardware Protection Port	Internal unit temperature too high: Wait for the temperature to drop to the normal range before continuing use.	50°C
006	DC Hardware Over-current		Check if there is a short circuit at the DC output port. After resolving the issue, restart the main switch to continue use.	/
007	Inverter AC Over-current Protection	Inverter Fault Data	Check if there is a short circuit at the inverter output port. After resolving the issue, restart the main switch to continue use.	AC BIT7
008	AC Over-load		Check if the load power is too high, exceeding the inverter output power. Reduce the power and restart the main switch to continue use.	AC BIT20
009	Inverter Bypass Output Over-current		Check if there is a short circuit at the inverter output port. After resolving the issue, restart the main switch to continue use.	AC BIT23
010	Inverter Over-temperature Protection		Inverter temperature too high: Wait for the temperature to decrease to the normal range, then restart the main switch to use.	AC BIT8\BIT9
011	Inverter PCB Ambient Temperature Too High / Synchronous Rectification MOSFET Over-temperature		Internal key components of the inverter temperature too high: Wait for the temperature to drop to the normal range, then restart the main switch to use.	DC BIT6\BIT7
012	Inverter Internal Fault (General Fault Flag Bit)		Inverter fault: Check if wiring is correct, if output sockets and loads are normal, with no short circuits or overloads After resolving issues restart the main switch and check if the fault code persists. If the fault code still displays, contact technical personnel.	AC+DC, other faults
013	BMS Communication Error	/	Check if the battery pack communication cable is normal. After resolving wiring issues, restart the main switch to resume normal use.	/
014	Charging Abnormality	/	Check if the charging environment and charging specifications meet product requirements. After resolving issues, restart the main switch to resume normal use.	(BMS read voltage differs from checked voltage by more than 2V)

PACKING LIST

STANDARD

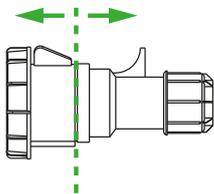


OPTIONAL

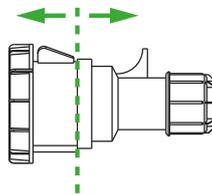


Wiring Instructions For AC Charging Plug

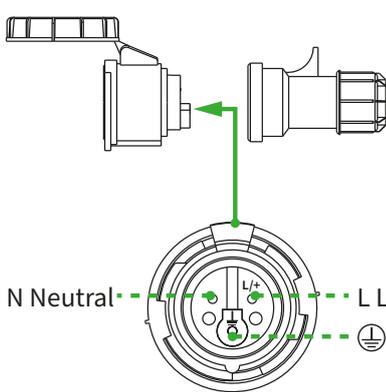
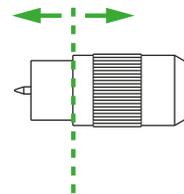
① Single-Phase Charging Plug



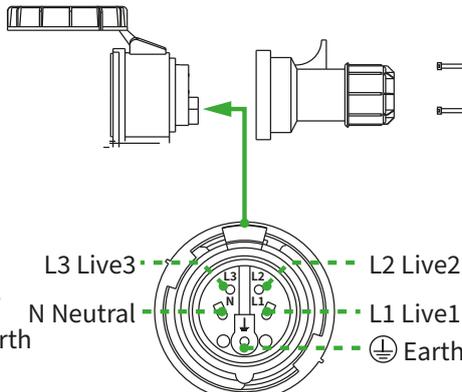
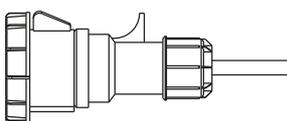
② Three-Phase Charging Plug



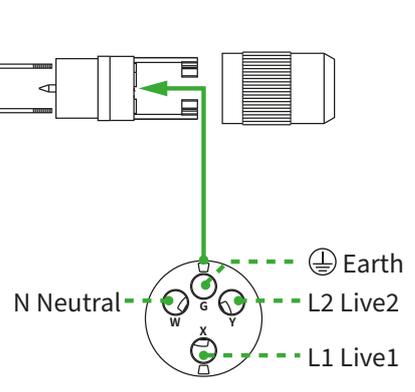
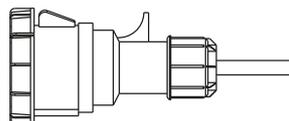
③ Split-Phase Charging Plug



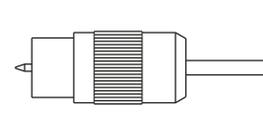
Wire Gauge	Maximum Input Current
6mm ²	32A



