Owner's Guide for the

PortaBass 250

Amp Head

Made with Pride in the U.S.A. by Ampeg

Thank you for choosing the Ampeg PB250 PortaBass Amp Head. The PB250 features Ampeg's radical new Micro Dynamic Technology power amp circuitry. This gives you the ultimate combination of power, tone, and portability in a small, lightweight package.

In order to obtain maximum performance and enjoyment from your new Ampeg amplifier, please read these instructions prior to its use.

TABLE OF CONTENTS

Features 3
Important Safeguards and Precautions 3
The Front Panel Controls and Their Use 4
The Rear Panel 5
Troubleshooting 6
System Block Diagram 7
Technical Specifications . . . . . .back cover

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

PRECAUCION
RIESGO DE CORRIENTAZO
NO ABRA

PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDE EXPUESTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUOIR EL RIESGO DE CORRIENTAZO. NO ABRA LA CUBIERTA. NO HAY PIEZAS ADENTRO QUE EL USARIO PUEDO REPARAR DEJE TODO MANTENIMIENTO A LOS TECHNICOS CALIFICADOS.

ATTENTION
RISQUE D'ELECTROCUTION
NE PAS OUVRIR

ATTENTION: PROTÉGEZ CET APPAREIL DE LA PLUIE ET DE L'HUMIDITÉ AFIN D'ÉVITER TOUT RISQUE D'INCENDIE OU D'ÉLECTROCUTION. POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPRABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.

IMPORTANT SAFETY INSTRUCTIONS

- READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS APPARATUS. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75CM) OF WELL VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- DO NOT USE THIS APPARATUS NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE APPARATUS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- THIS APPARATUS DOES NOT OPERATE NORMALLY AND REQUIRES SERVICE WITH ANY PHYSICAL DAMAGE FROM IMPACT OR ANY EXPOSURE TO MOISTURE.
- SERVICE MUST BE PERFORMED BY QUALIFIED PERSONNEL.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SOUND PRESSURE LEVELS CAN CAUSE PERMANENT HEARING IMPAIRMENT OR LOSS. USER CAUTION IS ADVISED AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.

EXPLANATION OF GRAPHICAL SYMBOLS:
EXPLICACION DE SIMBOLOS GRAFICOS:
EXPLICATION DES SYMBÔLES GRAPHIQUES:

= "DANGEROUS VOLTAGE" "VOLTAJE PELIGROSO" "DANGER HAUTE TENSION"

= "IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL" "ES NECESARIO QUE EL USUARIO SE REFIERA AL MANUAL DE INSTRUCCIONES." "REFERREZ-VOUS AU MANUAL D'UTILISATION"

Features

In the world of high performance bass amps, Ampeg amplifiers stand alone. In true Ampeg tradition, the PB250 offers you more power, performance and tone than any other bass amplifier in its class. The outstanding features which set your new amplifier apart from the competition are listed below.

- **MDT POWER AMP:** Micro Dynamic Technology amplifier circuitry provides maximum power in a small lightweight package – the efficiency of this design eliminates the need for heavy heat sinks, transformers and filter capacitors
- **FOUR BAND ROTARY EQ:** Four bands of equalization and shift controls for the Low and High Mid provides optimum tone control
- **ULTRA LOW, ULTRA HIGH SWITCHES:** Enhances flexibility and tone control
- **EFFECTS LOOP:** Send and Return jacks are combined with an Effects Blend control for virtually noise-free use of your favorite effects
- **TRANSFORMER BALANCED LINE OUTPUT:** XLR jack with level control, ground lift, and a pre/post-EQ switch – for patching into house consoles, mixing boards, or external power amplifiers
- **SPEAKON® AND 1/4" SPEAKER OUTPUT JACKS:** Compatible with either type of connecting cable
- **MADE WITH PRIDE IN THE U.S.A.**

Important Safeguards and Precautions:

All Ampeg products are designed for continuous safe operation, as long as common sense is used and steps are taken to help avoid certain problems. Abiding by the following rules can help prevent damage to your amplifier, yourself, and others.

