

User's Guide

for the



Ampeg

SVT450H

Bass Amplifier



Made in the U.S.A. by



Ampeg



TABLE OF CONTENTS

Introduction	3
Features	3
The Front Panel	4
The Rear Panel	5
Some Suggested Settings	6
Troubleshooting	7
System Block Diagram	7
Technical Specifications	back cover

Declaration of Conformity

Manufacturer's Name: SLM Electronics
Corporate Headquarters: 1901 Congressional Drive, St. Louis, Missouri 63146
Primary Production Facility: 700 Hwy 202 W, Yellville, Arkansas, 72687

Product Type: Audio Amplifier

Products meet the regulations for compliance marking under:

- ETL standards UL6500, UL60065, or UL813
- CSA standards E60065 or C22.2 No.1-M90
- CE safety standard EN60065
- CE EMC standards EN55103 or EN55013 and EN61000
- FCC standards 47CFR 15.107 and 15.109 Class A
- C-tick designation Level 2, ABN #56748810738, ARBN# N222
- KETI standard K60065 (limited model approval)

Compliance Support Contact: SLM Electronics, Attn: R&D Compliance Engineer
 1901 Congressional Drive, St Louis, Missouri, 63146 • Tel.: 314-569-0141, Fax: 314-569-0175

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<small>WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</small>		

	PRECAUCION RIESGO DE CORRIENTAZO NO ABRA	
<small>PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDE EXPOSTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUIR EL RIESGO DE CORRIENTAZO, NO ABRA LA CUBIERTA. NO HAY PIEZAS ADENTRO QUE EL USUARIO PUEDA REPARAR DEJE TODO MANTENIMIENTO A LOS TECNICOS CALIFICADOS.</small>		

	ATTENTION RISQUE D'ELECTROCUTION NE PAS OUVRIR	
<small>ATTENTION: PROTEGEZ CET APPAREL DE LA PLUIE ET DE L'HUMIDITE AFIN D'EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION. POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPARABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.</small>		

IMPORTANT SAFETY INSTRUCTIONS

- READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS APPARATUS. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75CM) OF WELL VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- DO NOT USE THIS APPARATUS NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE APPARATUS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
- SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.
- WARNING: THIS UNIT REQUIRES A SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRIC CODES HAVING THE LINE SUPPLY VOLTAGE, POWER, AND FREQUENCY IDENTIFIED ON THE REAR OF THE UNIT. THE OUTLET MUST REMAIN ACCESSIBLE TO DISCONNECT THE UNIT IF A FAULT SHOULD ARISE WHILE IN USE. THIS UNIT SHOULD BE UNPLUGGED WHEN NOT IN USE.



EXPLANATION OF GRAPHICAL SYMBOLS:
 EXPLICACION DE SIMBOLOS GRAFICOS:
 EXPLICATION DES SYMBOLES GRAPHIQUES:

= "DANGEROUS VOLTAGE"
 "VOLTAJE PELIGROSO"
 "DANGER HAUTE TENSION"

= "IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL."
 "ES NECESARIO QUE EL USUARIO SE REFIERA AL MANUAL DE INSTRUCCIONES."
 "REFEREZ-VOUS AU MANUAL D'UTILISATION"



An Introduction to your new Ampeg SVT450H Bass Amplifier

Thank you for making one of the best choices you will ever make for your musical career – choosing one of the finest bass amps available, the Ampeg SVT450H. This versatile and powerful bass amplifier delivers up to 450 watts of unsurpassed musical power, and offers several outstanding features.

All of the features and controls of your SVT450H are covered in detail within the pages of this user's guide. We recommend that you read this guide and understand them before you use the amplifier.

