Musician
- ON A MISSION -

VOCAL MIXING CHEAT SHEET



BEFORE MIXING

- We expect to hear vocals that are super consistent in volume - every word and syllable should be loud and clear
- This isn't achievable with compression alone
- Instead, automation is needed
    - Manually turn up quiet words/phrases and turn down loud words/phrases
    - Ideally, this automation occurs BEFORE compression, so the compressor gets a more level signal coming into it
        - Makes the job for the compressor much easier
        - Few ways of doing this
            - Automate the clip gain
            - Automate the lead vocal channel, send to a new aux track and add compression there
        - Can automate manually with mouse, or with a control surface
            - I prefer to do it with the mouse and draw in the automation
            - More accurate

        - More detail
    - Listen to each section or word
        - Is anything too quiet/loud?
        - Are certain in-between words lost?
        - Do the opposite of the waveform
    - Do this before you start mixing, as part of the prep phase

EQ

- Surgical EQ
    - Remove ugly room resonances
    - Remove low end noise (high pass filter)
- Tonal EQ
    - Adjust the tone of the vocal to taste.
    - Keep it subtle and start with boosts and cuts of around 3dB or less.
        - We hear voices every day, so as soon as you start to apply heavy EQ moves the vocal will start to sound unnatural.
    - Top end boosts are the exception to this.
        - When mixing pop and other mainstream genres it's common to apply aggressive boosts to the top end of a vocal. This adds air and makes the vocal sound more expensive.
        - Start around 10kHz
    - Common adjustments
        - Removing muddiness around 200-500Hz
        - Boosting upper mids (maybe around 1kHz, or around 4kHz) to bring the vocal out in the mix

Compression

- Use two compressors
    - Sounds more natural than using one compressor doing all the work
    - Start with a faster, higher ratio compressor to catch peaks
    - Then use a slower, low ratio (2:1 or less) compressor to apply constant soft compression
        - Also use a slow attack time here to add more aggression to the vocal
- Tonal compression
    - This approach uses a lower ratio and slow attack times to shape the tone of the vocal, as well as controlling dynamics.
    - If you just use one compressor, use this approach.
    - Fast attack time for thick heavy vocals (but be careful), slow attack time for aggressive, punchy vocals (this is usually preferred).
    - Here are my go-to vocal compression settings for this approach:
        - Ratio: 2:1
        - Attack Time: 15ms (but up to 30ms for more punch)

        - Release Time: 40ms
        - Threshold: -24dB
        - Gain Reduction: 2-3dB
        - Knee: Soft
        - Makeup Gain: 2dB
- Dynamic compression
    - This approach is about catching the louder peaks.
    - Requires a faster attack time and higher ratio.
    - If you use two compressors, take this approach with one of them.
    - In terms of plugin order, this approach often works best BEFORE tonal compression.
    - Recommended starting settings:
        - Ratio: 3:1
        - Attack Time: 5ms (medium-fast)
        - Release Time: 20ms (medium)
        - Threshold: -24dB
        - Gain Reduction: 2-3dB
        - Knee: Hard
        - Makeup Gain: 1dB

REVERB VS DELAY

- Generally, you should rely more on delay than reverb to create space around the lead vocals
    - BUT reverb is making somewhat of a comeback in mainstream music
- My go-to effect busses for lead vocals
    - Stereo Delay
        - Slapback, low feedback (0-10%)
        - Different times on left and right (50-200ms)
    - Mono Delay
        - Timed mono delay
        - Can have higher feedback if desired (0-30%)
        - Whole note (crotchet) or minim
        - Time manually if you want it to stand out more
    - Plate Reverb
        - Really short decay time
        - For stereo width and sweetness, not noticeable reverb
    - Reverb Throw
        - Long decay time
        - Can cut all the highs and boost the lows for a deep ‘sub reverb throw’
        - Use as a spot effect (automate the send on the lead vocal buss)

EFFECT THROWS

- Automate sends to bring in effects on the last word of a phrase or section

- Be creative - add flanging, chorusing and saturation to your effects
- Can also apply effects directly to the vocal for sections
    - e.g. the vocal telephone effect - cut all the lows and highs with filters, and add saturation

Want to create professional, radio-ready mixes at home?

Check out the free tutorials on the Musician on a Mission YouTube channel