- The amplifier is equipped with a three-pronged AC power cord. To reduce the risk of electrical shock, ***NEVER*** remove or otherwise attempt to defeat the ground pin of the power cord.
- Connect the amplifier ***ONLY*** to a properly grounded AC outlet of the proper voltage for your amp.
- Avoid sudden temperature extremes, rain and moisture. Also, avoid sudden and intense impact. (If the unit has been subjected to any of the preceding abuses, have it looked at by an authorized service center.)
- ***NEVER*** set the amplifier on a support that might give out under its weight.
- Always keep the total speaker impedance at or above the rated load.
- Unplug the amplifier before cleaning it. ***NEVER*** spray liquid cleaners onto the amplifier. Wipe it with a slightly dampened, lint-free cloth to remove dirt and film.
- Do not use the amplifier if it has sustained damage to the chassis, controls, or power cord. Refer the unit to an authorized service center for inspection.
- Amplifiers capable of producing high volume levels are also capable of inflicting permanent hearing loss or damage, if the exposure to such levels is prolonged. Such damage is progressive and irreversible! Consider using quality hearing protection devices.

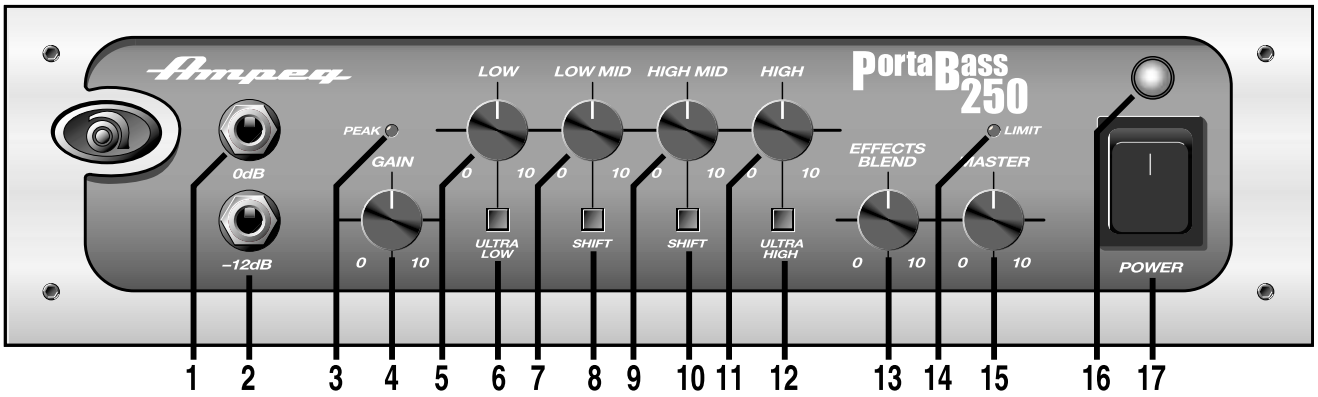
Declaration Of Conformity

#41, Effective 02-01-2002

Manufacturer's Name:	SLM Electronics
Production Facility:	11880 Borman Drive, St. Louis, MO 63146, USA
Production Facility:	700 Hwy 202 W, Yellville, AR 72687, USA
Shipping Facility:	1400 Ferguson Ave., St. Louis, MO 63133, USA
Office Facility:	1400 Ferguson Ave., St. Louis, MO 63133, USA
Product Type:	Audio Amplifier
Complies with Standards:	
LVD:	92/31/EEC, 93/68/EEC, & 73/23/EWG
Safety:	EN60065
EMC:	EN55013, EN55020, EN55022, EN61000-3-2, & EN61000-3-3

Supplementary information provided by:
SLM Electronics - R & D Engineering
1901 Congressional Drive, St Louis, MO 63146, USA
Tel.: 314-569-0141, Fax: 314-569-0175

The Front Panel Controls and Their Use:



1. 0dB: Connect your bass guitar here by means of a shielded instrument cable. If your bass has active electronics or high-output pickups, or if the Peak LED (#3) illuminates at low signal levels, connect your bass to the -12dB jack (#2).