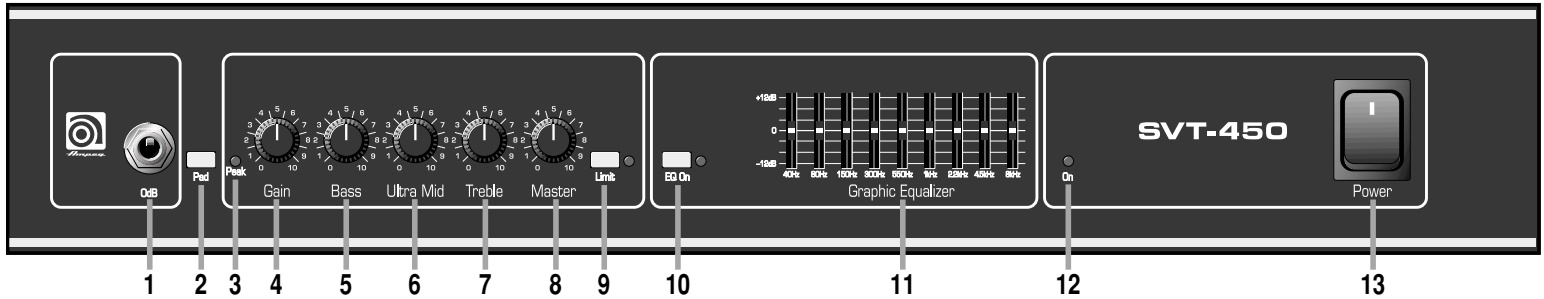
Features

In the world of high performance bass amps, Ampeg amplifiers stand alone. In true Ampeg tradition, the SVT450H offers you more power, performance and flexibility than any other bass amplifier in its class. The outstanding features of your new amplifier, features which set it apart from the competition, are listed below.

- **9-BAND GRAPHIC EQ:** Switchable at the front panel, you can use this as a “second channel” for bass solos, or to shape your sound to your own exacting standards
- **HEAVY-DUTY SPEAKER JACKS:** Speakon[®] jacks for more reliable connections at higher output
- **BALANCED LINE OUTPUT:** XLR with independent level switch (20dB pad). Patch into house consoles, mixing boards, or external power amplifiers
- **EFFECTS LOOP:** For increased intensity and quieter operation of external effects
- **POWER AMP IN and PREAMP OUT:** Allows direct access into the power amp and a signal tap from the preamp section for even greater versatility
- **CLASSIC SVT SOUND AND PERFORMANCE!**



The Front Panel



1. 0dB (INPUT): The signal output from an instrument (active or passive) or a line level signal may be connected here by means of a shielded instrument cable.

2. PAD: This switch, when depressed, attenuates the input signal by 15dB. Attenuation allows the Gain control (#4) to be used in a more usable (higher) position. If clipping is indicated with the Gain control way down, attenuation is needed.

3. PEAK: This LED illuminates when the signal level into the preamp (excluding the Graphic EQ) approaches clipping. Adjust the Gain control (#4) until a strong signal from your instrument causes this LED to flicker.

NOTE: If the LED illuminates frequently with the Gain at a low setting, use the Pad (#2) to attenuate the signal and readjust the Gain.

4. GAIN: Use this control to adjust the level of the signal entering the preamp stage. Adjust this control until the Peak LED (#3) flashes on strong signal peaks (but is not illuminated constantly while playing). To obtain the best signal to noise ratio, set the Gain control as described above and adjust the Master control (#8) to obtain the desired volume level.

5. BASS: Use this control to adjust the low frequency level of the amplifier. This control provides 15dB of cut or 13dB of boost at 40Hz. The low frequency output is flat at the center position.

6. ULTRA MID: Use this control to adjust the midrange frequency level of the amplifier. This control provides 13dB of cut or 5dB of boost at 400Hz. 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.

7. TREBLE: Use this control to adjust the high frequency level of the amplifier. This control provides 21dB of cut or 16dB of boost at 8kHz. The high frequency output is flat at the center position.

8. MASTER: Use this control to adjust the overall output level of the amplifier. For the lowest possible noise level, adjust the Gain control as described in #4 and use this control to obtain the desired volume level. The Effects Loop and Balanced Out (#20 - 24) are not affected by the Master control.

