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Nilight 90542A

Nilight 300W Power Inverter Model 90542A User Manual

Model: 90542A

INTRODUCTION

Thank you for choosing the Nilight 300W Power Inverter. This device converts 12V DC power from your vehicle's battery into 110V AC household power, along with PD 65W USB-C and QC3.0 USB-A fast charging ports. It is designed to power various electronic devices on the go. Please read this manual thoroughly before use to ensure safe and optimal operation.



Phone/Ipad



Movie



Outdoor Work



Road Trip

Image: The Nillight 300W Power Inverter being used in diverse settings such as powering a projector for outdoor movie nights, charging devices during outdoor work, and providing power on road trips.

SAFETY INSTRUCTIONS

To prevent injury or damage to the inverter and connected devices, observe the following safety precautions:

- **Do not** expose the inverter to water, rain, or snow.
- **Do not** operate the inverter if it has received a sharp blow, been dropped, or otherwise damaged.
- **Do not** disassemble the inverter. Incorrect reassembly may result in electric shock or fire.
- Ensure proper ventilation. **Do not** block ventilation openings.
- Keep the inverter away from flammable materials, gases, or liquids.
- Connect the inverter only to a 12V DC power source.
- **Do not** exceed the inverter's rated power output of 300W. Overloading can cause damage or fire.
- The inverter features built-in protection against overheating, under/over voltage, short circuits, and overloads. If a fault is detected, the inverter will automatically shut off and illuminate a red indicator light.

