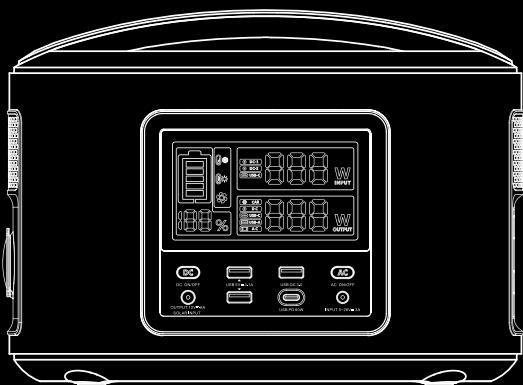


aviva[™]
POWER ON

Portable Power Station



M470
VF-ES002A

USER MANUAL

If in need of service, please do not return this unit
to the store

Aviva Customer Service

Email: support@avivapower.com

Visit: www.avivapower.com

Thank you for purchasing an AVIVA M470 portable power station. The purpose of this manual is to help you understand your product and its use. You can use this product at home and away, wherever life takes you. Many people will use the AVIVA as a central power source at home, or wherever they need portable power such as off-grid, or for emergency back-up power.

Save this User Manual

LONG-TERM MAINTENANCE

Fully charge the power station unit prior to long-term storage. Check and charge the power station unit at least once every three months.



WARNING

Keep away from water and fire
Only authorized personnel may service this product

TABLE OF CONTENTS

- Specifications
- Product Tour & Functions
- General Info
- How To Charge The Product
- Connecting Devices and Using Your AVIVA
- Safety and Maintenance
- Warranty Statement

SPECIFICATIONS

BATTERY:

Cell Chemistry	Lithium Ion
Energy Storage Capacity	470Wh (10.8V, 43.5Ah), peak capacity
Single Cell Equivalent Capacity	130,500 mAh @ 3.6V
Lifecycles	≥500 cycles to 80% with full charge/discharge
Shelf-life	Up to 6 months after full charge; re-charge once every 3-6 months
Wattage Compatibility	300W Continuous, 500W Peak Surge
Battery Management System (BMS)	Over Voltage Protection, Low-voltage Protection, Over Temperature Protection, Short Circuit Protection, Over Current Protection

INPUT PORTS:

DC Charging Port (5521)	5V-26V, 3A - normally used to recharge via AC adaptor (included)
DC Port (6530)	13-20V, 6A - normally used to charge optional solar panel + B42
USB-C PD port	One (1) USB-C PD port, 60W (5V/3A; 9V/3A; 12V/3A; 15V/3A, 20V/3A)

OUTPUT PORTS:

USB Ports (4)	One (1) USB-C PD port, 60W (5V/3A; 9V/3A; 12V/3A; 15V/3A, 20V/3A) One (1) USB-A port with QuickCharge 3.0 Technology (5V/3A; 9V/2A) Two (2) USB-A port (Total 5V, 3.1A)
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DC Port (6530)	9-12.6V, 6A
Car Port	12V car port (output): 12V, up to 8A (120W max) regulated
110V AC Inverter	Two (2) 110VAC, 60Hz, 1@ 3-pin, 1@ 2-pin Supports 300W Continuous, 500W Peak Surge Pure Sine Wave

GENERAL:

Display Panel	4.7" LCD display - clear and modern info relates watt input/output, battery status
Cabinet	Durable Aluminum Polycarbonate shell
Color	Slate Grey & Black
Weight	11.72 lbs. (5.32 kgs)
Dimensions (LxWxH)	11.0 x 6.3 x 8.1 in (28 x 16 x 21 cm)
Operating usage temperature	32°-104° F (0°-40° C)
Recharging Temperature	41°-95° F (5°-35° C)
AC Adapter (Included)	110V / 60Hz; 21V 3A 63W rated, 5.5mm pin-adapter; includes power cord

Certifications	FCC, RoHS, UN38.3
Warranty	12 months

HOW TO RECHARGE: **Approximate recharge times:**

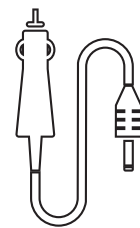
AC Wall Outlet	8 hrs
12V car port	15 hrs
Aviva 60W Solar Panel (option)	8 hrs *Approximate, with direct sunlight

OPTIONAL ACCESSORIES	Aviva Portable Solar Panel, 100W
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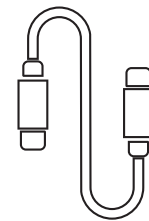
INCLUDED IN THE BOX	One (1) Power Station
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One (1) AC Adaptor with power cable
One (1) USB-C cable (3', 1M)
One (1) 12V car charging cable
One (1) User Manual

