

# OWNERS MANUAL

MANUAL NO. 02

REV. DATE: 7/2017

## THE Z-ROCK



Vacuum Tube EQ/Tone shaper

**MODEL ZROCK2**

 **DECWARE**

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## INTRODUCTION

The Z-ROCK was designed to restore missing bass and tone to your music. Originally the idea was to make classic rock internet streams sound better, but it has since morphed into the ultimate black box that can make everything sound better.

## APPLICATION

Install the Z-ROCK between your source and preamp/amplifier. The maximum input voltage the Z-ROCK will accept from your source component is 4 volts. If you have a high-output DAC, adjust the output level to somewhere between 2 and 4 volts but no higher.

## POWER

You will quickly discover that the Z-ROCK doesn't have a power switch. You simply plug it in, it will come on and stay on indefinitely. This is done so that it remains warmed-up and "in the zone" at all times ensuring a warm and liquid presentation. It is possible to have this luxury because the Z-ROCK runs the tube at lower voltages that create precious little heat and preserve tube life.

## TUBE

The tube used is a single 12AU7, 12AU7A or 5963. The tube is installed through the front making it easy to access. To remove the tube, it is advisable to wipe it with a touch of rubbing alcohol and in the process wipe your finger tips as well. Without finger oil on the tube or your fingers, it will be easy to remove the tube. The tube will typically last longer than its rated lifetime (in some cases up to 10,000 hours).

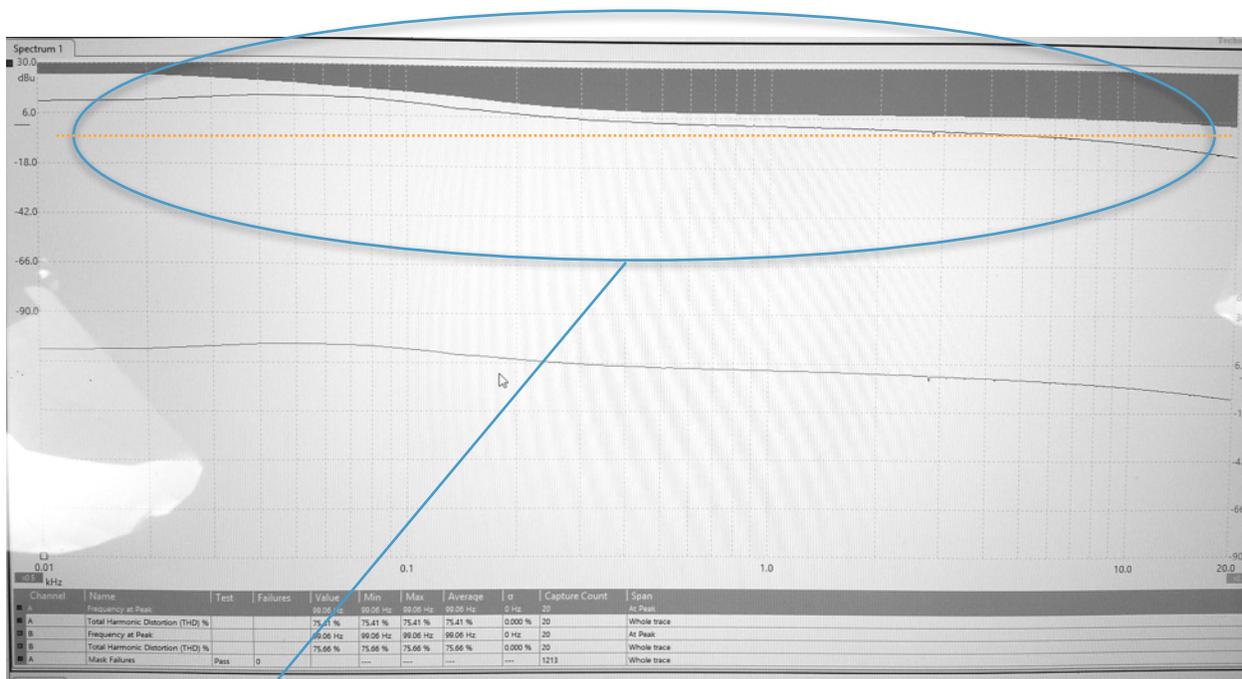
## FUSE

The fuse is located inside the IEC power cord jack on the back of the Z-ROCK. Use 1.6 Amp fast or slow blow if you live in North America, and use a 1 Amp fuse for countries with 220~240 Volts. There is a spare fuse inside the fuse holder, but if replacements are purchased, the size is 5x20mm.

# OWNERS MANUAL

## OPERATION - EQ SWITCH

The Z-ROCK has two EQ curves that can be selected via the toggle switch on the rear of the Z-ROCK. Up = EQ setting A and Down = EQ setting B. Both of these EQ settings are fully variable. That is to say that each curve can be adjusted from flat to



it's fully developed shape. We'll talk more about that later.

