JBL Control419CS/T

JBL Professional Control419CS/T Passive 8-inch In-Ceiling Subwoofer Instruction Manual

Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the JBL Professional Control 419CS/T in-ceiling subwoofer. The Control 419CS/T is designed to deliver high-quality, low-frequency sound reinforcement for various audio systems, featuring an 8-inch driver, built-in low-pass filter, and versatile connectivity options for both 8-ohm direct and 70V/100V distributed systems. Please read this manual thoroughly before proceeding with installation or operation.

Package Contents

Verify that all components are present in the package:

- 2x JBL Professional Control 419CS/T Subwoofers
- 2x White Magnetic Grilles
- 2x Integral Backcan Enclosures
- C-rings and Tile Rails (for installation)

Key Features

- 8-inch (200mm) passive in-ceiling subwoofer.
- Integrated enclosure with dual tapered ports for enhanced bass response.
- Full-face, low-profile, paintable magnetic grilles.
- Built-in passive low-pass filter for simplified integration.
- Built-in 70V/100V subwoofer-band multi-tap transformer.
- 8-ohm direct input for standard amplifier connections.
- Top and side exit cable entry options.
- Robust and adaptable dog-ears for various ceiling thicknesses.
- IP33 rated for protection against solid objects and water spray.

Setup and Installation

Proper installation is crucial for optimal performance and safety. It is recommended that installation be performed by qualified personnel.

1. Preparing the Ceiling Opening

Determine the desired location for the subwoofer. Ensure there is sufficient clearance above the ceiling for the backcan enclosure. Use the provided template (if applicable, or measure according to specifications) to mark the ceiling for cutting. Cut the opening carefully.

2. Installing the Backcan and Mounting Hardware

The subwoofer comes with an integral backcan, c-ring, and tile rails for quick installation. Insert the backcan into the ceiling opening. Secure it using the c-ring and tile rails, which distribute the weight and provide a stable mounting point for various ceiling types.



Image: Angled view of the subwoofer's backcan and mounting mechanism.

3. Wiring Connections

The Control 419CS/T offers flexible wiring options. Utilize the top or side cable entry points for routing speaker wire. Connect the speaker wires to the appropriate terminals on the subwoofer. Ensure correct polarity.



Image: Detail of the wiring terminals and cable entry.

4. Securing the Subwoofer

Once wired, secure the subwoofer into the ceiling opening using the robust dog-ear clamps. Tighten the screws evenly until the subwoofer is firmly seated against the ceiling surface. Do not overtighten.



Image: Installed subwoofer with grille.

5. Attaching the Grille

The white magnetic grille attaches easily to the subwoofer. For added security, a safety tether is included. Connect the tether before attaching the grille. The grille is paintable; remove the backing before painting and re-apply after drying.





Image: Subwoofer with grille detached, showing the safety tether.

Operation and Wiring Configurations

The Control 419CS/T offers versatile integration into various audio systems.

8-Ohm Direct Input

For standard amplifier connections, use the 8-ohm direct input. This allows for paralleling up to two subwoofers on a 4-ohm rated amplifier channel, maximizing low-frequency extension and output. The built-in passive low-pass filter simplifies integration with full-range speakers, creating a bass overlap configuration.

70V/100V Distributed Systems

For distributed audio systems, the subwoofer features a 60 Watt transformer with multi-tap settings for 70V or 100V lines. The special subwoofer-band transformer is designed for low saturation, ensuring high-quality, low-distortion sound even at high drive levels.

Advanced Crossover Configurations

For more precise system tuning, the Control 419CS/T can be integrated using:

- An external DSP for low-passing the subwoofer and driving it from a separate amplifier channel.
- Adding an external high-pass filter to full-range speakers for a full 2-way active crossover setup.

Maintenance

The JBL Control 419CS/T subwoofer requires minimal maintenance.

- **Cleaning:** Wipe the grille and visible surfaces with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Grille Painting:** If painting the grille, ensure the grille backing is removed before painting and re-applied once the paint is dry to maintain acoustic transparency.
- **Inspection:** Periodically check mounting hardware for tightness, especially after initial installation.

Troubleshooting

If you encounter issues with your JBL Control 419CS/T subwoofer, refer to the following common problems and solutions:

- **No Sound:**
  - Check all wiring connections for proper seating and polarity.
  - Ensure the amplifier is powered on and functioning correctly.
  - Verify the correct input mode (8-ohm or 70V/100V) is selected on the amplifier/system.
- **Distorted Sound:**
  - Reduce the input level to the amplifier.
  - Check for loose connections or damaged speaker wire.
  - Ensure the amplifier is not clipping.
- **Weak Bass:**
  - Confirm correct polarity of speaker connections.
  - Check amplifier power output and settings.
  - Ensure the subwoofer is properly sealed in its enclosure and the ceiling opening.

If problems persist, contact JBL Professional customer support.

Specifications

Model Name	Control 419CS/T
Speaker Type	Subwoofer
Woofer Diameter	8 Inches (200mm)
Impedance	8 Ohm
Input Voltage (Transformer)	70V / 100V
Speaker Maximum Output Power	320 Watts
Frequency Response	55 Hz (lower limit)
Connectivity Technology	Wired
Mounting Type	Ceiling Mount
Material	Plastic
Product Dimensions (D x W x H)	11"D x 13.6"W x 13.6"H
Item Weight	19.4 Pounds
IP Rating	IP33
Included Components	2x Subwoofer, 2x White Magnetic Grill, 2x Backcan enclosure

Warranty Information

The JBL Professional Control 419CS/T subwoofer comes with a Limited Warranty. For specific terms and conditions, please refer to the warranty documentation included with your product or visit the official JBL Professional website.

Support

For technical assistance, troubleshooting, or further information regarding your JBL Professional Control 419CS/T subwoofer, please visit the official JBL Professional support website or contact their customer service department. Contact details can typically be found on the JBL Professional website or in your product packaging.