2. -12dB: Connect your bass guitar here by means of a shielded instrument cable, if your bass has passive electronics or low-output pickups. If the Peak LED (#3) does not illuminate at high signal levels, connect your bass to the 0dB jack (#1).

3. PEAK: This LED will illuminate when the level of the preamp signal begins to overdrive the amplifier. For the best signal to noise ratio, set the Gain control (#4) so the Peak LED flashes on strong signal spikes during normal playing of your instrument.

4. GAIN: Use this control to adjust the level of the signal going into the preamp. Adjust this control until the Peak LED (#3) flashes on strong signal peaks.

5. LOW: Use this control to adjust the low frequency level of the amplifier. This control allows an adjustment of +/-14dB at 100Hz.

6. ULTRA LOW: This switch, when depressed, increases the low frequency output by 6dB at 40Hz.

7. LOW MID: Use this control to adjust the lower midrange frequency level of the amplifier. This control allows an adjustment of +/-15dB at 270Hz, or +/- 15dB at 400Hz, depending on the setting of the Shift switch (#8).

8. SHIFT (LOW MID): This switch, when depressed, shifts the frequency of the Low Mid control (#7) from 270Hz to 400Hz.

9. HIGH MID: Use this control to adjust the upper midrange frequency level of the amplifier. This control allows an adjustment of +/-14dB at 900Hz, or +/- 15dB at 1.9kHz, depending on the setting of the Shift switch (#10).

10. SHIFT (HIGH MID): This switch, when depressed, shifts the frequency of the High Mid control (#9) from 900Hz to 1.9kHz.

11. HIGH: Use this control to adjust the high frequency level of the amplifier. This control allows an adjustment of +/-13dB at 6kHz.

12. ULTRA HIGH: This switch, when depressed, increases the high frequency output by 8dB at 10kHz.

13. EFFECTS BLEND: Use this control to adjust the level of external effects that are connected to the Effects Send and Return jacks (#23 and #22, rear panel). With this control in the fully counterclockwise position no effect is applied to the signal. As you rotate the control clockwise the level of the effect increases.

NOTE: When using the effects loop with a compressor/limiter, this control must be rotated fully clockwise for optimum results.

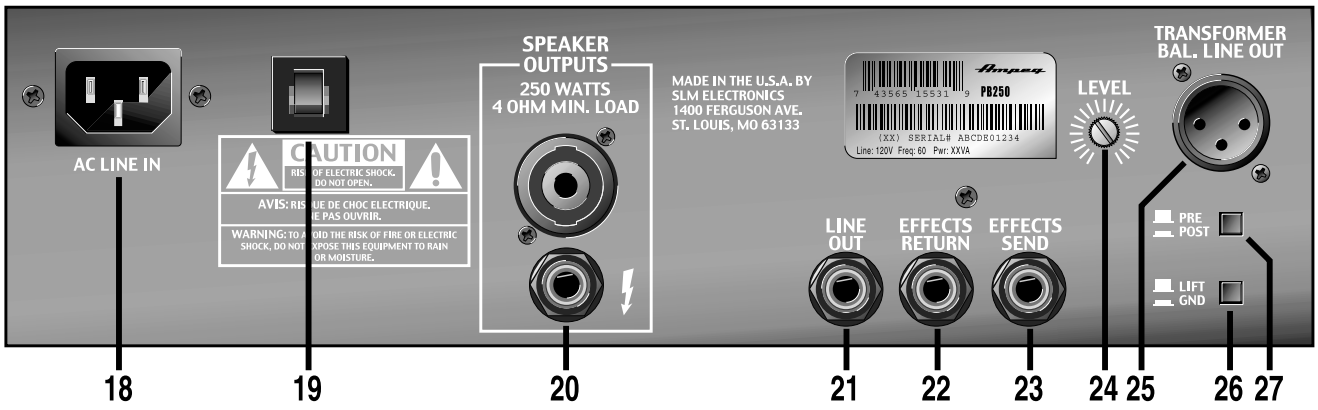
14. LIMIT: This LED illuminates when the internal limit circuit is activated. This indicates that the amplifier is nearing full output and the limiter is keeping the amplifier from clipping the output signal.

