

The new Bass represents the latest developments of our research and development program which have evolved from seven years of laboratory and on the job experimentation. This new amp features a 200 watt RMS power circuit that uses eight 30 amp power transistors, mounted on a massive aluminum heatsink for cool operation. Many new circuits have been developed for this unit which represent the "state of the art" in musical instrument amplification.

In order to provide complete tone control, a six channel equalizer has been developed which allows incremental control of the six separate frequency bands. Proper adjustment of the equalizer will allow the bassist to tailor the response to duplicate the sound of any amp, or to create his own personal sound. The distortion/fuzz effect on the Bass features expanded versatility in the use of controlled distortion or density. The combination of the distortion/fuzz effects with the equalizer can be used to color the sound to suit any taste.

A master gain control is provided on the Bass and can be used to obtain a number of effects. The most common use of this control is to obtain overdrive and sustain at low

volume levels. The master gain can also be used as a sensitivity control for regulating amp response and noise level in the studio.

Also included in the master section is our unique "Slope" control. The new slope control acts on both channels and provides a method of tailoring the low end rolloff to suit the playing conditions. By rolling off the extreme low end, added punch can be added to the sound with only slight sacrifice in overall tone.

Our exclusive "Automix" feature has been incorporated into the circuitry of the Bass. This new feature, along with the master volume control, will allow the bassist virtually unlimited sustain and overload characteristics by running the two channels in parallel or series by means of our "automixing" footswitch.

The requirements of the modern bassist are very demanding in regard to the amp and especially from the speaker system. We offer the New Bass with several combinations of speakers to suit the requirements of the individual. The 215 cabinet is the most popular configuration and is capable of tremendous punch in the low end due to its horn loaded port design. The two fifteen inch drivers

provide a rich midrange by direct radiation. The 118S folded horn uses one massive eighteen inch driver in a new single, smaller more portable package which delivers all the power and efficiency of the larger folded horn cabinets.

The combination of the two 118S enclosures provides truly phenomenal bass response and unbelievable power handling for large areas. For those who prefer a more "punchy" bass sound the dual 412 cabinets are the ideal choice because of the extended range of the twelve inch speakers. The twelves tend to emphasize the middles and upper harmonics of the strings.

OUTPUT POWER:

200 watts RMS @ 1% THD
into 2 ohms

SENSITIVITY:

20 mV @ 1 KHZ
(Tone controls flat, volume 12:00)

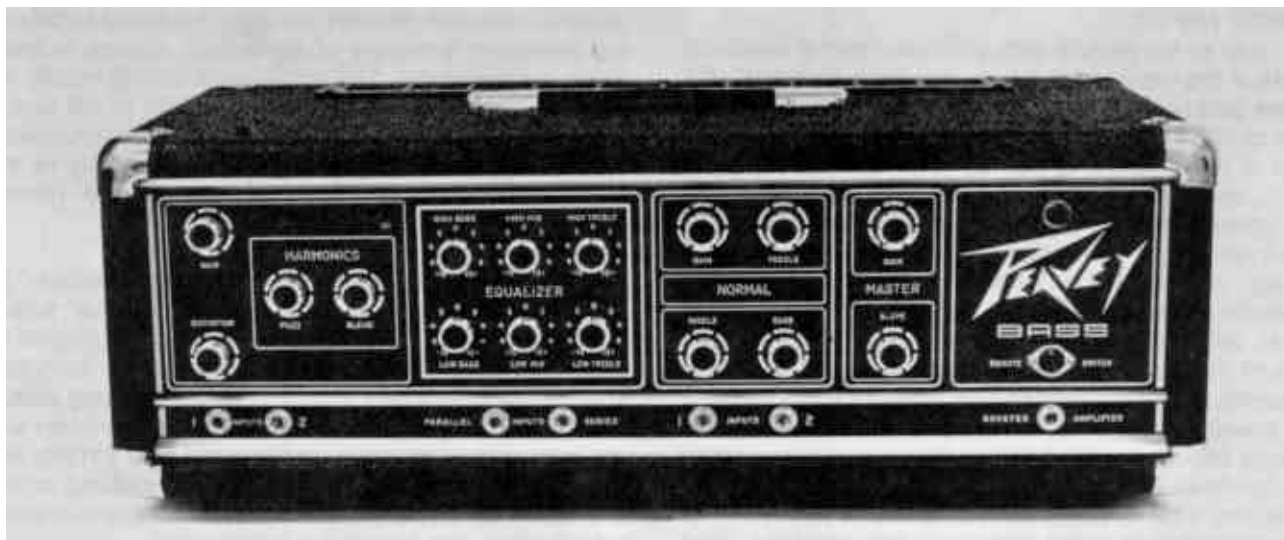
INPUT IMPEDANCE:

