PEDAL GUIDELINES

Guidelines for setting up your pedals (Version 1.2, July 2024)
by DutchGuitarist

Content

Pedal Guidelines

The idea for this Pedal guidelines document comes from my own experiences in setting up my own pedals.

I have already described what I have why I have it and what settings I use and the detailed description of this journey can be found in two other documents:

- GearTalk: guidelines for selecting amps, speakers effects and how to use them
- Rig Rundown: explanation about my signal chain and the settings I use

The pedal order and the pedal settings very much depend on what you want to achieve and what combination of gear you use. I noticed that using another channel of my amp I needed (severe) tweaking of my pedal settings to get the sound that I wanted.

So I will provide some general guidelines for the different effect types and I will try to explain what pedal order might work better than others.

I also would like to state that I have no endorsement with any of the brands I mention in this document, nor am I affiliated with any of them.

Mind you: sound not only comes from the pedals and amps, but also the guitar, the pickups, the strings (gauche and brand), the style of playing and last but not least personal taste/preferences heavily impact your final sound.

Others guides available from my website:

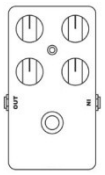
- Tone building with the Line 6 POD HD PRO
- Guitar effects: what they are and where you can find them on your Line 6 POD HD
- Recording, Mixing and Mastering in a home studio
- GearTalk: guidelines for selecting amps, speakers and effects and how to use them
- Rig Rundown: detailed description of my 2018 signal chain (including settings)
- Tone building essentials: twelve factors that impact your guitar tone

As said earlier there are no right answers as there is no such thing as ***'the right pedal order'***, it very much depends on what you want (see the GearTalk manual for more details on effect order).

Standard Pedals

Standard pedals are those pedals most guitarist are familiar with (and often have these)

Overdrive/Distortion



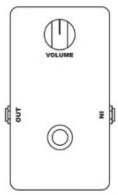
Setting up distortion or overdrive pedals is more of less the same.

The settings depend on what you want from this pedal, but there is a trick that might be useful:

1. Set the **gain control** at minimum.
2. Adjust the **tone control(s)** in such a way the pedal does not change your original sound when it is switched on/off
3. Set the **output level control** to the desired value (unity gain or a volume boost is required)
4. Raise the **gain level** to get the desired level of overdrive

NOTE: If you cannot get a tone from the pedal that is similar to the original amp tone with the gain at the lowest level, it means the pedal itself adds colour to the tone and as such it is not a transparent pedal. So, if this is important to you check this out in the shop before you buy it.

Booster



The aim of a booster pedal is to ‘force’ your tube amp (or overdrive pedal) somewhat more into a state of overdrive especially as a solo boost(but not only).

There are various types of boosters varying from **treble boost** to **bass boost** and anything in between. Certain EQ pedals can do the same especially if they come with a level(volume) control. The advantage of an EQ for this task is that you can freely select the frequency band(s) you want to push. The more luxury boost pedals may also have controls for **bass**, **treble** and **boost type.**

How to setup a booster is really simple:

1. Set the boost level at **minimum**
2. **Raise** the boost level until the desired change in volume is achieved
3. Adjust the **output** level as desired (if present)
4. Adjust **tone** controls (if present)

The difficulty with boost pedals is where to put them in you signal chain if you are using overdrive/distortion pedals.

- Before the overdrive to feed it with a hotter signal thus getting more gain and also change the feel/saturation.
- After the overdrive just to make it louder

If you intend to use a booster without overdrive or distortion pedals you can use a booster to overdrive the (tube) amp itself

Compressor

There are many compressors available today, I would recommend to look for a compressor that allows you to blend the original signal with the compressed signal as this gives you much more tonal options.

Where to put the compressor in your signal chain? Well, again it depends on what you want to achieve. What a compressor does is taking out some of the dynamics, by increasing softer volume levels and limiting louder volume levels. This will affect the pedals that are placed AFTER the compressor.

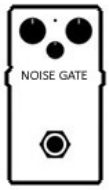
You can use a compressor ***before*** or ***after*** the overdrive pedals. If you want to keep the full dynamics of the overdrive pedals a compressor in front would take away a part of the dynamics. Furthermore, a compressor after an overdrive can take away some of the rough edges.

