

Ampeg

SVT-4 PRO

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.



CAUTION AVIS
 RISK OF ELECTRIC SHOCK. DO NOT OPEN
 RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK)
 NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.
 ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.
 AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER.
 CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.
 AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE
 A LA PLUIE OU A L'HUMIDITE

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.

WARNING — To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.



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 Yamaha Guitar Group, 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.

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 70CM 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 CHOC 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 ETRE NORME 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 (2012/19/EU) 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.

ATTENTION — Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministères 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 levels 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



Introduction

Congratulations! You are now the proud owner of an Ampeg SVT-4 PRO bass guitar amplifier. This versatile and powerful bass amplifier delivers up to 1600 watts of unsurpassed quality, offering the classic vibrance of tubes, as well as contemporary features.

The SVT-4 PRO amplifier is an ideal companion to the Classic Series, Pro Series, or PF cabinets, available separately.

Like all Ampeg products, your SVT-4 PRO amplifier is designed by musicians and built using only the best of components. Each amplifier is tested to confirm that it meets our specifications, and we believe that this amplifier is the absolute best that it can be. In order to get the most out of your new amplifier, please read this manual before you begin playing.

Best of luck in all of your musical endeavors!

Sincerely,

The dedicated team at Ampeg

Features

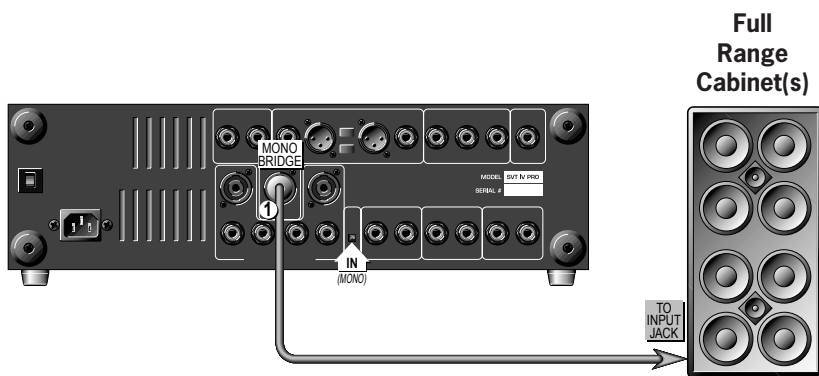
- **DUAL SEPARATE POWER AMPLIFIERS:** Operate in true stereo or mono bridged mode for even greater output power [pages 5–6, 12].
- **BI-AMP CAPABLE:** Adjustable crossover frequency control and low-to-high frequency balance control allow you to fine-tune the bi-amp abilities of the amplifier [pages 6–7, 10].
- **5-POSITION MIDRANGE SELECTOR:** Take your pick from the five center frequency points available to get just the right midrange voicing [page 9].
- **COMPRESSION CONTROL:** Allows you to control the dynamics of the tonal response characteristics from the power amp, from punch to compressed [page 8].
- **9-BAND GRAPHIC EQ:** Use as a “second channel” for bass solos, or to shape the sound to your own exacting standards. An independent level control allows you to adjust the Graphic EQ volume [page 10].
- **TUNER OUT JACKS:** Two jacks – one on the front panel, one on the rear panel – allows connection to an electronic tuner and provides an “always live” monitor feed, even when the output is muted [pages 8, 13].
- **SPEAKON JACKS:** For more reliable connections at higher outputs and for mono bridged connections (in addition to 1/4" speaker out jacks) [page 11].
- **TRANSFORMER BALANCED LINE OUTPUTS:** Independent level control. Two transformer balanced XLR and two balanced/unbalanced 1/4" output jacks – switchable stereo or mono (one “wet”, one “dry” signal), pre- or post-EQ [page 12].
- **STEREO EFFECTS LOOP:** Connect effects here for increased intensity and quieter operation [page 13].
- **POWER AMP IN AND PREAMP OUT:** Two separate loops, one for each channel: a separate preamp may be connected to the Power Amp In jack and the Preamp Out jack may be connected to a slave amp [page 12].
- **FOOTSWITCH CONTROL:** Use a footswitch to bypass/activate the Effects Loop and to activate the Graphic EQ and the Mute feature [page 12].
- **CIRCUIT BREAKER PROTECTION:** A heavy duty resettable circuit breaker provides protection against fault conditions [page 11].



Hook-up Diagrams

SVT-4 PRO

**Mono
Bridged**

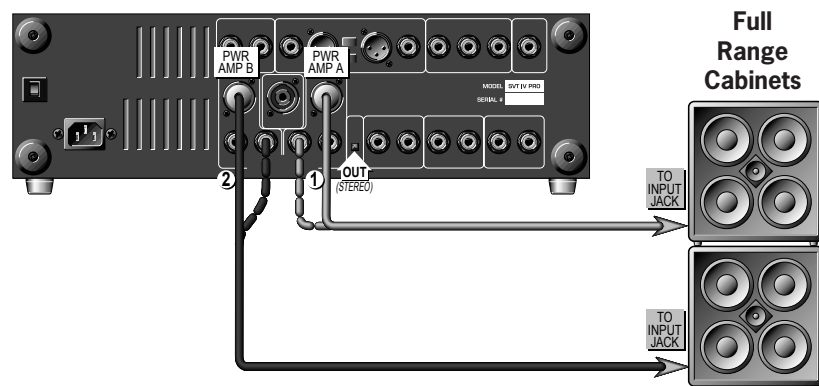


In this example, the SVT-4 PRO's two internal power amplifiers are bridged together to produce maximum output power. Engage the Stereo/Mono Bridge switch [Mono Bridge position]. Connect a heavy duty speaker cable terminated with a Speakon connector [pin 1+ = "+", pin 1- = "-"] from the SVT-4 PRO's Mono Bridge Output jack to the input jack of a speaker cabinet capable of handling the extremely high output power.

Note: Be absolutely certain that the cabinet(s) are able to handle the extremely high output power of the amp in this mode.

