Dayton Audio IO525BT

Dayton Audio IO525BT 5-1/4 Inch 2-Way 70V Indoor/Outdoor Speaker Manual

Model: IO525BT

1. Introduction

The Dayton Audio IO525BT speakers are designed for both indoor and outdoor audio applications, offering a versatile solution for various sound system needs. These speakers feature a durable, weather-resistant construction and can operate in either 70V distributed audio systems or as standard 8 Ohm speakers. This manual provides essential information for proper installation, operation, and maintenance to ensure optimal performance and longevity of your speakers.



Figure 1: Front view of the Dayton Audio IO525BT speaker.

Key Features:

- Built-in, bypassable, multi-tap 70V transformer for commercial distributed speaker applications.
- Stylish, contemporary appearance suitable for both indoor and outdoor environments.
- Weather-resistant ABS plastic enclosure and aluminum grills for extended service life.
- Polypropylene 5-1/4 inch woofer with rubber surround for balanced and accurate bass/mid response.
- Metalized Mylar 1 inch dome tweeter for clean, non-fatiguing high-frequency output.

2. Safety Information

Please read and understand all safety instructions before installing or operating these speakers. Failure to follow these guidelines may result in injury or damage to the equipment.

- **Power Source:** Ensure the power amplifier is turned off before making any connections to prevent electrical shock or damage to the speakers and amplifier.

- **Mounting:** Use appropriate mounting hardware and techniques for the installation location. Ensure the mounting surface can support the weight of the speakers. Improper mounting can lead to speakers falling, causing injury or damage.
- **Wiring:** Always use speaker wire of adequate gauge for the length of the run. Pay close attention to polarity (+/-) when connecting speakers to the amplifier. For 70V systems, ensure the amplifier is specifically designed for 70V operation and that the correct tap settings are selected.
- **Environment:** While these speakers are weather-resistant, avoid direct exposure to extreme weather conditions such as heavy rain, snow, or prolonged direct sunlight, which could reduce their lifespan.
- **Cleaning:** Disconnect power before cleaning. Use a soft, dry cloth. Avoid abrasive cleaners or solvents.

3. What's in the Box

Upon unpacking, please verify that all components are present:

- 2 x Dayton Audio IO525BT Speakers
- Mounting Hardware (brackets, screws)

If any items are missing or damaged, please contact your retailer or Dayton Audio customer support.

4. Setup and Installation

Mounting the Speakers:

The IO525BT speakers come with adjustable mounting brackets for flexible placement. These brackets allow for both vertical and horizontal orientation and angle adjustment.

1. Determine the desired mounting location. Ensure the surface is sturdy enough to support the speaker's weight (approximately 14.1 lbs per speaker).
2. Attach the mounting bracket to the wall or ceiling using appropriate screws and anchors (not included, choose based on wall material).
3. Secure the speaker to the bracket using the provided hardware. Adjust the angle as needed and tighten all fasteners to prevent movement.



Figure 2: Side view of the speaker showing the mounting bracket attachment.

Wiring Connections:

The IO525BT speakers can be used in either a standard 8 Ohm low-impedance system or a 70V constant voltage distributed audio system. The back of each speaker features a rotary switch to select the desired operating mode and power tap.



Figure 3: Rear panel of the Dayton Audio IO525BT speaker, showing the input terminals and 70V tap selector switch.

For 8 Ohm Operation:

If connecting to a standard low-impedance amplifier (e.g., home stereo receiver), set the rotary switch on the back of the speaker to the **8Ω** position. Connect the positive (+) terminal of the speaker to the positive (+) output of the amplifier, and the negative (-) terminal of the speaker to the negative (-) output of the amplifier. Ensure correct polarity for all speakers in the system.

For 70V Distributed Audio Systems:

For commercial or large-scale installations using a 70V amplifier, set the rotary switch to the desired power tap setting (30W, 16W, 8W, or 4W). This selects the power output of the speaker when connected to a 70V line. Connect the positive (+) terminal of the speaker to the 70V positive line from the amplifier, and the negative (-) terminal of the speaker to the common (ground) line from the amplifier. Ensure all speakers in the 70V system are connected in parallel.
Important: Never connect an 8 Ohm speaker output directly to a 70V line, or vice versa, without proper impedance matching or transformer use. Ensure the amplifier is off before making any connections.

