Heritage SVT-CL

Bass Guitar Amplifier

Owner's Manual

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IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. 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.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. 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.

15. Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

16. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases or beer glasses, shall be placed on the apparatus.

17. This apparatus has been designed with Class-I construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding prong).

18. The MAINS plug or an appliance coupler is used as the disconnect device, so the disconnect device shall remain readily operable.

19. For the terminals marked with symbol of "⚡" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the used of ready-made leads or cords.

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.
Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'électrocution.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.
Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

NOTE: 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 the 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.

CAUTION: Changes or modifications to this device not expressly approved by LOUD Technologies Inc. could void the user's authority to operate the equipment under FCC rules.

This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION — Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant las limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le réglement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.

Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart.

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration, per day in hours	Sound Level dBA, Slow Response	Typical Example
8	90	Duo in small club
6	92	
4	95	Subway Train
3	97	
2	100	Very loud classical music
1.5	102	
1	105	The boss screaming at his minions about manual deadlines
0.5	110	
0.25 or less	115	Loudest parts at a rock concert

CONSIGNES DE SECURITE IMPORTANTES

- LIRE, SUIVRE TOUTES LES INSTRUCTIONS ET LES PRECAUTIONS D'UTILISATION

- NE PAS UTILISER PROCHE D'UNE SOURCE DE CHALEUR ET NE PAS BLOQUER OU OBSTRUER LE SYSTEME DE VENTILATION SUR CET APPAREIL. POUR UNE UTILISATION CONFORME, CET APPAREIL NECESSITE ENVIRON 7CM D'ESPACE BIEN VENTILE AUTOUR DE SON SYSTEME DE REFROIDISSEMENT, AINSI QU'UN COURANT D'AIR FRAIS CONSTANT

- NE PAS UTILISER CET APPAREIL PROCHE D'UNE SOURCE LIQUIDE

- NETTOYER SEULEMENT A L'AIDE D'UN CHIFFON DOUX ET SEC ET NE PAS UTILISER DE PRODUITS MENAGERS

- CONNECTER UNIQUEMENT LE CABLE D'ALIMENTATION FOURNI SUR UNE PRISE AVEC MISE A LA TERRE, ET COMPATIBLE AVEC LA TENSION, L'INTENSITE ET LA FREQUENCE REQUISES INDIQUEES SUR LA FACE ARRIERE DE L'APPAREIL

- S'ASSURER DE NE PAS MARCHER, PLIER OU TIRER SUR LE CABLE D'ALIMENTATION

- DEBRANCHER L'APPAREIL LORS D'UNE TEMPETE OU LORS D'UNE TRES LONGUE PERIODE DE NON UTILISATION

- UTILISER UNIQUEMENT DES ACCESSOIRES SPECIFIES PAR LE FABRICANT POUR UNE UTILISATION EN TOUTE SECURITE ET POUR EVITER DES BLESSURES

- **ATTENTION:** AFIN DE PREVENIR TOUT RISQUE DE CHOCS ELECTRIQUES OU DE DEBUT D'INCENDIE, NE PAS EXPOSER CET APPAREIL A LA PLUIE ET A L'HUMIDITE

- TOUT ENTRETIEN DOIT ETRE FAIT PAR UN TECHNICIEN QUALIFIE

- NOS AMPLIFICATEURS PEUVENT PRODUIRE DE TRES HAUTES PRESSIONS ACOUSTIQUES QUI PEUVENT CAUSER DES DOMMAGES AUDITIFS PERMANENTS OU DEFINITIFS. L'UTILISER AVEC UNE GRANDE PRECAUTION EST CONSEILLE ET DES PROTECTIONS AUDITIVES SONT RECOMMANDEES POUR UNE UTILISATION A FORT VOLUME.

- **ATTENTION:** CET APPAREIL REQUIERT UNE PRISE MURALE AVEC MISE A LA TERRE, AUX NORMES ACTUELLES ET COMPATIBLE AVEC LES SPECIFICATIONS ELECTRIQUES SE TROUVANT EN FACE ARRIERE DE L'APPAREIL. LA PRISE ELECTRIQUE DOIT RESTER ACCESSIBLE POUR DEBRANCHER L'APPAREIL EN CAS DE DEFAUT PENDANT L'UTILISATION

- CET APPAREIL DOIT ETRE DEBRANCHE SI IL N'EST PAS UTILISE

Elimination correcte du produit : Ce symbole indique que ce produit ne doit pas être éliminé avec les ordures ménagères, comme le prévoiT la directive WEEE (2002/96/EC) et votre loi nationale.