SVT-4 PRO

**Dual
Mono**



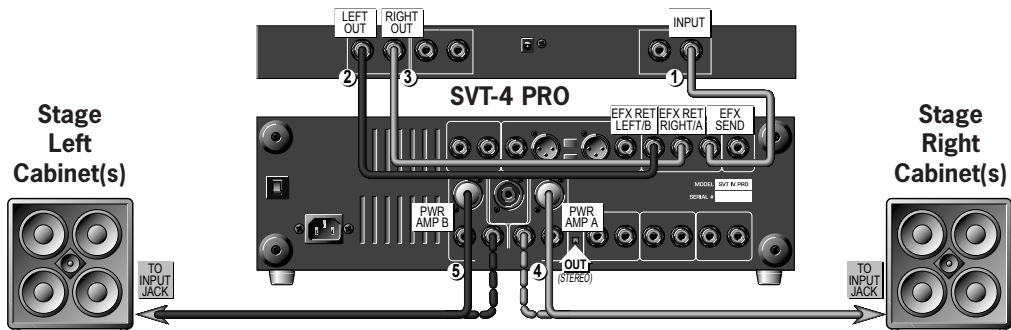
In this example, the SVT-4 PRO's two internal power amplifiers will each power a set of full range cabinets. Disengage the Stereo/Mono Bridge switch [Stereo position]. Connect a speaker cable from the SVT-4 PRO's Power Amp A Speaker Output jack to the input jack(s) of a set of full range speakers. Next, connect a speaker cable from the SVT-4 PRO's Power Amp B Speaker Output jack to the input jack(s) of another set of full range speakers.



Hook-up Diagrams continued

Stereo

Stereo Effects Processor

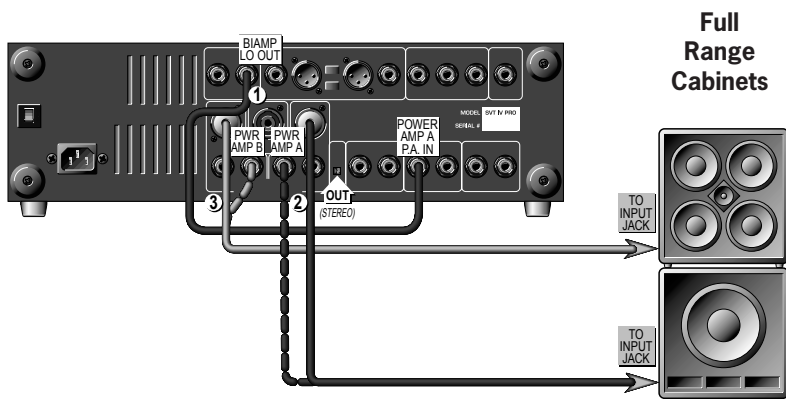


In this example, the SVT-4 PRO's two internal power amplifiers will each power a set of full range cabinets in stereo. Disengage the Stereo/Mono Bridge switch [Stereo position]. Connect a shielded cable from the Effects Send of the SVT-4 PRO to the input of a stereo effects processor. Next, connect a shielded cable from the left output of the processor to the SVT-4 PRO's Effects Return Left / B jack. Connect a shielded cable from the right output of the processor to the SVT-4 PRO's Effects Return Right / A jack. Now connect a speaker cable from the SVT-4 PRO's Power Amp A Speaker Output jack to the input jack(s) of the stage left speakers. Finally, connect a speaker cable from the SVT-4 PRO's Power Amp B Speaker Output jack to the input jack(s) of the stage right speakers.

Note: For Speakon connectors pin 1+ = "+", pin 1- = "-".

SVT-4 PRO

**Bi-amp: Full
Range / Lows**



In this example, the SVT-4 PRO's two internal power amplifiers will power both a full range cabinet and a low frequency cabinet. The crossover point for the low frequency cabinet is determined by the Crossover Frequency control [21]. Disengage the Stereo/Mono Bridge switch [Stereo position]. Connect a shielded cable from the SVT-4 PRO's Bi-amp Low Out jack to its Power Amp A Power Amp In jack. Next, connect a speaker cable from the SVT-4 PRO's Power Amp A Speaker Output jack to the input jack of the low frequency cabinet(s). Finally, connect a speaker cable from the SVT-4 PRO's Power Amp B Speaker Output jack to the input jack of the full range cabinet(s).

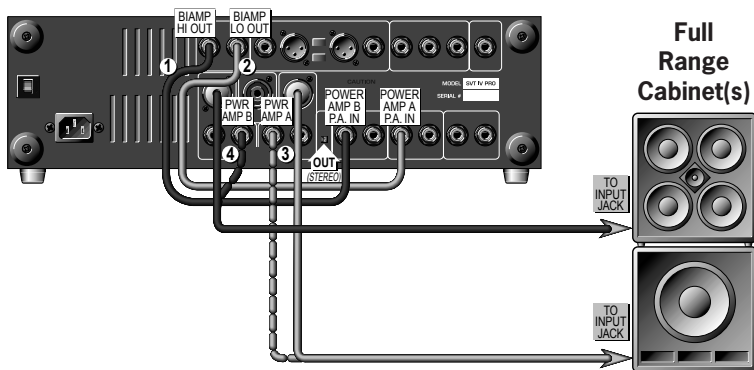


Hook-up Diagrams continued

SVT-4 PRO

Bi-amp:

