Subject: Easy way to stop an echo in a large room?
Posted by Lost the Remote on Tue, 21 Nov 2017 14:26:29 GMT
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We're rehearsing for Christmas programs already. The building used to be a community center, but it's not been in use regularly for years due to lack of funding. Some of the kids are complaining about the echo because it makes it harder to hear themselves sing, play their instruments, or listen to the music. The building is made of concrete and tile. The room itself is large and empty. Do you believe just adding chairs and some Christmas decorations will help with the echo issue?

Subject: Re: Easy way to stop an echo in a large room?
Posted by Wayne Parham on Tue, 21 Nov 2017 15:08:02 GMT
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Add lots of absorbent material and furniture. Carpeting, pads on the walls, anything that can absorb and damp the sound.

The most effective position for dampers is a few feet from the walls. So a thick sheet hanging in front of a wall is better than the same sheet attached to the wall.

Subject: Re: Easy way to stop an echo in a large room?
Posted by Lost the Remote on Sun, 26 Nov 2017 22:56:33 GMT
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Thanks for replying, Wayne, you gave me a lot to work with and the improvements have helped. I didn't realize that dampeners weren't meant to go right on the wall, but that makes sense. So far, I've added furniture and a large rug that covers a great deal of the room which has helped. I'll add the dampeners next. I just need to find a way to make it all look cute. Guess I'd better head to Pinterest.

Subject: Re: Easy way to stop an echo in a large room?
Posted by EasyE on Thu, 01 Mar 2018 17:29:41 GMT
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Wayne Parham wrote on Tue, 21 November 2017 09:08
Add lots of absorbent material and furniture. Carpeting, pads on the walls, anything that can absorb and damp the sound.

The most effective position for dampers is a few feet from the walls. So a thick sheet hanging in front of a wall is better than the same sheet attached to the wall.

Out of curiosity, why does that extra few feet between the wall and the sheet make a difference? Would the sheets need to cover the entire height of the wall?

Subject: Re: Easy way to stop an echo in a large room?
Posted by Wayne Parham on Thu, 01 Mar 2018 17:52:17 GMT
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greatest, so that's where you want to place the absorber.

wavefront expansion. So while high-frequencies have shorter wavelengths, you can still trap them at distant odd-multiples. Lower frequencies, on the other hand have longer wavelengths so their

So if you want to damp sound down into the vocal range, your best absorbers are either very thick or spaced away from the walls or both.

Subject: Re: Easy way to stop an echo in a large room?
Posted by Jazzy on Sat, 28 Jul 2018 02:22:18 GMT
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Are there instruments that produce more echo than others? I'm boggled by the frequency explanation and I'm wondering whether a Bass has a lower chance to echo that much compared to a violin.

Subject: Re: Easy way to stop an echo in a large room?
Posted by Wayne Parham on Sat, 28 Jul 2018 13:42:54 GMT
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Echo is caused by the environment, not the source. That said, the amount of reflection can certainly be different at higher frequencies than at lower frequencies, and usually is. It's easy to absorb higher frequencies than low, so it's not uncommon to have problems at bass frequencies even when the room is pretty tame at midrange frequencies upwards.

Large rooms are easier to deal with than small rooms, by the way.

Subject: Re: Easy way to stop an echo in a large room?
Posted by Jazzy on Sun, 05 Aug 2018 14:48:30 GMT
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Wayne Parham wrote on Sat, 28 July 2018 08:42Large rooms are easier to deal with than small rooms, by the way.

If I understand correctly, large rooms will make the frequencies travel longer hence their energy won't be that much already they reach the walls.

What about concerts in open areas, is the echo setting from the equalizer needed?

Subject: Re: Easy way to stop an echo in a large room?
Posted by Wayne Parham on Sun, 05 Aug 2018 15:49:05 GMT
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There is no echo in an open area outdoors. That is, of course, unless you're near a large rock cliff or something like that.

Subject: Re: Easy way to stop an echo in a large room?
Posted by drake on Sun, 16 Sep 2018 17:19:39 GMT
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Wayne Parham wrote on Sat, 28 July 2018 13:42
Large rooms are easier to deal with than small rooms, by the way.

I had no idea that this was the case as the assumption has always been that the smaller the room, then the less the distance sound has to travel in order to produce an echo. I will probably have to research more on this.

Subject: Re: Easy way to stop an echo in a large room?
Posted by Malfoy on Wed, 26 Sep 2018 12:02:24 GMT
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Drake, I think Wayne is talking specifically about the echo problem.

There were times when the person adjusting the amplifier will ramp up the echo so much so that the sound of the person speaking is like an annoyance to the audience. How do we control the echo in the amplifiers?