

Behringer ECM8000

Behringer ECM8000 Ultra-Linear Measurement Condenser Microphone User Manual

Model: ECM8000

1. INTRODUCTION

This user manual provides comprehensive instructions for the Behringer ECM8000 Ultra-Linear Omni-Directional Measurement Condenser Microphone. It covers product overview, setup, operation, maintenance, troubleshooting, and technical specifications to ensure optimal performance and longevity of your device.

2. PRODUCT OVERVIEW

The Behringer ECM8000 is an ultra-linear condenser microphone specifically designed for precise acoustic measurement and high-resolution audio recording. Its omnidirectional polar pattern and exceptionally flat frequency response make it ideal for room equalization and critical listening applications.





Figure 2.1: Behringer ECM8000 Ultra-Linear Measurement Condenser Microphone.

3. KEY FEATURES

- **Ultra-Linear Frequency Response:** Provides an exceptionally flat frequency response from 20 Hz to 20 kHz for accurate sound reproduction.
- **Omni-Directional Polar Pattern:** Captures sound evenly from all directions, crucial for precise acoustic measurements.
- **Phantom Power Compatibility:** Operates with +15 V to +48 V phantom power, ensuring broad compatibility with

audio interfaces and mixers.

- **Low-Noise Design:** Features an ultra-low noise transformerless FET input to minimize distortion, especially at low frequencies.
- **Gold-Plated XLR Connector:** Ensures optimal signal integrity and corrosion resistance for reliable connections.
- **Durable Construction:** Built with high-quality components for long-term reliability and ruggedness.
- **Included Accessories:** Comes with a swivel stand mount and a transport case for convenience and protection.

4. WHAT'S IN THE BOX

Upon opening the packaging, verify that all components are present and in good condition. The standard package for the Behringer ECM8000 includes:

- Behringer ECM8000 Measurement Condenser Microphone
- Swivel Stand Mount
- Microphone Windscreen
- Transport Case
- User Manual / Technical Specifications Document



Figure 4.1: Contents of the Behringer ECM8000 package.

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Video 4.1: Unboxing the Behringer ECM8000 Measurement Condenser Microphone, showing the microphone, transport case, swivel stand mount, and documentation.

5. SETUP

5.1 Connecting the Microphone

1. **Mounting:** Attach the ECM8000 microphone to a standard microphone stand using the provided swivel stand mount. Ensure it is securely fastened.
2. **Cable Connection:** Connect a balanced XLR cable (not included) to the gold-plated 3-pin XLR connector at the base of the microphone.

3. **Audio Interface/Mixer Connection:** Connect the other end of the XLR cable to an audio interface, mixer, or preamplifier that provides +15 V to +48 V phantom power.
4. **Phantom Power Activation:** Activate the phantom power on your audio interface or mixer. The microphone requires phantom power to operate.

5.2 Positioning for Measurement

For accurate room acoustic measurements, proper microphone placement is critical. Due to its omnidirectional pattern, the ECM8000 captures sound from all directions, making it suitable for various measurement techniques.

- **Room Equalization:** For room equalization, place the microphone at the primary listening position, typically at ear height.
- **Speaker Measurement:** When measuring individual speakers, position the microphone at a consistent distance and angle from the speaker, typically on-axis.
- **Avoid Obstructions:** Ensure there are no immediate obstructions between the microphone and the sound source or the area being measured.

6. OPERATING THE ECM8000

6.1 Basic Operation

Once connected and phantom power is supplied, the ECM8000 is ready for use. It does not feature any external controls or switches, simplifying its operation.

- **Signal Monitoring:** Monitor the input signal level on your audio interface or mixer to prevent clipping and ensure a clean recording.
- **Software Integration:** The ECM8000 is designed to work seamlessly with real-time audio analyzers such as the Behringer ULTRACURVE or other compatible software for acoustic analysis.

6.2 Applications

The ECM8000 is versatile and can be used for:

- Room acoustic analysis and equalization
- Speaker system calibration
- High-resolution studio recording (e.g., as an overhead microphone for drums or for capturing ambient sounds)
- Live sound reinforcement system tuning

7. MAINTENANCE

To ensure the longevity and optimal performance of your ECM8000 microphone, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the microphone body. Avoid using liquid cleaners or solvents, as they may damage the finish or internal components.
- **Storage:** When not in use, store the microphone in its provided transport case to protect it from dust, moisture, and physical damage.
- **Handling:** Handle the microphone with care. Avoid dropping it or subjecting it to excessive force, which can affect its delicate internal components and calibration.
- **Temperature and Humidity:** Store and operate the microphone within recommended temperature and humidity ranges to prevent condensation and component degradation.

