



SR1KW8L-SG1 SERIES

SR1KW8L-SG1-UK

SR1KW8L-SG1-US

SR1KW8L-SG1-EU

SR1KW8L-SG1-FR

SR1KW8L-SG1-AU

SR1KW8L-SG1-ZA

USER MANUAL

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1. Parameters

General

Net weight	≈22kg (≈48.5lbs)
Dimension	432*270*300mm (17*10.6*11.8in)
Capacity	1229Wh
Wi-Fi	supported

Output

(SR1KW8L-SG1-UK/SR1KW8L-SG1-EU/SR1KW8L-SG1-FR/SR1KW8L-SG1-AU/SR1KW8L-SG1-ZA)

AC output (x3)	pure sine-wave, total 1800W (peak 3000W), 220-240V~ (50Hz/60Hz)
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(SR1KW8L-SG1-US)

AC output (x4)	pure sine-wave, total 1800W (peak 3000W), 100-120V~ (50Hz/60Hz)
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USB-A (x2)	5V \equiv 2.4A (constant voltage), 12W Max./output
USB-A quick charge (x2)	5V \equiv 3A 9V \equiv 2A 12V \equiv 1.5A (constant voltage), 18W Max./output
USB-C (x2)	5/9/12/15V \equiv 3A 20V \equiv 5A (constant voltage), 100W Max./output
Car charger	12.6V \equiv 10A, 126W Max.
DC5521 output (x2)	12.6V \equiv 3A

* Car charge and DC5521 share power, 126W Max.

Input

(SR1KW8L-SG1-UK/SR1KW8L-SG1-EU/SR1KW8L-SG1-FR/SR1KW8L-SG1-AU/SR1KW8L-SG1-ZA)

AC input voltage	220-240V~ (50Hz/60Hz)
AC input power (charge only mode)	1200W, 10A Max.
AC input power (bypass mode)	1800W, 10A Max.

(SR1KW8L-SG1-US)

AC input voltage	100-120V~ (50Hz/60Hz)
AC input power (charge only mode)	1200W, 15A Max.
AC input power (bypass mode)	1800W, 15A Max.

Car charging input	12V/24V battery supported, 8A by default
PV charge	400W, 13-45V \equiv 12A, DC12A Max.

Battery

Cell Type	lithium iron phosphate battery (LiFePO ₄)
Life cycle	remaining capacity still over 80% after 2,000 cycles
Protection type	over temperature protection, low temperature protection, over discharge protection, over charge protection, over load protection, short circuit protection, over current protection
Charge temperature	0~45°C (0~113°F)
Discharge temperature	-20~45°C (-4~113°F)

