# **Owners Guide for the**



# SVT-5 PRO Bass Amplifier





### **TABLE OF CONTENTS**

Introductions	
Features	
Important Safeguards and Precautions	
The Front Panel Controls and Their Use4	
The Rear Panel	
Connections: Mono Bridged6	
Dual Mono	
Biamp - Full Range and Lows6	
Biamp - Highs and Lows	
Biamp With a Second Amplifier7	
Some Suggested Settings	
Rack Mounting9	
Troubleshooting9	
System Block Diagram10	
Technical Specifications back cover	

#### **Declaration Of Conformity**

#32, Effective 01-01-2001

Manufacturer's Name: **SLM Electronics** 

> **Production Facility:** 11880 Borman Drive, St. Louis, MO 63146, USA **Production Facility:** 700 Hwy 202 W, Yellville, AR 72687, USA **Shipping Facility:** 1400 Ferguson Ave., St. Louis, MO 63133, USA Office Facility: 1400 Ferguson Ave., St. Louis, MO 63133, USA

**Product Type: Audio Amplifier** 

**Complies with Standards:** 

LVD: 92/31/EEC, 93/68/EEC, & 73/23/EWG

Safety: EN60065

EMC: EN55013, EN55020, EN55022, EN61000-3-2,

& EN61000-3-3

Supplementary information provided by your local Sales & Services Office or:

SLM Electronics - R & D Engineering 1901 Congressional Drive, St Louis, MO 63146, USA Tel.: 314-569-0141, Fax: 314-569-0175

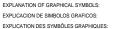






#### IMPORTANT SAFETY INSTRUCTIONS

- 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.





# An Introduction to your new Ampeg SVT-5 PRO 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 SVT-5 PRO. This versatile and powerful bass amplifier delivers up to 1350 watts of unsurpassed musical power, and offers several outstanding features.

All of the features and controls of your SVT-5 PRO are covered in detail in this owner's guide. We recommend reading about them prior to using the amplifier.

### Features

In the world of high performance bass amps, Ampeg amplifiers stand alone. In true Ampeg tradition, the SVT-5 PRO offers more power, performance and flexibility than any other bass amplifier in its class. The outstanding features which set your new amplifier apart from the competition are listed below.

- 15dB PAD SWITCH: Use this to accommodate the input signal from an instrument with active electronics or very "hot" pickups
- MUTE SWITCH: Silences the output signal from the amplifier, allowing you to tune in private
- TWO SEPARATE CHANNELS: Choose between the clean channel, the overdrive channel, or both combined, for the widest variety of sounds possible
- COMPRESSOR SWITCH: Controls the dynamic range of the preamp, to even out your volume level
- ULTRA LOW, ULTRA HIGH AND GAIN BOOST SWITCHES: For additional tonal flexibility allows even greater sound control
- VARIABLE MIDRANGE SELECTOR: Custom select the center frequency point for the midrange control for just the right "voice"
- GATE SWITCH: Keeps things quiet in between riffs
- FOOTSWITCH JACKS: Two jacks allow footswitch control of channel selection/channel combine and octave/mute
- TWO EFFECTS LOOPS: Allow you to add effects to both channels
- THREE PREAMP OUTPUTS: One for each channel, plus one for the octave signal
- TRANSFORMER-BALANCED XLR OUTPUTS: For connection to a recording console, PA system or external amplifier
- DUAL SEPARATE POWER AMPLIFIERS: For operation in true stereo or mono bridge mode for maximum power
- BIAMP CAPABILITIES: Low and high output jacks, crossover frequency control, and low to high balance
- TUNER OUT JACK: Allows use of an electronic tuner active even when the amplifier is muted
- POWER AMP IN JACKS: Allow you to connect a preamp signal to either or both internal amplifiers
- CIRCUIT BREAKER PROTECTION: Provides protection against fault conditions
- OCTAVE CIRCUIT: Adds a signal to the input signal that is one octave lower than the original
- HEAVY DUTY SPEAKER JACKS: Speakon® jacks are provided for both channels and for mono bridge

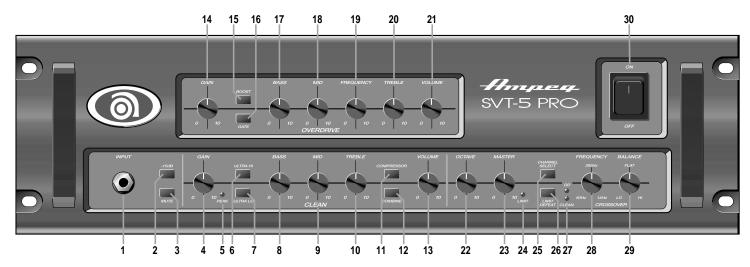
## Important Safeguards and Precautions:

All Ampeg products are designed for continuous safe operation, as long as common sense is used and steps are taken to help avoid certain problems. Abiding by the following rules can help prevent damage to your amplifier, yourself and others.