8. TROUBLESHOOTING

If you encounter issues with your ECM8000 microphone, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No Sound Output	Phantom power not activated. Faulty XLR cable. Incorrect input selection on audio interface/mixer. Microphone not properly connected.	Ensure +15V to +48V phantom power is enabled. Test with a known good XLR cable. Verify the correct input channel is selected and monitored. Check all cable connections for secure fit.
Low Output Level	Insufficient gain on preamplifier. Phantom power issue.	Increase the gain on your audio interface or mixer. Confirm stable phantom power supply.
Distorted Sound	Input signal too high (clipping). Faulty cable or connection.	Reduce the gain on your preamplifier or the source volume. Check cable integrity and connections.
Excessive Noise/Hum	Ground loop interference. Poor quality XLR cable. Environmental electrical interference.	Ensure all equipment is properly grounded. Use high-quality, shielded XLR cables. Relocate the microphone or equipment away from sources of interference.

9. TECHNICAL SPECIFICATIONS

Specification	Value
Model	ECM8000
Microphone Type	Condenser
Polar Pattern	Omni-directional
Frequency Response	20 Hz - 20 kHz
Impedance	200 Ohms
Signal-to-Noise Ratio	35 dB
Power Source	Phantom Power (+15V to +48V)
Connector Type	3-pin XLR
Item Weight	6.4 ounces (approx. 181g)
Product Dimensions (L x W x H)	7.56 x 0.83 x 0.83 inches (approx. 19.2 x 2.1 x 2.1 cm)
Manufacturer	Behringer

10. WARRANTY AND SUPPORT

For detailed warranty information and technical support, please refer to the official Behringer website or contact their

customer service. Keep your purchase receipt as proof of purchase for any warranty claims.

Online Resources:

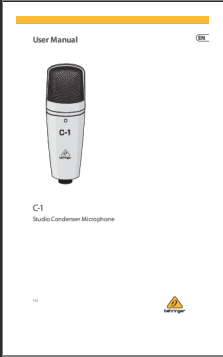
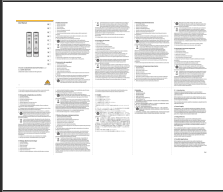
- [Behringer Official Website](#)
- [Behringer Support Page](#)



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Related Documents - ECM8000

	<p>Behringer ECM8000 Measurement Condenser Microphone Quick Start Guide</p> <p>Quick start guide for the Behringer ECM8000 Measurement Condenser Microphone, detailing its features, specifications, and safety instructions in multiple languages.</p>
	<p>Behringer ECM8000 Ultra-Linear Measurement Condenser Microphone Datasheet</p> <p>Comprehensive datasheet for the Behringer ECM8000 Ultra-Linear Measurement Condenser Microphone, detailing its features, technical specifications, safety instructions, and compliance information for professional audio measurement and recording applications.</p>
	<p>Behringer C-1U USB Studio Condenser Microphone User Manual</p> <p>User manual for the Behringer C-1U USB Studio Condenser Microphone, detailing its features, setup, operation, safety guidelines, and technical specifications for professional audio recording.</p>
	<p>Behringer BA 19A and C-2 Condenser Microphones: User Manual and Specifications</p> <p>This document provides user manuals and technical specifications for the Behringer BA 19A boundary condenser microphone for instrument applications and the Behringer C-2 matched pair of studio condenser microphones. It includes safety instructions, features, applications, and detailed technical data for both products.</p>

	<p>Behringer C-1 Studio Condenser Microphone User Manual</p> <p>User manual for the Behringer C-1 Studio Condenser Microphone, detailing its features, operation, safety guidelines, and technical specifications. Learn about phantom power, cardioid directivity, installation, audio connection, and sound adjustment for professional recording.</p>
	<p>Behringer C-2 Studio Condenser Microphones: Matched Pair for Professional Audio</p> <p>Detailed information on the Behringer C-2 and C-2 Dark Edition matched studio condenser microphones, covering features, specifications, installation, and applications for professional audio recording.</p>