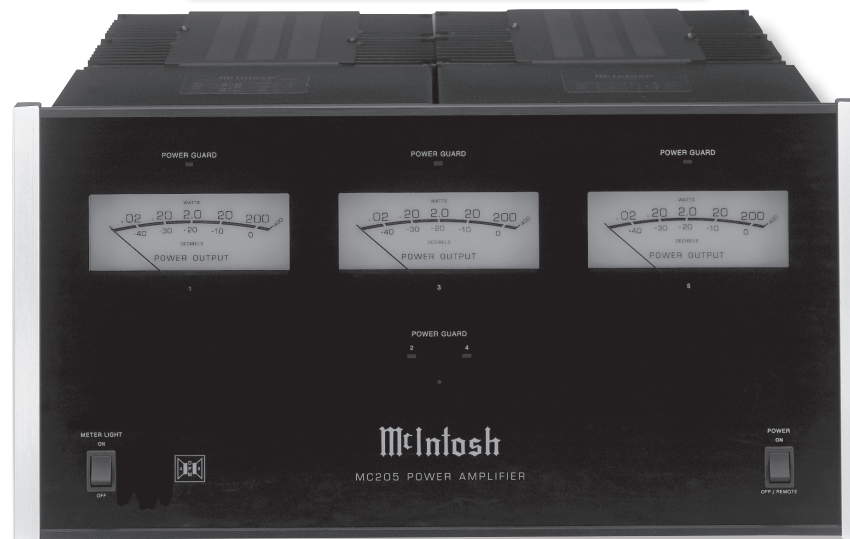




McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903-2699 Phone: 607-723-3512 www.mcintoshlabs.com

MC205
Power Amplifier
Owner's Manual



The lightning flash with arrowhead, 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.

WARNING - TO REDUCE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



AVIS RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.

NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

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.

To prevent the risk of electric shock, do not remove cover or back. No user-serviceable parts inside.

IMPORTANT SAFETY INSTRUCTIONS!

PLEASE READ THEM BEFORE OPERATING THIS EQUIPMENT.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a 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-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a

third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and 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 is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service 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, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
16. To completely disconnect this equipment from the a.c. mains, disconnect the power supply cord plug from the a.c. receptacle.
17. The mains plug of the power supply cord shall remain readily operable.
18. Do not expose batteries to excessive heat such as sunshine, fire or the like.
19. Connect mains power supply cord only to a mains socket outlet with a protective earthing connection.

Thank You

Your decision to own this McIntosh MC205 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.

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 spaces below have been provided for you to record that information:

Serial Number: _____

Purchase Date: _____

Dealer Name: _____

Technical Assistance

If at any time you have questions about your McIntosh product, contact your McIntosh Dealer who is familiar with your McIntosh equipment and any other brands that may be part of your system. If you or your Dealer wish additional help concerning a suspected problem, you can receive technical assistance for all McIntosh products at:

McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-1545
Fax: 607-724-0549

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Customer Service

If it is determined that your McIntosh product is in need of repair, you can return it to your Dealer. You can also return it to the McIntosh Laboratory Service Department. For assistance on factory repair return procedure, contact the McIntosh Service Department at:
McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-3515
Fax: 607-723-1917

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General Information

1. For additional connection information, refer to the owner’s manual(s) for any component(s) connected to the MC205 Power Amplifier.
2. The Main AC Power going to the MC205 and any other McIntosh Component(s) should not be applied until all the system components are connected together. Failure to do so could result in malfunctioning of some or all of the system’s normal operations. When the MC205 and other McIntosh Components are in their Standby Power Off Mode, some of the circuitry inside each component is active and communication is occurring between them.
3. In the event the MC205 overheats, due to improper ventilation and/or high ambient temperature, the protection circuits will activate. The Front Panel Power Guard LEDs will continuously indicate ON and the audio will be muted. When the MC205 has returned to a safe operating temperature, normal operation will resume.
4. For the best performance and safety it is important to always match the impedance of the Loudspeaker to the Power Amplifier connections. Refer to “How to Connect” pages 8 thru 11.

Note: The impedance of a Loudspeaker actually varies as the Loudspeaker reproduces different frequencies. As a result, the nominal impedance rating of the Loudspeaker (usually measured at a midrange frequency) might not always agree with the impedance of the Loudspeaker at low frequencies where the greatest amount of power is required. Contact the Loudspeaker Manufacturer for additional information about the actual impedance of the Loudspeaker before connecting it to the McIntosh MC205.

General Information, con't

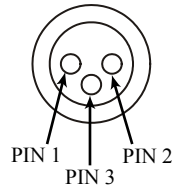
- When discarding the unit, comply with local rules or regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal. 
- For additional information on the MC205 and other McIntosh Products please visit the McIntosh Web Site at www.mcintosh-labs.com. 

Connector and Cable Information

XLR Connectors

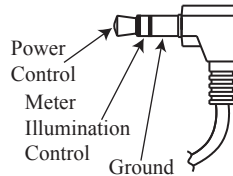
Below is the Pin configuration for the XLR Balanced Input Connectors on the MC205. Refer to the diagram for connection:

- PIN 1: Shield/Ground
- PIN 2: + Output
- PIN 3: - Output



Power Control Connector

The MC205's Power Control Inputs receive On/Off signals of +5 volts. An additional connection is for controlling the illumination of the MC205 Power Output Meters. The 1/8 inch stereo mini phone plug connects to a McIntosh A/V Control Center Power Control Output.



Note: The Power Control Connecting Cable is available from the McIntosh Parts Department:

Data and Power Control Cable Part No. 170-202
Six foot, shielded 2 conductor, with 1/8 inch stereo mini phone plugs on each end.

Introduction

Now you can take advantage of traditional McIntosh standards of excellence in the MC205 Power Amplifier. The five channel Power Amplifier produces a power output of 200 watts per channel and will drive quality Loudspeakers to a high level of performance. The MC205 reproduction is sonically transparent and absolutely accurate. The McIntosh Sound is "The Sound of the Music Itself."

Performance Features

• Power Output

The MC205 consists of five Power Amplifier Channels, each capable of 200 watts into 4 ohm or 8 ohm Loudspeakers with less than 0.005% distortion.

• Power Guard

The patented McIntosh Power Guard Circuit prevents the amplifier from being over driven into clipping, with its harsh distorted sound that can damage your valuable Loudspeakers.

• Dynamic Power Manager™

The MC205's Dynamic Power Manager (DPM) circuitry allows for the connection of either 4 ohm or 8 ohm Loudspeakers, while at the same time delivering identical power output. A peak output current of 25 amperes per channel ensures that it will successfully drive high quality Loudspeakers such as McIntosh, for a truly exciting sound experience.

• Balanced and Unbalanced Inputs

Balanced connections guard against induced noise and allow long cable runs without compromising sound quality.

• Sentry Monitor and Thermal Protection

McIntosh Sentry Monitor power output stage protection circuits ensure the MC205 will have a long and trouble free operating life. Built-in thermal protection circuits guard against overheating.

• Illuminated Power Meters

The Illuminated Power Output Watt Meters on the MC205 are peak responding, and indicate the power output of the amplifier.

• Power Control

The McIntosh Power Control Circuit allows for remote turn-on of the MC205 Power Amplifier from a McIntosh A/V Control Center or Preamp for a single or dual Zone System.

• Special Power Supply

A regulated Power Supply and a very large Toroidal Wound Power Transformer, ensures stable noise free operation even though the power line varies.