- The amplifier is equipped with a three-pronged AC power cord. To reduce the risk of electrical shock, NEVER remove or otherwise attempt to defeat the ground pin of the power cord.
- Connect the amplifier **ONLY** to a properly grounded AC outlet of the proper voltage for your amp.
- Avoid sudden temperature extremes, rain and moisture. Also, avoid sudden and intense impact. (If the unit has been subjected
  to any of the preceding abuses, have it looked at by an authorized service center.)
- NEVER set the amplifier on a support that might give out under its weight.
- Always keep the total speaker impedance at or above the rated load.
- Unplug the amplifier before cleaning it. NEVER spray liquid cleaners onto the amplifier. Wipe it with a slightly dampened, lint-free cloth to remove dirt and film.
- Do not use the amplifier if it has sustained damage to the chassis, controls, or power cord. Refer the unit to an authorized service center for inspection.
- Amplifiers capable of producing high volume levels are also capable of inflicting permanent hearing loss or damage, if the exposure to such levels is prolonged. Such damage is progressive and irreversible! Consider using quality hearing protection devices.



## The Front Panel Controls and Their Use



- **1. INPUT:** Connect your bass guitar here by means of a shielded instrument cable.
- 2. -15dB: This switch, when depressed, will attenuate the input signal by 15dB. If your bass has active pickups, depress this switch to better accommodate its output signal level.
- **3. MUTE:** This switch, when depressed, mutes all outputs *except* the Tuner Out (#54). This allows you to tune your bass with an electronic tuner without having to adjust any levels or turn down your house volume.

**NOTE:** A footswitch can also be used mute the outputs if this switch is in the "out" position. This switch remains active when a footswitch is connected. (See #43, rear panel.)

#### **CLEAN CHANNEL:**

- **4. GAIN:** This control adjusts the level of the signal going to the clean preamp. Adjust this control until the Peak LED (#5) flashes on strong signal peaks (but is not continuously illuminated while playing). To obtain the best signal to noise ratio, set the Gain control to the highest possible setting and adjust the clean channel Volume (#13) and Master control (#23) to obtain the desired volume level.
- PEAK LED: This LED will illuminate when the preamp signal approaches its clipping level, indicating optimum gain setting.
- **6. ULTRA HI:** This switch, when depressed, increases the high frequency output by 7dB at 15kHz.
- **7. ULTRA LO:** This switch, when depressed, increases the low frequency output by 5dB at 30Hz.
- **8. BASS:** This control provides an adjustment range of 20dB at 40Hz.
- **9. MID:** This control provides an adjustment range 21dB at 300Hz.
- **10. TREBLE:** This control provides an adjustment range of 18dB at 10kHz.

- **11. COMPRESSION:** This switch, when depressed, activates the compression circuit which evens out your volume by governing the gain of the preamp. The amount of compression is determined by the setting of the Gain control (#4).
- **12. COMBINE:** This switch, when depressed, allows the clean channel to remain active when the overdrive channel is selected, combining the two channels to create a different-sounding "third channel." A footswitch connected to the Ch/Combine jack (#42) overrides this switch.

