

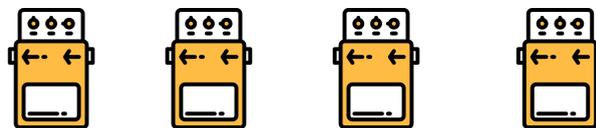
So, why does this matter?

Well, effects and processors are used in virtually *all* modern popular music in nearly every genre. Aside from growing in your musicianship through a deeper understanding of what effects go into music production, we believe a baseline knowledge can increase the quality of the music you make. Specifically, effects pedals may offer interesting solutions or alternatives to creating music, live or recorded, and help you connect with the evolving landscape of music *that our clients prefer*.

We tell you what we like to use (and why) in the accompanying video, but none of these companies have sponsored TechNook in order to have their company website linked. The prices are not listed either, so you can shop for yourself, new or used, budget or boutique, it's all your choice!

Pedals vs Plugins?

Effects can be defined as additional tools used enhance, degrade, alter, or generically affect an audio signal. The sounds of effects makes some of most memorable moments in music history - like the wild effects of Jimi Hendrix's guitar, to the echoes and choruses in Post Malone tracks. Ranging from subtle to extraordinary, these alterations can be used to mimic realistic audio phenomenon, for instance like recreating echoes & reverberations of a concert hall, or to create sounds that would never occur in natural acoustics. While your standard DAW comes preloaded with many stock plugins - effects built directly into your DAW - it can be overwhelming & confusing to click parameters on a screen and not necessarily know how it is working. Not to mention, without a high powered computer optimized for music production, using too many plugins flippantly can run the risk of crashing during your project.



Effects pedals, on the other hand, are physical box have the advantage of containing one or more effects within a single unit, or pedal. This modular nature allows for the ability to “learn an effect” in an approach, tactile way. Multiple pedals can be chained together to allow an individual to explore different sounds, tweak knobs manually, and create a “rig” that is suited specifically to your needs. This has an added advantage of the versatility of live or studio use, as they don't require a computer. While cost can escalate quickly, budget-friendly brands like Behringer and overseas “clone” brands offer entry-points that are less straining on your wallet.

Basics of Power & Connections

Essentially, whether you're using an acoustic or electric guitar, synthesizer, interfacing a microphone, or using any other instrument that can accept a ¼" standard instrument cable you can connect these effects pedals between the path of your instrument and the amplifier / playback system of your choosing. Most of these units need a 9 volt power supply (sometimes affectionately referred to as a wall wart) and many still can accept 9 volt batteries, but there will be odd exceptions to the power requirement so read all manufacturer manuals & labels. You don't want to accidentally fry a pedal using too much voltage, or not have it power on for using not enough!

In short, pedals provide a unique experience that can enhance your live or recorded and help you learn the basics about effects in music. *So, now you want to explore a little bit with pedals but don't know where to start or what to do with them?* Let's walk through some of the different types of effects and how they are "traditionally" used.

Basic Categories of Effects

The following list is not exhaustive, but contains some of the *most common* types of effects, how they have been traditionally used, and some creative alternatives.

TECHNook Tip: in the accompanying video the authors highlight some of these effects live off of their personal pedalboards.

Overdrive, Distortion, & Fuzz

This is the sound that propelled acoustic music forms into full blown rock and roll. Distortion is a change in the audio waveform that moves towards *clipping* or overloading the signal. This can range from the warm, natural sound of overdrive to the harsh sounds of a fuzz and a whole interesting continuum in between. Know that this can be an overwhelming world with *way too many* options, but here are a few classics:



[Image credit link](#)

Overdrive - Ibanez TS808 Tubescreamer

Song example: "Slow Dancing in a Burning Room" by John Mayer

Possible uses: pleasing grit added to signal; Responds to dynamics

Cheap alternative / clone: JOYO JF-01 Vintage Overdrive



[Image credit link](#)

Distortion - BOSS DS-1 Distortion

Song example: "Smells like Teen Spirit" by Nirvana

Possible uses: Heavier sounds; into rock, grunge, & metal territory

Cheap alternative / clone: Danelectro FAB Distortion

Overdrive, Distortion, & Fuzz... continued

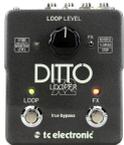


[Image credit link](#)

Fuzz - JHS Smiley, Legends of Fuzz
Song example: “Purple Haze” by Jimi Hendrix
Possible uses: heavy distortion, thicken up bassline
Cheap alternative / clone: Behringer SF300 Super Fuzz

Dynamic & Utility Pedals

These pedals are not the flashiest, but often provide useful solutions with the convenience of hands-free operation. This section was intentionally kept short, but feel free to contact the authors for more information.



