

## NVX VAD8402

# NVX VAD8402v2 2-Channel Class D Amplifier User Manual

Model: VAD8402v2

## 1. INTRODUCTION

Thank you for choosing the NVX VAD8402v2 2-Channel Class D Amplifier. This amplifier is designed to deliver high-quality audio performance for car, marine, and powersports applications. Featuring a compact design, robust power output, and marine-grade construction, the VAD8402v2 ensures reliable operation in various environments. Please read this manual thoroughly before installation and operation to ensure proper use and maximum performance.

## 2. SAFETY INFORMATION

### Important Safety Precautions:

- Always disconnect the vehicle's battery negative terminal before starting any electrical work.
- Ensure proper grounding of the amplifier to the vehicle chassis.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual.
- Avoid installing the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- Securely mount the amplifier to prevent movement during vehicle operation.
- Do not operate the amplifier if it is damaged or malfunctioning. Refer servicing to qualified personnel.
- Maintain a safe listening volume to prevent hearing damage.

## 3. PACKAGE CONTENTS

Verify that all items are present in the package:

- NVX VAD8402v2 2-Channel Class D Amplifier
- Remote Bass Knob with Cable
- Mounting Hardware
- User Manual (this document)



*Image 1: NVX VAD8402v2 Amplifier with included remote bass knob.*



*Image 2: Close-up of the remote bass knob and its connecting cable.*

## 4. PRODUCT FEATURES

- **Peak Power Performance:** 1680 Watts peak power for enhanced audio output.
- **Robust RMS Power:** Consistent sound with 300W x 2 chan. at 4 ohms, 420W x 2 chan. at 2 ohms, and 840W x 1 chan. bridged at 4 ohms.
- **Audio Customization:** Variable high-pass and low-pass filters (40 - 500 Hz) and variable bass boost for precise sound tuning.
- **Marine Certified Construction:** Conformally coated, marine-grade circuit board for durability in harsh environments.
- **Durable Design:** Features LED indicator lighting, 3-way protection circuitry, heavy-duty aluminum alloy heat sink, platinum-plated RCA level inputs, and screw terminals.
- **Compact Size:** Dimensions of 9.2"L x 7.2"W x 2.0"H for flexible installation.

## 5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are unsure about any steps, consult a professional installer.

### 5.1 Mounting Location

- Choose a location that provides adequate ventilation for the amplifier.
- Ensure the mounting surface is solid and secure.
- Avoid areas prone to excessive vibration, heat, moisture, or dust.
- Allow sufficient space around the amplifier for wiring connections and adjustments.

### 5.2 Wiring Connections

Refer to the diagrams below for proper wiring.



Image 3: Top view of the amplifier showing input and control panel.



*Image 4: Bottom view of the amplifier showing power, ground, remote, and speaker terminals.*

1. **Power Connection (+12V):** Connect a fused power cable (minimum 8 AWG recommended) directly from the positive terminal of the vehicle's battery to the +12V terminal on the amplifier. Install the fuse holder within 18 inches (45 cm) of the battery.
2. **Ground Connection (GND):** Connect a ground cable (minimum 8 AWG recommended) from the GND terminal on the amplifier to a clean, unpainted metal surface of the vehicle chassis. Ensure a solid electrical connection.
3. **Remote Turn-On (REM):** Connect a remote turn-on wire from your head unit's remote output to the REM terminal on the amplifier. This wire signals the amplifier to turn on and off with your audio system.
4. **RCA Input:** Connect RCA cables from your head unit's pre-out to the INPUT L and R RCA jacks on the amplifier.
5. **Speaker Output:** Connect your speakers to the SPK OUT terminals. Ensure correct polarity (+ to + and - to -). For bridged operation, refer to the specific bridging instructions in the full manual (not provided here, but implied).

## 6. OPERATING INSTRUCTIONS

The VAD8402v2 amplifier features several controls to fine-tune your audio system.



Image 5: Detailed view of the amplifier's control panel.

## 6.1 Gain Control

The GAIN control matches the amplifier's input sensitivity to the output of your head unit. Start with the gain at minimum and slowly increase it until you hear distortion, then back off slightly. Do not use the gain control as a volume knob.