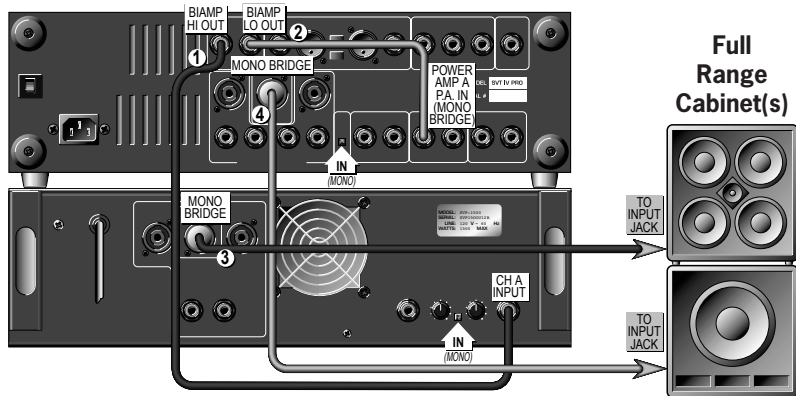
Highs / Lows



In this example, the SVT-4 PRO's two internal power amplifiers will power both a high frequency cabinet and a low frequency cabinet. The crossover point for the cabinets is determined by the Crossover Frequency control [21]. Disengage the Stereo/Mono Bridge switch [Stereo position]. Connect a shielded cable from the SVT-4 PRO's Bi-amp High Output jack to its Power Amp B Power Amp In jack. Connect a shielded cable from the SVT-4 PRO's Bi-amp Low Output jack to its Power Amp A Power Amp In jack. Next, connect a speaker cable from the SVT-4 PRO's Power Amp A Speaker Output jack to the input jack of the low frequency cabinet(s). Finally, connect a speaker cable from the SVT-4 PRO's Power Amp B Speaker Output jack to the input jack of the high frequency cabinet(s).

SVT-4 PRO

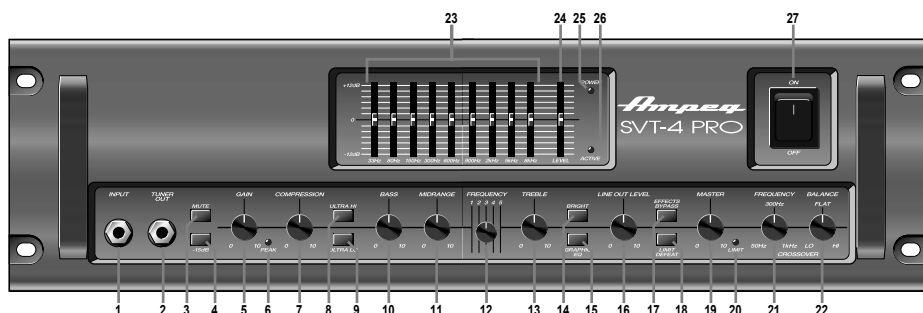
Bi-amp with a Second Amp



In this example, the SVT-4 PRO's two internal power amplifiers are bridged together and will power the low frequency cabinet(s). A second amplifier will be used to power the high frequency cabinet(s). The crossover point for the cabinets is determined by the Crossover Frequency control [21]. Engage the Stereo/Mono Bridge switch [Mono Bridge position]. Connect a shielded cable from the SVT-4 PRO's Bi-amp High Output jack to the input jack of the High Frequency power amplifier. Connect a shielded cable from the SVT-4 PRO's Bi-amp Low Output jack to its Power Amp A Mono Bridge Input jack. Next, connect the high frequency power amp's Speaker Output jack to the input jack(s) of the high frequency cabinet(s). [Observe the amplifier's minimum load rating]. Finally, connect a heavy duty speaker cable terminated with a Speakon connector [pin 1+ = "+", pin 1- = "-"] from the SVT-4 PRO's Mono Bridge Output jack to the input jack of the low frequency speaker cabinet.



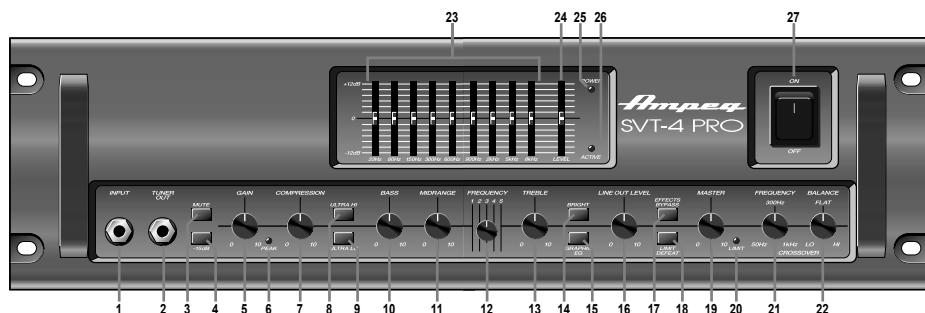
The Front Panel



1. **INPUT:** The signal output from an instrument (active or passive) may be connected to this 1/4" input by means of a shielded instrument cable.
2. **TUNER OUT:** This jack supplies the only live output when the mute switch [3] is engaged. This allows for silent tuning through an electronic tuner or killing the house send with a monitor mixer send still active. In addition, this jack may also be used as a -6 dB input (when not connected to a tuner).
3. **MUTE:** Press this switch in to mute all outputs except the tuner outs [2, 49]. The footswitch may also control muting if the mute switch [3] on the front panel is left in the "out" position. (The front panel switch is still active with the footswitch connected. This is excellent for tuning your bass with an electric tuner without having to adjust any levels to turn down the sound). The peak LED [6] will illuminate when this switch is engaged.
4. **-15 dB:** Press this switch in to reduce the input signal by 15 dB and compensate for higher output sources. This attenuation is suited for use with basses that have active electronics or high-output pickups. Use this pad if you notice that the peak LED [6] comes on regularly. It will reduce the chance of overdriving the preamplifier stage and allow more usable range and fine adjustment of the gain control.
5. **GAIN:** This varies the amount of signal driving the preamplifier. If a small clockwise rotation from minimum leads to overloading and the peak LED [6] illuminating, try engaging the -15 dB pad [4]. This will give more usable range with the gain control.
6. **PEAK LED:** This red warning LED will come on if the input signal is too high, the gain control [5] is set too high, or there is too much boost from the bass [10], midrange [11] and treble [13] controls. If it comes on regularly, even when these controls are low, try engaging the -15 dB pad [4].
7. **COMPRESSION:** This controls the amount of signal compression. At the fully counterclockwise position there is no compression; at the fully clockwise position the compression ratio is 10:1. The sonic effect of compression is reduced dynamics, increased sustain and a more consistent output level regardless of how light or hard the strings are played. The compressor is very transparent – that is, there is very little effect on the tone of your instrument.
8. **ULTRA HI:** This switch, when engaged, enhances the amount of high frequency output by 6 dB at 5 kHz.
9. **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.