5. Operating the Speakers

Once properly installed and wired, operating the Dayton Audio IO525BT speakers is straightforward. The primary operational aspect involves selecting the correct power tap for 70V systems.

70V Power Tap Selection:

The rotary switch on the rear of the speaker allows you to select the power tap for 70V systems. This determines how much power the speaker draws from the 70V line, which in turn affects its volume level relative to other speakers in the system. Available settings are:

- **30W:** Highest power output, loudest volume.
- **16W:** Medium-high power output.
- **8W:** Medium power output.
- **4W:** Lowest power output, quietest volume.
- **8Ω:** Bypasses the 70V transformer for standard low-impedance (8 Ohm) operation.

Adjust the tap setting with a flat-head screwdriver. Ensure the amplifier is off before changing tap settings to prevent damage.

6. Maintenance

The Dayton Audio IO525BT speakers are designed for durability and require minimal maintenance.

- **Cleaning:** Periodically wipe the speaker enclosures and grills with a soft, damp cloth to remove dust and dirt. Avoid using harsh chemicals, solvents, or abrasive cleaners, as these can damage the finish or materials.
- **Inspection:** For outdoor installations, regularly inspect the mounting hardware and speaker cables for any signs of wear, corrosion, or damage. Tighten any loose screws on the mounting brackets.
- **Weather Protection:** While weather-resistant, consider protecting outdoor speakers from direct, prolonged exposure to severe weather conditions (e.g., heavy snow, ice, or extreme heat) to extend their lifespan.

7. Troubleshooting

If you encounter issues with your Dayton Audio IO525BT speakers, refer to the following common troubleshooting steps:

- **No Sound:**
    - Check all speaker wire connections at both the amplifier and the speaker terminals. Ensure they are secure and correctly polarized.
    - Verify the amplifier is powered on and functioning correctly.
    - For 70V systems, ensure the 70V tap switch is set to a power tap (30W, 16W, 8W, or 4W) and not 8Ω, unless intended for 8 Ohm operation.
    - For 8 Ohm systems, ensure the switch is set to 8Ω.
    - Check the amplifier's volume level and input selection.
- **Distorted Sound:**

- Reduce the amplifier's volume. Overdriving the speakers can cause distortion.
- Check speaker wire connections for loose strands or short circuits.
- Ensure the amplifier's impedance rating matches the speaker's impedance (8 Ohm mode) or that the 70V system is correctly configured.

- **Uneven Volume (70V Systems):**
  - Verify that all speakers in the system have their 70V tap switches set to the desired power level. Different tap settings will result in different volumes.
  - Check for consistent wiring and proper connections across all speakers.

If troubleshooting steps do not resolve the issue, contact Dayton Audio customer support for further assistance.

8. Specifications

Model Name	IO525BT
Speaker Type	Indoor/Outdoor, 2-Way
Woofer Diameter	5.25 Inches (Polypropylene with rubber surround)
Tweeter Type	1 Inch Metalized Mylar Dome
Impedance	8 Ohms (nominal)
Input Voltage	70 Volts (AC) for distributed systems
70V Power Taps	30W, 16W, 8W, 4W, 8Ω (bypass)
Enclosure Material	Weather-resistant ABS Plastic
Grill Material	Aluminum
Product Dimensions (D x W x H)	7.25" x 6.75" x 9.5"
Item Weight	14.1 Pounds (per pair)
Mounting Type	Inside Mount, Outside Mount (with included hardware)
Connectivity Technology	Coaxial
Audio Output Mode	Surround

9. Warranty and Support

Warranty Information:

Dayton Audio products are covered by a Full Warranty against defects in materials and workmanship. The specific duration and terms of the warranty may vary by region and retailer. Please retain your proof of purchase for warranty claims.

Customer Support:

For technical assistance, warranty inquiries, or replacement parts, please contact Dayton Audio customer support or your authorized dealer. Refer to the Dayton Audio website for the most current contact information.
Website: www.daytonaudio.com

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