

User's Guide for the



Porta Bass 228

Bass Amplifier



Proudly Made in the U.S.A. by Ampeg



PBC228 PortaBass Amplifier

Thank you for choosing the Ampeg PBC228 PortaBass Amplifier. The PBC228 features Ampeg's radical new Micro Dynamic Technology power amp circuitry and two 8" neodymium speakers. This gives you the ultimate combination of power, tone, and portability in a small, light-weight 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	
Features3
The Front Panel Controls and Their Use4
The Rear Panel5
Troubleshooting6
System Block Diagram7
Technical Specificationsback cover

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<small>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.</small>		

	PRECAUCION RIESGO DE CORRIENTAZO NO ABRA	
<small>PRECAUCION: PARA REDUCIR EL RIESGO DE INCENDIOS O DESCARGAS ELECTRICAS, NO PERMITA QUE ESTE APARATO QUEDE EXPUESTO A LA LLUVIA O LA HUMEDAD. PARA DISMINUIR EL RIESGO DE CORRIENTAZO, NO ABRA LA CUBIERTA. NO HAY PIEZAS ADENTRO QUE EL USUARIO PUEDA REPARAR DEJE TODO MANTENIMIENTO A LOS TECNICOS CALIFICADOS.</small>		

	ATTENTION RISQUE D'ELECTROCUTION NE PAS OUVRIR	
<small>ATTENTION: PROTEGEZ CET APPAREIL DE LA PLUIE ET DE L'HUMIDITE AFIN D'EVITER TOUT RISQUE D'INCENDIE OU D'ELECTROCUTION. POUR REDUIRE D'ELECTROCUTION NE PAS ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPARABLE PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN TECHNICIEN QUALIFIE.</small>		

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.
- WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, DO NOT EXPOSE THIS UNIT TO RAIN OR 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.
- WARNING: THIS UNIT REQUIRES A SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRIC CODES HAVING THE LINE SUPPLY VOLTAGE, POWER, AND FREQUENCY IDENTIFIED ON THE REAR OF THE UNIT. THE OUTLET MUST REMAIN ACCESSIBLE TO DISCONNECT THE UNIT IF A FAULT SHOULD ARISE WHILE IN USE. THIS UNIT SHOULD BE UNPLUGGED WHEN NOT IN USE.



EXPLANATION OF GRAPHICAL SYMBOLS:
EXPLICACION DE SIMBOLOS GRAFICOS:
EXPLICATION DES SYMBOLES 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 PBC228 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 / SWITCH-MODE SUPPLY:** Micro Dynamic Technology amplifier circuitry and a switch-mode regulated power supply provide maximum power in a small lightweight package – the efficiency of these designs eliminates the need for heavy heat sinks, transformers and filter capacitors
- **THREE BAND ROTARY EQ:** Three bands of equalization and a selectable middle frequency provide optimum tone control
- **TWO SEPARATE CHANNELS:** Change instruments without swapping instrument cables or readjusting amp controls
- **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
- **ULTRA-PORTABLE COMBO POWER:** Two 8" neodymium speakers combined with the lightest, strongest materials available add up to the biggest-sounding little combo imaginable
- **PROUDLY MADE IN THE U.S.A.**

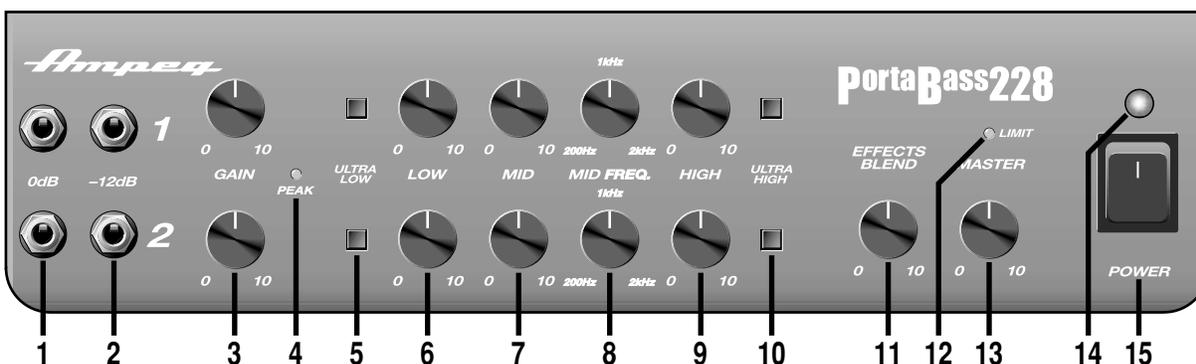
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications to this device not expressly approved by SLM Electronics could void the user's authority to operate the equipment under FCC rules.



