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› PSVANE Horizon Series 6550-AT Vacuum Tube Amplifier User Manual

PSVANE 6550-AT

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Model: 6550-AT

1. INTRODUCTION

The PSVANE Horizon Series 6550-AT is a high-performance beam power tetrode vacuum tube designed for amplifier applications. This matched pair offers exceptional sound quality, characterized by powerful, deep bass and a rich, warm audio experience. Engineered with advanced ceramics and anode technology, the 6550-AT ensures stable and reliable operation, making it suitable for audiophiles and professional users.

Key features include a specially shaped balloon glass envelope for improved thermal dissipation and a superior vacuum, enhancing overall sound performance. The tube also incorporates the Horizon series' exclusive HPC-X coating and a base made from a new, durable material.

PSVANE

HORIZON I 6550-AT



Image 1.1: PSVANE Horizon Series 6550-AT Vacuum Tube.

2. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your PSVANE 6550-AT vacuum tubes. Always handle tubes with care to avoid damage.

Safety Precautions:

- Always ensure your amplifier is powered off and unplugged from the mains electricity before installing or replacing tubes.
- Allow the amplifier and existing tubes to cool down completely before handling. Tubes can become very hot during operation.
- Avoid touching the glass envelope of the tube directly with bare hands, as oils and dirt can create hot spots and reduce tube life. Use a clean cloth or gloves.

Installation Steps:

1. Carefully remove the new 6550-AT tube from its packaging.
2. Identify the pin configuration on the tube base and the corresponding socket on your amplifier. The pins are typically keyed to ensure correct orientation.
3. Gently align the pins of the tube with the holes in the socket. Do not force the tube into the socket.
4. Apply even, firm pressure to seat the tube fully into the socket. Ensure all pins are properly engaged.
5. Repeat the process for all tubes in the matched pair.



Image 2.1: Detailed view of the 6550-AT tube base and pins.

3. OPERATING INSTRUCTIONS

Once installed, the PSVANE 6550-AT tubes are ready for operation. Follow these guidelines for optimal performance.

Initial Power-Up and Warm-Up:

- After installation, plug in your amplifier and power it on.
- Allow a brief warm-up period (typically 30 seconds to a few minutes) for the tubes to reach their optimal operating temperature. During this time, you may observe the tube filaments glowing.

Sound Characteristics:

The 6550-AT is known for its powerful output and exceptional low-frequency performance, delivering a rich and deep sound quality. It provides a warm and full audio experience with profound musical expressiveness, offering tremendous clarity and tonal warmth across the frequency spectrum.

Burn-In Process:

Each PSVANE vacuum tube undergoes at least 24 hours of burn-in testing at the factory under precise voltage and temperature control. However, new tubes may benefit from additional burn-in time in your specific amplifier to achieve their full sonic potential. This typically involves playing music through the amplifier for several hours.



Image 3.1: 6550-AT tube in operation, showing the characteristic glow.

4. MAINTENANCE

Proper maintenance helps extend the life and maintain the performance of your vacuum tubes.

Cleaning:

- If necessary, gently wipe the glass envelope with a soft, dry, lint-free cloth.
- Avoid using harsh chemicals or abrasive cleaners, as these can damage the glass or markings.

Storage:

- When not in use for extended periods, store tubes in their original packaging or in a protective container.
- Keep tubes in a cool, dry place away from direct sunlight, extreme temperatures, and humidity.

Regular Inspection:

Periodically inspect your tubes for any visible signs of damage, such as cracks in the glass, loose internal components, or excessive discoloration. If any issues are observed, consult a qualified technician.

5. TROUBLESHOOTING

If you experience issues with your amplifier after installing new tubes, consider the following common troubleshooting steps:

- **No Sound or Weak Sound:** Ensure the tubes are fully seated in their sockets. Check all amplifier connections (input, output, speakers). Verify the amplifier is powered on and not in standby mode.
- **Distorted Sound or Hum:** This could indicate a faulty tube. Try swapping the tubes one by one (if applicable and safe for your amplifier) to identify the problematic tube. Ensure proper grounding of your amplifier.
- **Microphonics (Tapping Noise):** Gently tap each tube with a non-metallic object (e.g., a pencil eraser) while the amplifier is on (at low volume). If a tube produces a ringing or thumping sound, it may be microphonic and require replacement.
- **Tube Not Glowing:** If a tube's filament does not glow after warm-up, it may be faulty or not properly seated. Power off the amplifier, check seating, and if the issue persists, the tube may need replacement.

If troubleshooting steps do not resolve the issue, consult a qualified audio technician or contact PSVANE customer support.

6. SPECIFICATIONS

The following table outlines the key specifications for the PSVANE Horizon Series 6550-AT vacuum tube:

Specification	Detail
Brand	PSVANE
Model Name	Horizon Series
Model Number	6550-AT
Material	Glass
Item Weight	0.66 Pounds (per tube)
Manufacturer	PSVANE
Tube Type	Beam Power Tetrode

Pin Configuration and Dimensions:

The 6550-AT tube features a standard 8-pin base. Refer to the diagram below for pin assignments and physical dimensions.



Image 6.1: 6550-AT Vacuum Tube Dimensions and Pinout Diagram.

7. WARRANTY AND SUPPORT

Warranty Information:

The PSVANE Horizon Series 6550-AT vacuum tubes come with a **12-month warranty** from the date of purchase. This warranty covers manufacturing defects and ensures the product meets its specified performance standards under normal use. Please retain your proof of purchase for warranty claims.

Customer Support:

For technical assistance, troubleshooting guidance, or warranty inquiries, please contact PSVANE customer support through the retailer where the product was purchased or visit the official PSVANE website for contact details. When contacting support, please have your product model number (6550-AT) and purchase information readily available.