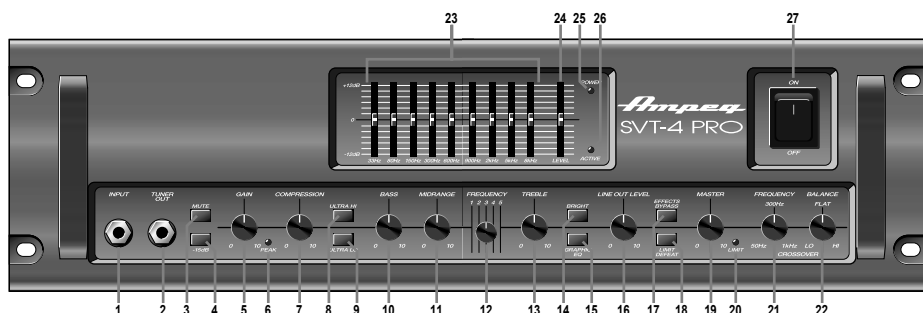
The Front Panel continued



- 10. 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 50 Hz. The low frequency output is flat at the center position.
- 11. MIDRANGE:** Use this to adjust the midrange frequency level of the amplifier. This provides up to 15 dB of boost, or 15 dB of cut at the center frequency selected by the frequency control [12]. 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.
- 12. FREQUENCY:** This control allows you to select the center frequency for the midrange control [11], 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.
- 13. TREBLE:** Use this to adjust the high frequency level of the amplifier. This provides up to 14 dB of boost, or 19 dB of cut at 5 kHz. The high frequency output is flat at the center position.
- 14. BRIGHT:** When this switch is engaged, a more lively top end response [+6 dB at 2 kHz] is added to the input signal.
- 15. GRAPHIC EQ:** When this switch is engaged, the 9-band graphic EQ is enabled. A footswitch overrides this switch.
- 16. LINE OUT LEVEL:** This controls the strength of the signal at the line out jacks [40, 41, 44, 45].
- 17. EFFECTS BYPASS:** When this switch is engaged, the effects loop is bypassed. A footswitch overrides this switch.
- 18. LIMIT DEFEAT:** The SVT-4 PRO employs internal limiter circuits to help keep the power amplifier’s output clean at extreme volume levels. (All amplifier’s may begin to clip their output signals as they approach maximum output levels, resulting in potentially speaker-damaging distortion.) These circuits may be defeated by engaging this switch, which may result in an increase in output power but with the possibility of distortion. Use discretion whenever playing with the limit circuits defeated.
- 19. MASTER:** Use this to control the overall output level. Use it wisely and turn it down when making connections or trying something new.
- 20. LIMIT LED:** This LED will flash any time the internal limit circuit is called upon to keep the amplifier’s output signal clean. This indicates that the amplifier is nearing full output and the limiter is keeping it from clipping the output signal.



The Front Panel continued



21. CROSSOVER FREQUENCY: This sets the crossover point between the Bi-amp High and Bi-amp Low outputs when using the amplifier in bi-amp mode (see 'Hook-up Diagrams', pages 5–7).

22. CROSSOVER BALANCE: This adjusts the relative level between the low and high frequency bi-amp signals when using the amplifier in the bi-amp mode.

23. 9-BAND GRAPHIC EQ: These sliders control the output frequencies indicated above each control. The center position of each control is flat [no boost or cut].

The Graphic EQ may be used in two ways:

1) *To fine tune the sound, make small adjustments at the desired frequencies and leave the EQ on throughout the entire session. (This is great for adapting to varying room acoustics when playing multiple venues) and...*

2) *For a completely different sound, make larger adjustments and only activate the EQ when a "second channel" sound is required (such as during bass solos).*

24. LEVEL: This slider is the output volume control for the Graphic EQ and only affects the signal when the EQ is engaged. If the EQ'd signal is too soft, slide the level control up; if it's too loud, slide this control down.

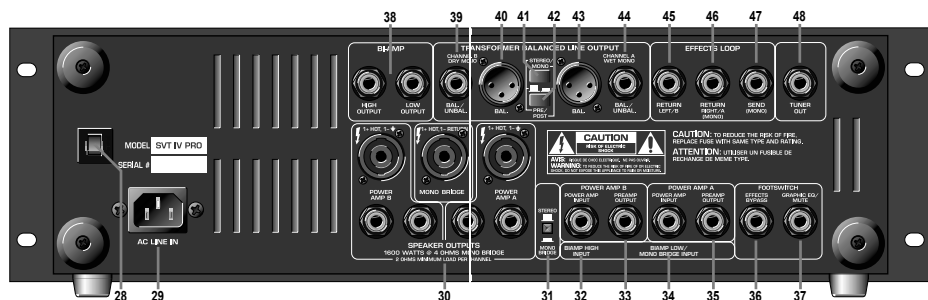
25. POWER LED: This LED illuminates green when the power switch [27] is up.

26. ACTIVE LED: This LED illuminates when the Graphic EQ switch [15] is engaged.

27. 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. Press the bottom of this switch to turn the amp off. To remove AC power, either turn off the AC mains supply, or unplug the power cord from the speaker and the AC mains supply.



The Rear Panel



28. CIRCUIT BREAKER: The SVT-4 PRO employs an AC line circuit breaker to help protect against damages due to excessive current demands. If the amplifier stops working, check the circuit breaker.

NOTE: When the circuit breaker opens, the button will be protruding and showing a contrasting color. You may reset the circuit breaker by pushing it in until it latches. The breaker must cool down for a short time before the button will latch. If the circuit breaker opens repeatedly with no signal input, have the amplifier checked by a qualified service person.

