Feedback Eliminators

By Pete Stephens

To use or not to use, that is the question. I will not go into the description of how they work - there is enough information around to cover that. But I will start by stating that they will not solve the problems of poor microphone choice, bad EQ settings or wrong speaker choice / positioning.

FBE's are a tool and like any tool used incorrectly will cause more problems than they fix. The algorithms, whilst being very sophisticated these days still have a great difficulty in sorting out feed back and sustained musical notes. Inserted on a lectern mic, they will give you an edge on voice clarity and perhaps even 10 db more of usable gain. However the minute you play any music, recorded or live, the FBE will "see" any sustained notes as feed back and it will notch out those frequencies, leaving the potential for the mic to start to sound very hollow or empty.

Let me tell you a story of how I learnt the hard way. When the Behringer Shark was first released to the public they sold for about $500 each. I bought 5 at the time to insert across my foldback sends, thinking at last, feedback on the foldback a thing of the past. After about the third song the first time I used them the foldback was useless, thin, reedy, and no use to anyone. I spent the rest of the night resetting the #### things after every song, the feedback was worse with them than without them. I went back to a 1/3 graphic and a compressor on each foldback send and haven't looked back since. So an expensive exercise on my part, and within a few months their price had dropped to less than $200 each. Ouch. I gave two away, I use two for digital delays in my surround rig and the fifth one died some time ago.

So do I still use FBE's? Yes I do. I have two Sabine units I bought off Scott Hassett. If I run a lectern then one is inserted across it and locked, so that any music can't affect it. If I am in concert mode, then one is inserted across the lead vocals and the other across the backing vocals, and after every song or so I reset them. There is no point in locking off a few filters and leaving some to float as most vocalists I work with move around a fair bit and so the feedback will vary from point to point on the stage.

Feedback eliminators are an invaluable tool in the rig but only a tool, You still have to set up the PA correctly, you still have to select the right mic for the right task, and you still have to EQ the channel first, and then EQ the rig. Then and only then do you set up the FBE's.