



In The Doghouse

by Chris Fitzgerald

Acoustification: The Hybrid Sound

There are many differences between amplifying a double bass and a bass guitar, and all too often, the focus is on the gear used, rather than on the bigger issue at hand. Of course, many bass guitar amplifiers do not make optimal double bass amplifiers, and vice versa (for a number of reasons), and at a certain point, these differences are well worth weighing and considering. But before that point is reached, the fundamental difference between amplifying the two instruments is this: for a double bassist, the acoustic sound the instrument produces before it's amplified is of paramount importance, because it will almost always be a portion of the overall sound the audience eventually hears; for a bass guitarist, the moment an amplifier is turned on, the "acoustic" sound of the instrument is imperceptible to the listener, who can hear only the amplified signal.

Double bassists often talk about the Holy Grail of amplified sound as being "the sound of my bass, only louder." While this is a wonderful (and wonderfully pithy) ideal which we will all likely continue to pursue until the end of our bass-playing days, perhaps the real question we should be asking ourselves is, "How does my amplified sound compliment my acoustic sound, and since I have chosen to amplify, how can I manage the blend the acoustic and amplified signals to best advantage?" To answer this question, I'll pose a few more related questions and attempt to shed some light on how I approach such issues these days:

"What is the function of each part of the blended sound? Whom do I want it to reach, and to what degree?"

This is one of the most fundamental questions, and considering it is an extremely important component of understanding how to use amplification. It has been said that a strong, vibrant acoustic sound is the most important aspect of a good amplified sound, since without it, we are only amplifying a weak, thin sound – and the outcome of that is quickly obvious, if the matter is given even a little thought. Most importantly, whom do you want your acoustic sound

to reach most directly? My answer is: first and foremost, I want it to reach the other musicians on stage. As an acoustic musician, I react to all nuances of acoustic sound from the other players. By applying the golden rule, I can but hope that they will be trying to react to the nuances of my acoustic sound, as well. For this reason, I try to position my amplifier in a way that allows the other musicians to feel the impact of the acoustic sound first, and to have the amplified sound act as sort of an appendage to it. When this scenario works, the musicians are creating the music in the most pure and natural possible way, then letting the amplification do the heavy lifting of getting the result out to the audience.

"How does the setup of players on stage affect the overall result?"

This is a huge question, and obviously, since every stage and venue is different, there is no one clear answer that will fit every situation. However, the one rule I try to always follow in every venue to maximize the degree to which the other musicians will hear my acoustic sound is the most obvious one of all: assemble the ensemble of musicians in the closest proximity possible. In other words, be as close to the other players as you can. In this way, you have the greatest chance of hearing their acoustic sound directly, and they have the greatest chance of hearing yours.

"But doesn't that tight proximity of instruments increase the risk of feedback?"

The short answer is "yes and no." Yes, because having the instruments that close makes it more likely that the sound from the other instruments will cause vibrations in the body of the bass, which can be picked up by the pickup system. If you have a pickup that is prone to feedback – especially low-frequency feedback – this can be an issue. In these cases, a high-pass filter can be invaluable to minimize this effect. On the positive side, having the instruments in close proximity tends to allow the players to hear each other acoustically in a direct sense, which allows most players to play at a softer level and with more dynamic range rather than playing primarily off of the reflected amplified sound coming back from the room.

One other aspect to consider relates to the other louder instruments that put out strong bass frequencies. The most common of these are amplified guitar and low drums, like the kick and floor toms. Proximity to these sound sources invites the kind of sound waves that disrupt the frequency range the double bass normally occupies. Having your bass top, or even the back of the bass, too close to, or at the wrong angle in relation to, these sound sources can make your sound seem to lose all definition. Angling or positioning your bass away from the direct line of these sources is always something to be aware of when setting up. As with the signal from your own amp, when possible, try not to let the bass top “see” the front bass drum head or the bottom of a close floor tom.

“Where should the bass amplifier be positioned in a tight setup?”

Here’s where things get tricky. In my opinion, the bass amp should be positioned in a way that allows the band to hear the acoustic sound on the front of the note, and let the amp serve as a fortification of that sound. In addition, to avoid feedback, the best placement of the amp is one in which the top of the bass (and by extension, the pickup) is “unable to see” (not in a direct line with) the amplified signal.

In my experience, the two best ways to accomplish this are to either have the amp sitting beside the player, so that the amplified sound begins projecting from slightly in front of the bass (in which case the direct signal from the amp is not driving directly into the top), or to have the amp elevated high enough so that the amplified signal goes over the body of the bass; I used to have a pole-mounted amp system that worked wonderfully in this regard. These days, I use a combo amp with six small speakers aligned so that four of them are directed forward (I position the front of the amp slightly more forward than the body of the bass) and two are pointing directly up, so that I can hear a portion of the signal directly, but the bass top cannot.

Even if you do not have access to either one of these options, spend some time experimenting in general with the position of your amp in relation to the other instruments, with an ear toward how the amplified signal blends with the acoustic signal. Realize that you want to hear as much of the acoustic signal as possible, since this allows you to play most naturally, but that the audience is going to hear a lot more amplified sound in the blended mix. And of course, the louder you get, the less of that all-important acoustic sound will make it out to the audience. This is true whether you are using FOH support, or not.

“How important is keeping the stage volume at a reasonable level?”

For amplifying a double bass, reasonable stage volume is critical. Use as little amplification as you can get away with. In some situations – extremely large or noisy rooms come to mind – more stage volume is a necessary requirement. But in general, when in doubt, use too little at first and see if the other musicians can/will adjust. If you need more, you can always add more, but starting at too high a level only invites the other musicians (especially drummers) to immediately conceive of the performance as a “loud amplified performance,” and the louder it gets, the more at a disadvantage the double bassist becomes. After a certain volume point, it’s easy to get the feeling that you might as well be playing a bass guitar, so try to keep the threshold as far below that point as circumstances allow.

In the end, most of us enjoy the acoustic sound of our instrument, first and foremost. I’ve found the concepts listed above useful in trying to maintain as much of that pure sound as possible while dealing with the necessary evils of amplification. No matter what happens, keep looking for ways to preserve it as much as circumstances allow, and you’ll be making the best of a very imperfect situation. When all is said and done, this is often the very best compromise we can make, but well worth the effort, every single time. **BGM**



The advertisement features a red and white Sonic Farm 2Di4 DI box. The box is rectangular with a carrying handle on top. It has several knobs and switches on the front panel, including a large volume knob and a smaller knob labeled 'DIRECT'. The text 'Sonic Farm 2Di4' is printed on the front and side of the box. Above the box, the text '2Di4 by Sonic Farm' is written in a stylized font, with a speaker icon to the right. Below the box, there are several quotes from industry professionals and the website address 'www.sonicfarm.com'.

2Di4 by Sonic Farm

The new standard in DI boxes!

“If you are looking for the ultimate DI, I would start, and likely end, my search right here.”
- Tom Lees, Bass Gear Magazine

“...the 2Di4 really is “to die for””
-Paul Vnuk, Recording Magazine

“...it has been very impressive. A winner!”
-Joe Chiccarelli, Engineer/Producer

Only direct from our website. Check out this DI and our line of preamps at:
www.sonicfarm.com