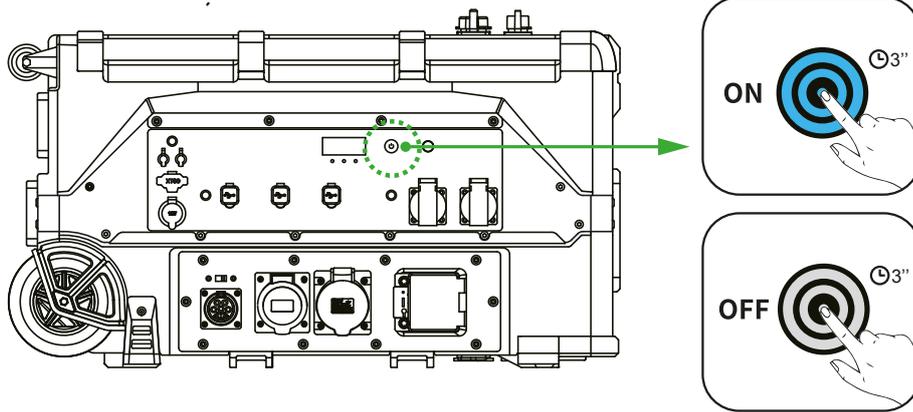
Wire Gauge	Maximum Input Current
6mm ²	32A



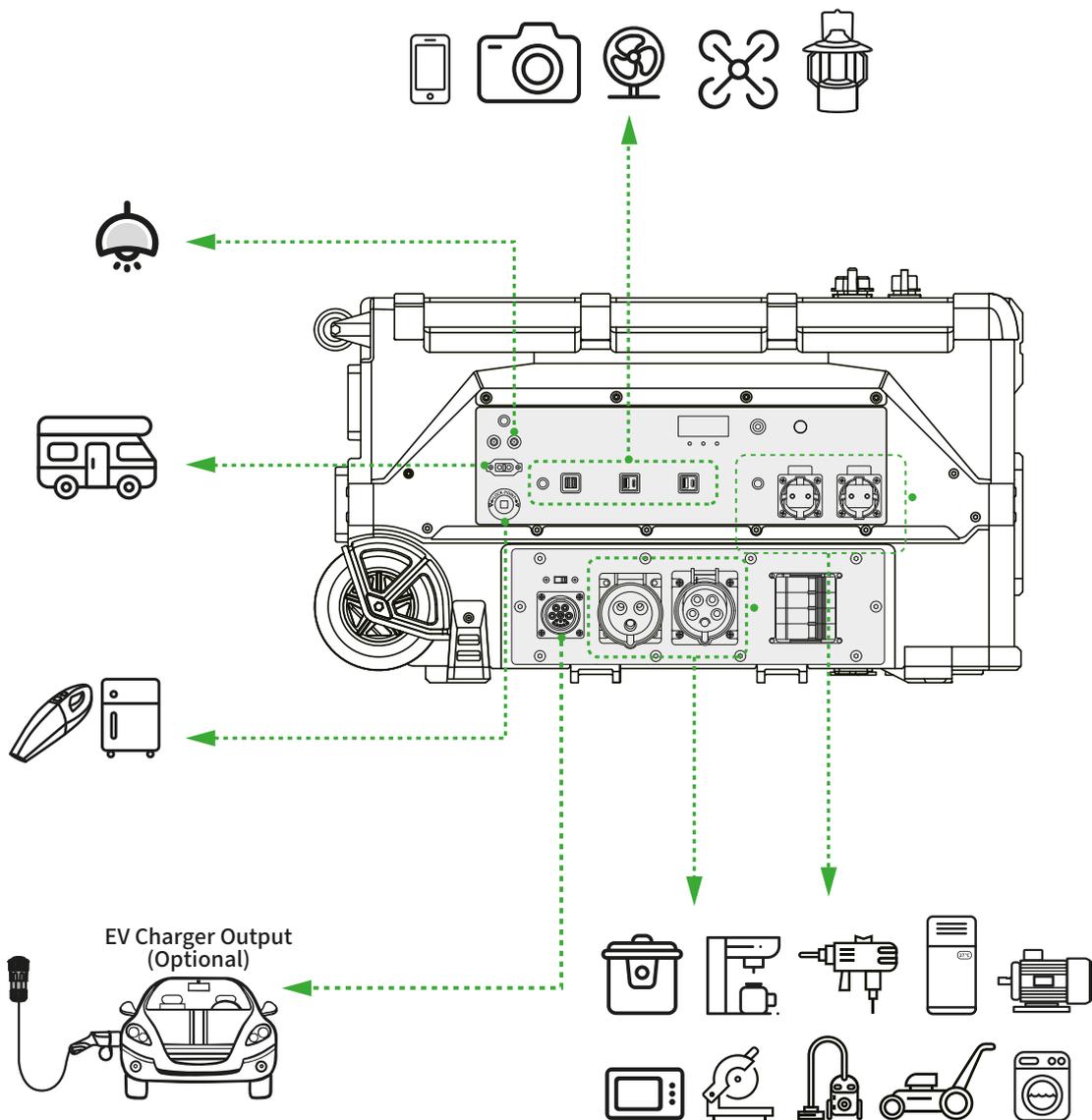
Wire Gauge	Maximum Input Current
10mm ²	50A



