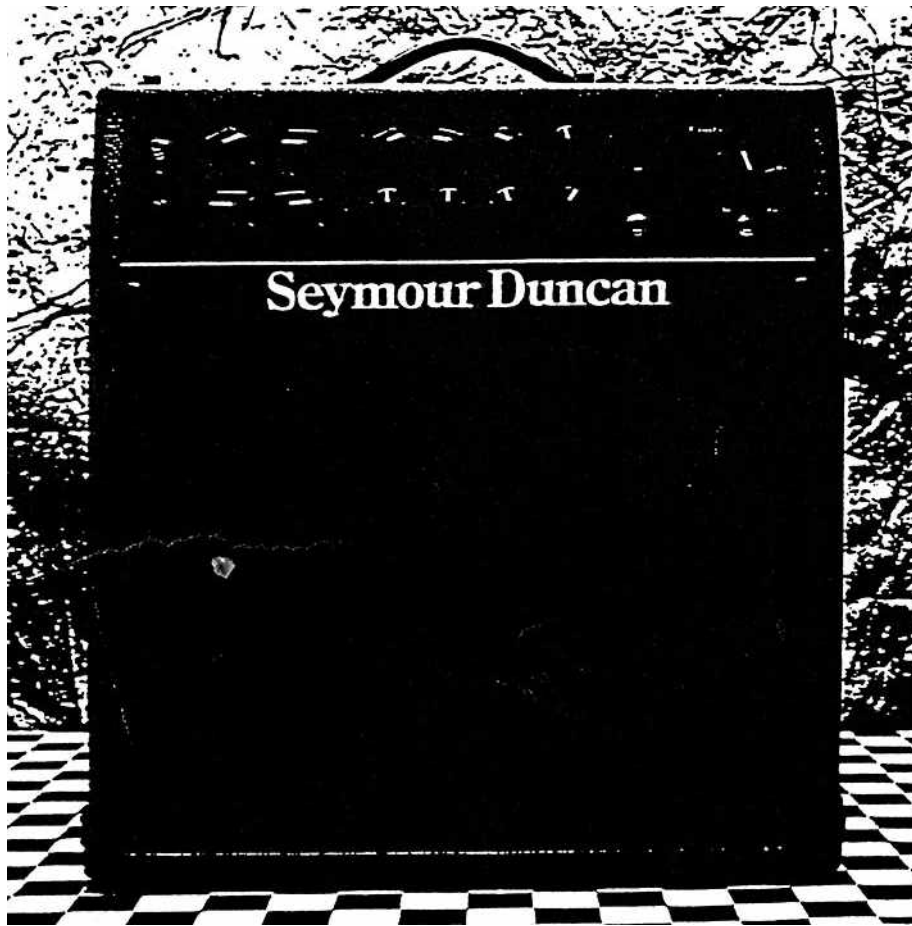


Seymour Duncan

# *Convertible 2000*

## Guitar Amp Owner's Manual



Dear Seymour Duncan Convertible 2000 Owner:

If you're like most musicians I know, the first thing you want to do is plug-in your amp and start playing- the last thing you want to do is read an owner's manual. Go ahead and play the amp and see what it can do for you.

Once you've completed the "breaking in" experience, please read through this manual. The Convertible 2000 amp was designed to give you any sound that's in your head. To provide that versatility, many unique and exclusive features are built-in. This manual will show you the easy way of getting a wide variety of great sounds just by properly setting up the amp.

Enjoy it. If you have any comments about the design of your amp, I'd like to hear from you. If you have any ideas for modules or other related products, please write to me at the address below.

Thank you,

P.S. If you haven't mailed in your warranty card, please do it now. It may seem like a hassle, but it's the only way we have to verify warranty status of your amp.

Seymour Duncan  
5427 Hollister Avenue  
**Santa Barbara, CA 93111**  
Ph. 805-964-9610  
fax 805-964-9749

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## Unpacking

Inspect your Convertible amp for hidden damage that may have occurred in transit your amp was inspected and sound tested before shipment from the factory.

All claims for shipping damage must be made by the receiver. Save your box and packing material for evidence of damage if it has occurred.

## Packing Materials

The original box and packing materials are specially designed to protect your amp during shipment.

**\*SAVE ALL PACKING MATERIALS.**

In the unlikely event that your amp needs to be returned to the factory, the original box and packing material will be necessary for shipment. These are carrier approved packing materials and they will insure safe transit back to the factory.

## Warning

To reduce the risk of fire or electrical shock,  
DO NOT expose this amplifier to rain or moisture.

# Seymour Duncan Convertible 2000

## Tube design

Versatility isn't the only thing considered with the Convertible amps. I love tone. Pure and simple. Tube power is the best way to achieve 'this warmth and fullness. Plus, the use of quality components help make the *Convertible 2000* sound as good as it does.

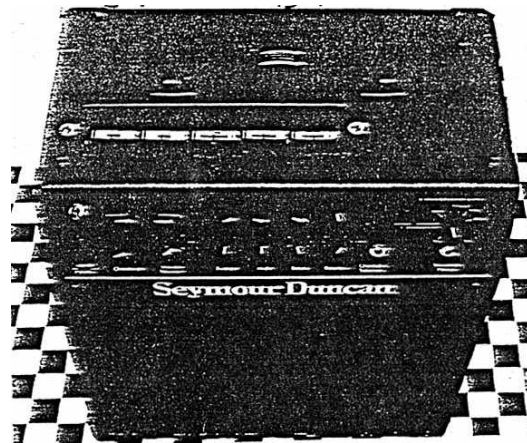
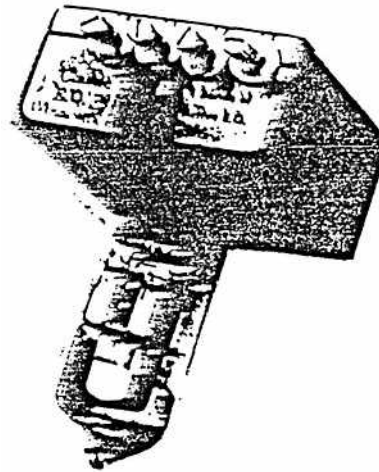
## Preamp modules

The amp's sound is first shaped in the preamp. We replaced the hard-wired, unchangeable preamp with removable modules. It lets you take our amp from sweet and clean to radical distortion. Just by changing the order and type of modules used and dialing in the settings.

