

Heil Sound PR40

Heil PR 40 Dynamic Microphone Instruction Manual

Model: PR40 | Brand: Heil Sound

1. INTRODUCTION AND OVERVIEW

The Heil PR 40 is a professional-grade dynamic microphone designed for a wide range of audio applications, including streaming, podcasting, recording, and broadcast. Its robust construction and advanced acoustic design ensure high-quality sound capture with superior rear noise rejection.

Key features include:

- **Versatile Application:** Trusted by podcasters, studio engineers, streamers, and musicians for high-quality sound in diverse environments.
- **Natural Voice Capture:** Optimized to naturally capture the human voice, providing studio-quality sound without requiring external preamps or extensive processing.
- **Enhanced Streaming:** Delivers professional-quality audio and features a sleek design to complement any streaming setup.
- **Superior Noise Rejection:** Its cardioid polar pattern effectively eliminates sound from unwanted sources, making it ideal for environments with ambient noise.
- **XLR Connectivity:** Equipped with a 3-pin XLR connection for high-quality audio output.

2. SETUP

Follow these steps to set up your Heil PR 40 Dynamic Microphone:

1. **Mounting the Microphone:** Secure the Heil PR 40 to a compatible microphone stand or boom arm using the included mic clamp. Ensure the microphone is firmly attached to prevent accidental drops.
2. **Connecting the XLR Cable:** Connect a standard 3-pin XLR cable (not included) to the XLR output port located at the base of the microphone.
3. **Connecting to Audio Interface/Mixer:** Connect the other end of the XLR cable to an available XLR input on your audio interface, mixer, or preamplifier. Ensure phantom power is turned off if your interface

provides it, as the PR 40 is a dynamic microphone and does not require it.

4. **Positioning:** Position the microphone approximately 2-4 inches from the sound source (e.g., your mouth) for optimal sound capture. The cardioid pattern is most effective when the sound source is directly in front of the microphone.



Figure 1: Heil PR 40 Dynamic Microphone mounted on a stand.



Figure 2: Side view of the Heil PR 40, highlighting its design.

3. OPERATING INSTRUCTIONS

The Heil PR 40 is designed for straightforward operation, delivering excellent audio quality with minimal adjustments.

3.1. General Usage

- **Microphone Placement:** Maintain a consistent distance from the microphone for stable audio levels. Speaking directly into the front of the microphone (on-axis) will yield the best results due to its cardioid

polar pattern.

- **Gain Staging:** Adjust the gain on your audio interface or mixer to achieve an optimal input level. Aim for levels that are strong enough to be clear but avoid peaking (clipping) to prevent distortion.
- **Minimizing Plosives:** While the PR 40 has excellent internal pop filtering, using an external pop filter can further reduce harsh plosive sounds (P, B sounds) when speaking very close to the microphone.

3.2. Specific Applications

- **Podcasting:** The PR 40 excels at capturing the nuances of the human voice, providing a rich, broadcast-ready sound. Its ability to reject ambient noise makes it suitable for untreated rooms.
- **Streaming:** For live streams, the PR 40 ensures clear and consistent audio, enhancing the overall production quality. Its robust build is suitable for extended use.
- **Studio Voice and Live Sound:** Whether in a professional studio or a live performance setting, the PR 40 delivers accurate, wide-range sound reinforcement. Its design helps eliminate ambient noise and bleed from other instruments or vocalists.



Figure 3: The Heil PR 40 in a typical studio recording environment.

4. FEATURES

The Heil PR 40 incorporates several design elements to deliver its acclaimed performance:

- **Large Diaphragm Dynamic Element:** Provides a wide frequency response and excellent transient response, capturing detailed audio.
- **Cardioid Polar Pattern:** Focuses audio capture on the sound source directly in front of the microphone, minimizing pickup from the sides and rear.
- **Internal Pop Filter:** Reduces plosive sounds and breath noises for cleaner recordings.
- **Internal Shock Mount:** Minimizes handling noise and vibrations transmitted through the microphone stand.
- **Durable Construction:** Made from alloy steel, ensuring longevity and reliability in various environments.



Figure 4: Multiple views of the Heil PR 40, highlighting its design and build.

5. SPECIFICATIONS

Specification	Value
Audio Sensitivity	53.9 Decibels
Item Weight	13.5 Ounces
Impedance	600 Ohms
Microphone Form Factor	Handheld
Item Dimensions (L x W x H)	10.5 x 7 x 4 inches
Power Source	Corded Electric
Material	Alloy Steel
Signal-to-Noise Ratio	70 dB
Number of Channels	1
Frequency Response	18 KHz
Polar Pattern	Unidirectional (Cardioid)
Connectivity Technology	XLR
Included Components	Carrying Case, Microphone

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Heil PR 40 microphone:

- **Cleaning:** Gently wipe the microphone body with a soft, dry cloth to remove dust and fingerprints. Avoid using harsh chemicals or abrasive materials.
- **Storage:** When not in use, store the microphone in its included carrying case to protect it from dust, moisture, and physical damage.
- **Handling:** Always handle the microphone with care. Avoid dropping it or subjecting it to strong impacts,

as this can damage the internal components.

- **Cable Care:** Ensure XLR cables are connected and disconnected properly. Avoid bending or twisting cables excessively, which can lead to internal wire damage.

7. TROUBLESHOOTING

If you encounter issues with your Heil PR 40, consider the following common troubleshooting steps:

- **No Sound Output:**
 - Check all cable connections to ensure they are secure.
 - Verify that the input gain on your audio interface/mixer is set appropriately.
 - Ensure phantom power is **OFF**, as dynamic microphones do not require it and it can sometimes cause issues if accidentally engaged.
 - Test with a different XLR cable to rule out cable malfunction.
- **Poor Sound Quality (Distortion, Low Volume):**
 - Adjust the input gain on your audio interface/mixer. Too high gain can cause distortion, too low can result in a weak signal.
 - Check microphone placement. Ensure you are speaking directly into the front of the microphone at an appropriate distance (2-4 inches).
 - Ensure no other audio sources are interfering or causing feedback.
- **Excessive Background Noise:**
 - Confirm the microphone is positioned to utilize its cardioid pattern effectively, minimizing off-axis sounds.
 - Reduce ambient noise in your recording environment as much as possible.
 - Consider using a shock mount (if not already) to reduce vibrations.

8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Heil Sound website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims. Visit the [Heil Sound Store](#) for more products and information.

9. PRODUCT VIDEOS

9.1. PR 40 Product Overview

Your browser does not support the video tag.

This video provides a concise overview of the Heil PR 40 Dynamic Microphone, highlighting its main features and benefits.

9.2. Heil Sound Overview

Your browser does not support the video tag.

An overview of Heil Sound, the brand behind the PR 40 microphone, showcasing their commitment to quality audio products.