General approach for setting up a compressor:

1. Set **all controls** to their **minimum** value (no compression at all)
2. Set the desired **output level**, usually at unity gain, meaning there is no difference in volume when the pedal is switched on/off
3. Set the desired **amount of compression** (AKA sustain)
4. Set the **attack time** (if available), this determines how fast the compressor will kick in
5. Set the **mix** between dry and compressed signal (if available)

NOTE: If you can, use a compressor pedal with blend function, so you can set the amount of unaffected signal and retain more of the playing dynamics

Noise Gate



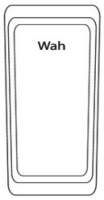
A noise gate suppresses the noise of the **incoming** signal, It has no effect on what happens afterwards, therefore the noise gate is after the overdrives and compressor, but before the modulation. Placing the noise gate ***after*** delay and/or reverb could result in unexpected cut off's.

The setting of the noise gate very much depends on what components you have in your signal chain Here is a general approach for dialling in the right amount of noise suppressing:

1. Switch you pedals ***before*** the noise gate on.
2. Switch the Noise gate **on**
3. Set the **threshold** full counter clockwise (minimum value)
4. set the **noise reduction** knob at max value (if available)
5. set the **release** at 12 o'clock (if available)
6. Turn the **threshold** clockwise knob until the noise **disappears**.
7. Turn the **threshold** knob now a little bit further
8. Decrease the **amount of reduction** as much as desired (if available)
9. Set the release knob to the desired value (if available)

As a rule of thumb: **never** put the (noise) gate **after** delay/reverb, as you may experience weird sounds such as the possibility of repeats being cut off.

Wah Wah



A wah wah pedal allows you to manipulate certain frequencies in term of volume. Most wah wah pedals are basic in terms of controls.

Controls that may be available are:

Buffered Bypass The allows you set the pedal in true or buffered bypass
Q factor This control allows you to set the frequency range of the wah

In my case I use the buffered output with humbuckers and true bypass with single coil pickups. As for the Q factor it really depends on what you need/want. I use this control to filter too high frequencies to remove harshness.

As a rule of thumb: Use the wah pedal **before** any other effects

Modulation

This is about pedals such as Chorus, Flanger and Phaser. These pedals are the most commonly used modulation pedals, other pedals like Univibe, Rotary speakers, Tremolo and Vibrato belong to this same group although tremolo is not a pitch modulation effect but stands for a change in volume. (That's why the vibrato in a Fender amp is in fact a tremolo)

These pedals usually come after overdrive and distortion and before delay and reverb. The most common controls are **rate** (or speed) and **depth** (intensity). Other controls you can encounter are **feedback** (or regenerate), **Mix/Blend** controls and **output** level.

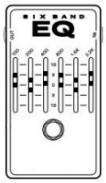
General approach:

1. Set all controls to minimum values
2. Set the **output level** (if present) so you have unity gain when switching on/off
3. Set the **rate** (speed) of the effect
4. Set the **depth** of the effect
5. Set the **mix** (or blend) if present

NOTE: The mix/blend control is also referred to as **balance**

As a rule of thumb: if you **increase** the rate, then **decrease** the depth and vice versa.

Graphic Equaliser



Equalisation is the process of adjusting the balance between frequencies in an audio signal. These devices strengthen (boost) or weaken (cut) the energy of specific frequency bands or "frequency ranges".

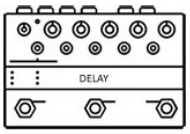
There a multiple uses of a Graphical Equaliser in a signal chain:

- Before the overdrive/distortion pedals, this way you can ‘control’ these pedals so they compress certain frequencies earlier.
- After the overdrive/distortion pedals as an overall solo boost (see the chapter on **boosters** for details) or to sculpture the overdriven sound.
- As a global EQ at the end of the signal chain to adjust the overall frequency spectrum based on poweramp use, PA or recording

How to setup an equaliser:

1. Set all frequency bands in the **middle** position (no boost or cut)
2. Set the first frequency band up to **maximum** boost (in order to hear the affected frequency band better)
3. Determine if you want to adjust this band and if so **set** the boost level to the desired level(or maybe even **cut** it)
4. Repeat the two previous steps for **all available** frequency bands

Delay



Delay is an audio which repeats a signal after a short period of time. The delayed signal may either be played back a number of times, resulting in the sound of a repeating, decaying echo.

Based on the unit, either pedal or rackmount, this effect can be **mono** or **stereo**. Remember that stereo is good for recording but in a live situation the audience will normally not notice the stereo effect.