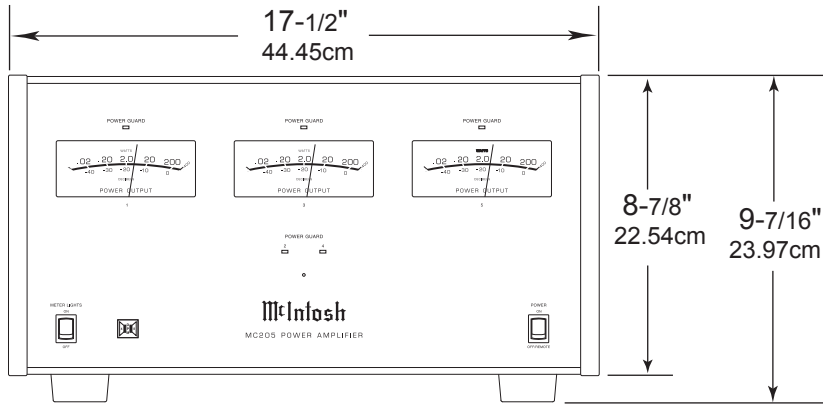
• Fiber Optic Solid State Front Panel Illumination

The even Illumination of the Front Panel is accomplished by the combination of custom designed Fiber Optic Light Diffusers and extra long life Light Emitting Diodes (LEDs). The glass Front Panel ensures the pristine beauty of the MC205 will be retained for many years.

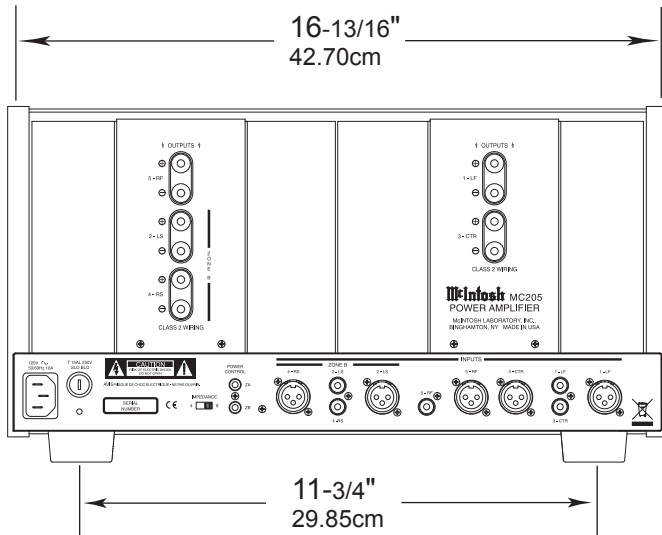
Dimensions

The following dimensions can assist in determining the best location for your MC205.

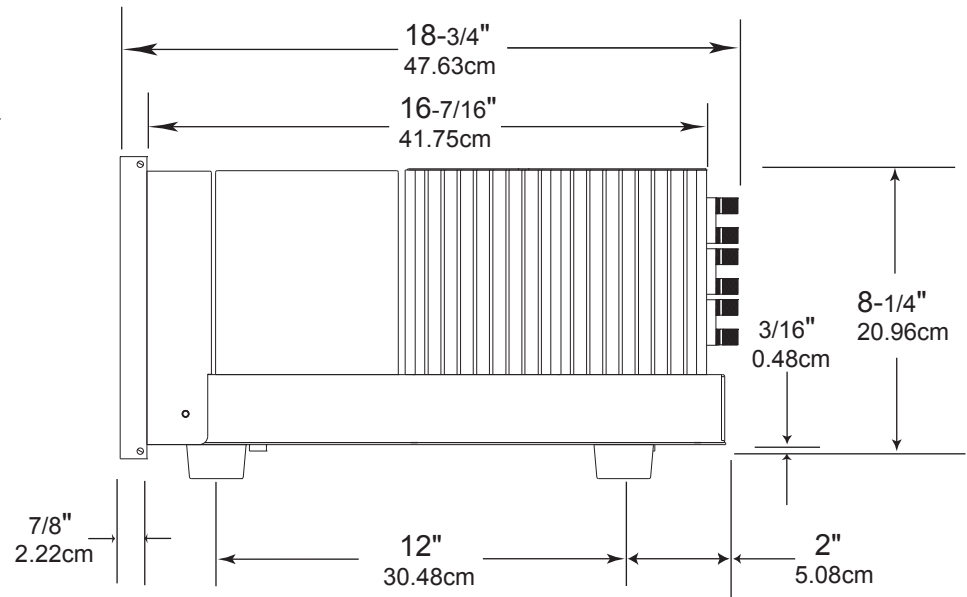
Front View of the MC205



Rear View of the MC205



Side View of the MC205



Installation

The MC205 can be placed upright on a table or shelf, standing on its four feet. It also can be custom installed in a piece of furniture or cabinet of your choice. The four feet may be removed from the bottom of the MC205 when it is custom installed as outlined below. The four feet together with the mounting screws should be retained for possible future use if the MC205 is removed from the custom installation and used free standing. The required panel cutout, ventilation cutout and unit dimensions are shown.

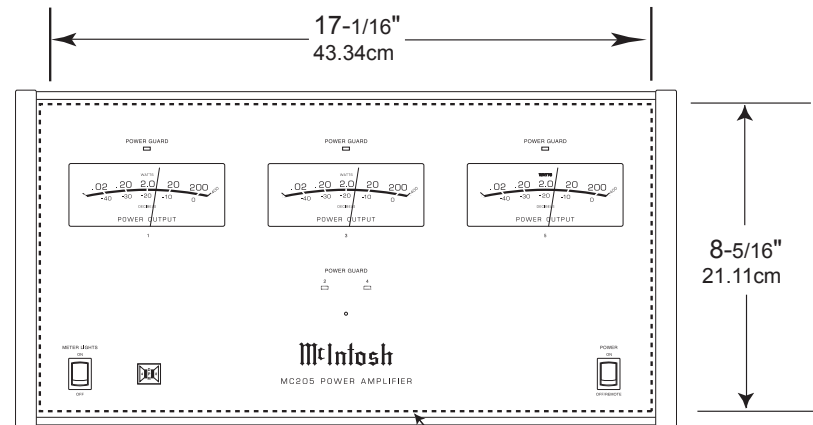
Always provide adequate ventilation for your MC205. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MC205 directly above a heat generating component such as a high powered amplifier. If all the components are installed in a single cabinet, a quiet running ventilation fan can be a definite asset in maintaining all the system components at the coolest possible operating temperature.

A custom cabinet installation should provide the following minimum spacing dimensions for cool operation.

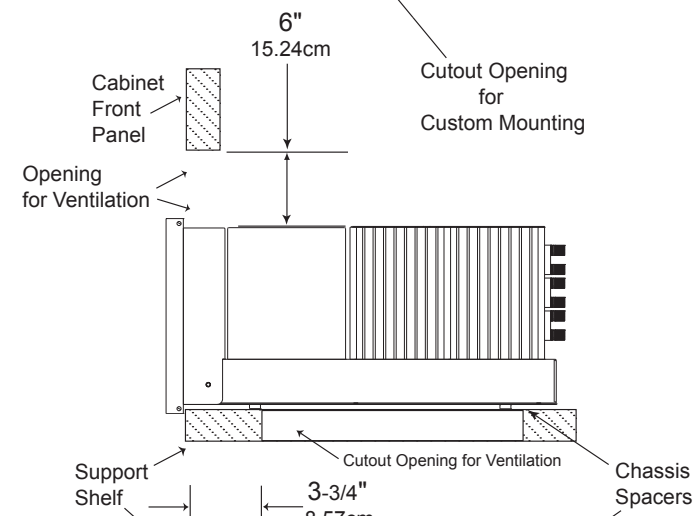
Allow at least 6 inches (15.24cm) above the top, 2 inches (5.08cm) below the bottom and 1 inch (2.54cm) on each side of the Power Amplifier, so that airflow is not obstructed. Allow 19-1/2 inches (49.53cm) depth behind the front panel. Allow 7/8 inch (2.22cm) in front of the mounting panel¹ for clearance. Be sure to cut out a ventilation hole in the mounting shelf according to the dimensions in the drawing.

¹ When the MC205 is installed together with other McIntosh Components, check clearances on all components before proceeding.