By now you've probably changed them, tried new arrangements, but if you haven't and you're not really sure 'how to handle them, then this section is for you.

There are fifteen different modules available. See the chart, on pages 7-8 for individual characteristics.

In your amp, the guitar signal runs in series through three modules per channel in 'U-he preamp before reaching the amplifier.

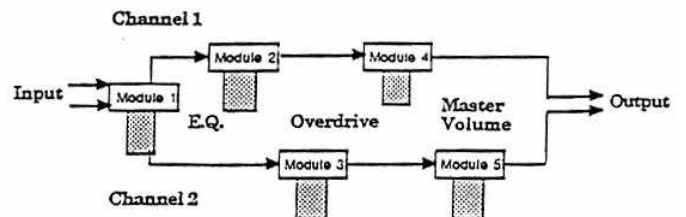


The most important module is the input module- Position 1. (The very closest position to the outer edge of the amp.) This module affects both channels.

The modules for Channel 1 are in positions 1, 2 and 4.

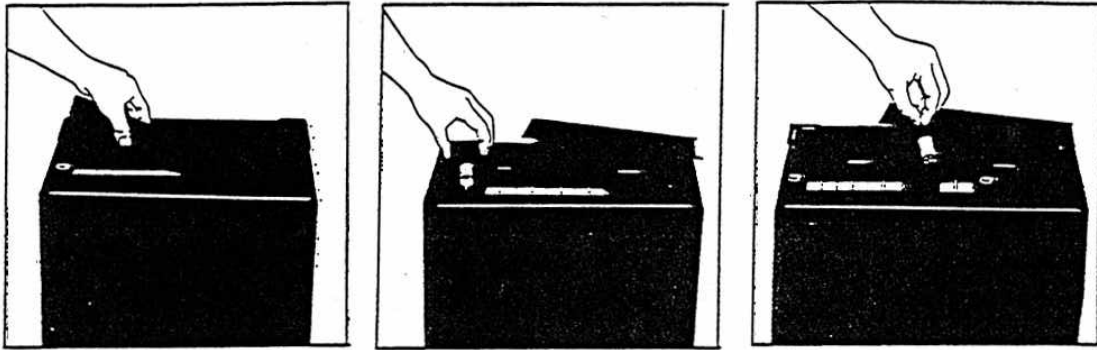
The modules for Channel 2 are in positions 1, 3 and 5.

Note on the circuit chart where the modules are affected by EQ, Overdrive, and Master Volume.



# Installing & Changing Preamp Modules.

Installing modules is quick and easy. Plug the modules into their receptacles located under the "Quick Access" plate on the top of the amp.



## To install your modules just follow these easy steps:

1. Choose the module arrangement you wish to try. (See pages 4-5 for some ideas or the instruction sheet in your module pack for the suggested order of installation.)
2. Choose the module you want to install and grasp it by its handle.
3. Insert the new module through the "Quick Access" module system opening. It may be necessary to tilt the module forward before it will fit through the opening. This may seem awkward at first, but it becomes as easy as changing a cartridge in a video game.
4. Align the module plug to be installed over the receptacle in the position you've chosen.
5. Slowly insert the module connector into the receptacle. Apply moderate pressure until you feel the module is seated snugly.
6. Repeat steps 2 thru 5 for each module you are installing. When you have finished installing modules, double check all modules to ensure they are still snug in their receptacles.
7. Align the "Quick Access" cover with the holes in the top of the amplifier cabinet and secure. If your amp is plugged in and the Standby switch is set, your amp will automatically be turned on into the "Standby" mode. Give it a minute or two to warm up completely, flip the switch to "On" and you're ready to play.

\*Note: Amplifier will not operate without the module access panel securely fastened. (This depresses the safety shutoff switch.)

## To remove:

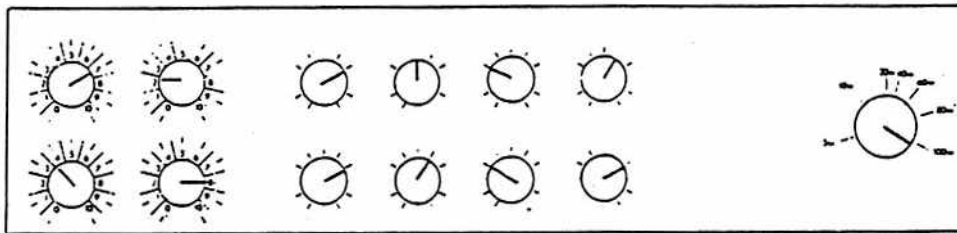
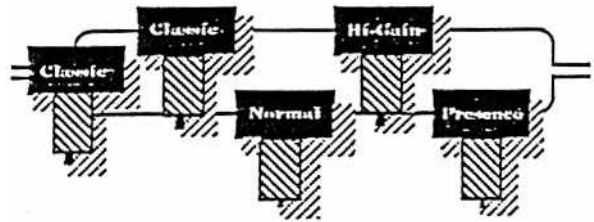
1. Turn the "Quick Access" plate screws counter-clockwise. They will pop up.
2. Remove the plate. When this is done, it will automatically shut down the amp.
3. Looking down inside the amplifier, firmly grasp the module you want to replace by its handle and lift slowly. When the module is free from its receptacle, continue to lift upward. You may have to turn the module sideways to clear the module opening.

# Module Setups

Below are the recommended setups for the module packs. There are also many variations that can be done with each group of modules. Your dealer has a wide selection of modules for you to choose from to customize your sound even more.