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

2. Safety guidelines

2.1 Use

- Do not let a working SR1KW8L-SG1 be close to the heat source, such as fire or heater.
- Do not make SR1KW8L-SG1 contact with any liquid.
- Do not use SR1KW8L-SG1 in a strong electrostatic or strong magnetic field environment.
- Do not disassemble SR1KW8L-SG1 in any way or pierce it with a sharp object.
- Do not short SR1KW8L-SG1 by wire or other metal objects.
- Do not use ingenuine parts or accessories. For part or accessory replacement, please visit official sales channel for purchase information.
- When using SR1KW8L-SG1, please follow the operating temperature defined in this user manual strictly. If the temperature is too high, battery may catch fire or even explode. If the temperature is too low, SR1KW8L-SG1 performance will be seriously impaired, even normal use will be impacted.
- Do not stack heavy objects on SR1KW8L-SG1.
- Do not stop the fan by force or expose SR1KW8L-SG1 in an unventilated or dusty environment when it is working.
- Please avoid collision, drop, and violent vibration. If severe impact happens, shut down the power supply immediately. Please fix SR1KW8L-SG1 firmly during transportation to avoid vibration and impact.
- If SR1KW8L-SG1 falls into water accidentally, place it in a safe and wide area, and keep yourself away from it until it's dry. Dried product shall not be used again. Dispose it properly according to chapter 2.2 in this user manual. If SR1KW8L-SG1 is on fire, please use fire extinguishing equipment in the recommended order: water or water mist, sand, fire blanket, dry powder, dioxide carbon fire extinguisher.
- If there is dirt, use a dry cloth to wipe it.
- Place SR1KW8L-SG1 carefully to prevent damage. If SR1KW8L-SG1 is tipped over and seriously damaged, turn off SR1KW8L-SG1 immediately and place the battery in a spacious place and keep it away from flammable materials and people, and scrap it in accordance with the requirements of local laws and regulations.
- Keep SR1KW8L-SG1 out of the reach of children and pets.
- Keep SR1KW8L-SG1 in a dry and ventilated place.
- In humid environment (seaside, water, etc.), it is recommended to equip SR1KW8L-SG1 with moisture-proof bag. If water is found inside product, do not use/start it again. Please take countermeasures to prevent electric shock before touching SR1KW8L-SG1. Put it in a safe and waterproof open area, and contact customer service immediately.
- It is not recommended to use SR1KW8L-SG1 to supply power for safety-related emergency medical equipment, including but not limited to medical grade breathing machine (hospital version CPAP: Continuous Positive Airway Pressure), artificial lung (ECMO, Extracorporeal Membrane Oxygenation). It can be used to supply power for home version CPAP at home and does not require continuous professional monitoring. Please follow your doctor's advice and consult the manufacturer for any restrictions on the use of the device. For general medical equipment, please pay attention to the power condition to ensure that power does not run out.
- Power supplies will inevitably generate electromagnetic fields when it is in use, which might affect the implantable medical device or normal operation of personal medical device, such as pacemaker devices, cochlear implants, hearing AIDS, defibrillators, etc. If any of these medical devices are used, please consult the manufacturer about the restrictions on the use to ensure that SR1KW8L-SG1 is operated at a safe distance from implanted medical devices such as pacemakers, cochlear implants, hearing AIDS, defibrillators, etc.

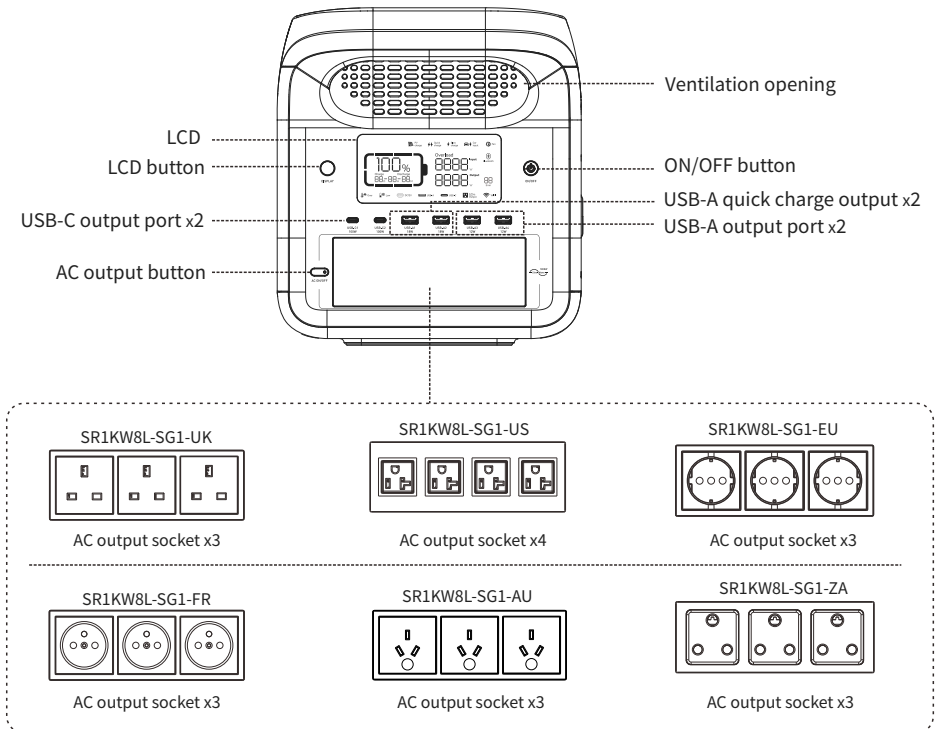
19. When the power station is connected to a refrigerator, it may automatically shut down because of the power fluctuation property of the refrigerator. When connecting the power supply to a refrigerator that stores medicine, vaccines or other valuable items, it is recommended to set the AC output to "Never off" in the APP, so as to ensure continuous power. Users should pay attention to power consumption.

