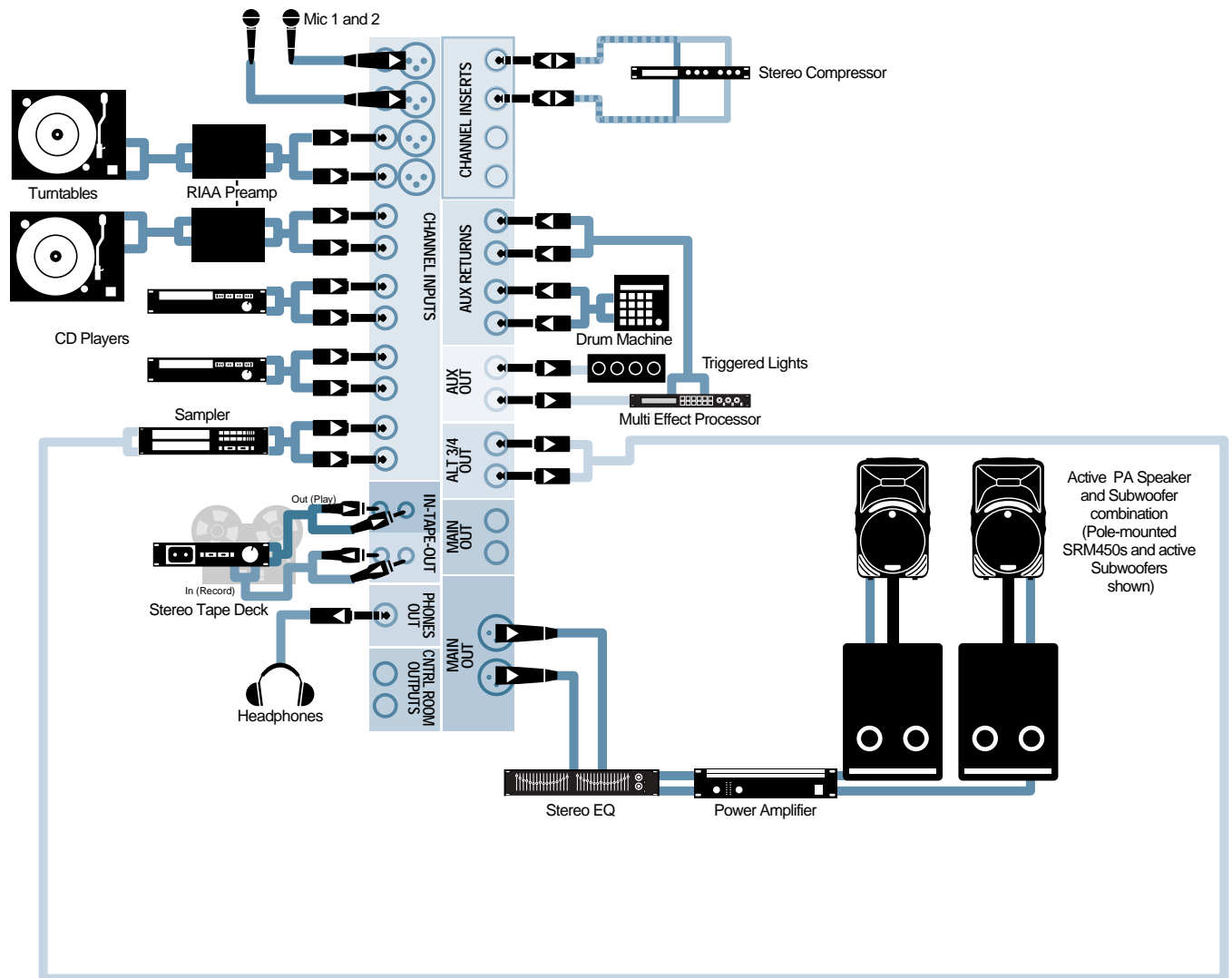


DJ Setup



A DJ system is a special PA application, so you'll find this to be similar to other PA hookups. We've shown a 1402-VLZ- PRO in this setup, but it's applicable to any of our compact mixers.

Connections

The basic goal of a DJ setup is to create a stereo mix of several inputs and send it to a set of PA speakers – BIG and LOUD speakers. The traditional sources are turntables, but CD players, drum machines, and samplers are also common in DJ systems. Nowadays, computers are popular since a vast number of recordings can be stored in very little space, it's easy to search titles, and specialized DJ software can do some clever tricks to enhance the dance mixing experience. The music sources of your choice are connected to mono or stereo inputs, which are assigned to the MAIN L-R outputs.

Turntables

An RIAA-equalized preamp is necessary to interface a turntable to the mixer's line-level input. Many commercial DJ turntables have suitable preamps built in, but audiophile turntables don't. Those without built-in preamps expect to be connected to the Phono input of a receiver which is equipped with the proper equalizer.



The pickup cartridge in a turntable puts out a signal that's at about the same level as a microphone, however you can't connect a phono cartridge directly to a mic input for two reasons. The low impedance of a mic input is a poor match for the fairly high output impedance of the phono cartridge. Also, RIAA equalization is required to compensate for high frequency boost applied during the record cutting process. An unequalized phono cartridge output sounds awful. Believe it!