9. LIMIT: The SVT450H uses an internal Optocoupler Limiter to assist in keeping the amplifier’s output “clean” at extreme volume levels. (All amplifiers may begin to clip their output signals as they approach maximum output levels, resulting in potentially damaging distortion.) To engage the Limiter, depress this switch. The adjacent LED illuminates when the limiter circuit is activated, indicating that the amplifier is nearing full output and the limiter is keeping peak signals from clipping the output.

10. EQ ON: This switch, when depressed, activates the Graphic EQ. The adjacent LED illuminates when the EQ is active.

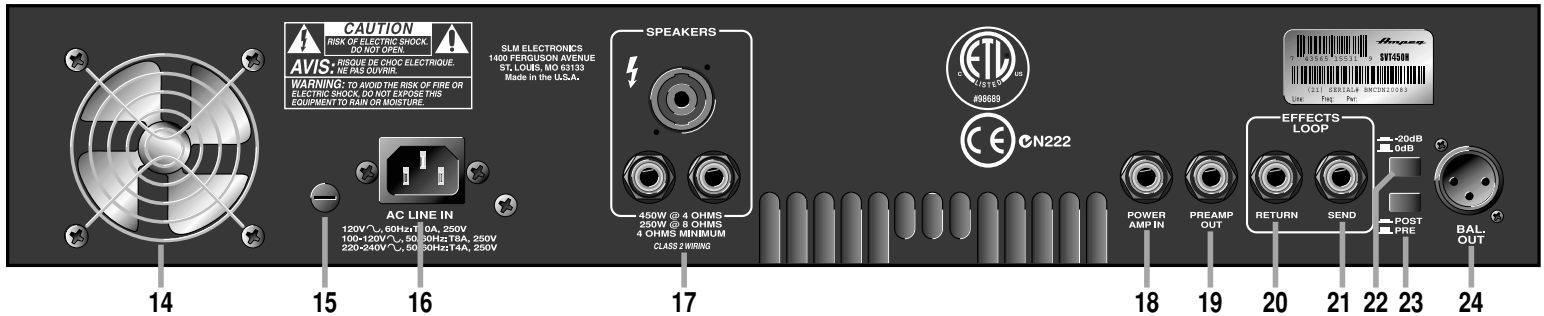
11. GRAPHIC EQUALIZER: Use these sliders to control the amplitude of the frequencies indicated below each control. The center position of each control is flat: sliding the control upward increases the output level of that frequency; sliding the control downward decreases it.

12. ON: This LED illuminates when the amplifier is on.

13. POWER: Use this switch to turn the amplifier on (top of the switch depressed) and off (bottom of the switch depressed).



The Rear Panel



14. (FAN): The temperature controlled, variable speed fan draws cool air into the amplifier and forces heat out through the exhaust vents (also on the rear panel, between the speaker jacks and the power amp in jack). **Do not obstruct the fan or vent hole openings.**

15. (FUSE): The fuse helps protect the unit from damage due to overload conditions. If the fuse fails, replace it only with the same size and type. If the fuse fails repeatedly, check the line voltage or contact an Ampeg Service Center.

16. AC LINE IN: Firmly insert the supplied AC power cord into this socket until it is fully seated. This grounded power cord is to be plugged into a grounded power outlet, wired to current electric codes and compatible with voltage, power, and frequency requirements stated on the rear panel. **Do not attempt to defeat the safety ground connection.**

17. SPEAKERS: The 1/4" jacks offer a convenient method of connecting to speaker cabinets using cables terminated with 1/4" plugs. However, when using the amplifier at or near its full output power, using the Speakon® jack is recommended. (Pin 1+ = hot, pin 1- = return.)

NOTE: When connecting multiple speaker cabinets to the amplifier, keep the overall impedance at or above 4 ohms. The following chart shows the total impedance load when connecting speaker cabinets in parallel:

cabinet impedance	# of cabs	# of impedance
8 ohms	2	4 ohms
16 ohms	2	8 ohms
16 ohms	4	4 ohms

18. POWER AMP IN: This mono jack allows you to feed the preamp output of another amplifier to the input of the SVT450H's internal power amp. This bypasses the preamp circuitry of the SVT450H.