## 6.2 Crossover (X-OVER)

The X-OVER switch allows you to select the type of filter:

- **HPF (High Pass Filter):** Allows frequencies above the set point to pass through. Useful for full-range speakers to prevent low bass distortion.
- **LPF (Low Pass Filter):** Allows frequencies below the set point to pass through. Typically used for subwoofers.
- **FULL:** Disables the crossover, allowing all frequencies to pass.

Adjust the HPF and LPF frequency knobs (40 - 500 Hz) according to your speaker specifications and desired sound.

## 6.3 Bass Boost



The BASS BOOST control allows you to increase the bass output at a specific frequency. Use this feature sparingly to avoid distortion and potential speaker damage.

### 6.4 Remote Bass Knob

Connect the remote bass knob to the "REMOTE" port on the amplifier. This allows for convenient adjustment of the bass level from your listening position.

## 7. MAINTENANCE

- Keep the amplifier clean and free of dust. Use a soft, dry cloth for cleaning.
- Ensure all wiring connections remain secure. Periodically check for loose connections.
- Do not block the amplifier's cooling fins or ventilation areas.
- If the amplifier becomes excessively hot, check for proper ventilation and speaker impedance.

## 8. TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse, loose power/ground/remote wire, faulty remote turn-on signal.	Check fuse, verify all power connections, test remote wire for +12V when head unit is on.
No Sound Output	Loose RCA cables, incorrect gain setting, speaker wires disconnected, amplifier in protect mode.	Check RCA connections, adjust gain, verify speaker wiring, check protection indicator.
Distorted Sound	Gain set too high, improper crossover settings, faulty speakers, low input voltage.	Reduce gain, adjust crossover, check speaker condition, ensure stable power supply.
Amplifier Overheating	Insufficient ventilation, low speaker impedance, prolonged high-volume operation.	Improve ventilation, verify speaker impedance (should be 2-4 ohms per channel), reduce volume.

## 9. SPECIFICATIONS

Feature	Detail
Model Number	VAD8402v2
Channels	2-Channel
Amplifier Class	Class D
Peak Power	1680 Watts
RMS Power (4 Ohms)	300W x 2 channels
RMS Power (2 Ohms)	420W x 2 channels
RMS Power (Bridged 4 Ohms)	840W x 1 channel

Feature	Detail
Voltage	12 Volts (Nominal)
High Pass Filter (HPF)	40 - 500 Hz
Low Pass Filter (LPF)	40 - 500 Hz
Dimensions (L x W x H)	9.2" x 7.2" x 2.0" (23.37 x 18.29 x 5.08 cm approx.)
Weight	2.56 kg (approx.)
Certification	Marine Certified

## 10. WARRANTY AND SUPPORT


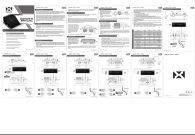

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### Related Documents - VAD8402

	<p><a href="#">NVX V-Series Premium Class-D Amplifiers User Manual</a></p> <p>Explore the NVX V-Series Premium Class-D Amplifiers with this detailed user manual. Learn about installation, features, specifications, and warranty for models like VAD10001v2, VAD8402v2, and VAD22008v2. Optimize your car audio system with NVX's high-performance amplifiers.</p>
	<p><a href="#">NVX VADM Series Owner's Manual</a></p> <p>Owner's manual for the NVX VADM series audio amplifier, detailing installation, connections, and safe operation.</p>
	<p><a href="#">NVX XC-Series Subwoofers User Manual and Specifications</a></p> <p>User manual for NVX XC-Series subwoofers, including detailed specifications, enclosure recommendations, and warranty information for models XCW121, XCW122, XCW151, and XCW152.</p>





[NVX XDSP28 Bluetooth Digital Signal Processor User Manual](#)

Comprehensive user manual for the NVX XDSP28 Bluetooth Digital Signal Processor, covering installation, control panel functions, audio processing, troubleshooting, and warranty information.



[NVX V-Series Premium Class-D Amplifiers User Manual](#)

Explore the NVX V-Series Premium Class-D Amplifiers with this detailed user manual. Learn about installation, features, specifications, and warranty for models like VAD10001v2, VAD8402v2, and VAD22008v2. Optimize your car audio system with NVX's high-performance amplifiers.



[Crestron DM NVX AV-over-IP System Design Guide](#)

A comprehensive design guide for the Crestron DM NVX AV-over-IP system, detailing endpoint and network design, installation procedures, and case studies for digital video and audio distribution over Ethernet.