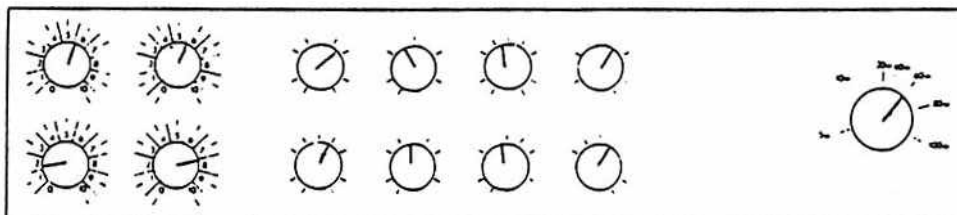
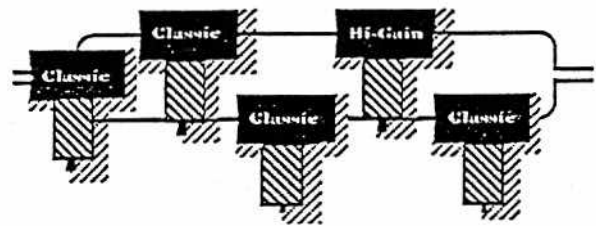
## Rock & Roll

Lead Channel: American Rock & Roll.  
Rhythm Channel: Clean contemporary.



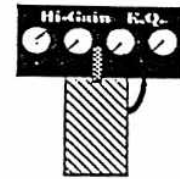
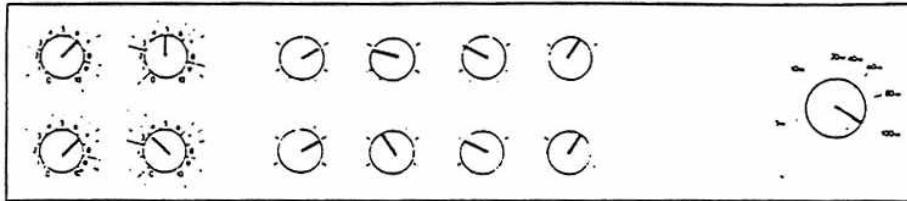
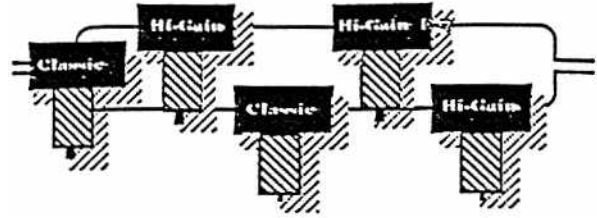
## Seymour's R & B

Lead Channel: Vintage Rock & Roll.  
Rhythm Channel: Sweet vintage rhythm.



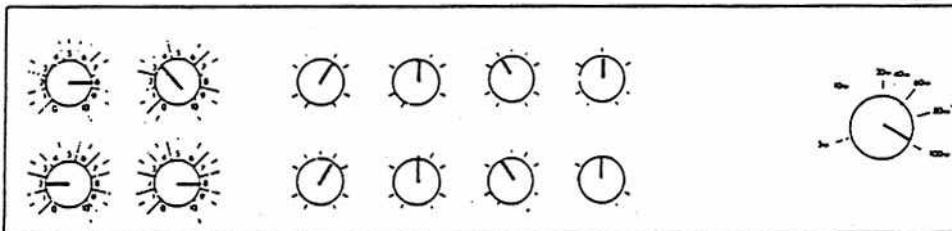
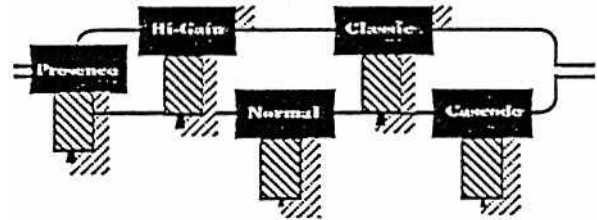
## Heavy Metal

Lead Channel: Ultra smooth distortion lead.  
 Rhythm Channel: Bright and ballsy, cuts through with great distortion.



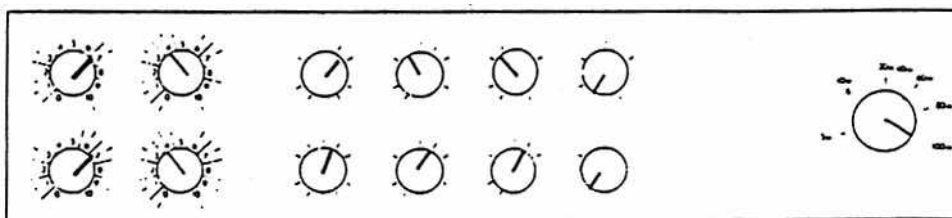
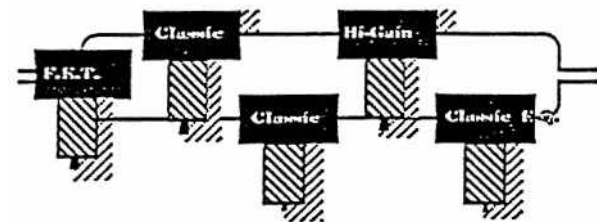
## Fusion

Lead Channel I: Bright cutting distortion.  
 Rhythm Channel: Glassy rhythm, sparkling, lots of detail.



## Studio

Lead Channel: Low noise lead with character.  
 Rhythm Channel: Ultra quiet and clean.



## Tubes

Just like all other parts in the *Convertible 2000*, the tubes were selected for providing the most musical tones. Tubes can be temperamental, but there are things that can be done to avoid problems.

### Module Preamp Tubes:

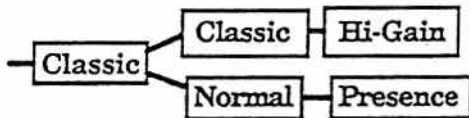
The 12AX7 tubes supplied will give you the least amount of noise and the sweetest tone. However, they may develop a micro phonic ringing when the Overdrive control is set at 5 or above or when using 2 or more Hi-Gain type Modules.

Typically, the input module (Position 1) is the most sensitive to micro phonics. This module is shared by both channels.

