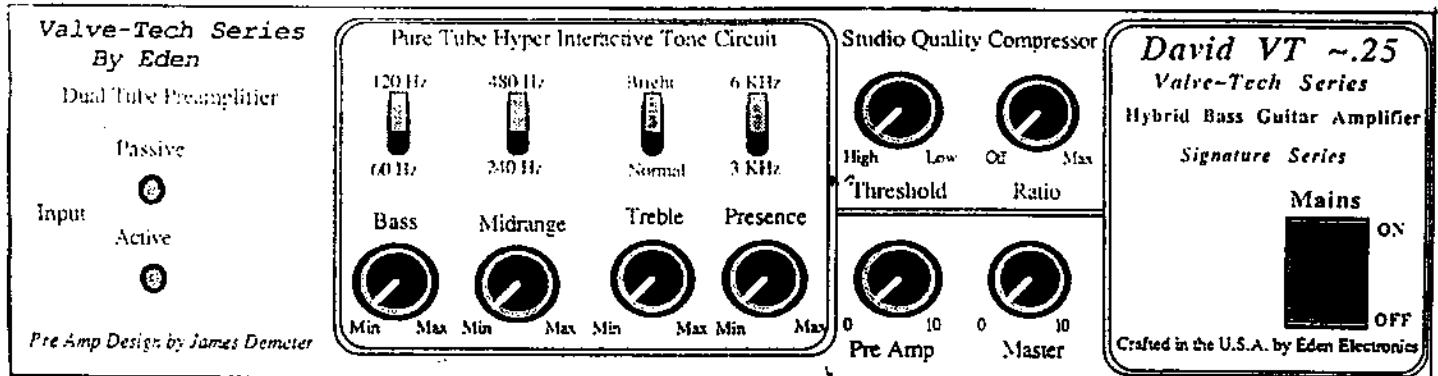


User's Manual

for

The DAVID Line *Valve-Tech Series* Hybrid Bass Guitar Amplifier

By Eden Electronics



Please contact your authorized Eden dealer for service.

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RECOMMENDED SPEAKER CONFIGURATIONS

MODELS: <u>VT-.25</u>	<u>VT-.40</u>	<u>VT-.75</u>
1 D-110T	1 D-210T (4ohm)	2 D-410T's
2 D-110T	2 D-210T (8ohm)	4 D-210T(8ohm) (2-
1 D-210T (4ohm)	1 D-410T	D-210T's per channel)
2 D-210T (8ohm)	2 D-410T	1 D-410T & 1 D-118
1 D-115T	1 D-110T & 1 D-118	1 D-410T & 2 D-210T(8ohm
1 D-110T & 1 D-115	1 D-210T(8ohm) & 1 D-410T	

NOTE: ALWAYS CONNECT SPEAKERS WITH AS SHORT AN UNSHIELDED CABLE AS POSSIBLE! USE ONLY UNSHIELDED CABLE 16 GAUGE OR LARGER. (SMALLER NUMBER INDICATES LARGER SIZE).

An Introduction To
THE VALVE-TECH SERIES BASS GUITAR AMPLIFIER
by EDEN ELECTRONICS

For several years we at Eden Electronics have been listening to both professional and hobby bass players. Especially those players that use our David Series speaker cabinets and have been kind enough to provide us with feed back about their needs as players. Most of the comments we heard were pretty much the same: "We'd like a bass amplifier that has a warm punchy sound like some of the vintage tube amps, but one that is more reliable and doesn't weigh 50 or 75 pounds". From these conversations came the birth of the "VALVE-TECH SERIES HYBRID BASS GUITAR AMPLIFIERS".

As we began looking for a way to provide such an amplifier one of the first people we spoke with was Mr. James Demeter, a very well respected west coast preamp designer. With Mr. Demeter's blessings we combined the best features of his popular tube bass preamp with our own Valve-Tech circuitry. The result is a wonderfully warm and versatile tone control circuit. We call it our "PURE TUBE HYPER-INTERACTIVE TONE CONTROL CIRCUIT".

