Subject: JBL 2226H question: is this right?
Posted by haanjamin on Fri, 23 Dec 2011 20:50:55 GMT
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I bought all the components for the 4 Pi speakers and am in the middle of constructing the cabinets. I just received used 2226H from an Ebay auction stating they were tested and in great condition. I hooked them up to my subwoofer amp to check the operation in free air.

Giving it around 20 watts with music, when the bass hits it sounds like serious port chuffing or bottoming out when the cone seems to be moving like 3mm. I then put it in the cabinet (with the horn and tweeter also installed) and got the same thing. Using REW signal generator, I get a lot of distortion from 40-80 hz with only like 50 watts. At the higher frequencies, it takes less power to make the distortion start than the lower frequencies. Both of the woofers do the same thing. I haven't installed the insulation yet but I don't think that should make that huge of a difference.

So I look up a speaker repair place and take them over to get tested. He took the woofers to back in the shop and said he gave them a couple hundred watts and they are fine.

This is my first time dealing with pro audio woofers but things just don't seem right to me. I haven't received the crossover yet so I haven't heard what the whole speaker will sound like yet.

Can anyone offer insight into this or offer a different test I should do?

Sorry for the rambling but I would appreciate it if someone could help me.
Thanks in advance

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Sat, 24 Dec 2011 00:34:46 GMT
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No, that's not right. They are barely loafing at 20 watts, that's less than 5% power and distortion is less than 1% at this power level from 100-500Hz. It is higher at lower frequencies, but still too low to be noticeable. At 40Hz, it's still in the single digits at 60 watts, so you can't hear it. That's as good as it gets for a midwoofer.

I'm thinking your speakers were probably reconed with cheap parts. This isn't uncommon for used JBL speakers. If they're reconed with genuine OEM parts, they're every bit as good as the originals. But there are some cheap Chinese recone kits that are just terrible. They look the same, but definitely don't sound or measure the same. Sorry about that, but I'd say either send 'em back to the place you got them or send them to a recone shop that you trust to use genuine JBL recone kits.

Subject: Pics pls!
Posted by spkrman57 on Sat, 24 Dec 2011 02:24:14 GMT
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Please take pics of the backs and fronts of these 2226H's.

I think something funny is going on here.

I live in Columbus, Ohio and could test these drivers if you are within driving distance.

I have used JBL 2226H and J models (8 ohms and 16 ohm), there should be no sound issues from these drivers if they are working correctly!

If you would like to discuss this over the phone, send me a msg with your phone nr and time to call.

If the cores are correct for 2226, then a recone might be worth the cost depending on how much you like these drivers.

Regards, Ron

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Sat, 24 Dec 2011 03:03:53 GMT
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Thanks for the replies. There are pictures on the auction here:
http://www.ebay.com/itm/110793221413?ssPageName=STRK:MEWNX:IT&_trksid=p3984.m1497.l2649

If you want pictures of anything else in specific or more detail, please let me know.

The repair guy I went to was saying $205 for each recone.

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Sat, 24 Dec 2011 04:05:01 GMT
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Those drivers look good, but that doesn't mean much. Some of the aftermarket parts look damn close, too close to tell from pictures. It also could be they've just been rode hard and the coil is rubbing in the gap.

If you are close to Ron in Ohio, take him up on his offer. If not, call David Miller at Speakerworks: 800-526-8879

David is an authorized JBL technician, so he can get the real parts. You can't get them over-the-counter, so lots of people and small shops get the junk parts and put them in. It's hard to know who to trust, but I've done business with David for decades and can vouch for his work.

I haven't needed to do a recone in a while so I'm not sure of his prices but I don't think they're quite as high as you were quoted. I know they weren't last time I had recones done.

I'd offer to measure them for you but if you can get them to me, you can get them to David. He's setup to do the work if they need it, so you might as well go straight to him.

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Sat, 24 Dec 2011 04:32:56 GMT
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Ron - Tried PM'ing you but got an error stating you weren't accepting private messages. I live in Grand Rapids, Michigan so semi close to you.

The woofers look good and moving the cones in and out by hand doesn't have a feeling of rubbing coils.

Problem is, I want to have these up and running for a New Years party. With UPS and Fedex observing Christmas on the 26th, I don't think there will be a way to make that happen without some hefty expediting fees and pushing Ron onto my tight schedule. Maybe I will try my local repair guy again and make sure he tests it in a way to hear what I'm hearing.

I really appreciate the help Wayne and Ron!