**NOTE:** The Channel Select switch (#25) must be depressed for the Combine function to operate.

**13. VOLUME:** This control adjusts the output level for the clean channel.

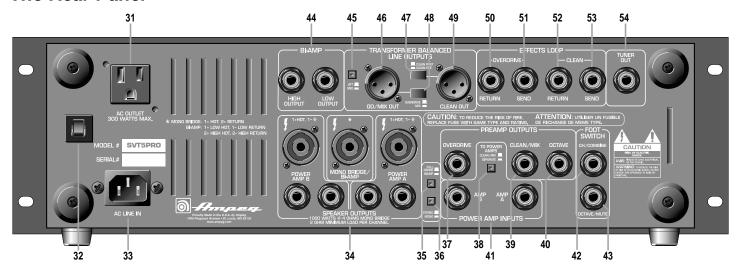
#### **OVERDRIVE CHANNEL:**

- **14. GAIN:** This control adjusts the level of the signal going to the overdrive preamp. As this control is increased, so is the amount of overdrive distortion added to your sound.
- **15. BOOST:** This switch, when depressed, adds gain and tone shaping to the overdrive channel signal for heavy distortion.
- **16. GATE:** This switch, when depressed, activates a noise gate which keeps the overdrive channel silent when no input signal is present.
- **17. BASS:** This control provides an adjustment of 12dB of cut or boost at 100Hz.
- **18. MID:** This control provides an adjustment of 5dB of cut or 20dB of boost at 300Hz 2kHz, depending on the setting of the Frequency control (#19).
- **19. FREQUENCY:** This control adjusts the center frequency of the Mid control (#18), from 300Hz at the fully counterclockwise position to 1.5kHz at the fully clockwise position.
- **20. TREBLE:** This control provides an adjustment of 12dB of cut or boost at 7kHz.

- **21. VOLUME:** This control adjusts the output level for the overdrive channel.
- **22. OCTAVE:** This control adjusts the output level for an added signal which is one octave lower than the instrument's original signal. This signal is dependent on the clean channel's Gain control (#4) and can be switched on and off by means of a footswitch connected to the Octave/Mute jack (#43). The effectiveness of this signal depends on playing style, pickup selection and neck position.
- **23. MASTER:** This control adjusts the overall output level of the amplifier.
- **24. LIMIT:** This LED illuminates when the internal limit circuit is activated. This indicates that the amplifier is nearing full output and the limiter is keeping it from clipping the output signal.
- **25. CHANNEL SELECT:** This switch selects the clean channel in the out position and the overdrive channel when depressed. A footswitch connected to the Ch/Combine jack (#42) overrides this switch.
- **26. LIMIT DEFEAT:** This switch, when depressed, deactivates the internal limit circuit. This may allow an increase in output power, but the signal may be distorted. A distorted signal at high output levels could damage the components of your speaker system. Use discretion when playing with the limiter deactivated to avoid damaging your speakers.
- **27. OD/CLEAN LEDS:** These LEDs indicate which channel is selected.
- **28. CROSSOVER FREQUENCY:** This control determines the crossover frequency between the Biamp High and Biamp Low Output jacks (#44).
- **29. CROSSOVER BALANCE:** This control adjusts the relative levels between the Biamp High and Biamp Low Output jacks (#44).
- **30. POWER:** This switch applies power to the amplifier: the amp is ON when the top of the switch is depressed, OFF when the bottom of the switch is depressed.



## The Rear Panel



- **31. AC OUTLET:** This unswitched outlet provides a convenient source of AC power for effects units, an electronic tuner, power amplifier, etc. The outlet is "live" whenever the amplifier is plugged into an active AC power outlet, regardless of the setting of the amplifier's Power switch. The total current draw of the components connected to this outlet must not exceed 300 watts.
- **32. CIRCUIT BREAKER:** The SVT-5 PRO employs an AC line circuit breaker to help protect against damage due to excessive current demands. If the amplifier stops working, check the circuit breaker. If it has opened, the button will protrude showing a contrasting color. Reset the circuit breaker by depressing it until it latches. The breaker must cool down for a short time before the button will latch. If the circuit breaker opens repeatedly, have the amplifier checked by a qualified service person.
- **33. AC LINE IN:** Firmly insert the female end of the supplied AC power cord into this socket. The grounded power cord should only be plugged into a grounded power outlet that meets all applicable electrical codes and is compatible with the voltage, power, and frequency requirements stated on the rear panel. **Do not attempt to defeat the safety ground connection.**
- 34. SPEAKER OUTPUTS: Connect the amplifier to your speaker cabinet(s) using heavy gauge speaker cables terminated with the appropriate connectors. The Speakon® jacks are recommended when playing at full output levels, and must be used in the Mono Bridge mode. Refer to the text printed on the rear panel to the left of the Speakon® jacks for pinout information.
- **35:** FULL RANGE/BIAMP: This switch determines how the input signal is routed to the internal amplifiers. With the switch in the Full Range position (switch out) a full range signal is sent to both internal amp channels. With the switch in the Biamp position (switch depressed) the low frequencies are routed to power amp A and the high frequencies are routed to power amp B.
- **36. STEREO/MONO:** This switch determines the operating mode of the internal amplifiers. With the switch in the Stereo position (switch out) the two internal amplifiers operate independently from each other. With the switch in the Mono position (switch depressed) the two internal amplifiers are bridged together and operate as a single amplifier with higher output power.
- **37. OVERDRIVE PREAMP OUTPUT:** Use this jack to send a direct preamp signal from the overdrive channel to one of the internal amplifiers, an external power amplifier, a mixing console, or a recording device.