19. PREAMP OUT: A post-EQ signal from this jack may be sent to the house mixing board, recording console, or an external amplifier.

20. EFFECTS RETURN: Use this jack to connect the output signal from an external effect to the amplifier by means of a shielded signal cable.

21. EFFECTS SEND: Use this jack to send a signal to the input of an external effect by means of a shielded signal cable.

22. -20dB/0dB: This switch, when depressed, attenuates the signal at the Bal. Out jack (#24) by 20dB.

23. POST/PRE: This switch, when depressed, sends a post-EQ signal to the Bal. Out jack (#24). When this switch in the out position, the signal at the Bal. Out jack (#24) is pre-EQ.

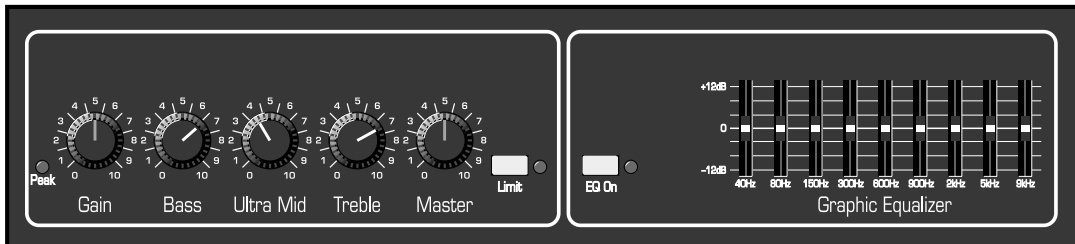
24. BAL. OUT: This XLR connector provides a balanced preamp output signal for connecting to the house mixing board, a recording console, or an external amplifier with balanced inputs. The signal at this jack can be set to be pre or post EQ by means of the Post/Pre switch (#23). The level of the signal can be adjusted for mic or line type inputs by means of the -20dB/0dB switch (#22).



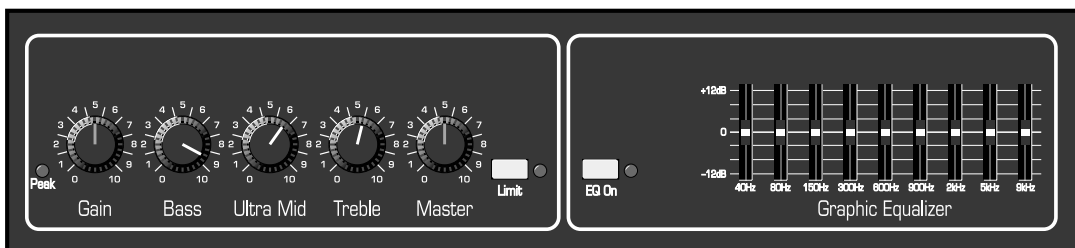
Some Suggested Settings

The setting of the Gain control depends on your particular instrument. The Master should be set to produce the appropriate output volume level. The Graphic EQ can be used to tailor the amplifier to your speaker cabinets, to compensate for room acoustics and to "fine tune" your sound.

