

beyerdynamic M 160

Beyerdynamic M 160 Double Ribbon Microphone Instruction Manual

Model: M 160

1. PRODUCT OVERVIEW

The Beyerdynamic M 160 is a high-quality double ribbon microphone renowned for its warm, natural sound and excellent transient response. Featuring a hypercardioid polar pattern, it is highly effective at isolating sound sources while rejecting off-axis noise. Its robust metal construction ensures durability for both studio and live applications. The M 160 is a versatile tool, ideal for capturing vocals, acoustic instruments, guitar amplifiers, and drums with exceptional clarity and detail.





Figure 1: Beyerdynamic M 160 Double Ribbon Microphone

This image displays the Beyerdynamic M 160 microphone, showcasing its sleek black body and silver mesh grille. The "beyerdynamic" logo is visible on the grille, and "M 160 Made in Germany" is printed on the body.

2. WHAT'S IN THE BOX

Your Beyerdynamic M 160 package includes the following items:

- Beyerdynamic M 160 Double Ribbon Microphone
- Microphone Clamp (MA-CL 25)
- Microphone Case



Figure 2: Included Accessories

This image shows the Beyerdynamic M 160 microphone alongside its included accessories: a microphone clamp (MA-CL 25) and a protective microphone case.

3. SETUP

1. **Mounting the Microphone:** Attach the supplied MA-CL 25 microphone clamp to a suitable microphone stand. Securely insert the Beyerdynamic M 160 into the clamp.
2. **Connecting to Audio Interface/Mixer:** Connect a standard XLR cable (not included) to the XLR output of the M 160. Connect the other end of the XLR cable to an available microphone input on your audio interface or mixer.
3. **Phantom Power Caution:** The Beyerdynamic M 160 is a passive ribbon microphone and **does NOT require phantom power (P48)**. Applying phantom power to this microphone can potentially damage its delicate ribbon element. Ensure phantom power is switched OFF on the input channel before connecting the M 160.
4. **Positioning:** Position the microphone appropriately for your sound source. The hypercardioid pattern is directional, so aim the front of the microphone (where the Beyerdynamic logo is visible on the grille) directly at the sound source for optimal pickup and off-axis rejection.



Figure 3: Microphone Setup for Drums

This image illustrates the Beyerdynamic M 160 microphone mounted on a stand and positioned as an overhead microphone for a drum kit, highlighting its use in capturing percussive sounds.

4. OPERATING INSTRUCTIONS

The Beyerdynamic M 160 is designed for straightforward operation, focusing on capturing high-fidelity audio. Follow these guidelines for best results:

- **Polar Pattern:** The M 160 features a hypercardioid polar pattern. This means it is most sensitive to sounds directly in front of it and offers excellent rejection of sounds from the sides and rear. Utilize this characteristic to minimize bleed from other instruments or ambient noise in your recording environment.
- **Proximity Effect:** Like most directional microphones, the M 160 exhibits a proximity effect. This means that as the microphone is moved closer to the sound source, the bass response increases. Experiment with microphone distance to achieve the desired tonal balance for your recording.
- **Recommended Applications:**
 - **Vocals:** Provides a warm and detailed vocal sound.
 - **Acoustic Instruments:** Excellent for acoustic guitars, strings, and woodwinds, capturing their natural resonance.
 - **Guitar Amplifiers:** Delivers a rich and full sound when close-miking guitar cabs.
 - **Drums:** Ideal for drum overheads, hi-hats, and snare drums, offering a smooth high-end and solid transients.
- **Gain Staging:** Adjust the gain on your audio interface or mixer to achieve a healthy signal level without clipping. Ribbon microphones typically have a lower output than condenser microphones, so you may need to use more gain.



Figure 4: Microphone Setup for Guitar Amplifier

This image shows the Beyerdynamic M 160 microphone placed directly in front of a guitar amplifier, demonstrating its common use for capturing amplified guitar tones.

5. MAINTENANCE

Proper care will ensure the longevity and optimal performance of your Beyerdynamic M 160 microphone:

- **Storage:** Always store the microphone in its supplied protective case when not in use. This protects the delicate ribbon element from dust, moisture, and physical shock.
- **Handling:** Handle the microphone with care. Avoid dropping it or subjecting it to strong vibrations, as this can damage the ribbon.
- **Cleaning:** Use a soft, dry cloth to clean the exterior of the microphone. Do not use liquid cleaners or solvents, as these can damage the finish or internal components.
- **Moisture:** Keep the microphone away from moisture and extreme temperature changes.
- **Phantom Power:** As reiterated in the setup section, **never apply phantom power** to the M 160.

6. TROUBLESHOOTING

If you encounter issues with your Beyerdynamic M 160, consider the following:

Problem	Possible Cause	Solution
No Sound Output	XLR cable not connected properly. Input channel on mixer/interface muted or gain too low. Phantom power accidentally engaged. Damaged ribbon element.	Check all cable connections. Verify input channel settings and increase gain. Immediately switch off phantom power. Contact Beyerdynamic support for repair.
Weak or Distorted Sound	Incorrect microphone positioning. Gain too high (clipping) or too low. Damaged ribbon element.	Adjust microphone position relative to the source. Optimize gain settings. Contact Beyerdynamic support for repair.
Excessive Background Noise	Poor room acoustics. Microphone picking up off-axis sounds.	Improve room treatment. Ensure microphone is aimed directly at the desired source, utilizing its hypercardioid rejection.

7. SPECIFICATIONS

Feature	Detail
Model Number	M 160
Brand	beyerdynamic
Microphone Type	Double Ribbon
Polar Pattern	Hypercardioid

Feature	Detail
Connectivity Technology	XLR
Connector Type	XLR
Power Source	Passive (No Phantom Power Required)
Material	Metal
Item Weight	1 Pound
Product Dimensions (L x W x H)	8.86 x 5.12 x 2.95 inches
Signal-to-Noise Ratio	78 dB
Recommended Uses	Voice Recording, Video Recording, Singing, Use with guitar amps and drums

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your Beyerdynamic M 160 microphone, please refer to the official beyerdynamic website or contact their customer service directly. Keep your proof of purchase for any warranty claims.

Official Website: www.beyerdynamic.com