15. MASTER: Use this control to adjust the output level of the amplifier. If the Limit LED illuminates, reduce this control until the Limit LED only flashes on strong signals.

16. POWER ON INDICATOR: This light illuminates when the amplifier is turned on.

17. POWER: Use this switch to apply power to the amplifier. The amp is on when the top of the switch is depressed and off when the bottom of the switch is depressed.

The Rear Panel:



18. AC LINE IN: Firmly insert the female end of the supplied AC power cord into this socket. The grounded power cord should only be plugged into a grounded power outlet that meets all applicable electrical codes and is compatible with the voltage, power, and frequency requirements stated on the rear panel. **Do not attempt to defeat the safety ground connection.**

19. CIRCUIT BREAKER: The circuit breaker protects the unit from damage caused by excessive current demands. If the amplifier stops working, check the circuit breaker. If it has opened, the button will protrude showing a contrasting color. Reset the circuit breaker by depressing it until it latches. The breaker must cool down for a short time before the button will latch. If the circuit breaker opens repeatedly, have the amplifier inspected by a qualified service person.

20. SPEAKER OUTPUTS: Connect the amplifier to your speaker cabinet(s) using heavy gauge speaker cables terminated with the appropriate connectors. The Speakon® jack is recommended when playing at full output levels.

NOTE: These are balanced output jacks. Neither conductor should be allowed to come in contact with a ground point.

ATTENTION: When connecting speaker cabinets to the amplifier, the minimum total impedance load must not be lower than four ohms. The following chart shows the total impedance load when connecting multiple speaker cabinets in parallel:

Cabinet Impedance	# of Cabs	Total Impedance
8Ω	2	4Ω
16Ω	2	8Ω
16Ω	4	4Ω

21. LINE OUT: Use this 1/4" jack to send a post-EQ line level signal to an external amplifier, mixing console or recording equipment.

22. EFFECTS RETURN: When using an external effect, connect the effect's output into this jack by means of a shielded signal cable.

23. EFFECTS SEND: When using an external effect, connect this jack to the effect's input by means of a shielded signal cable.

