

Nippon America ASERV-2000C

Nippon America ASERV-2000C Automatic Voltage Regulator User Manual

Model: ASERV-2000C

1. INTRODUCTION

The Nippon America ASERV-2000C is an automatic voltage regulator designed to provide a stable power supply and protect your electronic devices from voltage fluctuations. Featuring a servo motor transformer and an advanced CPU control circuit, this unit ensures precise voltage regulation. It includes a 10-second countdown delay function and comprehensive protection against high voltage, low voltage, high temperature, and short circuits. This manual provides essential information for the safe and efficient operation of your ASERV-2000C.

2. SAFETY INSTRUCTIONS

Read all instructions carefully before operating the device. Failure to follow these instructions may result in electric shock, fire, or serious injury.

- **Placement:** Place the voltage regulator in a well-ventilated area, away from direct sunlight, heat sources, and moisture. Ensure adequate clearance around the unit for proper heat dissipation.
- **Ventilation:** Do not block the ventilation openings on the unit. Overheating can damage the device and pose a fire hazard.
- **Power Source:** Connect the regulator only to a grounded power outlet with the correct voltage and frequency as specified in the specifications.
- **Load Capacity:** Do not exceed the maximum rated power capacity of 2000 watts. Overloading can cause damage to the regulator and connected appliances.
- **Liquid Exposure:** Keep the unit away from water or any liquids. Do not operate with wet hands.
- **Maintenance:** Do not attempt to open or service the unit yourself. Refer all servicing to qualified personnel. Opening the unit voids the warranty.
- **Children:** Keep the device out of reach of children.
- **Unplugging:** Always unplug the unit from the power outlet before cleaning or when not in use for extended periods.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- Nippon America ASERV-2000C Automatic Voltage Regulator
- User Manual

4. PRODUCT OVERVIEW

Familiarize yourself with the components and controls of your ASERV-2000C.



Figure 4.1: Front Panel View

This image shows the front panel of the ASERV-2000C, highlighting the LED display, output voltage indicators (220V, 110V), input voltage indicator, I/O Voltage button, ON/OFF power switch, and the delay function button (Delay OFF 10s, Delay 100s).



Figure 4.2: Angled View with Handle

This image provides an angled perspective of the ASERV-2000C, showcasing its compact design and the integrated handle for convenient portability.



Figure 4.3: Rear Panel View

The rear panel of the ASERV-2000C is shown, featuring four output sockets (two 110VAC and two 220VAC), the integrated power cord, and a circuit breaker. Product specifications are also visible on a label.



Figure 4.4: Side Panel View

This image displays the side of the ASERV-2000C, highlighting the large-area heat dissipation holes designed for efficient cooling and reliable performance.

4.1 Front Panel Controls and Indicators

- **LED Display:** Shows real-time input or output voltage.
- **Output Voltage Indicators (220V, 110V):** LEDs illuminate to indicate the active output voltage.
- **Input Voltage Indicator:** LED illuminates to indicate the input voltage is being displayed.
- **I/O Voltage Button:** Press to switch the LED display between input and output voltage readings.
- **ON/OFF Power Switch:** Controls the main power to the unit.
- **Delay Function Button (Delay OFF 10s, Delay 100s):** Activates or deactivates the output delay function. The default is 10 seconds.

4.2 Rear Panel Connections

- **110VAC Output Sockets:** Two outlets for connecting devices requiring 110V AC power.
- **220VAC Output Sockets:** Two outlets for connecting devices requiring 220V AC power.

- **Power Cord:** Integrated cord for connecting the regulator to the main power supply.
- **Circuit Breaker:** Provides overload protection.

5. SETUP INSTRUCTIONS

Follow these steps to set up your automatic voltage regulator:

1. **Unpacking:** Carefully remove the ASERV-2000C from its packaging and inspect it for any signs of damage.
2. **Placement:** Place the unit on a stable, flat surface in a dry, well-ventilated area. Ensure that the side ventilation holes are not obstructed.
3. **Power Off:** Ensure the ON/OFF power switch on the front panel is in the "OFF" position.
4. **Connect Appliances:** Plug your electronic devices into the appropriate 110VAC or 220VAC output sockets on the rear panel of the regulator. Ensure the total power consumption of all connected devices does not exceed 2000 watts.
5. **Connect to Mains Power:** Plug the regulator's integrated power cord into a grounded wall outlet.