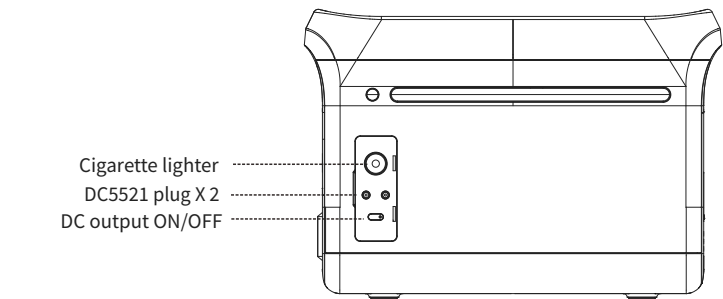
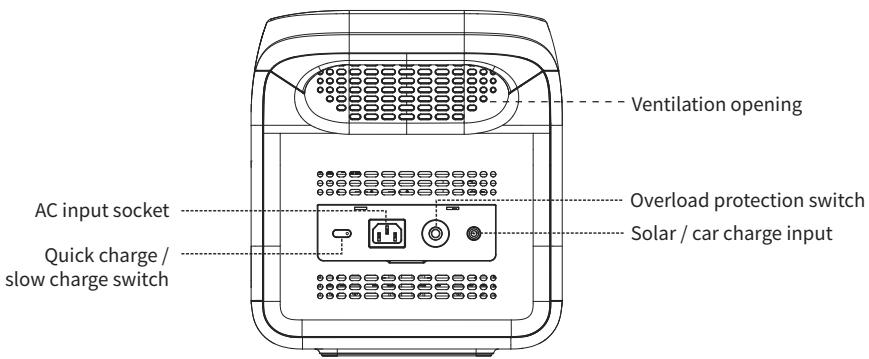
2.2 Discard

- Conditions permitting, be sure to discharge the battery completely, and then put SR1KW8L-SG1 in the specified battery recycling bin. SR1KW8L-SG1 contains batteries, which are dangerous. It is strictly prohibited to discard them in ordinary dust bins. For details, follow local laws and regulations on battery recycling and disposal.
- If the battery cannot be discharged completely due to product failure, do not discard the battery directly in the battery recycling bin. Contact a professional battery recycling company for further disposal.
- The battery will not start after over discharge. Please dispose it as discarded.

