

Triggering Wix | tomih

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Recently I commented on some online forums regarding my various electronic set-ups after some very good questions were posed regarding how to approach electronic and hybrid drum configurations. I found it relatively difficult to accurately convey exactly how my signal path worked and why so I thought a comprehensive look at how I have done it might benefit those who are new to this area of percussion.

A bit of background info

This set-up is for an 80s cover band I play with called [Styne's Legends](#). My aim was to capture the exact or a very close likeness to the sounds from our set list. This meant purchasing some specialised sounds in particular the iconic Simmons drum sounds as well as the stadium rock sounds of Bon Jovi, Billy Idol et al. My set-up evolved from using triggers and [SPD S](#) to pads, [SPD SX](#), [TM 2](#) and acoustic cymbals. I have my own in-ear monitoring which I control on my left.

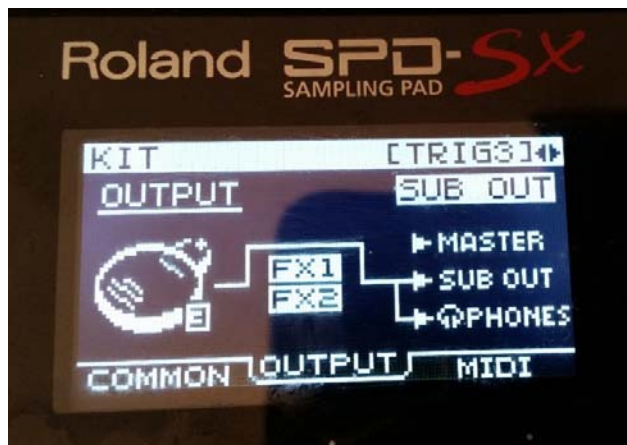
I have tried to give the Front of House (FOH) engineer as much control whilst mixing my drums without overloading the channels. I send the following on separate lines: Kick, Snare, Cymbals, Toms/Fx, Backing Track. I receive a mix of the band which I mix into my send for in-ear monitoring.

Kick and Snare

All of my kick and snare samples are loaded onto the SPD SX and routed to the Sub Outs. Kick on left and Snare on right channels which are panned hard left and right for complete separation.



The triggers for Kick and Snare are then assigned in the Kit menu of the SPD SX to Sub Out.



Sub Outs on rear panel of SPD SX.
Kick and Snare output from here.

From here the cables go to the DI (Direct Injection) rack module. The DI box routes to the mixing desk for monitoring and the FOH signal is sent via the LINK output.



LINK output on DI goes to Kick input on FOH desk.

Output of SPD SX Sub to Input of DI

So, we now have a path mapped out for the Kick and Snare. The Toms come from the Roland TM 2 via the Left Out and all samples are panned hard Left. We don't use a stereo mix so it seemed pointless to use a Right and Left out here. This plus a Left Main Out from the SPD SX (Fx, Rim Clicks, Samples) go into the DI but do not get channelled via a Link Out. I take a Left Main Output from the desk for these sounds which then go to FOH. The cymbals are acoustic and are mic'ed as 2 Overheads, Ride Cymbal, and Hi Hats. I grouped these as and routed them to the Sub Out on the mixer. This gives a little more control of the mix in FOH.



In Ear Monitoring

I use the Aux 1 Send on the mixer for monitoring. This Mono signal is routed first to one side of the Stereo EQ for sweetening and then to the Head Phone Amp.



Aux 1 Monitor Send strip



Rack mount EQ, DI, and Headphone Amp. All Behringer.



Top view of Behringer 16 in mixing desk. Using all but one channel. Stereo channels are Left in only as we do not have a FOH stereo mix.

A Few Quick Tips

Label everything! I started with just the channels being labelled which was pretty obvious. I then labelled and cable-tied my cables which makes it so easy for set up. You are then never in doubt as to where anything has to be plugged into.

Be aware of signal path and in particular the gain structure to your in-ears. I was finding that I didn't have enough level on the individual monitor sends. I did an overhaul and realised

that my master send volume was too low and sounds were distorting. By turning the Headphone Amp up a couple of notches and also setting the master send at 12 o'clock (half way) I was able to wind back the individual channel sends so I was left with plenty of headroom.

Read your manuals. Really understand how each piece of gear works and how to access menus to quickly fix any problems. Check for updates. The TM 2 has an upgrade that needs to be done when you get it. Also know the exact specs of the sounds that can be loaded. The SPD SX is relatively forgiving. The TM 2 is very specific: WAV 16 bit 44.1 kHz samples. I had an SPD S for many years but found that I needed an easier machine to load samples to and the Flash Card could only hold around 500 depending on size. The SX also had better routing capabilities. However, I did prefer the easy access Fx on the SPD S.

