BOSS Audio Systems D800.2

BOSS Audio Systems D800.2 Diablo Amplifier User Manual

2-Channel Mosfet Bridgeable Power Amplifier

1. Introduction

Thank you for choosing the BOSS Audio Systems D800.2 Diablo 2-Channel Mosfet Bridgeable Power Amplifier. This amplifier is designed to deliver high-quality audio performance for your car's sound system. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your amplifier.

The D800.2 features a single bridgeable 2-channel design, offering flexibility for various audio setups, including driving full-range speakers or a subwoofer. It includes a remote subwoofer level control for convenient bass adjustment.

2. Safety Information

Please read all instructions carefully before installing and operating your amplifier. Failure to follow these guidelines may result in damage to the amplifier, vehicle, or personal injury.

- **Disconnect Battery:** Always disconnect the vehicle's negative battery terminal before beginning any installation work to prevent electrical shorts.
- **Professional Installation:** If you are unsure about the installation process, it is recommended to seek assistance from a qualified professional installer.
- **Proper Grounding:** Ensure the amplifier is properly grounded to the vehicle chassis. A poor ground connection can cause noise and malfunction.
- **Avoid Moisture:** Do not expose the amplifier to moisture or water. This can cause electrical shock or damage to the unit.
- **Correct Fuses:** Use only fuses of the specified rating. Using incorrect fuses can lead to fire or damage.
- **Ventilation:** Ensure adequate ventilation around the amplifier to prevent overheating. Do not mount in enclosed spaces without airflow.

3. Setup and Installation

Proper installation is crucial for optimal performance. The D800.2 amplifier is designed for surface mounting.

3.1 Mounting the Amplifier

Choose a secure, dry location with sufficient airflow. Avoid mounting the amplifier directly on carpet or in areas prone to excessive vibration or heat.

Image: Mounting diagram for the D800.2 amplifier, illustrating recommended screw placement and dimensions.

3.2 Wiring Connections

All wiring should be routed carefully to avoid pinching, abrasion, or interference with vehicle components. Use high-quality wiring for best results.

1. **Power (BATT+) Connection:** Connect a heavy gauge wire (e.g., 8 AWG or larger, depending on cable length) from the amplifier's BATT+ terminal directly to the positive (+) terminal of the vehicle's battery. Install an appropriate fuse holder (not supplied) within 18 inches (45 cm) of the battery.
2. **Ground (GND) Connection:** Connect a heavy gauge wire (same as BATT+) from the amplifier's GND terminal to a clean, unpainted metal surface on the vehicle chassis. Ensure a solid electrical connection.
3. **Remote Turn-On (REM) Connection:** Connect a smaller gauge wire (e.g., 18 AWG) from the amplifier's REM terminal to the remote turn-on output of your head unit. This wire turns the amplifier on and off with your car stereo.
4. **Audio Input Connections:**
    - **RCA Inputs:** If your head unit has RCA pre-outs, connect RCA cables from the head unit's pre-outs to the amplifier's RCA input jacks.
    - **Speaker Level Inputs:** If your head unit does not have RCA pre-outs, use the supplied speaker level input harness. Connect the speaker wires from your head unit's speaker outputs to the corresponding wires on the harness, then plug the harness into the amplifier's speaker level input.
5. **Speaker Output Connections:** Connect your speakers to the amplifier's speaker output terminals. Ensure correct polarity (+ to + and - to -). For bridged mode operation, refer to the diagram on the amplifier or in this manual for specific connections. The D800.2 supports 2-channel stereo or 1-channel bridged operation.
6. **Remote Subwoofer Level Control:** Connect the remote level control module to the designated port on the amplifier using the provided cable. Mount the control in an accessible location for easy adjustment.

Image: Comprehensive wiring diagram for the D800.2 amplifier, illustrating all necessary electrical and audio connections.

4. Operating Instructions

Once installed, the D800.2 amplifier requires some initial setup and adjustment for optimal sound.

4.1 Initial Power-Up

After all connections are made and verified, reconnect the vehicle's negative battery terminal. Turn on your car's ignition and then the head unit. The amplifier's power indicator LED should illuminate, indicating it is receiving power and is operational.

