STANDARD OWNER'S MANUAL



POWER AMP:

OUTPUT POWER @ 1 KHz @ 117 VAC Line Rated Power: 130 W RMS at rated load: 4 OHMS Power vs. Load: 85 W RMS @ 1% THD into 8 Ohms 130 W RMS @ 1% THD into 4 Ohms 80 W RMS @ 1% THD into 2 Ohms PEAK OUTPUT @ RATED LOAD: 8 Amps & 32 V, 260 Watts MUSIC POWER OUTPUT @ RATED LOAD: 160 W RMS @ 1% THD FREQUENCY RESPONSE: 3 DB Down @ 40 Hz & 15 KHz SENSITIVITY @ RATED POWER & LOAD: 700 mV INPUT IMPEDANCE: 10 K Ohms

PRE-AMP:

INPUT CHARACTERISTICS (Tone controls flat, Vol. @ 12:00): Sensitivity: 30 mV @ 1 KHz/Input Impedance: 330 K Ohms Noise: 68 DB Open Ckt., 70 DB 50 K Ohms, 74 DB Short Ckt.* DISTORTION @ 1 KHz: Less than 0.1% THD @ Rated Output FREQUENCY RESPONSE: 3 DB Down @ 20 Hz & 30 KHz TONE CONTROLS: ± 20 DB @ 50 Hz & 5 KHz MIDDLE CONTROL: 20 DB cut*** MIDDLE SHIFT CONTROL: Variable Middle Notch Frequency Shifter REVERB CONTROL: Continuously variable with footswitch cut off MASTER GAIN: Used in conjunction with input volume to produce overdrive. DISTORTION CONTROL: Variable harmonic distortion with footswitch cutoff. BOOSTER OUTPUT LEVEL: 1.0 V RMS into 10 K Ohms *Signal-to-noise ratio in DB below rated output

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Specifications And Schematics Published In This Manual Are Subject To Change Without Notice.

Your new Standard amplifier represents the "state of the art" in solid state amplifiers. Many recent advances in circuitry, as well as, our Exclusive "Automix" feature have been incorporated into this unit to provide you with long and trouble free operation. The flexibility of the tone control circuitry and switching facilities found on these amplification systems are unmatched by any other brand of amplifier commercially available.

You have made an investment by purchasing this advanced audio system. To properly take advantage of this investment, you must thoroughly familiarize yourself with the many features of this amplifier. Below, we will explain the concept, applications, and the tonal variations available from your Standard amp.

The Standard is not unique in having two channels, but is unique, by featuring a complete switching facility which allows any combination of the two channels to be used for incredible sustain, overload dynamics, and harmonic control. By proper use of the switching jacks in conjunction with our exclusive "Automixer" foot switch, almost any guitar sound can be created. The ability to series or parallel both channels is built into this amplifier. To develop the full potential of your Standard amp, you **must** learn the proper use of this professional grade amplification system.

Normal Channel Gain Control

The normal channel gain control (1) sets the gain of the input preamplifier thereby controlling the **sensitivity** of the amplifier, and **not** the **power** of the amplifier. It is entirely possible to drive the amp into full power output at very low volume control settings if the output level from your instrument is high enough.

Please realize that the gain control settings **do not indicate power**, but only the sensitivity of the preamp. The circuitry of the input preamps of your standard amp is of the latest variable negative feedback type which has proven to yield the best possible combination of input impedance, dynamic range, noise, and distortion characteristics.

Normal Channel Tone Controls

These tone circuits are identical to those used in the most popular British made amps and use the same critical component values to exactly duplicate their action and intonation. The High control (2) is a passive electronic circuit that varies the high pass characteristic of this tone control network. The Low control (3) is part of a passive low pass circuit and varies the amount of low frequencies passed through the network. The middle control (4) varies the middle "notch" of the modified bridged "T" tone control network.

The action of these controls is conventional and should present no problem in achieving proper tonal balance. It has been found that excessive High boost should not be used when the amp is being used in the series mode or when the various distortion features are in use.

Effects Channel Gain Control

The effects channel gain control (5) is exactly like that of the normal channel and uses the field proven variable negative feedback circuitry for unmatched performance.

Effects Channel Tone Controls

This channel is similar to those used on other **Peavey** amplifiers and incorporates the most advanced negative feedback tone networks designed into any contemporary amplifier. The tone circuitry features true cut and boost controls that are able to alter the tonal blend in almost any manner. It should be remembered that this type tone circuit is actually a form of electronic crossover and that the tone controls are actually volume controls for their particular frequency bands. Some very interesting effects can be found by using the tone controls as "master gain controls" for their particular frequency bands. This may be accomplished by turning normal gain up close to maximum, while setting the tone controls in the "cut" or counter-clockwise positions. Variation and experimentation will illustrate the many different sounds available from this method of operation. The High control (6) is part of an electronic crossover circuit and enables boost in the right hand (clockwise) positions and cut in the left hand (counterclockwise) positions. When these controls are in the center or straight up (12 o'clock) positions, the Low and High controls are flat. The action of the Low control (7) is similar to that of the High control except that it affects the bass range of frequencies. The middle control (a) is of the "cut only" type and serves to give the characteristic middle notch so necessary for proper tonality. When the middle control is fully clockwise, no middle cut takes place and the middle is unchanged. Any rotation from the fully clockwise setting results in more middle cut. It has been found that our extremely effective middle control is able to give the "punchy" sound so popular in today's music. By cutting the mid-range slightly, we are effectively boosting the two frequency extremes at the top and bottom ends of the frequency spectrum.

The middle shift control (9) enables the guitarist to select the particular frequency range that he wants to cut in the midrange spectrum. This means that he can change and vary the total sound characteristics of the amplifier simply by turning a single control. The shift control operates **only** when the middle is in the cut position.



