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› CAD Audio E300S Multi-Pattern Condenser Microphone User Manual

CAD Audio E300S

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Model: E300S



Image: The CAD Audio E300S Multi-Pattern Condenser Microphone mounted in its elastic shock mount, showcasing its design and grille.

INTRODUCTION

Thank you for choosing the CAD Audio E300S Multi-Pattern Condenser Microphone. The E300S is a high-performance, externally-biased large-diaphragm condenser microphone designed for professional audio recording. Its versatile features, including multiple polar patterns, a hi-pass filter, and an attenuator, make it suitable for a wide range of applications, from vocal recording to instrument miking.

This manual provides detailed instructions to help you set up, operate, and maintain your E300S microphone, ensuring optimal performance and longevity.

KEY FEATURES

- **Operating Principle:** Externally-biased condenser for precise sound capture.

- **Polar Patterns:** Selectable Cardioid, Figure-of-Eight, and Omnidirectional patterns for versatile recording.
- **Frequency Response:** Wide range from 20Hz to 18KHz to capture full audio spectrum.
- **High Sensitivity:** -34dBV (20mV) @ 1 Pa for detailed sound reproduction.
- **High SPL Capability:** Handles up to 145dB SPL at 1% THD, suitable for loud sources.
- **Attenuator:** 20dB pad for managing high-volume inputs.
- **Hi-Pass Filter:** Reduces unwanted low-frequency noise.
- **Power Requirements:** P48 (48V) phantom power.
- **Rechargeable NiMH Batteries:** Provides current reserve for consistent performance.
- **Included Accessories:** Elastic shock mount and carrying case for protection and stability.

PACKAGE CONTENTS

Upon unpacking, please ensure all items are present and in good condition:

- CAD Audio E300S Condenser Microphone
- Elastic Shock Mount
- Carrying Case
- User Manual (this document)



Image: The CAD Audio E300S microphone, shock mount, and user manual neatly packed within its protective carrying case.

SETUP INSTRUCTIONS

1. **Unpack the Microphone:** Carefully remove the E300S microphone and its shock mount from the carrying case.
2. **Attach the Shock Mount:** Securely screw the elastic shock mount onto a standard microphone stand. The shock mount helps isolate the microphone from vibrations and handling noise.
3. **Mount the Microphone:** Gently insert the E300S microphone into the shock mount. Ensure it is held firmly by the elastic bands.
4. **Connect XLR Cable:** Connect a balanced XLR cable to the microphone's XLR output connector located at the base. Connect the other end of the XLR cable to your audio interface, mixer, or preamplifier.



Image: The base of the CAD Audio E300S microphone, illustrating the standard 3-pin XLR connector for audio output.

5. **Apply Phantom Power:** The E300S requires P48 (48V) phantom power to operate. Activate the 48V phantom power on your audio interface, mixer, or preamplifier. The microphone's internal rechargeable NiMH batteries provide current reserve, but external phantom power is essential for operation and to charge the internal batteries.
6. **Position the Microphone:** Place the microphone in the desired recording position, considering the sound source and the chosen polar pattern.

OPERATING INSTRUCTIONS

The CAD Audio E300S features several controls on its body to adjust its performance for different recording scenarios.



Image: A detailed view of the control switches on the CAD Audio E300S, showing settings for -20dB pad, hi-pass filter, and polar patterns (cardioid, omni, figure-8).

1. Polar Pattern Selection

The E300S offers three selectable polar patterns, allowing you to control the microphone's directionality and sensitivity to sound from different angles. Use the switch labeled with the polar pattern symbols.

- **Cardioid (Heart-shaped symbol):** Most sensitive to sound from the front, with significant rejection from the rear and sides. Ideal for isolating a single sound source, such as a vocalist or instrument, in a live or studio environment.
- **Omnidirectional (Circle symbol):** Equally sensitive to sound from all directions. Best for capturing ambient room sound, group vocals, or instruments where a natural, open sound is desired.

- **Figure-of-Eight (Figure-8 symbol):** Equally sensitive to sound from the front and rear, with strong rejection from the sides. Useful for recording two vocalists facing each other, or for capturing room reflections while minimizing side-bleed.