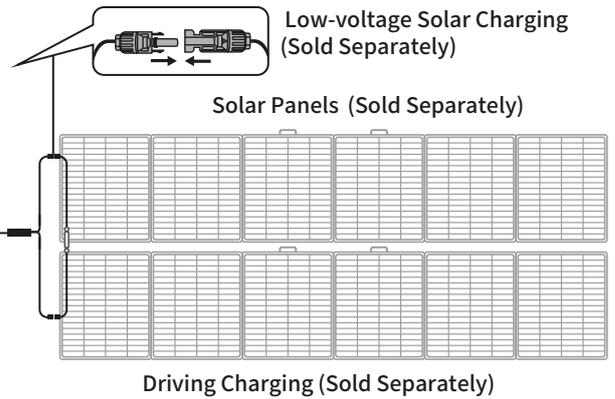
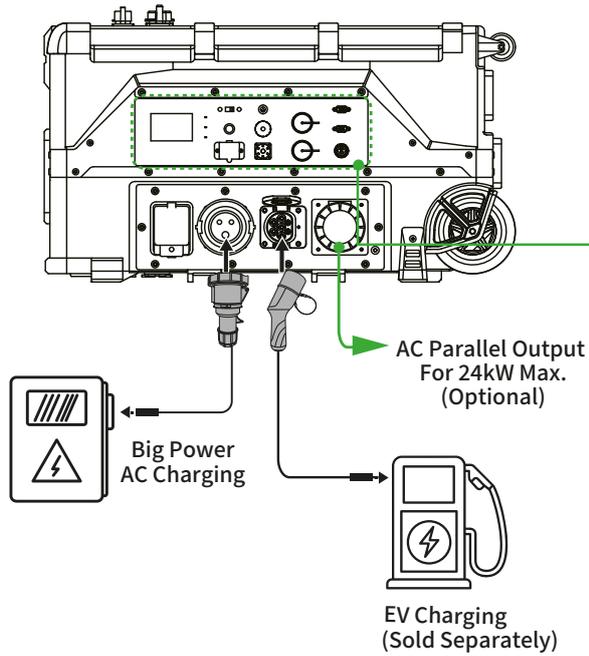
PRODUCT POWER ON/OFF



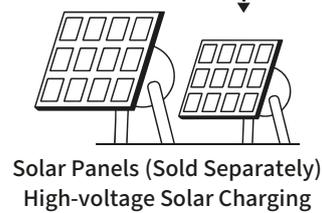
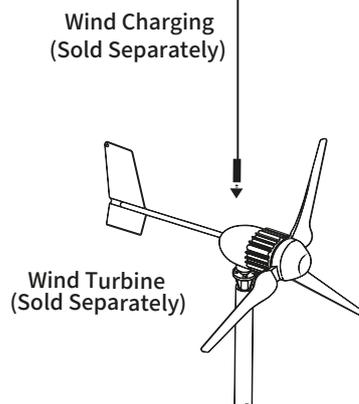
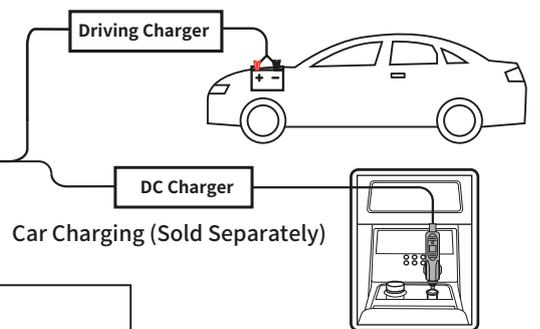
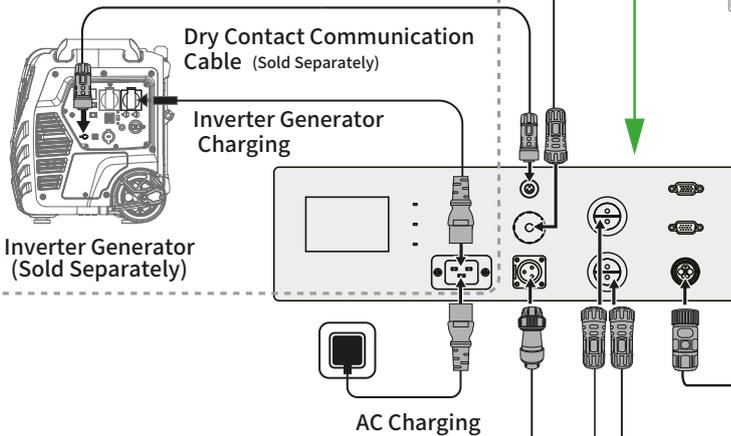
POWER SUPPLY FOR EQUIPMENT



