Valvetronix
Amplifiers
AD60VTX & AD120VTX

"A Guitarist's Guide"
Addendum
IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Mains powered apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Clean only with dry cloth.
- Do not block any ventilation openings, install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. (for U.S.A. and Canada)
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Turning off the power switch does not completely isolate this product from the power line so remove the plug from the socket if not using it for extended periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Do not install this equipment on the far position from wall outlet and/or convenience receptacle.
- Do not install this equipment in a confined space such as a box for the conveyance or similar unit.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with this apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

THE FCC REGULATION WARNING (for U.S.A.)
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. Unauthorized changes or modification to this system can void the user’s authority to operate this equipment.

CE mark for European Harmonized Standards
CE mark which is attached to our company’s products of AC mains operated apparatus until December 31, 1996 means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).
Also, CE mark which is attached to our company’s products of Battery operated apparatus means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

IMPORTANT NOTICE TO CONSUMERS
This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.
WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer’s or distributor’s warranty.
Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer’s or distributor’s warranty.
Introduction

**WELCOME ABOARD AGAIN!**

Many thanks for adding a VOX Valvetronix VTX combo to your sonic arsenal. We’re sure it’ll give you countless hours of great guitar tones that will feel as good as they sound! You may have noticed that this is an addendum to the original Combo Manual. In this we’ll cover the new NeoDog speakers, new cabinet construction, correctly connecting external speakers and the new Impedance Select Switch for your AD60VTX or AD120VTX combo. Everything else, and I mean everything else is already covered in the original Combo Manual... I mean Guitarists Guide! So if you’re sitting down, rocking out and have a few questions, crack open the “Guide” man! It’s all there... except for what’s here.

Right. Moving on. You’ll notice that almost all the functions of these combos are identical to the original AD60VT and AD120VT combos. So what’s different and why am I reading this addendum do you ask? Did you read the above? Speakers, cabinets, connecting the speakers and impedance settings, that’s why you’re reading this! Let’s move on shall we?

The new AD60VTX and AD120VTX combos both feature newly designed Custom VOX/Celestion Neodymium magnet 8 Ohm speakers (dubbed NeoDog) that are highly efficient, extremely lightweight and SOUND GREAT. In addition to the new NeoDog speakers, we now house them in an all-new upgraded ply cabinet for improved tonal balance.

As if that weren’t enough we’ve also fine-tuned the power section of this amplifier to run more efficiently with the new NeoDog speakers.

On the back panel you’ll also notice the inclusion of an Impedance Select Switch. What this does is allow you to hook up external speaker cabinets and maintain maximum power. As mentioned the internal speakers are 8 Ohms so when using the internal speakers only set the Impedance Selector to 8 Ohms. If and when you hook up another cabinet, you have to make sure the external cabinet is either 4 Ohms or 8 Ohms only. Do not use a 16 Ohm cabinet. Please read below for correctly hooking these up.

**IMPORTANT NOTE:** DO NOT use an external speaker cabinet with a Wattage rating of less than 30 Watts (or 40 watts if you are using a 4 Ohm external speaker cabinet), or less than the output power you’ve selected with the POWER SELECT control (see page 19 in A Guitarists Guide). If you ignore this, you could end up blowing a speaker— and that’s not recommended.

**ANOTHER IMPORTANT NOTE:** ALWAYS use speaker cables (unshielded) to connect speaker cabinets. NEVER use guitar (shielded) cables.
AD60VTX SPEAKER CONNECTION CHART

Please read the below chart to make sure you correctly connect external speakers to the AD60VTX. Keep in mind that the speaker jacks are wired in Series, which means that the total impedance of the speakers equals the sum of the impedance of the internal (8 Ohms) plus the external speaker (4 or 8 Ohms). As an example, the AD60VTX contains an internal 8 Ohm speaker; when you hook up an additional 8 Ohm speaker, you'll set the impedance select switch on the back of the amp to 16 Ohms. 8 + 8 =16. Simple right? Of course it is.

AD60VTX

The following chart shows you what speakers you CAN hook up to the AD60VTX. Please note that these are the only combinations you can use. Hooking up anything other than what's recommended below can and will cause damage to your amplifier and will not be covered under warranty.

