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VALVULATOR I™
Vacuum Tube Buffer + Power Supply
Owners Manual

Introduction

Congratulations and thank you for choosing the FRYETTE Valvulator I Vacuum Tube Buffer + Power Supply.

As a player, you are constantly searching for new sounds and new ways to improve your existing setup. We understand the constantly evolving nature of artistic creativity and the search for the perfect sound to complement your musical vision. We know that the difference between a good sound and a great sound is often just a matter of the subtle tweak of a tone knob or changing the position of a microphone.

The Valvulator I is a must-have accessory that combines two useful and powerful features, a Vacuum Tube Buffer/Line Driver, and a Multiple Output Regulated DC Power Supply, in a single, convenient, AC powered unit. The Valvulator I is a ruggedly built, compact pedalboard and professional/home studio tool that operates on standard AC wall current. No Wall Warts!

Fryette products are renown for outstanding performance and are designed and built to last a lifetime. Generally, the Valvulator I will require very little maintenance. It uses a standard 12AX7 preamp tube in the audio circuit and this will last typically 1 to 3 years depending on the number of hours of continuous operation. Should you decide to replace the tube, we recommend that you refer this service to qualified service personnel. However if you have electronic repair experience and wish to replace the tube yourself, please observe all necessary precautions and remove the power cord before opening the unit. A Sovtek 12AX7WB is the factory installed tube and is selected for its superior performance, low noise, and low microphonic sensitivity. Since the performance of this device is dependent upon the quality of the tube, the warranty is only valid if the factory recommended tube is used.

How it works

Most players are aware of the noticeable and often aggravating loss of signal level, change of tone and/or loss of high frequency response when an effects device is inserted between the guitar and amplifier. These losses can diminish the sound quality, character, and sustain of your guitar. This also causes premature signal decay, making feedback notes difficult to obtain and control.

Most modern guitar amplifiers provide an effects loop to eliminate these problems. This type of loop usually inserts the effect between the preamp and power amp stages in the amplifier. This is great for Delays, Reverbs and Multi-effects Processors that operate well with the high signal level present in this part of the amplifier circuit. Unfortunately, this is not the ideal setup for most distortion devices, wah pedals and other low level, battery-operated effects. Typical fixes for these devices usually involve modifying the pedal, such as installing “true bypass” switches, solid state “op amp” buffers or utilizing “hard wire” loop switchers in the effects chain. These modifications are usually only marginally effective and often create as many problems as they solve, especially with vintage pedals. Often the problem of diminished or altered guitar tone remains since the guitar signal is not always entirely isolated from the effect input circuitry.

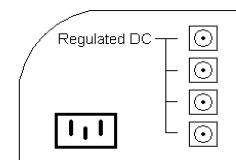
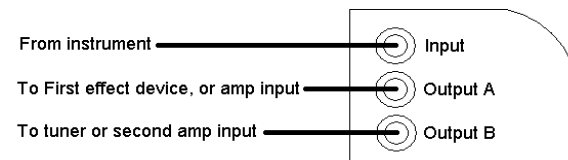
The Valvulator I provides a sonically transparent input stage that isolates the high impedance guitar pick-up signal from the stomp box’s input circuitry. To accomplish this the cable from the guitar is plugged directly to the V-1 input jack. This clean, dynamic signal is then converted to a low impedance signal source, which is impervious to the loading effect of multiple stomp boxes, multiple amplifiers or poorly designed “buffer mods” on pedals. The resulting improved signal quality gives wah pedals more wah range, overdrive pedals more sizzle and punch, and phasers more intensity.

Other signal sources such as bass, keyboards and even microphones can be used with the V-1 to improve tone, reduce noise and enhance professional/home recordings.

Specifications

The **Buffer/Line Driver** section of the Valvulator I features a 1 megohm input, 600 ohm output, unity gain vacuum tube design. This ultra low noise device utilizes precision 1% metal film resistors and top quality Wima coupling capacitors. The selected low noise 12AX7A tube operates at voltages normally found in the best guitar amplifiers, and incorporates a regulated DC tube filament supply to eliminate hum typically caused by supply noise and filament leakage.

The **Power Supply** features one 12VDC output and three 9VDC outputs. Each 9VDC output is fed from a well-filtered, individually isolated regulator circuit, capable of operating typically two effects devices on each output. In addition, each regulator is overload and short circuit protected. The custom power transformer is ruggedly built to withstand years of road abuse. It features a low noise design that allows for installation in tight quarters and close proximity to other devices with minimum hum and noise.



The top output delivers 12VDC @ 150mA. Outputs 2, 3 and 4 each deliver 9.5VDC @ 80mA.

Each output is isolated from the others to prevent ground loops. Two outputs can be wired together to produce up to 18VDC @ 160mA.

Several effects may be operated from a single output as long as the total current of the combined devices does not exceed 80mA per output.

Some Common Questions

What makes the Valvulator I Vacuum Tube Buffer design special?