ISOLATION VOLTAGE PROTECTION

Perfect protection for your devices



Overheating Protection



Low-voltage Protection



Short-circuit Protection



Overload Protection



Over-voltage Protection

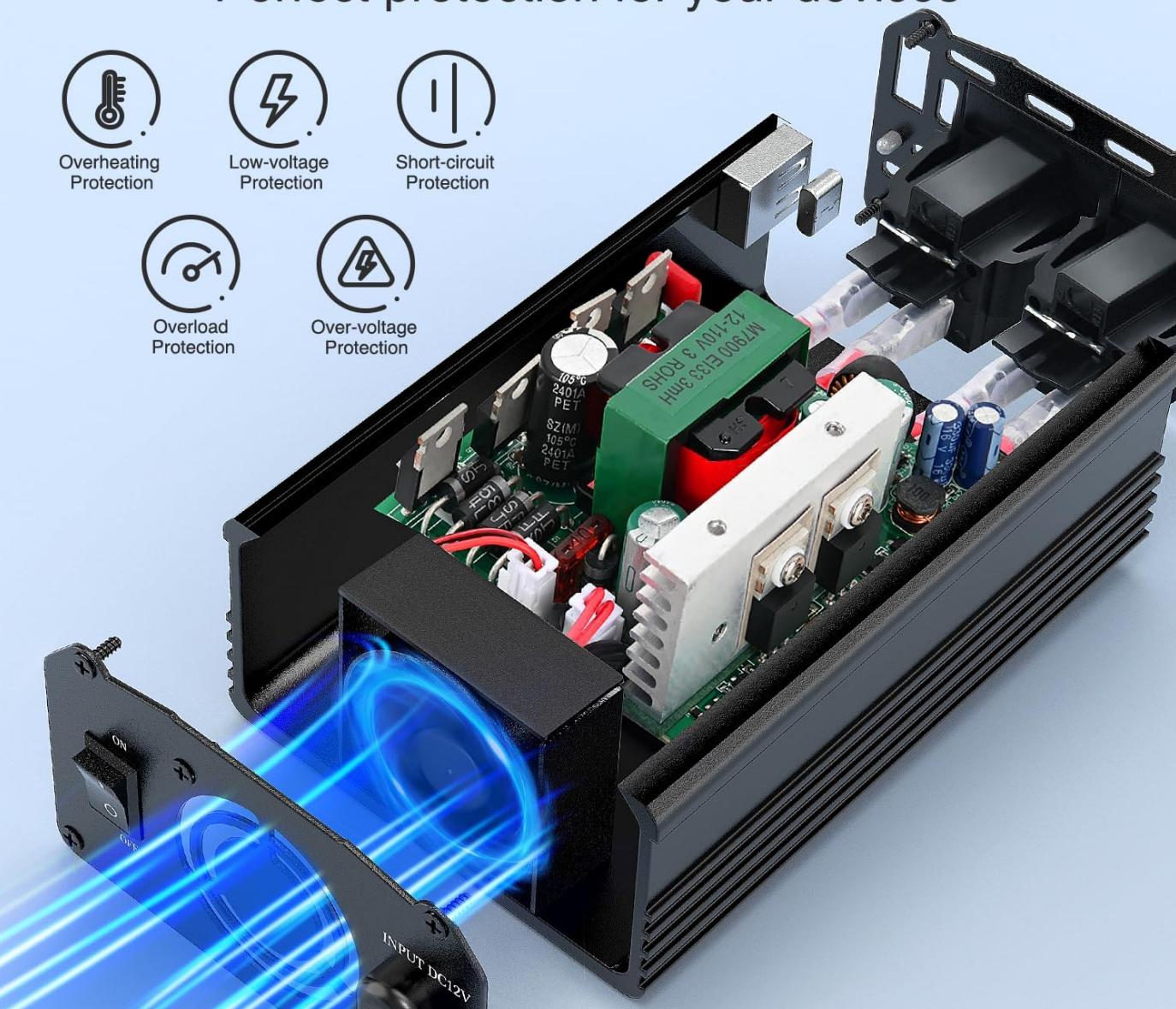


Image: An internal view of the power inverter highlighting its multiple protection features, including overheating, low-voltage, short-circuit, overload, and over-voltage protection.

PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x Nilight 300W Car Power Inverter
- 1x Instruction Manual

PRODUCT FEATURES

The Nilight 300W Power Inverter offers the following key features:

- **300W Continuous Power:** Provides 300 Watts of continuous 12V DC to 110V AC power output.
- **Multiple Charging Ports:** Equipped with 1 USB-A port (QC3.0), 1 USB-C port (PD 65W), and 2 AC outlets.
- **Fast Charging:** USB-C (PD 65W) and USB-A (QC3.0) ports allow for rapid charging of compatible phones and

tablets.

- **Comprehensive Protection:** Features a smart chip and built-in fuse for double protection against overheating, under/over voltage, short circuits, overloads, and overcharge.
- **Efficient Cooling:** Durable metal housing with a built-in silent automatic temperature-controlled cooling fan to dissipate heat and prevent damage.

12V to 110V POWER INVERTER

Convert input 12V DC to 110V AC



Drone 



Camera 



Inflator 



Projector 



Image: The Nilight 300W Power Inverter illustrating its 12V DC input and various outputs, including QC 3.0, PD 65W, and two 110V AC outlets, capable of powering devices like drones, cameras, inflators, and projectors.

PD 65W & QC 3.0 OUTPUT

Simultaneously charges 2 devices
at high speed **20W(Max)**



Nilight

USB-C

PD65W

If your device requires 20W, it will adjust to deliver the optimal 20W for high speed charging.

USB-A

18W

Other

USB 2.1A

10.5W

USB 1A

5W

Image: A close-up of the inverter's PD 65W USB-C and QC 3.0 USB-A ports, demonstrating their fast-charging capabilities for two devices simultaneously.

SMART SILENT COOLING FAN



AVERAGE
DECIBELS (dB)

30dB
Library

45dB
Power Inverter

60dB
Normal Communication



113°F
Low Speed



140°F
High Speed

Image: A diagram illustrating the smart silent cooling fan of the Nilight 300W Power Inverter, showing its operation at different temperatures and noise levels compared to a library and normal communication.

