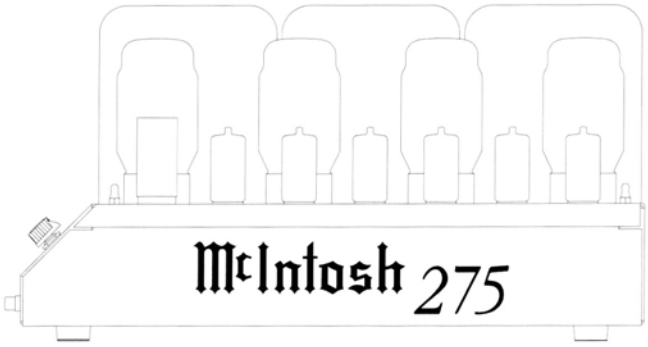
McIntosh®

OWNER'S MANUAL

MC275

OWNER'S MANUAL

Stereo Power Amplifier



MC275

McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903-2699 Phone: 607-723-3512 FAX: 607-724-0549

Thank You, Please Take A Moment, Customer Service and Table of Contents

Thank You

For your decision to own this McIntosh MC275 Stereo Power Amplifier ranks you at the very top among discriminating music listeners. You now have "The Best." The McIntosh dedication to "Quality," is assurance that you will receive many years of musical enjoyment from this unit.

Please take a short time to read the information in this manual. We want you to be as familiar as possible with all the features and functions of your new McIntosh MC275. This will ensure that you receive all the performance benefits this equipment can offer you, and that it will become a highly valued part of your home entertainment system.

Please Take A Moment

The serial number, purchase date and McIntosh dealer name are important to you for possible insurance claim or future service. The serial number is located on the rear panel of the equipment. The spaces below have been provided for you to record that information:

Serial Number:

Purchase Date:

Dealer Name:

Customer Service

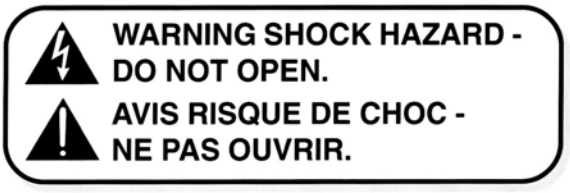
If at any time you have questions about your MC275 Stereo Power Amplifier, please contact:

McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-3512
FAX: 607-724-0549

Table of Contents

IMPORTANT SAFETY INSTRUCTIONS!

PLEASE READ THEM BEFORE OPERATING THIS EQUIPMENT.



General:

1. Read all the safety and operating instructions, contained in this owner's manual, before operating this equipment.
2. Retain this owner's manual for future reference about safety and operating instructions.
3. Adhere to all warnings and operating instructions.
4. Follow all operating and use instructions.
5. **Warning: To reduce risk of fire or electrical shock, do not expose this equipment to rain or moisture. This unit is 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 when playing at high volumes.**
6. **Caution: to prevent electrical shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To avoid burns, do not physically touch the hot tubes.**
   Attention: pour pevenir les chocs elecriques pas utiliser cette fiche polarisee avec un prolongateur, une prise de courant ou un autre sortie de courant, sauf si les lames peuvent etre inserees afond ans en laisser aucune partie a decouvert.
7. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning or power line surges.
8. Do not use attachments not recommended in this owner's manual as they may cause hazards.

Installation:

9. Locate the equipment for proper ventilation. For example, the equipment should not be placed on a bed, sofa, rug, or similar surface that may block ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet, that may impede the flow of air through the ventilation openings.
10. Locate the equipment away from heat sources such as radiators, heat registers, stoves, or other appliance (including amplifiers) that produce heat.
11. Mount the equipment in a wall or cabinet only as described in this owner's manual
12. Do not use this equipment near water; for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
13. Do not place this product on an unstable cart, stand, tripod, bracket, or table. The equipment may fall, causing serious injury to a person, and serious damage to the product.