This term helps describe the way each tone control interacts with every other tone control in the circuit. Each change that is made in the tone circuit not only changes the frequency it controls, it changes the overall tonal characteristic of the preamp. This allows you to create exactly the tone needed to support the sound of your particular electric bass without losing the warm punchy tone characteristic of a tube amplifier. Combine this circuitry with hand selected preamp tubes and individual inputs for passive or active bass pickups, and you've got an exceptionally warm sounding and quiet preamp.

To further enhance our sound we designed a STUDIO QUALITY COMPRESSOR. We have incorporated advanced dbx technology to design a compressor that would allow the bassist to compress (or tighten up) those notes that are the hardest to control. As you activate the controls, this system seems to begin compressing notes at the bottom of the electric bass scale. This feature is especially beneficial when playing a 5 or 6 string bass or when tuning down the E string of a 4 string bass.

The power amp section of our VALVE-TECH SERIES AMPLIFIERS was designed by one of the country's top amplifier designers and features a Toroid power supply. These power supplies were chosen because they are the lightest power supply available for the power they'll produce.

We are especially proud of our unique chassis design. It is cut and formed from a single piece of heavy gauge aluminum and welded solid on the corners. This chassis is very effective in the dispersion of heat and helps our amplifiers run as cool as possible. The preamp, compressor, power amp and power supply electronics are built in modular form. This allows easy replacement in the event of a part failure or factory upgrade.

WE THANK YOU FOR CHOOSING THE VALVE-TECH SERIES AMPLIFIER!

YOUR SATISFACTION IS OUR GOAL!

DESCRIPTION OF AMPLIFIER CONTROLS

Our goal in creating the tone circuits in these amplifiers was to make them user friendly and at the same time make it nearly impossible to make them sound unpleasant. The HYPERINTERACTIVE TONE CONTROLS operate quite differently from the traditional solid state tone controls or solid state graphic equalizer. The following information will help familiarize you with how these controls operate.

FRONT PANEL CONTROLS

INPUT JACKS

The PASSIVE input jack is designed to be used with electric basses that do not have active electronics (no batteries in these instruments).

The ACTIVE input jack is designed to be used with electric basses that have active electronics. (These instruments have either batteries or an external power supply).

HYPERINTERACTIVE TONE CONTROLS

The BASS control and 60Hz/120Hz switch control the lowest frequencies reproduced by this amplifier and are designed to facilitate two different bass tone responses. With the switch set to the 60Hz position the tone produced is a big, full sounding tone. Moving the switch to the 120Hz position produces a punchier tighter sound. The BASS control fine tunes the effect of the switch.

The MIDRANGE control and 240Hz/480Hz switch control the upper and lower midrange frequencies of the amplifier. Setting the switch to the 240Hz position allows the MIDRANGE control to enhance the lower midrange frequencies. Setting the switch to the 480Hz position allows the MIDRANGE control to enhance the upper midrange frequencies.

The TREBLE control and NORMAL/BRIGHT switch control the high frequencies of the amplifier. Setting the switch on NORMAL allows the TREBLE control to regulate the upper frequencies reproduced by the amplifier. Setting this switch to BRIGHT greatly enhances the upper frequencies and can be used to enhance the brilliance of any bass instrument.

The PRESENCE control and 3KHz/6KHz switch are designed to stimulate the frequencies just above the lower midrange and on up through the high frequency ranges. The specific range of this control is determined by the position of all other controls in the circuit. The 3KHz/6KHz switch changes the approximate center of the effect curve.

VOLUME CONTROLS

The PREAMP knob controls the output volume of the preamp to the amplifier section and to the auxiliary/effect send output jack. It is located between the first and second tube to facilitate a natural overdrive sound.

The MASTER knob controls the power output of this amplifier through the speaker jacks. It also regulates the amount of input from the effect return jack to the power amp section.

WE DO NOT RECOMMEND OPERATING THE VOLUME CONTROLS WIDE OPEN.

