



Heritage SVT-CL

Bass Guitar Amplifier



Owner's Manual

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What's in the Box

Ampeg Heritage™ SVT®-CL Amplifier, Power Cable, Quick Start Guide.

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 players' chests and audiences' 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 to 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.

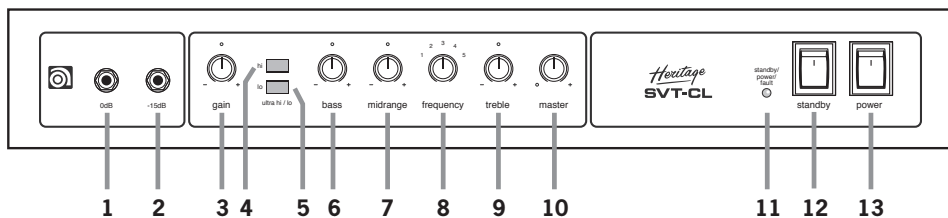
This document covers the features and specs of your new Heritage SVT-CL amp. We recommend fully reading and understanding this *Owner's Manual*, as well as the *Important Safety Instructions* included with your amplifier, before using it.

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. We wish you the best of luck in all of your musical endeavors!

Sincerely,

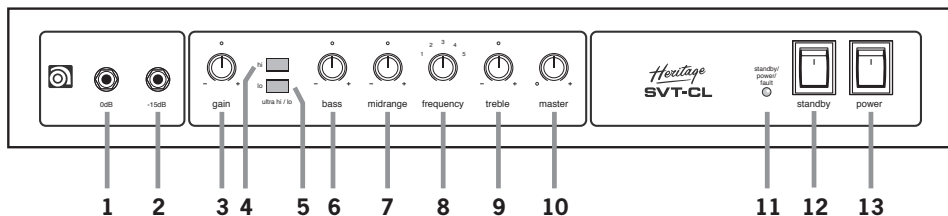
The dedicated team at Ampeg

The Front Panel



1. **0 dB INPUT:** This Input jack is recommended for the signal from a passive instrument through a shielded instrument cable.
2. **-15 dB INPUT:** This Input jack is recommended for the signal from an active instrument, or one with high output pickups, through 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 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 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 that really cuts through.
8. **FREQUENCY:** This control allows you to select the center frequency for the Midrange control, giving you a choice of five frequencies for the midrange. The numbers correspond to the following center frequencies: 1=220 Hz, 2=450 Hz, 3=800 Hz, 4=1.6 kHz, and 5=3 kHz.
9. **TREBLE:** Use 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 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, this indicates there is no high voltage present, and the unit needs servicing. 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.

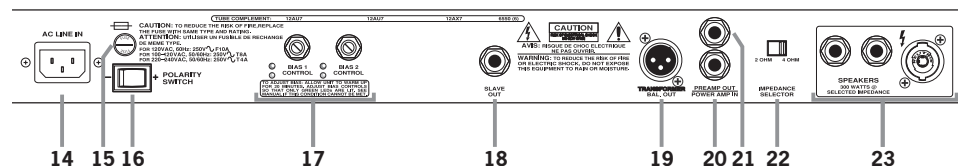
The Front Panel - Continued



12. **STANDBY SWITCH:** Use this switch to engage or disengage Standby mode. It is recommended to engage Standby mode (press the switch DOWN) before powering on the amplifier. Allow the unit to warm up for at least 20 seconds before pressing the switch UP to disengage Standby mode and operate the amp. During short periods of non-use, the amp should be put into Standby mode. With Standby mode engaged, the tubes are allowed to warm, or remain warm, without high voltage being applied to them, helping to extend tube life. .
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. Standby mode should be engaged prior to pressing the Power switch to its UP position (as mentioned in #12). The Power 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.

- 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 7 for complete instructions.

- 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 Ω or 4 Ω). For help in deciding the total impedance of your system, consult the table below.

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

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

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

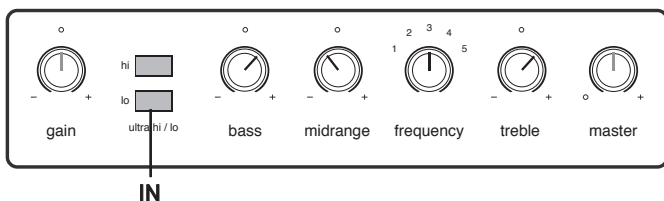
! NOTE: In some cases, 1/4" speaker jacks are not appropriate for use on amplifiers with high output power levels. For this reason, use the Speakon jack instead.



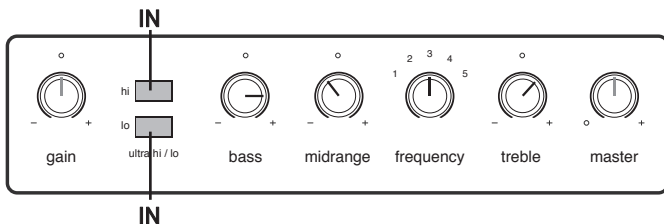
Suggested Settings

The setting of the Gain control depends on your particular instrument. The Master should be set to produce the appropriate output volume level.

