



Public Address Equipment Buying Guide



Amplifying a voice in order to be heard is a common need in schools. Public address systems, or PA systems, ensure all those in attendance in large areas like gymnasiums or stadiums can hear what is being said. For schools, having a portable PA system allows for greater flexibility as they can be easily set up and taken down wherever needed. Each system is equipped with an amplifier, speakers and microphones. Many have the option to sync to a smart device for music or presentations. Other common applications of PA systems include large classrooms, auditoriums and outdoor events. The system use, audience size and space will help determine the need for wireless microphone capabilities and the speaker wattage.

PA System Terminology

Wattage	A measure of power; speakers list the maximum number of watts they're equipped to handle.	AC power (alternating current)	System powered via a wall outlet.	VHF (very high frequency)	A wireless range found in many user-friendly PA systems when used in areas with clear lines of sight; typical frequency range is 180-280 MHz.
Decibels (dB)	A unit of sound measurement; for every 10dB increase the noise is twice as loud.	DC power (direct current)	System powered by batteries.	Amplifier	An electronic device that magnifies sound and is measured in watts.
SPL (sound pressure level)	Speaker sensitivity; the more sensitive a speaker is the less power it will need from the amplifier.	Audio Inputs	Accepted signals from external equipment like microphones, MP3 players and CD players.	XLR	A cable with three pins and a circular design; commonly referred to as a microphone cable.
Amplifier (amp)	Outputs power and passes it to speakers to process.	Audio Outputs	A device that receives and reproduces sound like speakers and headphones.	Amp-Hours (AH)	The number of hours a battery will last before recharging.

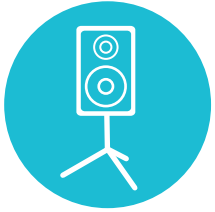
School Outfitters Tips



It is always better to work with a PA System that can carry a larger audience size, since you can always turn the volume up or down to meet your needs.



The higher the watts, the harder a power amp can drive a speaker.



Portable systems are ideal if intended to be used in multiple locations.



Battery powered is preferred for outdoor use when a power source is potentially unavailable.

Types



Full-Size PA System

When audiences reach 300 individuals and more, a full-size PA system will ensure the amplified voice is heard. An amplifier, a mixer and a speaker are combined into a single unit. Many full-size PA systems are expandable.

[Shop Full-Size PA Systems](#)



Personal PA System

For audiences under 300 individuals a more compact, personal PA system can be used that contains a speaker and microphone. Large classrooms, gymnasiums and cafeterias are common locations where a personal PA system is used to prevent strained voices and ensure everyone can hear the speaker.

[Shop Personal PA Systems](#)



Megaphone

Megaphones are an easy way to amplify sound. Also referred to as bullhorns or “speaking trumpets,” a megaphone channels sound waves into one direction and increases the volume. The projection distance will help determine the power of a megaphone, which is measured in wattages. The higher the wattage the further away the sound will carry. Additional features work to increase the projection distance such as built-in microphones and sirens.

[Shop Megaphones](#)



Horn Speaker System

A horn speaker system has nearly three times the amplification power of a cone speaker. They are commonly used in large auditoriums, theaters and sports stadiums due to the clarity of sound regardless of volume.

[**Shop Horn Speaker Systems**](#)



Wireless Microphone

A wireless microphone allows a speaker to move about freely. Without wires cabling problems are eliminated, as are tripping hazards.

[**Shop Wireless Microphone PA Systems**](#)



Wired Microphone

PA systems with a wired microphone are easy to use and reliable. They require no battery maintenance or frequency calibration and are simple to set up.

[**Shop Wired Microphone PA Systems**](#)