

Clayton Audio

M-200 Monaural power amplifier

Owner's Manual

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M-200 Fully Balanced Monaural power amplifier

Introduction

Congratulations on your purchase of the Clayton Audio M-200 monoblock amplifiers! Your M-200 was made to sound as good and to outperform many of the very best amplifiers on the market. This is a high-current design that can drive the most demanding speaker loads. This power amplifier was designed to produce reference-quality sound with all the excitement and elegance of live music. The M-200s are handmade in the USA after years of careful design and testing. Properly used and installed, these amplifiers will provide you with many years of trouble-free, high-quality amplification. We hope that you will take the time to read and look through this owner's manual before operating the M-200.

Installation

Please unpack the amplifier carefully in accordance with the enclosed instructions. Please thoroughly read the Unpacking Instructions prior to actually unpacking. Each amplifier weighs 49 pounds so we urge reasonable caution in handling to avoid injury. **Please save all packing materials for future use.** Should you need to ship your amplifier to us, only the original shipping cartons will be acceptable. Other packing methods might result in serious damage to your precision amplifier.

Inspect your amplifier carefully to make sure that it has suffered no damage in shipping. Consult your dealer if you have any questions.

Do not stack any equipment on top of the amplifiers. Always remember to power-off and disconnect the amplifiers when moving or handling them.

The four offsets at the rear were designed to ensure enough space for cabling when locating the amplifier. The amplifier was not designed to be mounted horizontally. The amp should sit vertically on the four-bottom feet.

Operation

The Clayton Audio M-200s are high-performance class A amplifiers, conservatively rated at 200 watts per channel into 8 ohms. They are a no-compromise, wide-bandwidth design that should drive virtually any high-end speaker load with relative ease. **Because the Clayton Audio M-200 is a class A design, it will run hot in normal operation.** Make sure to place it in a well-ventilated location on a stable support. Be careful about touching the top of the heat sink when in operation. Depending on the AC line voltage the amplifier will run at a temperature up to 55 degrees Fahrenheit above the room temperature.

The M-200 is a true, fully balanced design. On the rear apron, there is XLR input only. Connect to your preamp with XLR output.

Each Clayton Audio M-200 has three fuses, one for AC power line, two for DC power, easily accessible from the rear panel. All fuses are 5 amp, Fast Blow (FB) types, which must be replaced with fuses of the same value. To examine and replace a fuse, make sure the amplifier is powered down, then simply push in the rear knob (nut) of the fuse and turn it counter-clockwise to release.

This is the only repair that the user should attempt to make. If you are experiencing any problems with the amplifier that cannot be solved by replacing the fuses, DO NOT OPEN THE AMPLIFIER. You should contact your Clayton Audio dealer immediately. *Any attempt to open and/or tamper with the amplifier will void the warranty immediately.*

The Clayton Audio M-200 has one pair of high-quality German WBT binding posts that accept either spade lugs or banana plugs for connection to the speaker wires. Between the binding posts is 3 mm. Make sure to connect the positive (+ usually red) speaker connector to the + connection and the negative (- usually black) speaker connector to the - connection on both the right amplifier and the right speaker. Do the same for the left amplifier and speaker.

Design Concept

The Clayton Audio M-200 is a high current amplifier using class A design in both the driver and output stage. All gain transistors are operated in their linear region for the smoothest, purest sound reproduction.

We believe that most amplifier power ratings into 8 ohms are a poor gauge of the subjective loudness that can be achieved with amplifiers. Most speakers --- even fairly inefficient ones --- will only draw a few amps even when playing quite loudly. What counts are the sonic quality of the power produced, the ruggedness of the amplifier design, and an amplifier's ability to drive difficult speaker loads. Not only can our 200-watt amplifier drive most audiophile speakers to realistic listening levels, but we believe you will find our amplifier to sound more powerful, elegant, and controlled than many 500 and 1000 watt class AB designs.

The power supply in each channel contains a 1KVA toroidal transformers with up to 160,000 microfarads of capacitance. The M-200 makes use of separate power sources for the driver and output stages. The driver stage incorporates a high-precision regulation circuit for stability. The output stage is an extremely high current design using a π filter to enhance stability and minimize noise. *No capacitors are used in the signal path.*

The power supplies are symmetrically balanced in positive and negative voltage to eliminate any possible instability caused by powering the amplifier on and off. A precision power-on sequence control circuit is also used to prevent any damage that might be caused by the initial power surge.

Warranty

Clayton Audio warrants your M-200 amplifier against any defects in design or manufacture for three years from the date of purchase. Defective units will be repaired within the warranty period without charge for labor or parts assuming that the units have not been altered or damaged through abuse, negligence, deliberate modification, accident or improper operation. All repairs must be directly undertaken by Clayton Audio. We ask that you ship the defective amplifier to us, after proper authorization. You are responsible for the one-way shipping and insurance expenses and we will cover return shipping costs. Equipment must be returned in the original box with the original packing material along with a copy of the sales receipt from an authorized dealer. This warranty is transferable from the original owner to future purchasers with proof of resale and any subsequent owner will receive the remainder of the three-year warranty from the date of the original purchase.

You are responsible for mailing the enclosed warranty registration card. This officially registers your unit and permits us to inform you of any upgrades or improvements that we may offer. You may also receive new production information from us. Your name and address will never be sold for use in general mailing lists and is only for our own internal records.

Specifications

Rated power output:

200 Watts continuous rms into 8 ohms in Class A

400 Watts continuous rms into 4 ohms in Class A

Voltage gain: 29 db

Input Impedance:

Balanced input: 100K Ohms

Dimensions:

9.25" W by 20.0" D by 9.0" H

Weight: 49 lbs. each.

Heat sink capacity: 0.13 degrees C/Watt

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