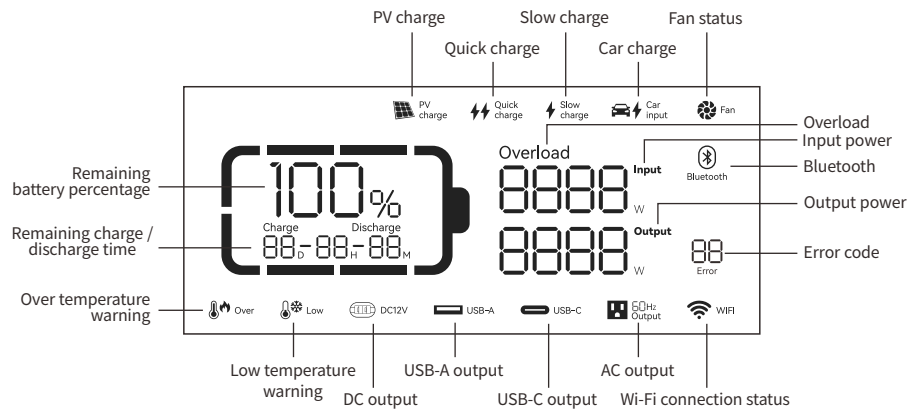
3. Guideline for users

3.1 Product overview





3.2 LCD screen



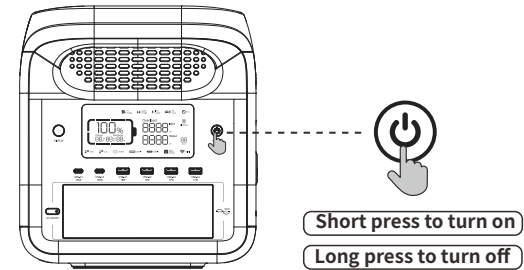
Battery capacity: When SR1KW8L-SG1 is being charged, SOC icon will flicker.

Wi-Fi connection status: The flickering icon indicates that SR1KW8L-SG1 is ready for pairing. The icon will keep flickering if a mobile phone and SR1KW8L-SG1 are connected by hotspot. After network connection succeeds, the icon will always be on. If connection fails, the icon will be off.

* Please refer to clause 5 for more details regarding error message.



3.3 Use

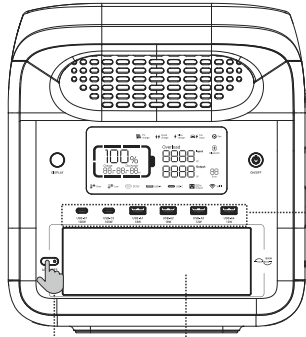
Note: Press and hold the ON/OFF button for 10 seconds to restart the BMS and clear the fault information.



On and off

- Press the main power switch to turn on the device, then the screen will be lit and the main power indicator will enter the breathing light mode.
- If no operation is performed to SR1KW8L-SG1 for 5 minutes, SR1KW8L-SG1 will enter hibernation state and the LCD will automatically turn off. When there is load change or operation to SR1KW8L-SG1, the LCD screen will be automatically lit. Press the main power switch to turn on or turn off the LCD.
- Press and hold the main power switch will turn off SR1KW8L-SG1.
- The default standby time is 2 hours. If other output power switches are not turned on and not any loads are connected, SR1KW8L-SG1 will automatically shut down after 2 hours. Standby time can be set on the APP.

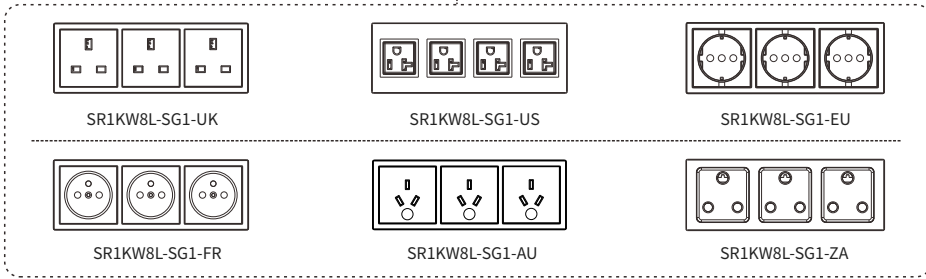
Note: When no AC input, long press the above AC output button, you can switch the AC off-grid output frequency ( 50Hz_{Output} /  60Hz_{Output}), long press 2s to switch, the AC output icon will flash 3 times after successful switching.



USB output

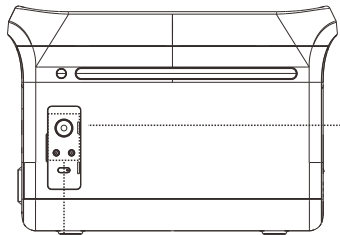
- USB output is enabled by default after the main power switch is turned on.

