Skar Audio SDR-15 D2

Skar Audio SDR-15 D2 Car Subwoofer Instruction Manual

Model: SDR-15 D2 | Brand: Skar Audio

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Skar Audio SDR-15 D2 15" Dual 2 Ohm Car Subwoofer. The SDR-15 D2 is engineered for robust, low-frequency sound reproduction, featuring a high flux ferrite motor and a 2.5" 4-layer high-temperature copper voice coil. Please read this manual thoroughly before installation and use to ensure optimal performance and longevity of your subwoofer.

2. Safety Information

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

- **Professional Installation Recommended:** Installation of car audio components can be complex and may require specialized tools and knowledge. If you are unsure about any part of the installation process, seek assistance from a qualified professional.
- **Disconnect Power:** Before beginning any installation or wiring, always disconnect the vehicle's battery to prevent electrical shock or short circuits.
- **Proper Wiring:** Ensure all wiring connections are secure and correctly polarized. Incorrect wiring can lead to damage to the subwoofer, amplifier, or vehicle's electrical system.
- **Ventilation:** Ensure adequate ventilation around the subwoofer and amplifier to prevent overheating.
- **Avoid Overpowering:** Do not exceed the recommended RMS or peak power ratings of the subwoofer. Overpowering can cause permanent damage to the voice coil and cone.
- **Secure Mounting:** Mount the subwoofer securely within its enclosure and ensure the enclosure is securely fastened within the vehicle to prevent movement during driving.
- **Hearing Protection:** Prolonged exposure to high sound pressure levels can cause permanent hearing damage. Use appropriate hearing protection when operating the system at high volumes.

3. Product Overview

Key Features

- 15-Inch Dual 2-ohm Car Subwoofer
- Peak Power: 1,200 Watts | RMS Power: 600 Watts
- 2.5" 4-Layer High Temperature Copper Voice Coil
- High Roll Foam Surround and Competition Grade Pressed Paper Cone
- Frequency Response Range: 20 Hz - 250 Hz | Sensitivity: 85.9 dB
- High Flux Ferrite Motor | Advanced Air Flow Cooling Design

Components Included

- Skar Audio SDR-15 D2 15" Dual 2 Ohm Car Subwoofer
- Instruction Manual

Product Views



Figure 3.1: Angled view of the Skar Audio SDR-15 D2 subwoofer.



Figure 3.2: Front view of the Skar Audio SDR-15 D2 subwoofer, showing the cone and surround.



Figure 3.3: Close-up view of the dual voice coil terminal connections on the subwoofer.

4. Setup and Installation

4.1 Wiring Configurations

The SDR-15 D2 features dual 2-ohm voice coils, offering flexibility in wiring to achieve different final impedance loads for your amplifier. Always ensure your amplifier is stable at the chosen impedance.

- **1 Ohm Parallel Wiring:** Connect the positive terminal of Voice Coil 1 to the positive terminal of Voice Coil 2. Connect the negative terminal of Voice Coil 1 to the negative terminal of Voice Coil 2. Connect the combined positive terminals to the amplifier's positive output and the combined negative terminals to the amplifier's negative output. This configuration results in a 1-ohm load.
- **4 Ohm Series Wiring:** Connect the positive terminal of Voice Coil 1 to the amplifier's positive output. Connect the negative terminal of Voice Coil 1 to the positive terminal of Voice Coil 2. Connect the negative terminal of Voice Coil 2 to the amplifier's negative output. This configuration results in a 4-ohm load.

Refer to your amplifier's manual for compatible impedance loads. Incorrect impedance can lead to amplifier damage.

4.2 Enclosure Recommendations

For optimal performance, the SDR-15 D2 subwoofer requires a properly designed and constructed enclosure. Common enclosure types include sealed and ported (vented) enclosures, each offering different acoustic characteristics.

- **Sealed Enclosures:** Provide tight, accurate bass response, ideal for sound quality. A common recommendation for a 15-inch subwoofer like the SDR-15 D2 is an enclosure volume around 2 cubic feet, constructed from sturdy material such as 3/4" MDF.
- **Ported Enclosures:** Offer higher output and deeper bass extension, suitable for SPL (Sound Pressure Level) applications. These require precise tuning of port dimensions.