330 K ohm

SIGNAL-TO-NOISE RATIO:

66 db
(50 K ohm source impedance)

The Bass



The new Peavey "**Bass**" amplifier represents the "state of the art" in solid state, bass guitar amplification. Many recent advances in circuitry, as well as, our new "**automix**" feature have been incorporated into the "Bass" to provide you with maximum performance and long, trouble free operation.

The versatility of the equalization circuitry and switching facilities built into the "Bass" are unmatched by any other brand of amplifier commercially available today.

The "Bass" is not unique in having two channels, but is unique in 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 "automix" feature, in conjunction with the six channel equalizer, almost any bass sound can be created.

Both pairs of the main input jacks(1) are arranged in a unique circuit that allows a wide range of input levels to be handled by the bass. Input "1" is the **high gain input** and should normally be used when plugging in your instrument. Input "2" is the **low gain input** and should be used if the signal from your instrument tends to overload (distort) the preamp. If two instruments are used and both jacks "1" and "2" are used, the circuit **automatically balances the gain** of the two inputs so that the sensitivity of both are identical.

PARALLEL INPUT

By plugging your instrument into the **parallel jack**(2), 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 normal and effects channels, except that the internal switching 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**(3) control may be used for even more control of dynamics and overload harmonics.

SERIES INPUT

Just as the parallel jack activates internal switching to place the instrument inputs into both channels, the **series jack**(4) 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 gain control settings will yield an infinite variety of harmonic characteristics and sustain durations. The normal gain 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 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 the Bass.

To provide an added measure of flexibility for the professional, we have designed a footswitch that is

capable of remotely controlling this series switching circuit.

The **channel gain controls**(5) set the gain of the input preamplifiers, 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 gain control settings if the output signal from your instrument is high enough.

Please be aware that the gain control settings do not indicate **power**, but only **sensitivity** of the preamp. The circuitry of the input preamps of your Bass 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.

DISTORTION

The exclusive **distortion control**(6) allows the Bass to duplicate the natural distortion of an overdriven tube amp at all volume levels. The distortion control blends harmonics into the signal which match the harmonic content of a tube being overdriven. By adjusting the settings of the distortion control, varying degrees of harmonic distortion can be introduced into the output. Interesting effects can be obtained by using the equalizer to tailor the response of the preamp to the harmonics generated by the distortion circuits. Additional effects are possible when the fuzz circuit is used in conjunction with distortion. The two entirely different effects produced by the two circuits blend into each other to produce fantastic harmonics that can be tailored in any imaginable combination by the equalizer circuits. Experimentation will prove the versatility of this feature. This distortion may be cut off with the remote footswitch.

FUZZ

The **fuzz control**(7) enables the Bass to introduce the classic fuzz type distortion into the output. The fuzz effect is variable by setting the fuzz control. Because of our new squelch circuitry, the extremely high hiss levels usually associated with fuzz units are absent from this new and exclusive circuit. We have tailored the harmonic and fundamental content of this fuzz to be adjustable, as well as, have an extremely long sustain while our squelch circuitry almost completely eliminates the annoying tendency of some fuzz circuits to feedback uncontrollably. The equalizer is able to modify the tonal emphasis of the various harmonics of the fuzz to duplicate the sound of any fuzz effect. Experimentation will be necessary to fully utilize the capability of this effect. The fuzz is controllable from the remote footswitch.

BLEND

The **blend control**(8) is an "envelope modifier" for the fuzz circuit that actually varies the attack characteristics of the clipping circuit by changing its input impedance. This control is able to give the fuzz a sharp cutting bite or a smooth mellow clipping action. This blend control should be used in conjunction with the fuzz control to obtain the desired fuzz tonality and blend of fundamental vs. clipped and shaped signal. The blend control is located within the fuzz circuit and is cut off when the fuzz is not being used.

