

ListenPoint® Speaker Placement Tech Note

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Placement of speakers within a room is crucial to provide good audio coverage. It is important that all listening areas of the room have sufficient and equal audio coverage. The following note will cover key points that need be considered before installing your ListenPoint Speakers.

Thing to consider:

- Type of speaker
- Location/Coverage

Type of Speaker

Two types of speakers are available with the ListenPoint product:

Ceiling Speaker – Ceiling speakers are designed to be installed in rooms when space above in the ceiling is available (approximately 12-14 inches). The speakers direct audio downwards onto the needed coverage areas. If the required ceiling space isn't available, then a wall mounted speaker is the best option (see below). Listen offers a 6 in. and 6 in. plenum ceiling speakers.



Wall Mount Speaker – Wall (or surface) mount speakers are designed to be installed in rooms where there is little space above the ceiling or ceiling structure doesn't permit for installation. The speakers direct audio outward from the walls towards the needed coverage areas.



Location/Coverage

Location/Coverage of speakers is based on the type of speaker. Follow the type of speaker that you have determined to best fit your room.

Ceiling Speaker – Ceiling speakers have a conical dispersion angle. This information is important during room design for proper speaker placement.

Because speakers may be different, here is a general rule of thumb to follow during your speaker placement survey:

Ceiling Height = Distance Between Speakers

This rule generally will give a room equal audio dispersion. Placing the speakers closer together may make some areas louder than others while placing the speakers further apart will cause "dead" areas.

As an example, if you have an 8 ft. ceiling, generally the space between ceiling speakers should be no more than 8 ft. apart. This allows for proper room coverage and assurance that all seating areas will have similar audio levels.

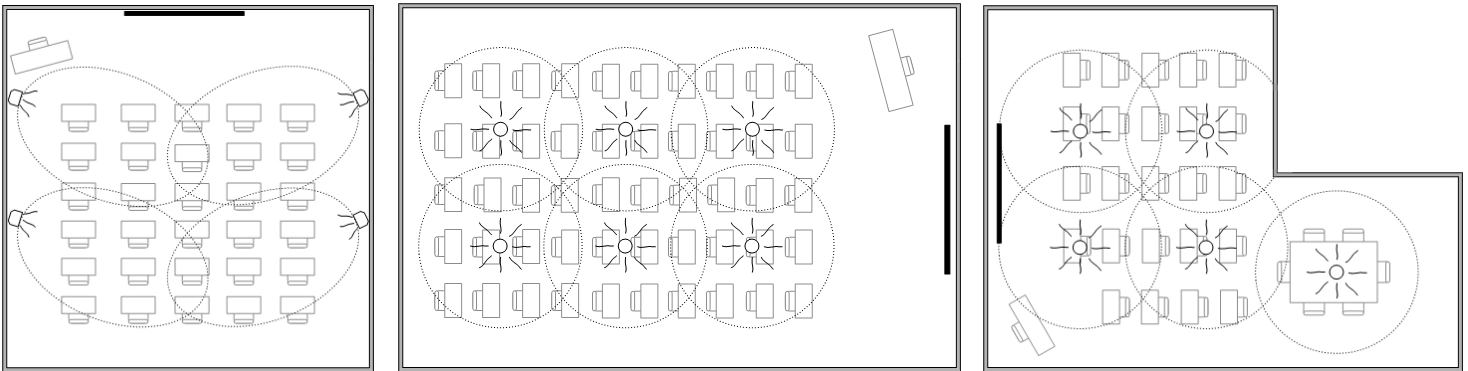
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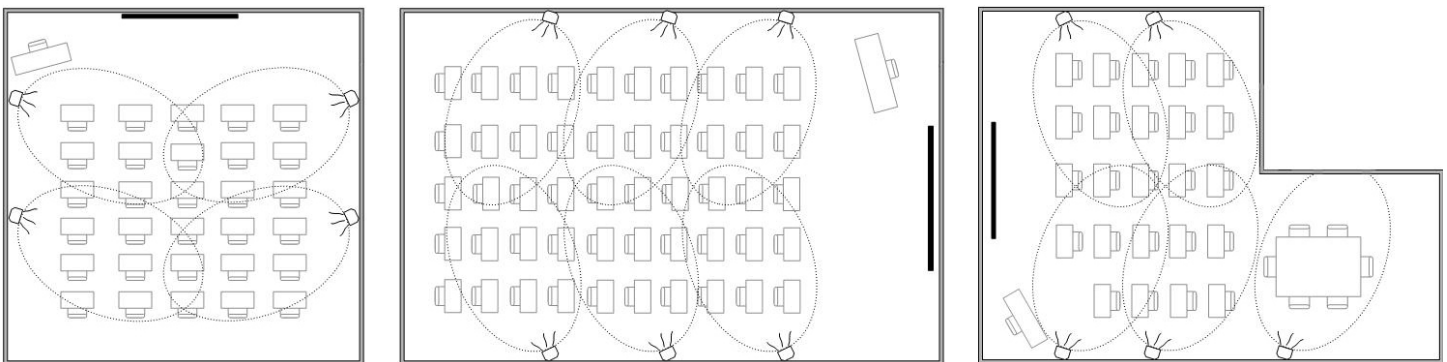
The greatest challenges with any calculated formula of speaker placement are obstructions. There could be potential barriers that hinder putting the speaker in the ceiling at an optimal coverage placement point or obstructed the cable run between the speaker and the RM. Either of these scenarios will force a speaker placement change. Keep in mind that goal of overhead speaker distribution is to have equal coverage throughout the room. If there are barriers, place the speakers in a nearest option.

Below are some diagrams showing the placement of ceiling speakers:



Wall Mount Speaker – Much like a ceiling speaker, a wall mount speaker has a horizontal and vertical dispersion rating. These should be followed when preparing the room for speaker placement. Wall speakers can be installed at the head of room and/or sides or back. In large applications, the delay between a front and back of room speaker could be an issue, but in small rooms, such as a classroom, there should be little delay in the room. As a best practice, the speakers should be aimed at the ear of the room participants and spaced approximately 8-10 ft. apart.

Below are some diagrams showing the positions of wall speakers:



Once you have finalized the placement of your speaker, please refer back to the Installation Guide to finish the install.

The above information covered are things to consider that Listen believes will make your ListenPoint system a quick, user/installer friendly and professional install. Please note that these are just suggestions that cover a basic room install and might not be useful for your room. For more information about your install please call Listen Support @ 1.800.330.0891 or support@listentech.com.