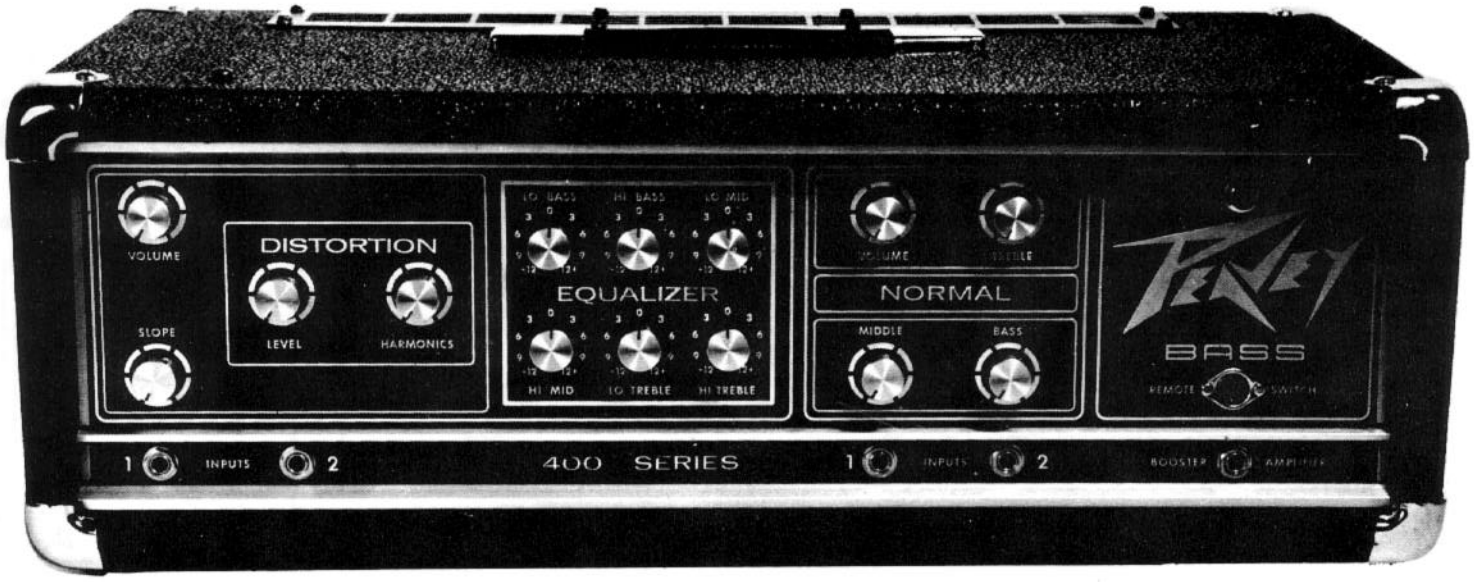
bass



owner's manual

Your new BASS amplifier is the result of the most comprehensive and thorough research program ever attempted by PEAVEY ELECTRONICS. Many new circuits were developed for this unit which represent the state of the art in musical instrument amplification. The BASS employs our recently developed 210 watt RMS power module, which combines the brute power of **eight** high energy power devices on a massive heatsink providing both power and durability. The BASS preamplifier has been equipped with every needed effect and control to produce unlimited tonal variation and harmonic control. Our unique distortion feature allows the preamp to generate the natural distortion of an overdriven tube amp. The dual distrotion controls enable infinite adjustment of the harmonic level and content of the output signal. The six channel electronic crossover/equalizer allows unmatched tonal variation and dynamics. Proper adjustment of the equalizer allows the operator to duplicate the sound of any amplifier as well as create his own distinctive sound. As with any complex system, your BASS must be adjusted properly to achieve the desired sound. Please read the explanation of each control and become fimiliar with the effect and capability of each function.

1. The volume control sets the gain of the input preamp, thereby controlling the SENSITIVITY of the preamp, not the POWER of the amp. It is entirely possible for the amp to be driven to full power output on very low volume settings if the signal from your instrument is extremely high. Please remember that the volume control does NOT indicate power output but the GAIN of the preamp.

2. The slope control 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 rooms. Experimentation will allow the musician to select the proper position to suit his individual taste or playing requirements.

3. The input jacks 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.

4. The distortion level control is the element used to vary the amount of harmonic distortion present in the output signal. Our method of generating these harmonics utilizes non-linear feedback to duplicate the harmonics found in a tube amp driven into overload. Although the amplitude of the output signal does not raise appreciably, the signal sounds louder because the additional harmonics actually add energy while creating the natural distortion of a tube amp. The level control may be used to generate harmonic distortion at extremely low volume levels.

5. The harmonics control determines the overtones present in the distortion signal. This function gives added dimension to the distortion effect. Varying this control can change the characteristics of the distortion from a soft and mild overdrive to a growling swamp bottom bass.

6. The six channel equalizer circuit 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 frequency bands may be boosted or cut 12 DB for a total 24 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 effects, any desired harmonic structure can be created. The amp should never be operated with **all** the filters in the extreme cut position. Experimentation will illustrate the versatility and range of the equalizer circuit.