Here are the two curves:

The dark mask at the top of the graph represents EQ setting A and the line just below it represents EQ setting B for that same channel. The orange dotted line is flat response, same as if you didn't use the Z-ROCK.

Both EQ slopes have a fairly flat response between 20 Hz ~ 60 Hz and then it shelves down till it reaches 260 Hz where it remains flat through the midrange and a slight roll in the treble. This is drastically different from a "loudness button" on a vintage receiver from the 1970's. Those controls would simply peak the bass at 100Hz or so, and peak the treble and while that was somewhat effective it wasn't something that was ever designed for audiophiles and that is why you don't see it on any modern day hi-end audio gear.

# OWNERS MANUAL



These EQ curves were carefully crafted by ear over many months of listening, as was the overall voicing of the Z-ROCK and it's operation which brings us to the EQ knob located on the front.

See the illustration below for what to expect from this knob.



From 0% (fully counterclockwise) to 50% the EQ knob acts like a volume control with no effect on frequency response. Once it is at the half way position, it achieves unity gain which means you can flip the bypass switch on and off and hear no change in volume or frequency balance. As you rotate past 50% the EQ slowly begins to come in. The more EQ you use, the more bass you will have and the less highs. This means that if you have the knob at 100% and begin to slowly back it off you will hear the music get louder as the highs come up until you get out of the green zone at which point it begins to get quieter again. This creates a sweet spot in the top half of the green zone shown above where most people will find the best sound.

# OWNERS MANUAL

## BYPASS

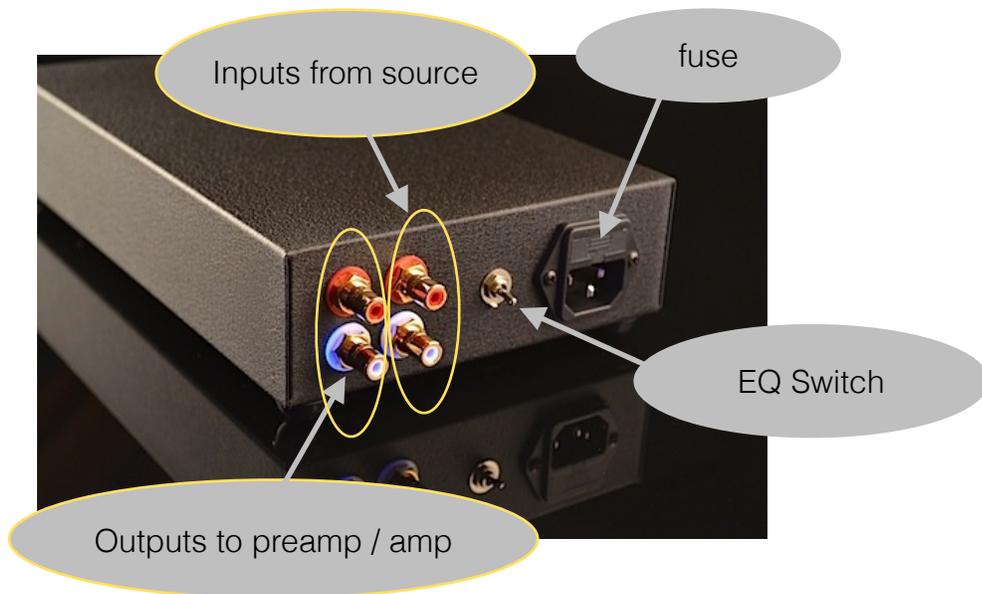
To assist you in finding the perfect setting for your music, a bypass switch is located on the front of your Z-ROCK that is intended to be used as an A/B switch while you make your adjustments. This way you can hear what it sounds like without the Z-ROCK (bypassed) and then what it sounds like with the Z-ROCK setting you have chosen.

## SPECIFICATIONS

Weight	7 lbs. ea.
Dimensions	2.5" H x 6" W x 11.0" D
Circuit type	Single ended Class A Triode
Input voltage	4 volts max
Output voltage	8 volts with 2 volt input. 16 volts with 4 volt input
Max Output	21 volts
Output Impedance	<1000 ohms
Input Impedance	47 K Ohms
Noise / Hum	-80dBV / -62dBV
Response	10 Hz ~ 90 kHz
Feedback	ZERO negative feedback used
Rectification	UN4007 fast recovery
Capacitor Filter	547 uF
Signal tube	12AU7
Biasing	Self-Biasing
Resistors	precision WW/MF by DALE, VISHAY
Signal Cap	Polyurethane Film Caps or Beeswax Film/Foil Caps
AC cord	Removable power cord
Consumption	13.5 watts at the outlet
Input jacks	RCA type 24K Gold
Output jacks	RCA type 24K Gold
Warranty	Lifetime to original owner

# OWNERS MANUAL

## HOOKUP



## TUBE REPLACEMENT



To replace the tube which is visible from the front, it is simply pulled straight out to remove.

This is best accomplished by taking some rubbing alcohol and cleaning the exposed portion of the tube and your thumb and index finger for a good non-slip grip. By doing so the tube comes out easily.