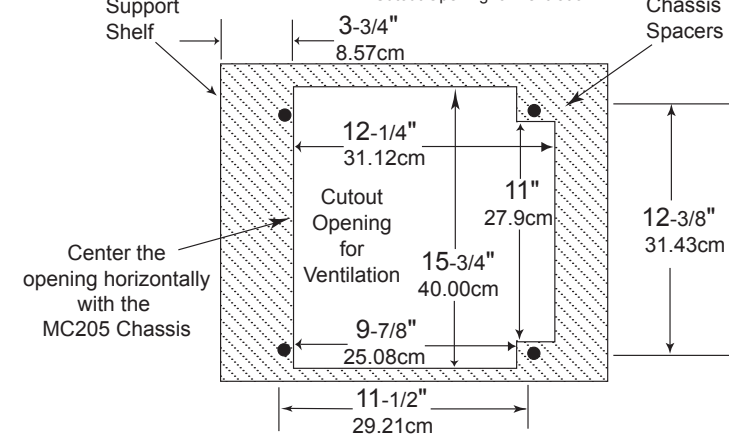
**MC205 Front Panel
Custom Cabinet Cutout**



**MC205 Side View
in Custom Cabinet**



**MC205 Bottom View
in Custom Cabinet**



Rear Panel Connections and Switch

OUTPUT Connections for a 4 ohm or 8 ohm Loudspeaker for Channel 2 (Left Surround) or ZONE B Left Channel

OUTPUT Connections for a 4 ohm or 8 ohm Loudspeaker for Channel 5 (Right Front)

Selects the impedance (4 or 8 ohms) of the Loudspeakers connected to the MC205

POWER CONTROL ZA receives turn On/Off signals from a McIntosh component for Zone A (Channels 1- 5). ZB receives turn On/Off signals from a McIntosh component for Zone B (Channels 2 and 4).

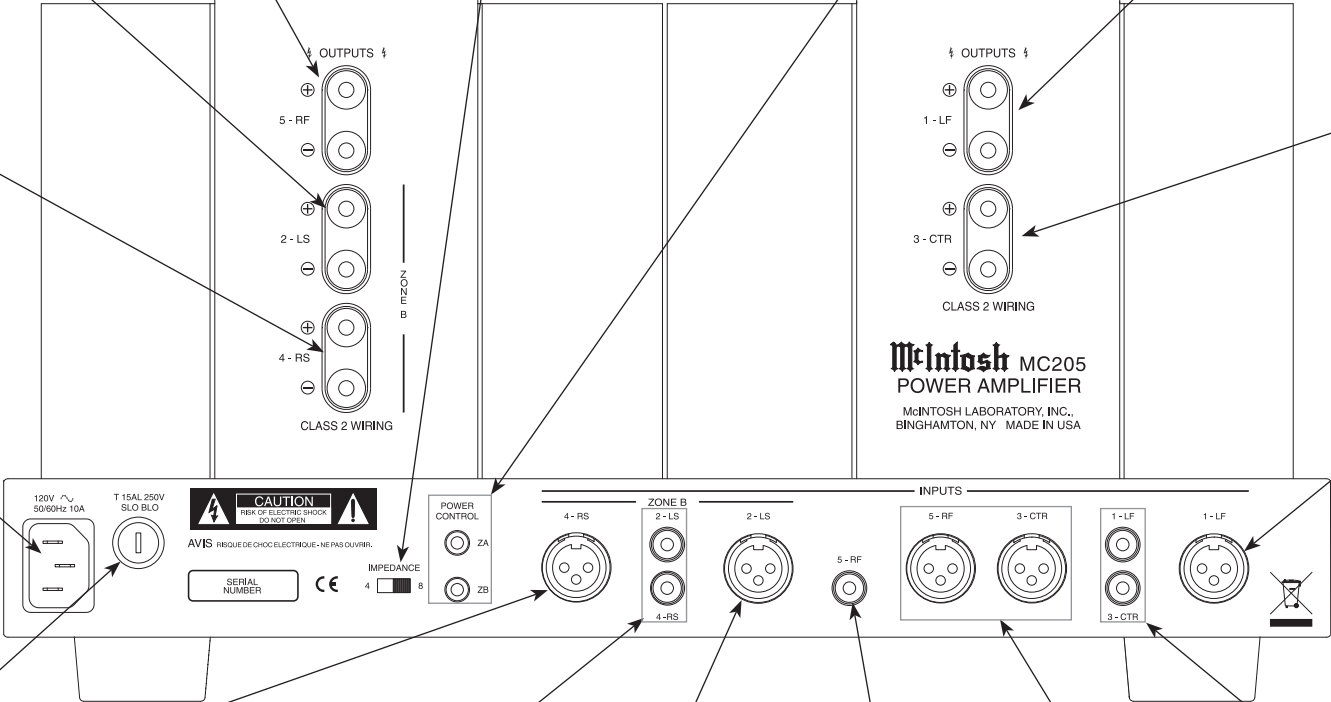
OUTPUT Connections for a 4 ohm or 8 ohm Loudspeaker for Channel 1 (Left Front)

OUTPUT Connections for a 4 ohm or 8 ohm Loudspeaker for Channel 4 (Right Surround) or ZONE B Right Channel

OUTPUT Connections for a 4 ohm or 8 ohm Loudspeaker for Channel 3 (Center Front)

Connect the MC205 power cord to a live AC outlet. Refer to the rear panel to determine the correct voltage

Balanced INPUT Channel 1 (Left Front)



Balanced INPUT Channel 4 (Right Surround) or ZONE B Right Channel

Balanced INPUT Channel 2 (Left Surround) or ZONE B Left Channel

Balanced INPUTS Channel 5 (Right Front) and Channel 3 (Center Front)

Main Fuse, refer to the rear panel for the correct fuse size and rating

Unbalanced INPUTs Channel 2 (Left Surround) and Channel 4 (Right Surround) or ZONE B Left and Right Channels

Unbalanced INPUT Channel 5 (Right Front)

Unbalanced INPUTs Channel 1 (Left Front) and Channel 3 (Center Front)



How to Connect for a Five Channel System

Caution: Do not connect the AC Power Cord to the MC205 Rear Panel until after the Loudspeaker Connections are made and the protective Terminal Connections Cover is installed. Failure to observe this could result in Electric Shock.

The connection instructions below, together with the MC205 Connection Diagram located on the separate folded sheet “Mc1A”, is an example of a typical Multichannel System. Your system may vary from this, however the actual components would be connected in a similar manner. For additional information refer to “Connector and Cable Information” on page 4.

1. For Remote Power Control, connect a power control cable from the A/V Control Center Power Control Trigger/Output 1 to the Amplifier POWER CONTROL ZA input.
2. Connect XLR cables from the Balanced Outputs (FL, C, FR, SR and SL) of an A/V Control Center to the MC205 Balanced INPUTS (1-LF, 3-CTR, 5-RF, 4-RS and 2-LS) making sure to match up channel designation.

Note: Unbalanced cables and connections may be used instead of Balanced connections.

This McIntosh MC205 Power Amplifier is designed for Loudspeakers with an impedance of 4 ohms or 8 ohms. Connect a single Loudspeaker only to each Channel Output Terminals.

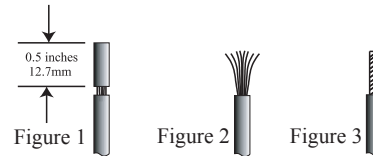
When connecting Loudspeakers to the MC205 it is very important to use cables of adequate size, so there is little to no power loss in the cables. The size is specified in Gauge Numbers or AWG (American Wire Gauge). The smaller the Gauge number, the larger the wire size:

Loudspeaker Cable Distance vs Wire Gauge Guide			
Loudspeaker Impedance	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
2 Ohms	12AWG	10AWG	8AWG
4 Ohms	14AWG	12AWG	10AWG
8 Ohms	16AWG	14AWG	12AWG

3. Prepare the Loudspeaker Hookup Cable for attachment to the MC205 Power Amplifier:

Bare wire cable ends:

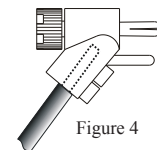
Carefully remove sufficient insulation from the cable ends, refer to figures 1, 2 & 3. If the cable is stranded, carefully twist the strands together as tightly as possible.



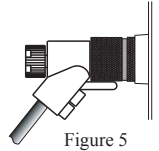
- Notes:*
1. If desired, the twisted ends can be tinned with solder to keep the strands together.
 2. The prepared bare wire cable ends may be inserted into spade lug connectors.
 3. Banana plugs are for use in the United States and Canada only.

