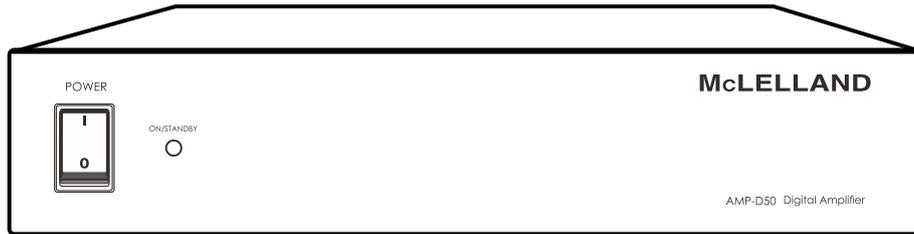


McLELLAND

AMP-D50

Digital Amplifier



User's Manual

SAFETY INSTRUCTIONS



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning lash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety Instructions

1. Read these instructions – All the safety and operating instructions should be read before this product is operated.
2. Keep these instructions – The safety and operating instructions should be retained for future reference.
3. Heed all warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow all instructions – All operating and use instructions should be followed.
5. Do not use this apparatus near water – The appliance should not be used near water or moisture – for example, in a wet basement or near a swimming pool, and the like.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an

10. Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug the apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Use only power supplies listed in the user manual / user instruction.

16. Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions at open site. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, table-cloths, curtains etc.

17. WARNING : To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.



18. Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Note: 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 of or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that to which the receiver is connected, or consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Introduction

The AMP-D50 is a 2-channel digital amplifier designed to be used to boost audio amplification where needed, either as a standalone amplifier, or as an addition to a whole-house distributed audio system in order to provide extra amplifier power in larger rooms or spaces. Its space-saving 1/2-rack design allows for quick installation and gives flexibility of mixing and matching with other 1/2-rack products to save valuable equipment rack space.

The powerful 50-Watt class D amplifier in the AMP-D50 is combined with features such as 12v trigger control, audio sensing, volume gain adjustment, and a buffered line output that enables even more amplification of the same audio signal when needed.

Product Features

Class D amplifier-The cool running, low-profile, high efficiency design makes the AMP-D50 the perfect choice for even the most space-conscious system designs

50w per channel – A powerful 50watts per channel are available to provide ample power to even the largest of spaces

Loop Output --A buffered loop output is available for the audio signal, allowing additional amplifiers to be easily driven from the same signal.

Trigger in/out – The AMP-D50 can be activated by a 12vdc trigger signal, and can activate additional devices at the same time

Multiple Turn-on modes:

- Always On - The AMP-D50 is always active and ready for use
- Signal-sensing – The AMP-D50 is in a standby mode when no audio signal is present and will turn on when
- 12V Trigger-Using the 12V trigger allows precise turn on/off when the amplifier is needed, keeping the unit in a power saving standby mode when not in use.

Multiple Output modes:

- 8Ω - optimized mode for 8-ohm stereo output
- 4Ω - optimized mode for 4-ohm stereo output

Bridge-allows the use of the AMP-D50 as a powerful, 8-ohm mono amplifier

Removable speaker connectors – allow for quick, secure installation and accommodate cables of up to 12 ga AWG

Cord Lock – Flip-down cord lock keeps the IEC power cord in its place, preventing accidental disconnection when moving gear in a stack or when pivoting a rack for service

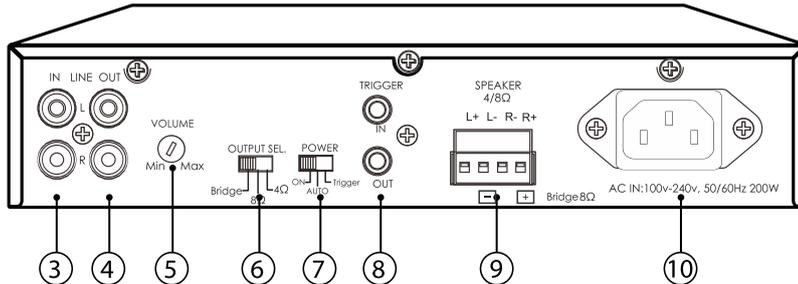
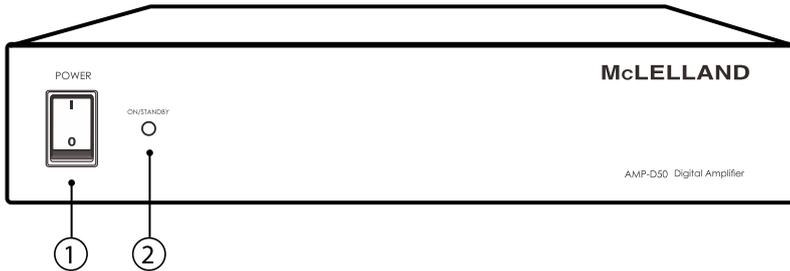
Thermal Protection

All McLELLAND amplifiers are designed with special circuitry to safeguard the amplifier under a thermal overload condition. Thermal protection mode can only engage when the unit has been run at high volume for extended periods of time without adequate ventilation and/or when speaker impedances are below the minimum levels for the amplifier, if this fault occurs, turn off the amplifier, and check that the speaker impedance rating is above the minimum rating. Also check for adequate ventilation around the amplifier and make adjustments if necessary. Once the unit has cooled to safe operating temperatures, the amplifier may be powered back on.

Protection Circuitry

All McLELLAND amplifiers are designed with special circuitry to safeguard the amplifier under a short-circuit condition. A fault speaker can also cause a short circuit condition. The front panel LED illuminates orange when the amplifier is in short circuit protection. If this fault condition occurs, turn off the amplifier and check speakers for short circuit conditions when appropriate.