When you are looking for a (new) delay pedal or rack unit, try to find one with a **ducking** control. Using a ducking control with delay means that the delayed signal volume is reduced during the presence of the guitar signal and the delay becomes more prominent as the original guitar signal fades. Notice that fast riffs need far less delay and therefore with a ducking control present these fast runs are more clearly auditable.

The most important thing here is setting the tempo of the delay.

Setting up a delay:

1. Set all controls to **minimum** value
2. Set the **Tempo** control, this is the delay time
3. Set the **Time range**, this is the length of the delay relative to Tempo
4. Set the **Feedback**, this controls the number of repeats
5. Set the **Tap ratio**, the time between the first and second delay, normally only found in ping-pong delays
6. Set the **Mix/blend** control
7. Set the **Ducking** control

As a rule of thumb: Use tempo settings **under 300ms** and with little feedback(AKA repeat) if you are playing fast as otherwise it will become messy. Use settings **above 500ms** for more ambient sounds.

Reverb

Reverb simulate the spacious sounds produced naturally in an acoustic space such as a hall or room). This is done by creating a large number of echoes that gradually fade away.

Setting up a reverb (Some units will not have all the controls):

1. Select the **type** of reverb (plate, hall, spring etc)
2. Set the **controls** to minimum value, except **mix** or **blend**, leave these in the middle position
3. Set the **size** control (size of the selected reverb type)
4. Set **decay** control, this one determines the duration and fading of the reverb
5. Set the **pre-delay** this is the time delay between the source signal and the onset of reverberation.
6. Set the **mix** control to taste

NOTE: At higher volume you will need **far less** reverb. In live situations you may need to adjust the pre-delay time in such a way the actual reverberation kicks in at a later time.

Special Pedals

This category pedals are made to perform specific signal processing. As I currently have only a few of these pedal this chapter is fairly small.

TC Electronic SubnUp: Octaver

The SubnUp from TC Electronic is a polyphonic octaver. This pedal is from the toneprint series and therefore the internal parameters of the pedal are modifiable using the free downloadable Toneprint editer.

Use these types of pedals before the overdrive/distortion

Typical setup procedure (without the toneprint editor, thus the polyphone or classic mode)

1. Set **all controls** to the minimum value
2. Dial in the amount of desired **first sub frequency**
3. Do the same for the **second sub frequency**
4. Add the amount for the **up frequency** (if desired)
5. Raise the **dry knob** to add the original signal

Digitech Freqout: Natural Feedback Creator

You can use the feedback creator before or after your overdrive/distortion pedals. As the feedback created by the pedal is artificial it will not be distorted by nature. So by putting the pedal before the overdrive/distortion the feedback signal will also be affected by these pedals.

Setting up this pedal very much depends on what you want it to do, but a general approach is:

1. Set the **dry switch** to on position, this will blend the feedback signal with the original signal
2. Set the **momentary switch** to off. This means the feedback is always active
3. Select one of the seven **harmonic types** (see the Freqout manual for details)
4. Set **gain** and **onset** to the minimum position
5. Raise the **gain** control to set the desired volume of the feedback signal
6. Raise the **onset** control to determine the delay time for the feedback signal to become active

NOTE: the onset control makes it possible to play ‘normally’ and only have a feedback signal on sustained signals. If set to a extreme low value the feedback signal comes in too fast for my personal taste. (I have the onset set at 12 o’clock when I use the pedal with the momentary switch **off.**)

Digitech Luxe: Detuner

The Digitech Luxe is a polyphonic **detune** pedal and is also known as an anti chorus pedal. It can detune from -50 to +50 cents. The detune effect comes from the popular Whammy pedal.

Unlike chorus, this detune pedal does not modulate the slight pitch variance but adds "thickening" to the signal without the modulating side effects introduced by a chorus.

The absence of pitch modulation means that it actually sounds good with a distorted signal. This combination of overdrive and the detune pedal makes a great **fusion tone** (at least for me)

Setting up this pedal is rather easy as it only has two knobs:

1. Switch the pedal **on**
2. Set the **detune control** at 12 o'clock (no effect)
3. Set **the level (dry/wet) control** to 12 o'clock
4. Turn the **detune control** up of downwards until the desired detune effect is accomplished
5. Adjust the **level control** for more or less detune effect

As a rule of thumb: set the detune control somewhere between 10 and 2 o'clock, then otherwise the detuned signal will become too prominent!