FORYON NHT-4000W

FORYON NHT-4000W AC 220V 4000W SCR Voltage Regulator User Manual

Model: NHT-4000W

1. Introduction and Overview

This manual provides instructions for the safe and efficient use of the FORYON NHT-4000W SCR Voltage Regulator. This device is designed for stepless regulation of AC 220V power up to 4000W, allowing adjustment of speed, temperature, voltage, and light for various applications. Please read this manual thoroughly before installation and operation.

2. Safety Instructions

- Always ensure the device is disconnected from the power source before installation, maintenance, or any adjustments.
- Do not exceed the maximum rated power of 4000W. Overloading can cause damage to the device and connected equipment, and poses a fire hazard.
- Operate only within the specified voltage range (AC 220V). Connecting to incorrect voltage can damage the unit.
- Keep the device away from water, high humidity environments, and flammable materials.
- Ensure proper ventilation around the unit to prevent overheating. Do not block ventilation holes.
- This device is intended for indoor use only.
- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Always use appropriate personal protective equipment when working with electrical devices.

3. Product Features

- SCR Voltage Regulator (Model: NHT-4000W)
- High power capacity: Max 4000W
- Input Voltage: AC 220V

- Rated Current: 9A, Max Current: 18A
- Integrated Digital Volt Meter for real-time voltage display.
- Adjustable knob for stepless voltage regulation.
- Equipped with an ON/OFF power switch.
- Features an overload protection switch for enhanced safety.
- Durable aluminum housing for effective heat dissipation.
- Compact design for various applications.

4. Package Contents

- 1 x FORYON NHT-4000W SCR Voltage Regulator

5. Specifications

Name	SCR Voltage Regulator
Model	NHT-4000W
Material	Aluminum
Max Power	4000W
Rated Current	9A
Max Current	18A
Input Voltage	AC 220V
Main Machine Size	115 x 100 x 83mm / 4.53 x 3.94 x 3.27in
Item Weight	459g / 1.01lb

Note: The provided package dimensions (1.18 x 0.79 x 0.39 inches) and item weight (2.2 pounds) from the product specifications appear to be for the package or shipping, not the main unit itself. The main unit's dimensions and weight are listed above for clarity.



Figure 5.1: Dimensions of the FORYON NHT-4000W SCR Voltage Regulator. The image shows the device with measurements: 115mm / 4.53in (length), 100mm / 3.94in (width), and 83mm / 3.27in (height).

6. Setup

Follow these steps to set up your voltage regulator:

1. **Mounting (Optional):** The regulator features installed holes on its sides, allowing it to be securely mounted to a surface using screws. Ensure the mounting location provides adequate ventilation.
2. **Identify Connections:** Locate the input cable (for AC 220V power supply) and the output plug (for connecting your load).
3. **Connect Load:** Ensure the regulator's power switch is in the OFF position. Connect your electrical appliance or load (e.g., fan, heater, light) to the output plug of the regulator.
4. **Connect Power:** Plug the input cable of the regulator into a standard AC 220V power outlet.

