

Violetta Solargear VS12-B11NHK Battery Compartment

Operating Instructions

Thank you very much for purchasing our product. Please read this manual thoroughly before using this product, and retain it for future reference in order to use the product safely, and to make the most of its features. If you use other products together with this product, please read the operating instructions of those products thoroughly before use as well.

Product Summary

A Ni-MH rechargeable battery compartment for mobile PV systems designed for powering a broad range of appliances. Composed of a combination of an ultra-thin, light and highly efficient solar panel and a compact, lightweight yet high capacity battery compartment for ultimate portability, reliability, safety, impact resistance, weather resistance and ruggedness in business, disaster prevention, leisure and everyday living.

Applications

Charging the built-in Ni-MH battery by sunlight, and powering a broad range of appliances through DC12V or DC5V output.

Features

- A built-in 12V 11Ah Ni-MH battery with superior charge efficiency at high temperatures under the sun, excellent overcharge endurance, long service life and high safety for air transport.
- A DC12V cigar lighter receptacle with a dust and water proof cap and 2 DC5V USB receptacles with a dust and water proof cap for output.
- A solar checker with a LED for easy monitoring of the status of the solar panel.
- A battery checker with 5 LEDs for easy monitoring of the status of the battery.
- Highly water repellent and quick drying Mil-Spec 500 denier coated solution dyed Cordura Nylon fabric and tape fasteners with excellent resistance to fading, abrasion, IR reflection, rot and mildew with long life Mil-Spec tape fasteners.

Important Safety Instructions

Caution Please follow the instructions below. Failure to comply may damage this device, cause the built-in battery to burst or result in leakage, fire and injury.

- Charge only by the specified solar panels or battery chargers.
- Do not allow metal objects to touch the input/output connectors.
- Do not seal the battery.
- Do not short circuit, or disassemble this device.
- Do not put this device into water.
- Do not use or leave this device near fire.
- Do not use or leave this device in enclosed spaces.
- Do not use or leave this device in unstable high places.
- Stop charging in case of leakage from the battery.
- Stop charging in case the battery becomes unusually hot.

Important Note

We are not responsible for any physical damage to appliances, any loss of memorized data, any interruption of business, and any loss of business opportunities caused by this product.

Specifications

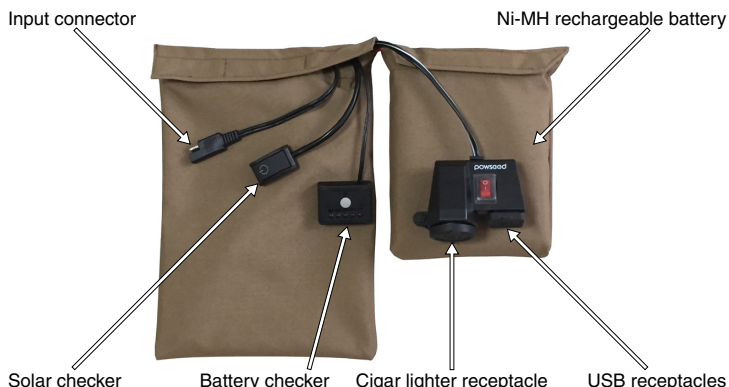
- Built-in battery: Ni-MH rechargeable battery
- Nominal capacity**: 132Wh (12V 11Ah)
- Charge time*: approx. 7 hours (with VS12-M30SF solar panel)
approx. 15 hours (with VS12-M18SP solar panel)
- Max output: 10A (120W, DC12V cigar lighter receptacle)
2.1A + 1A (DC5V USB)
- Operating temperature (charge)**: 0 - 45°C
- Operating temperature (discharge)**: -20 - 50°C
- Operating temperature (storage)**: -20 - 55°C (1 week) -20 - 45°C (1 month)
-20 - 35°C (3 months) -20 - 25°C (1 year)
- Dimensions (WDXH): 180X260X35 / 50mm
- Weight: approx. 2.1kg
- Input terminals: IP65 dust and water proof cable with a connector X 1m
- Output terminals: DC12V cigar lighter receptacle with dust and water proof cap X 1
DC5V USB receptacle with dust and water proof cap X 2
- Safety features: a thermostat for overcharging prevention
a thermostat for short circuit prevention
a fuse for short circuit prevention
- Cycle life: 500 cycles

*Panel temperature 25°C AM1.5 1kW/m2

**Discharge at 0.2C to 10.0V at 20°C

***No freezing

Feature Diagram



How to Use

Charging the built-in Battery

- Please read the operating instructions manual of the solar panel.

Powering Appliances

- 1 After charging the built-in battery, open the dust and water proof cap of cigar lighter receptacle or USB receptacles.

DC12V (Cigar lighter receptacle)

DC5V (USB)



- 2 To power appliances with AC100V input, connect a DC-AC inverter to the cigar lighter receptacle, connect the appliance to the inverter, and turn on the switch of the receptacle. To power appliances with DC12V input, connect the cigar lighter plug of the appliance to the cigar lighter receptacle, and turn on the switch of the receptacle. To power appliances with DC5V input, connect the USB plug of the appliance to either of the USB receptacles, and turn on the switch of the receptacle.

AC100V (DC-AC inverter)

DC5V (USB)



- ⚠ **Note:** You do not need to fully charge the built-in battery before powering appliances, but the operating time varies widely depending on the battery status and the power consumption of appliances.

- 4 To monitor the status of the solar panel, press the button of the solar checker, and refer to the LED indicator. A white LED turns on when the solar panel is charging. Press the button again to turn it off.

- ⚠ **Note:** You do not need to turn off the LED for better charging performance, as it's power consumption is very small.



- 5 To monitor the status of the battery, press the button of the battery checker, and refer to the LED indicator. A green LED turns on when battery level is OK. An orange LED turns on when battery level is low. A red LED or no LED turns on when battery is discharged and needs to be charged immediately.

- ⚠ **Note:** When you are in an emergency or mission critical operations, monitor the status of the battery frequently.



- 6 After you have finished powering appliances with AC100V input, turn off the switch of the receptacle, disconnect the appliance from the inverter, and disconnect the inverter from the cigar lighter receptacle. After you have finished powering appliances with DC12V input, turn off the switch of the receptacle, and disconnect the cigar lighter plug of the appliance from the cigar lighter receptacle. After you have finished powering appliances with DC5V input, turn off the switch of the receptacle, and disconnect the USB plug of the appliance from the USB receptacle.

- 7 To keep away from dust and water, and to avoid short circuit, close the dust and water proof cap of cigar lighter receptacle and USB receptacles, once you have finished powering appliances.

Maintenance

- To protect the built-in battery from over-discharging, charge it at least once 6 months.
- The life of the built-in battery varies widely depending on the operating environment. Replace the battery every 3 - 5 years, or when the operating time becomes notably short.
- Clean this product with a dried or dampened cloth. Do not use oil, solvents, petrol or paint thinners for cleaning.

Warranty

- 1 year from the date of purchase

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Design and specifications are subject to change without notice.

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