24. LEVEL: Use this control to adjust the level of the signal at the Transformer balanced Line Out jack (#25).

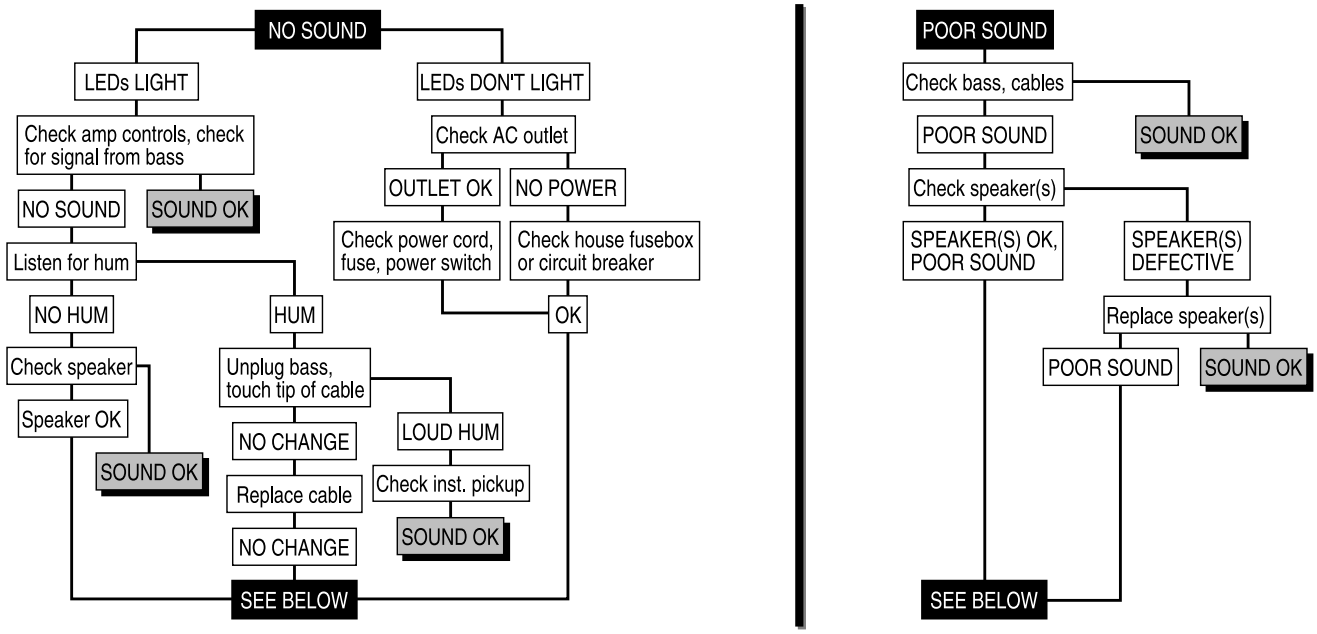
25. TRANSFORMER BAL. LINE OUT: Use this XLR jack to send a line level signal to an external amplifier, mixing console or recording equipment. The signal at this jack may be pre or post-EQ, depending on the setting of the Pre/Post switch (#27).

26. LIFT/GND: When this switch is in the out position the ground pin of the Transformer Balanced Line Out jack (#25) is interrupted. This may reduce residual hum and buzz which is sometimes picked up by line out signal cables. This switch does not affect signal at the 1/4" Line Out jack (#21).

27. PRE/POST: This switch determines whether the signal at the Transformer Balanced Line Out jack (#25) is pre-EQ (switch out) or post-EQ (switch depressed).