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Sat, 24 Dec 2011 17:38:18 GMT
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Did some more free air testing and both woofers start distorting at 23 volts at all frequencies I tested from 20-200HZ. So I have about 1/10th the power handling as I should have. Since they distort at the same power input, would that be a sign of a knockoff recone job? I can't tell if the wire coming through the cone is flat or circular cross section because of too much black glue covering it.

One of them also has a rattle that starts at 6 volts that seems to go away when I block the cooling ports.

Recones should be able to fix all this, correct?

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Sat, 24 Dec 2011 23:01:52 GMT
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You can see a chart of what the distortion curve looks like at that level (23v = 60w) on the spec sheet:
JBL 2226The distortion curves shown are accurate, although pay attention that they are raised 20dB. If your speaker doesn't measure pretty much the same (within a few decibels), then something is wrong.

The JBL 2226 is an excellent driver, one of my all-time favorites. So don't leave 'em in that state, and don't settle for a shoddy recone job. Get the recones done right - by a genuine factory technician - and you will have speakers that are 100% as good as new.

Subject: Re: JBL 2226H question: is this right?
Posted by spkrman57 on Sun, 25 Dec 2011 22:28:58 GMT
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haanjamin wrote on Fri, 23 December 2011 22:32on - Tried PM'ing you but got an error stating you weren't accepting private messages. I live in Grand Rapids, Michigan so semi close to you.

I really appreciate the help Wayne and Ron!

I think I have corrected the PM issue and have sent you a PM with my contact data. Since you state you are wanting to use these for a end of year party, I have a pair of JBL 2225H's if you need something that bad quickly.

Tomorrow is my only day I have to help you on this since I have plans the rest of the week!

Call me tomorrow morning if you can....

Regards, Ron

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Mon, 26 Dec 2011 15:44:06 GMT
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Yep, turns out I was a dumbass. I was getting everything setup to test and call Ron and eyeballed my MiniDSP. I had recently taken my bumpbox out of the signal chain to see if my receiver could output a high enough signal to fully drive my EP4000 and never reinstalled it. I had also maxed out the subwoofer trim level when I did that. My MiniDSP was clipping the signal. I took it out of the signal chain and all is well.

While I feel like the world's biggest idiot, I'm happy it now works as it should. And now I can't wait to get the crossovers and see how the fullrange sound is!

Thanks again Ron and Wayne for your willingness to help out!

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Mon, 26 Dec 2011 17:00:23 GMT
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haanjamin wrote on Mon, 26 December 2011 09:44I had recently taken my bumpbox out of the signal chain to see if my receiver could output a high enough signal to fully drive my EP4000 and never reinstalled it. I had also maxed out the subwoofer trim level when I did that. My MiniDSP was clipping the signal. I took it out of the signal chain and all is well.
Oh, wow, yeah - clipping - that'll do it!

Super glad that's all it was! Easy fix!

So now, when you get your speakers all put together, you should enjoy excellent sound!

What are you running for subs?

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Mon, 26 Dec 2011 18:02:40 GMT
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I have 4 sealed MFW 15s and 4 sealed Rockford Fosgate 10s for my theater. The 2 THTs I previously used are sitting in storage but they will be what I use for the New Years party. Is it still looking like Weds or Thurs when I will receive the crossovers?

Thanks

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Mon, 26 Dec 2011 19:50:37 GMT
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That's good. Run a couple subs flanking, and my experience is they are generally best run out of phase with the fours. Just the opposite for threes, but that's a different story. Then run the other subs further away, nearer the opposite wall.
Room modes, multisubs and flanking subs

High-Fidelity Uniform-Directivity LoudspeakersAbout your crossover order, you should have received tracking information by email. If you did not, contact me privately and I'll send you the tracking number.

Subject: Re: JBL 2226H question: is this right?
Posted by haanjamin on Wed, 28 Dec 2011 22:25:54 GMT
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Got the crossovers today and these things sound great and are LOUD! How long (if any) are the compression drivers supposed to break in for? Also, how much longer (if any) should I let the crossover silicone cure for without the drivers installed?

Thanks!

Subject: Re: JBL 2226H question: is this right?
Posted by Wayne Parham on Wed, 28 Dec 2011 22:47:58 GMT
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Compression drivers need no break-in. Some people feel they change over time, and I suppose that may be true, but the traditional suspension break-in isn't really an issue because excursion is so small.

Your silicon may be fully cured by now. It has been over a week. I usually like to see them cure for ten days to two weeks but that's being cautious.

The best way to know when the silicon has cured enough is by smell. If you can smell the silicon, then it is still out-gassing. Wait to install everything until the silicon has no smell.