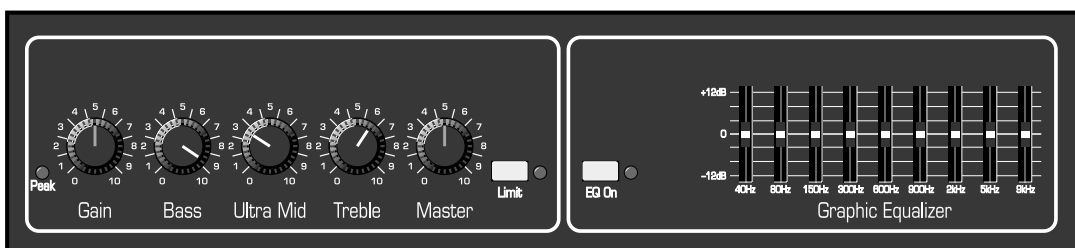
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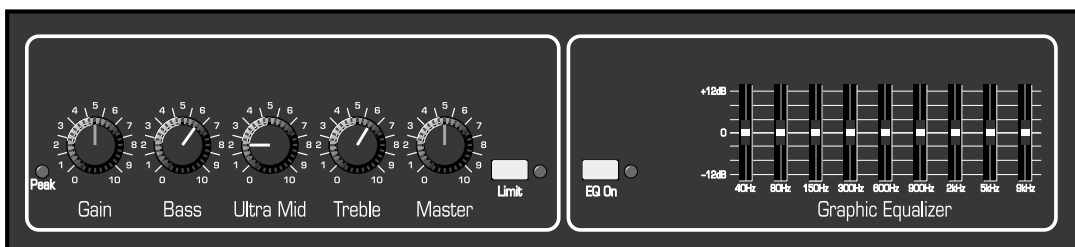
JAZZ:



COUNTRY:



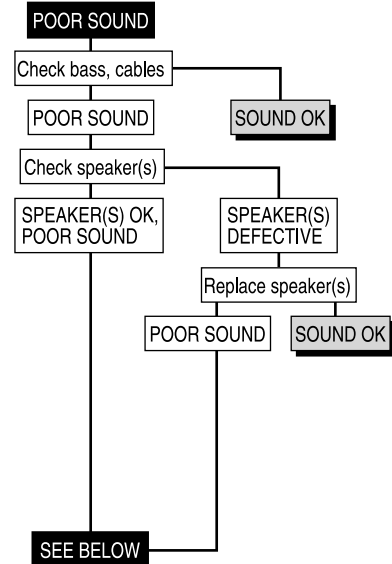
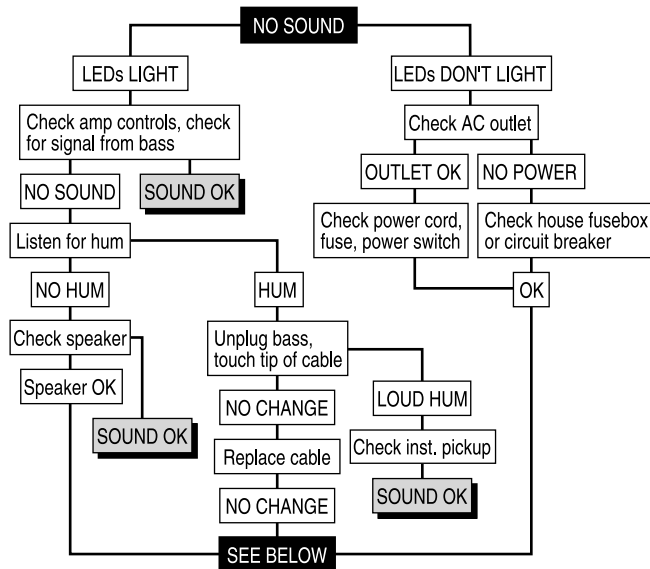
FUNK "POPPING:"