Banana Plugs are for use in the United States and Canada only:

4. Attach the previously prepared bare wire cable ends into the banana plugs and secure the connections. Refer to figure 4.



5. Referring to figure 5, connect the Loudspeaker hookup cables with banana plugs into the hole at the end of the MC205 Negative and Positive Output Terminals.



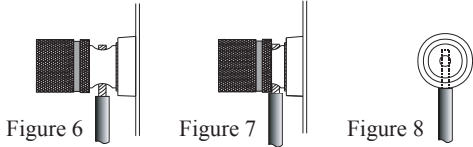
6. Place the IMPEDANCE Switch to the position (4 ohm or 8 ohm) to match the impedance of the connected Loudspeakers. In the event that some of the Loudspeakers in the system are different impedance, use the impedance of the Front Loudspeakers. If the Loudspeaker's impedance is 6 ohms, select the 4 ohms setting. Refer to “General Information” Note 4 on page 3 for additional information.

WARNING: Loudspeaker terminals are hazardous live and present a risk of electric shock. For additional instruction on making Loudspeaker Connections contact your McIntosh Dealer or McIntosh Technical Support.

7. Connect the MC205 power cord to an active AC outlet.

Spade Lug or Wire Connections:

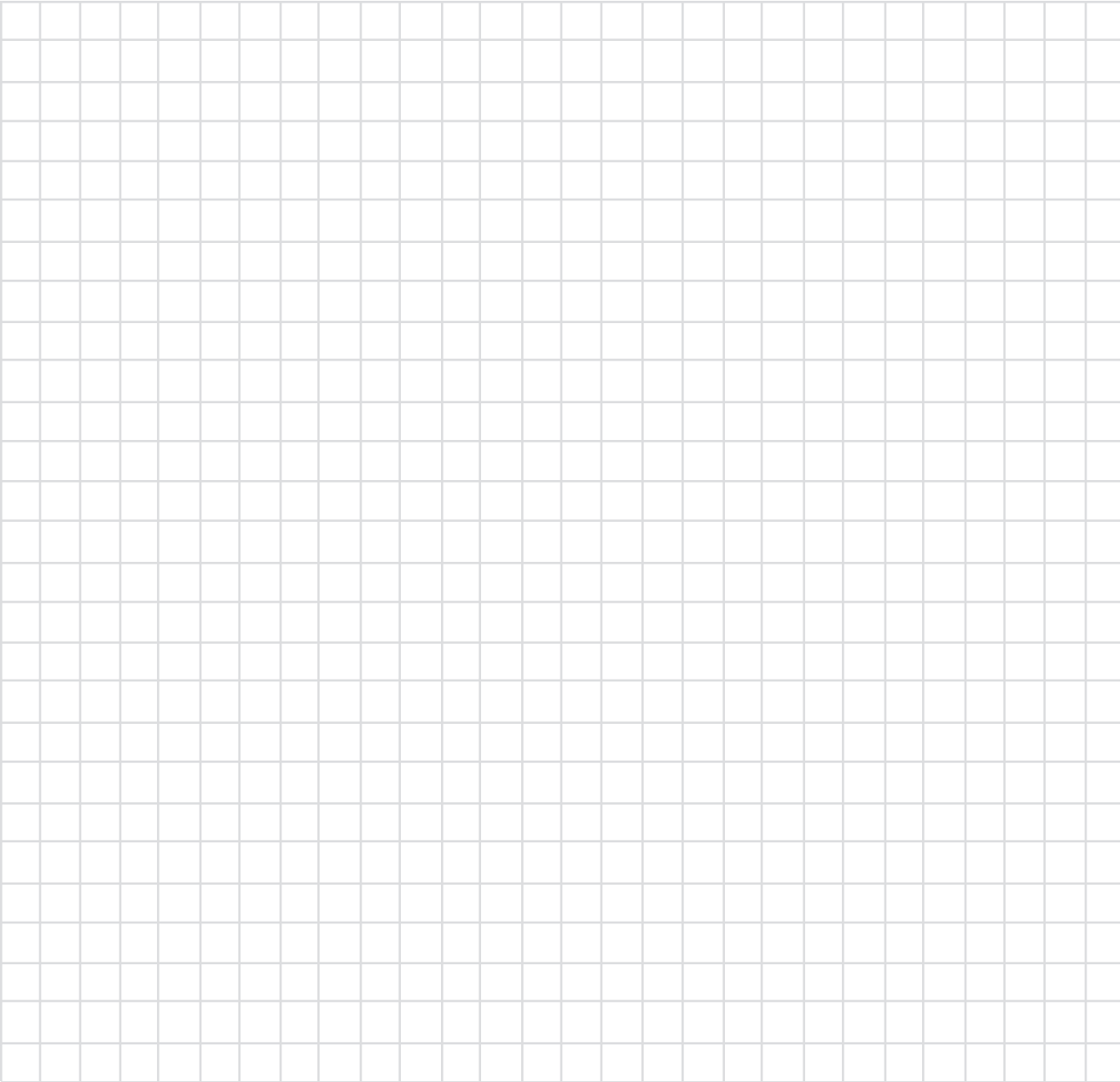
8. Connect the Loudspeaker hookup cables to the MC205 Output Terminal being careful to observe the correct polarities. Insert the spade lug connector or prepared section of the cable end into the terminal side access hole., Then tighten the terminal cap until the cable is firmly clamped into the terminals so the lugs or wire cannot slip out. Refer to figures 6, 7 and 8.



9. Place the IMPEDANCE Switch to the position (4 ohm or 8 ohm) to match the impedance of the connected Loudspeakers. In the event that some of the Loudspeakers in the system are different impedance, use the impedance of the Front Loudspeakers. If the Loudspeaker's impedance is 6 ohms, select the 4 ohms setting. Refer to "General Information" Note 4 on page 3 for additional information.

WARNING: Loudspeaker terminals are hazardous live and present a risk of electric shock. For additional instruction on making Loudspeaker Connections contact your McIntosh Dealer or McIntosh Technical Support.

10. Connect the MC205 power cord to an active AC outlet.





How to Connect for a Five Channel and Zone B System (or Seven Channel System)

Caution: Do not connect the AC Power Cord to the MC205 Rear Panel until after the Loudspeaker Connections are made and the protective Terminal Connections Cover is installed. Failure to observe this could result in Electric Shock.

The connection instructions below, together with the MC205 Connection Diagram located on the separate folded sheet “Mc1B”. Below is an example of a typical Five Channel and Zone B System (or Seven Channel System). Your system may vary from this, however the actual components would be connected in a similar manner. For additional information refer to “Connector and Cable Information” on page 4.

1. For Remote Power Control, connect a power control cable from the A/V Control Center Power Control Trigger/Output 1 to Power Amplifier Two, Power Control In.
2. Connect a power control cable from Power Amplifier Two, Power Control Out to the MC205 POWER CONTROL ZA Input.
3. Connect a power control cable from the A/V Control Center Power Control Trigger/Output 2 to the MC205 Power Amplifier ZB Input.

Note: Do not perform this step in a Seven Channel System.

4. Connect XLR cables from the Balanced Outputs (FL and FR) of an A/V Control Center to Power Amplifier Balanced Left and Right Inputs, making sure to match up channel designation.

Note: Unbalanced cables and connections may be used instead of Balanced connections.

5. Connect XLR cables from the Balanced Outputs (C, SR and SL) of an A/V Control Center to the

MC205 Balanced INPUTS (3-CTR, 4-RS and 2-LS), making sure to match up channel designation.

6. Connect audio cables from the A/V Control Center Zone B Left and Right Channel Outputs to the MC205 Unbalanced 2-LS and 4-RS, making sure to match up channel designation.

Note: In a Seven Channel System perform step 6 instead of step 5.

7. In a Seven Channel System, connect XLR cables from the Balanced Outputs (SBL and SBR) of an A/V Control Center to the MC205 Balanced INPUTS (5-RF and 1-LF), making sure to match up channel designation.

This McIntosh MC205 Power Amplifier is designed for Loudspeakers with an impedance of 4 ohms or 8 ohms. Connect a single Loudspeaker only to each Channel Output Terminals.