Ce produit doit être remis à un site de recyclage des déchets électriques et des équipements électroniques (EEE).

Un mauvais recyclage de ce type de déchet peut avoir de possibles impacts négatifs sur l'environnement et la santé humaine dus aux émanations de substances.

Dans un même temps, votre coopération à un recyclage correct de ce produit contribuera à la bonne utilisation des ressources naturelles.

Pour connaître l'endroit où il est possible de recycler ces équipements, merci de contacter votre mairie, les services de recyclages ou le service des déchets ménagers.

Correct disposal of this product: This symbol indicates that this product should not be disposed of with your household waste, according to the WEEE directive (2002/96/EC) and your national law. This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, or your household waste disposal service.

Introduction

Welcome to the world of Ampeg. Whether this is your first experience with Ampeg or you're a well-seasoned player who's been around the globe a few times with our gear, you are taking part in a piece of musical history. From here on out, nothing else will sound the same... everything else will pale in comparison. You are one of the lucky few to take part in a new chapter of an American legacy. Ampeg has come home! Each Heritage Series amplifier and cabinet is designed and assembled right here in the U.S.A. We've heard from bass players around the globe about their dedication and commitment to Ampeg and the Heritage Series is made specifically for those players. Just our way of saying thank you and letting you know that we heard you loud and clear.

Ampeg is the standard by which all others are measured. We've been pounding bass player's chests and audience's booties for over 60 years now and we're not going to slow down anytime soon. From our early days of building "amplified pegs" for upright players to building the world famous, stadium rattling SVT, Ampeg has been *the* choice for bassists, from touring professionals to weekend warriors and everyone in between. We were the first ones on the block listening and building gear for bass players. Heck, even our company's founding fathers were working, gigging players. When they weren't tinkering around the shop on new ideas, they were out in the clubs of New York earning their living. Not much has changed since then.

The average length of a hit song is 3 minutes and 40 seconds. We have been a part of most of those hits for over 60 years. Now that you own a piece of Ampeg history, we want to be a part of your next hit.

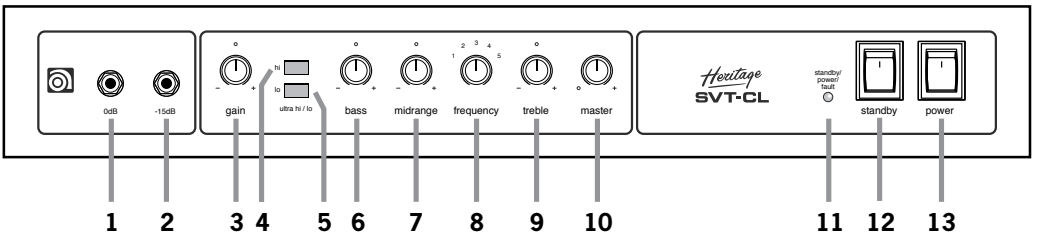
On a personal note, the team at Ampeg would sincerely like to thank you for your support and dedication to our mission in bringing you some of the best amps and cabs the world has known.

Best of luck in all of your musical endeavors!