Connection:

14. Connect this equipment only to the type of AC power source as marked on the unit.
15. Route AC power cords so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the instrument.
16. Do not defeat the inherent design features of the polarized plug. Non-polarized line cord adapters will defeat the safety provided by the polarized AC plug. If the plug should fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
17. Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.

Care of Equipment:

18. Clean the instrument by dusting with a dry cloth. Unplug this equipment from the wall outlet and clean the panel with a cloth moistened with a window cleaner. Do not use liquid cleaners or aerosol cleaners.

19. Do not permit objects of any kind to be pushed and/or fall into the equipment through enclosure openings. Never spill liquids into the equipment through enclosure openings.
20. Unplug the power cord from the AC power outlet when left unused for a long period of time.

Repair of Equipment:

21. Unplug this equipment from the wall outlet and refer servicing to a qualified service personnel under the following conditions:
    A. The AC power cord or the plug has been damaged,
    B. Objects have fallen, or liquid has been spilled into the equipment,
    C. The equipment has been exposed to rain or water,
    D. The equipment does not operate normally by following the operating instructions contained within this owner's manual. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
    E. The equipment has been dropped or damaged in any way,
    F. The equipment exhibits a distinct change in performance - this indicates a need for service.
22. Do not attempt to service beyond that described in the operating instructions. All other service should be referred to qualified service personnel.
23. When replacement parts are required, be sure the service technician has used replacement parts specified by McIntosh or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
24. Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Introduction

The patented McIntosh Unity Coupled circuit and output transformer have established McIntosh amplifiers as the unchallenged leaders in the audio field. Before 1949, low distortion at high power and high efficiency was impossible. In 1961, the ultimate Vacuum Tube Amplifier, the McIntosh MC275 was introduced. This amplifier utilized the ultimate refinement of the McIntosh Unity Coupled circuit design and was without question the finest stereo tube amplifier ever manufactured. This new version of the MC275 adheres closely to the original model. A few changes were made to the original amplifier design to reflect technology advances and contemporary system requirements.

Performance Features

- **75 Watts per Channel**

The MC275 Stereo Power Amplifier produces 75 Watts Per Channel using KT88/6550 Output Tubes in a McIntosh Unity Coupled circuit.

- **Bifilar Wound Transformers**

The McIntosh bifilar wound output transformer provides 4, 8 and 16 ohm output connections to match a wide range of loudspeaker impedances.

- **Balanced Inputs and Level Controls**

Both Balanced and Unbalanced Inputs and an Input Selector Switch are included. Left and Right (mono) Level Controls are provided for the Unbalanced Inputs.

