

# SHURE®

LEGENDARY  
PERFORMANCE™

PG ALTA™ SERIES  
WIRED MICROPHONE

# PGA27 USER GUIDE



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27A27347 (Rev. 3)



# PGA27

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## PG Alta Microphones

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Congratulations on the purchase of a new Shure PG Alta series microphone. The PG Alta series delivers professional quality audio at an affordable price, with solutions for capturing nearly any source, including voice, acoustic instruments, drums, and amplified electric instruments. Suitable for live and studio applications, PG Alta microphones are built to last, and meet the same rigorous quality testing standards that make all Shure products trustworthy and reliable.

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### General Rules for Use

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- Do not cover any part of the microphone grille with your hand, as this will adversely affect microphone performance.
- Aim the microphone toward the desired sound source (such as the talker, singer, or instrument) and away from unwanted sources.

- Place the microphone as close as practical to the desired sound source.
- Work close to the microphone for extra bass response.
- Use only one microphone to pick up a single sound source.
- For better gain before feedback, use fewer microphones.
- Keep the distance between microphones at least three times the distance from each microphone to its source ("three to one rule").
- Place microphones as far as possible from reflective surfaces.
- Add a windscreen when using the microphone outdoors.
- Avoid excessive handling to minimize pickup of mechanical noise and vibration.

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## Connecting to a Mixer or Computer

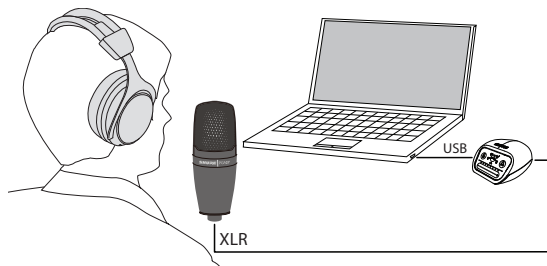
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### Cables

Use only balanced (three-conductor) cables. Otherwise, the cable will not carry phantom power to the microphone. If using an adapter for 6.5mm (1/4") inputs, it must have tip-ring-sleeve (TRS) contacts.

### Computer

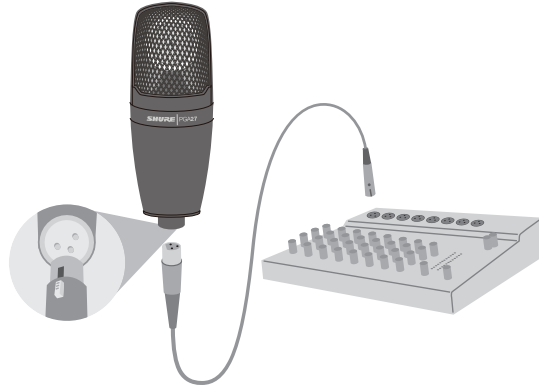
To deliver audio directly to a computer, use a USB audio interface with an XLR microphone input that provides +48V phantom power, such as the Shure MVi.



Connecting to a computer using the Shure MVi audio interface

## Mixer

When connecting to a mixer, use only balanced, microphone-level inputs with phantom power. Most mixers have a switch for phantom power, so make sure phantom power is on for that channel.



## Phantom Power

All condenser microphones require phantom power to operate. This microphone performs best with a 48 V DC supply (IEC-61938), but it can operate with lower voltages.

Phantom power is provided by the mixer or audio interface that the microphone is connected to, and requires the use of a **balanced** microphone cable: XLR-to-XLR or XLR-to-TRS. In most cases, there is a switch or button to activate the phantom power. See the user guide for the mixer or interface for additional information.

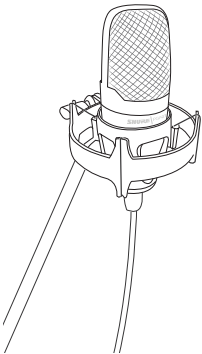
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## Operation

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### Positioning the Microphone

The front of the microphone is marked by the **SHURE** logo. Position this side toward the sound source.



### Mounting the Microphone

Use the supplied shockmount to mount the microphone. To secure the microphone, place it in the shockmount and tighten the ring at the bottom.



### Proximity Effect

Directional microphones progressively boost bass frequencies as the microphone is placed in closer proximity to the source. This phenomenon, known as proximity effect, can be used to create a warmer, more powerful sound.

## Setting Attenuation

The attenuation switch lets you reduce the signal level without altering the frequency response. This can prevent extremely loud sounds from overloading the microphone.

0dB For "quiet" to "normal" sound levels.

-15dB For use with extremely loud sound sources such as drums, horns, or loud guitar cabinets.

## Low-Frequency Response Switch

The low-frequency response switch changes the frequency response of the microphone.

### — Flat response (bypass)

This setting provides natural sound with no low-frequency reduction. Use the flat setting when recording sources that extend into the low-frequency range (piano, bass, percussion, etc.).