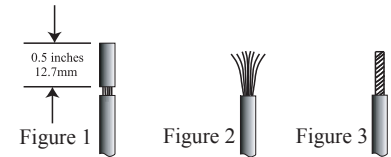
When connecting Loudspeakers to the MC205 it is very important to use cables of adequate size, so there is little to no power loss in the cables. The size is specified in Gauge Numbers or AWG (American Wire Gauge). The smaller the Gauge number, the larger the wire size:

Loudspeaker Cable Distance vs Wire Gauge Guide			
Loudspeaker Impedance	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
2 Ohms	12AWG	10AWG	8AWG
4 Ohms	14AWG	12AWG	10AWG
8 Ohms	16AWG	14AWG	12AWG

8. Prepare the Loudspeaker Hookup Cable for attachment to the MC205 Power Amplifier:

Bare wire cable ends:

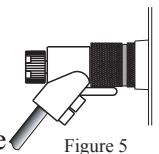
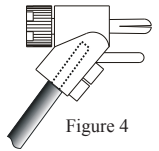
Carefully remove sufficient insulation from the cable ends, refer to figures 1, 2 & 3. If the cable is stranded, carefully twist the strands together as tightly as possible.



- Notes:*
1. If desired, the twisted ends can be tinned with solder to keep the strands together.
 2. The prepared bare wire cable ends may be inserted into spade lug connectors.
 3. Banana plugs are for use in the United States and Canada only.

Banana Plugs are for use in the United States and Canada only:

9. Attach the previously prepared bare wire cable ends into the banana plugs and secure the connections. Refer to figure 4.
10. Referring to figure 5, connect the Loudspeaker hookup cables with banana plugs into the hole at the end of the MC205 Negative and Positive Output Terminals.
11. Place the IMPEDANCE Switch to the position (4 ohm or 8 ohm) to match the impedance of the connected Loudspeakers. In the event that some of the Loudspeakers in the system are different impedance, use the imped-



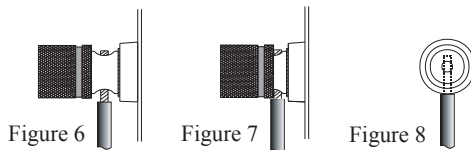
ance of the Front Loudspeakers. If the Loudspeaker's impedance is 6 ohms, select the 4 ohms setting. Refer to "General Information" Note 4 on page 3 for additional information.

WARNING: Loudspeaker terminals are hazardous live and present a risk of electric shock. For additional instruction on making Loudspeaker Connections contact your McIntosh Dealer or McIntosh Technical Support.

12. Connect the MC205 power cord to an active AC outlet.

Spade Lug or Wire Connections:

13. Connect the Loudspeaker hookup cables to the MC205 Output Terminal being careful to observe the correct polarities. Insert the spade lug connector or prepared section of the cable end into the terminal side access hole. Then tighten the terminal cap until the cable is firmly clamped into the terminals so the lugs or wire cannot slip out. Refer to figures 6, 7 and 8.



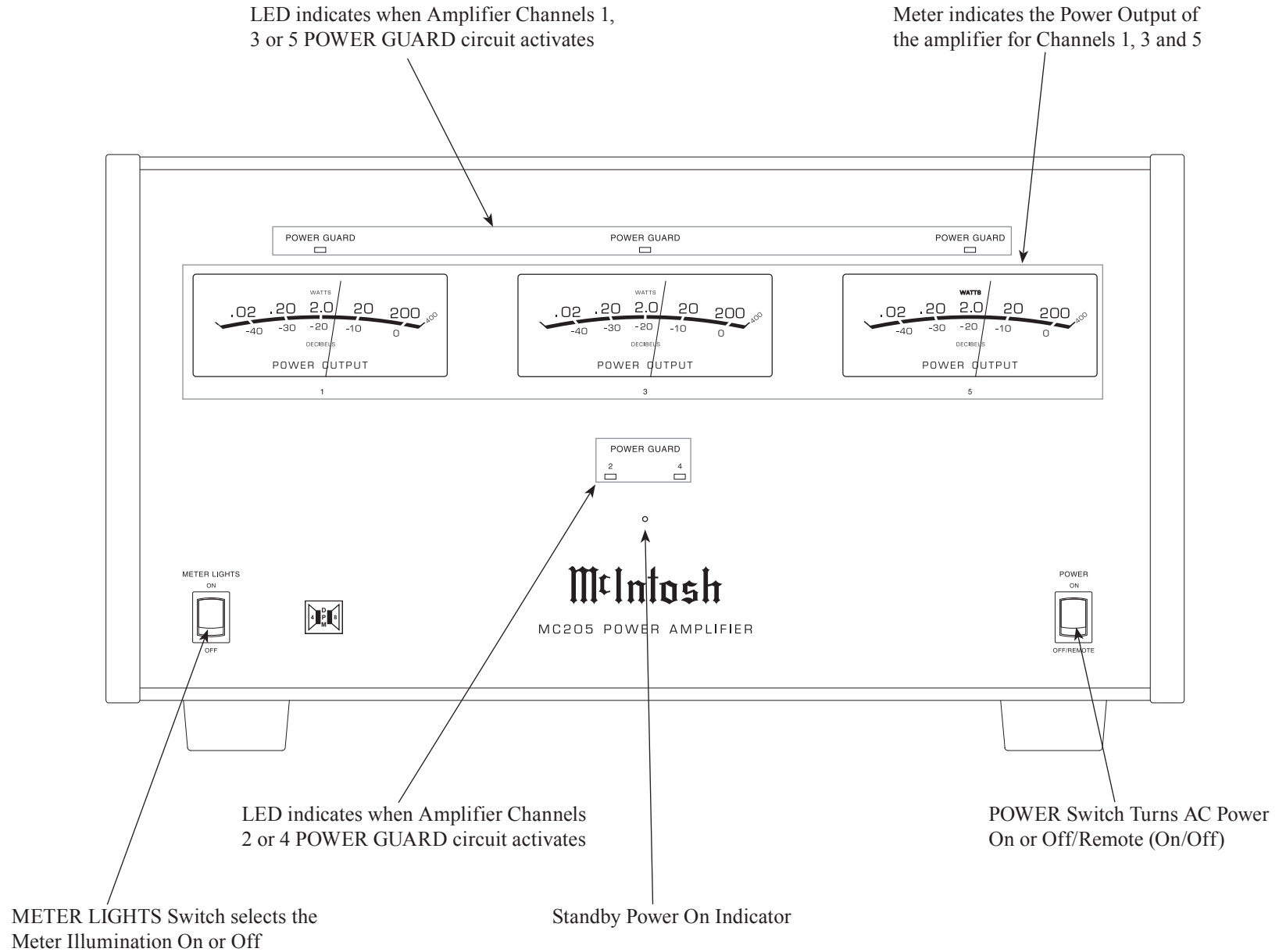
14. Place the IMPEDANCE Switch to the position (4 ohm or 8 ohm) to match the impedance of the connected Loudspeakers. In the event that some of the Loudspeakers in the system are different impedance, use the impedance of the Front Loudspeakers. If the Loudspeaker's impedance is 6 ohms, select the 4 ohms setting. Refer to "Gen-

eral Information" Note 4 on page 3 for additional information.

WARNING: Loudspeaker terminals are hazardous live and present a risk of electric shock. For additional instruction on making Loudspeaker Connections contact your McIntosh Dealer or McIntosh Technical Support.

15. Connect the MC205 power cord to an active AC outlet.





How to Operate

Power

With the POWER Switch set to the OFF/REMOTE Position, the MC205 will turn On or Off when an A/V Control Center turns On or Off. For manual operation, place the POWER Switch to the ON Position as desired. Refer to figure 9.

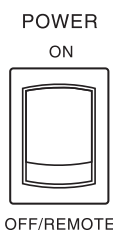


Figure 9

Note: There must be a power control connection between the MC205 and the McIntosh A/V Control Center in order for the remote power turn-on to function.