INCLUDED IN THE BOX:



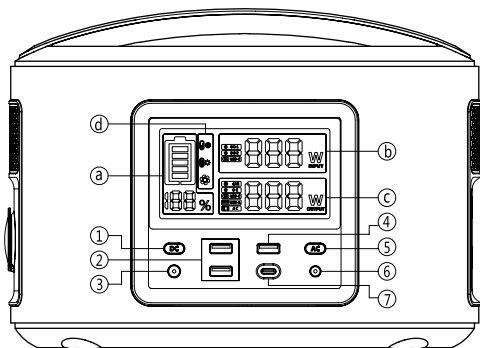
Car Cable
Charger 12V



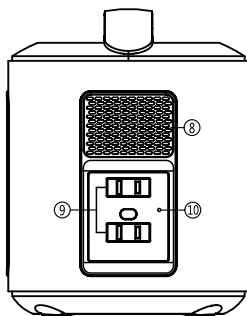
USB-C Cable

PRODUCT TOUR & FUNCTIONS

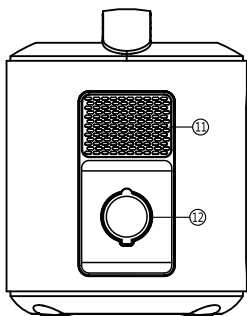
[front view]



- | | | |
|--------------------------------------|---------------------|---------------------|
| a. Power display | 1. DC switch button | 5. AC switch button |
| b. Charging power display | 2. USB-A port | 6. DC5521 port |
| c. Discharge power display | 3. DC6530 port | 7. USB-C port |
| d. System temperature status display | 4. QC 3.0 port | |



[left view]



[right view]

- | | | |
|-------------------|-------------------------|-------------------------|
| 8. Vents | 10. AC status indicator | 12. Car charger lighter |
| 9. AC output port | 11. Vents | |



Power Tips

1. Power the USB outputs > Short-press either AC or DC button
2. Power off the USB > Long press both AC and DC buttons simultaneously
3. Power on/off DC outputs > Long-press the DC button
4. Power On/off the AC outputs > Long-press the AC button
5. Power off all outputs > Press down the AC and DC button
6. Power off Low Battery Alert > Turn off by pressing either AC or DC button

GENERAL INFO

1. Press the AC and DC power button located on the front of your AVIVA S180 to activate its power function. Pressing the DC power button will activate the USB ports. When not using the AC or DC ports, make sure to turn the power off to conserve power.
2. The LED light on the button is illuminated when power is on.
3. When power is converted via the inverter, there is some energy lost and you will experience the full rating of the battery.
4. When you first plug in a power source device, such as a solar panel or a wall charger, the AVIVA S180 may take a few moments to detect and before it starts drawing power from the source.
5. Cold weather use: Due to the battery's chemical characteristics, cold weather (below zero degrees Celsius) will affect the battery's capacity. If you live in a cold place and cannot use the AC power from the grid, we recommend that you store the unit in a temperature-isolated place.
6. Recycle: Always return used electronics, batteries, and packaging materials to dedicated collection points.
7. Press and hold the DC and AC buttons at the same time to turn off all system outputs and enter the sleep state, thereby saving energy.

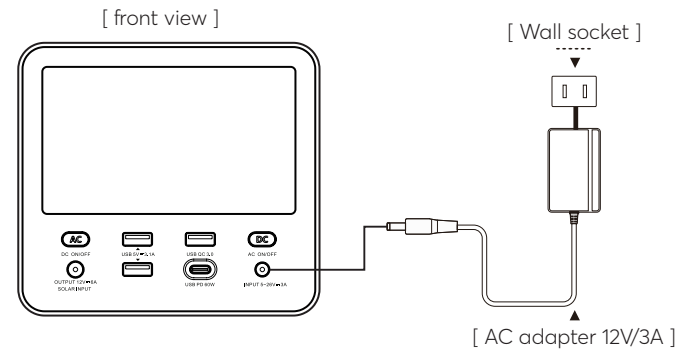
HOW TO CHARGE THE PRODUCT

CHARGE YOUR AVIVA NOW:

Before using or storing, using the included AC adapter, plug your AVIVA power station into the wall until it is fully charged. When charging your AVIVA you will notice a flashing light in the Info Display, indicating that it is charging. Once fully charged, the battery display indicator will read 100%. We recommend to charge the unit every 3-6 months.

