

Handout 1 - Vocal Processors

Reverberation (Reverb): Resonance or echoing. Reverb occurs naturally when sounds are made in the right space—a large room, a church, a tunnel—and the resulting sounds are usually richer, livelier, and generally pleasing. Before the digital era, record-makers would record vocal tracks in bathrooms, or use “echo chambers” to add reverb. In the 1950s and 60s, several electromechanical devices were invented involving plates and/or springs that could add reverb to a track. In the late 1970s, digital reverb processors were invented. The pedal shown here can be used for any instrument, including the voice. Notice the settings include physical spaces such as “room” and “hall” as well as older, analog reverb effects such as “plate” and “spring” in addition to newer digital sounds such as “shimmer.”

Recommended Listening: “Royals” by Lorde



Plate Reverb Unit, 1957



Modern Reverb Pedal

Double Tracking: A recording technique in which a singer records a track while singing along with her or his own previously recorded track, producing a larger sound than the single track. Technology that could produce this “doubled” sound was eventually developed, including software and the automatic doubling pedal shown here.

Recommended Listening: “A Day in the Life” by The Beatles. Note that you can also hear reverb on Lennon’s vocals on this



Vocoder or Vocal Effects Pedal: Musicians had been using effects pedals for guitars for some time before the technology of the Talk Box was upgraded to a pedal. The one shown not only alters the sound of the voice, it can also duplicate a voice in order to produce harmonies. Some vocal effects pedals can correct a singer’s pitch. Note that this one also includes reverb options.

Recommended Listening: “So Ruff, So Tuff” by Zapp & Roger

Auto-Tune is software created by Antares Audio Technologies which can alter pitch in vocal and instrumental music recordings. It was originally intended to correct out-of-tune singing, correcting inaccurate pitches in vocal tracks to be tuned accurately throughout. The processor slightly shifts pitches to the nearest semitone. Auto-Tune can also be used as an effect to morph the human voice in order to make it sound electronic and robotic.

Recommended Listening: “Believe” by Cher