The Front Panel Controls and Their Use:



Items 1 through 10 are typical for channels 1 and 2.

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 (#4) 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, or if the Peak LED (#4) does not illuminate at high signal levels, connect your bass to the 0dB jack (#1).

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

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

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

6. LOW: Use this control to adjust the low frequency level of the amplifier. This control allows an adjustment of +/-16dB at 100Hz.

7. MID: Use this control to adjust the midrange frequency level of the amplifier. This control allows an adjustment of +/-17dB at the frequency selected by the Mid Freq control (#8).

8. MID FREQ: Use this control to select the frequency for the Mid control (#7). The Mid Freq is sweepable from 180Hz (fully counterclockwise) to 1.8kHz (fully clockwise).

9. HIGH: Use this control to adjust the high frequency level of the amplifier. This control allows an adjustment of +/-15dB at 5kHz.

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

11. EFFECTS BLEND: Use this control to adjust the level of external effects that are connected to the Effects Send and Return jacks (#21 and #20, 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 and the level of "dry" signal decreases.

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

12. 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.

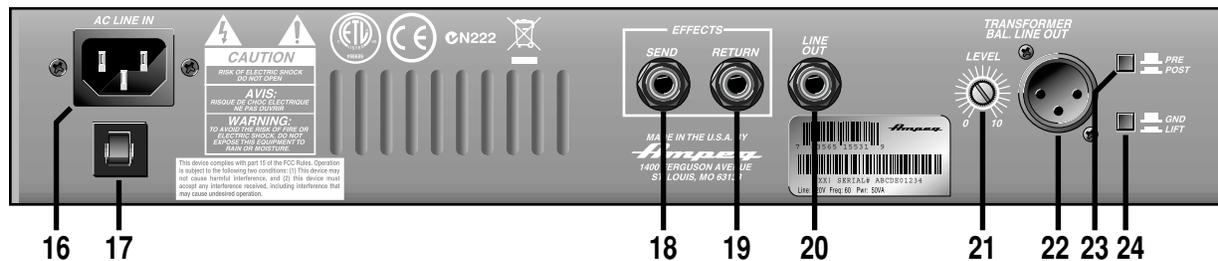
13. MASTER: Use this control to adjust the output level of the amplifier. If the Limit LED illuminates, reduce this control until the Limit LED only flashes on strong signals.

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

15. 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:



16. 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.**

17. 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.

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

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

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

21. LEVEL: Use this control to adjust the level of the signal at the Transformer Bal. Line Out jack (#22).

22. 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 (#23).

