

# The Basics of Building a Mix

It's bound to happen at some point: the mix disaster. Maybe your church's regular sound person calls in sick at the last minute. Maybe the new volunteer sound person doesn't know a volume slider from a sliding door, or a mixing board from a mixing bowl. Whatever the circumstance, something has to be done to save the service. Without decent sound, the congregation won't be engaged or inspired by the music, and the message may be completely lost.

Though creating the perfect sound mix for a service is a true art, a sound person with little or no mixing experience can still achieve good sonic clarity and deliver the message with pleasant and effective audio. Here are some tips for saving the day with a quick, last-minute mix — whether you are working the sound booth yourself or have the help of a volunteer.

## 1. Keep it simple.

Unfortunately, mix emergencies rarely occur when you have loads of spare time to work on a solution — it almost always happens minutes before the service is supposed to start. While your sound booth may have racks of processors and sophisticated audio equipment, now is not the time to experiment with effects or to randomly start turning knobs. Focus on the bare minimum you need to get the job done. Leave the special effects for another time.

## 2. Use what's already there.

Hopefully, your sound system is already set up, the cables and the snake are run to the mixer, and the monitors are tuned in to prevent feedback. Plug the mics into the mixer or snake in their usual positions. Try to use the same "old standby" microphones and other gear you usually use — again, now is not the time to experiment with new gear!

## 3. Have a conversation with the worship team.

Explain to everyone that the regular sound person is not available and that help is required to have the service go well. This means guitarists need to turn down, drummers need to control volume, and so on. Explain that the

monitor system may not be perfect — forewarning the team that everything may not be ideal will go a long way toward easing the process for everyone. At least they will know what to expect!

## 4. Turn it on.

Turn on the speakers or the amplifiers last; this prevents loud thumps and pops from coming through the system.

## 5. Reset the mixing board.

Begin by pulling all the volume sliders (faders) down to zero. (Usually these are found at the bottom of each channel on the mixer.) Set the channel gain to a mid position (Usually this knob is found at the top of each channel on the mixer.) Next, reset all the equalization (tone) controls on the mixer to their center position, which is essentially off. Turn the auxiliary or monitor sends off. Make sure that mute or solo buttons are disengaged. (Usually these buttons are off in the up position.) Set the master volume fader to about 50%.

## 6. Begin testing each sound source through the mains.

Have the main vocalist speak or sing into his or her mic. Bring up the volume slider until you can hear the vocals in the main speakers. Turn up the auxiliary or monitor sends until the vocalist can hear himself or herself in the monitors. As you verify that each mic or source works, pull its volume fader back down to zero. You can leave the aux (monitor) sends turned up so that the singers can hear themselves. To prevent feedback, don't run the stage monitors too loud.





Photo by Jon James and Troy Behrens

**RSS V-MIXING  
SYSTEM**



>> **Mackie**  
Onyx 32.4

**\$1999<sup>99</sup>**

More info on pg. 36

**7. Have the worship team begin to play a song.**

Watch for red overload or "clip" lights on the mixer. If you see these, turn down the gain controls at the top of that source's channel.

**8. Build the mix by bringing up the volume faders for the basics first.**

Start with the bass drum and the bass guitar, turning them up to a comfortable level and balancing them against one another. You may need to adjust the level of the master volume fader to get the overall level to the right point.

**9. Turn up the volume faders for the vocals.**

Now focus on the vocals. Set them to a comfortable level, balanced against the bass guitar and the bass drum. The lead vocalist needs to be the loudest, with the background or harmony vocals filling in behind.

**10. Turn up the volume faders on the other instruments.**

One at a time, begin turning up the other instruments. Start with the rest of the drums, then the guitars, the pianos, the keyboards, and any other instruments; adjust the volume as needed. Balance each one against the vocals, the bass drum, and the bass guitar. This is a place where you can err on the side of being conservative. The vocals are the main focus, and you want to ensure that they are clearly audible. Use the other instruments to fill around the vocals, without obscuring them. As you go, adjust the master volume fader to control the overall level.

**11. It's time for the equalizers.**

Up to this point, we haven't touched the equalizers (tone controls) on the mixer. If you find that the sound is getting too bassy or boomy, use the "low" or bass tone control to reduce the bass frequencies a small amount on instruments such as bass guitar, keyboards, and piano. Vocalists, especially male vocalists, may also need their bass reduced a small amount. To increase the clarity of a vocal or an instrument, add a small amount of treble or high frequencies by using the tone controls on that mixer channel. Be careful with the tone controls, as overuse can lead to feedback!

**12. Fine-tune the mix and the monitors.**

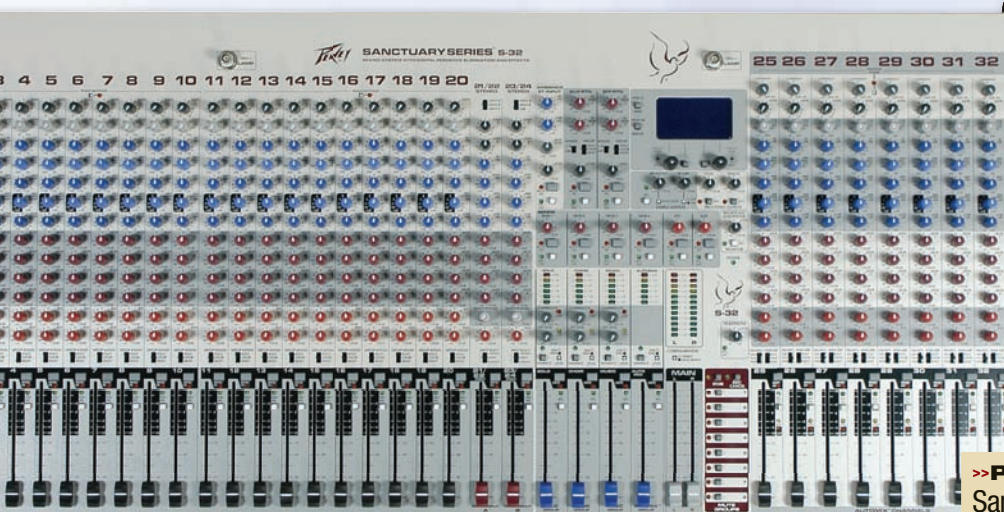
Adjust volume levels so that instruments and vocals are balanced, and adjust the bass and the treble controls on channels as necessary to prevent boominess, harshness, or spikes in sound. Ask each worship team member what he or she needs to hear from the monitors — one at a time so that everyone doesn't speak at once — and adjust the auxiliary sends accordingly.

**13. Don't try to overtune the mix, and don't make it too loud.**

Set things up so that they are clean and clear, and at a comfortable, conservative volume level. Then stop! Once you get to the point where it sounds okay — this should happen fairly quickly — stop tweaking the knobs. It's easy to lose perspective and get lost in knob turning, even though the goal has already been achieved.

**14. Here's a final tip.**

When in doubt, focus on making the vocals, whether spoken or sung, clearly audible. The congregation is there to hear the message, which is contained in the words and lyrics. The music is inspiring and essential to a great service, but it plays just a supporting role in the grand scheme of things. Ensure that the vocals are heard, and the service will be a success!



>> **Peavey**  
Sanctuary Series S-32

**\$3699<sup>99</sup>**

More info on pgs. 34 & 35