2. Hi-Pass Filter (Low-Cut Filter)

The hi-pass filter switch (often indicated by a sloped line symbol) reduces low-frequency content. This is useful for:

- Minimizing rumble from air conditioning, traffic, or stage vibrations.
- Reducing proximity effect (an increase in bass response when a sound source is very close to the microphone).
- Cleaning up vocal tracks by removing unwanted low-end mud.

Engage the hi-pass filter by moving the switch to the appropriate position (usually indicated by a sloped line or "HPF").

3. Attenuator (Pad)

The 20dB attenuator (often indicated by "-20dB" or "Pad") reduces the microphone's output level before it reaches your preamplifier. This prevents overloading the input stage of your mixer or interface when recording very loud sound sources, such as drums, guitar amplifiers, or loud vocals.

If you notice distortion or clipping in your recording chain, engage the 20dB pad by moving the switch to the "-20dB" position.

MAINTENANCE

Proper care and maintenance will ensure the longevity and optimal performance of your CAD Audio E300S microphone.

- **Cleaning:** Use a soft, dry cloth to wipe the microphone body. Do not use liquid cleaners, solvents, or abrasive materials, as these can damage the finish or internal components.
- **Storage:** When not in use, store the microphone in its provided carrying case to protect it from dust, moisture, and physical damage. Avoid storing it in environments with extreme temperatures or high humidity.
- **Handling:** Always handle the microphone with care. Avoid dropping it or subjecting it to strong impacts, which can damage the delicate capsule.
- **Phantom Power:** Ensure P48 phantom power is consistently supplied during operation to power the microphone and maintain the charge of its internal NiMH batteries.

TROUBLESHOOTING

If you encounter issues with your E300S microphone, please refer to the following common problems and solutions:

Problem	Possible Cause / Solution
No Sound Output	◦ Ensure 48V phantom power is enabled on your mixer/interface. ◦ Check all XLR cable connections. Try a different cable. ◦ Verify input gain on your mixer/interface is turned up. ◦ Confirm the microphone is connected to an active input channel.
Low Output Level	◦ Check if the 20dB attenuator (pad) switch is engaged. Disengage it if not needed. ◦ Increase the input gain on your mixer/interface. ◦ Ensure the microphone is properly positioned relative to the sound source.
Distortion or Clipping	◦ Engage the 20dB attenuator (pad) switch. ◦ Reduce the input gain on your mixer/interface. ◦ Increase the distance between the microphone and the sound source.

Problem	Possible Cause / Solution
Excessive Bass / Muddy Sound	- Engage the hi-pass filter switch to reduce low-frequency build-up. - Increase the distance from the sound source to reduce proximity effect.
Unwanted Noise / Hum	- Ensure all cables are properly shielded and connected. - Check for ground loops in your audio system. - Move the microphone away from sources of electromagnetic interference (e.g., power supplies, monitors). - Ensure the shock mount is correctly installed to reduce mechanical noise.

SPECIFICATIONS

Feature	Detail
Operating Principle	Externally-biased condenser
Polar Pattern	Cardioid, Figure-of-Eight, Omnidirectional (Multipattern)
Frequency Response	20Hz to 18KHz
Sensitivity	-34dBV (20mV) @ 1 Pa
Impedance	220 ohms
Max SPL	145dB, 1% THD
Attenuator (Pad)	20dB
Power Requirements	P48 (48V) Phantom Power, 8mA
Connector Type	XLR
Item Weight	5 Pounds (approx. 2.27 kg)
Item Dimensions	12 x 9 x 9 inches (approx. 30.5 x 22.9 x 22.9 cm)
Model Number	E300S (AMS-E300S)
UPC / GTIN	631922105810

WARRANTY INFORMATION

The CAD Audio E300S Condenser Microphone comes with a **5-year warranty**. For detailed terms and conditions, or to initiate a warranty claim, please refer to the official CAD Audio website or contact their customer support.

SUPPORT AND CONTACT

For further assistance, technical support, or inquiries regarding your CAD Audio E300S microphone, please visit the official CAD Audio website or contact their customer service department.

Official Website: www.cadaudio.com

Please have your product model (E300S) and purchase information ready when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question