#### Here are some ways to eliminate micro phonics:

1. You can swap the tube from another preamp module with the input module. (Due to variations in internal construction, some tubes are less micro phonic than others.)
2. If you are using two identical modules and one of them is the input module, just switch and try the other one in the first position.

For example:



Just take the two "Classic" modules and switch their positions. If the second "Classic" module's tube does NOT have micro phonics, you've solved the problem.

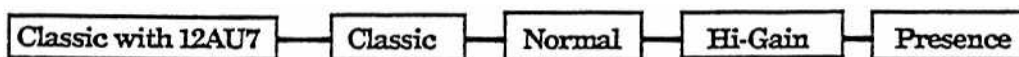
3. Try using an FET, IC or Hot Mod module in the input. Because neither of these are tube designs, you'll get no micro phonics. For a warmer tube sound, use an FET or Hot Mod module in the input stage. If you're after a harder solid-state sound, use an IC module in the input stage.

If you're involved in a touring schedule and you want to avoid tube related problems, bring some extra tubes with you for all your equipment.

## Spare Tubes

There is a spare 12AU7 tube mounted inside your *Convertible 2000*. This is a stock replacement tube for the Cascode and Classic E.Q. module.

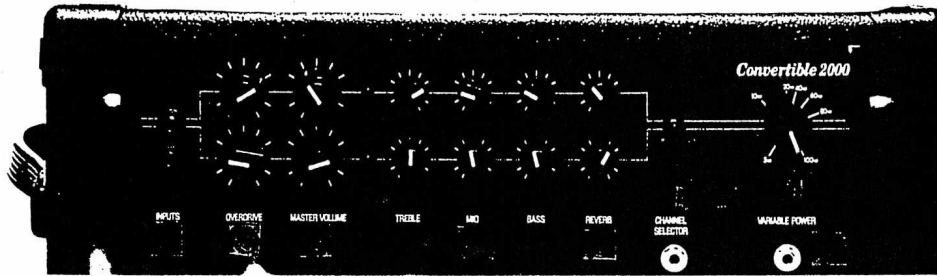
We also discovered an interesting sound when replacing the standard 12AX7 tube in the Classic module with a 12AU7 tube. If you use a Classic module in the input stage (Position 1), try using the 12AU7 tube there. You'll notice a little less output volume, but it will also allow you to get a louder, clearer rhythm. Try this setup:



If you play a guitar with a high output humbucker pickup and you're having problems with a loud, clean rhythm, this could easily provide the sound you're after.



# Front of the *Convertible 2000*



1. **Load Resistor Input (Combo only):** Guitar pickups have different output voltages. Using the load resistor plugs supplied with your combo amp you can match your pickups to the amp's input.

## **Standard Electromagnetic pickups:**

Convertible amps have 4.7 meg-ohm input impedance. Some players prefer using no load resistor plug because they want the brightest sound possible and 4.7 is a good match with their pickups. You should experiment with the two load plugs provided to find your favorite setup. It is recommended that the input impedance of the amp be 10 to 20 times higher than the pick-up output impedance to avoid excessive "loading."

**Unique Design Pickups:** Low Impedance Pickups (Like Seymour Duncan Live Wires or other actives.): To optimize signal to noise ratio, input impedance should be fairly low - typically 1K to 500K ohms. Try the 10k-330pf load resistor plug for great tone and low noise.

**Piezo Transducers (Built Into Acoustic guitars):** To avoid loading down Piezo pickups, the input impedance should be high. Most Players like the sound of these pickups using no load resistor plug. Electromagnetic Acoustic Guitar Pickup: To get a warm round sound, many players like using the 1 meg load resistor plug. It gives a smooth high end and quiets the signal.

2. **Main Guitar Input:** using only one instrument, this is the only jack that is live.

3. **Auxiliary Guitar Input:** Use this input for a second guitar or other instrument. This is a parallel input to the Main Guitar Input so they will both play through the "ON" channel.

If you use the Auxiliary Input for a second instrument, the output volume from both instruments will be reduced. You will have to increase the Master Volume control to compensate. Also, the instrument that is plugged into the Auxiliary Input will have less volume than the instrument plugged into the Main Input. If you need both instruments playing at their loudest volume, you can plug them into a "Y" cord and run them both through the Main Guitar Input.

If you want to use one guitar playing through two amps, plug your guitar into the Main Guitar Input and run a normal guitar cable from the Convertible 2000's Auxiliary Guitar Input to the main input on your second amp.

4. **Overdrive:** This control dictates the amount of preamp distortion and influences the volume you want to add to your signal. The lowest setting gives the cleanest signal and lowest volume. The highest setting gives the most distortion and highest volume.

**Technically, it controls the gain level applied from Stage 2 to Stage 3 or the preamp. Although the intensity of overdrive varies with the modules you use, the relative effect is the same:**

- Clockwise increases distortion

- Counter clockwise decreases distortion.

Like all of the preamp controls on this amp, each channel is independent. You can have a clean setting on one channel and a distorted setting on the other channel.

**5. Master Volume:** This control sends the signal volume from the preamp to the power amplifier. For the cleanest signal, turn the Master Volume tip high and keep the Overdrive low (but not off). For the dirtiest signal turn the Master Volume down (but not off) and the Overdrive up high.

**6. Channel 1 Indicator (Red):** When your amp is in Channel 1 and the power is on, this L.E.D. will glow. It's indicating that only the controls on this row will affect your sound.

**7. Channel 2 Indicator (Green):** When your amp is in Channel 2 and the power is on, this L.E.D. will glow. It's indicating that only the controls on this row will affect your sound.

**8. Tone Controls:** The two sets of tone controls allow you to get the tone coloration you want from each channel, without affecting the tone of the other channel. The three tone controls- Treble, Mid and Bass are a standard interdependent circuit. As you increase the Mid control, the Treble and Bass will yield less range.

**Treble Tone Controls:** These controls let you change the high-end response of your amp. Each is a high-pass passive filter that can reduce the signal level 0-38 db, with a 6 db per octave slope,  
- Turn clockwise to increase high-end response.  
- Turn counter-clockwise to reduce high-end response.