Sincerely,

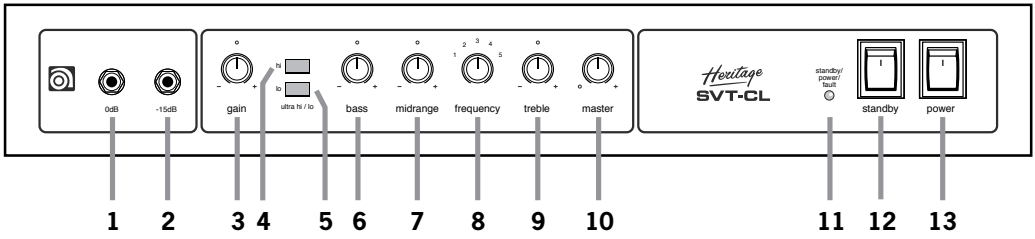
The dedicated team at Ampeg

The Front Panel



1. **0 dB INPUT:** The signal output from a passive instrument may be connected to this 1/4" input by means of a shielded instrument cable.
2. **-15 dB INPUT:** The signal output from an active instrument may be connected to this 1/4" input by means of a shielded instrument cable.
3. **GAIN:** This control adjusts the basic level of signal in the preamp.
4. **ULTRA HI:** This switch, when engaged, enhances the amount of high frequency output by 9 dB at 8 kHz.
5. **ULTRA LO:** This switch, when engaged, enhances the amount of low-end output by 2 dB at 40 Hz and -10 dB cut at 500 Hz.
6. **BASS:** Use this to adjust the low frequency level of the amplifier. This provides up to 12 dB of boost, or 12 dB of cut at 40 Hz. The low frequency output is flat at the center position.
7. **MIDRANGE:** Use this to adjust the midrange frequency level of the amplifier. This provides up to 10 dB of boost, or 20 dB of cut at the selected frequency [8]. The midrange frequency output is flat at the center position. Rotate the control counter-clockwise for a "contoured" sound (more distant, less midrange output) or clockwise for a sound which really cuts through.
8. **FREQUENCY:** This control allows you to select the center frequency for the midrange control, giving you a choice of five "voices" for the midrange. The numbers correspond to the following center frequencies: 1=220 Hz, 2=450 Hz, 3=800 Hz, 4=1.6 kHz, 5=3 kHz.
9. **TREBLE:** Use this to adjust the high frequency level of the amplifier. This provides up to 15 dB of boost, or 20 dB of cut at 4 kHz. The high frequency output is flat at the center position.
10. **MASTER:** Use this to control the overall output level. It affects the speaker outputs and the preamp output. Use it wisely, and turn it down when making connections or trying something new.
11. **STANDBY/POWER/FAULT INDICATOR LED:** This is a multi-function LED. In Standby mode, it glows red. In the On mode (when the high voltage comes on) it glows green. If it does not turn green in the On mode, there is no high voltage present and the unit needs to be serviced. If the amp detects a fault in the power tube circuit, the high voltage is turned off and the LED flashes between red and green. This usually indicates a bad power tube. The amp will remain in this condition until the unit is turned off.

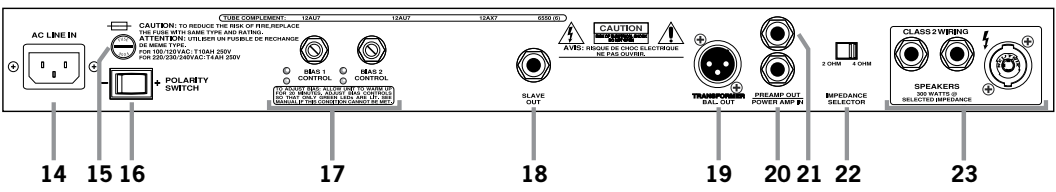
The Front Panel continued



12. STANDBY SWITCH: Use this switch to turn the standby power on or off. Press the top of the switch to turn the standby on. The Standby mode allows the tubes to warm or remain warm without high voltage being applied to them. This extends tube life. This switch should be OFF when first turning the amplifier on. Allow the unit to warm up for at least 20 seconds before switching to the ON position. During short periods of non-use, the amp should be put into Standby mode.

13. POWER SWITCH: Use this switch to turn the overall system power on or off. Press the top of the switch to turn on the power. The power switch should be engaged prior to the standby switch (as mentioned to the left, #12). This switch must be turned off to reset the amp after a Fault condition.

The Rear Panel

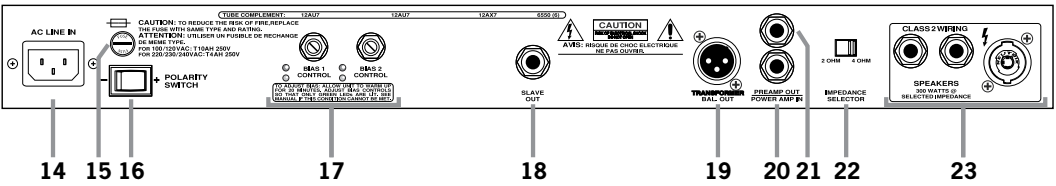


14. IEC POWER INPUT CONNECTOR: This is where you connect the supplied AC power cord. Plug the male end of the cord into a grounded AC outlet.

