



User's Manual  
Portia Street Stomp

Thank you for your purchase of an Iron Age Portia Street Stomp. Iron Age Audioworks is a small team of engineers and designers and we truly appreciate your business. We hope you enjoy using this as much as we enjoyed making it.

## **Safety**

Safety with audio equipment is normally a matter of common sense, but we want to make sure you get the best use out of your equipment. So please, use common sense including...

- Use typical practices for using electrical and audio equipment.
- Don't clean this with water or use it around water.
- Don't use this around anything that's hot (such as a radiator or space heater).

## Overview

The Portia Street Stomp is a swiss army knife for transformer tone shaping born out of a late night session with Dylan Ely, owner of the Portia Street Studio in Los Angeles. Dylan does a lot of live work and wanted a portable unit to give some weight to a signal. The Stomp was our solution.

We wanted a way to get all the complex, rich tones a transformer can offer on any signal. That sound is a product of the inductance of the transformer and the source impedance presented to the transformer. Larger source impedances or lower inductance in the windings produce more distortion at a given signal level. The load on the transformer also contributes to the response of the iron. Changing the load load on the secondary side also has an effect on the amplifier driving the transformer.

The Portia Street Stomp uses a wonderfully low inductance steel core transformer with quadrifilar windings (four identical windings). This allows for many ways to get a wide range of tones out the transformer itself **and** the circuit before it in the chain.

This means the sound of the Stomp will change based on what you drive it with!

The Portia Street Stomp allows you to vary the tone in three ways:

- The transformer “Ratio” switch selects between four configurations: 1:1, 1:2, 2:1, and 2:2.
  - The 2:2 configuration is the same turns ratio as 1:1 but uses 2 windings to increase the total inductance.
  - This changes the behavior of the “Primary” knob. 1:1 will have a greater effect.
  - In 1:2 there will be a 6 dB step up and the load being presented to the source amplifier will decrease by a factor of 4.
  - In 2:1 there will be a 6 dB step down and the load being presented to the source amplifier will increase by a factor of 4.
  - 1:2 loads the driving amplifier more, 2:1 loads it less.
- The “Primary” knob allows the source impedance presented to the transformer to be changed continuously, which increases the harmonic distortion of the passive circuit and slightly changes the frequency response.
- The “Secondary” pot allows the load across the transformer secondary to be varied. This will change the current drive of the source amplifier. A higher load will increase the current demand at a given signal level, which will cause more distortion from the source amplifier. The load pot will also interact with the transformer windings to change the overall tone.

## Some Suggestions

The Stomp can be put after anything to add some low end harmonic distortion and transformer color. Putting the unit in 1:2 with all controls at 12 o'clock is a good place to work from.

A useful mix bus setting right out of your converters is 1:1 with the primary and secondary knobs at 11 o'clock. This gives a touch of moodiness and a tasteful low end bump.

Many pieces of vintage gear are designed to interface with 600 ohm loads. Most modern gear uses bridging inputs with impedances of 10k ohms. The Stomp can be used to present a 600 ohm load between the two. The Primary knob can be used to add color from there. There are three starting points to present a 600 ohm load to the driving transformer:

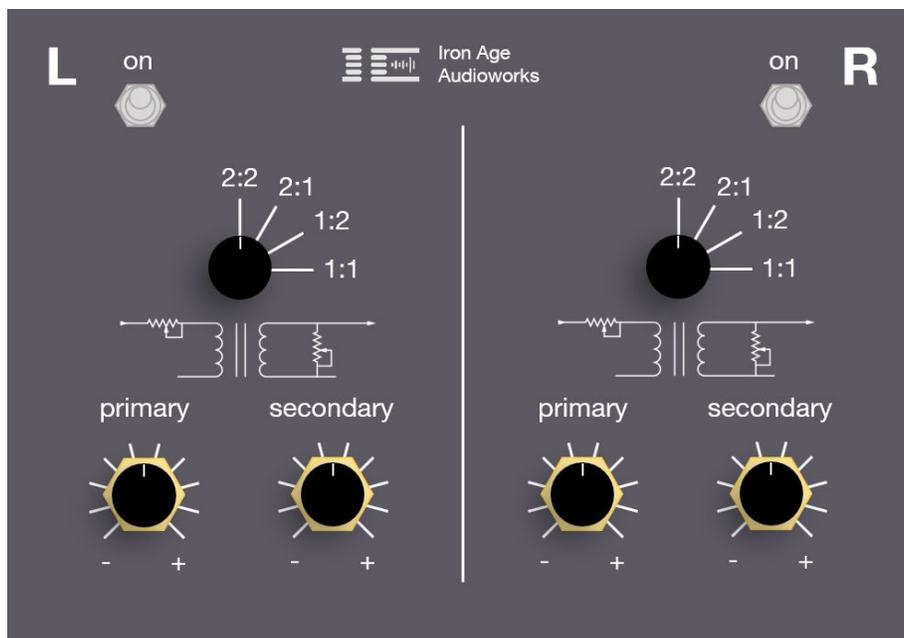
- Ratio 1:1, Secondary knob fully clockwise
- Ratio 2:2, Secondary knob fully clockwise
- Ratio 1:2, Secondary knob at approximately 3 o'clock

Try it between a mic and a pre (be aware it won't pass phantom power!) or daisy chained!

Experiment and have fun! We wanted to use this form factor to encourage knob twisting and an fun user experience.

## Controls

Each band has identical controls.



The ON switch engages the passive circuit. When it is off the unit is wire bypassed.

The RATIO switch selects the configuration of the transformer windings between 2:2, 2:1, 1:2, and 1:1.

The PRIMARY knob causes the source impedance to change. The more you increase this, the more distortion and tone shaping effect you'll get (clockwise = more effect).

The SECONDARY knob changes the load impedance. A lower load impedance increases the current demand on the driving amplifier and causes more distortion (clockwise = more effect).



The GROUND LIFT switch decouples the output XLR pin 1 from the input XLR pin 1 and the chassis using a simple RC circuit. Engage this if you're encountering ground loop problems.

The controls are all interactive and changing one will affect the others. Because the unit is passive it will also change the behavior of the unit upstream of it in the chain. It's really fun to experiment on different pieces to find new tones you can coax out of your favorite units!

## Inputs and Outputs

The inputs and outputs are transformer balanced line level using XLR jacks on the rear panel.

## Chassis

The Iron Age PSS uses a custom 7" x 5" x 2" case.

## Warranty

We warrant this product to be free from defects of materials and workmanship for a period of one (1) year from the date of purchase. We will remedy any defect identified within this period by repairing or replacing the product at our option. It will be your responsibility to pay for shipping the product to us, and if the product is determined to be defective, our responsibility to pay for shipping the product back to you.

LIMITATIONS AND EXCLUSIONS. This warranty, and any other express or implied warranty, does not apply to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or modified in any way. This warranty is extended to the original purchaser only. THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, TO THE EXTENT ALLOWED UNDER APPLICABLE STATE LAW. IN NO EVENT SHALL IRON AGE AUDIOWORKS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT.

If you suspect a defect in this product, please contact us to discuss the problem (it is possible that a suspected defect could be quickly remedied or due to improper usage).

Call or email us with any issues, to say hi, or share the music you've made. We love this gear and want you to love it too.