Meter Illumination

Place the METER LIGHTS Switch to the ON position for Illuminated Meters or place the switch to the Off position for no Illumination. When Power Control Input ZA (Zone A only) of the MC205 is connected to a McIntosh A/V Control Center or Preamplifier with Remote Meter Illumination Control, the Meter Illumination will automatically be remotely controlled (On/Off) with the METER LIGHTS Switch to set to the ON position. Refer to figure 10.

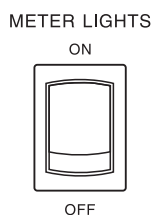


Figure 10

Impedance Switch

The MC205's Dynamic Power Manager circuitry allows for the connection of either 4 ohm or 8 ohm Loudspeakers to its output terminals, while at the same time delivering the same power output. Refer to figure 11. Place the IMPEDANCE Switch, located on the rear panel, to the position (4 ohm or 8 ohm) that matches the impedance of the connected Loudspeakers.



Figure 11

In the event that some of the Loudspeakers in the system are of different impedance, use the impedance of the Left and Right Front Loudspeakers to set the IMPEDANCE Switch position. Refer to figure 12.



Figure 12

Power Output Meters

The MC205 Power Output Meters are calibrated to allow for the direct reading of either the Power Output in Watts or Decibels for Loudspeakers connected to Channels 1, 3 and 5. The meters respond to all the musical information being produced by the amplifier. They indicate to an accuracy of at least 95% of the power output with only a single cycle of a 2000Hz tone burst. Refer to figure 13.

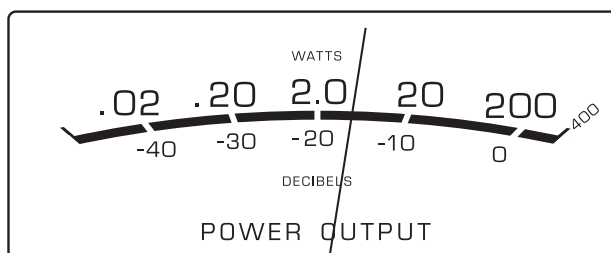


Figure 13





Technical Description

A continuous average power output rating of 200 watts and an output current of greater than 25 amperes per channel, makes this one of the most advanced and powerful amplifiers McIntosh has ever manufactured. Refer to figures 14 and 15. The distortion limits for the MC205 are no more than 0.005% at rated power output for all frequencies from 20Hz to 20,000Hz. Typical performance at mid frequencies is less than 0.002%. The true distortion readings on the MC205 are so low, it takes special measuring techniques to make accurate readings. The MC205 can deliver the

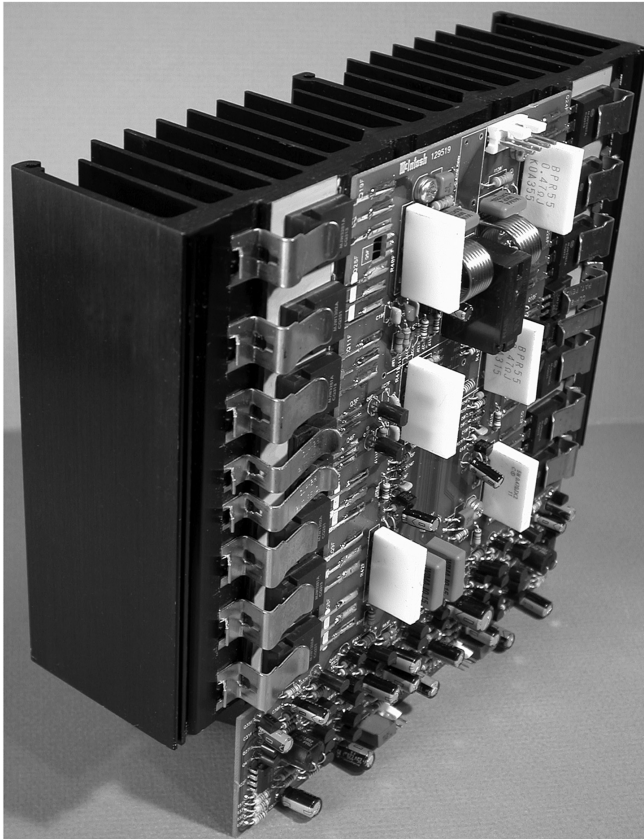


Figure 14

best possible performance from any type of high quality Loudspeaker System.

Design Philosophy

The MC205 McIntosh Power Amplifier uses the recently developed Dynamic Power Manager™ (DPM) Circuitry. The MC205 can easily drive 4 ohm speakers, with their high current demand. Additionally, the MC205 can be used with 8 ohm speakers, and deliver equal power. McIntosh's new DPM™ design enables it to run on higher voltage rails when connected to less current-hungry 8 ohm speakers and still deliver 200 watts. The power penalty usually paid with 8 ohm speakers on high current amplifiers does not exist with this new design.

The high efficiency circuit design of the MC205 contributes to low operating temperatures. More than 2100 square inches of heat sink area occupies almost half of the MC205's chassis space and keeps the amplifier operating safely with convection cooling. No fans are needed.

Protection Circuits

The MC205 incorporates its version of the McIntosh Sentry Monitor output transistor protection circuit. There is absolutely no compromise in sonic performance with this circuit, and it ensures safe operation of the amplifier under even the most extreme operating conditions. Refer to figure 16. The different types of protection circuits incorporated in the MC205 insure a long and safe operating life.

The MC205 also includes the unique patented McIntosh Power Guard circuit. Power Guard eliminates the possibility of ever overdriving the amplifier into clipping. Refer to figures 17, 18 and 19. An

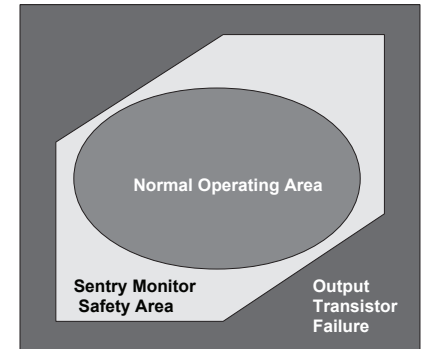


Figure 16

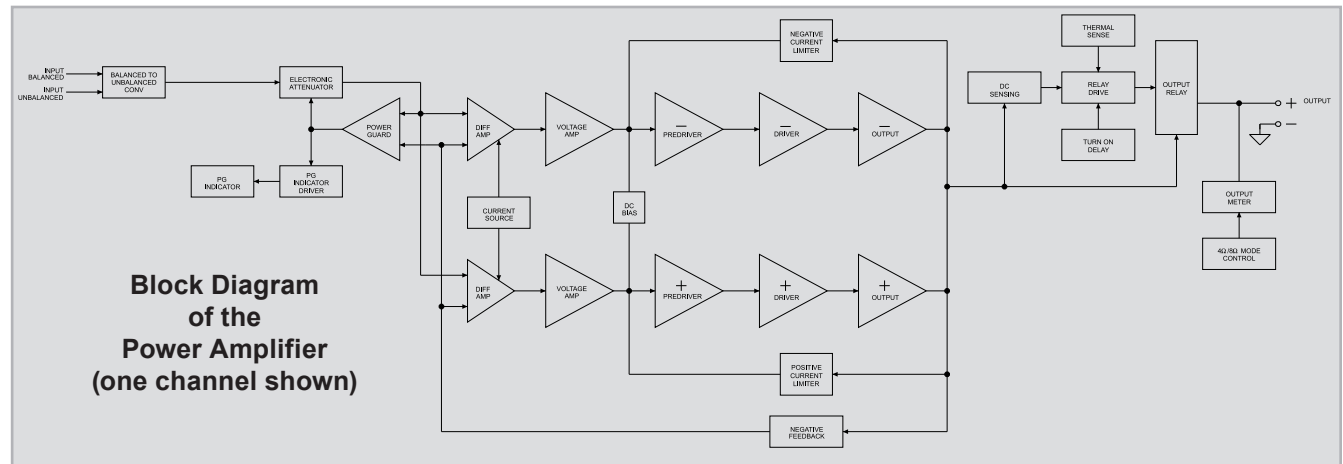


Figure 15

overdriven amplifier can produce both audible and inaudible distortion levels exceeding 40%. The audible distortion is unpleasant to hear, but the inaudible ultrasonic distortion is also undesirable, since it can damage valuable Loudspeaker System tweeters. You will never experience the harsh and damaging distortion due to clipping.