6. OPERATING INSTRUCTIONS

Operating the ASERV-2000C is straightforward:

1. **Power On:** Flip the ON/OFF power switch to the "ON" position. The LED display will light up, and the unit will begin its startup sequence.
2. **Delay Function:** The unit features an automatic 10-second countdown delay function to protect appliances with compressors (e.g., refrigerators, air conditioners) from immediate power cycling. During this delay, the LED display will count down, and no power will be supplied to the output sockets. You can press the "Delay Function" button to switch between 10-second and 100-second delay modes, or to disable the delay if desired.
3. **Voltage Monitoring:** After the delay, power will be supplied to the output sockets. The LED display will show the output voltage by default. Press the "I/O Voltage" button to toggle between displaying the input voltage and the output voltage. The corresponding indicator LED (Input Voltage, 220V Output, or 110V Output) will illuminate.
4. **Normal Operation:** The regulator will continuously monitor the input voltage and automatically adjust the output voltage to maintain a stable level within its specified accuracy.
5. **Power Off:** To turn off the unit, flip the ON/OFF power switch to the "OFF" position. Unplug the unit from the wall outlet if it will not be used for an extended period.

7. MAINTENANCE

Proper maintenance ensures the longevity and reliable performance of your ASERV-2000C.

- **Cleaning:** Disconnect the unit from the power source before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use liquid cleaners or abrasive materials.
- **Ventilation:** Regularly check that the ventilation holes on the sides are free from dust and obstructions. Dust accumulation can impede heat dissipation and lead to overheating.
- **Storage:** If storing the unit for an extended period, ensure it is clean, dry, and stored in a cool, well-ventilated place.

8. TROUBLESHOOTING

If you encounter issues with your ASERV-2000C, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Unit does not power on.	No power from wall outlet. Power switch is OFF. Circuit breaker tripped.	Check wall outlet with another device. Ensure power switch is ON. Reset the circuit breaker on the rear panel.
No output power after turning on.	Delay function is active. Input voltage is outside operating range. Overload protection activated.	Wait for the delay countdown to complete. Check input voltage on LED display. If too high/low, the unit may be in protection mode. Reduce the total load connected to the regulator. Check if the circuit breaker tripped.
Output voltage is unstable or incorrect.	Input voltage fluctuations are extreme. Unit is overloaded.	The unit is designed to stabilize voltage; however, extreme fluctuations might be beyond its compensation range. Reduce load if near maximum capacity.
Unit emits unusual noise or smell.	Internal fault. Overheating.	Immediately turn off and unplug the unit. Do not attempt to use it. Contact customer support.

If the problem persists after attempting these solutions, contact Nippon America customer support.

9. SPECIFICATIONS

Technical specifications for the ASERV-2000C Automatic Voltage Regulator:

- **Model:** ASERV-2000C
- **Capacity:** Up to 2000 Watts
- **Input Voltage Range:** 80-260V AC
- **Input Frequency:** 50/60Hz
- **Output Voltage:** 110V AC and 220V AC (simultaneously)
- **Output Regulation Accuracy:** $\pm 3\%$
- **Technology:** Servo Motor Transformer, Advanced CPU Control Circuit
- **Delay Function:** 10 seconds (default), 100 seconds selectable
- **Protection:** High Voltage, Low Voltage, High Temperature, Short Circuit, Overload
- **Display:** LED Digital Display
- **Operating Temperature:** -10°C to 40°C (14°F to 104°F)
- **Noise Level:** $\leq 65\text{dB}$ (at 1 meter distance)
- **Construction:** Full Metal Outer Shell
- **Item Weight:** 16.3 Pounds
- **Power Source:** Corded Electric

10. WARRANTY INFORMATION

The Nippon America ASERV-2000C Automatic Voltage Regulator comes with a **1-Year Limited Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accident, unauthorized modification, or improper installation. Please retain your proof of purchase for warranty claims.

11. CUSTOMER SUPPORT

For technical assistance, warranty claims, or any questions regarding your Nippon America ASERV-2000C, please contact Nippon America customer support. Refer to the contact information provided with your product packaging or visit the official Nippon America website for support details.

Nippon America Store: [Visit the Nippon America Store on Amazon](#)

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