The unique circuitry in the Valvulator I is designed to “feel” like you are plugged directly into a tube amplifier. The harmonic warmth and dynamic range of the tube stage vastly improves touch sensitivity and sustain of the instrument even when multiple effects and long cable lengths are used. Since this tube stage is the first link in the signal chain, all of the other devices down the line benefit from the added warmth of the Valvulator I Buffer/Line Driver. Even solid state amplifiers benefit from the added punch and dynamic range due to the high voltage operation of the vacuum tube circuitry.

How can I use the Valvulator I™ to improve the quality of my home recordings?

Most products intended for direct recording of guitar sounds lack any tone enhancing vacuum tube circuitry. While some multi-effects units offer a vacuum tube input stage, this tube is often operating at too low of a voltage to really make the tube *sing*. Don't be fooled! Even some of these devices that claim “High Voltage Tube Circuitry” operate at voltages far below that which you would find in a normal guitar amplifier. The high operating voltage of the Valvulator power supply and the full range frequency response of the audio circuitry insure excellent dynamic range and a full tonal spectrum that will give your guitar sound a more realistic amp feel.

Can the Valvulator I™ improve the sound of bass or keyboard instruments?

Yes! Even Vocals! Any signal source that can benefit from enhanced vacuum tube harmonics will sound better live and record better with the Valvulator I in the signal path. Vocals will sound richer, keyboards will sound fatter and bass instruments will sound fuller. In fact the Valvulator I is an ideal direct box for recording and live sound reinforcement of bass and keyboards. Just insert the Valvulator I between the bass or keyboard output and the amplifier or mixer input (or both!).

Can the Valvulator I do anything about the hum on my pedalboard?

Yes! We knew when we designed this product that there would be a great opportunity to help guitarists and techs build better sounding, more functional *and quieter* pedalboards. The Valvulator I has a built-in stomp box power supply that has four completely isolated and regulated DC outputs. Because the outputs are isolated, it is easy to hook up several devices together with NO BUZZ OR HUM CAUSED BY GROUND LOOPS OR MULTIPLE ONBOARD WALL WARTS! In addition, any type of battery powered device, modern or vintage, positive or negative ground, can be operated from the Valvulator power outputs. Have more than four pedals on your pedalboard? No problem. These DC outputs have enough current capacity to operate up to two effects from each of the four outputs. You can even run 18VDC effects from two outputs in series.

Is it safe to run my 9 volt effects on a 12 volt supply?

Yes. In fact most power adapters designed for use with 9 volt effects actually produce 11 to 13 volts DC. Voltage fluctuations that often occur at the AC wall outlet can cause the output voltage of these adapters to vary wildly, causing the DC supply voltage to go as low as 8 volts, and as high as 15 volts DC. You can probably imagine what these voltage variations are doing to your sound. The Valvulator I provides filtered, regulated DC to keep your pedal effects operating at peak performance regardless of varying AC line conditions.

Why do some of the effects on my modeling pedal drop out after a short time?

Some pedal power supplies do not supply enough current to operate these devices. Even though some of the effects work fine, other settings use more processor memory and therefore require more power. The first (TOP) DC output on Valvulator I provides enough voltage and current to power one modeling pedal regardless of effects setting.



LIMITED WARRANTY

Subject to the obligations and exclusions found below, this product is warranted by Steven Fryette Design, Inc., (herein SFD) against manufacturing defects in materials and workmanship for the period of One (1) Year from the date of purchase, with the exception of the tubes, fuses and speakers where applicable, which carry a 90 day warranty.

The warranty period commences on the date of purchase by the original user. Performance under this warranty must be obtained at one of the following: an SFD Authorized Service Station, by returning the unit to the SFD factory with prior written authorization, or (in countries outside of the United States) by a representative SFD distributor.

Obligations

- 1 This warranty will be honored only on the presentation of the original proof of purchase.
- 2 Transportation of the product to and from an authorized SFD service outlet is the responsibility of the user. Units sent directly to the SFD factory for warranty repairs must be authorized by SFD and shipped prepaid.

Exclusions

- 1 This warranty shall not cover adjustment of consumer-operated controls as explained in the appropriate instruction manual, or products that have been altered or have missing, or defaced serial numbers.
- 2 This warranty shall not apply to the appearance of accessory items including but not limited to, cabinets, cabinet parts, or knobs.
- 3 This warranty does not apply to uncrating, setup, installation, or the removal and reinstallation of products for repair.
- 4 This warranty shall not apply to repair or replacements necessitated by any cause beyond the control of SFD including, but not limited to, any malfunction, defects, or failure caused by or resulting from unauthorized service or parts, damaged or broken tubes, incorrect line voltage, improper maintenance, modification or repair by the user, abuse misuse, neglect, accident, fire, flood, or other Acts of God.
- 5 Responsibility for the repair of any SFD product sold outside of U.S. boundaries is borne by the SFD representative in that particular country or territory. Also, the warranty term and conditions may be different from those stated above. Please contact the SFD distributor or dealer in your country for more information.

The foregoing is in lieu of all other expressed warranties, and SFD does not authorize any party to assume for it any other obligation or liability. In no event shall SFD be liable for special or consequential damages arising from the use of this product, or for any delay in the performance of this warranty due to causes beyond our control. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of consequential damages, so the above limitations on implied warranty and consequential damages may not apply to you. This warranty gives you specific legal rights. You may have other rights that vary from state to state.

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