- **38. CLEAN/MIX / SEPARATE:** This switch determines the routing and mixing of the preamp output signals. With the switch in the out position the signals are mixed together and sent to the power amplifiers. When the switch is depressed the outputs are separated: Clean to Amp A and Overdrive to Amp B.
- **39. CLEAN/MIX PREAMP OUTPUT:** Use this jack to send the preamp signal from the clean channel or a mixture of the clean and overdrive channels (as determined by the setting of the Clean/Mix / Separate switch) to one of the internal amplifiers, an external power amplifier, a mixing console, or a recording device.
- **40. OCTAVE PREAMP OUTPUT:** Use this jack to send a direct preamp signal from the octave circuit to one of the internal amplifiers, an external power amplifier, mixing console, or recording device. Using this jack will remove the Octave signal from the Clean/Mix output (#39). You may also use this jack as a patch point into the octave circuit, as if it were an Insert jack. Use a stereo Y-cable: tip = send, ring = return, sleeve = ground.
- **41. POWER AMP INPUTS:** Use these jacks to connect the signal from an external source directly into one of the internal power amps. The preamp outputs are disconnected from the power amps when these jacks are used. In the Mono Mode, Amp A = Input. In the Biamp mode, Amp A = Low Input, Amp B = High Input. (See pages 6 and 7.)
- **42. CH/COMBINE FOOTSWITCH:** This jack allows you to use a two-button footswitch (such as the Ampeg AFP-2) or 1/2 of a four-button foot-switch (such as the Ampeg AFP-4B) to control channel selection and combination. The jack is wired as follows: Tip = channel select, Ring = combine. The front panel Channel Select (#25) and Combine (#12) controls are bypassed when a footswitch is connected to this jack.
- **43. OCTAVE/MUTE FOOTSWITCH:** This jack allows you to use a two-button footswitch (such as the Ampeg AFP-2) or 1/2 of a four-button foot-switch (such as the Ampeg AFP-4B) to control the octave signal and mute function. The jack is wired as follows: Tip = octave, Ring = mute. The front panel Mute (#3) control remains active when a footswitch is connected to this jack.
- **44. BIAMP HIGH, BIAMP LOW OUTPUTS:** These jacks provide separate low and high frequency preamplified signals for use in the biamp mode. (See pages 6 and 7.)

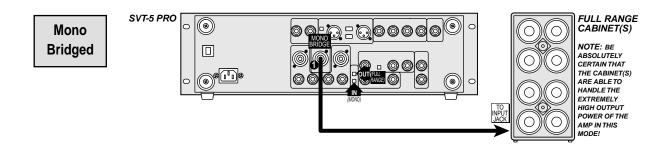
- **45. LIFT/GND:** With this switch in the out position the ground pins of the Balanced Line Output jacks (#46, #49) is interrupted. This may help reduce residual hum and buzz which is sometimes picked up by line out signal cables.
- **46. OD/MIX LINE OUT:** Use this jack to send a transformer balanced line output signal from the overdrive channel to an external amplifier, mixing console or recording equipment. When the Overdrive/Mix switch (#48) is depressed, this jack sends a line out signal from both channels.
- **47. CLEAN POST/CLEAN PRE:** This switch determines whether the signal at the Clean Line Out jack (#49) is post EQ (switch out) or pre EQ (switch depressed). The pre EQ signal may be used as a Direct Input signal.
- **48. OVERDRIVE/MIX:** This switch determines whether the signal at the OD/Mix Line Out jack (#46) is the Overdrive channel (switch out) or a combination of both channels (switch depressed).
- **49. CLEAN OUT:** Use this jack to send a transformer balanced line output signal from the clean channel to an external amplifier, mixing console or recording equipment. The source is determined by the setting of the Clean Post/Clean Pre switch (#47).
- **50. OVERDRIVE EFFECTS LOOP RETURN:** When using an external effect on the Overdrive channel, connect the effect's output into this jack by means of a shielded signal cable.
- **51. OVERDRIVE EFFECTS LOOP SEND:** When using an external effect on the Overdrive channel, connect this jack to the effect's input by means of a shielded signal cable.
- **52. CLEAN EFFECTS LOOP RETURN:** When using an external effect on the Clean channel, connect the effect's output into this jack by means of a shielded signal cable.
- **53. CLEAN EFFECTS LOOP SEND:** When using an external effect on the Clean channel, connect this jack to the effect's input by means of a shielded signal cable.
- **54. TUNER OUT:** Use this jack to connect an electronic tuner to the amplifier. The signal at this jack is always present, even when the Mute is engaged, allowing for silent tuning as well as a non-interrupted monitor feed.