Short press AC output power switch



AC output

- After the main power is on, press the AC output power switch to enable the AC output port. Press the AC output power switch again to turn it off.
- The default standby time of the AC output is 1 hour. After 1 hour without any loads, the AC output power switch will be automatically off.
- When the AC output is not in use, turn it off to save power consumption.



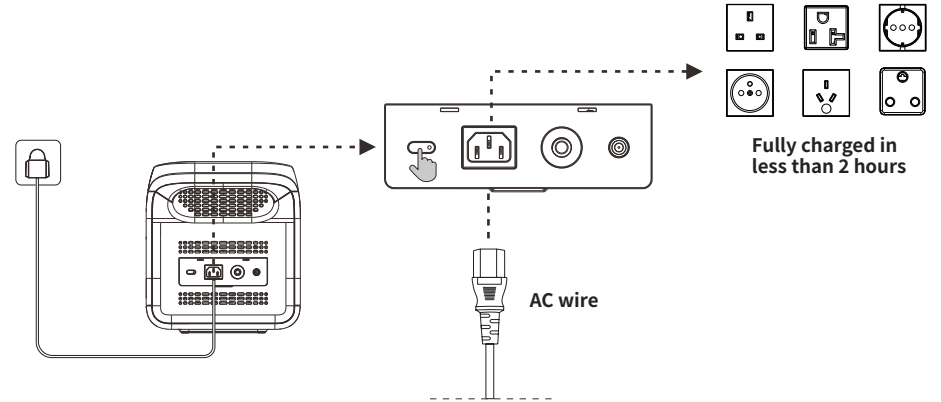
12V DC output

- After the main power switch is turned on, press the 12V DC output power switch to enable the DC output port.
- Press the 12V DC output power switch again to turn it off.
- When the 12V DC output power switch is turned on, SR1KW8L-SG1 does not shut down automatically.

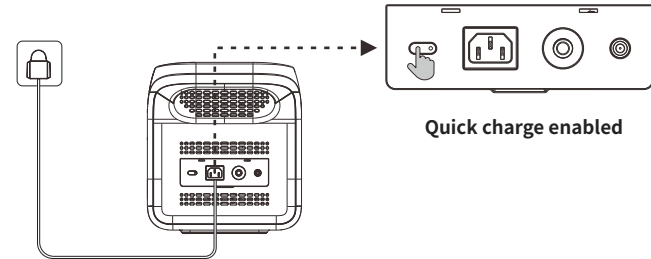
Short press 12V DC output power switch

3.4 AC charging

Quick charging technology is designed for AC charging. You can control the charging power via the AC charging speed switch. The slow charge mode is on by default when SR1KW8L-SG1 is turned on, and can be switched to quick charge mode by the button. Quick and slow charging mode switching can also be set by APP. If the current is continuously higher than 20A, the charging input port will start the self-protection function, and the charging overload protection switch will automatically trip. Press the charge overload protection switch to restore charging after confirming no fault.



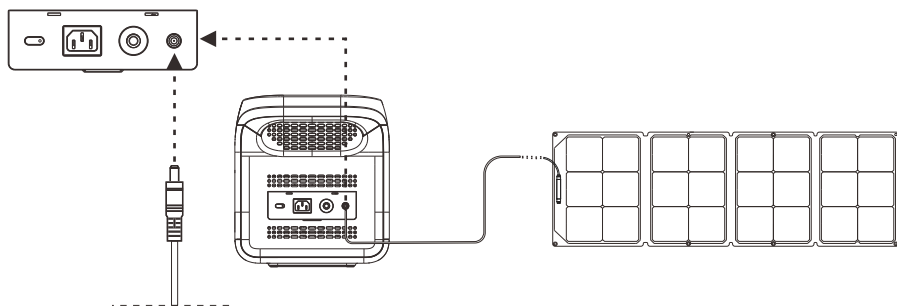
Quick charge and slow charge can be switched by the button.



