

GT139

Session Secret

Booster, Overdrive & Distortion

It's probably the first pedal most of us bought, with a handful of hard earned notes, and is still the most important in most of our pedal boards; the overdrive or distortion!

It all started as a mistake. Well, it wasn't really a 'mistake' but that's what people thought at the time. Somebody in the distant mists of time cranked the volume up on an early valve amp (I think it was a Marshall) and found out that the sound wasn't clean anymore; it was different, dirty, if you like. Very soon both guitarists and technicians discovered that this 'dirty' sound was actually pleasing and distortion was born.

Since then, the market has seen hundreds of pedals trying (with varying success it has to be said) to emulate that sound, the sound of an amp set at maximum volume.

There are three main types of pedal that simulate this sound and they're all used in different situation and styles.

Booster: this pedal makes your sound bigger, fatter, louder and sometimes adds a very small amount of gain. It usually raises the volume of the guitar so when the signal goes in the amp it's louder than usual. In this way the pedal overdrives the first valve. Although this pedal is common in virtually every style, its most common use is in blues influenced music (blues, country, r&b, soul, etc). One of its main characteristics is that you retain the natural instrumental dynamics.

Overdrive: this pedal has the hardest task. It has to emulate an amp that is 'breaking up' due to being too loud. The tone changes with a more dirty sound and the dynamic response drops down a little bit, with something akin to compression occurring. Even the 'timbre' of the guitar changes as some overdrive's have very distinctive sounds or 'colors'. This type of pedal is common in the classic rock environment.

Distortion or Fuzz (depending of the tone characteristic): this pedal is simply an exaggeration of the sound of a natural overdrive. The tone drastically changes and the dynamic response almost disappears! The distortion pedal is common for heavy metal, shredding and all types of heavy rock whereas the Fuzz is a must for Hendrix or 60's tone.

These are the basic characteristic of the pedals but it's possible to use an overdrive or a distortion pedal as a booster setting the gain quite low and the level quite high.

The common knobs for these effects are:

- Gain: amount of distortion
- Tone: the EQ of the pedal
- Level: the volume

A modern trick is to boost an overdrive pedal: a simple way to do it would be:

- Guitar > booster (set the volume to the max) > overdrive (with the volume as you like) > input of the amp.

This should give the same type of sound and characteristics of the overdrive pedal, but with more gain.

A common mistake

Many guitarists use too much distortion. We tend to add gain to compensate for not having enough sustain and the result is a different tone! For instance, if you want a light crunch tone with more sustain try adding a compressor before (or after) the overdrive. A good reference for a shredding sound without too much distortion is Yngwie Malmsteen.

The Holy pedal

It doesn't exist! If you're trying to get everything from one pedal, give up! A better approach would be to find a selection of pedals that you like. A good choice would be three different pedals with totally different sounds and functions. It's very important to try the pedal with your guitar and your amp as the most important thing is the combination of the three. Buying an expensive pedal doesn't mean that it's gonna sound any good with your equipment.

Advice

I found that overdrive/distortion pedals sound better if run stereo. A simple way to do it would be:

- Guitar > overdrive > stereo delay > two amps

Instead of the delay you can use different units, such as the Boss Line Selector. Set up like this, many pedals sound better, bigger and more 'real'.

Ex 1: Ex 1 is the Arbiter Fuzz Face that appeared in London around the 60s. This pedal has a very distinctive sound (called 'Fuzz') and it's usually associated with Jimi Hendrix. I used a Marshall Plexi set to a clean-ish sound and my Strat. Both rhythm and lead featured the same settings on the pedal (Fuzz 100%, Volume 50%). Use the bridge pickup for the rhythm and middle for the lead.

Gtr 1

♩ = 90

E7(#9) G N.C. (A) x3

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Gtr 2

♩ = 90

E7(#9) G N.C. (A)

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Ex 2: Ex 2 featured the famous Ibanez TS808. Although it's an overdrive, the most common use for the Tubescreamer is as a booster (check out Gary Moore's wicked 80's rock tone!). I've used the same equipment as before, just a different pedal. Delay and reverb have been added in the mix.

♩ = 50

C^(add9) Am⁹ Fmaj⁹

TAB

4 Fmaj⁷/G Am⁹

TAB

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Ex 3: This example has the Electro-Harmonix Big Muff Pi in the rhythm and a ProCo Rat in the lead. The Big Muff has a huge, modern sound (although it came out in 1971!) and is often used for rhythm guitars. The Rat is more like an old-school distortion, and was very popular in the 80's L.A. session world for both rhythm and lead work. This sound clip shows two totally different sounds, two generations if you like. I've used the same settings as before, but with a Gibson Les Paul.

Gtr 1

♩ = 100

F⁵ D⁵ G⁵ F⁵ D⁵ A⁵ G⁵

TAB

4 D⁵ A⁵ G⁵ B^{b5} A⁵ G⁵ D⁵

TAB

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Gtr 2

Two staves of guitar notation for Gtr 2. The first staff shows a sequence of chords: D⁵, G⁵, A⁵, D⁵, A⁵, G⁵, D⁵, A⁵, G⁵. The second staff shows a sequence of chords: B^{b5}, A⁵, G⁵, D⁵. Both staves include fret numbers and a 'full' marking.

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TONE SETTINGS

The most common choices:

Booster: Xotic AC Booster, Xotic RC Booster, Keeley Katana Boost and many others.

Overdrive: Ibanez TS9 or TS808 (Tubescreamer), Boss OD-1, Boss BD-2 Blues Driver, Coloursound Overdrive, Voodoo Lab Sparkle Drive, and many others..

Fuzz: Arbiter Fuzz Face, Maestro Fuzz Tone, Vox Tone Bender, and many others.

Distortion: Boss DS-1 Distortion, ProCo Rat, Electro-Harmonix Big Muff Pi, Tech 21 Sans-amp GT2, Boss MT-2 Metal Zone, MXR Distortion +, Tube Works Tube Driver, Crowther Audio Electronics Hot Cake, and many others..

Other famous models include: Bixonic Expandora, Tycobrahe Octavia, FullTone Fulldrive 2, FullTone Distortion Pro, Carl Martin PlexiTone, Carl Martin AC Tone, Klon Centaur, Keeley Fuzz Head, and way too many others!