

Mixing Sound For Voices

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Mixing sound for voices is a special challenge, and there are three tricks that can help a voice sound better onstage.

1. On the Mixer microphone channel, find the **Sweet Spot on the Input Gain**. Too little gain, and the voice sounds weak and distant. Too much gain can cause feedback. Adjust the mike gain until the input volume sounds perfectly centered.
2. **Do not reduce the EQ Mid-Range** on the mixer mike channel, if possible. Approx 80% of the voice is in the mid-range. Only around 20% of voices are in the bass and treble range. Changing mike EQ treble and bass won't affect vocal quality. Many soundmen reduce a singer's mid range to reduce feedback, but there are other and better ways to solve feedback problems (ie. speaker placement, etc.)
3. On the mixer mike channel, in the EQ mid-range, there is something called the **Mid-range Frequency Sweep**. It can be called other things too and it's hard to find, but the mid-range frequency sweep is the key to quality voice amplification.

The problem is that most mixing boards set the Mid-Range Sweep default to 2K, (which means 2 Kilohertz). 2K is a good setting for instruments, but closer to 1K is better for voices. You have to find the mid-range sweep on your board, and bring it down to 1K, but make this adjustment with your ears, not your eyes. There is a sweet spot in the frequency sweep, and your ears will know when you find it. When you find the mid-range frequency sweet spot, it's like the volume increases, even though you're not adjusting the volume, and the voice sounds clearer. **Finding The Frequency Sweep Sweet Spot is like finding the heart of the voice.**

The mid-range frequency sweep sweet spot will be different on every mixer, because the numbering on mixing boards is not a precise science. Number-wise, the sweet spot might read as 1.2K, or below 1K. Don't worry about that. Find the spot where the voice sounds perfectly centered. That is the heart of the voice.

As for How to find the Mid-Range Frequency Sweep, here are some tips. On old analog mixers, look at the mike channel EQ section. Find the Treble, Mid and Bass knobs. If there is another (4th) knob, in that group of knobs, it is the mid-range sweep. There may be Sweep numbers, but they are only an approximate guide. When you find the Sweep knob, search for the sweet spot with your ears.

On digital mixers, dial up the visual display for the mike channel EQ, and look for colored buttons which represent the middle of the treble, mid and bass ranges. If you find a colored circle in the mid-range section of the EQ, that circle represents the center of the mid-range. You can move that circle left or right on the EQ range, until it's around 1K. Then fine tune that mid-range setting with your ears.