**Mid Tone Controls:** These controls let you change the volume of mid. range within a range of 0-12 db. \*Turn clockwise to increase low-end response.

**Bass Tone Controls:** These controls let you change the low-end response of your amp. Each is a low-pass passive filter that can reduce the signal level 0-15 db •Turning the dial clockwise increases the low -end response.

Experiment with these controls to find where they work best with your guitar and the room you're playing in.

(Note: If you turn all tone controls "Off" (farthest to the left), no sound will come out of your amp.)

#### **Module Tips:**

- When you're using "Low Cut" modules, the Bass controls will have less effect on your sound because the module is rolling off much of the bass response.  
- The "Presence" module will be greatly affected by the treble control. (See pages 7-8 "Preamp Modules" for more tips.)

**9. Reverb:** These controls let you set the amount of reverberation you want in your sound.  
- Turn clockwise to increase the amount of reverb.  
- Turn counter-clockwise to decrease.

Some players prefer no reverb on one channel only. Can you imagine changing channels with a footswitch and using another switch to turn the Reverb on and off With two Independent Reverb controls, you can set as much reverb as you like on one channel and turn the other channel's Reverb "off" by simply turning the control counter-clockwise.

**10. Channel Selector Button:** This push button lets you change channels manually The L.E.D.'s show you, which channel is "On."

If you prefer to use a footswitch, use the Channel Selector Button to put the amp in the green L.E.D. channel first, then the footswitch will operate.

**11. Channel Selector Jack:** This jack accepts a standard 1/4" guitar or speaker cord (not supplied) for connection to the footswitch. When hooked up the footswitch allows you to change channels and take advantage of the independent Volume, Overdrive, Tone and Reverb controls.

**12. Variable Power Control:** This control changes the power amplifier current to reduce or increase power amplifier wattage. 100 watt tube amps are great for playing in large clubs where you need lots of power, but for smaller places, a low powered amp might be more useful. With the Convertible 2000, you dial in the amount of power you need, from 100 watts down to 5 watts.  
-For the cleanest signal, use 100 watts and turn the Master Volume control to adjust loudness.  
-To get amplifier distortion, you need to work the power amp section hard-pushing it beyond its limits. For a distorted sound, turn the Master Volume Control past 1 o'clock and use less power. You will get a warm round distortion that is heard only on small amplifiers.

Variable Power is not like typical preamp overdrives. The Variable Power circuit actually controls the output stage of the amp. When the Master Volume control is set low, you will notice little or no change from the Variable Power control because you are asking the amp to give you very little wattage. The higher you set the Master Volume control, the more you will notice the effect of Variable Power. Experiment to find where you like it best.

**Note:** The full power range (6 to 100 watts) is available when running the amp in the Pentode mode (See Page 11 for Pentode/Triode Switch.) Variable Power is 3 to 60 watts in the Triode mode.

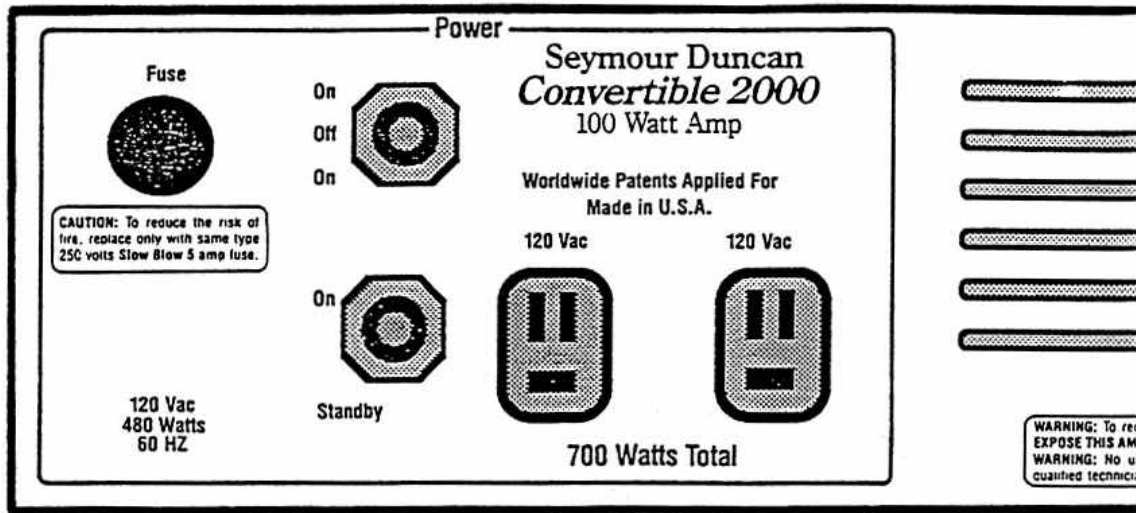
**13. Variable Power Jack:** Use this jack with a passive volume pedal (100-500K ohm range) to remotely change Variable Power.

- **CAUTION:** An active volume pedal (the type that uses batteries or a.c. power) will not work in the circuit.

When you turn up the Variable Power, you not only get the most power available, but also less distortion from the amp. If you want to change Variable Power while you're playing, a volume pedal lets you do it easily. Many players like to use all 100 watts while playing clean rhythm and then use Variable Power with a volume pedal to reduce the power and get amplifier distortion for lead work.

Variable Power can also be changed with a footswitch. When the footswitch is "Off" you will get all 100 watts. When the footswitch is "on", you will get only 5 watts. When using the footswitch, the Variable Power Control knob will have no effect. Your only choices are 100 watts or 5 watts.

# Rear Controls of the *Convertible 2000*



**1. Fuse Holder:** The fuse is located in the cap of the fuse holder. If the fuse fails, it must be replaced with one that provides proper current protection or you will void the warranty. The proper fuse rating for the 110-120 v. a.c. *Convertible 2000* is 5A 250V Slo Blow.

**Before removing the fuse cap: UNPLUG THE POWER CORD FROM THE WALL A.C. OUTLET.**

After checking the fuse and replacing the fuse cap, you can plug the amp back into the wall.