29. IEC POWER INPUT CONNECTOR:
This is where you connect the supplied AC power cord.

DO NOT DEFEAT THE GROUND PRONG OF THE AC PLUG!

30. SPEAKER OUTPUTS:

MONO BRIDGE:
1200W rms @ 8 ohms,
1600W rms @ 4 ohms

This single Speakon® output is for utilizing the full power output potential of the amplifier [power amp A summed with power amp B] for a single mono send. Stereo / Mono operation is described on the next page [31].

POWER AMP A:
350W rms @ 8 ohms,
625W rms @ 4 ohms,
925W rms @ 2 ohms

POWER AMP B:
350W rms @ 8 ohms,
625W rms @ 4 ohms,
925W rms @ 2 ohms

Each power amp is capable of achieving the power output ratings listed above per side individually; you may use either side individually or both simultaneously. Both power amp A and power amp B provide the choice of utilizing dual 1/4" TS outputs or a single Speakon output per side [1+, 1-].

When using the 1/4" TS outputs, use only speaker cables with 1/4" TS ends to make the connections. Do not use instrument cables as they may overheat.

We recommend using the Speakon jacks whenever playing at full output levels.

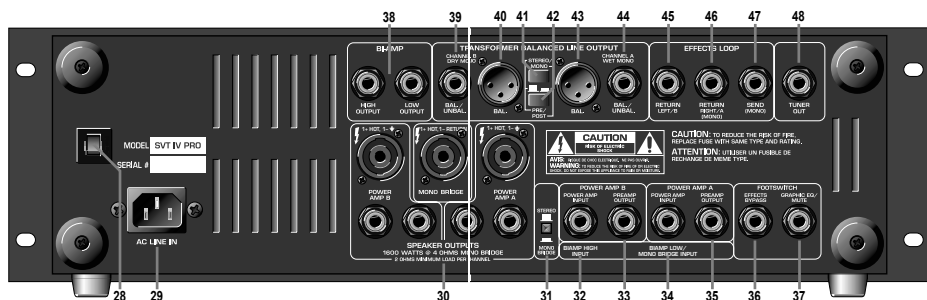
Make sure the total speaker impedance load is 2 ohms or greater.

For example, you could connect:

Two 16 ohm speakers (an 8 ohm load),
Two 8 ohm speakers (a 4 ohm load)
or one 2 ohm speaker.



The Rear Panel continued



31. STEREO / MONO BRIDGE SWITCH:

This switch sets the operating mode of the amplifier. In the “out” position, the amplifier is in Stereo Mode; with the switch in the “in” position, the amplifier is in Mono Bridged Mode.

32, 34. POWER AMP IN: These jacks connect directly to the internal power amp for use with external preamps. When using external sources, connect the OUTPUT of the sources to these jacks using shielded instrument cables to feed the signals into the power amp sections. The internal signal is disconnected when a plug is inserted. In the Mono Mode, Channel A = Input. In the Bi-amp Mode, Channel A = Low (frequency) Input, Channel B = High (frequency) Input.

33, 35. PREAMP OUT: These jacks are direct post master preamp outputs for use with external power amps, mixers, external effects, etc. Connect the external amp’s input to these jacks using a shielded instrument cable.

36. EFFECTS BYPASS FOOTSWITCH: Connect a single button footswitch to this jack for remote control of the Effects Loops. The footswitch overrides the front panel Effects Bypass switch.

NOTE: A footswitch may be purchased through your favorite Ampeg Dealer. Be sure

to ask for model #AFP1.

37. GRAPHIC EQ / MUTE

FOOTSWITCH: Connect a dual footswitch to this jack for remote Mute and EQ On/Off control. On the stereo 1/4" plug, the tip controls Mute and the ring controls EQ On/Off. The EQ footswitch overrides the front panel switch and the Mute function is available from either location.

NOTE: A footswitch may be purchased through your favorite Ampeg Dealer. Be sure to ask for model #AFP2.

...OR order model #AFP3 which may be used for FX, EQ and Mute!

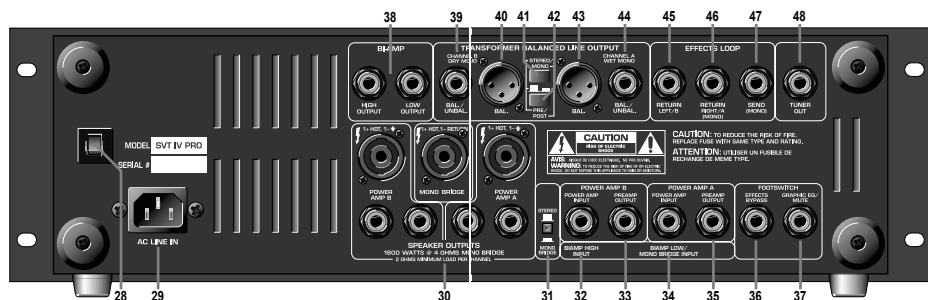
38. BI-AMP HIGH / LOW OUTPUTS: When used in the bi-amp mode, the Bi-amp High Out jack connects to the high frequency power amplifier and the Bi-amp Low Out jack connects to the low frequency power amp. [See pages 5–7].

39, 40, 43, 44. TRANSFORMER BALANCED LINE OUTPUTS: These jacks supply a balanced signal for connecting to a house mixing board, recording console or external amplifiers. The signal level at these jacks is controlled by the front panel Line Out Level control [16] and is governed by the Stereo / Mono switch [41] and the Pre / Post switch [42].

41. LINE OUT STEREO / MONO SWITCH:



The Rear Panel continued



This switch is active only when the Pre/Post switch [43] is in the “post” position [engaged]. When active, this switch governs the signals at the Line Out jacks as follows:

Stereo Mode [switch out]:

- The Channel A line out jacks [43, 44] supply a signal from the Effects Loop Return Right/A jack [46].
- The Channel B line out jacks [39, 40] supply a signal from the Effects Loop Return Left/B jack [45].