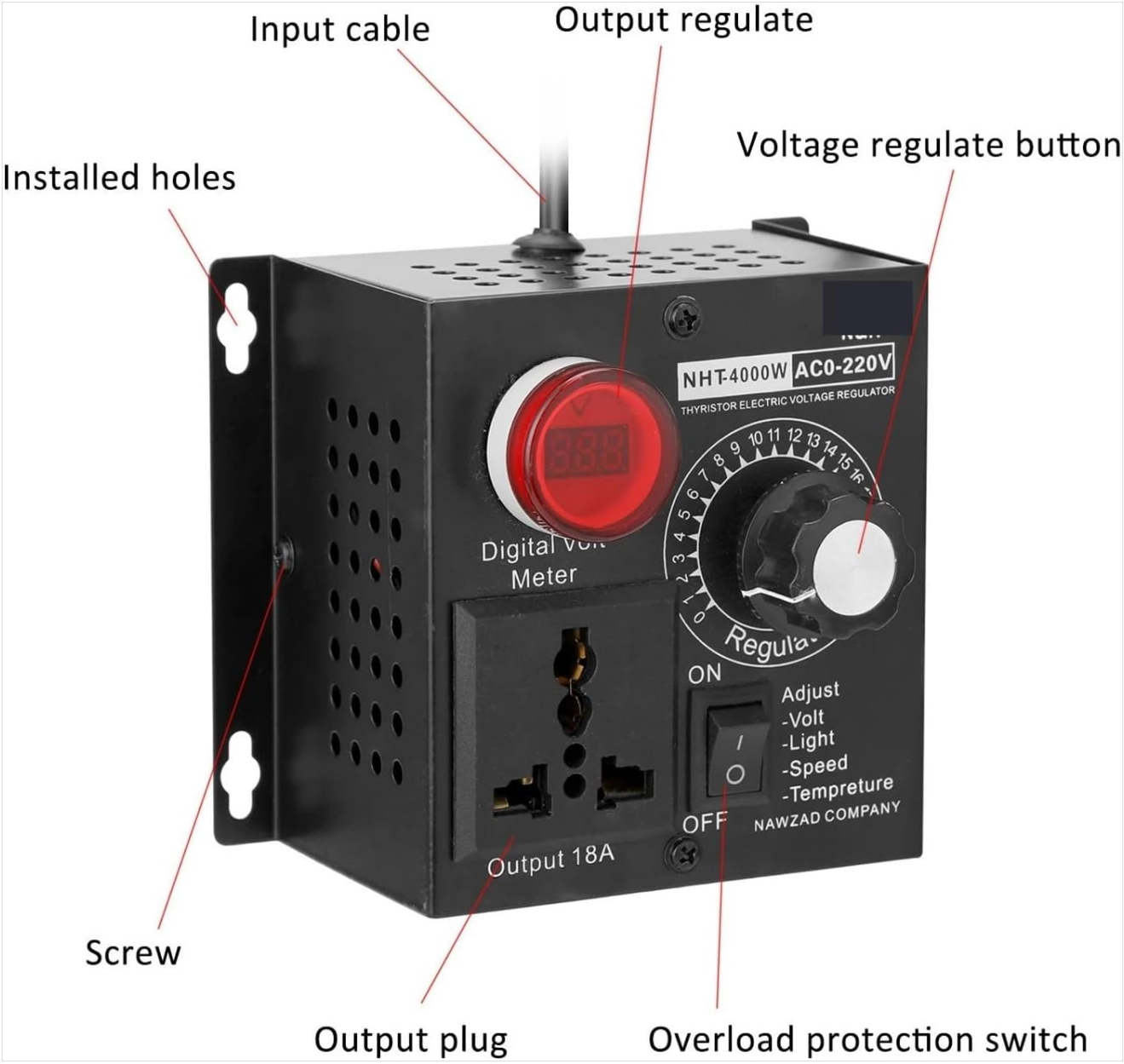


Figure 6.1: Labeled components of the FORYON NHT-4000W SCR Voltage Regulator. The image points out the input cable, output regulate, voltage regulate button, digital volt meter, installed holes, screw, output plug, and overload protection switch.



Figure 6.2: Connection diagram for the FORYON NHT-4000W SCR Voltage Regulator. The diagram illustrates connecting the regulator to an AC 220V power source and then connecting a fan (as an example load) to the regulator's output.

7. Operating Instructions

Once the regulator is set up, follow these steps for operation:

1. **Power On:** Flip the ON/OFF switch to the 'ON' position. The digital volt meter display will illuminate, showing the current output voltage.
2. **Adjust Voltage:** Rotate the 'Regulate' knob (voltage regulate button) clockwise to increase the output voltage and counter-clockwise to decrease it. Observe the digital volt meter for the precise output voltage.
3. **Monitor Load:** Ensure that the connected appliance operates within its safe voltage and power limits. The regulator allows for stepless adjustment of speed (for motors), temperature (for heating elements), voltage, and light intensity (for dimmable lights).
4. **Overload Protection:** The device is equipped with an overload protection switch. If the connected load exceeds the maximum current (18A) or power (4000W), the protection switch may trip, cutting off power to

prevent damage. If this occurs, disconnect the load, reduce the load, and reset the switch.

5. **Power Off:** When finished, flip the ON/OFF switch to the 'OFF' position and disconnect the regulator from the main power supply.

8. Maintenance

- **Cleaning:** Regularly clean the exterior of the device with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure that the ventilation holes are free from dust and obstructions to maintain proper airflow and prevent overheating.
- **Connections:** Periodically check all electrical connections to ensure they are secure and free from damage.
- **Storage:** When not in use for extended periods, store the regulator in a cool, dry place away from direct sunlight and extreme temperatures.

9. Troubleshooting

- **No Power/Display:**
  - Check if the input cable is securely plugged into a live AC 220V outlet.
  - Ensure the ON/OFF switch is in the 'ON' position.
  - Verify the power outlet is functional by testing with another appliance.
- **No Voltage Regulation:**
  - Ensure a load is connected to the output. Some regulators require a load to show voltage changes effectively.
  - Check if the 'Regulate' knob is being turned correctly.
- **Overload Protection Trips:**
  - The connected load may exceed the regulator's maximum power (4000W) or current (18A) capacity. Disconnect the load.
  - Reduce the load or use an appliance with lower power consumption.
  - Check for any short circuits in the connected appliance or wiring.
  - After addressing the issue, reset the overload protection switch.
- **Device Overheats:**
  - Ensure adequate ventilation around the unit. Clear any obstructions from the ventilation holes.
  - Verify that the connected load does not exceed the maximum power rating.
  - Operate the device in a cooler environment if possible.

10. Warranty and Support

While specific warranty details are not provided in this manual, FORYON is committed to customer satisfaction. If you encounter any issues or have questions regarding the FORYON NHT-4000W SCR Voltage Regulator, please feel free to contact us through your purchase platform or the manufacturer's official support channels.

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Example: How do I reset this device or fix this error?

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