

## DELIVERING A MIX WITH CLARITY

by Aston Fearon

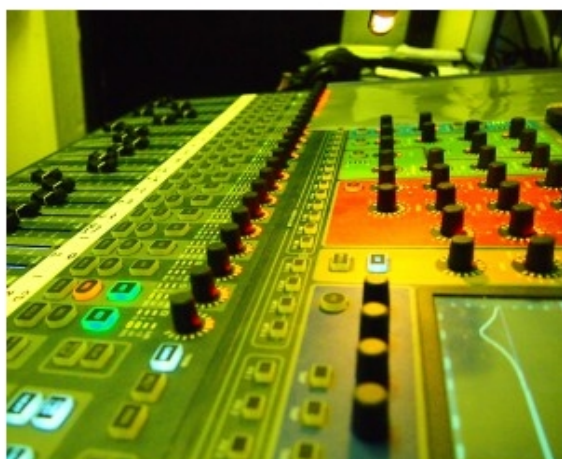
One of the keys to a good mix is to create one that is clear, where every instrument feels like it's where it should be and everything sounds well balanced- with nothing muddy damaging it.

### System EQ

Using EQ over the whole system is important in most cases- in order to reduce the affect that the room that we're mixing in has on the mix. If we are having to make major processing adjustments to every channel, it could be that we could do with looking at at our system EQ. 'Standing waves' and reflective surfaces will all affect the mix that comes out of the PA so we can pull these out of the system in order not to 'excite' the room too much.

### Signal Level & Gain Structure

We need to make sure we are getting a good signal for each instrument at the preamp stage- signals which are free from noise and undistorted. Our faders need to be at appropriate levels- taking into consideration the unity gain point and blanking appropriately from there. Another thing to watch out for is that if signals pass through any plugins they maintain their level- we need to adjust our input or (most commonly) output gain accordingly.



### Gates

The use of gates is one of the things that can greatly maintain clarity for the drum sound, the vocals and possibly the whole mix. This is especially true of small stages or situations where the drummer hits his drums quite hard. For a standard drum kit, not gating the drums means that 5 (or more) mics which will be open all of the time- and all of these mics are picking up 'spill' from the loudest instrument on the stage! It's always worth checking back on the gates at the start of the set to make sure they are still opening and closing as we want them to- as the drummer may play louder than he did during the sound check.

### Bandwidth of instruments

Knowing where each instrument naturally fits in the frequency spectrum is good understanding to have because it helps to fit the instruments in the mix tonally- knowing where they overlap, but also making sure each instrument has enough space to stand out independently of the others. The most important instrument is usually always the vocals and it's hard to argue against this. The vocals are obviously what will be delivering the words and the message of the song and so the frequency range where the human voice lies must be protected from other instruments dominating that area at the cost of hearing the vocals.

### Filtering

Similarly, By filtering our channels with High Pass Filters or Low Pass Filters accordingly; we can get rid of any unwanted noise below or above the frequency range of each instrument- so that only what we actually want to *hear* will go to the PA.

Paying attention to these things will have a cumulative effect, both on how easy it is to mix and ride the faders for the set; and also achieving the end result of a mix which has definition and clarity.



Aston Fearon is an experienced sound engineer- specialising in mixing Front of House and System Teching - and has worked with a number of venues, PA hire and event production companies in the UK.

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