# **Connections**

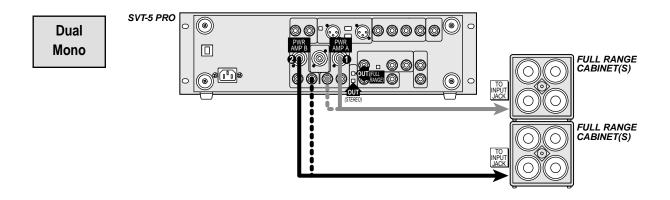
MONO BRIDGED: The SVT-5 PRO's two internal amplifiers are bridged together to produce maximum output power.

- Full Range/Biamp switch out (full range), Stereo/Mono switch depressed (mono)
- Connect a heavy duty speaker cable (1) from the SVT-5 PRO's Mono Bridge/Biamp Speakon jack to the input of a full range speaker cabinet
- Speakon® pin 1 + = signal "+," pin 2+ = signal "-"



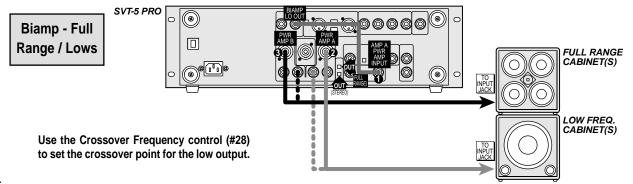
#### DUAL MONO: The SVT-5 PRO's two internal amplifiers will each power a full range cabinet.

- Full Range/Biamp switch out (full range), Stereo/Mono switch out (stereo)
- Connect a heavy duty speaker cable (●) from the SVT-5 PRO's Power Amp A jack to the input of a full range speaker cabinet
- Connect a heavy duty speaker cable (@) from the SVT-5 PRO's Power Amp B jack to the input of a full range speaker cabinet



#### BIAMP - Full Range / Lows: One of the SVT-5 PRO's internal amplifiers will power a full range cabinet, the other will power a low frequency cabinet.

- Full Range/Biamp switch out (full range), Stereo/Mono switch out (stereo)
- Connect a signal cable (●) from the SVT-5 PRO's Biamp Low Output jack to its Amp A Power Amp Input jack
- Connect a heavy duty speaker cable (2) from the SVT-5 PRO's Power Amp A jack to the input of a low frequency speaker cabinet
- Connect a heavy duty speaker cable (19) from the SVT-5 PRO's Power Amp B jack to the input of a full range speaker cabinet