<table>
<thead>
<tr>
<th>If you use:</th>
<th>Set Output Impedance of the AD60VTX to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>One 4 Ohm cabinet (AD212 or AD412)</td>
<td>16 Ohms</td>
</tr>
<tr>
<td>One 8 Ohm cabinet</td>
<td>16 Ohms</td>
</tr>
<tr>
<td>One 16 Ohm cabinet</td>
<td>DO NOT DO THIS</td>
</tr>
</tbody>
</table>

If you use: One 8 Ohm cabinet

Input 8Ω

AD212 or AD412

One 8 Ohm cabinet
AD120VTX SPEAKER CONNECTION CHART

If you use: Set the Impedance of the AD120VTX to: Use Speaker Jack:  
*8 Ohm per side (AD212 or AD412) 16 Ohms Left and Right  
4 Ohm per side 16 Ohms Left and Right  
16 Ohm per side DO NOT DO THIS!!!

*This option is highly recommended! This will make you a rock star. OK, maybe not a rock star but you will sound great. If you don't have this cabinet... you need it. If you have it... stop reading and get on with playing your guitar!!!
NERDY IMPEDANCE INFORMATION AHEAD

The following is some information that you'll find useful for hooking external cabinets up your Valvetronix AD60VTX or AD120VTX combo. When you're done with this, you'll be a smarter and better person! Plus you'll know the correct way for hooking up speaker cabinets in series.

In multiple speaker cabinet configurations, you will have to use a little mathematics (Ohm’s law) in order to figure out the correct setting. Don’t worry though; it’s easier than you might think! The formula below is for hooking up external cabinets up in series, which is what we’re using here on the VTX amps.

Series (AD60VTX & AD120VTX)

In a series configuration, all you do is add the individual impedances of the cabinets. For example, if you hook up two cabinets, where each is 8 Ohms (8 + 8), the result is 16 Ohms. If one cab is 8 Ohms and the other is 4 Ohms, the total impedance is 12 Ohms. There are no 12 Ohm settings on amps, so set your VTX amp to 16 Ohms.

R1 is the impedance of our first cabinet; R2 in the impedance of the second one and R3 is the resulting impedance when they are hooked-up together.

\[ R_3 = 8 + 8 = 16 \text{ Ohms} \]

Specifications

Number of amp types: 16
Number of effects:
  Drive types: 10
  Modulation types: 5
  Delay types: 3
  Reverb types: 3
  Noise reduction: 1
Number of programs: 32 (8 bank x 4 channel)
Number of inputs:
  AD60VTX
    Top panel: 2 (High & Low)
    Rear panel: 1 x Loop return
      1 x Foot controller jack
  AD120VTX
    Top panel: 2 (High & Low)
    Rear panel: 2 x Loop return
      1 x Foot controller jack
Number of outputs:

AD60VTX
- Rear panel: 1 x Loop send
- 1 x Phone out
- 1 x Line out
- 1 x Speaker out (Series connection with inside speaker)

AD120VTX
- Rear panel: 2 x Loop send
- 1 x Phone out
- 2 x Line out
- 2 x Speaker out
  - L ch: Speaker out (Series connection with inside speaker)
  - R ch: Speaker out (Series connection with inside speaker)

Speaker
- AD60VTX: CELESTION NeoDog (VOX original) x 1
- AD120VTX: CELESTION NeoDog (VOX original) x 2

Power output
- AD60VTX: 60 Watts RMS
- AD120VTX: 60 Watts RMS x 2 (L/R)

Tuning range: A0–C7 (27.5 Hz–2093 Hz)
Tuner calibration: A = 438–445 Hz

Signal processing
- A/D Conversion: 20 bit
- D/A Conversion: 20 bit
- Sampling frequency: 48 kHz

Power supply requirements: AC local voltage

Power consumption
- AD60VTX: 90 W
- AD120VTX: 175 W

Dimension (W x D x H) (including protrusions)
- AD60VTX: 530 x 267 x 559 (mm) / 20.87 x 10.51 x 22.00 (inches)
- AD120VTX: 699 x 267 x 559 (mm) / 27.52 x 10.51 x 22.00 (inches)

Weight (including protrusions)
- AD60VTX: 18 kg / 39.68 lbs.
- AD120VTX: 26 kg / 57.32 lbs.

Accessories
- Included: Power cable
- Optional: VC-4 Foot controller, AD212/AD412 Extension speaker cabinet

*Specifications and features are subject to change without notice

FOR MORE INFORMATION ON VALVETRONIX AMPLIFIERS PLEASE VISIT
WWW.VALVETRONIX.COM