

DD Audio SW12A-D4

DD Audio SW12A-D4 12-inch 600W Dual 4-Ohm Subwoofer Instruction Manual

Model: SW12A-D4

1. INTRODUCTION

Thank you for choosing the DD Audio SW12A-D4 12-inch Dual 4-Ohm Subwoofer. This manual provides essential information for the proper installation, operation, and maintenance of your new subwoofer. Please read this manual thoroughly before attempting installation or use to ensure optimal performance and longevity of your product.

The SW12A-D4 is part of the REDLINE Hi-Def Tuned Subwoofer Series, designed to deliver powerful and clear bass reproduction for your audio system.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the equipment:

- **Professional Installation Recommended:** If you are unsure about any aspect of installation, consult a qualified car audio professional.
- **Power Off:** Disconnect the vehicle's battery before performing any wiring or installation to prevent electrical shorts and damage.
- **Proper Wiring:** Ensure all wiring connections are secure and correctly polarized. Incorrect wiring can damage the subwoofer and amplifier.
- **Ventilation:** Ensure adequate ventilation around the subwoofer and amplifier to prevent overheating.
- **Volume Levels:** Prolonged exposure to high sound pressure levels can cause permanent hearing damage. Use caution when adjusting volume.
- **Secure Mounting:** Securely mount the subwoofer to prevent it from becoming a projectile in the event of a sudden stop or accident.

3. PACKAGE CONTENTS

Upon opening the package, please verify that all items are present and in good condition:

- DD Audio SW12A-D4 12-inch Subwoofer (1 unit)
- Instruction Manual (this document)

Note: Additional mounting hardware or wiring may be required and is typically sold separately.

4. FEATURES

The DD Audio SW12A-D4 subwoofer incorporates several design elements for enhanced performance:

- High Temperature 2-inch Voice Coil
- Dual Voice Coil (DVC) 4 Ohm Configuration
- EROM Surround for durability and excursion
- Vented Stamped Steel Frame for structural integrity and cooling
- Vented Backplate for improved thermal management
- Push Terminals for secure and easy wire connection

5. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your subwoofer. Follow these guidelines carefully.

5.1. Mounting

The SW12A-D4 is designed for flush mounting. Ensure the mounting surface is rigid and free from obstructions. Use appropriate fasteners (not included) to secure the subwoofer.

- **Mounting Diameter:** 11 inches (27.94 cm)
- **Mounting Depth:** 5.34 inches (13.56 cm)
- **Frame Outer Diameter (with gasket):** 12.4 inches (31.5 cm)

Before cutting, double-check all measurements to ensure a proper fit and clearance for the subwoofer's motor structure.



Image: Side view of the DD Audio SW12A-D4 subwoofer, highlighting the mounting flange and push terminals.

5.2. Wiring (Dual 4-Ohm Voice Coils)

The SW12A-D4 features dual 4-ohm voice coils, offering flexibility in wiring configurations to match your amplifier's impedance requirements. Always ensure your amplifier is stable at the chosen impedance.

- **Parallel Wiring (2 Ohm Load):** Connect the positive (+) terminals of both voice coils together, and the negative (-) terminals of both voice coils together. Then connect the combined positive to the amplifier's positive output and the combined negative to the amplifier's negative output. This configuration results in a 2-ohm load.
- **Series Wiring (8 Ohm Load):** Connect the positive (+) terminal of one voice coil to the negative (-) terminal of the other voice coil. Then connect the remaining positive (+) terminal to the amplifier's positive output and the remaining negative (-) terminal to the amplifier's negative output. This configuration results in an 8-ohm load.

Refer to your amplifier's manual for recommended impedance loads. Incorrect impedance can lead to amplifier damage or reduced performance.



Image: Rear view of the DD Audio SW12A-D4 subwoofer, displaying the robust magnet structure and the dual push terminals for voice coil connections.

5.3. Enclosure Recommendations

The type and size of the enclosure significantly impact subwoofer performance. The following are general recommendations:

- **Sealed Enclosure Volume:** 0.8 - 1.5 cubic feet (22.6 - 42.5 liters)
- **Ported Enclosure Volume:** 1.0 - 1.75 cubic feet (28.3 - 49.6 liters)

These are starting points; fine-tuning may be necessary based on your specific vehicle and listening preferences. Consult with a car audio specialist for custom enclosure designs.



Image: Front view of the DD Audio SW12A-D4 subwoofer, showcasing the cone, EROM surround, and the DD Audio logo on the dust cap.

6. OPERATING INSTRUCTIONS

Once installed, follow these steps for initial operation and optimal performance:

1. **Initial Power-Up:** After installation, turn on your head unit and amplifier at a low volume setting.
2. **Gain Adjustment:** Carefully adjust the gain setting on your amplifier. Do not set the gain too high, as this can lead to distortion and damage to the subwoofer. Use a multimeter or oscilloscope for precise gain setting if possible.

3. **Crossover Settings:** Set the low-pass filter (LPF) on your amplifier or head unit to filter out frequencies above the subwoofer's optimal range (typically 60-100 Hz). This ensures the subwoofer only reproduces bass frequencies.
4. **Subsonic Filter:** If your amplifier has a subsonic filter, set it to protect the subwoofer from playing frequencies below its resonant frequency (F_s). For the SW12A-D4 (F_s : 33 Hz), a setting around 25-30 Hz is often appropriate.
5. **Break-in Period:** Allow a break-in period of several hours of moderate listening before pushing the subwoofer to its limits. This allows the suspension components to loosen up and reach their optimal performance.