The Power Guard circuit is a waveform comparator, monitoring both the input and output waveforms. Under normal operating conditions, there are no differences between the shape of these waveforms. If an amplifier channel is overdriven, there will be a difference between the two signal waveforms. When the difference exceeds 0.3% (equivalent to 0.3% harmonic distortion), the Power Guard activates the PG light and a dynamic electronic attenuator at the amplifier input reduces the input volume just enough to prevent any further increase in distortion. The Power Guard circuit acts so fast that there are absolutely no audible side effects and the sonic purity of the music reproduction

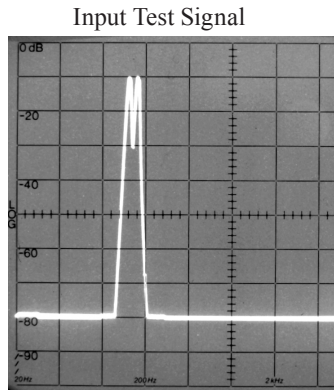


Figure 17

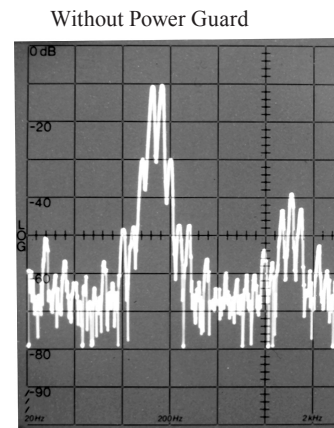


Figure 18

is perfectly preserved. The MC205 Power Amplifier with Power Guard is not limited to just the rated power output, but will actually produce distortion free output well above its rated power due to the McIntosh philosophy of conservative design.

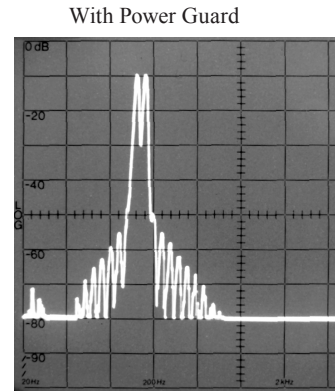


Figure 19

Power Supply Circuits

To compliment the design of the MC205, there is a high current power supply for the five power amplifier channels. Refer to figure 20. The very large Power Transformer, has toroidal windings on a toroidal core and can supply over 35 amps of continuous current. Refer to figure 21 (golf ball is for size comparison). It is enclosed in the legendary McIntosh Potted Enclosures and weighs over 12.06kg. The super size main filter capacitors can store over 310 Joules of energy for the five amplifier channels, necessary for the wide dynamic range that “Digital Audio” demands. The power amplifier draws high current from the AC power line.



Figure 21

Therefore, it is important that they plug directly into the wall outlet.

Also, most owners desire one power switch for the whole audio system. The MC205 is equipped with a circuit that provides remote Power Control from a McIntosh A/V Control Center. When the A/V Control Center is switched On, a (+5V) signal operates the power relay in the MC205. The MC205 also has a remote Power Control input for Zone B operation (two of the five channels).

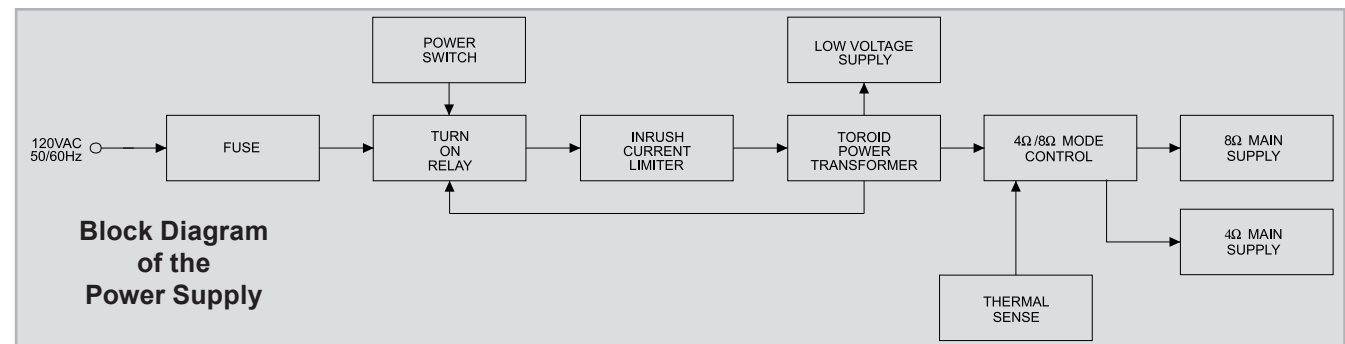
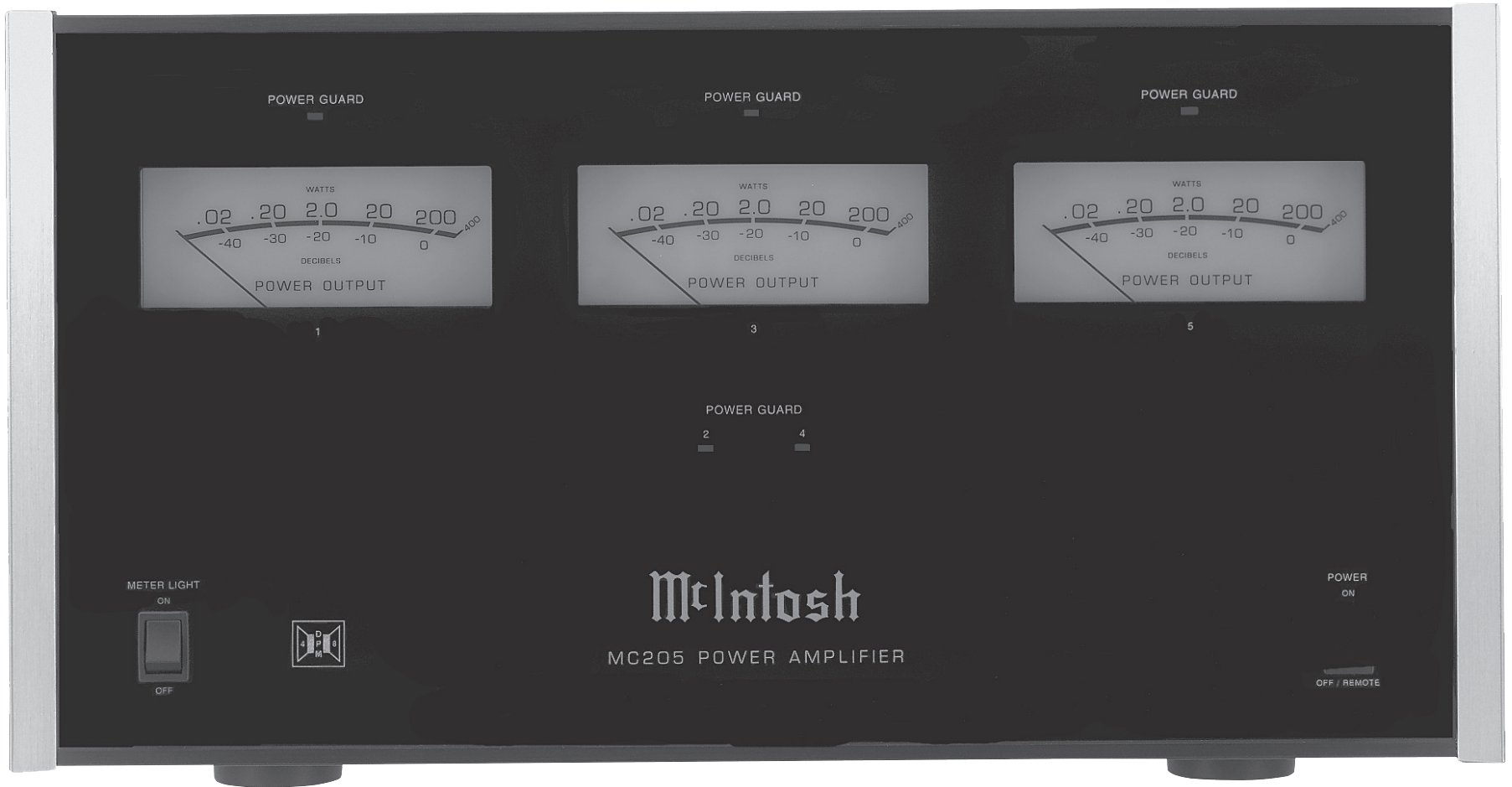


