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Vibe POWERBOX400.1M-V7

Vibe Powerbox Micro Mono Amplifier POWERBOX400.1M-V7 User Manual

Model: POWERBOX400.1M-V7

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Vibe Powerbox Micro Mono Amplifier, model POWERBOX400.1M-V7. Please read this manual thoroughly before attempting installation or operation to ensure proper use and to prevent damage to the unit or your vehicle's audio system. The Vibe Powerbox Micro Mono Amplifier is a compact, high-performance Class D amplifier designed for car audio systems. It delivers up to 400W RMS, making it suitable for powering subwoofers. Its small footprint allows for flexible installation options.

2. SAFETY INFORMATION

- · Always disconnect the vehicle's battery negative terminal before starting any electrical work.
- Ensure all wiring is correctly routed and secured to prevent damage from moving parts or sharp edges.
- Use appropriate gauge wiring for power and speaker connections as specified in this manual to prevent overheating and potential fire hazards.
- Do not mount the amplifier in locations exposed to direct sunlight, excessive heat, moisture, or dust.
- Consult a professional car audio installer if you are unsure about any part of the installation process.
- Operating the amplifier at excessively high volumes for prolonged periods can cause hearing damage.

3. PACKAGE CONTENTS

Verify that all items are present in the package before proceeding with installation:

- Vibe Powerbox Micro Mono Amplifier (POWERBOX400.1M-V7)
- · Remote Gain Control Unit
- RCA Audio Cables
- Mounting Hardware (screws, connectors)



Figure 3.1: Contents of the Vibe Powerbox Micro Mono Amplifier package, including the amplifier, remote gain control, RCA cables, and mounting hardware.

4. PRODUCT FEATURES

- Class D Micro Amplifier design for high efficiency and compact size.
- Ultra-compact footprint for easy and discreet installation.
- Output: 1 x 400W RMS at 1 ohm, with a maximum output of 800W.
- Dimensions: 37 x 157 x 82mm (approximately 1.46 x 6.18 x 3.23 inches).
- Compatible with Critical Link Rapid kits for simplified integration.
- Features Deltabox™ Connectivity auto turn-on.
- VIBE Sound Studio[™] Active crossovers.
- 1 Ohm Stable operation.



Figure 4.1: The compact size of the Vibe Powerbox Micro Mono Amplifier, shown next to a dollar bill for scale.

5. COMPONENT IDENTIFICATION

5.1 Power and Speaker Terminals



Figure 5.1: Detailed view of the power input and speaker output terminals. From left to right: GND (Ground), REM (Remote Turn-On), +12V (Power Input), and Speaker Output (+/-).

The power input section includes terminals for Ground (GND), Remote Turn-On (REM), and +12V power. The speaker output section provides terminals for connecting your subwoofer.

5.2 Input and Control Panel



Figure 5.2: Detailed view of the input and control panel. Features include RCA input jacks (L/R), Gain control, Remote port, Bass Boost switch, and LPF (Low Pass Filter) control.

This panel features the RCA input jacks for audio signal, a Gain control knob to match the amplifier's input sensitivity to your head unit's output, a dedicated port for the remote gain control, a Bass Boost switch for enhancing low frequencies, and an LPF (Low Pass Filter) control to adjust the upper frequency limit for the subwoofer.

5.3 Remote Gain Control



Figure 5.3: The external remote gain control unit, allowing convenient adjustment of the amplifier's output level from the driver's seat.

The remote gain control unit connects to the amplifier via the 'REMOTE' port and allows for convenient adjustment of the subwoofer's output level from the vehicle's cabin.

6. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are not confident in your ability to install the amplifier, seek professional assistance.

6.1 Mounting Location

Choose a mounting location that is dry, well-ventilated, and away from direct heat sources. The compact size of the Powerbox Micro allows for installation under seats, behind trim panels, or in other discreet locations. Ensure there is sufficient airflow around the amplifier for cooling.

6.2 Wiring Connections

Power Wiring:

1. Connect the **+12V** terminal to the vehicle's positive battery terminal using a suitable gauge power cable (e.g., 8 AWG or 10 AWG). Install an in-line fuse holder within 18 inches (45 cm) of the battery.

- 2. Connect the **GND** terminal to a clean, unpainted metal surface on the vehicle's chassis. Ensure a good electrical connection. The ground cable should be of the same gauge as the power cable and as short as possible.
- 3. Connect the **REM** (Remote Turn-On) terminal to the remote output of your head unit. This wire signals the amplifier to turn on and off with your stereo. If your head unit lacks a remote output, you can use an accessory wire that turns on with the ignition, or utilize the amplifier's auto-sense feature if applicable.

Speaker Wiring:

Connect your subwoofer to the Speaker Output terminals (+ and -). Ensure correct polarity. This amplifier is 1
 Ohm stable, allowing flexibility in subwoofer impedance configurations. Refer to your subwoofer's specifications for optimal impedance matching.

Signal Input (RCA):

Connect the RCA output from your head unit or signal processor to the INPUT (L/R) RCA jacks on the amplifier.

Remote Gain Control:

Plug the remote gain control unit into the dedicated REMOTE port on the amplifier. Route the cable to a
convenient location for adjustment.