⚠ DO NOT DEFEAT THE GROUND PRONG OF THE AC PLUG!

15. FUSE: This protects the unit from damage due to overload conditions or power line surges. If the fuse blows, replace it only with the same size and type.

The Rear Panel continued



16. **POLARITY:** Place this switch in the position that provides the least electrical buzz from the unit.
17. **BIAS SECTION:** These two controls and sets of LEDs allow the user to properly bias the power amp. See “Setting Tube Bias” on page 9 for a complete description of how to use this section.
18. **SLAVE OUT:** This jack receives the same signal that is being sent to the power amp. It is useful for powering another amp (slave) from this unit’s preamp.
19. **BALANCED OUT:** This XLR jack is the output at the power amp in. Thus, it will include any processing done in the Preamp Out/Power Amp In loop. This signal may be used to feed an external power amplifier, mixing console or house PA system.
20. **POWER AMP IN:** This jack connects directly to the internal power amp for use with an external preamp. When using an external source, connect the OUTPUT of the source to this jack using a shielded instrument cable to feed the signal into the power amp section. The internal signal is disconnected when a plug is inserted into this jack.
21. **PREAMP OUT:** This jack is a direct post master preamp output for use with an external power amp. Connect the external amp’s input to this jack using a shielded instrument cable.
22. **IMPEDANCE SELECTOR:** Use this switch to match the output impedance of the amp to the speaker(s) being used (2 or 4 ohms). For help in deciding the total impedance of your system, consult the chart below.

Cabinet Impedance	Number of Cabinets	Total Impedance
2 ohms	1	2 ohms
4 ohms	1	4 ohms
4 ohms	2	2 ohms
8 ohms	2	4 ohms
8 ohms	4	2 ohms

23. **SPEAKER OUTPUTS:** Two 1/4” output jacks and one Speakon® output jack supply speaker-level power to the cabinet. The rated power output is 300 watts rms into 2 or 4 ohms.

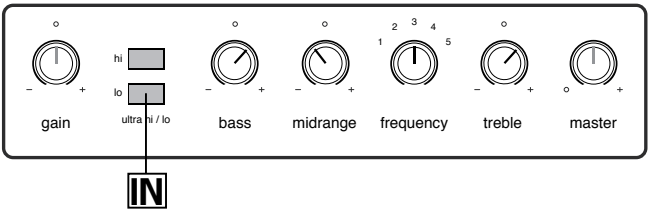
    The two identical outputs are wired in parallel, and you can use either one, or use both. Make sure the total speaker impedance load is 2 ohms or greater.

⚠ Use speaker cables with Speakon® or 1/4" TS ends to make the connections. Do not use instrument cables as they may overheat.

⚠ NOTE: In some areas, 1/4” speaker jacks are not appropriate for use on amplifiers with high output power levels. For this reason, use the Speakon® jack instead.

Some Suggested Settings

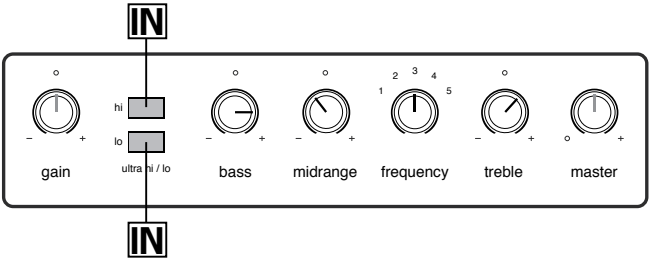
JAZZ:



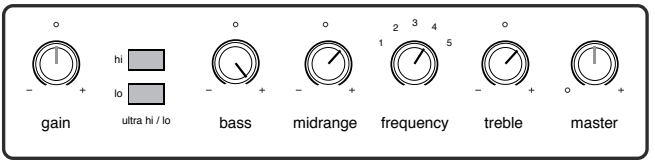
The setting of the Gain control depends on your particular instrument.

The Master should be set to produce the appropriate output volume level.