CHARGE THE POWER STATION



Build A Hybrid Power System With Genset

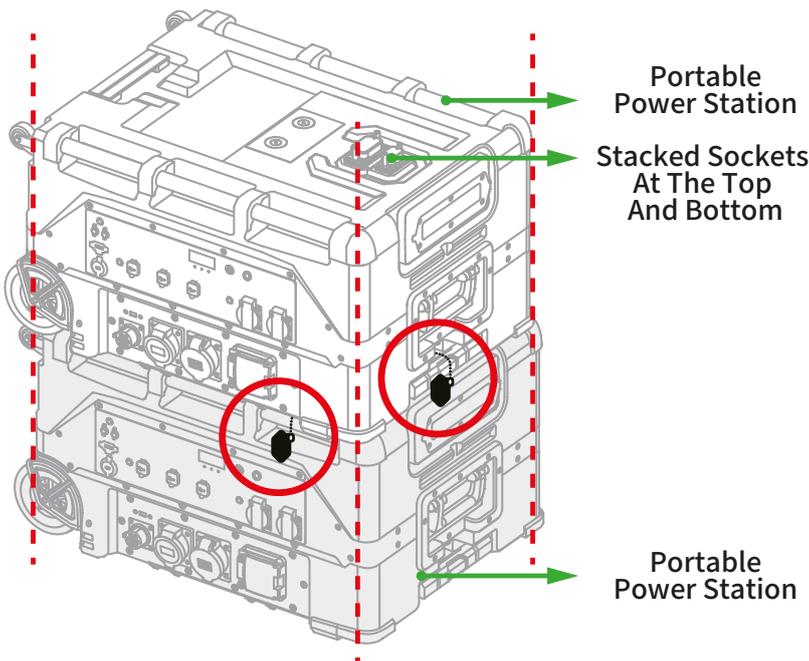


NOTE

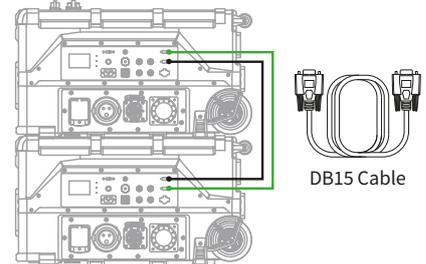
1. The Cobalt 12000 can support AC out parallel function(optional). Two Cobalt 12000 that have the same rated voltage and frequency can be operated in parallel to increase the total available output power reach Max. 24 kVA.
2. Whether the product can be charged or discharged depends on the actual temperature of the battery pack.
3. The maximum charging or discharging power is related to the ambient temperature and SOC of battery. Specific parameters to see labels on the product.

⚠ WARNING

1. AC output voltage is very high, operators must be protected from electric shock at all times.
2. Do not touch conductors in the top and bottom stacked sockets to prevent electric shock!
It is strictly prohibited to connect the AC output to the power grid, otherwise it will damage the machine.
3. The voltage of the charging CAN NOT exceed their INPUT voltage range.
4. Do not connect the positive and negative terminals of the PV/DC charging cable incorrectly, otherwise it may damage the machine.
5. When not in use, please keep all covers of the socket and connection port closed to prevent water from entering and damaging the machine.
6. Make sure turn OFF the main switch before transportation or storage.
7. During storage, please make sure to charge and discharge the power station at least every six (6) months.

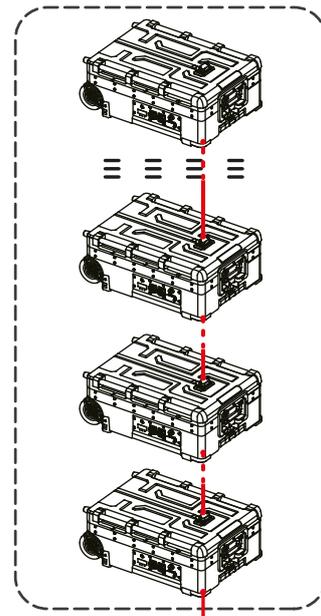
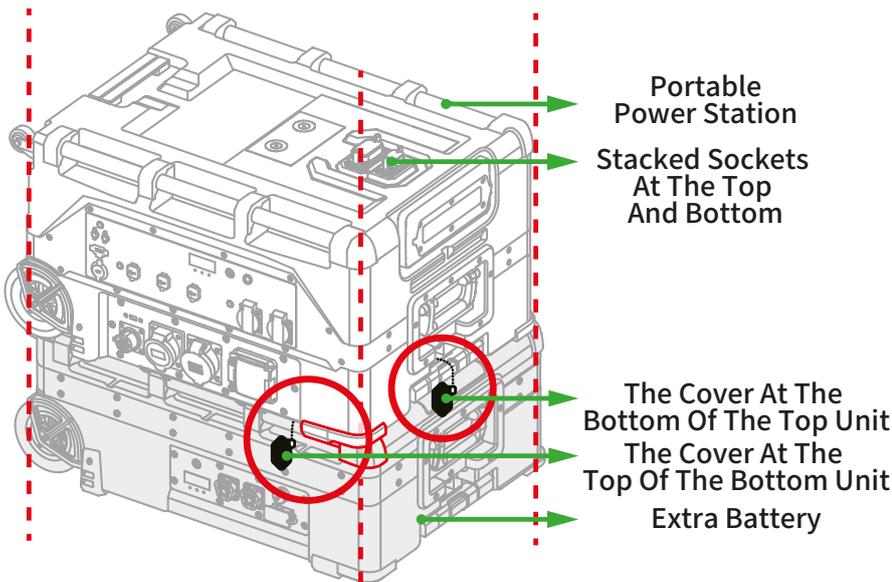