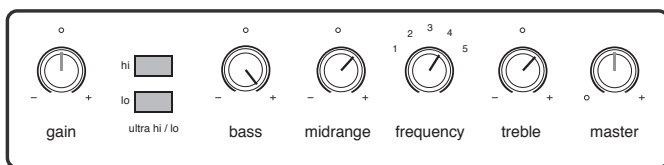
JAZZ



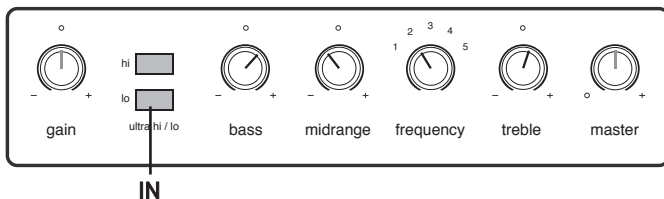
FUNK



ROCK



COUNTRY





Changing the Tubes

Tube life is directly affected by how often and how hard you play the 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 all be replaced at the same time with a matched or balanced tube set. 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 access 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 that hold the perforated metal screen to the rear of the cabinet.
- Set the perforated metal screen aside.
- Remove tube retainers by unlatching the metal base clamp around the base of each tube.
 - Grasp the tube at its top and gently work it out of its socket by rocking it slightly back and forth as you lift upon it.
 - When inserting new power 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 tighten its 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

With Standby mode engaged (the Standby switch DOWN - see [page 4](#)), turn the power on and allow the unit to sit in 'Standby mode' for 3-5 minutes (after following all normal setup requirements). Next, disengage Standby mode 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 table 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 the preceding 'Changing the Tubes' section).

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 UNDER-biased. 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 OVER-biased, 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 optimal tube life and performance, 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.

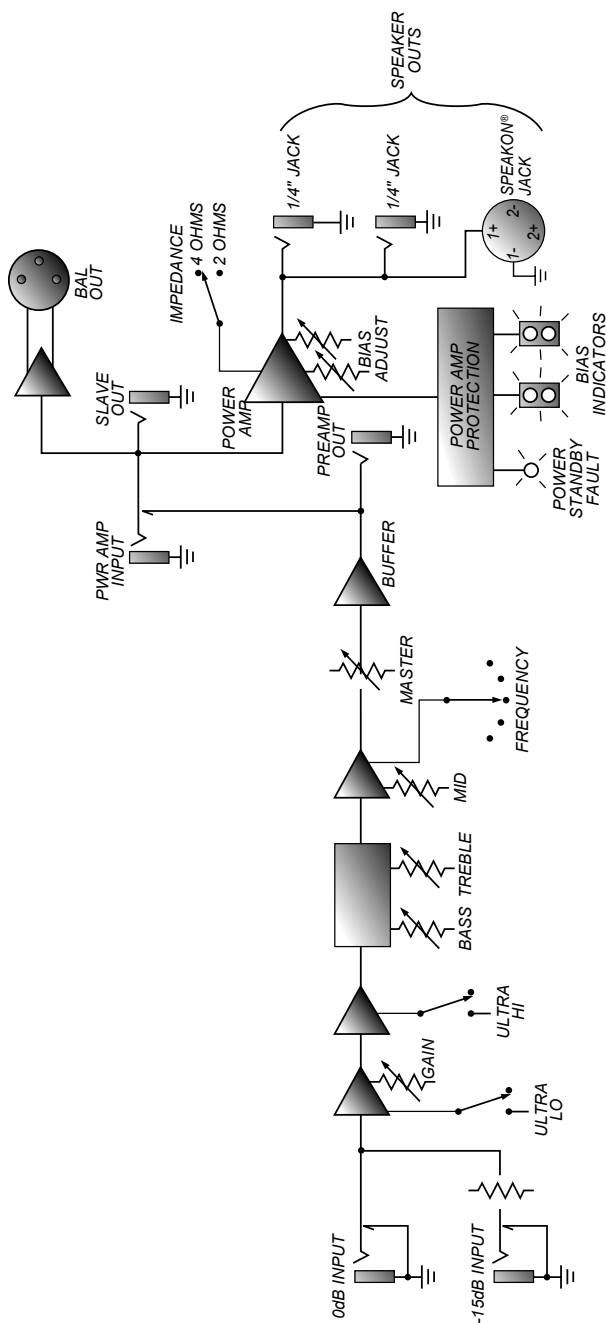
The Bias 1 control adjusts the three left (front left, rear left and rear center) power tubes. The Bias 2 control adjusts the three right (front right, rear right, and front center) power tubes. By observing the LEDs as the Bias controls are slowly rotated clockwise, a number of tube problems may be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

TUBE BIAS DIAGNOSIS		
Condition	Problem	Solution
Green comes on, turns red	No problem	The longer the green LED is lit prior to the red LED illuminating, the better matched the set of tubes
Red comes on, then green	Tubes not properly matched	Set slightly prior to when the green LED illuminates. Obtain a matched tube set when possible
Red comes on, no green	One or more tubes are non-functional	Check to make sure tubes are all seated properly; if so, find and replace bad tube(s)
None on	Possibly no high voltage, 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 tube(s)	Have unit checked by a service technician

If the tubes are bad enough to cause damage to the unit, the Fault Indicator (see the Fault Indicator LED on [page 3](#)) will signal and the unit will shut down.



Block Diagram



Technical Specifications

Preamp Tube	Premium 2 x 12AX7 Premium 1 x
Driver Tube	12AX7, 2 x 12AU7 Premium 6 x
Power Amp Tube	6550
Output Power Rating	300 Watts RMS minimum continuous @ <3% THD into 2 or 4 Ω , 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)

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.



Warranty and Support

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