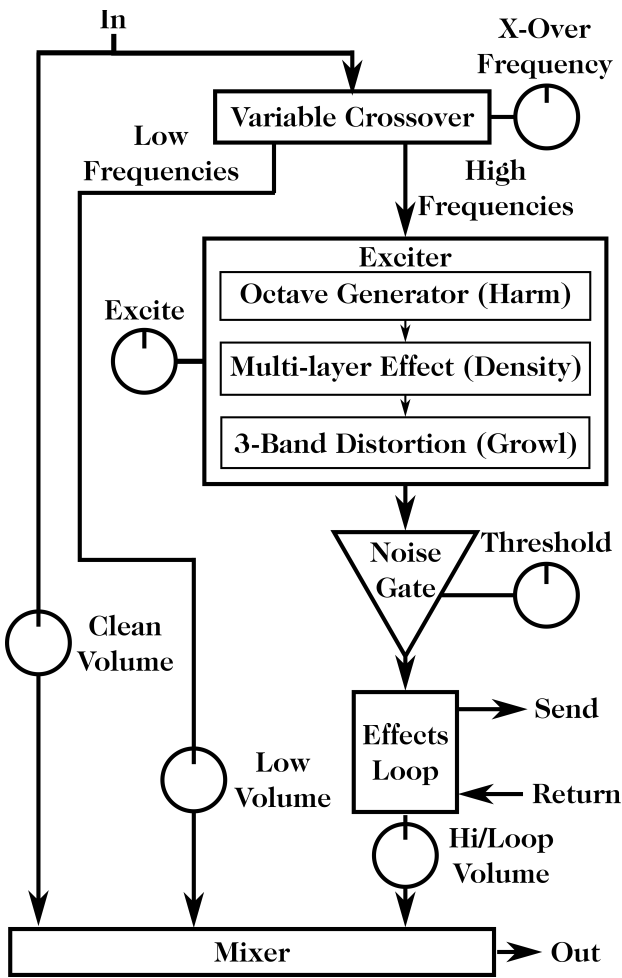


# **IE**

**Iron Ether  
Divaricator  
Owner's Manual**

The Divaricator is a versatile “tone toolbox” for bassists using effects. Using its 4th-order variable crossover, the pedal splits a signal into high and low frequency bands, and processes the high frequency band with any combination of three “exciters” - each enhancing a different aspect of the sound – before sending this enhanced harmonic content through an external effects loop. To tame the potential for enhancing high frequency noise along with the signal, a noise gate is applied to the excited signal path. The low frequencies are passed through directly, to preserve the bass frequencies without introducing muddiness, booming, or cancellation.

Depending on how you connect it to your other equipment, the Divaricator can be used as an inline effect to enhance the signal; to split a signal to a bass amp and a guitar amp; or to insert other effects into your chain that cut bass or otherwise alter your tone.



## Exciters

The exciters can be switched on independently, by toggling their respective switches up. Setting all switches down turns off all three, allowing the pedal to function as a pure crossover/splitter.

*Growl:* A distortion-like exciter which generates extra harmonics. Unlike conventional distortion, this effect preserves your playing dynamics exactly, rather than adding compression.

This effect is great for adding harmonics before filters and phasers. If your standard clean bass tone is dark and round, many effects pedals will give lackluster results when switched on, as the signal is lacking harmonic content to work with. The Growl exciter is perfect for adding that high end bite only when driving your swirly effects, while allowing your dry tone to stay thumpy and deep.

*Harm:* Generates octave-up harmonies. This can be used as an effect on its own, but subtler and more interesting results

come when turning the X-Over frequency up above center. You'll be generating octaves only from the higher harmonics in your sound, which creates unique, exaggerated pick attack sounds and shimmer.

*Density:* A “multi-layer” enhancement effect which thickens the sound. This is similar to a reverb, but maintains the rhythmic tightness of your playing.

The placement of the Density enhancer *before* the Growl section allows for sounds that can't be obtained with typical distortion and reverb. With both Density and Growl activated, try bending a note as it rings out. The harmonics generated will shift over time, as your note intermodulates with a version of itself from the immediate past. Similarly, playing techniques involving double-stops, chords, and open strings ringing out will have an interesting time-varying effect while both of these exciters are active.

## Controls

***Threshold:*** Sets the level of the incoming signal at which the noise gate is engaged. Adjust so that soft or sustained notes don't cut off, but muted strings do.

For overt gating effects, set the Threshold lower on the dial. You can use this to punctuate a bassline or melodic phrase by only turning on the high band, effects loop, and/or exciters when you play louder. Threshold can also be used to sculpt the decay time when Density is active.