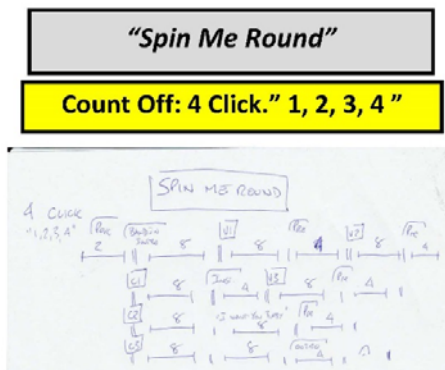
Invest in good, high-end in-ear monitors. I am using [Shure SE535s](#) at the moment but have just ordered a pair of custom moulded [Alclair Tour Triple Driver in-ears](#). Hearing your drums and the band as clearly as possible is going to make you play better.

Backing Tracks and Click

This is going to differ a lot from person to person. I know a lot of drummers using Ableton Live for this. You can run the backing and sync the click directly from the SPD SX too. My band uses backing mp3 tracks for Keyboard and some percussion and Fx. Most are bought from an online company www.karaoke-version.com.au which specialises in customisable backing tracks. The click is panned Right and all tracks Left and we select which tracks stay and which are muted. This is then downloaded and I master it on a DAW ([Reaper](#)) to bring the level up and add some "grunt" to the track. These are played from a Netbook through the WinAmp mp3 player. I chose this as it has a no repeat function unlike iTunes. Stereo

cable from Headphones out goes to 2 separate DI inputs. The Keys channel is routed to FOH from the Link output. (Update) Since writing this article I have stopped using the Netbook and transferred all Backing Tracks/Clicks as .wav files to the SPD SX and trigger them from the top right pad.

Because of using click track for 95% of songs I use a Samsung Tablet with an app called [Mobile Sheets](#) for set lists. I have a template which has Song Name, Count In info, and a guide if needed for the song. I am explicit in the count in information as song backing tracks have a different number of clicks before the song starts. Here's an example:



Sounds and Samples

I don't use any of the on-board sounds from the SPD SX or TM2. They're great sounds but not for an 80s cover band. I hunted high and low for Simmons samples trying the free downloads first. There are some good sites for these but in the end I preferred buying my sounds from Online Sample Library sites. Here is a list of the ones I have used:

1. <http://www.thelooploft.com/>
2. <http://samplesfrommars.com/>
3. <http://www.zenhiser.com/80s-retro-drummer.html>
4. <http://nashvillesamplingco.com/>
5. <https://www.iwantthatsound.com/product/1985-drums/>
6. <http://www.samplephonics.com/>

I have also used samples from my [Kontakt](#) libraries and [Toontrack EZDrummer](#).

In order to recreate as close a sound as possible to the original song I will often layer kicks and snares to get it close. You can layer in the Roland products but it chews up polyphony so I prefer doing it in a DAW then rendering to 16 bit 44.1 kHz WAV. Beware. A lot of the sample libraries are in 24 bit WAV which is incompatible with the TM 2 and SPD SX. The way around this is to download a [Batch Converter](#) and set the output to WAV 16 bit 44.1 kHz. In the case of very specific sounds like *Tainted Love* and *Original Sin* I sampled directly from the CD and cut up the samples in a DAW. This is only possible if those songs have exposed parts of the drums with NO other instruments.

Gear List

Roland Pads: BT 1 bar trigger, PDX-100 (snare), 2 x PDX-8 (toms), PDX-6 (tom), PD-8 (tom), KD-8 (kick)