To remove the fuse cap, simply grasp the cap with your fingers, push in, and turn counter clockwise. To replace the cap, grasp the cap with your fingers, push in, and turn clockwise.

Fuses do not wear out. However, they will fatigue after being stressed several times- Fuses are protection devices that prevent the electronics from damage if there is a serious electrical problem. If your amp repeatedly has fuse failures, check page 15 under "Fuse Failure" for troubleshooting tips.

**2. On/Off/On Power Switch:** switch is designed to turn your amp on and to allow you reverse the a.c. polarity.

If you're using other equipment like a P.A. and you get a shock when touching the microphone, place the "On" switch in the other "On" position to eliminate the shock. The middle position is "Off".

**3. Standby:** Use this switch when you will not use the amp for a short time period (like in-between sets). This switch turns off the sound output but keeps the tubes warm and ready to play.

Standby switches are important on tube amps because the tubes wear out quickest from temperature change. When the amp is off, the tubes will cool, when they're on, they get hot. Standby keeps them in operation, so they stay warm and give you long life. Because of the high gain circuitry in your amp, it is normal to hear some residual noise through your speaker for one minute after switching into "Standby."

**4. A.C. Convenience Outlets:** These outlets let you plug in other equipment for a.c. power. They can supply a total of 700 watts. To find out how much wattage your equipment uses, look on the back of the unit, where the power cord is located. Your *Convertible 2000* uses 480 watts.

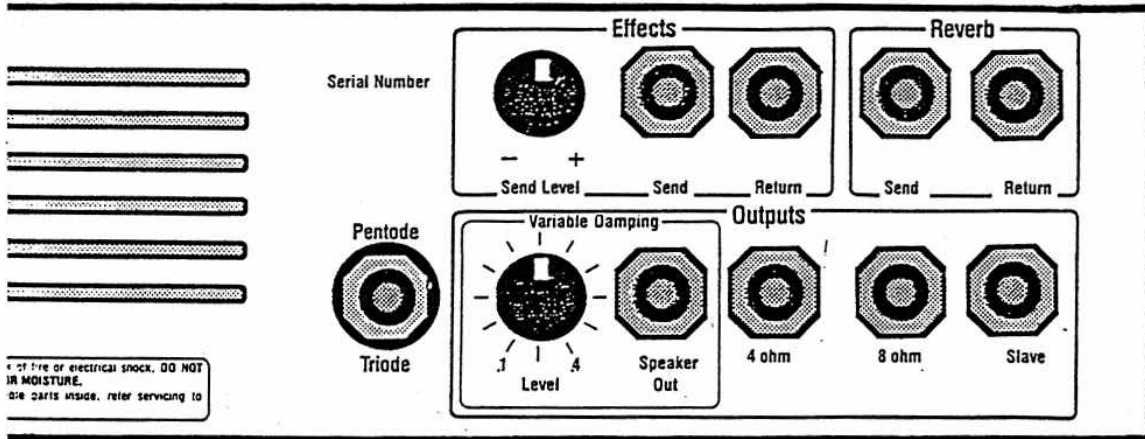
**- NEVER PLUG IN UNITS THAT DRAW MORE THAN A TOTAL OF 700 WATTS, OR YOU WILL RISK THE POSSIBILITY OF AN ELECTRICAL FIRE.**

**5. Effects Loop:** Use this circuit with your effects for the least amount of hiss. Plug your guitar into the guitar input jack and run your effects through the Effects Loop.

The "Send Level" control lets you match the Effects Loop output to the input of your effects. When the level is set too low, too much hiss will come through the speaker and the volume will be low.

When the level is set too *high*, you will overload the effect input and cause too much distortion. Experiment with the setting to find the best match for your effects.

"Effects *Send*" should be connected to the input of your effect using a normal guitar cable.  
"Effects *Return*" should be connected to the output of your effect using a normal guitar cable.  
You want the signal to come OUT of your amp INTO the effect and OUT of the effect INTO your amp.



**6. Reverb:** This is where your reverb connects. The return jack accepts the reverb **cable** with a red dot on the plug.

Convertible 2000's are designed with Accutronics 2spring reverbs. These are the most natural sounding reverb units available and they provide a wide range of reverb for your playing styles.

**7. Pentode/Triode Switch:** This switch changes the operation of the EL-34 output tubes, which use five components inside each tube. With this switch in the "-Up" position, the tubes run in the Pentode mode and all five components operate for full 100-watt power. The sound is brighter and crisper.

With the switch in the "Down" position, the tubes run in the Triode mode and three components operate for 60 watt maximum power. The sound is smoother with a little less edge. Experiment with this switch to find where you like it for your musical style.

Some amps have 50/100-watt switches. What they do is turn off the plate voltage to two of the four output tubes. This is audible as a slight decrease (-3dB) in loudness. Triode mode actually changes the harmonic distortion characteristics of the tube, producing lower order distortion.

**8. Variable Damping:** This circuit is included with the *Convertible 2000* to give you more control over your sound. Damping is the amount of control the amplifier has on the speaker.

High damping (turning the control to the right) increases the control of the speaker. The sound is crisper and tighter.

\* Low damping (turning the control to the left) decreases the control of the speaker. The sound is looser and fatter, with slightly more presence.

There is no recommended setting because only you can tell what's best for the sound you want to produce. We recommend that you start with the Variable Damping control set at 12 o'clock and adjust from there. Ms control is effective **ONLY** when the speaker is connected to the "Variable Damping Out" speaker jack.

**9. 4-Ohm, 8-Ohm Speaker Jack:** You can use these jacks to match the amp impedance to the input of the speakers you use. (Proper connection to these jacks will give you maximum power and maximum damping.)

If you choose to run an 8-Ohm speaker in the 4-Ohm jack, no damage will result in the amp or with the speaker, it will just sound different from being played through the 8-Ohm jack. The same situation is possible with a 4 ohm speaker in the 8 ohm jack.

You can also use all three-speaker jacks at the same time with different speakers. The *Convertible 2000's* strong transformer can handle almost any load with no damage.