FRONT PANEL CONNECTORS



① **Power Button:** Power - the front panel switch will manually switch the power on or off.

② **Power/Standby LED:** On start-up, the first LED lights red to show power on. When the amplifier goes into standby, the LED will light amber. The LED will light green during normal operation.

③ **Line In:** Analog stereo audio input for a single input source. When in Bridge Mode, use the "L" audio input for the input signal.

④ **Line Out:** A buffered line out is available to extend the audio signal to additional amplifiers as needed.

⑤ **Volume:** Use this gain switch to attenuate the volume level to meet the room's needs.

⑥ **Output:** The output switch has three positions, Bridge (mono), 8Ω (stereo), 4Ω (stereo). The default setting is 8Ω.

⑦ **Turn-On:** There are three turn on-modes: always-on (On), audio sensing (Auto) and activated by the 12v Trigger (Trigger).

⑧ **12VDC Trigger:** Turns on the AMP-D50 when set to Trigger mode and a 12VDC signal is received. The Trigger Out provides 100mA 12VDC max to drive other 12V triggered devices. When using Trigger mode, the front panel power switch must be ON.

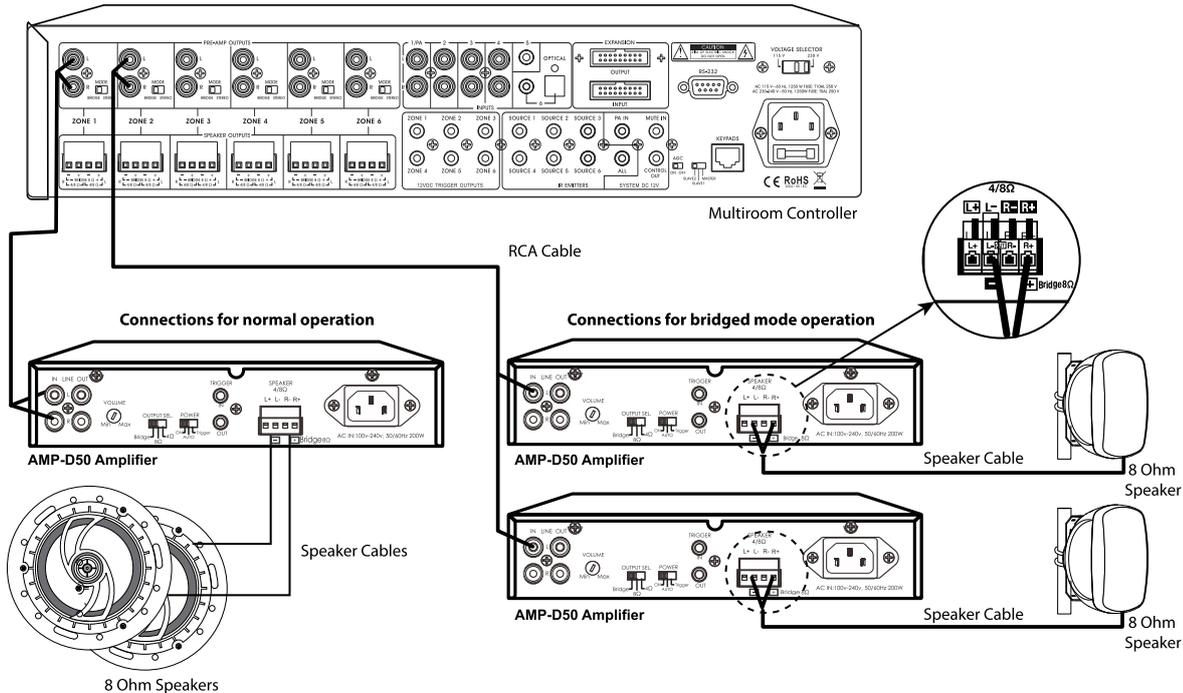
⑨ **Speaker Out:** Connect your loudspeaker(s) here. Up to 12ga AWG wire may be used.

⑩ **AC Input:** Use a 3-prong grounded IEC cord. The locking connector may be engaged to prevent cords from accidental dislodging in an equipment rack.

The AMP-D50 can be used in a side-by-side configuration using the optional rack mounting kit. This feature makes it easy to add amplification to two controllers or two zones.

The example shown shows three AMP-D50 units being used to add amplification to a controller. One unit is connected in normal 8 ohm stereo mode for an additional room and two AMP-D50 units are shown connected in Bridge mode to add a very powerful outdoor stereo zone.

For the Bridge Mode connect the negative lead (-) of the speaker cable to the R+ terminal. Connect the positive lead (+) of the speaker cable to the L+ terminal. Set the output switch to Bridge, connect the Line In feed from a source to the left line in connection only and restore power to the amplifier.



TECHNICAL SPECIFICATIONS

Continuous Output Power: 50W @ 8 Ohms < 0.1% THD+N
65W @ 4 Ohms < 0.1% THD +N
120W Bridged @ 8 Ohms < 0.1% THD+N

Input Trigger: 12VDC 10kohms

Output Trigger: 12VDC 100mA max

Power Requirements: *North American and European Models:*
(Autoswitching Power Supply) 100VAC to 240VAC 50/60Hz 2.5A
IEC 320 type connector with 3 terminal
detachable power cord

Standby Power: ≤ 0.5 Watts

Dimensions: 8.5" W x 10.5" D x 1.75" H
(21.59 x 26.67 x 4.45 cm)