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Subject: Question on mid-horns

Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 03:20:13 GMT

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When listening to my Heresy 1's, I sometimes hear what I can best describe as a "break-up" on some complex music and pushed vocals. This is in the mid-horns mid to upper range. I haven't been able to determine if this is the horn, the recordings, or something else. Any thoughts on this? Is this typical of horns? Perhaps I need better equipment up front? I'm using a nice running Scott LK-48-B integrated tube amp from 1964 to power them. It's not a big problem most times, but sometimes it's irritating. Dave :^/

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Subject: Re: Question on mid-horns

Posted by [Wayne Parham](#) on Tue, 16 Dec 2003 03:55:16 GMT

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Hi Dave!The description you give makes me think of the sound of a compression horn that is pushed past its limits. They get rough when overpowered or used at too low frequency.Of course, the source signal can do this too. When the amp clips, the sound that results is similar. And I've heard it on some 60's and 70's recordings. A great example is "Dear Diary" from the Moody Blues album, "Threshold of a Dream." You'll hear this sound on the best system in the world. Ironically, it sounds better on a mediocre system.The engineer must have overdriven the panel or tape when he mixed down the master, because it isn't present on the greatest hits album, "This is the Moody Blues." I notice that the effects vocal is reduced on this song and on the poem "In the Beginning," also originally from "Threshold of a Dream." So I guess the mix-down engineer caught it second time around.Wayne

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Subject: Re: Question on mid-horns

Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 04:23:55 GMT

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Hi Wayne,I don't think I'm overdriving the Heresy's, as most of my listening is in the upper 70's to lower 80's dB range. The distotion I am hearing is on a lot of recordings. Is it possible that the horns may have been damaged from misuse by the previous owner? Do compression drivers wear out when used hard?Dave

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Subject: Re: Question on mid-horns

Posted by [Wayne Parham](#) on Tue, 16 Dec 2003 04:48:45 GMT

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Maybe you're on to something. All machines have a life-span, and all can be damaged. Loudspeakers are constantly moving when in use, and some parts are prone to wear out after time. The surround will eventually fatigue from steady use, even if the device is never used beyond its operating limits. So you might want to check them to see if they have been damaged or fatigued.

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Subject: Re: Question on mid-horns  
Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 06:15:54 GMT  
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Wayne, Any ideas on how to tell if they are damaged from examining them? The reason I suspect they had a hard life is I bought them at a yard sale from a collage student who said they belonged to her boyfriend (only \$5.00!). They look awful, like maybe they were the official frat party speakers for the last 20 years or so. Thanks for the help. Dave

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Subject: Re: Question on mid-horns  
Posted by [Wayne Parham](#) on Tue, 16 Dec 2003 06:53:26 GMT  
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You might want to confirm that it isn't the amplifier or crossover before concentrating on the compression driver. Use a known-good amp and crossover so you can be sure that isn't the cause. Once you've isolated the trouble to the driver, you can repair it. But it would be nice if you found out your problem was just a \$5.00 capacitor. So I'd make sure it wasn't something else first, and then once I was sure the problem was the midrange horn, I'd remove the midrange horn, open it up and inspect the diaphragm. If the surround is cracked, you'll be able to see it. If you're uncomfortable taking the compression driver apart, perhaps take it to a repair shop for inspection.

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Subject: Re: mid-horns - maybe try a test cd?  
Posted by [wunhuanglo](#) on Tue, 16 Dec 2003 12:15:52 GMT  
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I'm thinking if you can "sweep" the speakers it will reveal mechanical damage to the drivers because it will tend to be resonant. At least that's what I'd try first.

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Subject: Re: Question on mid-horns  
Posted by [HenryW](#) on Tue, 16 Dec 2003 14:26:05 GMT  
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Dave - I cannot speak to heart of your problem than to say that I do not have such a consistent problem with my Heresy. Over the years they have been pushed in all sorts of directions and over 15 sources have been used. I did experience something that sounds like your issue with the tweets on my older Heresy and after much wrangling found that my CD deck was the culprit. Without researching diligently, when the problem first happened it was only apparent on the 80 Heresy, not on the 87 HII. As it progress the HII started to have the same symptoms. Not much help on specifics...

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Subject: Re: Question on mid-horns  
Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 15:36:14 GMT  
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>You might want to confirm that it isn't the amplifier or crossover before concentrating on the compression driver. Use a known-good amp and crossover so you can be sure that isn't the cause. Once you've isolated the trouble to the driver, you can repair it. But it would be nice if you found out your problem was just a \$5.00 capacitor. So I'd make sure it wasn't something else first, and then once I was sure the problem was the midrange horn, I'd remove the midrange horn, open it up and inspect the diaphragm. If the surround is cracked, you'll be able to see it. If you're uncomfortable taking the compression driver apart, perhaps take it to a repair shop for inspection.

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Subject: Re:mid-horns - maybe try a test cd?  
Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 15:38:16 GMT  
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Good idea. I have Stereophile's test disc 1 and 2. One of them has a frequency sweep, if I recall correctly. Dave

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Subject: Re: Question on mid-horns  
Posted by [hurdy\\_gurdyman](#) on Tue, 16 Dec 2003 15:42:33 GMT  
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Thanks, Henry. I am suspecting that my CD player may need upgrading. I have a Philips CD-921 which may be showing it's age more now that I have a more revealing speaker. I may try stealing

the DVD player from the TV and try it and see if the problem remains.Dave

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Subject: Right idea

Posted by [HenryW](#) on Tue, 16 Dec 2003 19:35:59 GMT

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good luck

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Subject: Re: Question on mid-horns

Posted by [hurdy\\_gurdyman](#) on Sat, 20 Dec 2003 06:41:19 GMT

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Got it! I took the drivers of the mid horns today. I had one apart a couple of days ago, but had to disassemble while the horn was still in the box because the threads were frozen, so it wasn't a complete disassembly. I managed to get them both off today (thought I'd have a hernia there for a while). Anyway, there was some black crystals, like ground chacoal, behind the dust screen. I blew out the magnet gap and all around the diaphragm and phase plug. Noise is now gone! Must have been the old foreign material in the voice coil/diaphragm problem! I put the mid-horn hook-up's back on the high setting on the autoformer, as I think it sounds better there. Another thing. Remember, the T-35's on the older Heresy's were mounted on the back of the baffle board. Last month, I managed to front mount them. This raised the efficiency of them compared to the rear mounting. So, today I replaced the 2 uF caps with 1.5 uF GE poly caps. These are caps about twice as big physically then the originals. This raised the crossover a bit and helped make a more balanced output while not lowering the highest treble levels. Everthing sounds much better now. These speakers really rock now!Dave :^)

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