



# compressor



user manual

## Introduction

Compression is a tool used on pretty much every recording you will ever hear, yet this extremely useful and versatile tool is often overlooked by guitar players as part of their rig.

Other compressor pedals are often limited by oversimplified controls and heavily colored sounds. We have created a truly transparent compressor, complete with all the controls found in the studio. The result is a tool that allows for a wide range of sounds from subtly adding sustain to getting the “quack” that country players love.

We’ve also included a mix knob to blend in the dry signal for an even more transparent sound and a gain reduction meter so you know what the compressor is doing at all times.

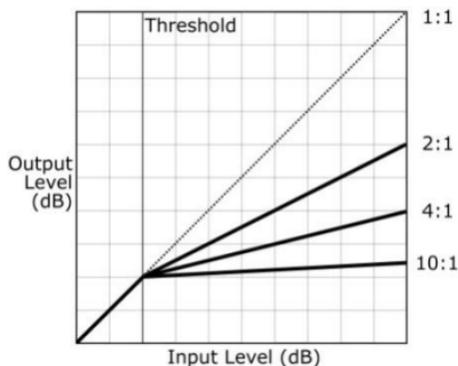
To help you get the most out of this product, we’ve put some brief instructional videos on our website: [www.empresseffects.com](http://www.empresseffects.com)

Enjoy,

Steve Bragg

## The Basics of Compression

Compression can add consistency and sustain to your playing or it can be used to add note definition and other effects. It essentially narrows the difference between high and low audio levels by reducing the gain to any signal over the threshold.



The **ratio** determines how much gain reduction will be applied to the signal once it crosses the threshold. At a 4:1 ratio, for every 4dB of input signal above the threshold, there will be 1dB of output signal. A 10:1 ratio would output 1dB for every 10dB of input signal, etc.

**Attack** controls how quickly the gain reduction will begin after a signal has crossed the threshold. **Release** controls how long it takes for the compressor to return to its initial level after the signal drops below the threshold.

## Controls a

**ratio:** determines how aggressive the gain reduction is.

**2:1** - good for gentle gain control and smoothing out uneven playing. Very transparent.

**4:1** - a great general purpose setting. Still transparent but offers a large range of compression.

**10:1** - close to limiting. Good for achieving the classic country overcompressed sound and adding a lot of sustain for soloing.

**input:** sets the level entering the compressor circuit. Higher levels will result in more compression.

**attack:** controls how quickly the compressor will react to an incoming signal. Attack time increases as you turn the knob clockwise. **Range:** 50us - 50ms

**sidechain:** used to alter the signal going to the gain reduction control circuit. It accepts a 1/4" TRS plug: Tip = send, Ring = return, Sleeve = ground.

**release:** controls how quickly the compressor returns to its initial level. Release time increases as you turn the knob clockwise. **Range:** 50ms - 1s

**Power:** + - 9V -  
tip 2.1mm jack. 100



## at a Glance

V - 18V DC negative  
mA or greater



**meter:** red LEDs indicate gain reduction (gr). Gain reduction values are marked over each LED.

green LEDs indicate input volume.

when "both" is selected, overlapping gain reduction and input LEDs will appear yellow.

**output:** sets the output level. This will not effect the amount of compression. Can be used to make up gain lost in compression or as a boost for soloing.

**mix:** controls the level between the dry signal and the wet (compressed) signal. All the way clockwise is 100% wet signal and all the way counterclockwise is 100% dry signal. Blending in the dry signal brings back the dynamics that can be lost during compression. This technique of parallel compression allows for added sustain without losing the life associated with an uncompressed signal.

**bypass stomp switch:** when the LED is shining, the compressor effect is applied to the signal. When off, the compressor is being bypassed (true bypass).

## Quickstart



**Added Control:** Here's a good starting point for adding consistency and sustain to your playing while retaining dynamics. Adjust the input level so the “gr” meter shows 8dB of gain reduction when playing your loudest.



**Chicken Pickin’:** Here's one for a nice compressed country sound. Adjust the input for 10dB of gain reduction when playing your loudest.

## Sidechain

The sidechain connector on the compressor is a loop that lets you alter the signal going to the gain reduction control circuit. It accepts a ¼" TRS plug: Tip = send, Ring = return, Sleeve= ground.

When using the compressor on a bass guitar, it can be very useful to add a high pass filter to the sidechain in order to avoid triggering the compressor with high energy notes in the lowest octave.

## Using the Meter

The compressor has a 10 segment LED meter that shows input gain, gain reduction or both.

Red LEDs indicate gain reduction. Gain reduction values are marked over each LED. Green LEDs indicate input volume. When “both” is selected, overlapping gain reduction and input LEDs will appear yellow.

## Specifications

Input Impedance:	1M $\Omega$
Output Impedance:	2.2k $\Omega$
Frequency Response (-3dB):	40Hz – 35kHz
Distortion:	<0.1%
Noise:	-101dB
Input Voltage:	9VDC-18VDC +  -
Required Current:	100mA
Power Input Connector:	2.1mm Barrel Connector
Height (enclosure only):	1.5"
Height (including controls):	2"
Length:	3.5"
Width:	4.5"
Weight:	1lbs