### ⎓ Low frequency cutoff

This setting provides a reduction in low frequencies to reduce noise or shape the tone. Use this setting to:

- Reduce floor rumble and low-frequency room noise from heating and air conditioning systems
- Decrease the volume of low frequencies that cause instruments to sound dull or muffled
- Shape the tone on sources which do not produce much bass (violin, acoustic guitar, flute, etc.)
- Reduce plosives (the pop that is heard when a vocalist says a word starting with the letter P). If possible, use a pop filter alone or in combination with the low-frequency reduction setting.

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## Applications

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The following table provides a basic starting point for several instruments. Shure offers additional educational publications on microphone placement and recording techniques. Visit [www.shure.com](http://www.shure.com) for more information.

Application	Distance from source	Tips
Voice	1-3 inches (2-8 cm)	Use a pop filter (Shure PS-6) to prevent plosives.
Acoustic guitar	6-12 inches (15-30 cm)	Place near the sound hole for a full sound, or near the 12th fret for a balanced, natural sound.
Drums	3-6 feet (1-2 m)	Place in front of the drum kit to capture more of the kick drum, or as an overhead (above the kit, facing down) to capture more cymbals. Consider using additional Shure microphones placed on individual drums for more mixing flexibility and a thicker sound.
Amplifiers	1-6 inches (2-15 cm)	Aim towards the center of the speaker for a clear, aggressive sound, or towards the edge of the speaker for a mellow sound.
Strings or horns	1-6 feet (30 cm - 2 m)	For a single instrument, place the microphone close to the source. For a horn or string section, arrange players at an equal distance from the microphone.
Full band	Facing towards the group, centered between instruments	Use the -15 db attenuation switch if the band is very loud to prevent distortion.

**Tip:** Close microphone placement results in a full sound due to the proximity effect. Placing the microphone farther from the source results in more room ambience.

## Optional Accessories and Replacement Parts

7.6 m (25 ft.) Cable (XLR-XLR)	C25J
5/8" to 3/8" Thread Adapter	31A1856
Microphone Stand Adapter	95A15045
ShureLock® Rubber Isolated Shock Mount	A27SM
Popper Stopper® Pop Filter with Metal Gooseneck and Microphone Stand Clamp	PS-6
Black Foam Windscreen for BETA 27, KSM27, KSM32, KSM42, KSM44, KSM44A, PG27, PG42 and SM27	A32WS

## Specifications

### Type

Electret Condenser

### Polar Pattern

Cardioid

### Frequency Response

20 to 20,000 Hz

### Output Impedance

at 1 kHz, open circuit voltage

115  $\Omega$ , actual

### Sensitivity

at 1 kHz, open circuit voltage

-35 dBV/Pa [1] (17.8 mV)

### Maximum SPL

1 kHz at 1% THD, 1 k $\Omega$  load

130 dB SPL Pad Off (145 dB SPL Pad On)

### Polarity

Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3

### Switch

15 dB Pad, High Pass Filter

### Connector

Three-pin professional audio (XLR), male

### Weight

453 g (1.0 lbs)

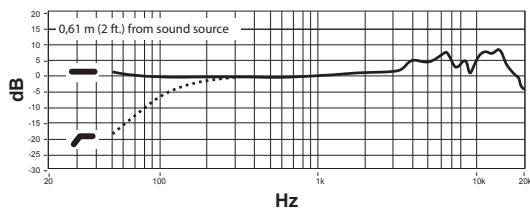
### Housing

Cast Zinc

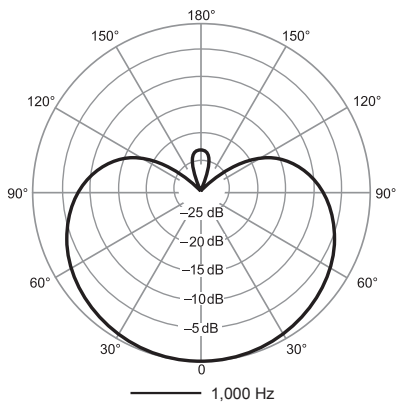
### Power Requirements

48 V DC phantom power (3.9 mA)

[1] 1 Pa=94 dB SPL



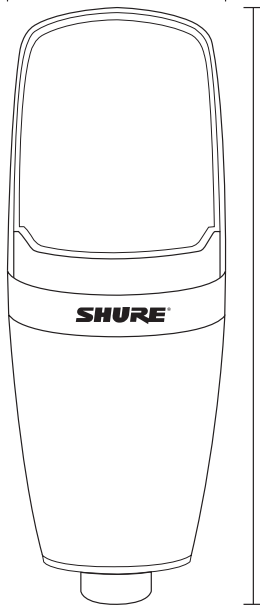
Typical Frequency Response



Typical Polar Pattern



55.9 mm diameter (2.2 in.)



152.8 mm (6.02 in.)

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