EFFECTS CHANNEL EQUALIZER CONTROLS

The **six channel equalizer circuit**(9) is a new type of electronic crossover that divides the musical instrument sound spectrum into six distinct segments, with each control allowing precise control over its particular band of frequencies. Each of the six frequencies bands may be boosted or cut 15 DB for a total 30 DB range. By varying the mix of the various filters, the response characteristics of any amplifier can be duplicated, as well as, allowing new and different combinations to be created. Each equalizer control should be regarded as a level control for its particular frequency band. The overall loudness is a function of the setting of these controls. By using this equalization circuit with the distortion and/or fuzz effects, any desired harmonic structure can be created. With the fuzz and/or distortion in operation, **you will find that overboosting the high frequencies tends to emphasize the higher order harmonics and give a more harsh sound. Much smoother effects can be produced by using less top end and more middles and lows.** The amp should **never** be operated with **all** the filters in the extreme cut position. Experimentation will illustrate the fantastic versatility and range of the equalizer circuit.

NORMAL 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 input stage of the effects channel features extremely low noise and is capable of handling an extremely wide dynamic range. 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 created 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 **treble control**(10) is part of an electronic crossover circuit that enables boost in the right hand (clock-wise) positions and cut in the left hand (counter-clockwise) positions. When these controls are in the center or straight up (12 o'clock) position, the bass and treble controls are flat. The action of the **bass control**(11) is similar to that of the treble control except that it affects the bass range of frequencies. The **middle control**(12) is the "cut" only type and serves to give the characteristic middle notch that is 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.

MASTER GAIN

The **master gain control**(3) is located in the master area, and is very useful for obtaining a number of effects. The most common use of this control is for obtaining overdrive and sustain at low sound levels. Another valuable use for this control is for controlling the response and noise of the amp in a recording studio.

The master gain control is the final gain determining element before the signal is fed into the output amplifier and could more accurately be called a "sensitivity" control. To obtain maximum overdrive and sustain, the individual channel volume controls should be set near maximum, and the output of the system should be adjusted with the master volume control. You will discover that many different and pleasing harmonic effects can be obtained by trying different settings of the tone, gain and master gain controls. It has been found that when operating the amp in the overdriven condition, **lower** settings of the **high frequency** controls tend to give a smoother "natural distortion characteristic". The normal background noise (hiss, hum, etc.) can be very effectively controlled for recording studio applications by use of the master gain control. To reduce these noises, reduce the setting of the master gain control.

The **slope control**(13) is a unique method of tailoring the low end rolloff to suit the playing conditions. By rolling off the extreme low end, added punch can be obtained with only slight sacrifice in overall tone. Many times the deep bass can be sacrificed for the penetration needed for outdoor conditions or large indoor performances. Experimentation will allow the musician to select the proper settings to suit his individual taste or playing requirements.

Pilot light(14) indicates when power is applied to the unit.

