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Aperion Audio DST-2PK-ALU

Aperion Audio DST Dual Firing AMT Ribbon Super Tweeter Speaker Pair Instruction Manual

Model: DST-2PK-ALU

1. INTRODUCTION

Thank you for choosing the Aperion Audio DST Dual Firing Air Motion Transformer (AMT) Ribbon Super Tweeter Speaker Pair. These super tweeters are designed to enhance the high-frequency response of your existing loudspeaker system, providing increased clarity, transient speed, and musical detail. This manual provides essential information for proper setup, operation, and maintenance to ensure optimal performance and longevity of your product.



Image: Front view of the Aperion Audio DST Dual Firing AMT Ribbon Super Tweeter Speaker Pair.

2. SETUP AND CONNECTION

The DST Super Tweeters are designed for easy integration with your existing speaker system. They share the same binding posts as your main speakers, drawing power directly from the amplifier signal already sent to your main speakers. No direct connection to an amplifier is required for the super tweeters themselves.

2.1 Placement

Place the super tweeters on top of your main speakers. Ensure they are stable and positioned to allow for optimal sound dispersion. The dual-firing design means sound is emitted from both the front and back of the enclosure, which can benefit from placement with a back wall within a foot or two behind your speakers.

2.2 Wiring Connection

The DST Super Tweeters feature 5-way gold-plated binding posts, allowing for various connection methods:

- **Bare Wire:** Strip approximately 1/2 inch of insulation from your speaker wire and insert it into the binding post.
- **Banana Plugs:** Insert banana plugs directly into the center hole of the binding posts.
- **Spade Connectors:** Loosen the binding post, place the spade connector around the post, and tighten securely.
- **Round Pins or Flat Pins:** Connect as appropriate for your pin type.

Connect the super tweeter in parallel with your main speaker. This means connecting the positive (+) terminal of the super tweeter to the positive (+) terminal of your main speaker, and the negative (-) terminal of the super tweeter to the negative (-) terminal of your main speaker. The main speaker's terminals will already be connected to your

amplifier.

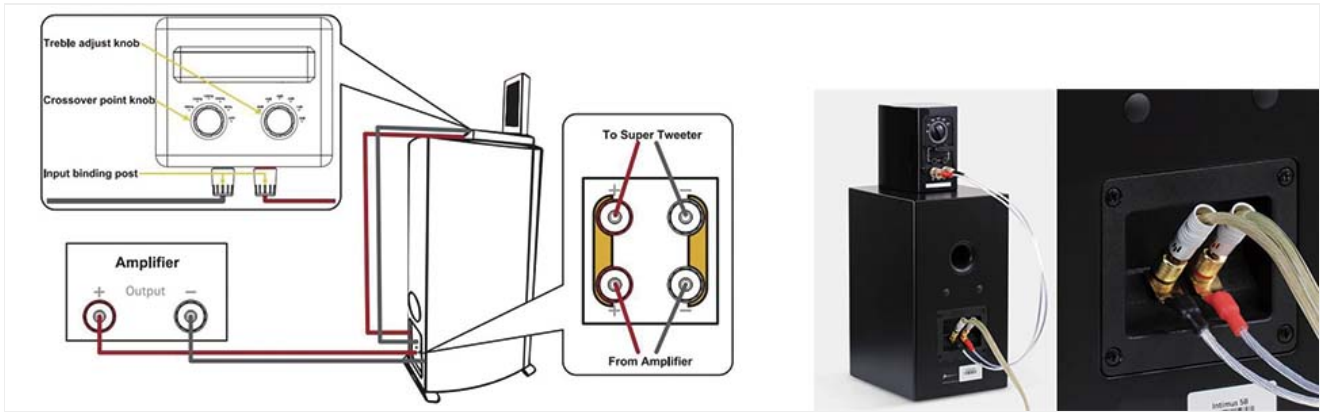


Image: Connection diagram illustrating how to wire the super tweeter in parallel with your main speaker and amplifier.



Image: Rear view of the super tweeter, highlighting the input binding posts for speaker wire connection.

3. OPERATION AND ADJUSTMENT

The DST Super Tweeters offer adjustable crossover points and treble levels to seamlessly integrate with a wide range of speakers and listening preferences.

3.1 Crossover Point Adjustment

The super tweeter features a 5-point crossover selector knob, allowing you to choose the frequency at which the super tweeter begins to operate. The crossover slope is 12 dB/octave.

- **Available Settings:** 8 kHz, 10 kHz, 12 kHz, 14 kHz, or 16 kHz.
- **'OFF' Position:** Renders the super tweeter inactive.
- **8 kHz:** Provides the most overlap with your existing tweeter, extending the high-frequency range significantly.
- **16 kHz:** Offers minimal overlap, picking up only the very top end of the frequency range.

Experiment with different settings to find the best blend with your main speakers. Start with a higher frequency (e.g., 14 kHz or 16 kHz) and gradually decrease to find the optimal integration point.



Image: Detail of the crossover frequency selection knob.