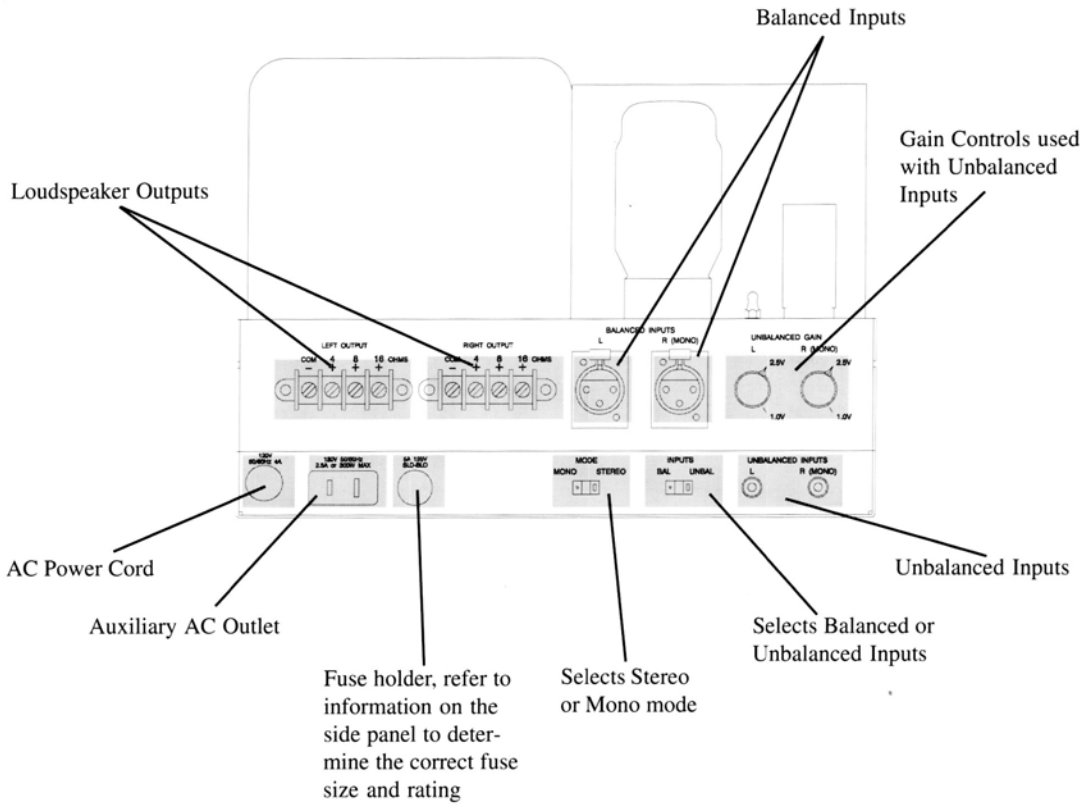
- **Dual Operating Modes**

A Mode Switch selects either Stereo or Mono Parallel operation.

Installation

The MC275 can be placed upright on a table or shelf, standing on it's four plastic feet. Adequate ventilation extends the trouble free life of any electronic instrument. The suggested minimum space for mounting the MC275 in an upright position is 20 inches (50.8cm) wide, 14 inches (35.5cm) deep, by 10 inches (25.4cm) high. Always allow for air flow either by ventilation holes or space next to the bottom of the amplifier and a means for the warm air to escape at the top. The MC275 can be mounted in any position except upside down. If the amplifier is to be installed on a vertical surface it is recommended that the transformers be on the down side. This mounting position allows the heat from the tubes to rise vertically and not radiate into the transformers. In a system stack, the power amplifier should always be at the top so its heat does not radiate into other components. If all the components are installed in a single cabinet, one or more quiet running ventilation fans can be a definite help in maintaining all the system components at their coolest possible operating temperatures.

