Subject: How do Speakers Age?
Posted by Iceage on Thu, 13 Feb 2014 10:02:21 GMT
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The title pretty well describes my question, but to clarify. When speakers get older, how to they wear? What parts tend to wear out and how would it affect the performance that they give?

Subject: Re: How do Speakers Age?
Posted by Wayne Parham on Fri, 14 Feb 2014 16:29:04 GMT
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Unless a speaker is overdriven, the voice coil will last forever. The suspension moves, and so it can change properties over time, depending on what it's made from. But most of the time, the suspension is fine for decades.

There are a few common problems to watch out for:

Foam surrounds tend to rot, and this process is worse if exposed to sunlight. The foam breaks down from ultraviolet light, so it lasts longer in a dark room than it would in a rear window of a car, for example. But even in a dark room, the foam will rot eventually.

Speakers with heavy cones and loose suspensions tend to sag over time, especially if mounted facing up or down, where gravity will move them off-center. This isn't a good mounting method for speakers like that anyway, so try to avoid that.

Speakers exposed to excessively dry environments will tend to become brittle over time. The paper dries out and becomes easy to tear. Too humid an environment can be a problem too, but paper cones do like some humidity so it's better to be a little more humid than a little less. This doesn't usually become a problem for a long time, but I see it in a lot of very old stereos and things like old tube radios that were stored in an attic for years. The paper becomes so dry it nearly "shatters" when it is played.

Subject: Re: How do Speakers Age?
Posted by Iceage on Wed, 19 Feb 2014 13:51:08 GMT
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If this has become a problem, is there any way that they can be repaired? Can the cone be replaced (or possibly even upgrade from the original if it wasn't the best quality)?

Subject: Re: How do Speakers Age?

Posted by Wayne Parham on Wed, 19 Feb 2014 16:03:47 GMT
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Some speakers have recone kits available, yes. Even for those that don't, some parts can usually be replaced like voice coil covers and surrounds.

Subject: Re: How do Speakers Age?
Posted by Iceage on Thu, 20 Feb 2014 10:43:43 GMT
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Is this kind of repair manageable by an enthusiastic DIYer, or is it best left to an expert in a well stocked workshop? If attempted, and done wrong, could it later be repaired?