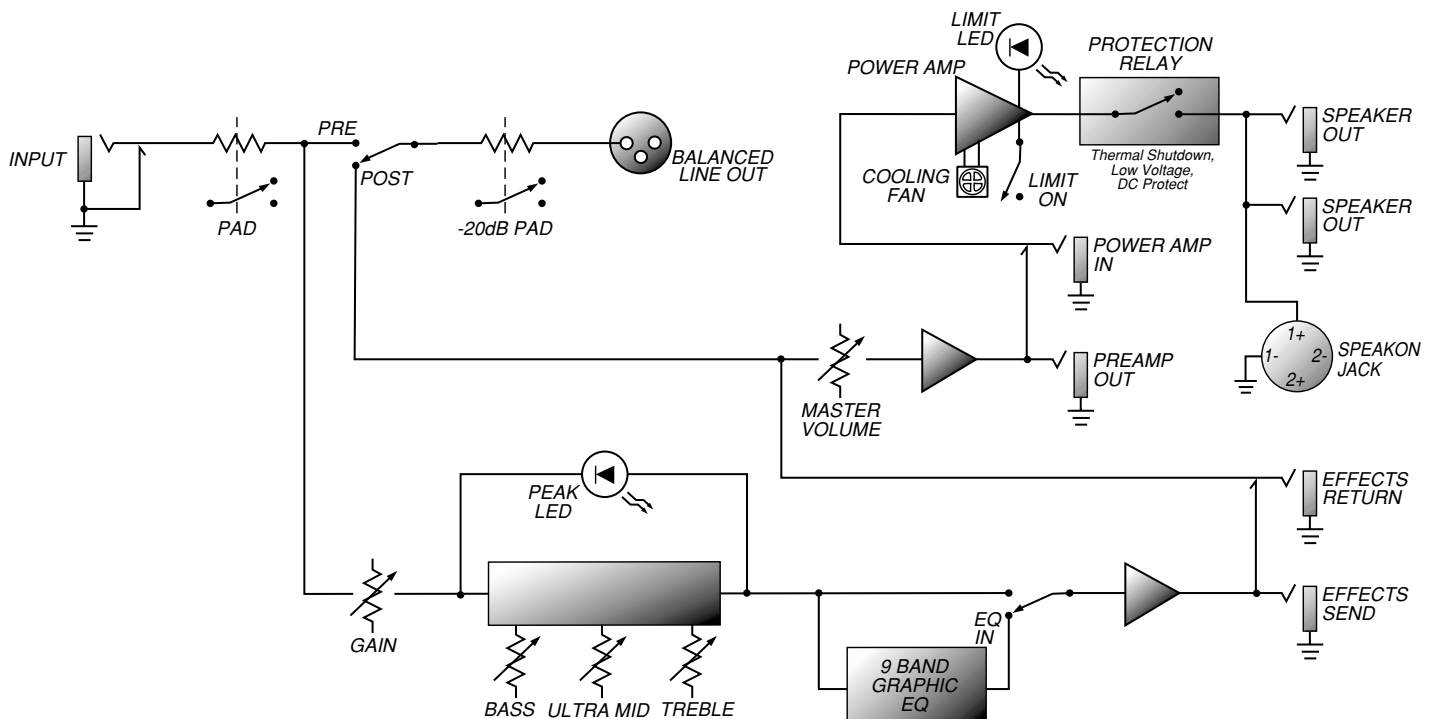
Troubleshooting

In the unlikely event that your SVT450H should stop working properly (or just stop working), take a few minutes to troubleshoot it before you call for service. You can save yourself time and money by doing it yourself, and often the problem is something quite simple.



If the problem isn't covered above, or if the steps lead you here, then contact your Ampeg dealer for service information. Also, you should refer your amp to an authorized service center if it gets dropped, has liquid spilled into it, or sustains damage to its power cord. Regular cleaning and maintenance by your local Service Center will help extend the useful life of the amplifier.

System Block Diagram





Technical Specifications

OUTPUT POWER RATING 450 Watts RMS, 4 ohm load, 120VAC
250 Watts RMS, 8 ohm load, 120VAC

TONE CONTROL RANGE

Bass: +13dB / -15dB @ 40Hz
Ultra Mid: +5dB / -13dB @ 400Hz
Treble: +16dB / -21dB @ 8kHz

GRAPHIC EQ RANGE

40Hz: ±12dB
80Hz: ±9dB
150Hz: ±8dB
300Hz: ±8dB
550Hz: ±8dB
1kHz: ±9dB
2.2kHz: ±8dB
4.5kHz: ±10dB
8kHz: ±13dB

GAIN 62dB typical, tones @ center

SIGNAL TO NOISE RATIO 75dB typical

LINE POWER REQUIREMENTS 260VA

SIZE AND WEIGHT 24" W x 11-1/2" H x 13" D; 47 lbs

Ampeg reserves the right to change specifications without notice.



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