

A Lifetime of Music

MEMO: To All Bryston Customers

SUBJECT: SP-3 - No Room Correction



April 24th, 2012

Hi Folks,

I have been asked a few times why there is no digital room correction on the Bryston SP-3 Processor.



The problem I see with Digital room correction through 'EQ' is that it totally screws up the direct sound vs. the reflected sound coming from the speaker.

When you listen to a speaker in a room you are listening to what we call the 'power response' and you hear all the direct sound as well as the reflected sound mixed together. So the listening experience is a combination of all the direct and reflected sound waves in a given room with a given speaker. When you alter the 'direct sound' at the speaker using 'EQ' it totally changes the relationship between the direct and reflected sound and is a disaster when it comes to 'time smear'. So the speaker designer has spent years attempting to get flat frequency and phase response from his speaker and we come along and force the speaker to do anything but accurate signal transfer. Also if you are going to use 'EQ' try and only 'reduce' the 'peaks' in the

room and not 'amplify' the troughs. Amplifying the troughs can play havoc with your speaker drivers power handling.

A lot of these newer types of 'EQ' products try and average a group of curves taken from many different locations in the room as they are attempting to reduce the negative effects of the single listening chair dilemma. Having a single spot in the room which measures flat but everywhere else in the room measures like crap is not a good result in my opinion. I think you are much better off adjusting the speaker location and using proper room treatments. If all else fails maybe some 'EQ' can be used but I would recommend keeping the correction only for the very low bass frequencies and stay away from upper bass, mids and higher frequency 'EQ' where room affects are not an issue due to the shorter wavelengths involved. I am hopeful that we will see many more Subwoofers with built in room 'EQ' which would be the better solution in my opinion if you are forced to use room correction.

Also 'Room Correction' much like 'Video' is changing quickly and I wanted the SP-3 to be a long-term purchase for our customers so adding specific dedicated boxes as the current technologies develop to the SP-3 made more sense to me going forward rather than obsolete some questionable feature in the SP-3.

Hope this helps.

James Tanner
Bryston