Charging from the Wall with AC Adapter

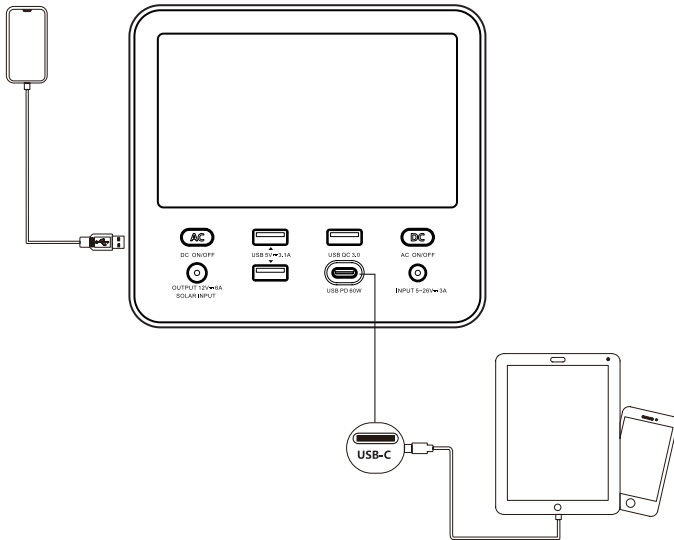
Using the included AC Wall Charger and cable, plug your AVIVA into a household wall outlet. When charging your AVIVA you will notice a flashing light in the Info Display, indicating that it is charging. Once fully charged, the battery display indicator will read 100%. The AVIVA M470 should recharge from zero capacity in about 7 hours.



Fast Charging from a USB-C Wall Charger

Using the included USB-C cable, plug into the 60W USB-C Power Delivery port and attach into a compatible third-party USB-C wall charger. Plug your charger into a household wall outlet. When charging your AVIVA you will notice a flashing light in the Info Display, indicating that it is charging. Once fully charged, the battery display indicator will read 100%.

[front view]



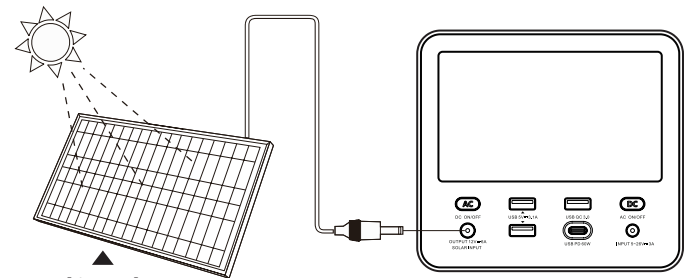
12

Charging from Solar Panel

IMPORTANT NOTICE: When solar recharging your AVIVA M470, pay attention to the voltages of the solar panels and do not exceed 18V. Exceeding 18V is not compatible and can cause serious damage to the unit.

The AVIVA M470v solar charging port is a DC6530 with a 6.5mm port and is designed to work with compatible solar panels up to 100W of solar. Solar panels with 18V typically range in 40 Watts to 100 Watts.

1. Position your solar panel where it will get as much direct sunlight as possible.
2. Insert the solar panel plug into the DC6530 port of. At the same time, press and hold the DC button for 1 second to activate the DC6530 port. You will know the AVIVA is charging when the icon is flashing on the display. The AVIVA is fully charged when the battery display indicator reads 100%.
3. Some solar panels are chainable to provide more power to your AVIVA and reduce solar charge times. Note, the maximum solar AVIVA S180 is capable of taking in is 100W.



[Input]
DC13V-20V/8A

13

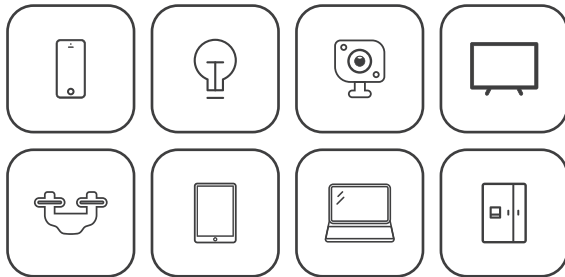
Charging from your vehicle's 12V port

Using the included cables and adapter, attach the cable to the DC 5521 port on the front of AVIVA M470. Plug into your vehicle's 12V port (also known as a cigarette lighter port). You will know the AVIVA is charging when the icon is flashing on the display. The AVIVA is fully charged when the battery display indicator reads 100%.

IMPORTANT NOTICE: It is recommended to use this charging method only when the vehicle engine is running.

