



210 POWERED ENCLOSURE OPERATING GUIDE



The 210 Powered Enclosure is designed primarily to be used for biamp applications in conjunction with bass guitar amplification systems. This product should not be used as a full range bass guitar amplifier. It can be used as a full range guitar power amp/speaker system or as a powered sound reinforcement monitor.

The speaker system consists of two 10 inch Scorpion™ loudspeakers. The power amplifier is rated at 210 watts into a 4 ohm load and contains DDT™ (Distortion Detection Technique) prevents the power amplifier from severe clipping (distortion). U.S. Patent #4318053. The recommended crossover frequency is from 250 Hz to 500 Hz.

1. MAIN POWER AMP INPUT

Use to connect line level signal to power amplifier.

2. AUXILIARY POWER AMP INPUT

Use to send line level signal to additional power amplifier (DAISY CHAIN). Will not operate unless main input is connected.

3. LEVEL

Controls the volume level of the enclosure.

4. LINE CORD

For your safety, we have incorporated a 3-wire line (mains) cable on the back of the chassis with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the amplifier without proper grounding facilities, suitable grounding adapters should be used. Less noise and greatly reduced shock hazard exists when the unit is operated with the proper grounded receptacles. NOTE: The above statement in reference to removing the ground pin is applicable only to 120 volt model products.

5. POWER SWITCH

Center position is "OFF." Two "ON" positions are provided, one of which will properly ground the amplifier. Switch to the "on" side that yields the lowest amount of residual hum or popping noise when the instrument is touched. 220 and 240 volt models utilize a two-way ON/OFF switch only.

6. FUSE

The fuse is located within the cap of the fuseholder. If the fuse should fail, IT MUST BE REPLACED WITH THE SAME TYPE AND VALUE IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT AND TO PREVENT VOIDING THE WARRANTY. If the amp repeatedly blows fuses, it should be taken to a qualified service center for repair.

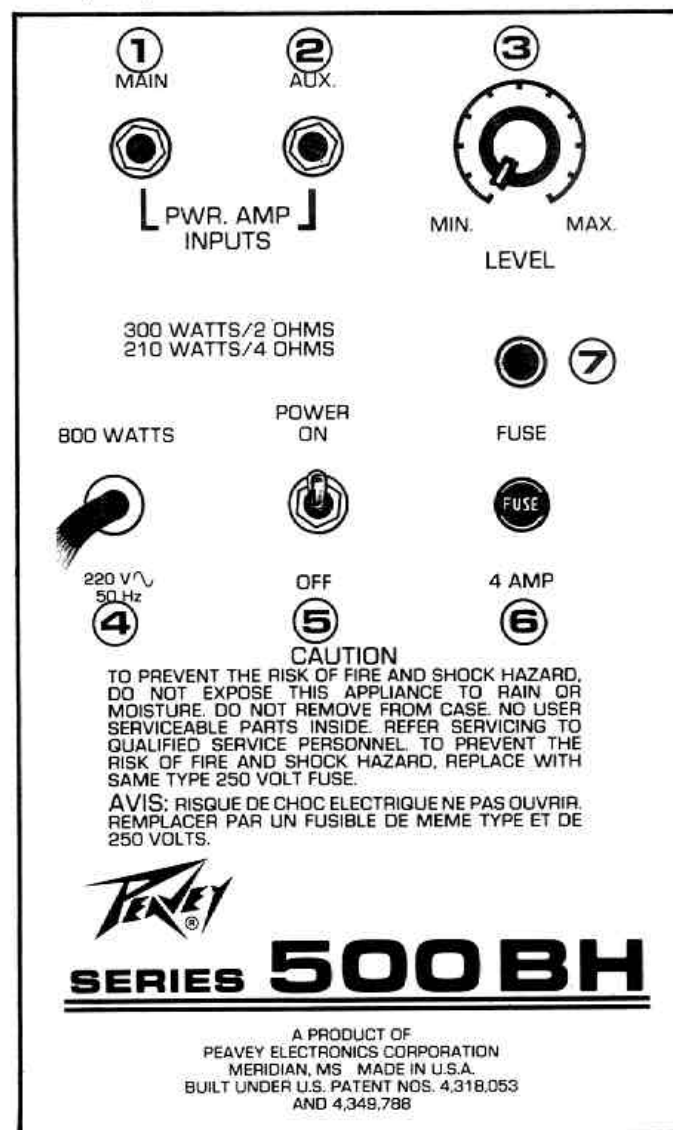
WARNING: THE FUSE SHOULD ONLY BE REPLACED WHEN THE POWER CORD HAS BEEN DISCONNECTED FROM ITS POWER SOURCE.