Roland SPD SX, Roland TM-2

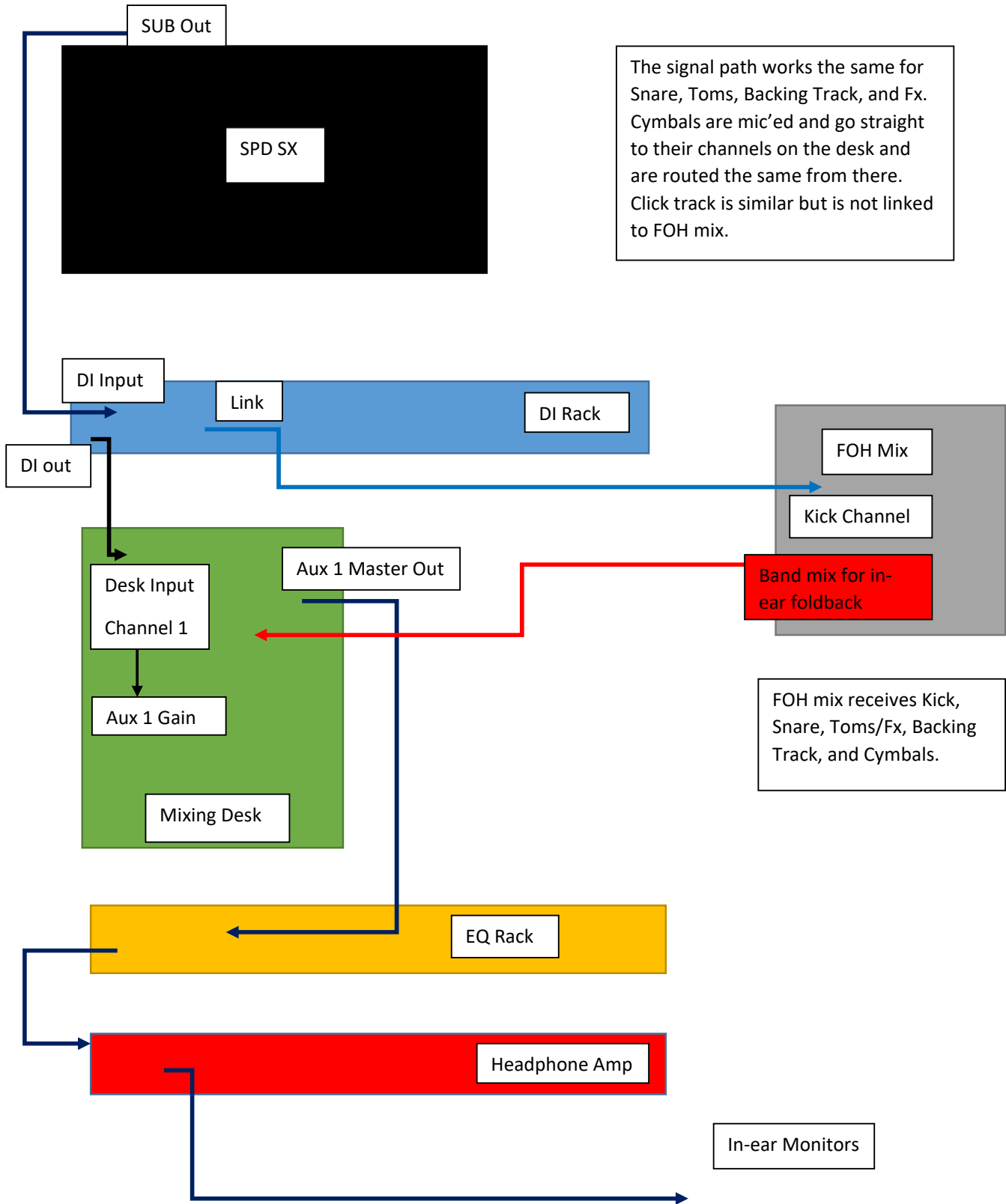
Rack Case: Behringer Xenyx 2222 16 channel mixing desk, Behringer Ultra DI Pro 8 in, Behringer Powerplay Pro-XL 4 channel headphone amplifier, Behringer Ultragraph Pro FBQ 1502 Stereo Graphic Equaliser, Asus Netbook for mp3 backing tracks, Samsung 10.1 Tablet for guide charts and click information.

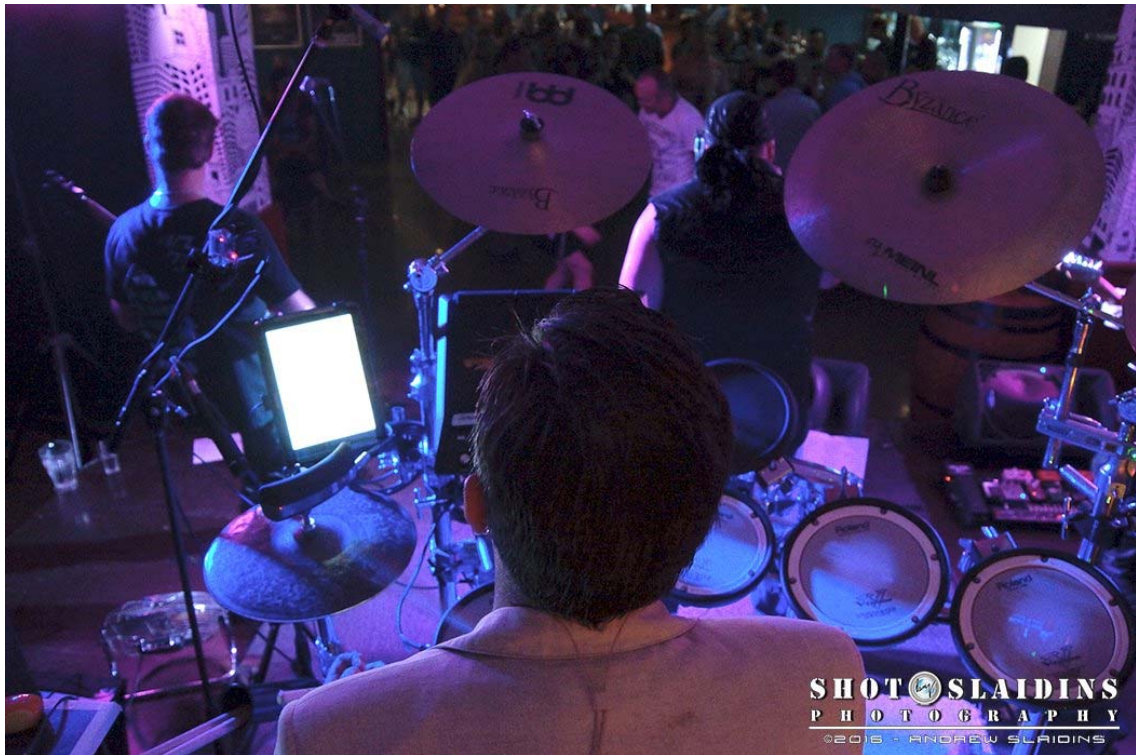
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Flow Chart For Kick Signal Path





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