

# Wounded Paw Audio

## Siege Engine II Bass Pre-Amp

### Owner's Guide

Lay siege to your enemies with the Siege Engine Bass Pre-Amp. The Siege Engine is a powerful bass weapon with a TON of overdrive and massive flexibility and outputs. The pre amp features a 5 band EQ and overdrive section that allows you to carefully tailor the gain and tone at different frequencies.

- **Input and Pre Gain:** The high impedance jfet input amp feeds directly into a Pre Gain control that can be pushed hard to introduce some drive or kept clean, which in turn pushes the overdrive section harder or lighter as desired. It's a quick way to alter the overall aggressiveness of the Siege Engine.
- **Overdrive:** In the overdrive section the signal is split into Bass, Lo Mid, Mid, Hi Mid and Treble frequency bands. Each band has a Level control and it's own Drive control. All the bands are summed back together to form a harmonically rich tone that still maintains the integrity of all the notes you're playing.
- **Footswitches:** The Siege Enging Pre-Amp has 4 footswitches, Bypass, Mute, Overdrive, and Effects Loop, to enable full control over all lines of attack.
- **Master Outputs:** There are two master outputs, both controlled by the Master Volume. One high level output for feeding power amplifiers and one instrument level output to send to bass amps or other instrument signal effects chains.
- **Line Outputs:** Balanced XLR and unbalanced 1/4" jacks to connect to PA, mixing consoles or other amplifiers. The Master level does not change the level of these outputs.
- **Headphone Output:** Connect headphones to use the amp for practice with an aux input to connect to outside music sources.
- **DC Power:** The Siege Engine needs a DC power supply from 9 to 18 volts with 420mA of current available, like most pedal power supplies.

**Pre Gain:** After the jfet input amp the signal is sent to the Pre Gain control which can be pushed hard or kept clean, regardless of whether the Overdrive section is on or off. This sets how hot the signal being fed to the Overdrive is, which in turn will drive the separate overdrives harder.

#### ***Overdrive Section***

Engage the entire Overdrive section with the Overdrive stomp switch. In the overdrive section the instrument signal is split into Bass, Lo Mid, Mid, Hi Mid and Treble frequency bands. There is a wide range of Drive that can be applied to each frequency band as well as adjusting the individual band's output Level.

**Bass, Lo Mid, Mid, Hi Mid and Treble:** Sets the output level of each of these frequency bands. These frequency bands also have individual Drive controls which sets how much overdrive is applied to that particular frequency range.

The Bass band has less drive than the other bands so you may need to keep the Bass volume at a higher level to have an even frequency response.

**Volume:** All the bands are then summed back together to form a harmonically rich tone that still maintains the integrity of all the notes you're playing with the output level being set by the Volume control.

**Hi Cut:** The Hi Cut control works on the summed overdrive signal to tame the possibly huge amounts of higher harmonics generated by mixing all the overdrives together.

### ***Effects Loop***

The effects loop comes after the Overdrive section and can be switched on or off by using the Effects Loop footswitch. The effects loop Send and Return jacks are on the back panel, 1/4" jacks to connect to an external effects pedal or signal processor. If nothing is plugged into the Return jack the signal is passed through from the Send. The Send Level adjusts the output level of the Send jack to alter the level going into effects units.

### ***Master Section***

The master section is the final stage before the pre-amp outputs controlling the Master volume and Bass and Treble on the output signal. The Line Outs are affected by the Bass and Treble controls but not the Master Volume.

**Bass:** Bass shelf control with 15dB of boost or cut. At the noon position there is no change to the signal. With the treble control this forms a Baxandall type tone stack.

**Treble:** Treble shelf control with 15dB of boost or cut. At the noon position there is no change to the signal.

**Master Volume and Outputs:** The Master Volume controls the level of the two master outputs. One high level output for feeding power amplifiers and one instrument level output to send to bass amps or other instrument signal effects chains. The high level output is the bottom 1/4" jack labeled HOT and is only active when the Siege Engine is not bypassed. The instrument level jack is the top 1/4" jack right above that and is directly connected to the input when the Siege Engine is bypassed.

### ***Headphones***

Connect headphones to use the amp for practice with an aux line in for playing along to recorded tracks.

**Level:** Sets the headphone volume of the bass amp sound.

**Aux In:** 1/8" jack to connect to a phone or MP3 player, or any other source of pre-recorded music. You must set the volume for your aux in on whatever device is plugged into it.

**Phones:** Stereo 1/4" jack to connect to headphones.

### ***Line Out***

Send a signal out to mixing consoles, PA systems or other amplifiers. The Line Outs are not affected by the Master Volume but will be muted when the Mute footswitch is engaged.

**XLR out:** Connect a mic cord to send a balanced signal to mixers. DO NOT apply 48V phantom power to this XLR line.

**Unbalanced:** Connect to an external amp using an unbalanced 1/4" instrument cable. For a balanced output use the XLR out.

**PRE / POST and GND lift:** Rotary switch to select the Line output. In the Pre position the Line Out signal is taken directly from the input amp. In the Post position the Line Out signal is taken from the Master section which comes after the overdrive and effects loop, before the Master Volume but after the Bass and Treble controls. To engage the ground lift if there is a ground hum issue on the XLR Out, use the third and fourth positions of the rotary switch: Pre + GND lift, and Post + GND lift.

### ***Tuner***

Use this 1/4" jack to connect to a tuner. The tuner output always stays on even if the Mute is switched on so you can tune silently without any signal going to the DI or Master outputs.

### ***DC Power In***

The Siege Engine Pre-amp requires a DC input from 9 to 18 volts, with a current of 420mA at 9 volts, 330mA at 12volts, and 220mA at 18 volts. The input voltage does not affect the operation as long as it's within the stated range.

### ***Recommended Settings***

As a starting point we recommend setting all the overdrive section's levels to noon and the drives to the same or a consistent lower level. At lower Drive settings you will probably want the Bass band's volume control at a higher level to keep an even frequency response.

From there you can experiment with adjusting the pre gain to quickly add or subtract the total gain, or individually adjust the overdrive channels. To hear what each overdrive channel sounds like individually you will have to turn all the channel's levels down to 0 and then bring one up by itself. It may take a while to find your tone but it will be well worth it.

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