7. PILOT LIGHT

Illuminates when AC power is being supplied to the amp.

8. EXTERNAL SPEAKER JACK (NOT PICTURED)

Provided for connection of external speaker cabinet. Minimum total impedance is 2 ohms.



500-BH MODULE WITH "DDT"TM

COMPRESSION RATED POWER & LOAD

210 W RMS into 4 ohms

300 W RMS into 2 ohms

POWER @ CLIPPING: (TYPICALLY)

(5% THD, 1 KHz 120 VAC Line)

130 W RMS into 8 ohms

225 W RMS into 4 ohms

320 W RMS into 2 ohms

FREQUENCY RESPONSE

+0,-1 dB 20Hz to 20 KHz @ 200 Watts into 4 ohms

TOTAL HARMONIC DISTORTION:

Less than 0.1%, 200 MW to 200 W RMS

20 Hz to 10 KHz, 4 ohms,

Typically below 0.05%

INTERMODULATION DISTORTION:

Less than 0.1%, 200 MW to 200 W RMS,

60 Hz & 5 KHz, 4 ohms,

Typically below 0.05%

DDT DYNAMIC RANGE

Greater than 26 dB

DDT MAXIMUM TOTAL HARMONIC DISTORTION:

(1 KHz)

Below 0.5% THD for 6 dB overload

Below 1% THD for 20 dB overload

HUM & NOISE:

Greater than 90 dB below rated power

INPUT SENSITIVITY:

1 VRMS (0dBV) for full power output

INPUT IMPEDANCE:

50K ohms

POWER CONSUMPTION: (DOMESTIC)

800 Watts, 50/60 Hz, 120 VAC

DANGER

EXPOSURE TO EXTREMELY HIGH NOISE LEVELS MAY CAUSE A PERMANENT HEARING LOSS. INDIVIDUALS VARY CONSIDERABLY IN SUSCEPTIBILITY TO NOISE INDUCED HEARING LOSS, BUT NEARLY EVERYONE WILL LOSE SOME HEARING IF EXPOSED TO SUFFICIENTLY INTENSE NOISE FOR A SUFFICIENT TIME.

THE U.S. GOVERNMENT'S OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED THE FOLLOWING PERMISSIBLE NOISE LEVEL EXPOSURES:

DURATION PER DAY IN HOURS	SOUND LEVEL dBA, SLOW RESPONSE
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115

ACCORDING TO OSHA, ANY EXPOSURE IN EXCESS OF THE ABOVE PERMISSIBLE LIMITS COULD RESULT IN SOME HEARING LOSS.

EAR PLUGS OR PROTECTORS IN THE EAR CANAL, 3 OR OVER THE EAR, MUST BE WORN WHEN OPERATING THIS AMPLIFICATION SYSTEM IN ORDER TO PREVENT A PERMANENT HEARING LOSS IF EXPOSURE IS IN EXCESS OF THE LIMITS SET FORTH ABOVE. TO INSURE AGAINST POTENTIALLY DANGEROUS EXPOSURE TO HIGH SOUND PRESSURE LEVELS, IT IS RECOMMENDED THAT ALL PERSONS EXPOSED TO EQUIPMENT CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS SUCH AS THIS AMPLIFICATION SYSTEM BE PROTECTED BY HEARING PROTECTORS WHILE THIS UNIT IS IN OPERATION.

CAUTION

THIS AMPLIFIER HAS BEEN DESIGNED AND CONSTRUCTED TO PROVIDE ADEQUATE POWER RESERVE FOR PLAYING MODERN MUSIC WHICH MAY REQUIRE OCCASIONAL PEAK POWER. TO HANDLE OCCASIONAL PEAK POWER, ADEQUATE POWER "HEADROOM" HAS BEEN DESIGNED INTO THIS SYSTEM. EXTENDED OPERATION AT ABSOLUTE MAXIMUM POWER LEVEL IS NOT RECOMMENDED SINCE THIS COULD DAMAGE THE ASSOCIATED LOUSPEAKER SYSTEM. PLEASE BE AWARE THAT MAXIMUM POWER CAN BE OBTAINED WITH VERY LOW SETTINGS OF THE GAIN CONTROLS IF THE INPUT SIGNAL IS VERY STRONG.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e. a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, heater, radiator or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag, or an ammonia based household cleaner if necessary.
13. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
14. This unit should be checked by a qualified service technician if:
 - A. The power supply cord or plug has been damaged.
 - B. Anything has fallen or been spilled into the unit.
 - C. The unit does not operate correctly.
 - D. The unit has been dropped or the enclosure damaged.
15. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.

Due to our efforts for constant improvement, features and specifications are subject to change without notice.

