ProVista™
TECHNOLOGY

Installation and Operating Instructions

Solar Portable Generator
ECOBOXX160 KIT

About this manual

These operating instructions come with the product and should be kept with it as a reference to all user's of the product.

- Read these operating instructions carefully before use,
- Keep them over the entire life of the product,
- And pass them on to any future owner or user of this product.

This manual describes the function, operation and maintenance of the solar portable generator ECOBOXX160 KIT.

These operating instructions are intended for end customers. A technical expert must be consulted in cases of uncertainty.

Safety

1. Do not connect any defective or damaged measuring equipment.
2. Never alter or remove the factory plates and identification labels.
3. Keep children away from the systems.
4. Never open the device.(No user serviceable parts inside)

INTRODUCTIOIN

The ECOBOXX160 KIT is member of innovator of the portable power manufactured by Pro Vista Technology Ltd.

The Portable generator, when used as described, will improve your ability to use the power anywhere, for camping, for laptop charging, phone charging and lighting, or emergency use. We do believe the portable generator will perform to your satisfaction.

Please carefully read and follow the safety and operating instructions.

PARTS—ECOBOXX160 KIT

A: 2x10W solar panel with input cable at 4 m and 2 in 1 connector cable at 1 m

B: 1x ECOBOXX160

C: 2X 12V,3W super bright LED light with cable at 5 m

D: 16V, 2A AC/DC charger (Optional)

- 13Ah built-in lead acid battery for 160Wh available
- 100W(Max.) modified sine wave Inverter
- All type of the sockets available, such as, Australia, UK, Schuko and US.

Solar portable generator-- ECOBOXX160

Dimension（L×W×H）：206×112×240mm/5.0kg

Ecoboxx 160 is the solar portable generator, with built-in 12V/13Ah lead acid battery and 100W modified sine wave inverter. The unit can supply the power to the 5V/12V equipment, such as phone, Ipad, iPhone and lighting. The inverter (Max. power:100W) can power to small home appliance, such as fan, small TV.

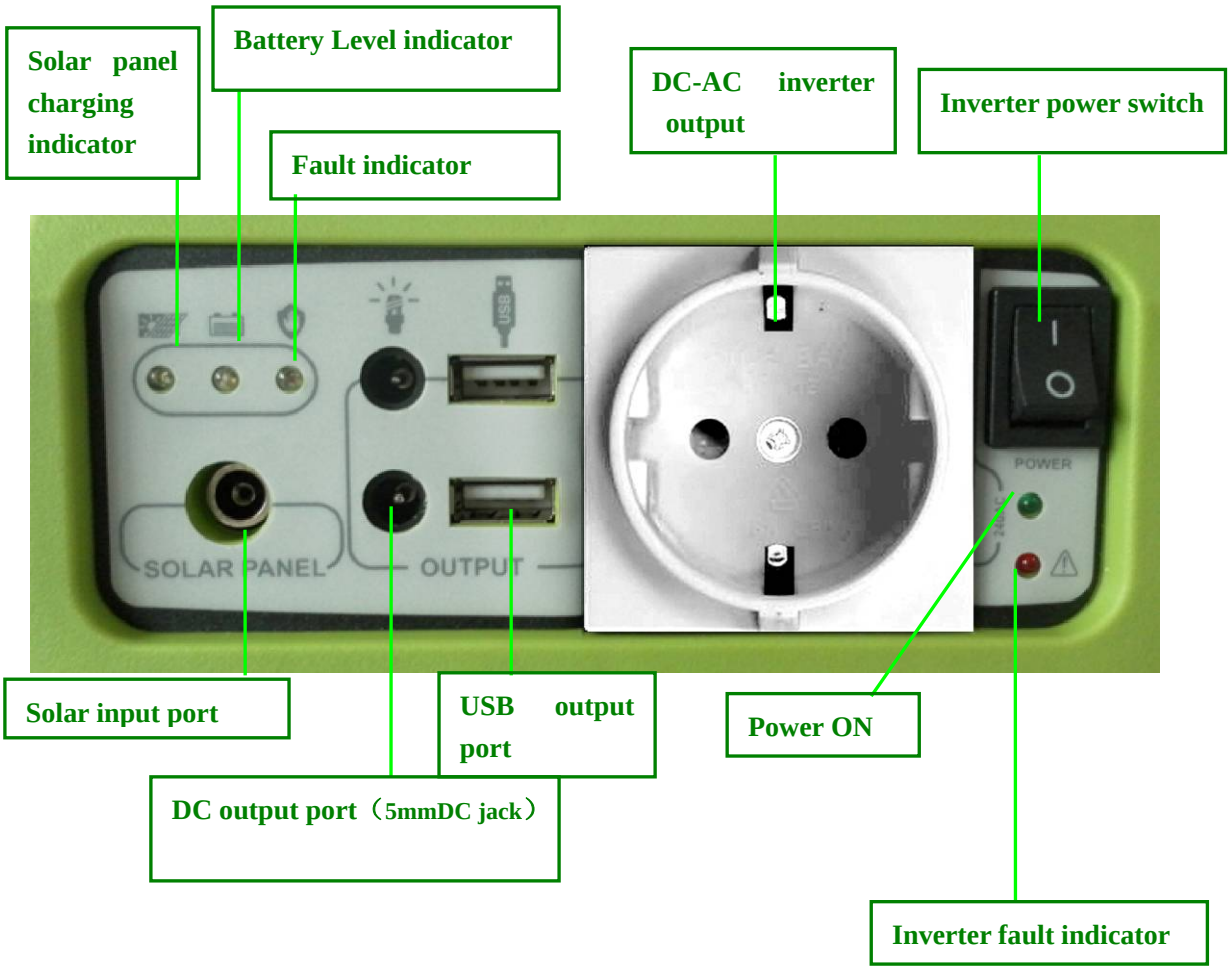
The unit is with undervoltage protection, overvoltage protection, overcurrent protection, overload protection and short circuit protection, also with the LED indicator accordingly, which can assure the charging normally and safety use.