MC275 Side Panel Connections

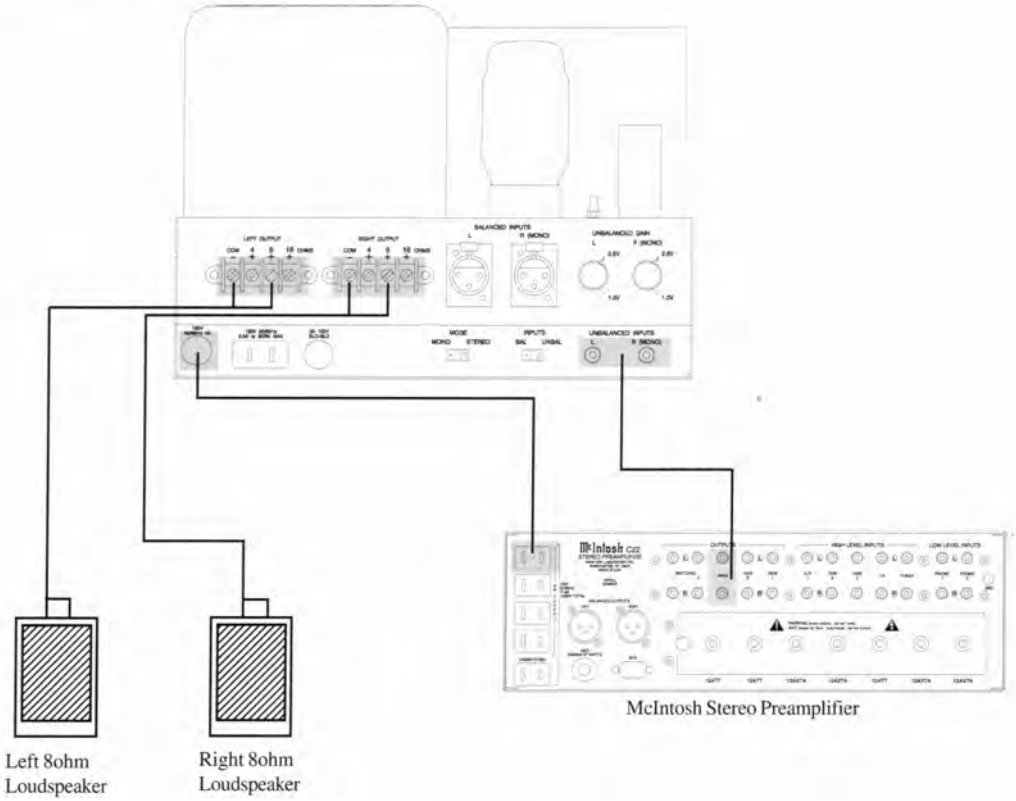


How to Connect the MC275 for Stereo Operation

1. Connect Balanced XLR cables from the Balanced Outputs of a Preamplifier to the BALANCED INPUTS or connect Unbalanced cables from the Unbalanced Outputs of a Preamplifier to the UNBALANCED INPUTS.
2. Connect a cable from the Common or Negative terminal of each loudspeaker to the appropriate LEFT or RIGHT COM (-) terminal.
3. Connect a cable from the Positive terminal of each loudspeaker to the appropriate LEFT or RIGHT 4, 8 or 16 (+) terminal. Use the impedance terminals that are closest to the impedance of your loudspeakers. If your loudspeaker impedance is between 4, 8 or 16 ohms, use the next lowest terminal. For example, if your loudspeakers are 6 ohms impedance, connect them to the COM and 4 terminals. If you are uncertain of your loudspeaker's impedance, use the COM and 4 terminals.
4. Connect the MC275 Power Cord to a live 50/60Hz AC outlet. Refer to the information on the connecting panel of your MC275 to determine the correct voltage for your unit.

NOTES:

1. *The Auxiliary AC Outlet will become live whenever the MC275 AC power is ON. Connect source or accessory component power cords to this outlet. This outlet is not fused.*
2. *The MC275 uses a Slo-Blo type fuse, refer to the information on the MC275 to determine the correct fuse rating for your unit.*



McIntosh Stereo Preamplifier

How to Connect the MC275 for Mono Operation

NOTE: Always set the mode switch to the MONO position before connectioning and operating the MC275 in MONO. In Mono Parallel Output configuration, the 4, 8 or 16 ohm outputs will be connected in parallel which causes their original impedances to drop in half to 2, 4, and 8 ohms. Either Left or Right terminals can be used since the jumper wires have connected them in parallel.

1. Connect a Balanced XLR cable from the Balanced mono output of a Preamplifier to the R (MONO) Balanced input or connect an unbalanced cable from the Unbalanced mono output of a Preamplifier to the R (MONO) Unbalanced Input.

Mono 2 Ohm Loudspeaker(s)

A. Connect one jumper wire from the LEFT 4 terminal to the RIGHT 4 terminal and a second jumper wire from the LEFT COM terminal to the RIGHT COM terminal.

B. Connect a cable from the Common or Negative terminal of a loudspeaker to the LEFT or RIGHT OUTPUT COM (-) terminal and from the Positive loudspeaker terminal to either of the 4 OUTPUT terminals.

Mono 4 Ohm Loudspeaker(s)

A. Connect a jumper wire from the LEFT 8 terminal to the RIGHT 8 terminal and a second jumper wire from the LEFT COM terminal to the RIGHT COM terminal.

B. Connect a cable from the Common or Negative terminal of a loudspeaker to the LEFT or RIGHT OUTPUT COM (-) terminal and from the Positive loudspeaker terminal to either of the 8 OUTPUT terminals.