AC Parallel Output(Optional) 24 kW Max.



NOTE

1. All machines must be powered off before parallel connecting.
2. The parallel communication cable must be connected when setting up the units in parallel.
3. When parallel stacking three-phase units, press and hold the AC switch for over 3 seconds. Parallel operation is only possible when the AC switch indicator is flashing.
4. When parallel stacking split-phase units, both units must have their mode switches set to split-phase mode. Otherwise, parallel operation will not be possible.



Up to 31 Extra Batteries (Total 372kWh)

NOTE

1. Before stacking, remove the covers from both the top and bottom stacking sockets. Then, place the chains on both sides of the machine in a position that does not affect vertical stacking.
2. Ensure the two stacked machines are vertically aligned on all four sides, with their rubber components properly interlocked.

PRODUCT SPECIFICATIONS

GENERAL INFO

Model	GZ-COBALT-12000-110V/230V
Dimensions/Net Weight	840X670X490mm, 100/110kg
Battery	LiFePO4, 7680Wh, 150Ah(51.2V), 3000 cycles to 80%+capacity
Operating Temperature	Discharging Temperature: -20 C ~50 C, Charging Temperature: 0°C (45 C
Transfer Time	≤ 10ms(Typical)
LED	20W
Interactive Interface	LCD Panel / APP
Optional Function	Low-Voltage Solar / EV Charger Input / AC Output Parallel / Wind Charging / EV Charger Output / Driving Charger/ DC charger
Protection Grade	Unit IP43 / Battery Pack IP66

OUTPUT

AC Output (10~50AX 4~5) + (63AX 1 / 32AX 1 For Parallel Output) + (50AX 1 For EV Charger AC Output)	Rated Power	12000VA @Three-phase 220~415V, 11000VA @Single-phase 220~240V, 10000VA@Split-phase 100~240V
	Peak Power	24000VA @Three-phase 220~415V, 22000VA @Single-phase 220~240V, 20000VA @Split-phase 100~240V
	Output Waveform	Pure-Sine Wave, THD<3%
	Three-phase Rated Voltage	220/380V, 230/400V, 240/415V
	Single-phase Rated Voltage	220/230/240V
	Split-phase Rated Voltage	100/200V, 110/220V, 120/240V
	Rated Frequency	50/60Hz
DC Output	XT90 (X 1)	12V/30A
	Cigarette Lighter Port(X 1)	12V/10A
	5521 Port(X 2)	12V/6A
USB Output	USB(X 2)	5V/3.1A,
	QC3.0(X 2)	QC3.0(5V/3.4A, 9V/2A, 12V/1.5A)
	Type-C(X 2)	PD140W (5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/5A, 28V/5A)
	Wireless Output	2X 5~15W

CHARGING INPUT

Model		GZ-COBALT-12000-110V/230V	
AC	Wall Outlet & AC Generator	Three-phase	180/310~250/430VAC AC Input 32A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
		Single-phase	180~250VAC AC Input 16/32A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
		Split-phase	90/180~130/260VAC AC Input 16/50A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
High-voltage Solar	MPPT Control System	Three-phase	200~650VDC, 2X 22A MAX, PV Input Max. 2X 9000W, Max. 7500W To Battery Charging, 70 minutes fully charged
		Single-phase	80~450VDC, 2X 20A MAX, PV Input Max. 2X 5500W, Max. 7500W To Battery Charging, 70 minutes fully charged
		Split-phase	125~425VDC, 2X 22A MAX, PV Input Max. 2X 5500W, Max. 7500W To Battery Charging, 70 minutes fully charged
EV Charger (optional)	Mennekes IEC 62196(Type 2) SAE J1772(Type 1) GB/T 20234	Three-phase	180/310~250/430VAC AC Input 32A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
		Single-phase	180~250VAC AC Input 32A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
		Split-phase	90/180~130/260VAC AC Input 50A MAX, Max. 7000W To Battery Charging, 70 minutes fully charged
Low-voltage Solar(optional)	MPPT Control System	12~150VDC, Max. 1200~2000W, 7 hours fully charged	
Driving Charging (optional)	Driving Charger With XT60 Output Port	58.4VDC MAX, Max. 800W, 10 hours fully charged	
DC (optional)	DC Charger With Car Cigarette Lighter Input Plug	12~30V, Max.75W, 110 hours fully charged	
Wind (optional)	Wind Charger Inside	100VAC MAX, Max. 2000W, 4 hours fully charged	