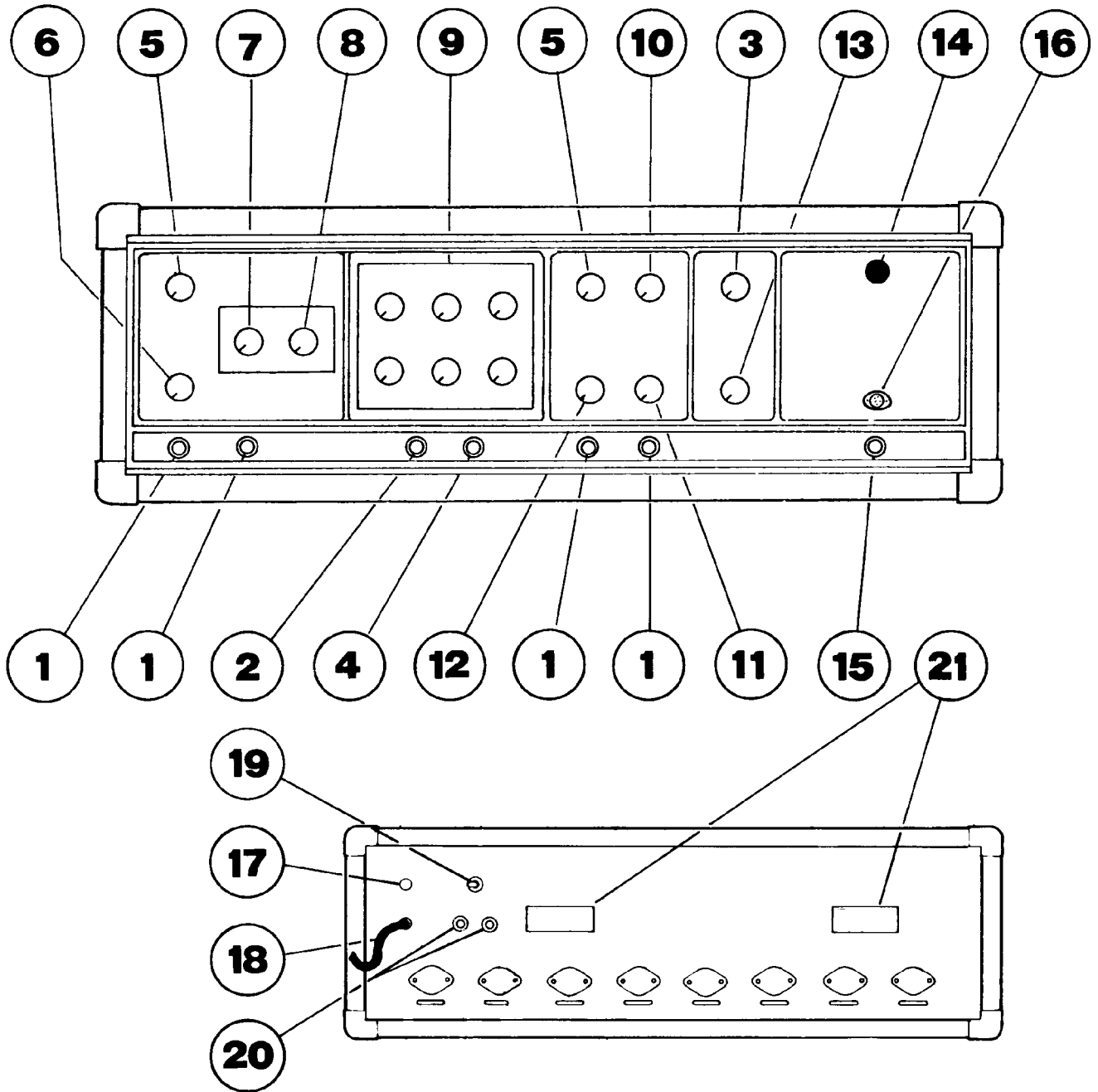
The **booster jack**(15) provides an output signal for driving additional booster power amplifiers. This is **not a speaker output**. This output is a low level signal of approximately one volt. Any booster amplifier can be used as long as its input will accept a one volt RMS signal and has input impedance of at least 10,000 ohms.

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 **fuse**(17) is located within the cap of the fuse holder 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 button. If the breaker trips repeatedly, take the unit to a qualified service center for inspection.

The **three wire line cord**(18) 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 **line power switch**(19) is of the three position type with the center position being OFF. The three posi-



tion 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**(20) are designed to be used with a total load of **two ohms**. Speaker systems of higher impedance can be used with a slight loss in output power. Speaker systems with less than a total of two ohms **cannot** be used without overloading the power amplifier. Much 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 shutdown is apparent, then you are overloading the system and continued use in this manner will damage the system. **Never use less than a 2 ohm total load on the 400 module.** The output voltage available from this unit is approximately 20 V RMS into 2 ohms with proper line voltage.

The **large line cord retainers**(21) 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 when the instrument is plugged into the **parallel jack**. When the instrument is plugged into the **series jack** it selects either the "clean signal" or the "overdriven signal". It should be noted however, that the selector button is functional only when the instrument is plugged into either the series **or** the parallel input jack.

COMBINER BUTTON

The combiner button **defeats** the selector button and allows both channels to be in the circuit at one time, when in the **parallel input**. When plugged into the **series input** the combiner button defeats the selector button and allows the output of the clean signal and the overdriven signal to be combined, in other words some clean signal is mixed with the overdriven (distorted) signal for even more versatility and tonal blend. **The selector button becomes inoperative as soon as the combiner button is depressed.**

DISTORTION BUTTON

The distortion button remotely activates the distortion effect. The distortion control must be turned up for the distortion button to become operational.

FUZZ BUTTON

The fuzz button remotely activates the fuzz effect.

REVERB BUTTON

The reverb button remotely activates the reverb on both channels.

TREMOLO BUTTON

The tremolo button remotely activates the tremolo in the effects channel.

FUNCTIONAL DIAGRAMS OF PARALLEL & SERIES MODE