Sampler

Samplers are a fairly common DJ tools these days. Sampler outputs are connected to a pair of stereo line-level inputs as you'd expect, but a sampler is a recording device, too. The recording inputs to the sampler are shown connected to the ALT-3/4 OUTPUTS on the 1402. On a true 4-Bus mixer such as the 1604, 1642, or Onyx 1640, connect the sampler inputs to a pair of SUB outputs (SUB 1-2) instead. This will allow you to sample a phrase that you're playing from a turntable or from the microphone, then manipulate it and play it back in your mix. You can sample from the MAIN outputs, too.



By connecting the sampler inputs to a separate bus, you can sample "off line." By pressing the MUTE/ALT button or changing a CD or turntable's output ASSIGN from L-R to 1-2, you can play that source into the sampler without it being heard by the audience. Pressing the ALT 3-4 button in the CR/SOURCE group (SUB 1-2 or SUB 3-4 on the 1604-VLZ PRO or Onyx 1640) will allow you to listen to the source you're sending to the sampler – for instance to cue or scratch a record.

AUX Returns (Drum Machine)

This is a pretty full-up system and we ran out of stereo line-level inputs on our 1402, so in this illustration, we're using the AUX RETURN 2 stereo inputs for the drum machine. Those inputs go straight into the MAIN mix through the AUX 2 RETURN level control so they can be used for additional line-level inputs. The limitation is that the AUX inputs on the smaller mixers cannot be re-assigned to the subgroup buses, so with this hookup, you can't sample the drum machine without moving some cables.

AUX Sends

We've shown one conventional, and one unconventional application. The conventional one is an effect processor that receives its input from SEND 2 and its output is connected to RETURN 1.

The unconventional application is the use of the SEND 1 output to trigger a light sequencer. This allows you to choose (with the AUX SEND 1 controls) which channel's signal, rather than the whole mix, triggers the light sequence. You probably don't want the lights to trigger from your voice, so keep those AUX 1 knobs down. If you want the light show in sync with one CD player but not the other, turn one CD channel's AUX 1 knob up and the other down.

On the 1202 and 1402 series, RETURN 2 can be sent to AUX SEND 1 by engaging the EFX TO MONITOR switch. That's the button that will make the lights flash in step with the drum machine that's connected to RETURN 2.

If you have an effect processor such as a triggered filter or pitch shifter, where you want to hear only the effect and not the "dry" source, here are two suggestions:

One approach is to connect the processor's input to AUX SEND 1 and bring its output back into the mixer through either an AUX RETURN or channel LINE INPUT. By switching AUX 1 to PRE, with the source channel's fader all the way down, turning up

AUX 1 will send the channel's signal to the processor without sending it to the main outputs. With the processor set for fully wet output, you'll hear only the processed sound in the mix.

Another approach is to use the processor in line with the device to which you want to apply the effect by connecting to that channel's INSERT jack using an Insert Y-cable. With the processor set for full wet (processed) output, you'll hear only the processed version of the channel. Simply pull the Insert plug to use the device without the effect.

Channel Inserts

These are available for outboard signal processors (such as compressors), using Insert cables. As we described above, you can also put individual effects in line (serial) with a channel using the INSERT jacks. You may wish to dedicate a multi-effect box to your voice in this way rather than use the processor in the SEND/RETURN (parallel) loop.

Recorder

Recording isn't normally a part of a DJ operation, but we've shown one connected to the TAPE OUT and IN jacks. Whatever goes to the MAIN speakers goes to the recorder. When it's karaoke night, this will come in handy for those who want to take home a souvenir of their (ahem!) art.

Subwoofer (CFX Series Only)

The CFX series provides a low-pass filtered output, which is a mono mix of everything assigned to the MAIN outputs that's below 75 Hz. Connect this to a power amplifier and subwoofer for an exciting low end boost.

Operation

Normally all the sources will be assigned to the L-R MAIN outputs, so turning up the channel faders with the MASTER set to its Unity gain position will get your sources going to the speakers. No secrets here.

Level Setting



Adjust the TRIM controls on those channels that have them by using the Level-Setting Procedure. Since the level on vinyl records, particularly older ones, varies widely, and you don't want to have to keep fooling with this control all night, keep the TRIM setting conservative. Instead of setting it so that the meters peak at 0 VU, back it off a bit so that they peak at -4 or -7. That will keep louder records from clipping.



Successful DJ-ing is all about getting things to sound a little different than the next guy. While throughout this book we keep reminding you to set the TRIM properly to avoid clipping and achieve the best signal-to-noise ratio, you might just find that sometimes your voice really sounds cool when the mic preamp is clipping. This is OK as an effect, but don't make it a habit, and don't fry your tweeters by sending them a loud, clipped signal.

Cueing Up

To cue a record by listening to it in the headphones without sending it to the MAIN mix, MUTE the channel or pull its fader all the way down, and press the channel's SOLO button. Be sure you have the SOLO MODE PFL/AFL switch in the PFL position.

Notes