What you can power and charge

Only devices that are 120W with a peak of 240W can be used to power or charge. This includes many small electronics and appliances. To determine how long your device will run or how many charges you can receive from your AVIVA M470, some math is involved. We recommend an internet search to learn about the relation of energy (Wh) and the consumption of watts (W) by your device.



+more

IMPORTANT NOTICE: Verify your device is suitable for use with the AVIVA M470. All of the power station output ports have their own max power capacity. Check the Specifications to ensure your device is compatible.

IMPORTANT NOTICE: Press the AC and DC power button located on the front of your AVIVA M470 to activate its power function. Pressing the DC power button will activate the USB ports. When not using the AC or DC ports, make sure to turn the power off to conserve power.

How to use this product to power DC 12V devices

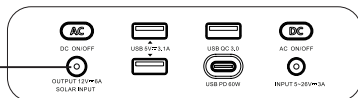
1. Connect the appliance to the DC6530 interface of this product.
2. Press and hold the DC button for 1 second to power the device.
3. Press and hold the DC button for 1 second to turn off the output.

IMPORTANT NOTICE: Make sure the interface of DC 12V device is a DC 6530 male connector, with an outer diameter power plug of 6.5mm. As per the specifications, the DC 6530 port can take in devices that are <8A, peak 10A.

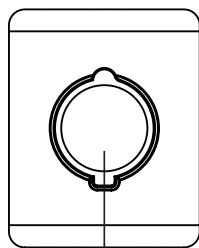
DC6530 port appliances such as DC fans, LED lights, etc. (limit current <6A, peak: 10A)

[right view]

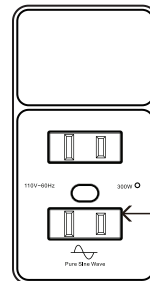
[front view]



Connecting a 6.5mm DC cigarette lighter holder can be used for vehicle tools, such as vacuum cleaners, air pumps, electric wrenches, and cae refrigerators. (limit current <8A, peak: 10A)



[left view]



For electrical products with a power of less than 300 watts, such as electric lights, televisions, game consoles, etc., please turn on the power switch before use. A short circuit in the AC output or the power of the load appliance exceeds the AC output power of the product will trigger the product to start short circuit protection or overpower protection, eliminate the short circuit or remove the electrical equipment, restart the machine to restore the AC output

If the AC output is shorted or the load's electrical power exceeds the AC output power of the product. The power station will trigger a short circuit protection or overpower protection. To eliminate the short circuit, disconnect the attached device, and then restart the power station to restore AC output.

Press and hold the DC and AC buttons at the same time to turn off all system outputs and enter the sleep state, thereby saving energy

Battery Management - Protection Mode:

Short circuit / overpower protection: If the AC output has a short circuit or the output is overpower (i.e. the load is >240W), the unit will turn off the AC.

Output for protection, please troubleshoot and press the AC output button again to achieve AC output. Some electrical equipment, such as refrigerators, ice makers, laser printers may require a peak power to start-up or may occur during its usage. Though the peak power time may be short, this peak power may exceed 240W or higher, which will result in the unit's overpower protection mode. Such a device is not compatible with the unit. Press the AC button of the unit to reset and activate the AC output.

Battery Protection Method

Short circuit / overpower protection: If the DC output is shorted, the device will shut down for protection. The DC output voltage range of this power station is 9V – 12.5V, the rated current is 8A and the maximum output current is 10A. Because batteries are chemicals, the DC output voltage will decrease as the battery capacity decreases. If the DC 12V device you are connecting does not regulate the charging voltage, the device may shut down or suspend charging due to the low input voltage.

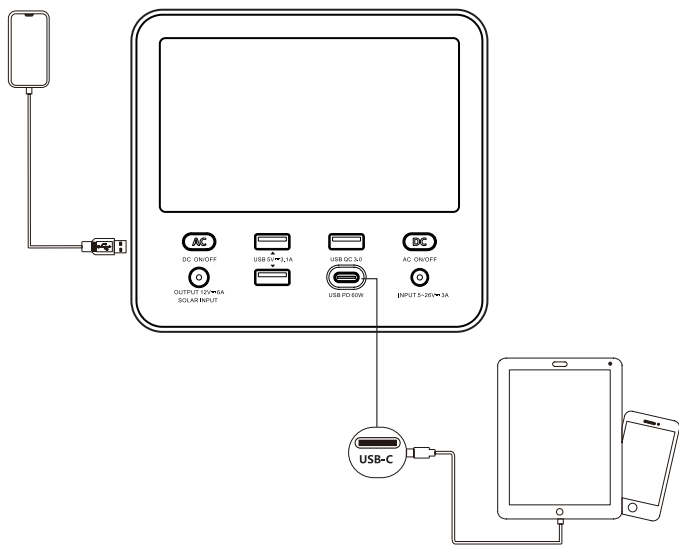
How to use this product to power AC devices

Connect the plug of the power cord of the device to the AC output of the power station, and then press and hold the AC button for 1 second to activate power to the device. Press and hold the AC button for 1 second to turn off the AC output.

