

Media Technology Solutions Newsletter

Media Technology Solutions provides clearer communication through the audio and video systems we install and service. Clear communication for churches and schools is very important to the message that they present, so don't you want it to come across clearly? MTS provides audio and video systems as well as audio and video production and duplication. The use of technology in worship can greatly enhance the worship experience if it is used correctly, but it can also be a cause of distraction for a congregation when it is not.

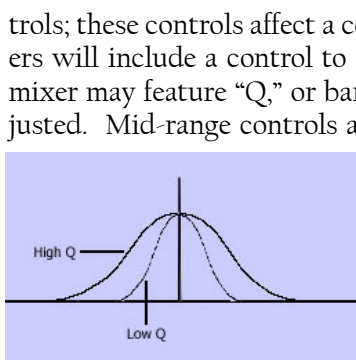
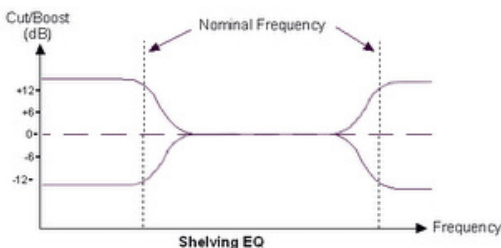
Media Technology Solutions wants to equip technical volunteers in the church community with the knowledge and skills necessary to ensure distraction-free worship experiences. Some of the services we provide are service of existing systems, design & installation of new systems, and video and audio production.

Please call us for all your audio and video needs!

In the last issue, we talked about the mixer as the foundational tool of the audio engineer. In this issue, we'll take a closer look at the EQ section of the mixer. The overall goal of EQ is to achieve a natural and well-balanced tone. As a general rule, cutting frequencies is more effective than boosting frequencies; the logic behind this is that less coloration occurs when removing problem frequencies than when adding to the natural sound.

EQ - Achieving Natural Tone

All EQs have high and low frequency controls called shelving. Shelving means that all frequencies above or below a certain frequency are either cut or boosted equally across their spectrum forming a flat "shelf." This type of EQ is quite similar to bass and treble controls on a HiFi stereo and is useful for broad brightening or darkening. Some mixers will feature one or two mid-range controls; these controls affect a certain frequency range or "band." Higher end mixers will include a control to select which band of frequencies is affected. The mixer may feature "Q," or bandwidth control, of the frequency range being adjusted. Mid-range controls are most often used effectively to cut problem frequencies. A couple of examples would be cutting high-mid harshness on a female vocal or low-mid muddiness on an acoustic guitar. There are many more applications, as well. As we have previously established, it is usually better to cut problem frequencies than to boost wanted frequencies.



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EQ - Eliminating Feedback

Although it is not the primary purpose of EQ, the secondary purpose of EQ is to aid in the elimination of feedback. A first step in eliminating feedback is proper mic placement in relation to the speakers and monitors. For example, a pastor's lapel mic should be placed as high on the tie or shirt as possible. Or, for choir mics, ensure optimal placement by positioning them behind the speakers as far as possible. When feedback occurs, try to determine the general frequency of the feedback by listening to the tone (low, mids, or highs). After general frequency is established, try to focus in further by using the specific EQ knob to either cause or reduce feedback at the same tone the feedback was originally produced. Use the smallest effective amount of cut to control the feedback so as not to compromise the natural tone. Sometimes it is better to sacrifice a few dB of gain than to radically alter the tone.

April - June Special: 15% off RFI Filters

Get rid of those annoying radio station interferences!

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- Reduces interference by 98.5% from its original level
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