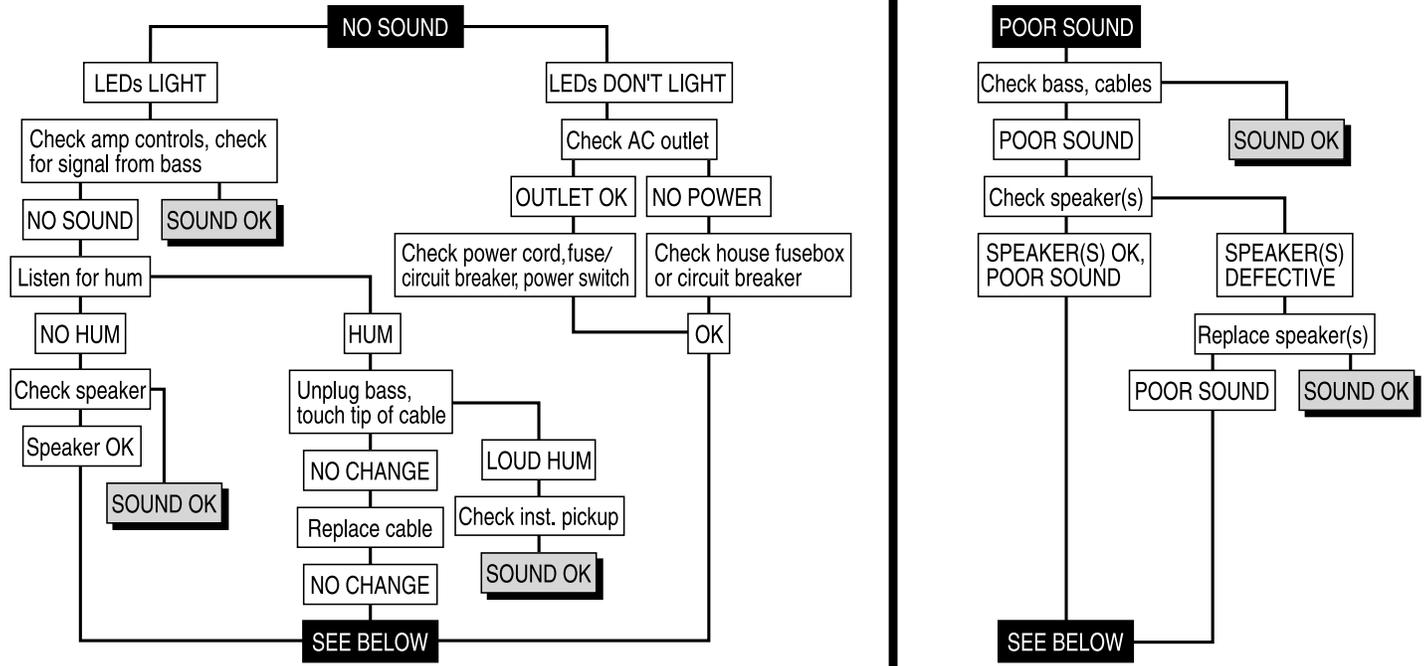
23. PRE/POST: This switch determines whether the signal at the Transformer Bal. Line Out jack (#22) is pre-EQ (switch out) or post-EQ (switch depressed).

24. LIFT/GND: This switch, when depressed, isolates the chassis from the ground pin of the Transformer Bal. Line Out jack (#22). This may reduce residual hum and buzz which is sometimes picked up by line out signal cables.



Troubleshooting

In the unlikely event that your PBC228 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.