STUDIO QUALITY COMPRESSOR

The THRESHOLD control sets the volume level at which the compressor will activate. This will change when the preamp control level is changed.

The RATIO control regulates the amount that the signal (chosen by the threshold control) is compressed or limited.

The compressor is designed to operate at any playing volume.

MAINS SWITCH

The MAIN switch turns this unit on. Allow 20 to 30 seconds for the preamp section to warm up before operating the amplifier.

REAR PANEL CONTROLS

POWER PLUG INPUT

The power plug input accepts a standard business machine three wire A/C cord. (If the cord you received with the amp does not match the electrical outlets in your country, please contact your dealer.

Please remove this cord before moving the amp to prevent damage.

FUSED VOLTAGE SELECTOR

This selector is set up for 100 volts (JAPAN), 120 volts (USA) and 220/240 volts (EUROPE). Look in the upper left hand corner of the selector. The voltage selected will read right side up. To change voltage, remove the voltage selector card and reinstall it upside down. If voltage selection does not match voltage in your country please contact your dealer.

Voltage selection must be checked before plugging the amp in! If Fuse replacement is necessary replace it with an identical fuse... ONLY!!! Using an incorrect fuse can damage equipment or people. Increasing the voltage from 120 to 240 volts requires decreasing fuse value by one half.

EFFECTS LOOP

The EFFECTS SEND jack is always active and can be used to send signal to an effect or as an auxiliary output jack. Signal level sent to this jack is controlled by the PREAMP VOLUME control.

The EFFECTS RETURN jack is located just below the send jack. Effects signal being returned through this jack is controlled by the MASTER VOLUME control.

This jack can be used as an input from a tape deck or mixing console. IF YOU WISH TO REMOVE OR INSERT CABLES IN THE EFFECTS LOOP WHILE THE AMP IS ON, TURN THE MASTER VOLUME DOWN TO "0" FIRST. These jacks are mono in the .25 and .40 models and stereo in the .75.

RECORD/LINE OUT

This output provides microphone level signal for recording or sound reinforcement console input. The signal is quasi-balanced and pin 2 is hot (positive). The GROUND LIFT is wired to pin 1. This output is compatible with most mixing consoles including those with phantom power supplies. The LEVEL CONTROL is provided to match amp level to the mixing console.

Do not use this circuit with unbalanced cables.

AMPLIFIER OUTPUT

Two MONO OUTPUT jacks are available on the .25 and .40 amplifiers. The .75 amp is equipped with one AMP 1 and one AMP 2 output jack. These standard 1/4 inch jacks are equipped with side wiper contacts to keep them clean and improve signal to the speakers.

These amplifiers are designed to operate at a minimum speaker impedance of 4 ohms.

HOOKING UP THE AMPLIFIER

ALWAYS TURN THE MAINS SWITCH OFF BEFORE HOOKING UP THE AMPLIFIER!

With the mains switch off, check the position of the voltage selector. Verify that it is set to match the power supplied in your area. Next plug the power cord into the amplifier and into the wall outlet. Plug an unshielded speaker cable into your speaker cabinet and then into a speaker output jack of the amplifier.

Never connect more than one 4 ohm or two 8 ohm speakers to this amplifier. (If you are using a .75 amplifier, the above rule applies to each amplifier output).

NEVER OPERATE THESE AMPLIFIERS WITH A 2 OHM LOAD.

These amplifiers are equipped with a THERMAL PROTECTION sensor. This sensor is designed to detect operating temperatures and shut down the amp in the event that operating temperatures exceed the recommended level.

This amplifier is designed to mount to all standard rack EIA mounting rails. Always allow 1 rack space above and below this amplifier. If you encounter overheating shutdown, you may need to install a rack fan to ensure adequate circulation for cooling.

HOW TO CREATE YOUR SOUND

This section will help get you started creating the sound you want out of the VALVE-TECH SERIES AMPLIFIERS.