Note: Master power switch

There is the master power switch at the back of the unit, it is the system power ON/OFF. We turn it OFF in ex-factory to reduce the self consumption current so that you can store for a long time.

Please turn it ON for charging or for output, or turn it OFF when you don't need to use it for a long time.

Front panel



1.1 LED indicator

1）Solar panel charging indicator(Green)

- PV input voltage is 0.5V higher than the battery voltage, the LED will be ON (Solid green);
- PV input voltage is between 28V ~ 39V, there will be overvoltage protection within two minutes, the LED will be in slow blinking.
- PV input voltage is ≤ 26.0V, the unit will exit the protection and restore to normal charging, and the LED will stop blinking.
- Over current protection (Max. 2.0 A, last about 3 seconds), the LED will be in quick blinking, will restore 30 seconds later.

2）Battery level indicator(Green & Red - two colors)

RED: Battery very low, please recharge the unit

Flash Orange, battery low

Red/Green: half full

Green: half full to Full

Green (During charging)

3）Fault indicator(Red)

- Any group of the loads is overloading, the Red LED will blink; Other group of loads will work properly if no fault. It will restore within 30 seconds after adjusting the loads to the extent provided.
- If the load is short-circuit, the Red LED will blink, it will restore within 30 seconds.

Remark: If Red LED blink, please disconnect the loads; It can damage the units if loads continuous failures.

1.2 Input/Output ports

1）Solar input port

- PV input(Volt): 16～26V
- PV input(Current): 2A(Max.), the unit is charging normally if the input current within 2A.

There is an alternative charging way with a constant current AC-DC adaptor, and the adapter must meet the following requirements:

- Constant current
- Input Volt: 16V
- Input Current: 2A(Max.)

2）DC output port (5mm DC jack)

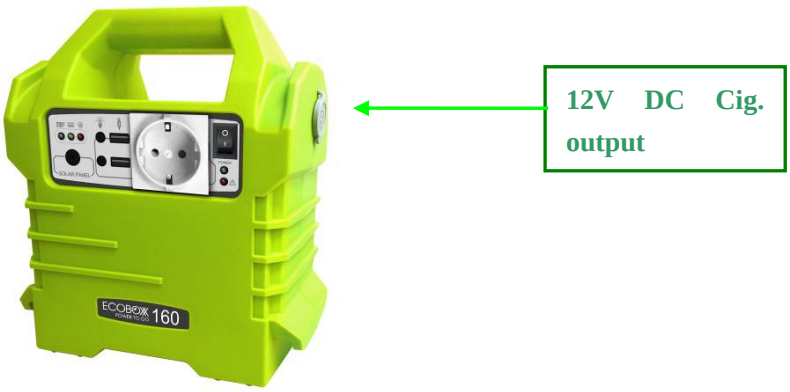
The DC output port is for 12V lighting.

- Output current: 1A (Max.)
- Output DC jack x 2(Please refer to the pic of DC output jack on the front panel)

3）USB output port: 5V, 1.5A(Max.)

- USB output x 2(Please refer to the pic of USB output port on the front panel)

4）12V Cigarette output port: 7.5A(Max.)



5）DC-AC Inverter output: 230V ac, 100W(Max.)

- Max. power is 100W, 75W continuous
- With overload, short circuit, overvoltage and undervoltage protection.

2.1 With built-in lead acid battery

The unit is built-in 12V, 13Ah lead acid battery.

The minimum charging voltage: ≥ 9VDC;

End of charging voltage: 14.4VDC;

Undervoltage protection: 10.5V dc & Restart voltage after the undervoltage protection: 12.5V dc

IMPORTANT: Read before use!

Before using Ecoboxx for the first time, give it a full charge; The best thing you can do for your Ecoboxx is to leave it plugged in. If this is not possible, then recharge the unit at a minimum every three months. Failure to follow this direction will shorten the life of the battery.

Frequently Asked Questions:

Q: How long (in hours. approximately by average) for full charge energy by solar panel for Ecoboxx 50,90,120 and 160 ?
Answer: Normally the panel we recommend or include in the kit is enough to recharge the battery in one day of sunny day. If the day are mostly cloudy is recommended to double the panel power.
Q: How long (in hours. approximately by average) for usage energy after we have completely full charge by solar panel for every models?
Answer: The energy available for the Ecoboxx 50 is 50Wh, Ecoboxx 90 is 90 Wh and Ecoboxx 160 is 120 Wh and Ecoboxx 160 is 160Wh. Based on this you could calculate how many hours you could run according to the consumption of the load connected. For example a 3 W LED light can run for 16 hours with Ecoboxx 50, a small 14' TV with a average consumption of 40 W can run for 2 hours with Ecoboxx 160. Always we recommend to check the power consumption of the appliance you will connect to the Ecoboxx for the timing calculation.

Q: Which model is your most popular or best selling which I should order more than others?
Answer: The most popular item is Ecoboxx 160 & Ecoboxx 160 but if you just need to run some lights and charge the phone even iPhone or iPad, Ecoboxx 50 and 90 are very good.

The Leading Edge in Solar Technology

Waste electrical products should not be disposed of with household waste

Please recycle where facilities exist

Check with your local authority or retailer for recycling advice

Specifications are subject to change without prior notice

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FOR TECHNICAL
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