[Image credit link](#)

Looper - TC Electronics Ditto Looper
Purpose: Create loops of layered of playing



[Image credit link](#)

Tuner - Korg Pitchblack
Purpose: Chromatic tuner with visual strobe



[Image credit link](#)

Noise Gate / Noise Suppressor - BOSS NS-2
Purpose: Dual purpose noise gate to reduce hum or mute switch



[Image credit link](#)

Boost - TC Electronics Rush Booster
Purpose: Allows for a “clean” boost of signal



[Image credit link](#)

EQ (Equalizer) - BOSS GE-7
Purpose: Shape tone by increasing / decreasing certain frequencies



[Image credit link](#)

Compressor - MXR Dyna Comp
Purpose: Controls dynamics and brings volume within set thresholds



[Image credit link](#)

Volume Pedal - Ernie Ball VP Jr
Purpose: Control volume with gradual sweep

Modulation

Modulation is a broad category of effects that create interesting sounds & timbres by their interaction of a “modulated” signal with the original signal.

So, for example, to create the popular effect *chorus* the original signal is blended with a signal that is slightly delayed (by milliseconds) with other sound manipulation techniques like filters, oscillators, and abrupt changes in pitch or volume. There are many types of modulation such as flangers, phasers, wah-wah & auto-wah, filters / sweeps, auto-swell, tremolo, chorus, & more. We'll recommend a couple and a multi-effects unit.



[Image credit link](#)

Chorus - BOSS CH-2 Super Chorus

Song example: “Message in a Bottle” the Police (i.e. guitar riff)

Possible uses:

- Subtle doubling effect

- Pronounced warbly sound

Cheap alternative / clone: Donner Tutti Love Chorus



[Image credit link](#)

Multi-modulation unit - Wampler Terraform

Purpose: Get several modulation effects in a single unit

Cheap alternative / clone: Mooer Mod Factory

Time-based Effects

Reverb & delay create space & depth in a recording by echoing signals over time. Reverb typically creates a “tail” on your note, giving the perception of it an echo like that of a concert hall. Delay on the other hand is usually heard as individual repeats of notes like an echo. Subtle use can create a nice, full-bodied sound while more overt uses can concoct creative sounds not possible otherwise.



[Image credit link](#)

Delay - TC Electronic Flashback

Song example: “Where the Streets Have No Name” by U2 (i.e. guitar intro)

Possible uses: This unit recreates many of the hallmark delay sounds

Cheap alternative / clone: Donner Echo Square 7 Mode Digital Delay



[Image credit link](#)

Reverb - BOSS RV-6

Song example: “In the Air Tonight” by Phil Collins (i.e. vocals, drums, etc.)

Possible uses: Subtle tails to long ambient trails on lines

Cheap alternative / clone: Cuvave Dig Reverb

Multi-effects units

Popular these days are units that can do it all and even serve as worthy substitutes for traditional amplifiers. You can find units that do pretty much anything and at every price point. If you're looking for an all in one solution, here are some recommendations but feel free to reach out to the authors if you want some assistance.



[Image credit link](#)

Multi-Effects Unit - Line 6 HX Stomp

Possible uses: direct to speakers or interface; multi-effects solution

Budget-Conscious Recommendations

We know that the world of effects and stompboxes can be a super exciting rabbit hole to fall down, but prices can escalate quickly when you factor in the pedals, power supplies, patch cables, pedal boards, etc. However, we do recommend “hunting” for gear on places like FaceBook marketplace, Craigslist, Offer up, Reverb, and even garage sales. Just be sure the item powers on and works before you buy!

While not exhaustive, here are some companies that make cheap alternatives of popular circuits:

Behringer	CNZ Audio
Danelectro FAB Series	Mooer
Donner	Joyo
Rowin	Fender

Creative Uses & Therapeutic Applications

Effects can be used in a myriad of ways outside of traditional means (e.g. running a synth, vocal, drums, etc. through pedals) to create interesting sonic textures and provide utility for the working therapists. Here are a few favorite applications:

- Use pedals & effects for *recreative* experiences that relate to a client's music preferences
- Use a *looper pedal* to create a rhythmic vamp for group leading (e.g. with senior adults)
- Use a pitch modulation pedal to bring a guitar down an octave for impromptu bass lines

We left many categories and types of noteworthy pedals off this list just due to the expansive nature of the topic. *Be sure to check out the accompanying video for some of our recommendations, a tour of our pedal boards, and some creative uses in therapy.*

Resources

Here are some places you can learn more about effects pedals:

- [The JHS Show](#) - Educational YouTube Channel produced by JHS Pedals.
- Bjorn & Harper (2019). [Pedal Crush: Stompbox Effects for Creative Music Making](#). - Book.
- Reverb. [A Beginner's Guide to Guitar Effects: Understanding the Basics](#) - Blog
- [Reverb.com](#) - Online Musician Marketplace for buying & selling gear
- Remember to check your local retailers, FaceBook Marketplace, garage sales, etc.

References

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Images taken from personal collections or from Sweetwater.com with associated links

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Enjoyed the PDF? Don't forget to check out the video for a deeper dive!
 Need more help? You can always consult the authors directly for 1:1 tutorials, lessons, etc.



Soon you'll be well on your way to an over-crowded pedalboard of your own!