3.2 Treble Level Adjustment

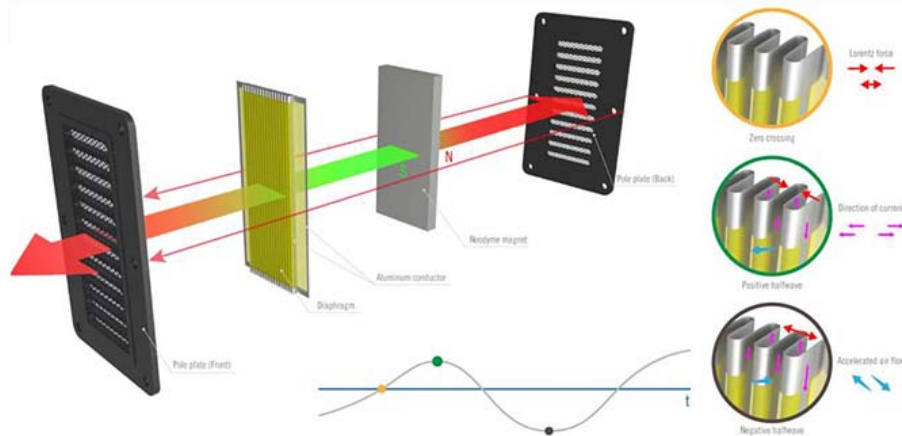
A separate knob allows you to adjust the output level of the super tweeter, from 0 dB (no reduction) down to -5 dB. This helps fine-tune the treble intensity to your preference and room acoustics.

- **0 dB:** Full output level.
- **-1 dB to -5 dB:** Gradually reduces the output level.

Adjust this knob to achieve a balanced sound without excessive brightness or harshness. Listen to various music genres to ensure a natural and pleasing high-frequency extension.



Image: Detail of the treble adjustment knob.



| Treble Adjust Setting / Crossover Setting | 0 dB | -1 dB | -2 dB | -3 dB | -4 dB | -5 dB |
|---|-------|-------|-------|-------|-------|-------|
| 8 kHz | 96 dB | 95 dB | 94 dB | 93 dB | 92 dB | 91 dB |
| 10 kHz | 95 dB | 94 dB | 93 dB | 92 dB | 91 dB | 90 dB |
| 12 kHz | 94 dB | 93 dB | 92 dB | 91 dB | 90 dB | 89 dB |
| 14 kHz | 93 dB | 92 dB | 91 dB | 90 dB | 89 dB | 86 dB |
| 16 kHz | 92 dB | 91 dB | 90 dB | 89 dB | 88 dB | 87 dB |

Image: A chart illustrating the sensitivity (dB) at various crossover and treble adjustment settings.

4. MAINTENANCE

To ensure the longevity and optimal performance of your Aperion Audio DST Super Tweeters, follow these simple maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to gently wipe the aluminum enclosure. Avoid abrasive cleaners, solvents, or excessive moisture, as these can damage the finish or internal components.
- **Placement:** Keep the super tweeters away from direct sunlight, heat sources, and areas with high humidity. Ensure good ventilation around the units.
- **Handling:** Handle the super tweeters with care. Avoid dropping them or subjecting them to strong impacts.
- **Connections:** Periodically check all wiring connections to ensure they are secure. Loose connections can lead to signal loss or degraded sound quality.

5. TROUBLESHOOTING

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

- **No Sound from Super Tweeters:**
 - Check all wiring connections. Ensure positive (+) is connected to positive (+) and negative (-) to negative (-) on both the super tweeter and the main speaker.
 - Verify that the crossover knob is not set to the 'OFF' position.
 - Ensure the treble adjust knob is not set to -5 dB, which significantly reduces output.
 - Confirm that your main speakers are receiving a signal and producing sound.
- **Sound is Too Bright or Harsh:**
 - Adjust the treble adjust knob to a lower dB setting (e.g., -1 dB to -5 dB).

- Try a higher crossover frequency setting (e.g., 14 kHz or 16 kHz) to reduce overlap with your main tweeter.

- **Lack of High-Frequency Detail:**

- Ensure the treble adjust knob is set to 0 dB or a minimal reduction.
- Try a lower crossover frequency setting (e.g., 8 kHz or 10 kHz) to increase the super tweeter's contribution.
- Verify that your main speakers have a sensitivity level between 85-96 dB for optimal compatibility.

- **Distorted Sound:**

- Check for loose wiring connections.
- Ensure the super tweeters are not being overdriven by an excessively powerful signal. While they handle up to 100 Watts, extreme volume levels can cause distortion.

If these steps do not resolve the issue, please contact Aperion Audio customer support for further assistance.

6. SPECIFICATIONS

| Feature | Specification |
|--------------------------------|---|
| Model Number | DST-2PK-ALU |
| Speaker Type | Dual Firing Air Motion Transformer (AMT) Ribbon Super Tweeter |
| Enclosure Material | Aluminum |
| Speaker Maximum Output Power | 100 Watts |
| Frequency Response | Up to 40 KHz |
| Impedance | 4 Ohms |
| Signal-to-Noise Ratio | 96 dB |
| Crossover Frequencies | 8 kHz, 10 kHz, 12 kHz, 14 kHz, 16 kHz (12 dB/octave slope) |
| Treble Adjustment | 0 dB to -5 dB |
| Connectivity Technology | Bare Wire, Spade Connector, Speaker Wire With Banana Plug |
| Mounting Type | Top on Speaker |
| Item Dimensions (D x W x H) | 5.1"D x 4.9"W x 6.9"H |
| Item Weight | 3.5 Pounds (per unit) |
| Compatible Speaker Sensitivity | 85-96 dB |

7. WARRANTY INFORMATION

Aperion Audio provides a **3-Year Limited Warranty** for the DST Dual Firing AMT Ribbon Super Tweeter Speaker Pair. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

For detailed warranty terms and conditions, please refer to the official Aperion Audio website or contact customer

support.

8. CUSTOMER SUPPORT

If you have any questions, require technical assistance, or need to make a warranty claim, please contact Aperion Audio customer support through the following channels:

- **Website:** Visit the official Aperion Audio website for support resources, FAQs, and contact forms.
- **Email:** Refer to your product packaging or the official website for customer service email addresses.
- **Phone:** Contact numbers for customer support can be found on the Aperion Audio website.

When contacting support, please have your product model number (DST-2PK-ALU) and proof of purchase readily available.