7. The middle control gives the musician control over the all-important middle frequency range.

8. The treble control is part of an electronic crossover and may be considered as a level control for treble frequencies. These variable feedback type tone controls are capable of providing a cut as well as a boost. Because the treble control is a volume control for treble frequencies, it is good practice to operate it close to fully clockwise for maximum benefit and volume. Experimentation will allow the musician to find the level that works best for his preference in tone.

9. The bass control is also part of an electronic crossover that forms the tone circuit and works as a level for the bass frequencies. The bass control provides for both a boost and a cut in bass response. Like the treble control, the bass should be run near its full clockwise position for maximum volume from the amp.

10. Pilot light indicates when power is applied to the unit.

11. The booster jack 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.

12. The remote switch should be pluged into the three connector "DIN" plug located on the front panel. Care should be taken to properly mate the connectors of the foot switch plug with the respective socket holes.

13. The fuse 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 red button. If the breaker trips repeatedly, take the unit to a qualified service center for inspection.

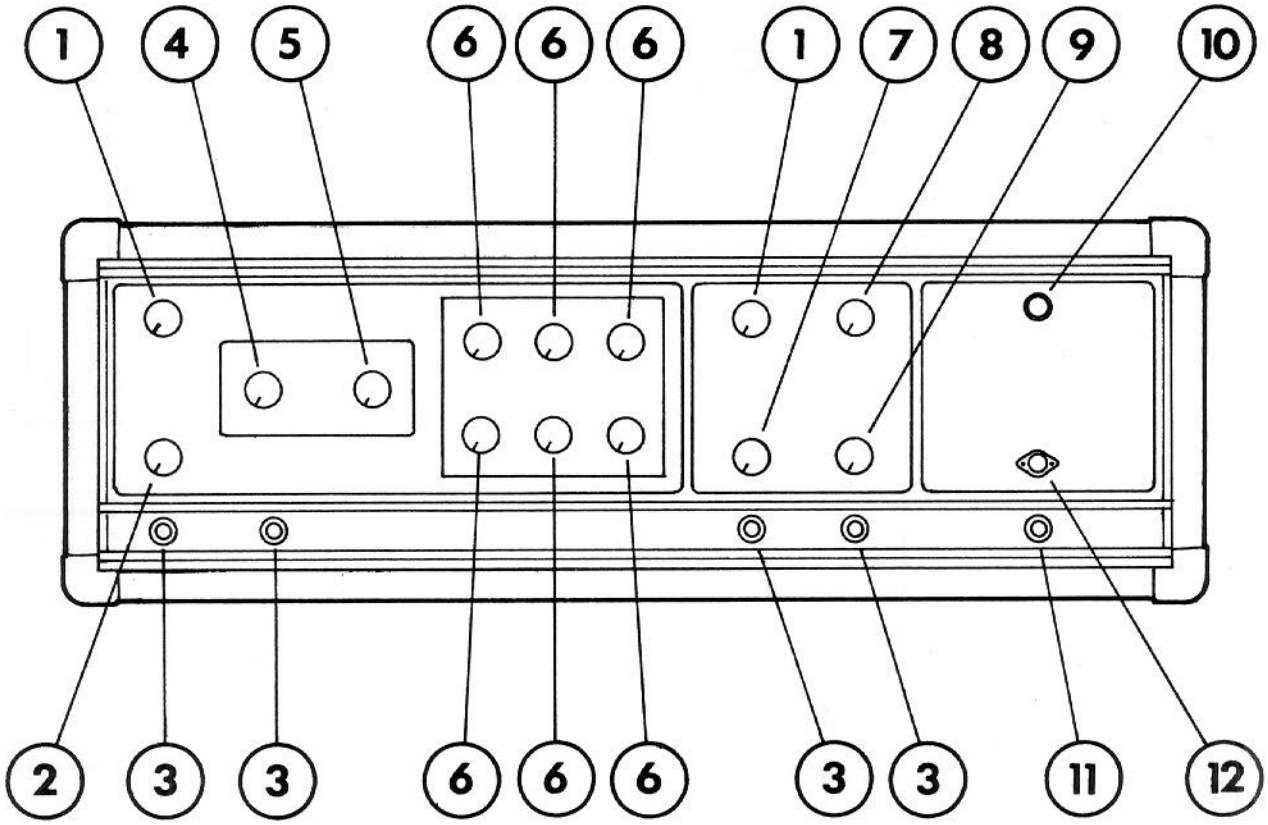
14. The three wire line cord has provided for your protection and should be connected to the proper line voltage as indicated on the back panel. **DO NOT REMOVE GROUND PIN ON PLUG..**