**10. Slave Out:** Use this jack for patching the output signal of the amp directly into a mixer, tape recorder, or another amp. Just use a regular guitar cord from Slave Out to the guitar input of the other unit. The circuit is wired after the output stage so all Tone, Volume, Damping Control Effects Loop, etc. controls will affect *the* outgoing signal. Output is one volt at full power.

## Load Resistor Plug Values & Sound Effects

The Front Panel section includes suggestions for altering the amplifier input impedance to match the impedance of the pickup(s) in your instrument. (See the paragraph describing the Load Resistor Input on Page 9.)

The information in the chart below and the instructions that follow have been provided to enable you to further customize your sound by making your own load plugs using capacitors, resistors and RCA input plugs available at most hardware or electronics stores. Various capacitance and resistance values are given, with a description of their overall effect on your sound.

With each Seymour Duncan *Convertible 2000* you receive the following two (2) load resistor plugs:

Load Input Value at 1 khz	Capacitance (In Picofarads)	Resistance (In Ohms)	Sound Effect
<b>500K</b>	<b>3300 pf</b>	<b>10k</b>	Use with acoustic pickup to enrich tone.
1 Meg.	-0-	1 meg	Will make tone slightly smoother sounding.

Other plugs that you can build yourself include:

Load Input Value at 1 khz	Capacitance (In Picofarads)	Resistance (In Ohms)	Sound Effect
<b>26K</b>	<b>.01</b>	<b>10k</b>	Slightly rolled off high end. Use in bright sounding room or with pickups that are too bright.
<b>11.5K</b>	.1	10K	For mellow, smooth jazz sounds.
<b>10K</b>	-0-	10K	Quietest operation when using. Low Impedance pickups.

## How to make a load resistor plug:

Purchase raw RCA plugs and resistors at an electronics hardware store. Using a single resistor with a value of 1K  $\Omega$  - 4.7M  $\Omega$  1/8 watt or 1/4 watt, simply solder it to the hot (pin) and to the ground (crown). You can also try different value capacitors with physical size being your only limitation. For reference, you may want to examine one of the supplied load plugs and compare.

# Trouble Shooting

The following table should enable you with little or no knowledge of electronics, to isolate the cause of some problems you may experience with your amplifier and the steps required for repair. Most causes of impaired amplifier performance are due to minor problems or irregularities, which can be easily corrected by you.

However, if you cannot identify the cause of the problem using the table below, or if it indicates your amplifier to be defective and in need of repair, return the unit to an authorized Seymour Duncan Service Center or call (805) 964-9610 for a Return Authorization number.

Symptom	Probable Cause	Remedy
Amplifier does not come on when Power Switch is "On."	1. Power not connected.	1. Ensure power cord is plugged into power outlet.
	2. Blown amp fuse.	2. Check amp fuse; replace if blown with 250 VAC 5Amp SLO-BLOW.
	3. No source voltage.	3. Verify power source with something you know works.
	4. Defective On/Off power switch.	4. Return unit to dealer or factory for repair
No sound coming from speaker(s), (No audible amplifier hum).	1. Modules not installed.	1. Install modules. (See page 3.)
	2. Quick Access module cover is not installed on top of amp.	2. Install Quick Access module and allow amp to warm up for one minute.
	3. Amplifier in standby (up) position.	3. Place standby switch in "On".
	4. Master Volume and/or Overdrive control levels set too low.	4. Increase control level settings to "2" and listen.
	5. Speaker output plug disconnected " output wires shorted.	5. Connect output plug to 4 ohm, 8 ohm or Variable Damping input.
	6. Instrument pickup/ electronics may be defective.	6. Unplug cable from instrument and touch tip of plug; if hum is heard, replace instrument with one known to operate properly.
	7. Defective speakers	7. Verify speakers operate properly using another amp.
	8. Volume controls on your instrument are down.	8. Increase settings and listen.
No sound coming from speakers.	9. Defective center driver tube 12AX7.	9. Replace 12AX7
	10. Defective 5U4GB rectifier power tube.	10. Replace tube.
Loud amplifier hum.	1. Amplifier A.C. polarity.	1. Reverse position of power "on" switch.
	2. Instrument connecting cable not properly grounded	2. See that connecting cable is plugged into instrument.
	3. EL-34 power tube shorted.	3. Replace EL-34.



Amp blows a fuse after several minutes of operation.	1. Wires from speaker to amp shorted.	1. Replace speaker cord.
	2. M-34 or 5U4GB power tube defective.	2. Replace tube.
	3. Problem persists.	3. Return amp to dealer or factory for repair.
Amp blows a fuse immediately after it is switched "On"	1. Defective 5U4GB rectifier tube	1. Replace tube.
	2. Internal short circuit.	2. Return amp to dealer or factory for repair.
Distorted sound coming from only one channel.	1. Overdrive control level set too high.	1. Reduce control level.
	2. Defective preamp module.	2. Replace module with one known to operate properly.
Distorted sound coming from both channels.	1. Overdrive control levels set too high.	1. Reduce control levels.
	2. Defective first stage preamp module.	2. Replace module with one known to operate properly.
	3. Speaker output wires to amplifier shorted.	3. Replace speaker cord.
	4. Pickup, instrument or connecting cable may be defective.	4. Substitute cable and instrument with one you know operates properly.
	5. Defective speaker(s).	5. Verify speakers operate properly by connecting speaker plug to speaker output jack on another amp. If speaker is defective return unit to dealer or factory for repair.
Distorted sound coming from both channels.	6. Defective Variable Power tube (12AU7 near power transformer.)	6. Remove 12-AU7 Variable Power tube to check and replace if necessary.
No reverb coming from amplifier.	1. Reverb control level(s) set too low.	1. Increase control level(s).
	2. Reverb output wires not connected to Send/Return inputs.	2. Ensure output wires properly connected to rear panel jacks. Cable with red dot should be connected to Return Jack.
	3. Defective internal spring.	3. Replace reverb unit.
	4. Defective reverb Send or Return circuits.	4. Return to dealer or factory.
	5. Springs are stuck.	5. Tap the reverb tank with your hand.
Channel Selector Footswitch does <i>not</i> change channels.	1. Channel Selector on amp. set to Channel 2 position.	1. Use the panel mounted Channel Selector to set the amp in Channel 1 (Indicated by the red L.E.D.)
	2. Defective footswitch.	2. Substitute footswitch with one known to operate properly. If found to be defective, return footswitch to factory or dealer for repair.
	3. Defective internal channel switching in amp.	3. Return amp to dealer or factory for repair.