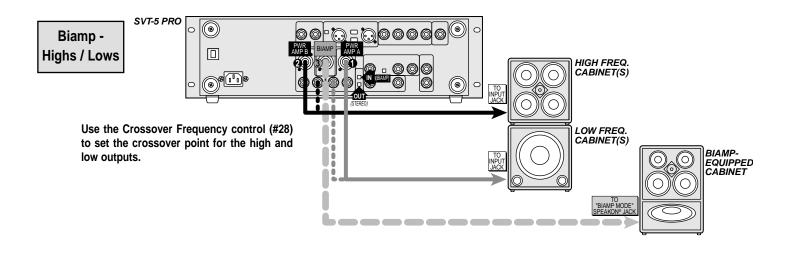




# **Connections**

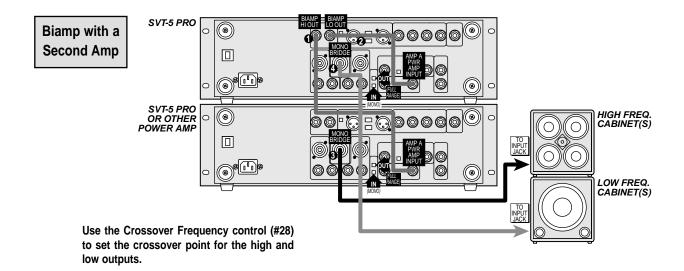
BIAMP - Highs / Lows: One of the SVT-5 PRO's internal amplifiers will power a high frequency cabinet, the other will power a low frequency cabinet.

- Full Range/Biamp switch depressed (biamp), Stereo/Mono switch out (stereo)
- Connect a heavy duty speaker cable (●) from the SVT-5 PRO's Power Amp A jack to the input of a low frequency speaker cabinet
- Connect a heavy duty speaker cable (@) from the SVT-5 PRO's Power Amp B jack to the input of a high frequency speaker cabinet
- OR -
- Connect a heavy duty four-conductor speaker cable (®) from the SVT-5 PRO's Mono Bridge/Biamp Speakon® jack to the input of a biamp-equipped speaker cabinet
- Speakon® pin 1 + = low "+," pin 1- = low "-," pin 2+ = high "+," pin 2- = high "-"



BIAMP WITH A SECOND AMP: The SVT-5 PRO's two internal amplifiers will each power a low frequency cabinet. A second amplifier will power a high frequency cabinet.

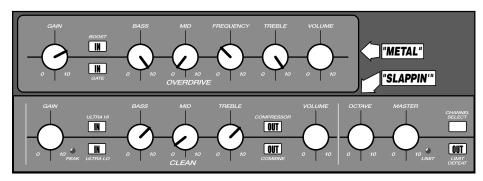
- Full Range/Biamp switch out (full range), Stereo/Mono switch depressed (mono)
- Connect a signal cable (1) from the SVT-5 PRO's Biamp High Output jack to the input jack of the second power amp
- Connect a signal cable (@) from the SVT-5 PRO's Biamp Low Output jack to its Amp A Power Amp Input jack
- Connect a heavy duty speaker cable (1) from the second power amp's Speaker Output jack jack to the input of a high frequency speaker cabinet
- Connect a heavy duty speaker cable (♠) from the SVT-5 PRO's Mono Bridge jack to the input of a low frequency speaker cabinet
- Speakon® pin 1 + = signal "+," pin 2+ = signal "-"

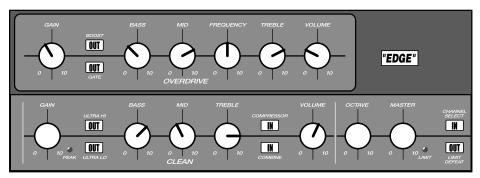


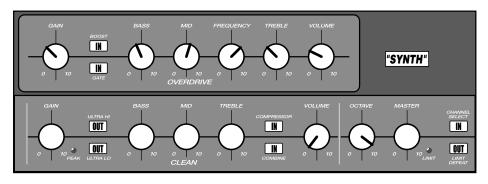


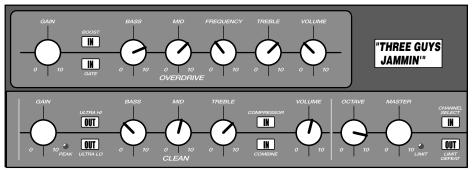
# Some Suggested Settings













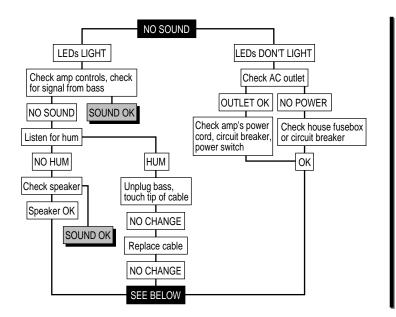
# **Rack Mounting**

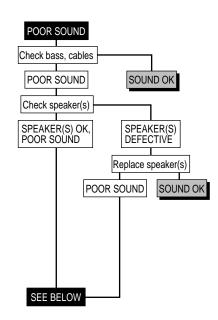
When mounting the SVT-5 PRO into a rack, the four bottom feet should be removed to maintain the three rack space height of the amplifier. Be sure to keep the feet and their attachment bolts for future use. If the feet are reinstalled, never use screws which will protrude farther into the amplifier than 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.