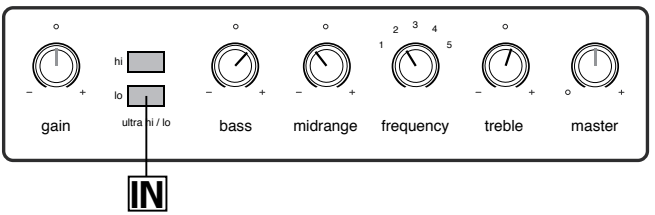
FUNK:



ROCK:



COUNTRY:



Changing the Tubes

Tubes wear out in direct proportion to how often and how hard you play your amplifier. Power tubes should be checked at least once a year - more frequently if you use the amplifier nearly every day. When power tubes wear out, the amplifier will begin to grow weak, lack punch, fade up and down, or lose highs and lows. Power tubes work together in a push/pull configuration and should be replaced at the same time with matched or balanced tubes. Your dealer can recommend the best replacement tubes for your amplifier.

Preamp tubes aren't worked as hard as power tubes and typically last longer. When a preamp tube wears out, the amplifier may squeal, get noisy, lose gain and sensitivity, or just quit working. A service center can determine which tube(s) may need replacing.

To get to the power tubes in the Heritage SVT-CL, the rear screen must be removed and the tube retainer(s) must be moved out of the way. ***Qualified service persons*** may follow these steps to change the tubes:

- Turn the amp off, unplug it and let it cool for at least 5 minutes.
- Remove the screws which hold the perforated metal screen to the rear of the cabinet.
- Set the perforated metal screen aside.
- Remove the tube retainer(s) by lifting them off the tube(s) and moving them to one side.
- Grasp the tube at its top and gently work it out of its socket by rocking it slightly back and forth as you lift up on it.
- When inserting new output tubes, align the tab in the tube's plastic base with the slot in the socket and press the tube gently but firmly into place by pushing down on its top.
- Replace the perforated metal screen and screws.
- Power up the amplifier and let it sit for at least 20 minutes. Bias the amplifier as directed in the section below.

Setting Tube Bias

Turn the power on and allow the unit to sit in 'Standby' for 3-5 minutes (after following all normal setup requirements). Next, take the unit out of 'Standby' and do a quick check of the Bias LEDs on each control. Both LEDs should be lit green. If not, turn the Bias controls until the LEDs are lit green. If this seems impossible, please refer to the chart on the next page for possible fault conditions. Now is a good time to check for any unusual sounds and possible glowing from the Power Tubes (see 'Changing the Tubes' section listed above).

At this time, play your bass for at least 20 minutes to allow the unit to warm up at proper AC line voltage. You may notice that the Bias LEDs illuminate red while playing. This is normal.

Next, turn down all controls on your bass and set it aside, leaving all amp controls alone. With no input signal present, adjust each Bias control so that only the associated green LED is illuminated. The controls may be slightly interactive, as they do affect each other.

So where does one set the Bias? If neither LED is lit, the amp is over-biased (counter-clockwise). This will result in some distortion in the power amp and a generally thin sound. If the green and red LEDs are lit, the amp is under-biased (clockwise) and too much current is flowing to the power tubes. This will result in a big, full sound, but will also reduce the life of the power tubes. For the longest tube life, but poorer tone, set each Bias to JUST AS the green LED illuminates. For shorter tube life, but better tone, set each Bias to JUST BEFORE the red LED illuminates.

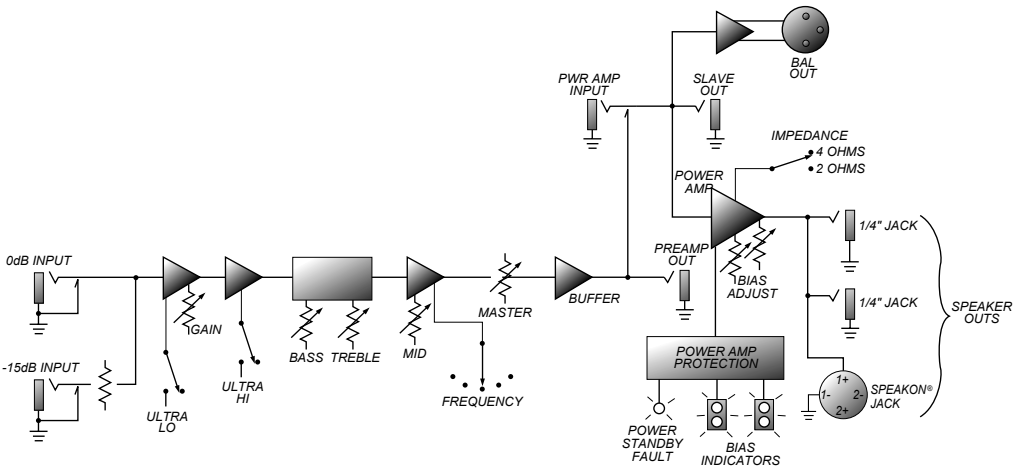
Once set, the controls should not have to be changed except as needed for tube replacement, or to compensate for tube aging. Note that the AC line voltage may vary from place to place and the LEDs will vary slightly. This is normal.