Mono 8 Ohm or higher loudspeaker(s)

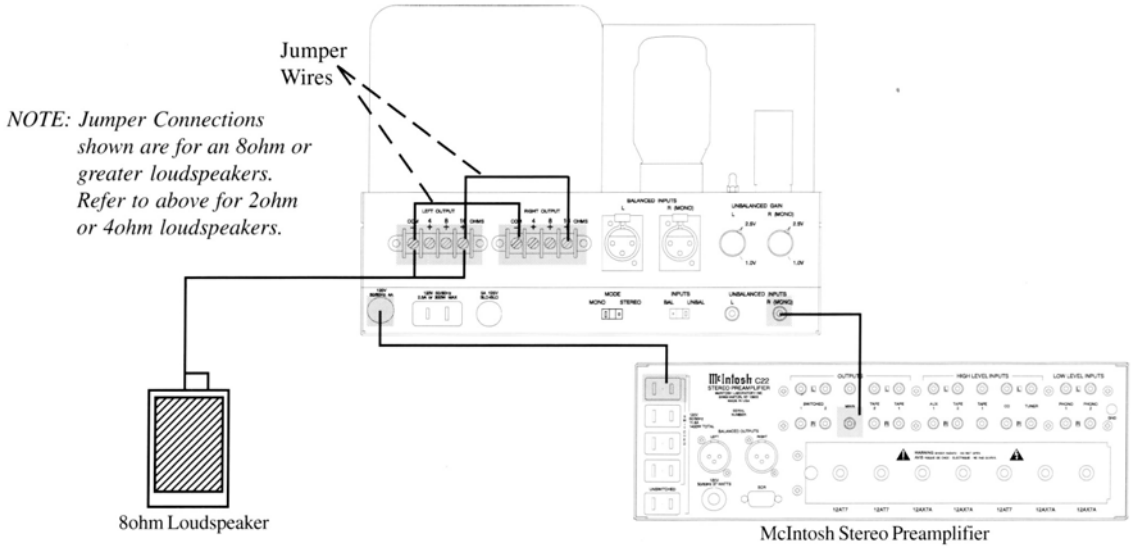
A. Connect a jumper cable from the LEFT 16 terminal to the RIGHT 16 terminal and a second jumper wire from the LEFT COM terminal to the RIGHT COM terminal.

B. Connect a cable from the Common or Negative terminal of a loudspeaker to the LEFT or RIGHT OUTPUT COM (-) terminal and from the Positive loudspeaker terminal to either of the 16 OUTPUT terminals.

2. Connect the MC275 Power Cord to a live 50/60Hz AC outlet. Refer to the information on the connecting panel of your MC275 to determine the correct voltage for your unit.

NOTES:

1. *The Auxiliary AC Outlet will become live whenever the MC275 AC power is ON. Connect source or accessory component power cords to this outlet. This outlet is not fused.*
2. *The MC275 uses a Slo-Blo type fuse, refer to the information on the MC275 to determine the correct fuse rating for your unit.*



How to Operate the MC275

Before turning the MC275 on, check all connections and plugs to see that they are firmly and correctly connected. Check to make sure that the tubes are firmly seated.

Mode Switch
With the MODE switch in the Stereo position, the input signals are to be fed to either the L and R unbalanced jacks or to the balanced XLR, L and R connectors. With the switch in the Mono position, the input signal is to be fed to either the R (MONO) unbalanced jack or to the balanced XLR, R (MONO) connector.