IMPORTANT SAFETY INFORMATION:

- To ensure heat dissipation, please make sure at least 5cm space around the generator for smooth airflow.
- Never submerge in water.
- If you suspect the unit has water inside, do not use or attempt to recharge.
- Dropping the Generator may damage the battery or circuit components inside.
- IF THE Generator HAS BEEN SUBMERGED IN WATER OR SUSTAINED DAMAGE IT COULD BE A FIRE HAZARD. DO NOT USE THE PRODUCT. Place outdoors in a non-combustible container well away from flammable materials. DO NOT RECHARGE THE BATTERY AND CONTACT NIGHTSEARCHER. Place the generator outdoors in a non-combustible container well away from flammable materials and contact: www.nightsearcher.co.uk +44 (0)2392 389774.
- Always recharge the generator on a hard, flat, heat resistant surface.
- The battery will not reach optimum performance until 4-5 charging cycles
- Do not turn the generator off immediately after use, only turn off once the fan has stopped running.
- Avoid charging the battery in temperatures below 0°C or exposing the battery to temperatures below -5°C or above 40°C.
- Never use the charger if the leads, contacts or casings are damaged. Do not use any chargers other than those provided.
- Never expose the charger to rain, moisture or damp. If you suspect any of these have occurred then do not use the charger.
- Always check with your airline before attempting to transport by air.
- We recommend the generator is recharged every 3 months if not used for a long time.
- Keep out of reach of children.
- In case of any problems or questions please contact NightSearcher Limited or an authorised distributor.



Warranty

All NightSearcher products have a 10-year standard warranty on all manufacturing defects and 5-year warranty on all rechargeable batteries from the date of purchase. For more information visit: <https://nightsearcher.co.uk/pages/warranty-information>

If at any time, you need to dispose of this product or parts of this product: please note that waste electrical products and batteries should not be disposed of with ordinary household waste. Recycle where facilities exist. Check with your local authority for recycling advice. Alternatively, NightSearcher is happy to take receipt of this product at end-of-life and will recycle it on your behalf.



UK Sales office - NightSearcher Limited, Unit 4 Applied House, Fitzherbert Spur, Farlington, Portsmouth, Hampshire, PO6 1TT, UK
T: +44 (0)23 9238 9774 | E: sales@nightsearcher.co.uk

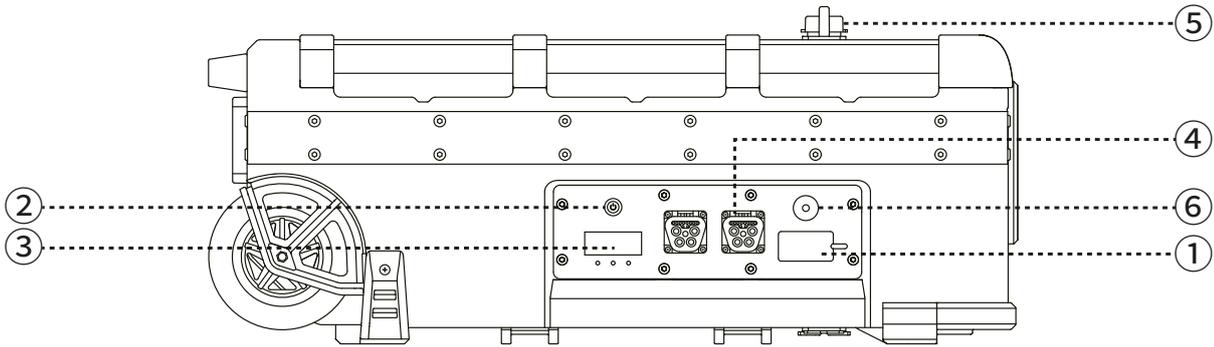
German Warehouse - NightSearcher Lichttechnik GmbH Stadtweide 17 Emmerich am Rhein Kleve 46446 Deutschland
T: +49 282 2602 3110 | E: info@nightsearcher-lichttechnik.de

Poland Sales office - NightSearcher Export - ROW Garbary 53, 61-869 Poznan, Poland
T: +48 61 624 29 98 | E: exportsales@nightsearcher.com

GZ-COBALT-12000-BP

Expandable Battery Pack - User Manual

PRODUCT DISPLAY



- ① DC Quick Charging Input: Charge the extra battery from DC 48V power unit (optional equipment).

