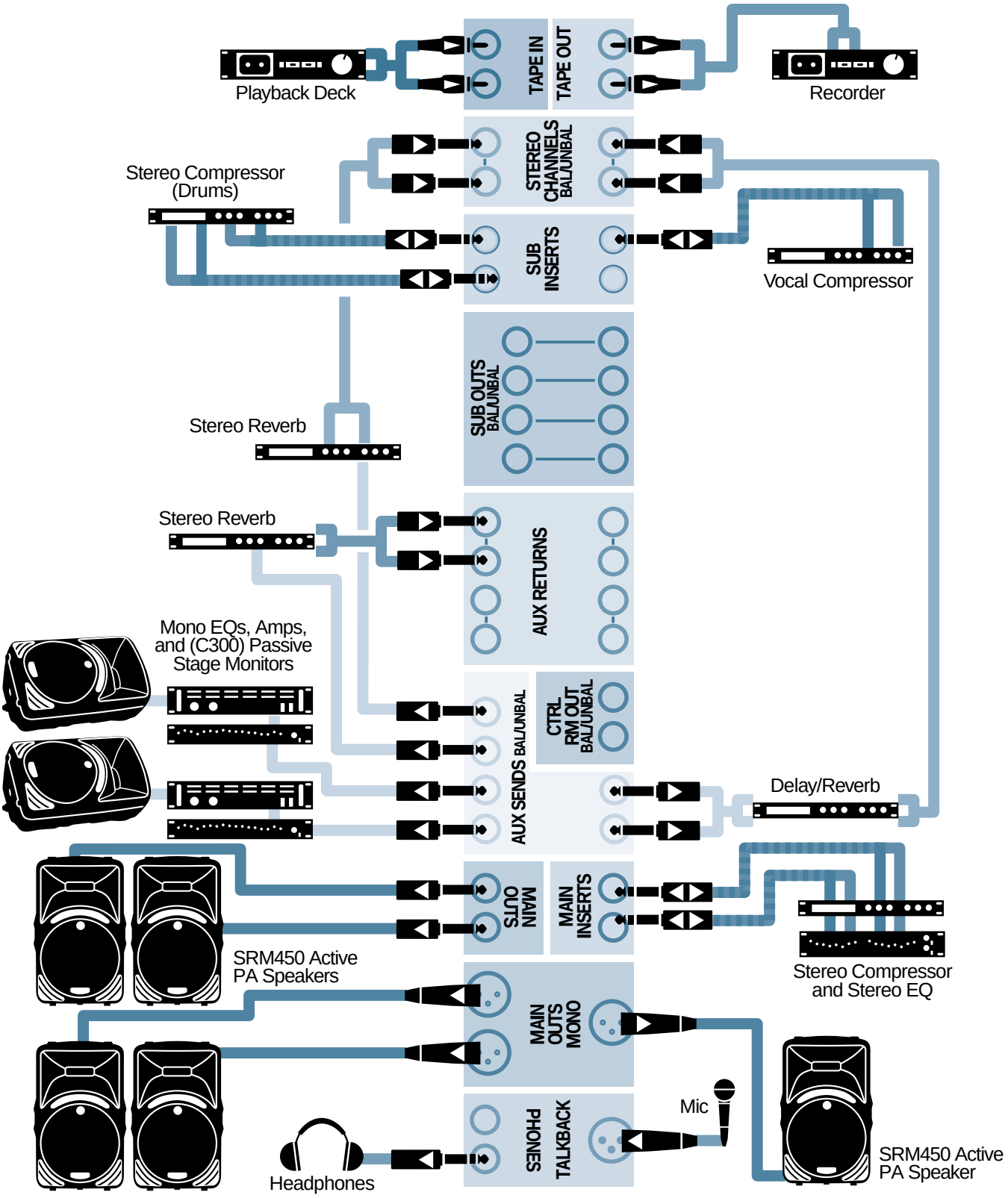
SR Series Large PA Applications

Club PA



Inputs

For clarity, we've not shown the inputs on this diagram. Here's a typical setup for a rock band showing the sources, channels, inserted processors, and channel output assignments:

Chan	Source	Input	Insert	Assign
1	Kick	Mic		1-2
2	Snare	Mic	Gate	1-2
3	Hi-Hat	Mic		1-2
4	Floor Tom	Mic		1-2
5	Lo Rack Tom	Mic	Gate	1-2
6	Hi Rack Tom	Mic	Gate	1-2
7	Drum O/H L	Mic		1-2
8	Drum O/H R	Mic		1-2
9	Bass Amp	Mic		L-R
10	Bass DI	Mic	Compressor	L-R
11	Lead Guitar Amp	Mic		3
12	Rhythm Guitar Amp	Mic		3
13	Acoustic Guitar DI	Mic		3
14	Piano Low	Mic		L-R
15	Piano Hi	Mic		L-R
16	Keyboard L	Line		L-R
17	Keyboard R	Line		L-R
18	Vocal 1 (Lead)	Mic	Compressor	L-R
19	Vocal 2	Mic		4
20	Vocal 3	Mic		4
21-22	Stereo Reverb 2	Line		L-R
23-24	Stereo Delay	Line		L-R

The PA system will be run in stereo, with drums panned to fill the stereo field because that really sounds cool when the drummer runs down the toms. Bass, guitars, and vocals will be panned to the center. Keyboards will be run in stereo to take advantage of stereo patches, but only spread a little, and effects will be returned in stereo. This will give some stereo sense to the reinforced sound without losing important parts of the mix to audience members who are seated off-center.

Guitars are routed to Subgroup 3 by assigning them to 3-4 and setting the PAN knob full left. The lead singer is assigned directly to the main L-R mix and panned to the center. He gets a compressor all his own through his channel INSERT. Backup vocals are routed to Subgroup 4 by assigning those channels to 3-4 and setting the PAN full right. A compressor connected to the SUB INSERT 4 jack rides herd on the backup singers.

Keyboards and the piano are assigned L-R and panned a little off-center but not fully left and right. Drums are assigned to Subgroups 1 and 2 and panned to taste across the stereo field. Some individual drum channels have gates patched into their channel INSERTs, and the full drum mix is compressed with a stereo compressor connected to SUB 1 and 2 INSERTs.

Subgroup Assignments

All of the subgroups are assigned to the MAIN MIX by engaging their L/R ASSIGN buttons. We want the guitars and vocals to be centered in the stereo mix, so the PAN pots for SUB 3 and 4 are centered. Since panning of the drums is established by the position of the PAN pots on the drum input channels, setting SUB 1's PAN fully left and SUB 2's PAN fully right will give the full stereo spread. If you find that you've spread the drums too wide, bring them closer to the center using SUB 1 and SUB 2 PAN controls.

Main Speakers

These are fed from the MAIN outputs. We've shown active (powered) speakers, but a power amplifier and passive speakers will work just fine.

A secondary power amplifier and speaker fed from the MAIN MONO output can be placed to fill a dead spot in the main room, or placed in another location such as the lobby or bar area.

Monitors

AUX 1 and AUX 2 are used for the two stage monitor mixes. AUX SEND MASTERS 1 and 2 control the monitor volume. Pressing their adjacent SOLO buttons allows you to check the monitor mix in the phones and read the level on the meters to assure you don't overdrive the monitor amplifiers when the singer yells "More monitor" over the din.

Effects

In this setup, we have two reverbs and a stereo delay fed from AUX SENDs 3-6. In live sound applications, it's fairly common to return effects to channels rather than AUX RETURNs so there will be more control available and, most importantly, they can be muted at the touch of a button. Reverb 1 outputs are connected to AUX RETURN 1, while Reverb 2 and the delay outputs return to the mix through the two stereo channels 21-22 and 23-24.

Tape

A recorder is connected to the TAPE OUT jacks to record the stereo mix. The record level follows the MAIN MIX fader. A playback deck or CD player for intermission music is connected to the TAPE IN jacks. Playback volume is controlled by the TAPE RETURN knob.

Why a separate playback tape deck? Because when the band walks off stage, you want to start the intermission music directly. You won't have time to unload the recorder and cue up the break tape. There's a more practical reason. These days, the "tape playback during intermission" is more likely to be from a CD – different machine entirely.

Talkback

You can talk to the stage or make announcements to the house using a mic plugged into the TALKBACK MIC jack. Pressing the AUX 1-2 button in the Talkback section sends the mic, through the TALKBACK LEVEL control, to the stage monitors. Pressing the MAIN MIX button sends the talkback mic to the main speakers.

Notes