SETUP

Follow these steps to set up your power inverter:

1. Ensure your vehicle's engine is running to provide stable power and prevent draining the car battery.
2. Insert the inverter's cigarette lighter plug firmly into your vehicle's 12V DC cigarette lighter socket.
3. The inverter's power indicator light should illuminate, indicating it is receiving power.
4. Turn on the inverter using the ON/OFF switch located on the unit.



THREE DEVICES CHARGING

Simultaneously charges 4 devices at high speed

Image: The Nilight 300W Power Inverter plugged into a car's console, simultaneously charging a phone and a tablet via its AC outlets, USB-A, and USB-C ports.

OPERATING INSTRUCTIONS

Once the inverter is set up and powered on, you can connect your devices:

- **AC Outlets:** Plug your 110V AC devices (up to 300W total) into the two standard AC outlets. These are suitable for laptops, small electronics, and other devices within the power limit.
- **USB-C (PD 65W) Port:** Connect compatible devices for fast charging. This port can deliver up to 65W.
- **USB-A (QC3.0) Port:** Connect compatible devices for fast charging. This port supports Quick Charge 3.0.
- **Power Consumption:** Always ensure the total power consumption of all connected devices does not exceed 300W. Refer to your device's power requirements before connecting.
- **Incompatible Devices:** High-power appliances such as irons, coffee machines, and hair dryers typically exceed the 300W limit and should not be connected to this inverter.

