

**SHURE**<sup>®</sup>

LEGENDARY  
PERFORMANCE™

PG ALTA™ SERIES  
WIRED MICROPHONE

# PGA181 USER GUIDE



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27A27346 (Rev. 3)





# PGA181

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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.

- 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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## 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.

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## Connecting to a Mixer or Computer

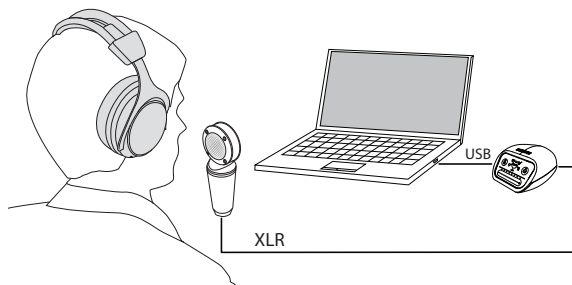
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### Cables

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

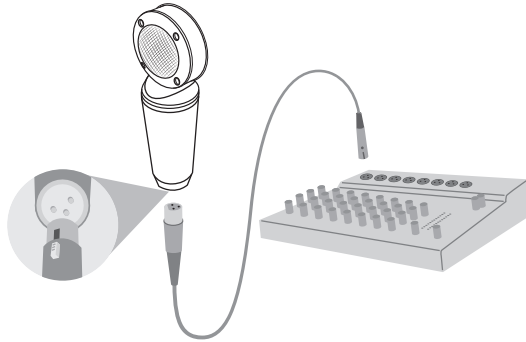
To deliver audio directly to a computer, use a USB audio interface with an XLR microphone input that provides +48V phantom power, such as the Shure MVi.



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.

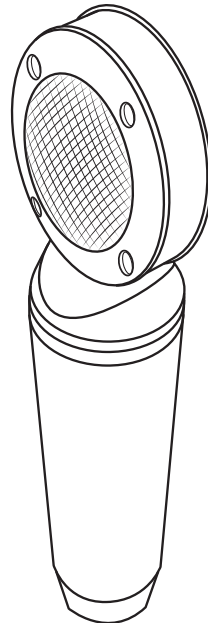
Phantom power is provided by the mixer or audio interface that the microphone is connected to, and requires the use of a **balanced** microphone cable: XLR-to-XLR or XLR-to-TRS. In most cases, there is a switch or button to activate the phantom power. See the user guide for the mixer or interface for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

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## Positioning the Microphone

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The front of the microphone is marked by several indicators: four screws around the grille, the cardioid logo, and the PGA181 model number. Position this side toward the sound source.



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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	3-10 feet (1-3 m)	Face the microphone towards the group, centered between instruments.

**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.

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## Optional Accessories and Replacement Parts

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7.6 m (25 ft.) Cable (XLR-XLR)	C25J
5/8" to 3/8" Thread Adapter	31A1856
4.6 m (15 ft.) Cable (XLR-XLR)	95D2153
Wireless Microphone Clip	WA371
Popper Stopper® Pop Filter with Metal Gooseneck and Microphone Stand Clamp	PS-6
Foam Windscreen for all larger Shure "ball-type" Microphones available in black, blue, gray, green, red and yellow	A58WS

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# Specifications

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## Type

Electret Condenser

## Polar Pattern

Cardioid

## Frequency Response

50 to 20,000 Hz

## Output Impedance

at 1 kHz, open circuit voltage

120  $\Omega$ , actual

## Sensitivity

at 1 kHz, open circuit voltage

-38 dBV/Pa [1] (12.7 mV)

## Maximum SPL

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

138 dB SPL

## Polarity

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

## Connector

Three-pin professional audio (XLR), male

## Weight

383 g (0.8 lbs)

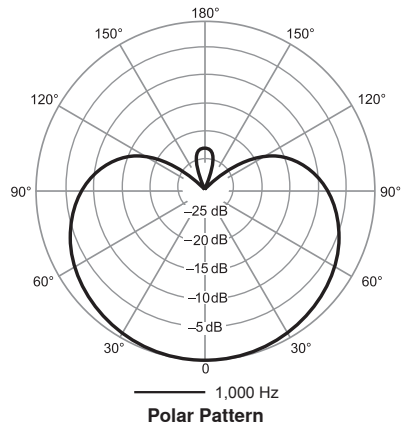
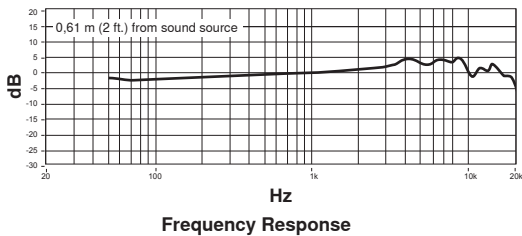
## Housing

Cast Zinc

## Power Requirements

48 V DC phantom power (4 mA)

[1] 1 Pa=94 dB SPL



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# Certifications

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This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

The CE Declaration of Conformity can be obtained from: [www.shure.com/europe/compliance](http://www.shure.com/europe/compliance)

Authorized European representative:

Shure Europe GmbH

Headquarters Europe, Middle East & Africa

Department: EMEA Approval

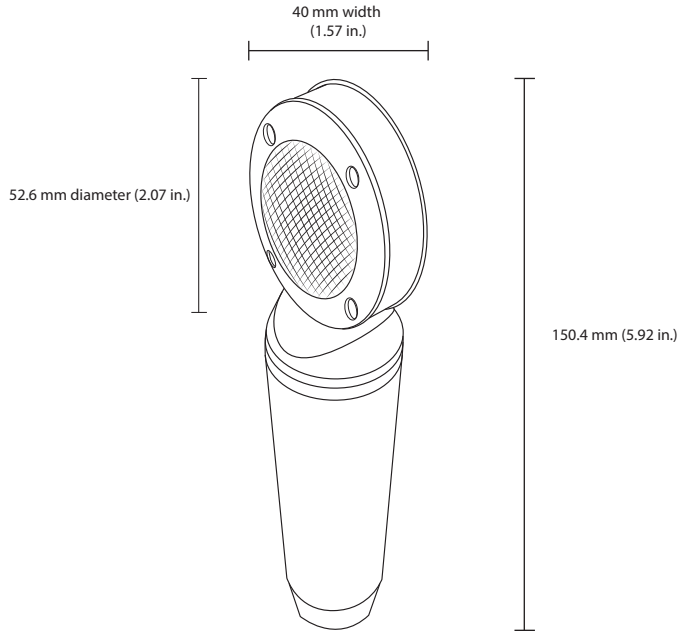
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