How to use this product to power USB digital devices

Connect the standard USB cable of the digital device to the USB interface of this product, and click the DC button to activate power to the USB ports. The USB of this device will provide power for the digital device. After the device is removed, the product will automatically hibernate after 60 seconds.

[front view]



SAFETY AND MAINTENANCE

1. This product may become warm to hot during charging, this is normal. Please be careful when handling.
2. Avoid storing this device nearby coins, jewelry, keys, and other metal objects. This has a negative effect on the battery and may cause damage.
3. Do not place the unit near or under intense heat or fire.
4. The unit is not waterproof, avoid water and other liquids.
5. Store the unit in a cool, dry place, and avoid highly humid, dusty environments.
6. Do not disassemble this device without permission.
7. Do not drop, nor place heavy objects on or strongly impact the product.
8. Do not cover this product with objects, such as towels, clothing during use.
9. Do not charge longer than the time required to charge this product.
10. After the device plugged into the unit is fully charged, disconnect it from the AVIVA M470.

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IMPORTANT NOTICE:

1. The pictures in this manual are for reference only. If some pictures do not match the actual product, the actual product shall prevail.
2. The AC power socket and AC voltage and frequency of this product vary from country to country, please refer to the actual product.

First Edition: 07012020.

Document Part Number: Aviva-M470-UM-V1.

LIMITED WARRANTY

AVIVA Power warrants to the original consumer purchaser that the AVIVA product will be free from defects in workmanship and material under normal consumer use during the applicable warranty period identified in the 'Warranty Period' section below, subject to the exclusions set forth below. This warranty statement sets forth AVIVA's total and exclusive warranty obligation. We will not assume, nor authorize any person to assume for us, any other liability in connection with the sale of our products.

Warranty Period

The warranty period is 12 months. In each case, the warranty period is measured starting on the date of purchase by the original consumer purchaser. The sales receipt from the first consumer purchase, or other reasonable documentary proof, is required in order to establish the start date of the warranty period.

Remedy

AVIVA will repair or replace (at AVIVA's option) any AVIVA product that fails to operate during the applicable warranty period due to defect in workmanship or material. If a valid claim is made during the applicable period, AVIVA, at its option, will either (1) replace the product, or (2) exchange the product with a product that is of equal value. A replacement product assumes the remaining warranty of the original product or 60 days from the date of replacement, whichever is greater. Customer is responsible for the return shipping costs.

Limited to Original Consumer Buyer

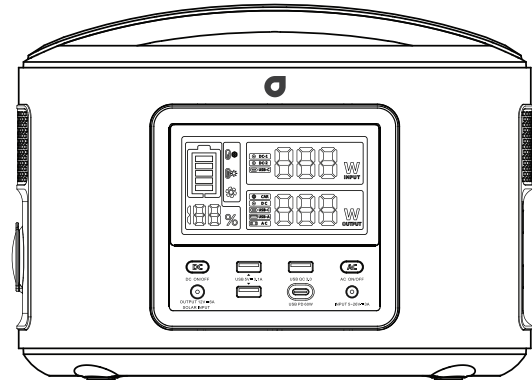
The warranty on AVIVA's product is limited to the original consumer purchaser.

Exclusions

AVIVA's warranty does not apply to (1) any product that is misused, abused, modified, damaged by accident, or used for anything other than normal consumer use as authorized in AVIVA's current product literature, or (ii) any product purchased through an online auction house. AVIVA's warranty does not apply to the battery cell unless the battery cell is fully charged by you within seven days after you purchase the product and at least every 6 months thereafter.

HOW TO RECEIVE SERVICE

To obtain warranty service, you must contact our customer service team via telephone at (888) 123-4567, or via email at support@avivapower.com. If our customer service team determines that further assistance is required, they will give you a Return Material Authorization ("RMA") number and will provide you with return instructions. You must properly package the product, clearly marking the RMA number on the package and including proof of your purchase date with the product. We will process your return and send your repaired or replacement product to you in North America. For product purchased or being shipped outside of North America, please contact the local distributor from whom you purchased the product or email support@avivapower.com to obtain further information.



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