Image: Angled front view of the DD Audio SW12A-D4 subwoofer, showing the depth of the cone and the robust surround.

7. MAINTENANCE

The DD Audio SW12A-D4 subwoofer requires minimal maintenance to ensure long-term performance:

- **Cleaning:** Use a soft, dry cloth to gently wipe down the cone and surround. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Periodically inspect the subwoofer for any signs of damage, such as tears in the surround or cone, or loose connections at the terminals.
- **Environmental Protection:** Protect the subwoofer from extreme temperatures, direct sunlight, and moisture. While not waterproof, reasonable care will extend its life.



Image: Top-down view of the DD Audio SW12A-D4 subwoofer, providing a clear look at the cone material and the EROM surround.

8. TROUBLESHOOTING

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

- **No Sound:**
 - Check all wiring connections (power, ground, remote, signal, speaker wires) for looseness or incorrect polarity.
 - Verify the amplifier is powered on (check power indicator light).
 - Ensure the head unit is sending a signal to the amplifier.
 - Check amplifier fuses and vehicle fuses.
- **Distorted Sound:**
 - Reduce amplifier gain.
 - Check for proper crossover settings (LPF too high or too low).

- Ensure the subwoofer is not over-powered or under-powered by the amplifier.
- Inspect the subwoofer cone and surround for physical damage.

- **Weak Bass:**

- Verify correct wiring polarity.
- Check amplifier gain and head unit subwoofer level settings.
- Ensure the enclosure volume is appropriate for the subwoofer.
- Check for air leaks in the enclosure.

- **Subwoofer Overheating:**

- Reduce volume or amplifier gain.
- Ensure adequate ventilation for the subwoofer and amplifier.
- Verify correct impedance matching between subwoofer and amplifier.

If these steps do not resolve the issue, contact DD Audio customer support or your authorized dealer for further assistance.

9. SPECIFICATIONS

Detailed technical specifications for the DD Audio SW12A-D4 subwoofer:

Specification	Value
Speaker Size	12 inches
Watts RMS (Recommended)	100 - 300 W
Watts Peak	600 W
Impedance	DVC 4 Ohm
Voice Coil Diameter (VCD)	2 inches
Piston Diameter	10 inches
Resonant Frequency (Fs)	33 Hz
Qms	8.673
Qes	0.54
Qts	0.508
Vas	65.339 liters
Sensitivity (dBSPL)	89 dB
Xmech	25 mm
Xmax	8 mm
Frame OD	12.22 inches

Specification	Value
Frame OD w/Gasket	12.4 inches
Mounting Diameter	11 inches
Mounting Depth	5.34 inches
Motor Diameter	5.27 inches
Motor Depth	1.7 inches
Magnet Weight	55 oz
Woofer Displacement	0.05 cubic feet
Sealed Enclosure (CuFt)	0.8 - 1.5
Ported Enclosure (CuFt)	1.0 - 1.75
Item Weight	16 pounds
Warranty Type	Limited

10. WARRANTY AND SUPPORT

The DD Audio SW12A-D4 subwoofer comes with a **Limited Warranty**. Please refer to the warranty card included with your product or visit the official DD Audio website for detailed terms and conditions regarding warranty coverage, duration, and claims procedures.

For technical support, troubleshooting assistance beyond this manual, or warranty inquiries, please contact your authorized DD Audio dealer or visit the official DD Audio support portal:

DD Audio Official Support

When contacting support, please have your product model (SW12A-D4) and purchase information readily available.



[DD Audio Class D Amplifiers Owner's Manual](#)

Comprehensive owner's manual for DD Audio Class D amplifiers, including models D4.75, D4.100, D6.500, and D5.1500. Covers features, specifications, installation, and troubleshooting.



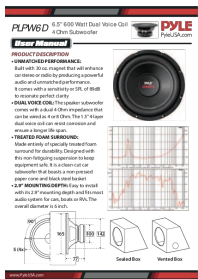
[Diamond Audio DPST12 Passive Spare Tire Subwoofer - Owner's Manual & Installation Guide](#)

Comprehensive owner's manual and installation guide for the Diamond Audio DPST12 Passive Spare Tire Subwoofer. Learn about specifications, installation steps, and warranty information.



[DS18 IXS10.4D 10-Inch Shallow Subwoofer Owner's Manual and Specifications](#)

Comprehensive owner's manual for the DS18 IXS10.4D 10-inch shallow subwoofer. Features detailed specifications, Thiele & Small parameters, physical dimensions, and recommended enclosure dimensions for optimal performance.



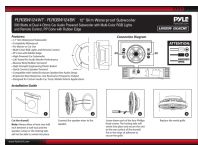
[Pyle PLPW6D 6.5-Inch 600 Watt Dual Voice Coil 4 Ohm Subwoofer User Manual](#)

User manual for the Pyle PLPW6D, a 6.5-inch 600-watt dual voice coil 4-ohm subwoofer. Details product description, performance, dual voice coil features, treated foam surround, mounting depth, enclosure parameters, general specifications, and Thiele-Small parameters.



[Massive Audio KILOX Series Subwoofers: Specifications and Enclosure Guide](#)

Detailed specifications, features, and recommended enclosure volumes for the Massive Audio KILOX series subwoofers, including models KILOX 104, 122, 124, and 154. Find technical data for optimal car audio system design.



[Pyle PLRGSW124WT/PLRGSW124BK 12-Inch Slim Waterproof Subwoofer User Guide](#)

Comprehensive user guide for the Pyle PLRGSW124WT and PLRGSW124BK 12-inch slim waterproof subwoofers. Features, installation instructions, remote control operation, and technical specifications for car audio systems.