After plugging the amp in to the wall and the speaker cabinet and plugging your electric bass into the proper input, position all shelving switches in their lower position. Adjust all tone controls to a straight up (12:00) position. Set both compressor controls full left (or off). Position both volume control knobs to identical positions at about (10:00). Adjust the volume controls simultaneously to the desired volume. Adjusting the preamp control to a greater level than the master control will produce a distorted (overdriven) sound that some players may wish to use.

(We do not recommend operating the amp with the VOLUME CONTROLS in the wide open position).

With controls on your bass in their normal operating position, play the bass and listen to the sound. Shift the switches one at a time and listen for a sound you like. After determining the desired position of the switches, fine tune your sound with the tone controls on the amp and the bass.

Operating the STUDIO QUALITY COMPRESSOR.

This compressor has been designed to operate at any playing volume. The THRESHOLD control in our compressor is designed to adjust the volume level at which the compressor is activated. Start setting the compressor with this knob in the straight up (12:00) position.

The RATIO control determines the amount that the preamp signal is compressed. Start with this knob in the straight left (9:00) position. Adjust these knobs to the desired sound. Please note that too much ratio level will cause a limited or choked sound.

You may notice that this system seems to begin compressing the lowest notes of the bass first due to the nature of electric bass output.

NOTE: SOME ACTIVE BASSES HAVE A VERY HIGH OUTPUT. YOU MAY NEED TO DECREASE INSTRUMENT VOLUME TO PREVENT OVERDRIVING THE PREAMP.

Eden Limited Warranty

The Eden Warranty on the David Line Products remains in effect for two years from the date of the first consumer purchase.

Who is covered by this warranty?

Your Eden Warranty protects the original purchaser as long as your Eden product has been purchased in the United States. If your product has been purchased outside the United States, please contact your local Eden distributor for warranty information. The original dated bill of sale must be presented whenever warranty service is required.

What is covered by this warranty?

Your Eden Warranty covers defects in material and workmanship, except as specified below.

The following items are not covered:

- * damage caused by accident, misuse or abuse
- * damage caused by product modification or neglect
- * damage caused by shipment
- * damage resulting from the performance of repairs by anyone not authorized by Eden Electronics
- * claims based upon any misrepresentation by the seller
- * damage to any Eden product on which the serial number has been defaced, modified or removed

Who pays for what?

In the event that warranty repairs are necessary, Eden Electronics will pay for all labor and materials on all factory authorized repairs covered by this warranty. Eden Electronics will have no obligation to pay for repairs not authorized as warranty by Eden Electronics. Save the original shipping carton. Upon authorization, return the equipment in the original carton to Eden. Replacement cartons may be available upon request for an additional charge. Improper packaging may cause damage resulting in denial of this warranty. If repairs are covered by warranty, Eden will pay to ship the equipment back to you. You are responsible for shipping charges to the factory.

How to obtain warranty service.

If your equipment needs repairs, first contact your local Eden dealer or Eden Electronics Inc. P.O. Box 338, Montrose, MN 55363 or call 612-675-3650. You will need to present a copy of the original dated bill of sale. Please do not ship your equipment to the factory without prior authorization. You are responsible for properly transporting your product to the factory.

LIMITATION OF IMPLIED WARRANTIES.

The above warranty is in lieu of any and all other warranties, expressed or implied, including but not limited to warranties of merchantability and fitness for particular purpose. Neither the dealer nor the manufacturer shall be liable for any incidental or consequential damages resulting from any alleged defect and the warranty shall extend exclusively to repair or replacement of the equipment described.

This limited warranty gives you specific legal rights, you may also have other legal rights which vary from state to state.

Please fill out warranty registration card and mail within 10 days of purchase.

DATE OF PURCHASE: _____

MODEL: _____

SERIAL #: _____

DEALER NAME: _____

WARRANTY REGISTRATION CARD

NAME: _____ MODEL: _____

ADDRESS: _____ SERIAL #: _____

DATE OF PURCHASE: _____

DEALER NAME: _____

DEALER ADDRESS: _____