Feedback, ringing. (Guitar NOT plugged in.)	1. Overdrive and Master Volume controls set too high.	1. Back off Overdrive, Master Volume and/or Treble controls until ringing stop.
	2, Micro phonic tube.	2. Swap 12AX7 tube in modules to find the lowest micro phonic tube, and place it in the first module. (See page 6.)
	3. Too many Hi-Gain modules. (two or more) in one channel. Remember- the first module is the most subject to micro phonic ringing.	3. With two IL-Gain modules in one channel, we recommend using an "FET" module in the first position. If you are searching for an "ultra FE-Gain" situation, (3 EE-Gain modules), try the Hot Mod mod. We in any of the position- With the FE-Gain E.Q. module, simply dial out the problem frequency on the module.
Feedback, ringing (With guitar PLUGGED in.)	1. Micro phonic pickups. Physical position also effects this.	1. Have qualified guitar tech "wax pot" your pickups

## Specifications for *Convertible 2000* Amplifiers

### Combo

Weight: 57 lbs.

Cabinet Dimensions: 19 3/4" H X 21 25/32" W X 11 3/8" D

### Head

Weight: 42 lbs.

Cabinet Dimensions: 10 15/16" H X 21 25/32" W X 11 1/6" D

## Specifications for Both Combo and Head.

Power Requirements: 120 volts a.c. (U.S. Models)

Power Consumption: 480 watts at full rated output.

Power Circuit: All tube, EL-34 tubes 100 watt rms @8 ohm output @ 120 v.a.c. @ 5% @ 1 khz.

Damping Factor: From damping output Low- 0.1 into 4 ohms. High- 4.0 into 8 ohms.

Input Impedance: 4.7 meg-ohms adjustable to zero via load resistor plugs.

Input Sensitivity- 1.2 millivolts. (With Normal-Normal-Normal Modules)

Dynamic Headroom: 4-5 db.

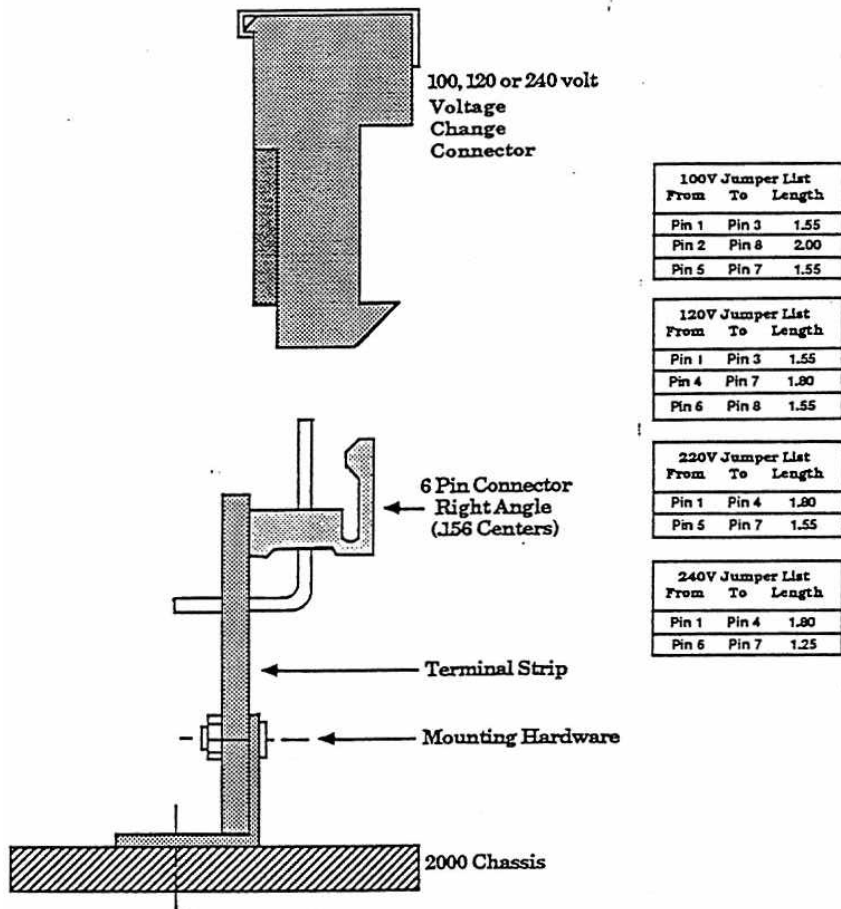
All specifications are subject to change without notice.

# International Operation

Your amp is designed for professional usage. This may require changing the amp's electrical operation when you tour in foreign countries. There are two ways for you to make your amp compatible with foreign electrical sources:

1. Use an external transformer. These are available for rent or for sale in the countries you visit. Just plug your U.S. model Convertible amp into the transformer. All voltage conversion and plug changes are done through the transformer.
2. Use an adapter on the amp's built-in transformer and change the A.C. plug.

You'll have to remove the amp chassis from its cabinet and locate the terminal strip next to the transformer. You'll also need a molex style plug. (AMP part number 640426-8, eight position IDC housing on .156 centers.) Wire the molex plug as follows:



• **WARNING: ALWAYS MAKE SURE THE CONNECTOR ATTACHES TO THE TERMINAL STRIP AS SHOWN IN THE DRAWING ABOVE. FAILURE TO DO SO WILL VOID THE WARRANTY AND CAUSE ELECTRICAL FAILURE.**

If you have difficulty locating the AMP connector, call our Product Service Technician and he can supply you with one.