The charging power range can be adjusted by APP.

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

3.5 PV charging



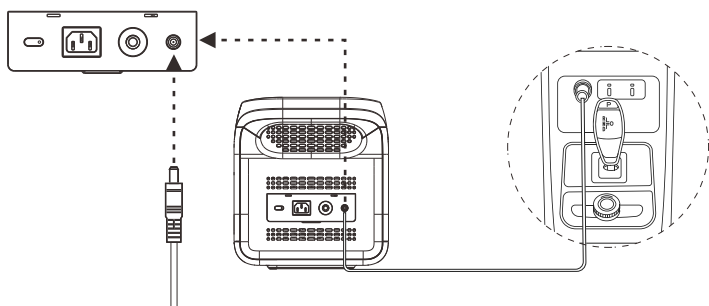
Charge the power station by solar panel.

*Solar charging cable (DC7909)

- Please follow the user manual to connect the solar panels.
- Before connecting the solar panel, check whether its output voltage is within SR1KW8L-SG1 specifications to avoid damage to SR1KW8L-SG1.

3.6 Car charging

SR1KW8L-SG1 can be charged by a car charging port. It should be charged after the car starts, so as to avoid the car battery loss and failure to start. At the same time, ensure good connection between the car charging port and cigarette lighter. We take no responsibilities for any loss caused by improper operation.



3.7 Intelligent inversion

To avoid operation faults arising from charging overload, when the total output power is over the rated output power, the constant output power will be automatically enabled, so that SR1KW8L-SG1 can supply power to the high power device at rated output power.

Please take note of the following while using constant power:

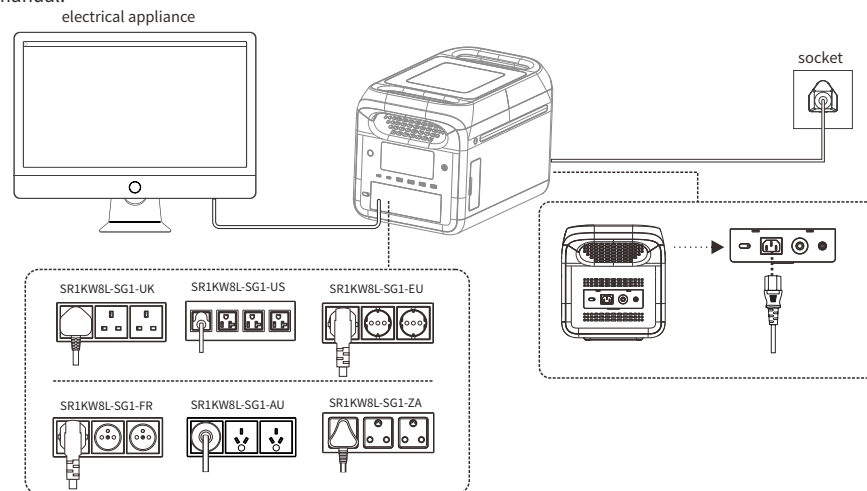
1. The constant power output function is not enabled by default, which can be turned on or off by App.
2. In the following cases, constant power output function is not enabled:
 - (1) AC output turned on in charging status (bypass mode).
 - (2) Constant power output turned off.
3. Constant power output function is more suitable for heater and motor instead of all electrical equipment. It is not suitable for some electrical appliances with voltage protection (such as precision instruments). Constant power output function application is subject to actual testing.

3.8 APP

You can control and view information and data about this product by App.

