ECM-87 Studio Condenser Microphone

User Manual & Instruction Guide

Specifications:
Frequency Response: 20-20kHz
Sensitivity: 12.5mv/Pa (94db SPL @ 1kHz)
Impedance: 200 ohms
Equivalent Noise Level: 17 db (A weighted IEC 651)
Max SPL: 128db (0.5% @ 1kHz)
Capsule diameter: 1.07" (27.18mm)
Membrane Thickness: 6 Microns
Type: Externally Biased True Condenser
Polar Pattern: Cardioid
Furnished Accessories: Storage Bag & Shock Mount
Supply Voltage: +48v Phantom Power

Frequency Response & Polar Pattern:

Warranty:
Gauge Precision Instruments, Inc. guarantees that your purchase will be free of any defects in materials or workmanship. With normal use your microphone will give you many years of trouble free operation. If your microphone should fail due to defects in materials or workmanship, we will replace it or repair it free of charge for a period of three (3) years from the original date of purchase.

In the unlikely event that you experience a problem with your Gauge Microphone, please contact us at support@gauge-usa.com.

Be sure to register your purchase at www.gauge-usa.com/registration as soon as possible.

Service & Support:
For information and technical support questions, including service or parts information, please contact us at support@gauge-usa.com
General Description:
The ECM-87 is a transformerless, large diaphragm, cardioid condenser microphone that is ideal for recording voice, guitar, drums & all acoustic instruments. Its clear, full sound & smooth presence peak make it the perfect choice for all studio and broadcast applications. Although the ECM-87 was designed for studio use, it is also rugged enough for live applications.

Audio Connection & Power Supply:
Your ECM-87 microphone requires +48v Phantom Power to operate. This is a standard feature on most modern pre-amps and mixers. If your mixer or pre-amp does not provide +48v Phantom Power, then an external Phantom Power supply will be needed.

Note:
Always take care to ensure that all cables are properly connected before applying power to the microphone. Never connect or remove the microphone cable while +48v power is connected as this may cause permanent damage.

Microphone Installation:
A professional shock-mount adapter is included with your microphone. This allows you to mount your ECM-87 on any standard microphone stand. The special shock-mount should be used at all times as it significantly reduces unwanted low-frequency vibrations that can be transmitted through a microphone stand.

Pop Filter & Pop Screen:
The ECM-87 grille consists of a layered mesh screen that acts as an integral Pop Filter. This helps to greatly reduce wind and breath noise. However, we always recommend using a genuine Gauge Pop Screen whenever the ECM-87 is placed close to a singer, broadcaster or voice-over artist.

Microphone Placement:
Your ECM-87 features a 1.07” capsule with a cardioid pickup pattern which is ideal for recording musical instruments, vocals and speech. This is the most common pattern used in recording and live applications as it is best suited for capturing sounds located directly in front of the microphone. The front of your ECM-87 is marked by the GAUGE logo. Always position this side of the microphone toward the sound source.

Adjusting the Basic Sound:
Learning how to get the sound you want may require some experimentation. Always begin with the Channel Equalizer set to the ‘OFF’ or ‘FLAT’ position. Then, place the ECM-87 in front of the sound source being recorded and adjust the angle & distance as desired. A good starting point is approximately 2° to 5° from a Vocalist and 6° to 12° from an Acoustic Guitar.

Low-Frequency Roll-off:
A low-frequency filter switch is located inside the ECM-87. This switch allows you to adjust the low-frequency response of the microphone. The low-frequency filter can be used to reduce noise, rumble or other unwanted low-frequency sounds such as from heating and air conditioning systems. This setting may also be used to compensate for proximity effect or to reduce low frequencies according to personal taste.

Recommended Applications:
The ECM-87 microphone will produce superior results in any application requiring a high-quality microphone. We recommend the ECM-87 microphone for the following applications:

- Lead Vocals, Background Vocals & Voice-over
- Acoustic Piano, Guitar & Strings
- Electric Guitar & Bass Amplifiers
- Drums, Percussion & Overheads
- Brass & Woodwind Instruments
- Violin, Viola, Cello & Double Bass
- Orchestras, Choirs & Wind Ensembles
- Room Ambience

Performance Characteristics:

- Extended frequency response
- Very low self-noise
- Exceptionally warm, low-frequency reproduction
- High output level
- High SPL handling
- Uniform polar response
- Superior common-mode rejection

Storage:
After each use, your ECM-87 microphone should be removed from its shock-mount, wiped with a clean soft-fiber cloth and placed in its protective bag. Always place the moisture-absorbent crystals (supplied) near the head of the microphone. These crystals are provided to protect the microphone capsule by absorbing excess moisture in the air.