

DD Audio SL710-D2

DD Audio SL710-D2 10" Shallow Subwoofer Instruction Manual

1. INTRODUCTION

The DD Audio SL710-D2 is a 10-inch shallow mount subwoofer designed for high-fidelity audio reproduction in compact enclosures. This subwoofer is engineered to deliver powerful and accurate bass response, suitable for various applications including vehicle audio systems and home audio setups where space is limited. Its design focuses on efficiency and performance within a bandwidth of 30-300Hz, optimizing excursion and output for these specific uses.

This manual provides essential information for the proper installation, operation, and maintenance of your SL710-D2 subwoofer. Please read it thoroughly before proceeding with installation or use.

2. PRODUCT FEATURES

The SL710-D2 subwoofer incorporates several design elements to ensure durability and performance:

- **Compact Cast Aluminum Frame:** Provides a rigid and durable structure while maintaining a shallow mounting depth.
- **3-Inch High-Temperature Copper Voice Coil:** Engineered for high power handling and thermal stability.
- **Dual Layer Spiders with Integrated Tinsel Leads:** Ensures precise cone control and reliable signal transfer.
- **170mm Double Magnet Motor with Bumped Back Plate:** Delivers strong motor force for dynamic bass response.
- **Free Flow Cooling Motor Vent System:** Aids in heat dissipation to maintain performance during extended use.
- **Water-Resistant Treated Non-Pressed Cone:** Offers durability and consistent performance in various environments.
- **EROM Surround:** Contributes to controlled excursion and extended lifespan.



Figure 1: Top-down view of the DD Audio SL710-D2 subwoofer, highlighting its compact design.

3. SPECIFICATIONS

Refer to the table below for detailed technical specifications of the SL710-D2 subwoofer:

Specification	Value
Speaker Size	10 Inches
RMS Power Handling	1000 Watts
Nominal Impedance	Dual 2-Ohms (D2)
Voice Coil Diameter (VCD)	3 Inches
Resonance Frequency (Fs)	41 Hz

Specification	Value
Mechanical Q (Qms)	6.1
Electrical Q (Qes)	0.63
Total Q (Qts)	0.57
Equivalent Volume (Vas)	11.5 Liters
Mechanical Excursion (Xmech)	40 MM
Linear Excursion (Xmax)	19 MM
Mounting Diameter	9.375 Inches (238 MM)
Mounting Depth	5 Inches (127 MM)
Motor Diameter	6.7 Inches (170 MM)
Motor Depth	2.5 Inches (63.5 MM)
Woofer Displacement	0.06 CuFt (1.7 Liters)
Recommended Sealed Enclosure Volume	0.5 - 1 CuFt (14.2 - 28.3 Liters)
Recommended Ported Enclosure Volume	0.5 - 1.25 CuFt (14.2 - 25.4 Liters)
Material	Aluminum, Paper/Similar
Mounting Type	Flush Mount
Recommended Uses	For Vehicles, For Home Audio Systems





Figure 2: Side view illustrating the shallow mounting depth and terminal connections of the SL710-D2.

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your subwoofer. It is highly recommended that installation be performed by a qualified professional.

4.1 Enclosure Requirements

The SL710-D2 is designed to perform well in both sealed and ported enclosures. Refer to the specifications table for recommended enclosure volumes. Ensure the enclosure is robust, airtight (for sealed), and properly braced to prevent rattles and vibrations.

4.2 Wiring and Impedance

The SL710-D2 features a dual 2-ohm voice coil configuration. This allows for flexible wiring options to match your amplifier's stable impedance:

- **Parallel Wiring:** Connect both 2-ohm voice coils in parallel to achieve a 1-ohm final impedance. This configuration draws more current and is suitable for amplifiers stable at 1 ohm.

- **Series Wiring:** Connect both 2-ohm voice coils in series to achieve a 4-ohm final impedance. This configuration draws less current and is suitable for amplifiers stable at 4 ohms.

Always verify your amplifier's minimum stable impedance before wiring. Incorrect wiring can damage both the subwoofer and the amplifier.

4.3 Amplifier Matching

Select an amplifier that can provide 1000 Watts RMS at the chosen final impedance. Using an underpowered or overpowered amplifier can lead to poor performance or damage to the subwoofer.

5. OPERATING INSTRUCTIONS

5.1 Break-in Period

Allow a break-in period of approximately 20-30 hours of normal listening before operating the subwoofer at high volumes. This allows the suspension components to loosen and reach their optimal performance characteristics.

5.2 Amplifier Settings

- **Gain Setting:** Adjust the amplifier gain to match the output voltage of your head unit. Do not use the gain control as a volume knob; it should be set to prevent clipping (distortion) at maximum desired volume.
- **Low-Pass Filter (LPF):** Set the LPF on your amplifier or head unit to filter out frequencies above the subwoofer's intended range, typically between 60Hz and 100Hz, depending on your system and preference.
- **Subsonic Filter (HPF):** If available, set a subsonic filter (high-pass filter for the subwoofer channel) to protect the subwoofer from playing frequencies below its resonant frequency (F_s), typically around 25-35Hz.

5.3 Listening Levels

While the SL710-D2 is designed for high output, prolonged listening at excessively high volumes or with distorted signals can cause damage. Listen responsibly and avoid audible distortion.

6. MAINTENANCE

The DD Audio SL710-D2 requires minimal maintenance to ensure long-term performance:

- **Cleaning:** Use a soft, dry cloth to gently wipe 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 cone or surround, loose connections, or unusual wear.
- **Environment:** Ensure the subwoofer is installed in an environment free from excessive dust, moisture, and extreme temperatures.

7. TROUBLESHOOTING

If you experience issues with your SL710-D2 subwoofer, refer to the following common troubleshooting steps:

- **No Sound:**
 - Check all wiring connections (power, ground, remote, signal, speaker wires) for proper contact and polarity.
 - Verify the amplifier is powered on and not in protection mode.
 - Ensure the head unit is sending a signal to the amplifier.
 - Check for blown fuses in the amplifier or power distribution block.
- **Distorted Sound:**

- Reduce the amplifier gain setting.
- Check for proper LPF and subsonic filter settings.
- Ensure the enclosure is sealed (if applicable) and free from air leaks.
- Verify the subwoofer is not over-excursing (moving too far). Reduce volume if necessary.

- **Overheating:**

- Ensure adequate ventilation around the amplifier.
- Check the amplifier's impedance match with the subwoofer.
- Avoid prolonged operation at maximum volume or with distorted signals.

If problems persist after following these steps, contact DD Audio customer support or a qualified audio technician.

8. WARRANTY AND SUPPORT

DD Audio products are designed and manufactured to high standards. For specific warranty information, please refer to the warranty card included with your product or visit the official DD Audio website. Keep your proof of purchase for warranty claims.

For technical assistance, troubleshooting beyond this manual, or service inquiries, please contact DD Audio customer support through their official channels. Provide your product model number (SL710-D2) and a detailed description of the issue when seeking support.

DD Audio Official Website: ddaudio.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