Mono Mode [switch in]:

- The Channel A line out jacks [43, 44] supply a “wet” mono preamp signal – any external effects are applied to this signal. The Effects Loop Left and Right returns [45, 46] are summed together, creating a mono effects signal.
- The Channel B line out jacks [39, 40] supply a “dry” mono preamp signal – no external effects are applied to this signal.

42. POST-EQ / PRE-EQ: The signal at the line out jacks can be set to either Pre-EQ or Post-EQ with this switch. With the switch in the OUT position, the signal at the jacks is Pre-EQ. This is a direct output not affected by any EQ or boost settings. With the switch in the IN position, the signal is Post-EQ and is controlled and

modified by the tone controls, Graphic EQ, the Master level control, the effects loop and the Line Out Stereo / Mono switch.

45. EFFECTS LOOP RETURN LEFT / B:

When using stereo effects, connect the effect's left channel output into this jack. Do not use this jack with mono effects.

46. EFFECTS LOOP RETURN RIGHT / A (MONO):

When using stereo effects, connect the effect's right channel output into this jack. When using mono effects, connect the effect's output into this jack.

47. EFFECTS LOOP SEND: When using an external signal processor, connect the INPUT of the effect to this jack using a shielded instrument cable to send the post-EQ signal to the effect for processing. The effects loop may be bypassed by the front panel switch or by the use of a footswitch.

48. TUNER OUT: This jack is provided for connection to an electronic tuner and is always live, even when the Mute switch [3] is engaged. This allows for silent tuning, as well as a monitor feed which stays hot, even when the house mix is muted.

OTHER: Make sure that the ventilation openings are not obscured in any way. This will allow the flow of cooling air to the power amplifier's heatsinks.

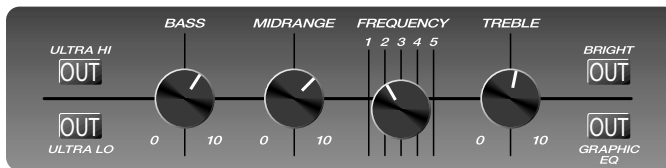


Suggested Settings

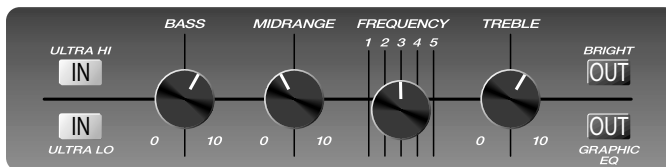
Since so many variables affect the actual sound of any system, the following settings are offered as starting points to help you find the exact sounds your playing demands. When using the SVT-4 PRO, please keep in mind the following points:

- The Gain control should be adjusted until the peak LED flashes on strong signals. [This level will vary depending on the instrument and playing style].
- The Compressor control may be adjusted to control the dynamic response of the instrument. Adjust it according to your preference.
- The Graphic EQ may be used to further fine-tune these basic suggested settings, to extend the frequency response of the cabinet being used, to compensate for room acoustics, or to act as a "second channel".

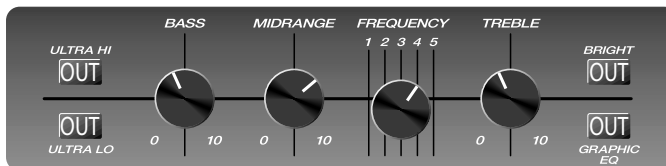
Setting 1 – Classic Ampeg



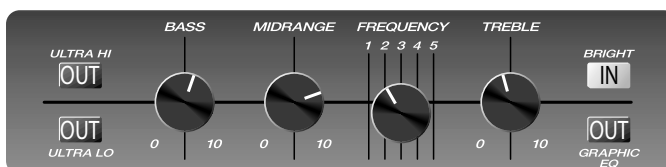
Setting 2 – Funky Thing



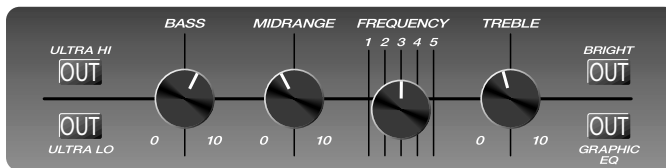
Setting 3 – Ethereal Fretless



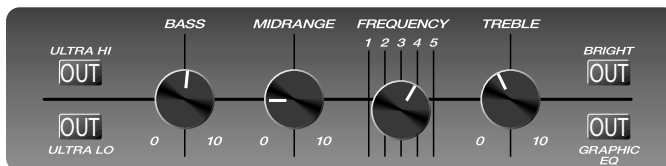
Setting 4 – “Jaco”