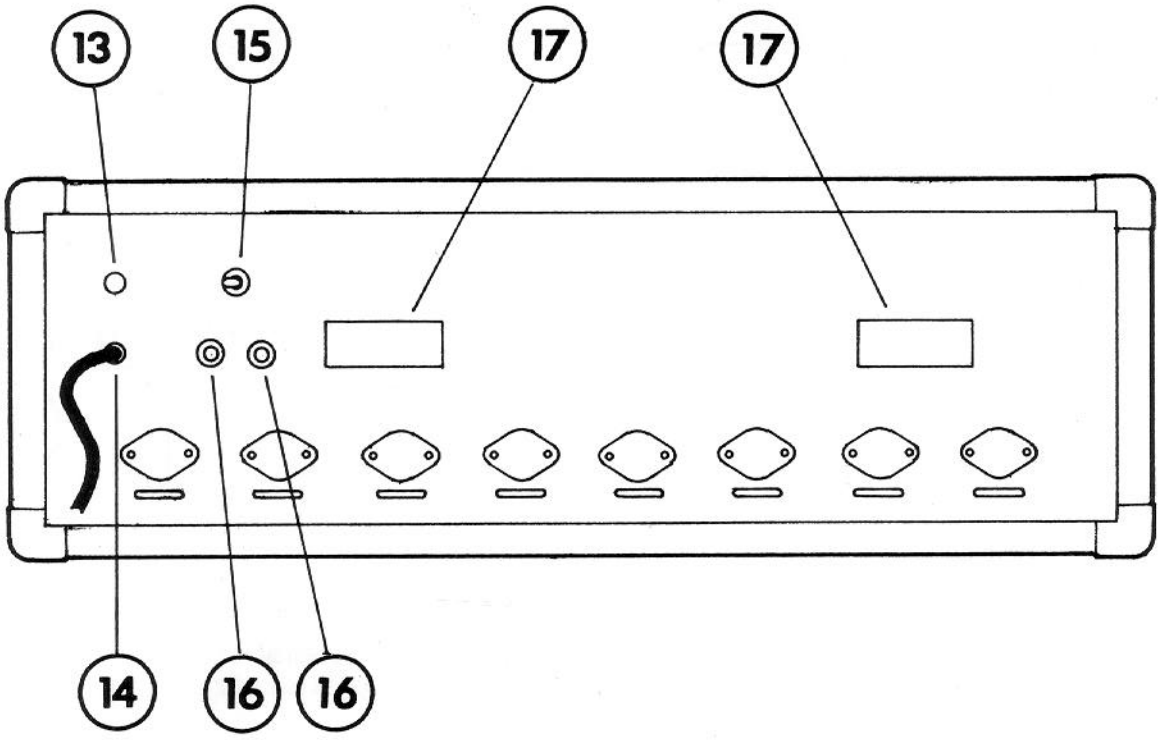
15. The line power switch is of the three position type with the center position being **off.** The three position switch has two **on** positions which are used to ground the amplifier properly. One of the on positions will yield the least hum or popping when the instrument is touched and this is the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

16. The speaker output jacks 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 with out 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 become 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 VRMS into 2 ohms with proper line voltage.

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





PEAVEY ELECTRONICS TECHNICAL SPECIFICATIONS
MODEL: BASS

I. POWER AMPLIFIER SECTION:

A. Output Power @ 1 KHZ @ 117 VAC Line:

1. Rated Power: 200 W RMS @ Rated Load: 2 OHMS
2. Power vs. Distortion:

LOAD IMPEDANCE	8	4	2	1	OHMS
OUTPUT @ 1% THD	80	140	210	140	W
OUTPUT @ 5% THD	95	160	240	180	W

B. Peak Output @ Rated Load: 14 AMPS & 28 VOLTS, 400 WATTS

C. Music Power Output @ Rated Load: 290 WATTS RMS @ 1% THD

D. Frequency Response: 3 DB Down @ 40 HZ & 15 KHZ

E. Sensitivity @ Rated Power & Load: 700 mV

F. Input Impedance: 10 K OHMS

II. PRE-AMPLIFIER SECTION:

A. Input Characteristics: (Tone Controls Flat, Volume @ 12:00)

1. Sensitivity: 20 mV @ 1KHZ
2. Input Impedance: 330 K OHMS
3. Noise: 60 DB (Open Ckt.), 66 DB (50 K OHMS), 70 DB (Short Ckt.)*

B. Distortion @ 1 KHZ @ Rated Output: Less Than 0.2% THD**

C. Frequency Response: 3 DB Down @ 30 HZ & 25 KHZ

D. Tone Controls: ± 20 DB @ 50 HZ & 5 KHZ ***

E. Middle Control: 20 DB Cut***

F. 6 Channel Equalizer: ± 14 DB Each Channel

G. Slope Control: Variable Low-frequency Roll-off

H. Distortion Controls: Variable Harmonic Distortion with Foot-switch Cut-off

I. Booster Output Level: 1.0 VRMS into 10 K OHMS

*Signal-to-Noise ratio in DB below rated output

**Measured with Distortion Control Cut-off (Full CCW)

***Clear Channel

PEAVEY ELECTRONICS CORP. / 611 10th Avenue / Meridian, Mississippi

Specifications and schematics published in this manual are subject to change without notice