Figure 20







Specifications

Power Output

Minimum sine wave continuous average power output per channel, all channels operating is:
200 watts into a 4 ohm or 8 ohm load

Output Load Impedance

8 and 4 ohms

Rated Power Band

20Hz to 20,000Hz

Total Harmonic Distortion

0.005% maximum harmonic distortion at any power level from 250 milliwatts to rated power, 20Hz to 20,000Hz

Dynamic Headroom

1.7dB

Frequency Response

+0, -0.25dB from 20Hz to 20,000Hz
+0, -3dB from 10Hz to 100,000Hz

Input Sensitivity (for rated output)

2.0 Volt Balanced with a 4 ohm Loudspeaker
1.0 Volt Unbalanced with a 4 ohm Loudspeaker
2.8 Volt Balanced with a 8 ohm Loudspeaker
1.4 Volt Unbalanced with a 8 ohm Loudspeaker

Signal To Noise Ratio (A-Weighted)

112dB below rated output

Intermodulation Distortion

0.005% maximum, if the instantaneous peak power output is rated power or less per channel with all channels operating for any combination of frequencies from 20Hz to 20,000Hz.

Wide Band Damping Factor

Greater than 70 at 4 ohms
Greater than 140 at 8 ohms

Input Impedance

20,000 ohms Balanced
10,000 ohms Unbalanced

Power Guard

Less than 2% THD with up to 14dB overdrive at 1,000Hz

Power Requirements

100 Volts, 50/60Hz at 12 Amps
110 Volts, 50/60Hz at 11 Amps
120 Volts, 50/60Hz at 10 Amps
220 Volts, 50/60Hz at 6 Amps
230 Volts, 50/60Hz at 6 Amps
240 Volts, 50/60Hz at 6 Amps

Note: Refer to the rear panel of the MC205 for the correct voltage.

Overall Dimensions

Width is 17-1/2 inches (44.45cm)
Height is 9-7/16 inches (23.97cm) including feet
Depth is 21 inches (53.3cm) including the Front Panel and Cables

Weight

81 pounds (44.2 kg) net, 114 pounds (51.8 kg) in shipping carton

Shipping Carton Dimensions

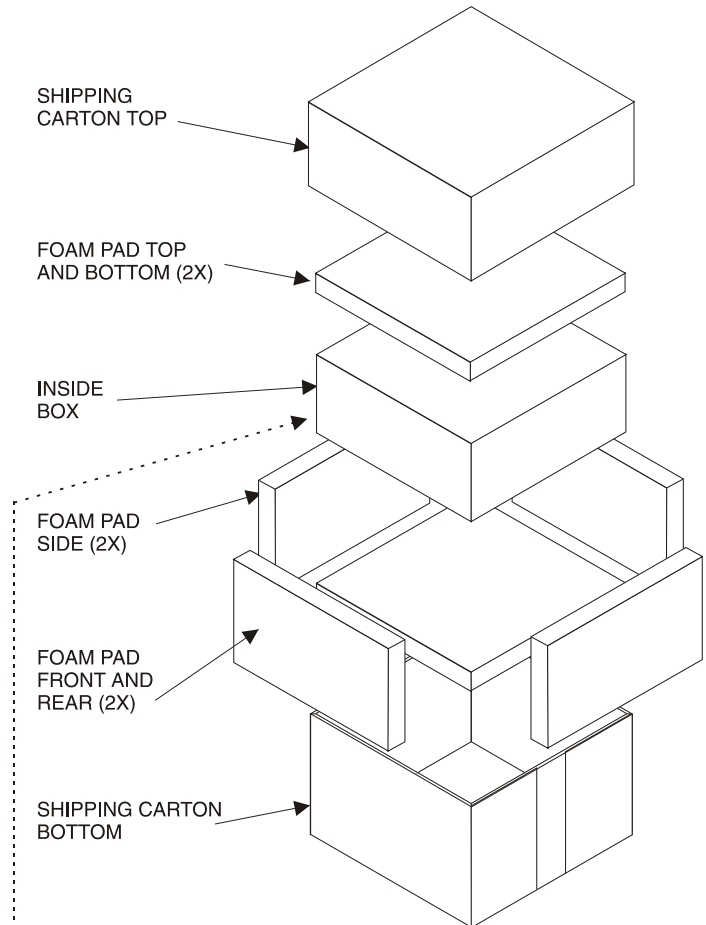
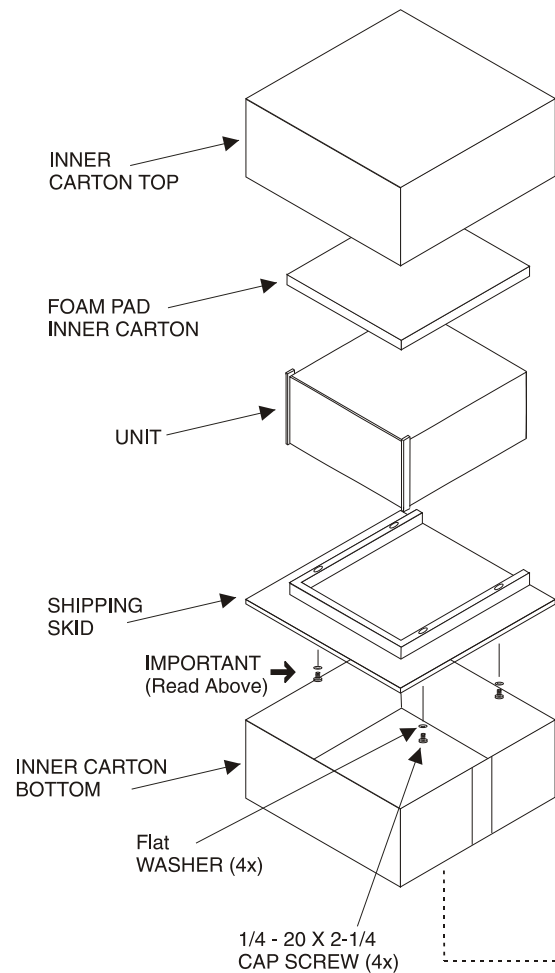
Width is 29-1/2 inches (74.93cm)
Depth is 30-1/2 inches (77.47cm)
Height is 17-1/2 inches (44.45cm)

Packing Instructions

In the event it is necessary to repack the equipment for shipment, the equipment must be packed exactly as shown below. It is very important that the four plastic feet are attached to the bottom of the equipment. Four 1/4 - 20 x 2-1/2 inch screws and washers must be used to fasten the unit securely to the bottom pad and shipping skid. This will ensure the proper equipment location on the bottom pad. Failure to do this will result in shipping damage.

Use the original shipping carton and interior parts only if they are all in good serviceable condition. If a shipping carton or any of the interior part(s) are needed, please call or write Customer Service Department of McIntosh Laboratory. Please see the Part List for the correct part numbers.

Quantity	Part Number	Description
1	034052	Shipping carton top
1	034051	Shipping carton bottom
2	034054	Foam Pad (top and bottom)
2	034186	Foam Pad (front and rear)
2	034187	Foam Pad (sides)
1	034136	Inner carton top
1	034137	Inner carton bottom
1	034188	Foam Pad (inner carton)
1	034264	Shipping skid
4	101212	1/4 - 20x2-1/4 cap screw
4	104058	Flat washer





McIntosh Laboratory, Inc.
2 Chambers Street
Binghamton, NY 13903
www.mcintoshlabs.com

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Printed in the U.S.A.