Consult Skar Audio's official resources or a professional installer for specific enclosure volume and port tuning recommendations to match your listening preferences and vehicle acoustics.

5. Operating Instructions

5.1 Initial Power-Up and Break-In

After installation, gradually introduce power to the subwoofer. It is recommended to allow a break-in period of several

hours of moderate listening before operating the subwoofer at its maximum capabilities. This allows the suspension components (surround and spider) to loosen and reach their optimal compliance.

5.2 Audio Adjustments

- **Gain Setting:** Set the amplifier gain correctly 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 and distortion.
- **Low-Pass Filter (LPF):** Use the low-pass filter on your amplifier or head unit to ensure the subwoofer only reproduces low frequencies. A common starting point is between 80 Hz and 100 Hz.
- **Subsonic Filter:** If your amplifier has a subsonic filter, set it slightly below the tuning frequency of your ported enclosure (if applicable) to protect the subwoofer from over-excursion at very low frequencies.
- **Bass Boost:** Use bass boost sparingly, if at all. Excessive bass boost can lead to distortion and damage.

5.3 Product Overview Video

Your browser does not support the video tag.

Video 5.1: An official overview of the Skar Audio SDR Series subwoofers, highlighting key features and specifications across the product line.

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6. Maintenance

Regular maintenance helps ensure the longevity and performance of your subwoofer:

- **Cleaning:** Use a soft, dry cloth to wipe down the subwoofer cone and surround. Avoid using harsh chemicals or excessive moisture.
- **Connection Check:** Periodically inspect all wiring connections to ensure they remain tight and free from corrosion. Loose connections can lead to power loss or damage.
- **Enclosure Integrity:** Check the subwoofer enclosure for any signs of damage, cracks, or air leaks, which can negatively impact sound quality.
- **Environmental Factors:** Protect the subwoofer from extreme temperatures, direct sunlight, and moisture.

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7. Troubleshooting

If you experience issues with your Skar Audio SDR-15 D2 subwoofer, refer to the table below for common problems and solutions:

Problem	Possible Cause	Solution
No Sound from Subwoofer	No power to amplifier; loose wiring connections; amplifier in protect mode; incorrect input signal.	Check power, ground, and remote turn-on wires to the amplifier. Verify all speaker wires are securely connected. Check amplifier fuses. Ensure head unit is sending an audio signal.
Distorted Sound	Gain set too high; improper LPF setting; damaged voice coil; inadequate power supply.	Reduce amplifier gain. Adjust LPF. Check for physical damage to the cone or voice coil. Ensure proper gauge power and ground wires are used.
Weak Bass Output	Incorrect wiring impedance; phase issue; improper enclosure; low gain setting.	Verify voice coil wiring matches desired impedance. Check phase setting on amplifier/head unit. Ensure enclosure is sealed and correctly sized. Increase amplifier gain gradually.

Problem	Possible Cause	Solution
Subwoofer Overheating	Overpowering; inadequate ventilation; prolonged high volume use.	Reduce volume or amplifier gain. Ensure proper airflow around the subwoofer and amplifier. Allow the system to cool down.

8. Specifications

Specification	Value
Model Name	SDR-15 D2
Speaker Type	Subwoofer
Subwoofer Diameter	15 Inches
RMS Power	600 Watts
Peak Power	1200 Watts
Voice Coil Size	2.5" (4-Layer High Temperature Copper)
Impedance	Dual 2 Ohm
Frequency Response	20 Hz - 250 Hz
Sensitivity	85.9 dB
Xmax	13.5 mm
Fs	29 Hz
Bl	16.36 n/a
Product Dimensions (L x W x H)	15.32 x 15.32 x 9.75 inches
Item Weight	21.9 Pounds
Manufacturer	Skar Audio
Country of Origin	China

9. Warranty and Support

9.1 Warranty Information

The Skar Audio SDR-15 D2 subwoofer comes with a Limited Warranty. Please refer to the warranty card included with your product or visit the official Skar Audio website for detailed terms and conditions regarding warranty coverage, duration, and claims procedures.

9.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Skar Audio customer support. Contact information can typically be found on the official Skar Audio website or on the product packaging.

You can also visit the Skar Audio Store on Amazon for more product information and resources.

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?

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