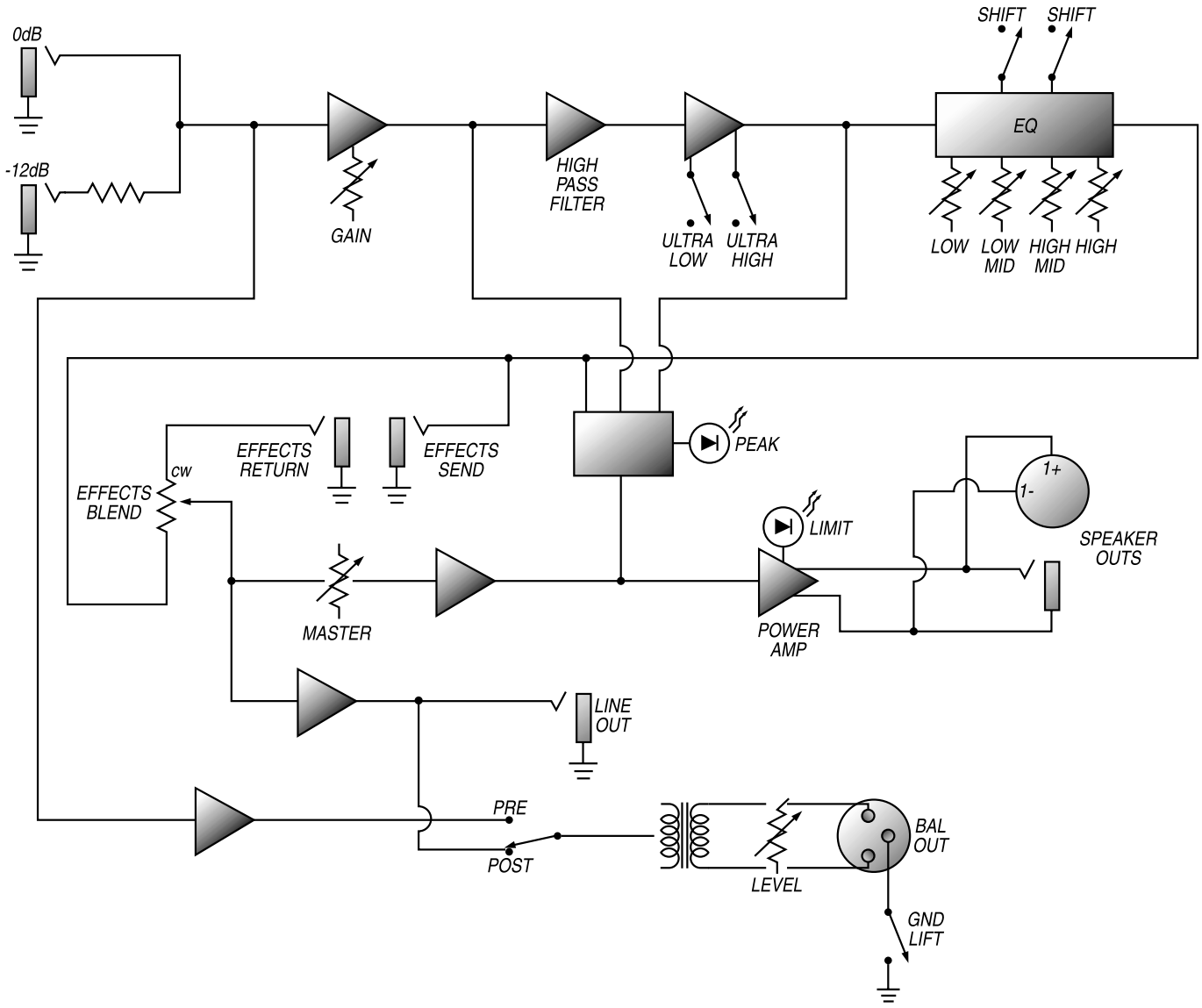
Troubleshooting

In the unlikely event that your PB250 should malfunction, take a few minutes to troubleshoot it before you call for service. Sometimes you can save yourself time and money by doing it yourself, and often the cure for the problem is simple.



If the problem isn't covered above, or if the steps lead you here, then contact your Ampeg dealer for service information. Also, you should refer your amp to an authorized service center for servicing if it gets dropped, has liquid spilled into it, or sustains damage to its power cord (see page 3).

System Block Diagram



PB250 PortaBass Amp Head

Technical Specifications

OUTPUT POWER RATING	250 Watts RMS, 4 ohm load, 120VAC
	150 Watts RMS, 8 ohm load, 120VAC
TONE CONTROLS	
Ultra Low:	+6dB @ 40Hz
Low:	±14dB @ 100Hz
Low Mid:	±15dB @ 270Hz
Low Mid Shift:	±15dB @ 400Hz
High Mid:	±14dB @ 900Hz
High Mid Shift:	±15dB @ 1.9kHz
High:	±13dB @ 6kHz
Ultra High:	+8dB @ 10kHz
GAIN	69dB
SIGNAL TO NOISE RATIO	75dB typical
POWER REQUIREMENTS	
Domestic:	120VAC, 60Hz, 50VA typical (310VA @ full power)
Export:	100/120VAC, 50/60Hz, 50VA typical (310VA @ full power)
	230-240VAC, 50/60Hz, 50VA typical (310VA @ full power)
SIZE AND WEIGHT	12.5” W x 3.75” H x 10.5” D; 14 lbs.

Ampeg reserves the right to change specifications without notice.

www.ampeg.com

recyclable

P/N 47-053-01 • 112102