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› DPA 4088 CORE Directional Headset Microphone User Manual

## DPA 4088-DC-A-F00-LH

# DPA 4088 CORE Directional Headset Microphone User Manual

Model: 4088-DC-A-F00-LH

## 1. INTRODUCTION

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This manual provides essential information for the proper setup, operation, and maintenance of your DPA 4088 CORE Directional Headset Microphone. Designed for professional applications in broadcast and theater, the 4088 CORE offers pristine sound quality, durability, and a comfortable fit. Please read these instructions carefully to ensure optimal performance and longevity of your microphone.

## 2. PRODUCT OVERVIEW

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The DPA 4088 CORE is a high-performance cardioid headset microphone featuring CORE amplifier technology. This technology enhances dynamic range and reduces total harmonic distortion, delivering transparent sound with generous headroom. Its unique design allows for quick adjustment and flexible left or right mounting.

### Key Features:

- **CORE Amplifier Technology:** Provides a 14dB increase in dynamic range and reduced total harmonic distortion.
- **Cardioid Polar Pattern:** Offers superior rejection of ambient sound, ideal for speech and singing.
- **Microdot Connector:** Ensures compatibility with various wireless systems via adapters (sold separately).
- **Flexible Design:** Allows for easy adjustment and choice of left or right ear mounting.
- **Durable Construction:** Built for demanding professional environments.

### Polar Pattern and Frequency Response:



Figure 1: Cardioid polar pattern of the DPA 4088 CORE microphone, illustrating its directional sound pickup characteristics at various frequencies. This diagram shows the microphone's sensitivity to sound from different angles, with maximum sensitivity at 0 degrees (front) and significant rejection from the rear.



Figure 2: Frequency response graph of the DPA 4088 CORE microphone, showing its sensitivity across the audible frequency spectrum (20 Hz to 20 kHz) at different angles (0°, 30°, 60°, 90°, 180°). This graph indicates the microphone's balanced and transparent sound reproduction capabilities.

## 3. SETUP

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### 3.1 Wearing the Headset

1. Gently place the headset over your ears, ensuring a comfortable and secure fit.
2. Adjust the boom arm to position the microphone capsule approximately 1-2 cm (0.4-0.8 inches) from the corner of your mouth. This placement optimizes sound capture and minimizes plosives and breath noise.
3. The headset can be worn on either the left or right ear. Adjust the boom arm's orientation as needed.

### 3.2 Connecting the Microphone

1. The DPA 4088 CORE features a Microdot connector. This connector requires a compatible adapter for connection to most wireless transmitters or XLR inputs.
2. Carefully align the Microdot connector with the adapter's input. Push firmly until it clicks into place. Do not force the connection.
3. Ensure the adapter is securely connected to your wireless transmitter or audio interface.
4. Verify that phantom power (if using an XLR adapter) or the correct voltage from your wireless transmitter is supplied to the microphone.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Audio Level Setting

- Before use, perform a sound check to set appropriate gain levels on your connected wireless transmitter or audio mixer.
- Speak or sing into the microphone at your typical performance volume.
- Adjust the input gain to achieve a strong signal without clipping or distortion. Aim for peak levels around -6 dB to -3 dB on your meter.

### 4.2 Usage Tips

- **Proximity Effect:** Due to its cardioid pattern, the microphone exhibits a slight proximity effect. Maintain consistent distance from the corner of your mouth for a balanced sound.
- **Wind Noise:** For outdoor use or in windy conditions, consider using a windscreen (sold separately) to minimize wind noise.
- **Feedback Prevention:** Position stage monitors or loudspeakers to avoid pointing directly at the microphone capsule, especially in live sound environments, to prevent feedback.

## 5. MAINTENANCE

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## 5.1 Cleaning

- Regularly wipe the headset frame and boom arm with a soft, damp cloth.
- For the microphone capsule, use a dry, soft brush or a cotton swab to gently remove any dust or debris. Avoid using liquids directly on the capsule.
- Ensure the microphone is completely dry before storage or next use.

## 5.2 Storage

- Store the microphone in its original packaging or a protective case when not in use.
- Avoid exposing the microphone to extreme temperatures, high humidity, or direct sunlight.
- Do not coil the cable tightly, as this can cause damage over time.

## 5.3 Handling

- Handle the microphone and its connectors with care. Avoid dropping or subjecting it to strong impacts.
- When disconnecting the Microdot, grasp the connector body, not the cable.

## 6. TROUBLESHOOTING

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Problem	Possible Cause	Solution
No sound output	<ul style="list-style-type: none"><li>• Microphone not connected properly.</li><li>• No phantom power (for XLR adapters).</li><li>• Incorrect gain settings on transmitter/mixer.</li><li>• Faulty cable or adapter.</li></ul>	<ul style="list-style-type: none"><li>• Ensure Microdot and adapter connections are secure.</li><li>• Activate phantom power on your mixer or ensure wireless transmitter is powered.</li><li>• Check and adjust gain levels.</li><li>• Test with a different cable or adapter if available.</li></ul>
Distorted or unclear sound	<ul style="list-style-type: none"><li>• Input gain too high (clipping).</li><li>• Microphone capsule too close to mouth.</li><li>• Environmental noise.</li></ul>	<ul style="list-style-type: none"><li>• Reduce input gain on transmitter/mixer.</li><li>• Adjust microphone position to 1-2 cm from corner of mouth.</li><li>• Ensure proper acoustic environment; use windscreen if necessary.</li></ul>
Feedback (howling sound)	<ul style="list-style-type: none"><li>• Microphone too close to loudspeakers/monitors.</li><li>• Excessive gain.</li></ul>	<ul style="list-style-type: none"><li>• Reposition microphone or loudspeakers.</li><li>• Reduce overall system gain or specific frequency bands causing feedback.</li></ul>

## 7. SPECIFICATIONS

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<b>Brand</b>	DPA
<b>Model Name</b>	4088 CORE Directional Headset Microphone
<b>Model Number</b>	4088-DC-A-F00-LH
<b>Connectivity Technology</b>	MicroDot
<b>Connector Type</b>	MicroDot Connect
<b>Polar Pattern</b>	Cardioid (Unidirectional)
<b>Audio Sensitivity</b>	137 Decibels
<b>Impedance</b>	200 Ohms
<b>Frequency Response</b>	20 Hz - 20 KHz
<b>Signal-to-Noise Ratio</b>	14 dB
<b>Item Weight</b>	8.64 ounces
<b>Item Dimensions (LxWxH)</b>	9.15 x 5.7 x 1.7 inches
<b>Included Components</b>	Microphone
<b>Enclosure Material</b>	Rubber, Metal, Textile

## 8. WARRANTY AND SUPPORT

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### 8.1 Warranty Information

The DPA 4088 CORE Directional Headset Microphone comes with a **2-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 misuse, accident, unauthorized modification, or improper maintenance.

### 8.2 Customer Support

For technical assistance, warranty claims, or further inquiries, please contact DPA Microphones customer support. Refer to the official DPA Microphones website for the most current contact information and support resources.

**Online Resources:** [www.dpamicrophones.com](http://www.dpamicrophones.com)