The Bias 1 control adjusts the three left (front left, rear left and rear center) power tubes. The Bias 2 control adjusts the three right (front right, rear right, and front center) power tubes. By observing the LEDs as the Bias controls are slowly rotated clockwise, a number of tube problems may be diagnosed by the user as seen in the table below.

Condition	Problem	Solution
Green comes on, then red	No problem	The longer the green LED is on before the red LED comes on, the better matched the tubes are.
Red comes on, then green	Tubes not properly matched	Set slightly before green comes on, obtain matched tubes when possible.
Red comes on, no green	One or more tubes are non-functioning	Check to make sure tubes are all seated properly; if so, find and replace bad tube(s).
None on	Possibly no high voltage or bad Bias Control or bad tube(s)	Have unit checked by a service technician.
Both on all the time	Possible bad Bias Control or bad tubes	Have unit checked by a service technician.

If the tubes are bad enough to cause damage to the unit, the Fault Indicator (#11, Front Panel) will signal and the unit will shut down.

Block Diagram



Heritage SVT-CL TECHNICAL SPECIFICATIONS

Preamp Tube	Premium 2 x 12AX7
Driver Tube	Premium 1 x 12AX7, 2 x 12AU7
Power Amp Tube	Premium 6 x 6550
Output Power Rating	300 watts rms minimum continuous @ <3% THD into 2 or 4 ohms, 0.4VRMS input
Signal to Noise Ratio	80 dB (20 Hz–20 kHz, unweighted)
Maximum Gain	67 dB @ 1 kHz, tones centered -3 dB @ 40 Hz and 15 kHz
Tone Controls	Bass: +12/–12 dB @ 40 Hz Midrange: +10/–20 dB @ 220 Hz, 450 Hz, 800 Hz, 1.6 kHz or 3 kHz Treble: +15/–20 dB @ 4 kHz Ultra Lo: +2 dB @ 40 Hz, -10 dB @ 500 Hz Ultra Hi: +9 dB @ 8 kHz
Power Requirements	10A(Slo Blo), 120VAC, 50-60Hz, 460W (HSVTCL) 10A(Slo Blo), 100VAC, 50-60Hz, 460W (HSVTCLJ) 4A(Slo Blo), 230VAC, 50-60Hz, 460W (HSVTCLEU) 4A(Slo Blo), 240VAC, 50-60Hz, 460W (HSVTCLUK) 4A(Slo Blo), 240VAC, 50-60Hz, 460W (HSVTCLAU)
Size (H x W x D)	11.5 in/292 mm (with feet) x 24.0 in/610 mm x 13.0 in/330 mm
Weight	80 lb/36.3 kg (approximately)

Speakon® is a registered TM of Neutrik AG

The Heritage SVT-CL is covered with a durable fabric-backed vinyl material. Clean with a dry lint-free cloth. Never spray cleaning agents on the Heritage SVT-CL. Avoid abrasive cleansers which would damage the finish.

Ampeg continually develops new products and improves upon existing ones. For this reason, the specifications and information in this manual are subject to change without notice.

Service Information

If you are having a problem with your Heritage SVT-CL amplifier, you can go to our website (www.ampeg.com) and click on Support for service information, or call Technical Support at 1-800-898-3211 Monday-Friday during normal business hours, PST, to receive assistance. If you are outside of the U.S., contact your local distributor for technical support and service.

www.ampeg.com

16220 Wood-Red Road NE • Woodinville, WA 98072
Part No. SW0896 Rev. A 01/11

Ampeg

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