⚠ WARNING DO NOT Short Circuit The Socket!

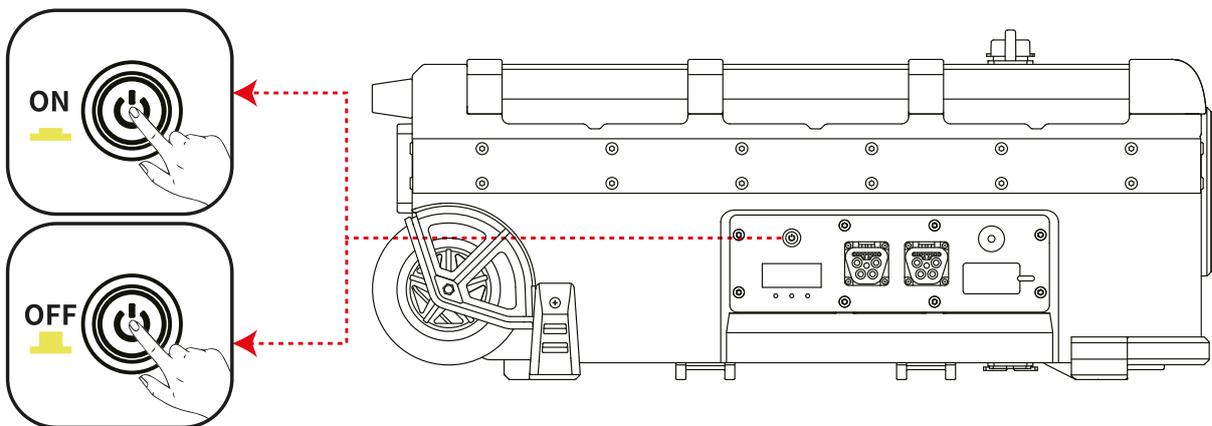
- ② Main Switch: This switch turns ON or OFF the extra battery.
- ③ LCD Display: Display remaining capacity of the battery, input/output watts, remaining operation hours or charging hours of the battery, battery voltage, total running time, and fault warnings.
- ④ Battery parallel port: can be connected to extra battery for expansion.
- ⑤ Parallel stacking port: can be connected to power station or other extra battery for expansion.

⚠ WARNING DO NOT Short Circuit The Socket!

Pay attention to the voltage label, and it is prohibited to connect to a parallel port with difference rated voltage. When not in use, please keep the top and bottom stacked sockets covers closed to prevent water from entering and damaging the machine!

- ⑥ PV Charging Input (optional): Charge the extra battery from solar panels (optional equipment).

