AKG 3101H00430

AKG P420 Condenser Microphone User Manual

Brand: AKG | Model: P420

Introduction

The AKG Pro Audio P420 is a versatile and high-performance condenser microphone designed for project studio recording. It delivers exceptional sound quality with warm and transparent audio reproduction, suitable for capturing the nuances of various instruments like grand pianos, woodwind and brass instruments, drums, and percussion. Its multi-pattern capabilities, including cardioid, omnidirectional, and figure-8 polar patterns, offer flexibility for diverse recording techniques, including stereo miking and ambient recording. With high sensitivity and a maximum SPL of 155dB, the P420 is ideal for high-sound pressure level applications, ensuring clarity and precision in demanding environments. This manual provides essential information for setup, operation, and maintenance of your AKG P420 microphone.

What's in the Box

Upon unboxing your AKG P420, you should find the following components:

- 1x P420 microphone
- Spider shock mount
- Metal Carrying Case



The AKG P420 microphone and its accessories securely stored in the metal carrying case.

Setup

To set up your AKG P420 microphone, follow these steps:

1. **Mounting:** Attach the AKG P420 to the included spider shock mount. The shock mount helps to reduce unwanted vibrations and handling noise.

2. **Connection:** Connect the microphone to your audio interface or mixer using a balanced XLR cable. The P420 requires 48V phantom power, which must be supplied by your audio interface or mixer for the microphone to operate. Ensure phantom power is enabled on the input channel you are using.
3. **Positioning:** Position the microphone appropriately for your recording source. Consider the polar pattern selection (see Operating section) based on your recording environment and desired sound capture.





Front view of the AKG P420 condenser microphone.



Side view of the AKG P420 condenser microphone.





Back view of the AKG P420 condenser microphone.

Operating the AKG P420

The AKG P420 offers several features to optimize your recording experience:

Polar Patterns

The P420 features three selectable polar patterns, allowing you to adapt the microphone's pickup area to your specific needs:

- **Cardioid:** Picks up sound primarily from the front, rejecting sound from the sides and rear. Ideal for vocals and single instruments to minimize room reflections.
- **Omnidirectional:** Picks up sound equally from all directions. Suitable for capturing ambient room sound, group vocals, or instruments where a natural, open sound is desired.
- **Figure-8:** Picks up sound equally from the front and rear, rejecting sound from the sides. Excellent for recording two vocalists facing each other or for certain stereo miking techniques.





Close-up of the AKG P420 showing the polar pattern selection switch.

-20dB Pad

For extremely loud sound sources, engage the -20dB pad switch. This attenuates the input signal by 20 decibels, preventing distortion and ensuring a clean recording even with high SPL instruments like drums or loud guitar amplifiers.





Close-up of the AKG P420 showing the -20dB pad switch.

High-Pass Filter

The high-pass filter (also known as a low-cut filter) helps to reduce unwanted low-frequency rumble or proximity effect. Engaging this switch will roll off frequencies below 300Hz, which can be particularly useful in untreated rooms or when dealing with excessive bass buildup.



Close-up of the AKG P420 showing the high-pass filter switch.

Performance and Usage

The AKG P420 is engineered for versatile performance across a wide range of recording applications:

- **Vocals:** Delivers warm and transparent vocal reproduction, capturing subtle nuances with clarity.
- **Acoustic Instruments:** Excellent for acoustic guitars, pianos, strings, and woodwinds, providing a detailed and natural sound.
- **Drums & Percussion:** Capable of handling high SPLs, making it suitable for close-miking drums and percussion without distortion.
- **Ambient Recording:** The omnidirectional pattern is perfect for capturing the natural acoustics of a room or ensemble.

Maintenance

To ensure the longevity and optimal performance of your AKG P420 microphone, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to wipe down the microphone body. Avoid using liquid cleaners or solvents, as they may damage the finish or internal components.
- **Storage:** Always store the microphone in its provided metal carrying case when not in use. The sturdy metal construction of the microphone and case offers excellent protection against physical damage and environmental factors.
- **Handling:** Handle the microphone with care. Avoid dropping it or subjecting it to harsh impacts, as this can damage the sensitive internal diaphragm.



Proper storage in the metal carrying case protects your microphone.

Troubleshooting

If you encounter issues with your AKG P420, consider the following common troubleshooting steps:

- **No Sound:** Ensure 48V phantom power is enabled on your audio interface or mixer. Verify that the XLR cable is securely connected at both ends. Check your audio interface settings and computer's sound input.

- **Distorted Sound:** If recording a very loud source, engage the -20dB pad switch on the microphone to prevent input overload. Adjust the gain level on your audio interface to avoid clipping.
- **Muddy or Boomy Sound:** Engage the high-pass filter switch on the microphone to reduce unwanted low-frequency buildup. Experiment with microphone positioning to minimize proximity effect.
- **Excessive Room Noise:** Use the cardioid polar pattern to focus sound capture from the front and minimize pickup of ambient room noise. Consider acoustic treatment for your recording space if persistent issues occur.

Specifications

Feature	Detail
Brand	AKG
Model Name	P420
Item Model Number	3101H00430
Connectivity Technology	Wired
Connector Type	XLR
Polar Pattern	Multipattern (Cardioid, Omnidirectional, Figure-8)
Frequency Range	20 Hz - 20 kHz
Signal-to-Noise Ratio	79 dB
Item Weight	1.16 Pounds
Product Dimensions	9 x 5.5 x 9.8 inches
Material	Metal
Included Components	1x P420 microphone, Spider shock mount, Metal Carrying Case

Warranty & Support

The AKG P420 comes with standard manufacturer warranty. For specific warranty details, duration, and terms, please refer to the warranty card included in your product packaging or visit the official AKG website.
Additional protection plans may be available for purchase, offering extended coverage beyond the standard warranty. These plans typically cover accidental damage and extended mechanical/electrical failures.
For technical support, troubleshooting assistance, or warranty claims, please contact AKG customer service directly through their official support channels. Keep your purchase receipt and product serial number handy for faster service.

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