SUPER FAST DUAL USB CHARGER

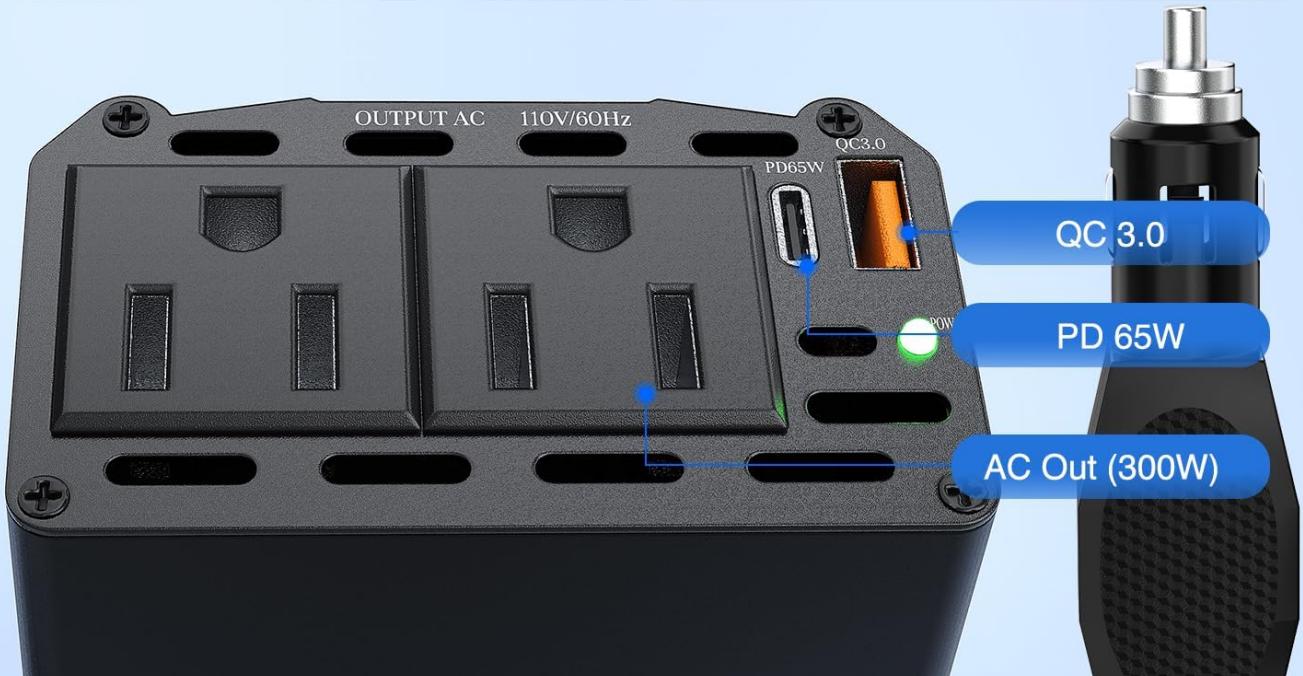


Image: The Nlight 300W Power Inverter displaying its ports (QC 3.0, PD 65W, AC Out) and examples of compatible devices like SLR cameras, car cleaners, Macbooks, fans, car DVRs, phones, and iPads. It also indicates incompatible high-power devices such as irons, coffee machines, and hair dryers.

MAINTENANCE

Proper maintenance ensures the longevity of your inverter:

- Cleaning:** Disconnect the inverter from the power source before cleaning. Use a dry, soft cloth to wipe the exterior. Do not use liquid cleaners or solvents.
- Storage:** Store the inverter in a cool, dry place away from direct sunlight and moisture when not in use.
- Ventilation:** Ensure the cooling fan and ventilation openings are free from dust and obstructions.

TROUBLESHOOTING

If you encounter issues with your inverter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power output / Inverter not turning on	<ul style="list-style-type: none"> ◦ Cigarette lighter connection is loose. ◦ Vehicle's 12V socket is not providing power. ◦ Inverter's ON/OFF switch is off. ◦ Vehicle battery voltage is too low. 	<ul style="list-style-type: none"> ◦ Ensure the cigarette lighter plug is fully inserted. ◦ Check the vehicle's fuse for the cigarette lighter socket. ◦ Turn the inverter's switch to the ON position. ◦ Start the vehicle's engine to recharge the battery.
Red indicator light is on	<ul style="list-style-type: none"> ◦ Overload (total wattage of connected devices exceeds 300W). ◦ Overheating (poor ventilation or prolonged high-power use). ◦ Under/Over voltage from vehicle battery. ◦ Short circuit in connected device or cable. 	<ul style="list-style-type: none"> ◦ Disconnect some devices to reduce load. ◦ Ensure inverter is in a well-ventilated area; allow it to cool down. ◦ Check vehicle battery voltage. ◦ Disconnect all devices and reconnect one by one to identify faulty device/cable.
USB-A port always provides power even when unit switched off	<ul style="list-style-type: none"> ◦ This is a known characteristic of some units. 	<ul style="list-style-type: none"> ◦ If you do not want the USB-A port to provide power, unplug the inverter from the car's cigarette lighter socket.

SPECIFICATIONS

Technical specifications for the Nilight 300W Power Inverter (Model 90542A):

- **Model:** 90542A
- **Input Voltage:** 12V DC
- **Output Voltage:** 110V AC
- **Continuous Power Output:** 300 Watts
- **USB-C Output:** PD 65W Max
- **USB-A Output:** QC3.0 18W Max
- **Total Power Outlets:** 2 AC, 1 USB-C, 1 USB-A
- **Dimensions:** Approximately 4.84 x 3.15 x 1.69 inches (12.3 x 8 x 4.3 cm)
- **Weight:** Approximately 499 g (1.1 lbs)
- **Protection Features:** Overheating, Low-voltage, Short-circuit, Overload, Over-voltage

PORTABLE SIZE

Suitable for charging string lights, laptop, game console, TV, DVD players, lights, iPad and other electronic devices



Image: The Nillight 300W Power Inverter displayed with its key dimensions: 4.84 inches in length, 3.15 inches in width, and 1.69 inches in height, alongside its 19.69-inch power cable.

WARRANTY AND SUPPORT

For warranty information or technical support, please contact Nillight customer service through the retailer where the product was purchased or visit the official Nillight website. Please have your model number (90542A) and purchase details ready when contacting support.

Nillight Store Link: [Visit the Nillight Store on Amazon](#)