Effects Input

The effects input(12) places the signal from your instrument into the effects channel only.

Parallel Input

By plugging your instrument into the parallel jack (11), the switching circuit automatically places the signal from your instrument into **both** channels. Plugging into this parallel jack is the same as using a patch cord to bridge into normal and effects channels, except that the internal circuitry **automatically** performs the patching function. When plugged into the parallel jack, **both** effects and normal gain controls are active and the desired blend of each can be found by varying the level of each, relative to the other. Each individual channel's tone controls set the overall tonal balance and should be adjusted according to personal taste. The Master gain control may be used for even more control of dynamics and overload harmonics.

Normal Input

The normal input(10) places the instrument signal into the normal channel only.

Series Input

Just as the parallel jack activates internal switching to place the instrument inputs into both channels, the series jack (13) activates another set of switching contacts to place the normal channel output signal into the input of the effects channel. By placing the preamps in series, incredible sustain and overload harmonics can be generated. Experimentation with various combinations of volume control settings will yield an infinite variety of harmonic characteristics and sustain durations. The normal volume will control the "clean" signal while the effects gain will control the desired amount of harmonics. These functions can be used in conjunction with the master gain control (14) to avoid driving the power amplifier to full output while seeking the desired effects enabling the operator to obtain sustain and overload effects at very low volume levels, such as those required in some recording studio applications. Experimentation is the necessary requirement to take full advantage of this unique feature of your Standard.

To provide an added measure of flexibility for the professional, we have designed a footswitch that is capable of remotely controlling this patching facility.

Reverb (15)

The reverb control is located in the master area, and acts on both channels. The reverb system is capable of delivering better than 10 volts RMS to the reverb delay line and is fed from both channels when operational. The reverb control is the level for the reverb **return** signal that is mixed into the power amplifier along with the main instrument signal. The reverb effect is remotely switchable by use of the footswitch. The footswitch controls the reverb for **both channels** and becomes effective as soon as the reverb level control on the front panel is turned up. The action of this reverb footswitch is conventional and should present no operational problems.

The distortion control (17) allows the use of a new and unique circuit that applies a nonlinear feedback signal to the preamp to create a "natural distortion" in the output signal. Unlike some other harmonic control systems, our distortion effect is achieved by blending harmonics into the straight signal much as is done when a vacuum tube amp overloads. The harmonic structure of the distortion effect is very similar to a push-pull tube type amplifier being driven into overload. The amount of distortion in the output is determined by the settings of the distortion control. The performer can blend the desired amount of distortion by rotation of the control in the clockwise direction. This effect should NOT be confused with Fuzz since it is considerably different in harmonic content. Soft distortion is obtained by use of the tone controls (high cut) in conjunction with the distortion control. The distortion effect may be controlled remotely by use of the footswitch.

The **remote switch** should be plugged into the **"DIN" socket**(16) located on the front panel. Care should be taken to properly mate the connectors of the footswitch plug with the respective socket holes.

The booster jack (18) provides an output signal for driving additional booster power amplifiers. This is NOT A SPEAKER OUTPUT. This output is a low level signal of approximately one volt. Any booster amplifier can be used as long as its input will accept a one volt RMS signal and has input impedance of at least 10,000 ohms.

Pilot light (19) indicates when power is applied to the unit.

The three wire line cord (20) has been provided for your protection and should be connected to the proper line voltage as indicated on the back panel. Do not remove ground pin on plug.

The fuse is located within the cap of the fuse holder (21) and should be replaced with one of the proper value if it should fail. It is necessary that the proper value fuse be used to avoid damage to the equipment and to avoid voiding the warranty. Models that have circuit breakers can be reset by depressing the red button. If the breaker trips repeatedly, take the unit to a qualified service center for inspection.

The line power switch (22) is of the three position type with the center position being off. The three position switch has two on positions which are used to ground the amplifier properly. One of the on positions will yield the least hum or popping when the instrument is touched and this is the position that should be used.

The speaker output jacks (23) are designed to be used with a total load of **four ohms.** Speaker systems of higher impedance can be used with a slight loss in output power. Speaker systems with less than a total of four ohms can be used with the risk of overloading the power amplifier. Slightly less power will be delivered to lower impedances because of the unique limiting action of our integral protection system. The power amplifier is built on a large aluminum heatsink to cool the output devices. A thermostat is connected to this heatsink to shut the system down in case of overheating. Low speaker impedances tend to cause the amp to run hotter than normal, and could cause the automatic cutoff to operate if the output stage becomes hot enough to endanger the output devices. The thermostat is self re-setting and normal operation will be restored when the unit reaches safe operating temperatures. If thermal shut down is apparent, then you are overloading the system and continued use in this manner will damage the

system. Never use less than a two ohm total load on the 260 module. the output voltage available from this unit is approximately 22.8 VRMS into four ohms with proper line voltage input.

The line cord retainers (24) on the rear panel are provided for your convenience in storing the AC line cord during transport of the unit.

FOOTSWITCH

Selector Button

The Selector button allows the performer to obtain the output from the normal channel or the effects channel. The selector may be thought of as an "either/or" type of control since it allows a choice of either normal or effects channels. As the name implies, the Selector button selects either channel desired. It should be noted, however, that the Selector button is functional when the instrument is plugged into either the series or the parallel jack.

Combiner Button

The Combiner button defeats the Selector button and allows both channels to be in the circuit at one time. The Selector button becomes inoperative as soon as the Combiner button is pushed.

Distortion Button

The distortion button remotely switches the distortion effect. The distortion control (17) must be turned up for the distortion button to become operational.

Reverb Button

Remote control for reverb on both channels.



FUNCTIONAL DIAGRAMS OF PARALLEL & SERIES MODE





