

Bryston Product Of The Year

Audio Video International Magazine has awarded Bryston their Hi-Fi Grand Prix Award for three of our current products.

In the Product of the Year category the award went to both the 4B-ST Power Amplifier and our B-60 Integrated Amplifier.

Our new 9B-ST 5-channel Power Amplifier acquired a Special Recognition award.

The Hi-Fi Grand Prix competition winners are determined by the votes of 38,000 audio retailers throughout the United States, with confirming review by a Grand Prix committee of leading audio critics and writers. Launched in 1989 the Grand Prix Award honors those products which in the past year have introduced true advances in the industry and outstanding value for the consumer. The criteria for selecting the best products are based on product quality and sales performance, not merchandising or advertising



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Woof, Woof - Foow, Foow.

For many years now I have been playing around with attempting to integrate a subwoofer into my audio system. With the increase in multi-channel sound systems for movies and audio soundtracks it is becoming an even more popular requirement.

I have attempted all the recommendations out there. The corner(s) of the room behind the speakers, the corner(s) near the listening position, next to the listening position, between the speakers against the speaker wall, 1/3rd the distance along the front wall, one subwoofer verse two, one sub in the corner one sub out in the room etc.

The theory goes like this. You have a specific room size and the room boundaries (ceiling, floor and walls) cause dips and peaks in the low frequency response based on the dimensions of that particular room. The thing to remember though is that the major room modes are only excited if the subwoofer is placed in one of the corners. The reason is that every room mode is excited if the sub is placed in the corner and also these modes are at their highest amplitude (volume) because of the corner loading. Corner loading provides a 9dB boost due to the 3 surfaces (floor and 2 walls) interacting with the speaker driver. If you placed the woofer anywhere else in the room the dips and peaks are shifted in frequency and volume level relative to their position in the room and the 6 boundaries.

So this shifting around of frequency and level is why

we audiophiles spend hours and hours attempting to find the perfect position for the subwoofer. The goal here is to find that spot(s) in the room where you achieve the lowest and flattest frequency response attainable. The difficult part is not only finding that perfect spot but also integrating that perfect spot with the main speakers.

Believe me, I have tried it all and I think I have come up with a good solution to make this integration a little easier. My solution is, rather than spending days and weeks moving the woofer around the room or simply placing it in the theoretical best position, put the woofer in the listening location. Yes, move the couch and put the woofer in its' place. The concept here is that the listening location and the woofer location are acoustically reversed images of each other. Then utilize a spectrum analyzer (preferably a 1/3 octave version but an octave version will work) and pink-noise generator and walk around the room with the microphone and find the place in the room where the frequency response in the lowest octaves (20Hz to 120Hz) is the flattest. Do not worry about level at this point only the flattest low frequency response. It is easier to do this if you turn off all the other speakers in the system and only measure the output from the subwoofer. When you find that spot (spots if you have 2 subs) then simply place the subwoofer in the appropriate location and you're up and running.

If you do not have access to a spectrum analyzer then

programs.

They are:

Fidelity of signal reproduction.

Design engineering.

Reliability.

Craftsmanship & product integrity.

Value for price relationship.

The 4B-ST, B-60 and 9B-ST amplifiers are featured in a special 60 page Grand Prix section in the November 98 issue of Audio Video International.



you can use a CD with test tones (20,30,40,50,60,70,80Hz etc.) and a sound level meter and simply test each tone in sequence until you find a spot where most of the tones read at equal volume levels on the sound meter. This is obviously more tedious but it can be done.

I have found this set-up procedure works well in most rooms and it sure saves a lot of time and frustration. At least you know out-of-the-gate that the low frequency response is as flat as possible given your particular room. Then you simply adjust the level of the sub to match your remaining loudspeakers.

Just so you know, in my 2-channel sound room at home the position of the subwoofers ended up being along both side walls about 1/4 of the distance down the wall.

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