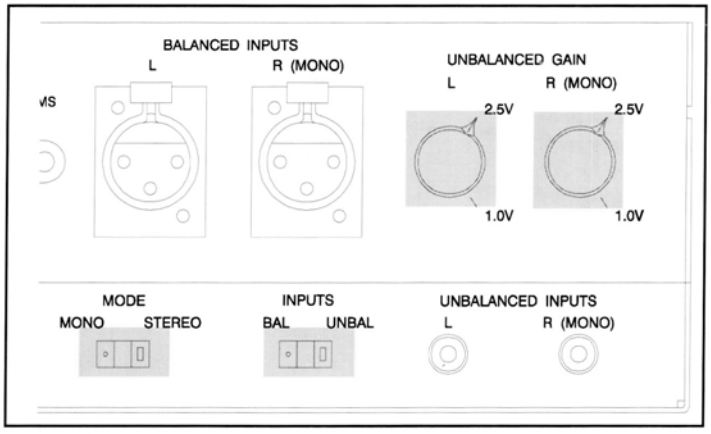
Input Switch
Place this switch in the Unbalanced position to use the Unbalanced inputs or in the Balanced position to use the Balanced inputs.

Unbalanced Gain
For stereo operation, position the L and R gain controls for desired sensitivity. When using McIntosh preamplifiers, we suggest setting the gain controls to the 2.5V position. For mono operation, use the R MONO control.

Operating in Stereo

With the Unbalanced Inputs
1. Set the MODE Switch to STEREO.
2. Set the INPUTS Switch to UNBALanced.
3. Turn the L and R UNBALANCED GAIN controls to the 2.5V position when using a McIntosh Preamplifier or Control Center. If more amplifier gain is needed, the controls may be increased to the 1V position.

With the Balanced Inputs
1. Set the MODE Switch to STEREO.
2. Set the INPUTS Switch to BALanced.
3. The amplifier sensitivity at the Balanced Inputs is fixed at 2.0 Volts.