Setting 5 – R&B Groove



Setting 6 – Downright Upright Done Right



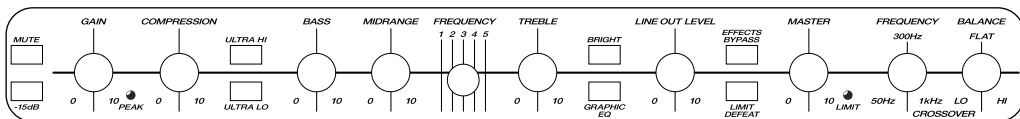
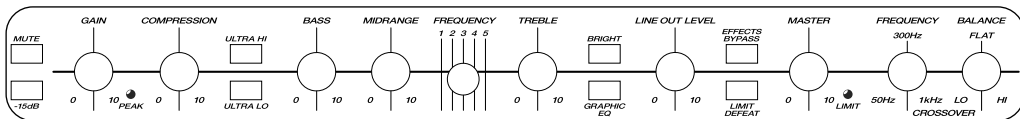
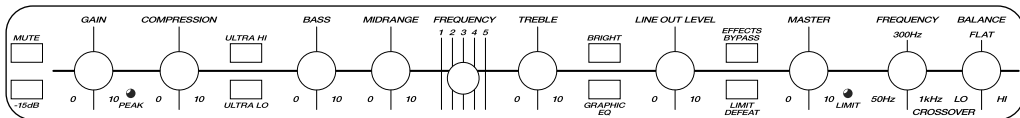
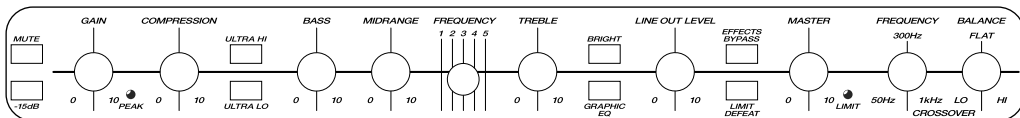
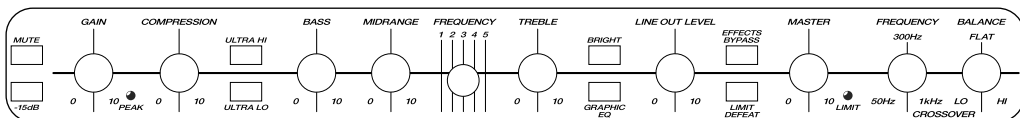


Personal Settings

A note about the Graphic EQ:

The Graphic EQ may be used in two ways:

- 1) To fine tune the sound, make small adjustments at the desired frequencies and leave the EQ on throughout the entire session. (This is great for adapting to varying room acoustics when playing multiple venues) and...
- 2) For a completely different sound, make larger adjustments and only activate the EQ when a "second channel" sound is required (such as during bass solos).





Rack Mounting

When mounting the SVT-4 PRO into a rack, the four bottom feet should be removed to maintain the three rack space height of the amplifier. Be sure to keep the feet and their attachment bolts for future use. If the feet are reinstalled, never use screws which will protrude farther into the amplifier than the original hardware.

The rack must be a high quality enclosure capable of securely supporting the weight of the amplifier. Tighten the mounting screws securely through the amplifier's face plate, into the rack rails. Check the rack and mounting screws occasionally to ensure a continually safe and secure installation.

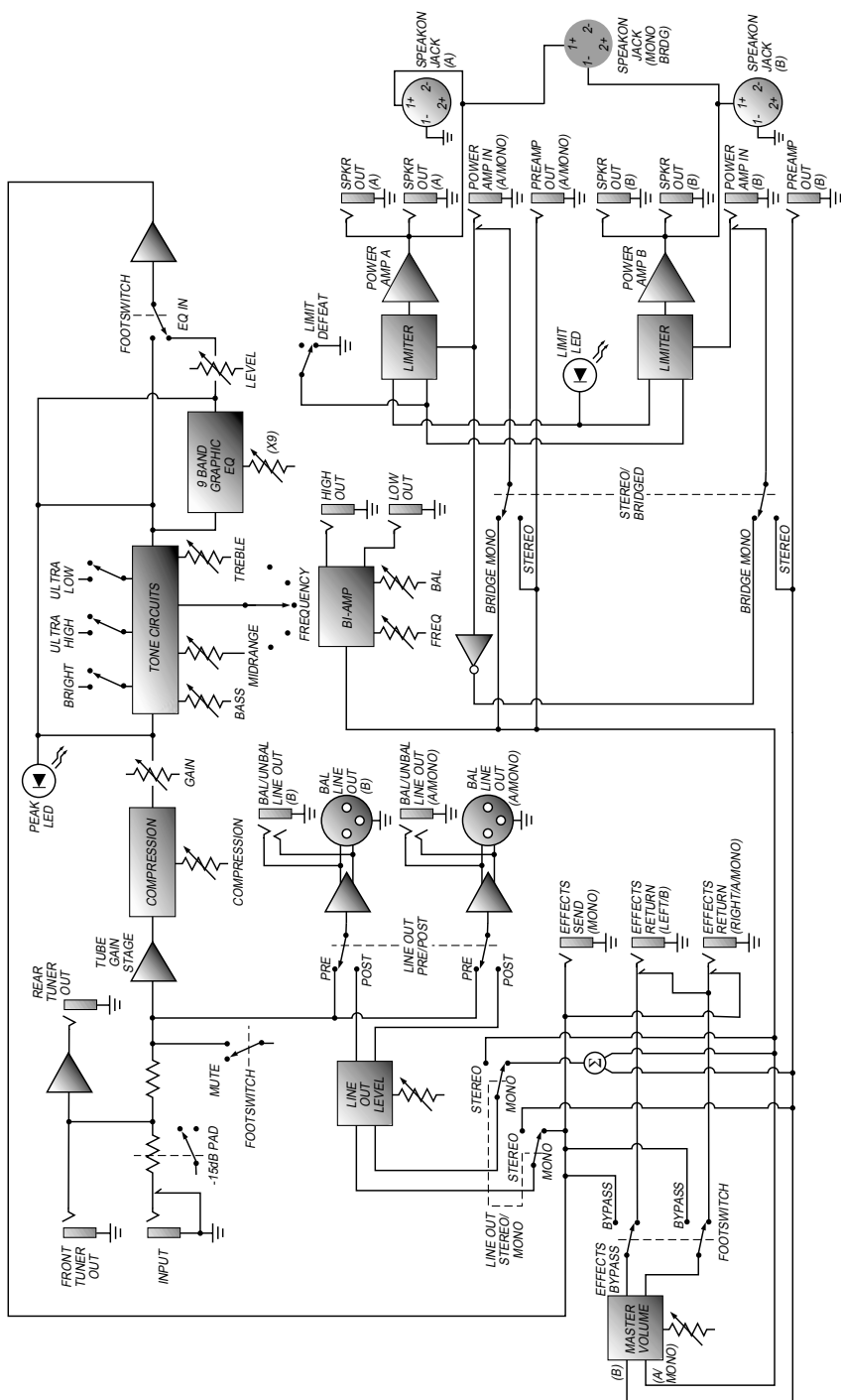
Thermal Considerations

The amplifier is fan cooled with one large fan. Air is drawn through the rear panel vent to cool down the amplifier heatsinks, and then expelled through the side panel vents. When installing, be sure to allow sufficient air space around the front, sides and rear of the amplifier for adequate cooling for the heatsinks. Leave at least one rack space above and below, and at least six inches behind and in front of the chassis to allow proper ventilation. The rear of the rack should be unobstructed and placed no closer than 10" from walls or other large obstructions. When the amplifier is first turned on, the fan runs at a low speed. As the power output increases and the amp warms up, the fan gradually increases in speed to provide additional cooling. If the amplifier should overheat, a thermal switch turns off the power amplifier, allowing the heatsink to cool down. Once the amplifier has cooled to a safe operating temperature, the thermal switch resets and reactivates the amplifier. If this should occur, identify the cause of the problem and take corrective action. For example:

- Provide better ventilation
- Install a fan in the rack to move more air
- Make sure the amplifier is not overloaded with too low of a load impedance or by a short circuit on the speaker line



Block Diagram



**SVT-4 PRO Technical Specifications**

Output Power Rating	Mono-Bridged: 1600 watts rms @ 4 ohms (1200 watts continuous), 3% THD Mono-Bridged: 1200 watts rms @ 8 ohms (900 watts continuous), 3% THD 2 x 900 watts rms @ 2 ohms (600 watts continuous), 3% THD 2 x 625 watts rms @ 4 ohms (490 watts continuous), 3% THD 2 x 350 watts rms @ 8 ohms (300 watts continuous), 3% THD	
Signal to Noise Ratio	85 dB	
Compression Ratio	10:1 (2 dB change in output for 20 dB change in input [50 mV to 500 mV])	
Maximum Gain	68 dB @ 1 kHz, tone controls centered, @ bridged output	
Tube Complement	12AX7 (3)	
Tone Controls	Bass: +12 / -12 dB @ 50 Hz Midrange: +15 / -15 dB @ 220 Hz, 450 Hz, 800 Hz, 1.6 kHz or 3 kHz Treble: +14 / -19 dB @ 5 kHz	
Graphic EQ Level	+10 / -10 dB	
Graphic EQ Range	33 Hz: +15 / -15 dB 80 Hz: +8 / -8 dB 150 Hz: +8 / -8 dB 300 Hz: +8 / -8 dB 600 Hz: +8 / -8 dB 900 Hz: +8 / -8 dB 2 kHz: +8 / -8 dB 5 kHz: +9 / -9 dB 8 kHz: +10 / -10 dB	
Bright Switch	+6 dB @ 2 kHz	
Ultra Hi Switch	+6 dB @ 5 kHz	
Ultra Lo Switch	+2.5 dB @ 50 Hz -12 dB @ 560 Hz +1.5 dB @ 5 kHz	
Footswitch Jack	Effects Bypass (mono); Graphic EQ On/Off, Mute On/Off [Tip = Mute, Ring = EQ]	
Power Requirements	[Domestic]:	~100–120 VAC, 50–60 Hz, 1.4 kVA, 1.4 kW
	[Export]:	~200–240 VAC, 50–60 Hz, 1.4 kVA, 1.4 kW



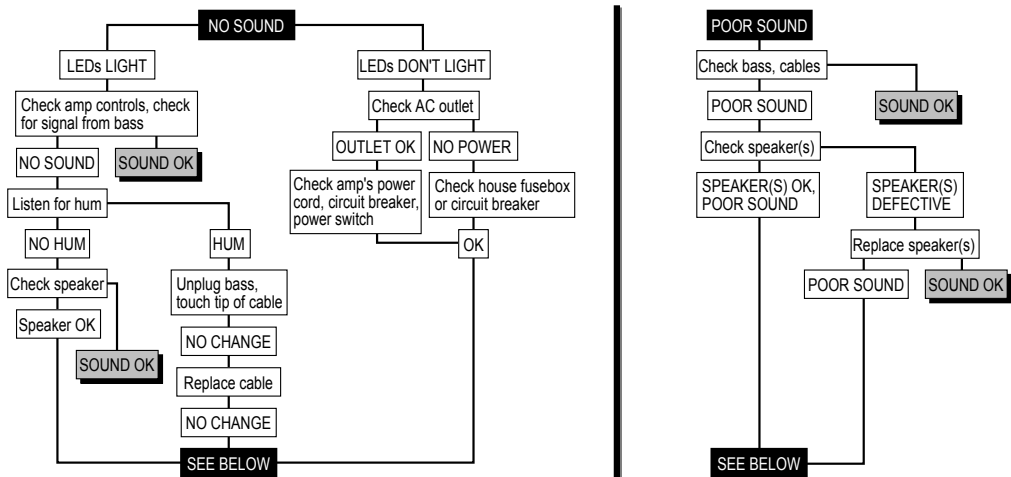
SVT-4 PRO Technical Specifications continued

Size (H x W x D) 5.6 in / 142 mm (with feet) x 19.0 in / 483 mm
(with ears) / 17.4 in / 442 mm (without ears)
x 15.5 in / 394 mm

Weight 39.5 lb / 17.9 kg (approximately)

Troubleshooting

In the unlikely event that your SVT-4 PRO should malfunction, 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 cure for 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 the amp for servicing if it gets dropped, has liquid spilled into it, or sustains damage to its power cord.

Service Information

If you are having a problem with your SVT-4 PRO, you can go to our website (www.ampeg.com) and click on Support for service information, or call Technical Support at 1-818-575-3600 Monday – Friday during normal business hours, Pacific Time, to receive assistance. If you are outside of the U.S., contact your local distributor for technical support and service.

The SVT-4 PRO is covered with sheet metal and aluminum, not unlike robots, spaceships and other cool things. Clean with a dry lint-free cloth. Never spray cleaning agents on the SVT-4 PRO. 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.

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Ampeg

SVT-4 PRO
Bass Guitar Amplifier



Owner's Manual