# **Troubleshooting**

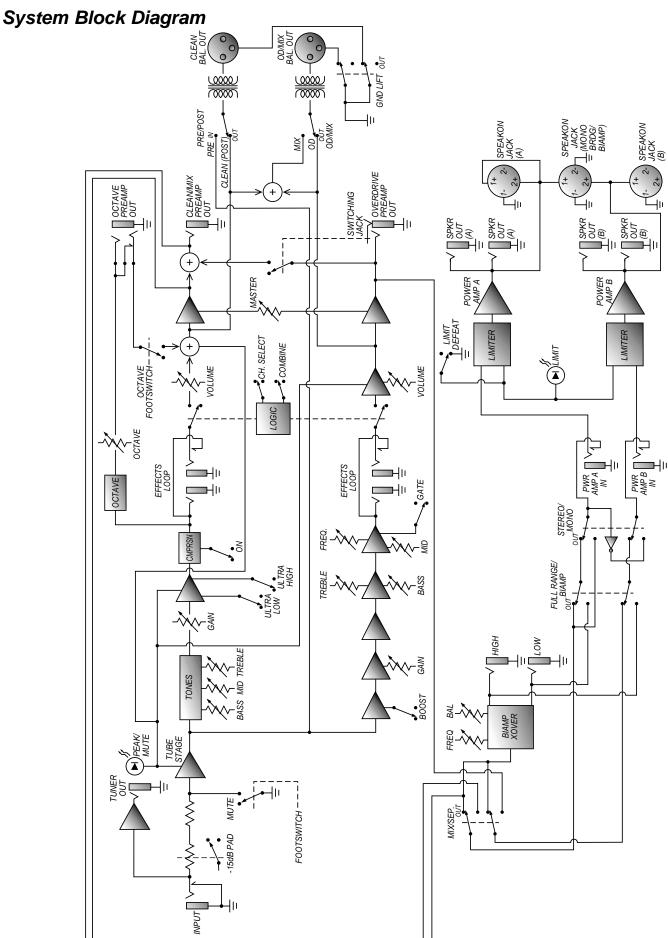
In the unlikely event that your SVT-5 PRO should malfunction, take a few minutes to troubleshoot it before you call for service. You can save yourself time and money by doing it yourself, and often the cure for the problem is something quite simple.





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 your amp for servicing if it gets dropped, has liquid spilled into it, or sustains damage to its power cord (see page 3).







# **Technical Specifications**

OUTPUT POWER RATING	1350 Watts Mono-Bridged @ 4 Ohms (1000 Watts Continuous)
---------------------	--

840 Watts Mono-Bridged @ 8 Ohms (680 Watts Continuous)

2 x 675 Watts @ 2 Ohms (500 Watts Continuous) 2 x 420 Watts @ 4 Ohms (340 Watts Continuous) 2 x 255 Watts @ 8 Ohms (205 Watts Continuous)

#### **TONE CONTROL RANGE**

**Clean Channel** 

Bass: 20dB range @ 40Hz
Midrange: 21dB range @ 300Hz
Treble: 18dB range @ 10kHz

Ultra Low: +5dB @ 30Hz Ultra High: +7dB @ 15kHz

**Overdrive Channel** 

**Bass:** ±12dB @ 100Hz

Midrange: +20dB, -5dB @ 300 - 1.5kHz

Treble: ±12dB @ 7kHz

SIGNAL TO NOISE RATIO 75dB typical

**COMPRESSION RATIO** 4:1 (1dB change in output for 4dB change in input)

**FOOTSWITCH JACKS** 

**Ch/Combine:** Tip = channel select, Ring = combine

**Octave/Mute:** Tip = Octave, Ring = Mute

**POWER REQUIREMENTS** 

Domestic: 120VAC, 60Hz, 800VA

**Export:** 100/115VAC 50/60Hz, 800VA

230VAC, 50/60Hz, 800VA

**SIZE AND WEIGHT** 19/17.4"W x 5.6"H (with feet) x 15.5"D; 40 lbs

Ampeg reserves the right to change specifications without notice.

Ampeg - The Power of Bass



www.ampeg.com