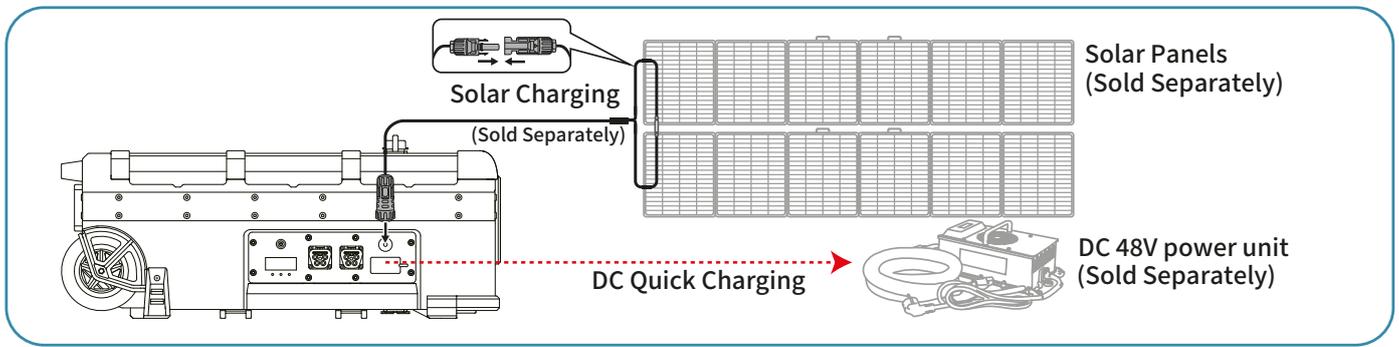
PRODUCT ON/OFF



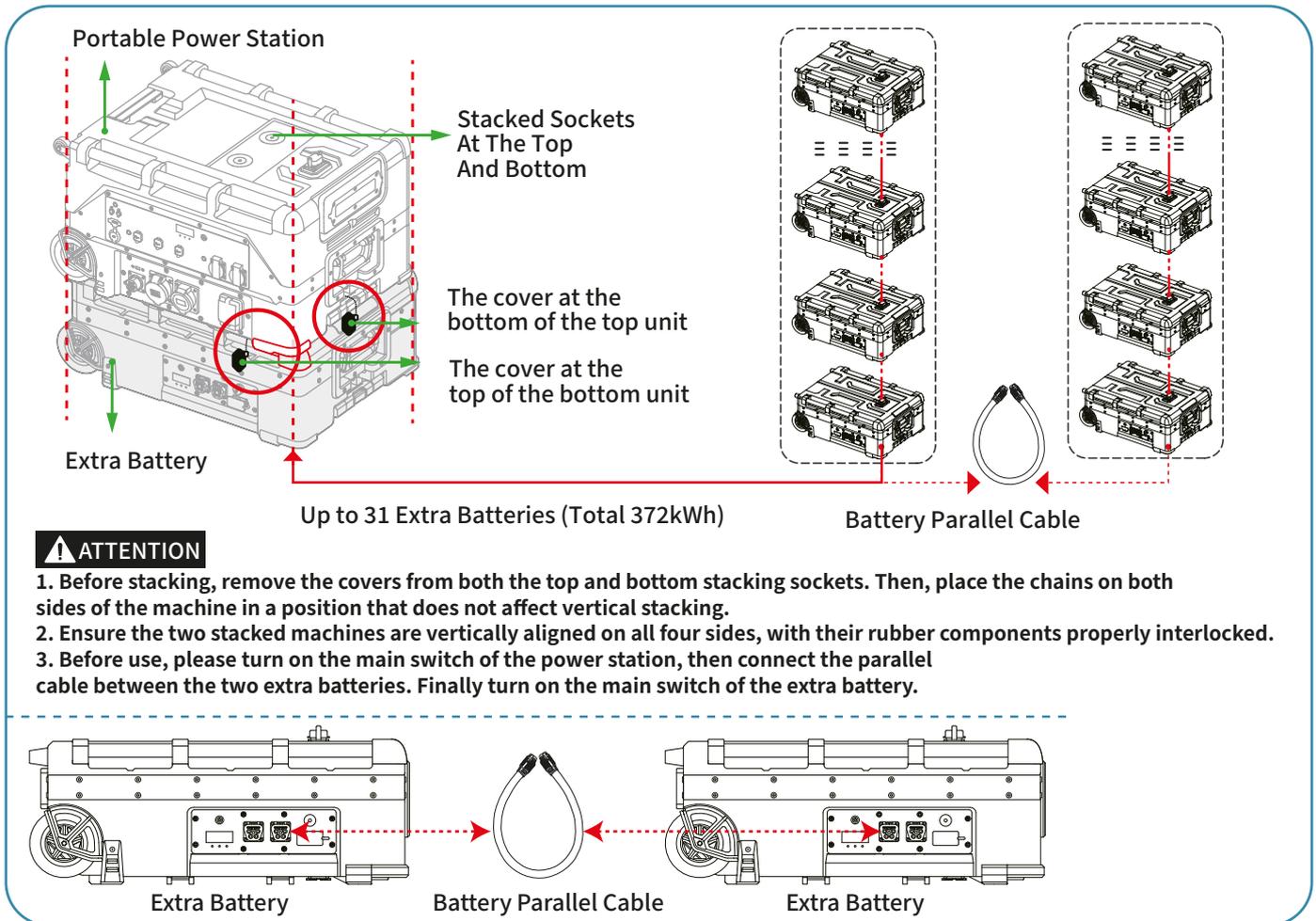
NOTE

Whether the product can be charged or discharged depends on the actual temperature of the battery pack and SOC of battery.

CHARGE



BATTERY PARALLELING



⚠ WARNING

1. The voltage of the charging CAN NOT exceed their INPUT voltage range.
2. Do not connect the positive and negative terminals of the PV/DC charging cable incorrectly, otherwise it may damage the machine.
3. When not in use, please keep all covers of the socket and connection port closed to prevent water from entering and damaging the machine.
4. Make sure turn OFF the main switch before transportation or storage.
5. During storage, please make sure to charge and discharge the power station at least every three months.

EXTRA BATTERY SPECIFICATIONS

Model	COBALT-12000-BP
Battery Capacity	11776Wh, 230Ah(51.2V)
Battery Cycle Life	>3000 cycles to 80%+capacity
Operating Temperature	Discharging Temperature: -20°C~50°C, Charging Temperature: 0°C~45°C
DC Quick Charging Input	58.4VDC MAX, Max. 7000W, 2 hours fully charged
Solar Charging Input(optional)	12~150VDC, Max. 1200~2000W, 11 hours fully charged
Protection Grade	Unit IP43 / Battery Pack IP66