3.9 EPS function

This product supports the EPS function. When the grid is connected with SR1KW8L-SG1 AC input port by AC cable, the output port enables the electrical appliance to work. In such case, power is from grid instead of battery. When power grid is off, the power station can switch to battery-supplying mode within 14mS. Such function is unprofessional EPS, which does not support switch in 0mS, so do not connect it to equipment with strict EPS requirement, such as data server and workstation or please confirm compatibility after tests, and suggest only use one device instead of multiple devices at the same time so as not to cause overload to the power station. We shall not be liable for abnormal work or data loss arising from operation not following this user manual.



4. FAQs (Frequently Asked Questions)

1. What kind of battery is used?

Lithium iron phosphate battery (LiFePO₄).

2. What equipment can be connected to the AC output ports?

The AC output has high rating power and maximum power, which enables it to supply power to most household appliances. Suggest check the equipment power prior to connecting and make sure power of all equipment lower than rated power.

3. How to know the supply time?

Time shows in the LCD, which can be referred to for estimation for equipment with stable power consumption.

4. How to know it is charging?

When in charge, the LCD shows remaining charging time. The SOC flickers, and input power is shown.

5. How to clean the unit?

Clean the unit with a dry, soft and clean cloth or tissue.

6. How to store the unit?

Turn it off, and keep it in a dry and ventilated place. Do not expose it close to water. For long-term storage, suggest discharge to 0% and charge to 100% every 3 months to extend the service life.

7. Can it be taken on board?

No.

5. Error messages & solutions

Icon	Fault Description	Solution
01 Error code always on	Serious battery fault	Turn on and off, contact after sales if still not fixed.
02 Error code always on	ΔV too big	Auto shutdown, fault will be cleared after reboot.
03 Error code always on	BMS voltage fault	
Over 04 High temperature icon flickers Error code always on	Battery OTP (over temperature protection) fault	Auto shutdown, temperature recovery enables starting up.
Low 05 Low temperature icon flickers Error code always on	Battery UTP (under temperature protection) fault	
06 Error code always on	OCP (over current protection) fault	Auto shutdown, fault will be cleared after reboot.
Over 07 High temperature icon flickers Error code always on	OTP fault	Auto shutdown, delayed start.
08 Error code always on	Pre-charge fault	Auto shutdown, fault will be cleared after reboot.
09 Error code always on	Battery under voltage fault	Auto shutdown and charge, contact after sales if still not fixed after multiple charging failures.
10 Error code always on	Abnormal parallelization	Check the connection cable. Contact after sales if still not fixed. Single power station function is not affected.
11 Error code always on	Abnormal INV battery voltage	Auto recover after fault is cleared.
12 Error code always on	Grid voltage or frequency fault	The fault is cleared when the grid returns to normal.
13 Error code always on	Abnormal INV BUS voltage	Auto recover after fault is cleared.
14 Error code always on	Abnormal INV output	
Overload 15 Overload icon always on Error code always on	INV discharge overload	Remove over-power device. Auto recover after fault is cleared.
Overload 16 Overload icon always on Error code always on	Charge overload	Auto recover after fault is cleared.
17 Error code always on	INV Tz	
18 Error code always on	Battery short	Fault will be cleared after reboot.
19 Error code always on	INV output short	
Over 20 High temperature icon flickers Error code always on	MOSFET OTP fault	Auto recover after product is cooled down.

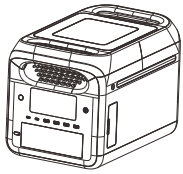
If there is a warning occurs during the use of this product, and the warning icon still does not disappear after restarting the device, please stop using it immediately (do not try to charge or discharge).