4.2 Gain Adjustment

The gain control (often labeled 'Input Level' or 'Gain') matches the amplifier's input sensitivity to the output level of your head unit. To set the gain:

1. Turn the amplifier's gain control all the way down (minimum).
2. Set your head unit's volume to about 75-80% of its maximum level.

3. Slowly increase the amplifier's gain control until you hear slight distortion, then back it off slightly until the sound is clear.

This ensures the amplifier receives a strong, clean signal without clipping.

4.3 Crossover Settings (if applicable)

The D800.2 may include a variable low-pass filter (LPF) or high-pass filter (HPF) to direct specific frequency ranges to your speakers or subwoofer. Adjust these controls according to your speaker type and desired sound. For subwoofers, typically use an LPF setting between 80Hz and 120Hz. For full-range speakers, an HPF might be used.

4.4 Remote Subwoofer Level Control

The included remote subwoofer level control allows you to conveniently adjust the bass output from the driver's seat without needing to access the amplifier directly.



Image: Front panel layout of the D800.2 amplifier, detailing the location of gain, crossover, and input/output controls.

5. Maintenance

Regular maintenance helps ensure the longevity and performance of your amplifier.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners. Ensure ventilation fins are free of dust and debris.
- **Connection Checks:** Annually, or if you notice intermittent issues, check all power, ground, remote, and audio connections to ensure they are secure and free from corrosion.
- **Fuse Replacement:** If the amplifier stops working and the power indicator is off, check the fuse. Always replace a blown fuse with one of the exact same type and rating (e.g., 25A AGC). Never use a higher rated fuse or bypass the fuse.

6. Troubleshooting

If you experience problems with your D800.2 amplifier, refer to the following common issues and solutions before contacting support.

Problem	Possible Cause	Solution
No Power (Power LED Off)	Blown fuse; Poor power/ground connection; No remote turn-on signal.	Check and replace fuse; Verify power and ground connections; Check remote wire connection to head unit.
No Sound Output	RCA cables disconnected/damaged; Speaker wires disconnected/shorted; Amplifier in protect mode.	Check RCA and speaker connections; Ensure speaker wires are not touching; Check for protect LED (if present) and resolve underlying issue (e.g., overheating, shorted speaker).
Distorted Sound	Gain set too high; Poor ground connection; Damaged speakers; Incorrect crossover settings.	Reduce gain; Verify ground connection; Test speakers; Adjust crossover settings.
Amplifier Overheating	Insufficient ventilation; Speaker impedance too low; Amplifier overloaded.	Ensure proper airflow around amplifier; Verify speaker impedance matches amplifier's capabilities; Reduce volume or check for shorts.

Problem	Possible Cause	Solution
Engine Noise (Whine)	Poor ground connection; RCA cables routed near power wires; Ground loop.	Improve ground connection; Reroute RCA cables away from power wires; Install a ground loop isolator.

7. Specifications

Key technical specifications for the BOSS Audio Systems D800.2 Diablo Amplifier:

- **Model:** D800.2
- **Number of Channels:** 2
- **Amplifier Class:** A/B (Mosfet)
- **Power Output (RMS):** 260 Watts x 2 channels
- **Power Output (Max):** 800 Watts x 2 channels
- **Power Output (Bridged Max):** 1600 Watts x 1 channel
- **Sensitivity:** 105 dB
- **Inputs:** Line Level (RCA) and Speaker Level
- **Controls:** Gain, Crossover (Low Pass Filter), Remote Subwoofer Level Control
- **Mounting Type:** Surface Mount
- **Item Dimensions (L x W x H):** 15.2 x 10.91 x 2.52 inches (38.6 x 27.7 x 6.4 cm)
- **Item Weight:** 10.8 pounds (4.9 kg)

8. Warranty and Support

BOSS Audio Systems stands behind the quality of its products.

8.1 Warranty Information

The BOSS Audio Systems D800.2 amplifier comes with a**6-year warranty**, including a 1-year over-the-counter exchange policy. Please retain your proof of purchase for warranty claims. The warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accident, misuse, abuse, neglect, or unauthorized modification.

8.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact BOSS Audio Systems customer support. You can find contact information and additional resources on the official BOSS Audio Systems website.

Website: www.bossaudio.com

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