BOSS Audio Systems CX120DC

Boss CX120DC Chaos Exxtreme 12-inch Subwoofer User Manual

1. Introduction

Thank you for choosing the Boss CX120DC Chaos Exxtreme 12-inch 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 operation to ensure optimal performance and safety.

The CX120DC is a high-performance 12-inch subwoofer designed for car audio systems, featuring dual 4-ohm voice coils and a non-press paper cone for powerful and clear bass reproduction.

2. Safety Information

Always observe the following safety precautions during installation and operation:

- **Disconnect Vehicle Battery:** Before starting any electrical work, disconnect the vehicle's negative battery terminal to prevent electrical shorts and damage.
- **Professional Installation Recommended:** If you are unsure about any aspect of installation, consult a qualified professional car audio installer.
- **Proper Wiring:** Ensure all wiring is correctly connected, insulated, and secured to prevent shorts, overheating, and potential fire hazards. Use appropriate gauge wire for power and speaker connections.
- **Avoid Moisture and Heat:** Do not expose the subwoofer to excessive moisture, water, or extreme temperatures.
- **Secure Mounting:** Mount the subwoofer securely within a suitable enclosure to prevent movement during vehicle operation, which could cause damage or injury.
- **Volume Levels:** Prolonged exposure to high volume levels can cause hearing damage. Adjust volume to a safe and comfortable level.

3. Setup and Installation

Proper installation is crucial for the performance and longevity of your subwoofer. The CX120DC is

designed for flush mounting within a custom or pre-fabricated enclosure.

3.1 Enclosure Requirements

The subwoofer requires a sealed or ported enclosure designed to match its specifications. Consult with a car audio specialist or use online resources to determine the ideal enclosure volume for your desired sound characteristics.

3.2 Mounting

The mounting depth required for the CX120DC is **5-11/16 inches**. Ensure your chosen enclosure provides sufficient depth and clearance for the subwoofer magnet and frame. Secure the subwoofer to the enclosure using appropriate screws, ensuring a tight, airtight seal.

Image of the Boss CX120DC 12-inch subwoofer, showcasing its design and non-press paper cone.

3.3 Wiring

The CX120DC features **dual 4-ohm voice coils**, offering versatility in wiring configurations. You can wire the voice coils in series for an 8-ohm load or in parallel for a 2-ohm load, depending on your amplifier's capabilities and desired impedance. Always ensure your amplifier is stable at the chosen impedance.

- **Parallel Wiring (2-ohm load):** 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. Then, connect the combined positive to the amplifier's positive output and the combined negative to

the amplifier's negative output.

- **Series Wiring (8-ohm load):** 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.

Use high-quality speaker wire of appropriate gauge for your power levels and wire run length.

4. Operating Instructions

Once installed, proper amplifier setup and tuning are essential for optimal performance and to prevent damage to your subwoofer.

- **Amplifier Matching:** Ensure your amplifier's RMS power output matches the subwoofer's RMS power handling (1100 Watts). An underpowered or overpowered amplifier can damage the subwoofer.
- **Gain Setting:** Set the amplifier's gain control carefully. Start with the gain at its minimum and slowly increase it until you achieve the desired volume without distortion. Do not use the gain control as a volume knob.
- **Crossover Settings:** Utilize your amplifier's or head unit's low-pass filter (LPF) to send only low frequencies to the subwoofer. A typical LPF setting for a 12-inch subwoofer might be between 80Hz and 120Hz. The CX120DC has a frequency response of **30Hz - 1.5kHz**, but it is designed to reproduce frequencies primarily below 200Hz.
- **Break-in Period:** Allow a break-in period of several hours of moderate listening before operating the subwoofer at maximum levels. This allows the suspension components to loosen up and perform optimally.

5. Maintenance

The Boss CX120DC subwoofer requires minimal maintenance to ensure long-term performance.

- **Cleaning:** Periodically wipe the subwoofer cone and surround with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or excessive moisture.
- **Connection Check:** Occasionally check all wiring connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Environmental Conditions:** Protect the subwoofer from extreme temperatures, direct sunlight, and excessive moisture.

6. Troubleshooting

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

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
No Sound from Subwoofer	• No power to amplifier • Loose or incorrect wiring • Amplifier in protection mode • Head unit settings	• Check amplifier power connections and fuses. • Verify all speaker and RCA connections. • Check amplifier for fault indicators; reset if necessary. • Ensure subwoofer output is enabled and volume is up on head unit.
Distorted Sound	• Amplifier gain set too high • Clipping from head unit • Incorrect crossover settings • Damaged subwoofer	• Reduce amplifier gain. • Lower head unit volume or check pre-out voltage. • Adjust LPF settings to prevent higher frequencies from reaching the subwoofer. • Inspect subwoofer cone and surround for damage.
Subwoofer Overheating	• Improper impedance match • Overdriving the subwoofer • Insufficient ventilation for amplifier	• Verify correct wiring impedance for your amplifier. • Reduce volume or amplifier gain. • Ensure amplifier has adequate airflow.

If these steps do not resolve the issue, please contact BOSS Audio Systems customer support.

7. Specifications

Feature	Specification
Brand	BOSS Audio Systems
Model	CX120DC
Speaker Type	Subwoofer
Subwoofer Diameter	12 Inches
Peak Power Handling	2200 Watts
RMS Power Handling	1100 Watts
Cone Material	Non Press Paper Cone
Voice Coil	Dual 4 Ohm, 2-1/2-inch
Efficiency (1 Watt/1 Meter)	92dB
Frequency Response	30Hz - 1.5kHz

Feature	Specification
Mounting Depth	5-11/16 Inches
Item Weight	10.95 Pounds

8. Warranty and Support

8.1 Warranty Information

The Boss CX120DC Subwoofer comes with a **ONE YEAR** limited warranty from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accident, misuse, abuse, neglect, unauthorized repair, or modification.

Please retain your proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance, warranty service, or further information regarding your Boss CX120DC subwoofer, please contact BOSS Audio Systems customer support. Refer to the official BOSS Audio Systems website for the most current contact information.