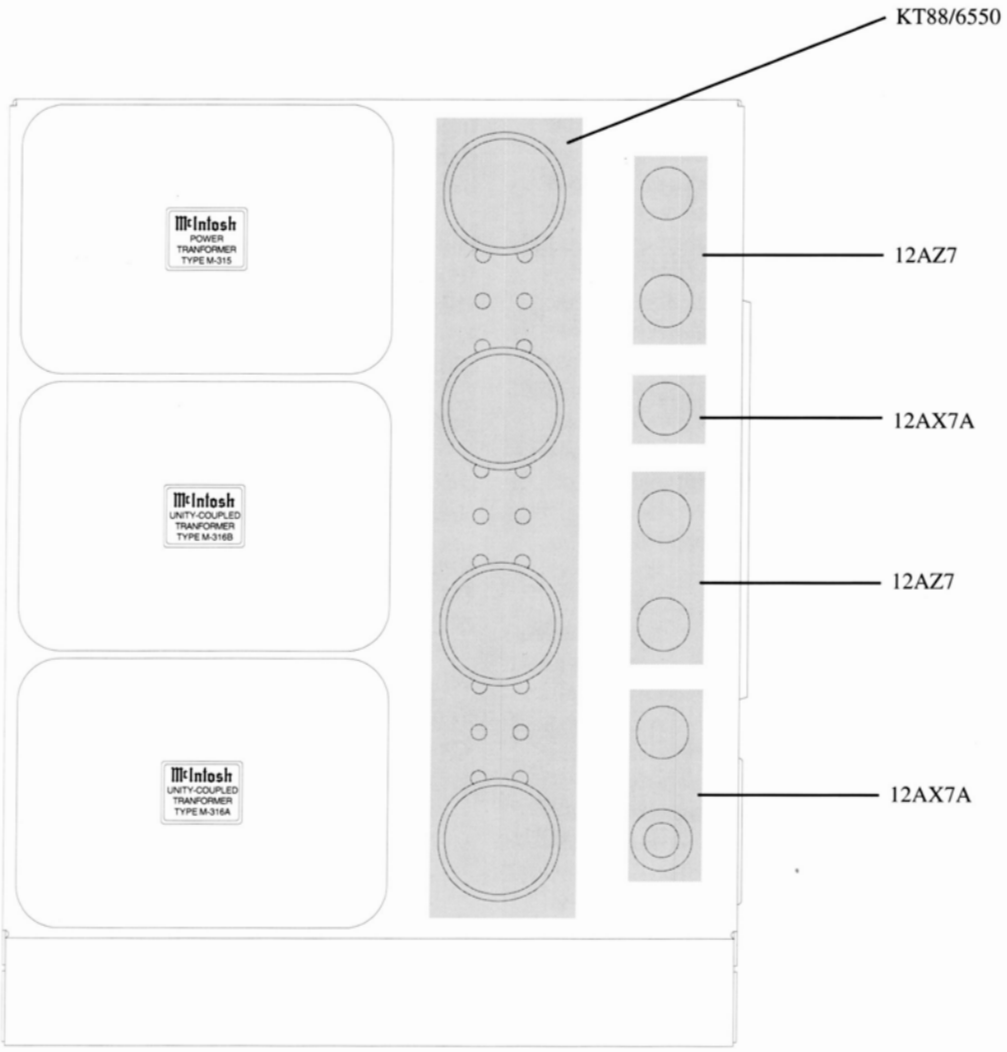


Operating in Mono

With the Unbalanced Inputs
1. Set the MODE Switch to MONO.
2. Set the INPUTS Switch to UNBALanced.
3. Turn the R (MONO) UNBALANCED GAIN Control to the 2.5V position when using a McIntosh Preamplifier or Control Center. If more amplifier gain is needed, the control can be increased to the 1V position.

With the Balanced Inputs
1. Set the MODE Switch to STEREO.
2. Set the INPUTS Switch to BALanced.
3. The amplifier sensitivity at the Balanced Inputs is fixed at 2.0 Volts.

Tube Type and Location



Specifications

Power Ooutput
Stereo
75 watts into 4, 8 or 16 ohm loads is the minimum sine wave continuous average power output per channel from 20Hz to 20,000Hz

The output RMS voltage is:
17.3 volts across 4 ohms
24.5 volts across 8 ohms
34.6 volts across 16 ohms

Mono
150 watts into 2, 4 or 8 ohm loads is the minimum sine wave continuous average power output from 20Hz to 20,000Hz

The output RMS voltage is:
17.3 volts across 2 ohms
24.5 volts across 4 ohms
34.6 volts across 8 ohms

Output Load Impedance
Stereo 4, 8 or 16 ohms
Mono 2, 4 or 8 ohms

Rated Power Band
20Hz to 20,000Hz

Total Harmonic Distortion
0.5% maximum harmonic distortion at any power level from 250 milliwatts to rated power from 20Hz to 20,000Hz

Intermodulation Distortion
0.5% maximum if instantaneous peak power output does not exceed twice the output rating for any combination of frequencies from 20Hz to 20,000Hz.

Frequency Response
20Hz to 20,000Hz +0 -0.2dB, 10Hz to 100,000Hz +0 -3dB (at 1 watt output)

Noise and Hum
l00dB below rated output (A-Weighted)

IHF Dynamic Headroom
l.l db

Damping Factor
Greater than 10

Input Impedance
100,000 ohms unbalanced 180,000 ohms balanced

Input Sensitivity
Unbalanced, 1.0 volt to 30 volts through gain control
Balanced, 2.0 volts fixed

Power Requirements
100 volts, 50/60Hz, from 240 watts to 400 watts
110 volts, 50/60Hz, from 240 watts to 400 watts
120 volts, 50/60Hz, from 240 watts to 400 watts
220 volts, 50/60Hz, from 240 watts to 400 watts
230 volts, 50/60Hz, from 240 watts to 400 watts
240 volts, 50/60Hz, from 240 watts to 400 watts

NOTE: Refer to the side panel of the MC275 for the correct voltage

Dimensions
161, wide (40.6cm) by 7-1/21, high (19.Ocm) by 121, deep (30.5cm)

Weight
67 pounds (30.5kg) net, 75 pounds (34.lkg) in shipping carton

A Place for Your Notes

McIntosh®

McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, NY 13903

McIntosh Part No. 040535

McINTOSH LABORATORY INC.
2 CHAMBERS STREET, BINGHAMTON, NEW YORK 13903-2699