

Sound Advice

Recommended Equipment and Tips on Using Them

Mixing Boards

When deciding on the size of a mixing board to purchase for your church, you should consider the following. How many channels minimum do you need? If you have a speaker, platform person, musician vocal, musician instrument, CD player to play recorded music, that is six channels. Now double this to make sure you will have enough room to grow and to accommodate any special needs, events or extra guest musicians coming in. So a 12-channel mixing board would be minimum size for above scenario.

Microphones

Have at least one wireless head set or lavalier mic and one wireless, handheld microphone to give your speakers the freedom to walk around and to have a microphone that can be passed around the room, if necessary, for workshops, etc. If possible, a lavalier, a headset and two handheld wireless mics would be ideal. The rest of the microphones could be wired.

Equalization

These are the knobs on your board that say "High," "Mid," "Low," or "Treble," "Bass," etc.

Each channel on your board should have at least three EQ options. Good boards have up to six per channel. Equalization is what makes the voice sound present and realistic. It is also what causes (and prevents) feedback in most cases.

If the voice sounds like it is coming through a transistor radio or a telephone, it means there is too much mid-range and not enough bass and/or treble.

If you are hearing hissing (in one particular channel), it could mean you have the treble turned up too high. If the voice sounds muffled and booming, it means too much bass.

There is also equalization for the entire board as opposed to the single channels. This EQ is set for the room and its acoustics, then the individual EQ is set for the voice or instrument in that channel.

Feedback

This is normally caused when a microphone gets too close to a speaker but also when the EQ is out of whack. The pitch of the feedback tells you what to adjust. A low

boomy pitch means turn the bass down. High, ear-piercing feedback could mean there is too much treble on the microphone, etc.

Direct Boxes

DB's are small black units that enable you to plug instruments into the PA. A regular instrument cord runs from the instrument to the DB, then a microphone cord runs from the DB into the PA like the vocal mic cords.

These are not expensive and two would be the bare minimum to have to accommodate a keyboard and guitar perhaps. Four would be ideal to start with.

Microphone Cords

Depends on the size of your sanctuary and how large your stage is. You should always have at least one very long cord that is not used every week but kept in case you need it long enough to run from the front to the back of the sanctuary; 20-ft. cords are usually the average and will accommodate most needs.

The Snake

This is one large cord that runs from your mixing board to the stage so you can plug your microphone cords into it instead of running all your cords back to the mixing board.

If you are building your church, you would run the snake through conduits under the floor so it would be invisible.

Recording

Even the most basic boards will have "Record Out" jacks that take everything that is running into your board and send it out to a recording machine. The jacks are usually the small "RCA" jacks or those cords with red and white ends that you use for your home stereo. This is so you can run your record out into a cassette or a CD recorder (Inputs). This is a separate unit that would need to be purchased.

Speakers

Getting the right speakers and speaker placement is a true science and an art.

It can be very simple if you have a small, square room with lots of padding and carpet (not "live" with tile floors and cement walls).

If you have a long, thin room, you may need four speakers so that the people in the back hear as well as those in the front and without a delay.

Your Lead Sound Tech



1. Make sure that the sound person is available for the entire rehearsal time of the special musician—be clear about what time to arrive. Volunteers should not be getting a cup of coffee, setting up the duplicator materials, etc., during the musician's warm-up/sound check.
2. It is not necessary to be constantly moving sliders and dials—if #1 has been accomplished, the sound man should have very little to do during the actual service. The sound man is most successful when no one in the congregation thinks about the sound system for the entire service. It's like women's makeup—it should enhance but not be noticeable!
3. Don't turn mics off between uses in a service—you might not remember to turn them back on in a timely fashion!