***Excite:*** Controls the amount or strength of excitation, from none to extreme. All three exciters are controlled by this single knob. With all exciters turned off, this knob changes the sound of the crossover filter in a subtle but musical way.

***X-Over:*** Controls the crossover frequency of the band-split filter, separating the low and high signal paths.

***Clean:*** Controls the volume of the clean

signal, which remains analog throughout the signal path.

*Low:* Controls the level of the low frequencies, which are passed to the output without further processing.

*Hi/Loop:* Controls the level of the high frequencies, which are processed by the exciter and optionally routed through the external effects loop.

### A Tour of Sounds

Start with all knobs all the way down, and switches down. Turn the Low knob to its center position, and play. You'll hear only the lowest frequencies of your sound. Now turn the Hi/Loop and Thresh knobs up and you'll begin to hear the high band added back in.

Turn Hi/Loop all the way down and begin turning X-Over up, stopping at a few points in the knob's travel to play. In this setting, the Divaricator functions as a non-resonant 4-pole lowpass filter. This can be useful for getting a very pure, deep bass

tone, even with new strings and a bright bass.

Now turn Hi/Loop back up and turn on Growl. Increase the Excite amount and experiment with the X-Over control. A large variety of unique distortion/fuzz tones can be found here. With the X-Over set lower, you'll tend to get more thick and obvious distortion. At high X-Over settings, you'll be adding brightness and plucky attack rather than overt distortion.

Now add Density, while keeping Growl active. Again, try the whole range of the Excite knob to hear what controlling both exciters together can do. Density adds thickness and layering to the sound. Together with Growl, it can create distortion/harmonic enhancements that vary over time.

Try lower and higher settings of Thresh and notice how it sculpts the decay of notes in the high band, from very quick to longer. With Thresh all the way down, the high band will only be heard when playing the loudest notes.



Finally, activate Harm and try the full range of the Excite knob. With low X-Over settings, the Harm exciter can create organ-like octave tones, but setting X-Over higher allows for more subtlety in generating high frequencies that enhance your tone without overpowering it.

### Connections

The Divaricator can be used in different configurations depending on how the Exp/Loop jack is connected to other equipment.

*A – Inline effect.* When nothing is inserted into the Exp/Loop jack, the loop send is connected to the loop return, and the pedal can be used as an inline effect – typically best placed earlier in an effects chain, before filters, phasers, but after any pitch-tracking effects.

*B – Effects Loop.* Using an “insert” cable, connect the TRS stereo end of the cable to the Exp/Loop jack. Connect the mono TS plug labeled “send” or “ring” to the input of an external effect or chain of effects.

Then connect the mono TS plug labeled “return” or “tip” to the output of the external effect or effects chain.

In this configuration, you're sending the high frequency band – including any exciters that are activated – through the external effect, and then bringing that signal back into the Divaricator and mixing it with the unprocessed low frequency band, as well as the full-range clean signal.

*C – Bi-amping.* Using an “insert” cable, connect the TRS stereo end of the cable to the Exp/Loop jack. Connect the “send” or “ring” plug to a chain of guitar effects and a guitar amp. Then connect the normal output jack to the rest of your bass effects chain and bass amp.

By sending the high frequency band through the exciters and then on to a distorted guitar amp, you can create a big sound, perfect for filling out a 3-piece band when the guitarist solos, while still holding down the low end through your bass amp.

In this configuration, the effects loop return is unused. You can connect the output of a keyboard or drum machine to this plug to mix it in with your bass signal – the Hi/Loop knob will control the volume of the external sound source.

*D – Expression control.* Inserting an expression pedal into the Exp/Loop jack allows you to control the volume level of the high frequency band with your foot, fading in the highs and exciter effects over the course of a bassline, or to accent certain notes in a phrase.

In this configuration, the Hi/Loop knob will act as a limiter on the maximum volume the expression pedal can go to.

### Power supply

The Divaricator is powered by the industry-standard 9 volt DC center-negative power supply (2.1mm jack). It draws 85 mA of current. Use a power supply that can source at least this much.

## Warranty

Your Divaricator is warranted for materials and manufacturing for one year from the date of purchase. The warranty is void if you use the wrong type of power supply, take the pedal apart, attempt to modify it, or use it in a way not intended.

## Bypass

The Divaricator features a relay-based true bypass system. When the pedal is bypassed, the signal is connected directly from the input jack to the output jack via a mechanical switch, and does not pass through any buffers, electronic (FET) switching, or other circuitry that could have an effect on sound fidelity. It's different from the more common true bypass in that instead of a 3PDT stomp switch, this uses a mechanical relay designed specifically for low-voltage signals like audio. This makes for a quieter switch, greater reliability, and the bonus of automatically going into bypass if power to the pedal is lost.