5. Error messages & solutions

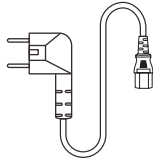
Icon	Fault Description	Solution
21 Error code always on	Fan stop	Turn on and off, contact after sales if still not fixed.
22 Error code always on	Discharge soft start fault	Auto recover after fault is cleared.
23 Error code always on	Charge soft start fault	
Low 24 Low temperature icon flickers Error code always on	MOSFET UTP fault	Turn on and off, contact after sales if still not fixed.
25 Error code always on	Anderson hardware OCP fault	Remove PV charge, auto recover after connecting PV and turn on.
26 Error code always on	Anderson software OCP fault	Turn off output, manual recover after fault is cleared.
27 Error code always on	PV hardware OCP fault	Remove PV charge, auto recover after connecting PV and turn on.
28 Error code always on	PV1 software OCP fault	Stop PV1 charging, auto recover after connecting PV and turn on.
29 Error code always on	PV2 software OCP fault	Stop PV2 charging, auto recover after connecting PV and turn on.
30 Error code always on	Car charge output OCP fault	Turn off output, manual recover after fault is cleared.
31 Error code always on	PV output OVP (over voltage protection) fault	Stop PV. Auto recover after fault is cleared.
32 Error code always on	PV1 input OVP fault	Stop PV1. Auto recover after fault is cleared.
33 Error code always on	PV2 input OVP fault	Stop PV2. Auto recover after fault is cleared.
Over 34 High temperature icon flickers Error code always on	Anderson OTP fault	Turn off output, manual recover after fault is cleared.
Over 35 High temperature icon flickers Error code always on	PV1 OTP fault	Stop PV1. Auto recover after fault is cleared.
Over 36 High temperature icon flickers Error code always on	PV2 OTP fault	Stop PV2. Auto recover after fault is cleared.
Over 37 High temperature icon flickers Error code always on	Car charge output OTP fault	Turn off output, manual recover after fault is cleared.
38 Error code always on	Abnormal communication	Turn on and off, or change operation environment. Contact after sales if still not fixed.
USB-A 39 USB icon flickers Error code always on	Abnormal USB	Auto recover after removing abnormal USB.
USB-C 40 Type C icon flickers Error code always on	Abnormal type C	Auto recover after removing abnormal type C.

If none of the above information can solve problem you encounter, please contact the customer service for consultation.

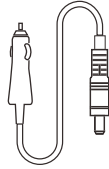
6. What's in the box



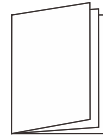
SR1KW8L-SG1



AC cable



Car charge cable



User manual

7. Maintenance

- It is recommended to use or store SR1KW8L-SG1 under 20~30°C ambient temperature. Keep it away from water, heater and metal parts.
- For long-term storage, charge and discharge every 3 months, i.e. discharge to 0% then charge to 100%.
- For safety, do not store SR1KW8L-SG1 with temperature above 45°C or below -10°C.
- If the capacity is lower than 1%, please charge to 60%. Long-term storage with serious power shortage will cause irreversible damage to the cell and shorten the service life of the product.
- If the capacity is seriously insufficient and idle time is too long, the product will enter deep sleep mode, and the product can only be used after being charged.

8. Disclaimer

The product has a built-in battery management system, which has protections such as overcharge, overdischarge, overcurrent, short circuit, high and low temperature, and abnormal communication. During the use of this product, protection may occur and cause output interruption. Power supply to special equipment, such as medical equipment, server, the indirect loss caused by accidental power failure has nothing to do with the company; all accidents caused by illegal use, self-dismantling, and man-made damage have nothing to do with the company.

Before using the power station SR1KW8L-SG1, please read this user manual to ensure understanding and proper use. After reading the user manual, please keep it well for future reference. Improper operation may cause serious injury to yourself or others, or result in product damage and property loss. Once using SR1KW8L-SG1, you are deemed to have understood and accepted all terms and contents herein. Users promise to be responsible for their actions and all consequences arising therefrom. We shall not be liable for any loss arising from user's not following this user manual.

In compliance with laws and regulations, the company reserves the right of final interpretation of this document and all related documents of this product. Subject to update, revision or termination without prior notice, please visit the official website for the latest product information.

FCC Statement

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

(1) This device may not cause harmful interference.

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

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

ISED Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

1. This device may not cause interference.

2. This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3(B)/NMB-3(B)

Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.