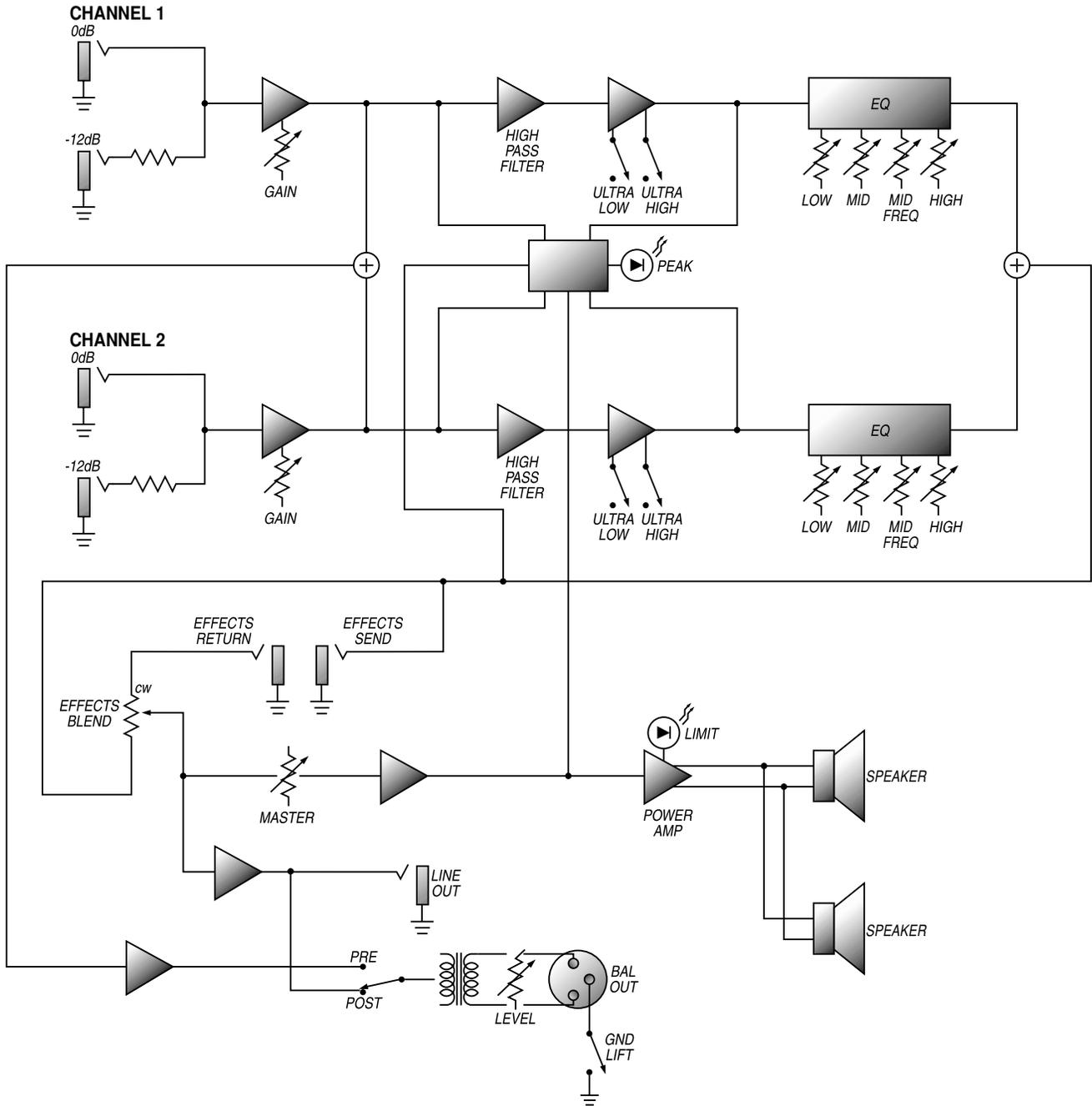


If the problem isn't covered above, or if the steps lead you here, then contact your Ampeg dealer for service information. Also, you should refer your amp to an authorized service center for servicing if it gets dropped, has liquid spilled into it, or sustains damage to its power cord (see page 3).



PBC228 PortaBass Amplifier

System Block Diagram





PBC228 PortaBass Amplifier

Technical Specifications

OUTPUT POWER RATING 200 Watts RMS, internal speaker load

TONE CONTROLS

Ultra Low: +6dB @ 40Hz
Low: ±16dB @ 100Hz
Mid: ±17dB @ Selected Frequency
Mid Freq: 180Hz - 1.8kHz
High: ±15dB @ 5kHz
Ultra High: +8dB @ 10kHz

GAIN 65dB

SIGNAL TO NOISE RATIO 80dB typical

INTERNAL SPEAKERS (2) 8"Neodymium, 8 ohm, 150 W, 2" vcd

LINE POWER REQUIREMENTS 50VA

SIZE AND WEIGHT 16.25" W x 16.25" H x 11" D; 31 lbs.

Ampeg reserves the right to change specifications without notice.

Declaration of Conformity

Manufacturer's Name: SLM Electronics
Corporate Headquarters: 1901 Congressional Drive, St. Louis, Missouri 63146
Primary Production Facility: 700 Hwy 202 W, Yellville, Arkansas, 72687

Product Type: Audio Amplifier

Products meet the regulations for compliance marking under:

ETL standards UL6500, UL60065, or UL813
CSA standards E60065 or C22.2 No.1-M90
CE safety standard EN60065
CE EMC standards EN55103 or EN55013 and EN61000
C-tick designation Level 2, ABN #56748810738, ARBN# N222
KETI standard K60065 (limited model approval)

Compliance Support Contact: SLM Electronics, Attn: R&D Compliance Engineer
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