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Power Acoustik VA2-1400D

Power Acoustik VA2-1400D Vertigo Series Amplifier User Manual

1,400-Watt Max 2-Channel Class D Amplifier

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Power Acoustik VA2-1400D Vertigo Series 2-Channel Class D Amplifier. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety.

2. SAFETY INFORMATION

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- Always disconnect the vehicle's battery before installing or servicing any electrical components.
- Ensure proper grounding to prevent electrical hazards.
- Use appropriate gauge wiring for power and speaker connections to avoid overheating and potential damage.
- Do not expose the amplifier to moisture or extreme temperatures.
- Seek professional assistance if you are unsure about any installation steps.

3. WHAT'S IN THE BOX

Upon opening the package, verify that all components are present:

- Power Acoustik VA2-1400D Amplifier
- User Manual (this document)

4. FEATURES

- 2 Ohm Stereo and 4 Ohm Bridged Full Range Amplifier
- 1,400 Watts Max Power Output
- 120 Watts RMS x 2 at 4 Ohms
- 200 Watts RMS x 2 at 2 Ohms
- 400 Watts RMS x 1 at 4 Ohms Bridged

5. PRODUCT OVERVIEW



Figure 1: Top-down view of the Power Acoustik VA2-1400D amplifier, showcasing its sleek black design and 'Vertigo' branding.



Figure 2: Side view of the amplifier, highlighting the input and control panel with various adjustment knobs and switches.



Figure 3: Opposite side view of the amplifier, showing the power input terminals, fuse, and speaker output connections.

6. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. Follow these general guidelines:

1. **Mounting Location:** Choose a dry, well-ventilated location away from direct sunlight and heat sources. Ensure sufficient airflow around the amplifier.
2. **Power Wiring:** Connect the +12V terminal to the vehicle's positive battery terminal using an appropriate gauge power cable with an inline fuse. Connect the GND terminal to a clean, unpainted metal surface on the vehicle chassis.
3. **Remote Turn-On:** Connect the REM terminal to the remote turn-on output of your head unit.
4. **Audio Inputs:** Connect your head unit's RCA outputs to the amplifier's INPUT terminals. If your head unit lacks RCA outputs, use the high-level input option if available (refer to Figure 2 for high-level input connector).
5. **Speaker Connections:** Connect your speakers to the SPEAKER OUTPUT terminals. Ensure correct polarity (+ to + and - to -) and impedance matching (2 Ohm stereo or 4 Ohm bridged).
6. **Initial Setup:** Before powering on, ensure all connections are secure and correct. Set all gain controls to minimum and crossover settings to their default or desired positions.

7. OPERATING INSTRUCTIONS

Once installed, follow these steps for initial operation and adjustment:

1. **Power On:** Turn on your vehicle's ignition and head unit. The amplifier's power indicator should illuminate.
2. **Gain Adjustment:** Play a familiar music track at a moderate volume. Slowly increase the amplifier's GAIN control until you hear distortion, then back it off slightly. This sets the maximum clean output.
3. **Crossover Settings:** Adjust the High-Pass Filter (HPF) and Low-Pass Filter (LPF) controls to optimize sound for your specific speakers and subwoofers. HPF typically filters out low frequencies from full-range speakers, while LPF filters out high frequencies from subwoofers.
4. **Bass Boost:** Use the BASS BOOST control sparingly to enhance low frequencies. Excessive bass boost can lead to distortion and potential speaker damage.
5. **System Testing:** Test the system at various volume levels to ensure stable operation and clear audio.

8. SPECIFICATIONS

| Specification | Value |
|-----------------------------|------------------------|
| Model | VA2-1400D |
| Brand | Power Acoustik |
| Output Power (Max) | 1400 Watts |
| RMS Power (4 Ohms) | 120 Watts x 2 Channels |
| RMS Power (2 Ohms) | 200 Watts x 2 Channels |
| RMS Power (4 Ohms Bridged) | 400 Watts x 1 Channel |
| Number of Channels | 2 |
| Maximum Supply Voltage | 12 Volts |
| Supply Current | 16 Milliamps |
| Item Dimensions (L x W x H) | 8.5 x 2 x 8.75 inches |
| Mounting Type | Surface Mount |
| Item Type Name | amp monoblock |

9. TROUBLESHOOTING

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

- **No Power:** Check the inline fuse on the power cable, the vehicle's battery connections, and the remote turn-on wire. Ensure the amplifier's power indicator is lit.
- **No Sound:** Verify all RCA input and speaker output connections. Check the gain settings and ensure the head unit is providing an audio signal.
- **Distorted Sound:** Reduce the amplifier's gain control. Check speaker impedance and ensure it matches the amplifier's capabilities. Verify crossover settings.
- **Amplifier Overheating:** Ensure adequate ventilation around the amplifier. Check speaker impedance and wiring for shorts. Prolonged overheating can trigger protection mode.
- **Protection Mode:** If the protection indicator is lit, the amplifier has detected an issue (e.g., overheating, short circuit). Turn off the system, identify and resolve the problem, then restart.

10. MAINTENANCE

To ensure optimal performance and longevity of your amplifier:

- Keep the amplifier clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Periodically check all wiring connections for tightness and corrosion.
- Ensure the amplifier's cooling fins are not obstructed to maintain proper heat dissipation.

11. WARRANTY INFORMATION

The Power Acoustik VA2-1400D amplifier comes with a **1-year warranty** from the date of purchase. This

warranty covers manufacturing defects under normal use. Please retain your proof of purchase for warranty claims. The warranty does not cover damage caused by improper installation, misuse, accidents, or unauthorized modifications.

12. SUPPORT AND CONTACT

For technical support, service, or further inquiries regarding your Power Acoustik VA2-1400D amplifier, please visit the official Power Acoustik website or contact their customer service department. Have your model number and purchase details ready when contacting support.

Official Website: www.poweracoustik.com