ISO T Harness / ISOAWK Kit:

• For simplified installation with existing stereo looms, an optional ISOAWK kit (available separately) can be used to make the amplifier compatible with an ISO T harness. This allows for plug-and-play integration for audio signal, power, and ground, potentially eliminating the need for separate battery connections.

7. OPERATION

7.1 Initial Power-Up

After all connections are made and verified, reconnect the vehicle's battery. Turn on your head unit. The amplifier's power indicator (PWR) should illuminate green. If the protection indicator (PRT) illuminates red, refer to the troubleshooting section.

7.2 Gain Adjustment

The Gain control matches the amplifier's input sensitivity to the output voltage of your head unit. To set the gain:

- 1. Turn the amplifier's Gain control to its minimum (MIN) setting.
- 2. Set your head unit's volume to about 75-80% of its maximum.
- 3. Play a dynamic piece of music.
- 4. Slowly increase the amplifier's Gain control until you hear distortion, then back it off slightly until the sound is clear.

The remote gain control unit allows for real-time adjustment of the subwoofer level without affecting the main system volume.

7.3 Low Pass Filter (LPF)

The LPF control sets the upper frequency limit for the amplifier's output. This is essential for subwoofers, ensuring they only reproduce low frequencies. Adjust the LPF knob (typically 30Hz to 150Hz) to blend the subwoofer's output seamlessly with your main speakers. A common starting point is around 80-100Hz.

7.4 Bass Boost

The Bass Boost switch provides an adjustable low-frequency enhancement. Use this feature sparingly, as excessive bass boost can lead to distortion and potential damage to your subwoofer. Adjust the boost level (0dB to 12dB) to your preference.

8. MAINTENANCE

- Cleaning: Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Connections:** Regularly check all power, ground, and speaker connections to ensure they are secure and free from corrosion. Loose connections can cause performance issues or damage.
- Ventilation: Ensure that the amplifier's cooling fins are not obstructed to maintain proper heat dissipation.

9. TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power (PWR LED off)	Blown fuse, loose power/ground connection, no remote signal.	Check in-line fuse, verify +12V, GND, and REM connections.
Protection Mode (PRT LED on)	Overheating, short circuit in speaker wiring, impedance too low.	Ensure proper ventilation, check speaker wiring for shorts, verify speaker impedance.
No Sound Output	No input signal, gain too low, speaker wires disconnected.	Check RCA input connections, adjust gain, verify speaker wiring.
Distorted Sound	Gain set too high, LPF incorrectly set, poor ground connection.	Reduce gain, adjust LPF, check ground connection.

10. Specifications

• Model Number: POWERBOX400.1M-V7

• Amplifier Type: Class D Mono Amplifier

• RMS Power Output: 1 x 400W RMS @ 1 Ohm

Maximum Power Output: 800W

• Product Dimensions (L x W x H): Approximately 157 x 82 x 37 mm (6.18 x 3.23 x 1.46 inches)

• Weight: Approximately 1.54 Pounds

• Voltage: 12 Volts (Nominal)

• Maximum Supply Voltage: 12 Volts

• Mounting Type: Surface Mount

• Manufacturer: Vibe Audio

• Date First Available: July 21, 2018

11. WARRANTY AND SUPPORT

Vibe Audio products are designed and manufactured to the highest standards. For warranty information and

technical support, please refer to the warranty card included with your product or visit the official Vibe Audio website. Keep your proof of purchase for warranty claims.

Related Documents - POWERBOX400.1M-V7



VIBE BlackAir Subwoofer Owners Manual and Specifications



Owners manual, warranty information, specifications, and technical parameters for VIBE BlackAir subwoofers, including models BLACKAIR10D2-V7, BLACKAIR12D2-V7, and BLACKAIR15D2-V7. Features installation guidance, run-in procedures, safety warnings, and contact information for VIBE audio products.





VIBE BlackDeath Comp HEX Subwoofer Owners Manual & Specifications

Comprehensive guide to the VIBE BlackDeath Comp HEX series subwoofers, including owners manual, safety precautions, warranty information, wiring diagrams, technical specifications, and run-in procedures.



VIBE BlackBox Amplifiers: Stereo 2, Stereo 4, Bass 1 - User Manual & Specifications

Comprehensive user manual and technical specifications for VIBE BlackBox car amplifiers, including Stereo 2, Stereo 4, and Bass 1 models. Learn about installation, setup, troubleshooting, product features, and accessories from VIBE.



VIBE Slick a7 Car Amplifier: Installation, Setup, and Troubleshooting Guide

Official instruction manual for the VIBE Slick a7 car amplifier. Covers mounting, connections, setup, troubleshooting, specifications, and available accessories. Learn how to install and optimize your car audio system.





STEREO 2 OVERED-14 STEREO 4 OVERED-14 CHANNEL 6



VIBE CVEN Series 7 Power Amplifiers Owner's Manual

Comprehensive owner's manual for VIBE CVEN Series 7 Power Amplifiers, covering installation, setup, specifications, and warranty information for models CVENS2-V4, CVENS4-V4, and CVENCH6-V4.



Vibe Board S1 Cheat Sheet - Quick Guide

A concise cheat sheet for the Vibe Board S1, covering features like whiteboarding, annotation, casting, hybrid meetings, and remote control for enhanced collaboration.