

MC206 Six Channel Power Amplifier



MC206

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.



AVIS RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR.

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.

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

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

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.

General:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all 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.**
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. Unplug this equipment during lightning storms or when unused for long periods of time.
8. Only use attachments/accessories specified by the manufacturer.

Installation:

9. The equipment shall be installed near the AC Socket Outlet and the disconnect device shall be easily accessible.
10. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
11. Do not install near any heat sources such as radiators, heat registers, stoves, or other equipment (including amplifiers) that produce heat.
12. Do not use this equipment near water.
13. 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.
14. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the equipment. When a cart is used, use caution when moving the cart/equipment combination to avoid injury from tip-over.



Connection:

15. Connect this equipment only to the type of AC power source as marked on the unit.
16. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the equipment.
17. 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.

18. Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.
19. To completely disconnect this equipment from the AC Mains, disconnect the power supply cord plug from the AC receptacle.

Care of Equipment:

20. Clean only with a dry cloth.
21. Do not permit objects or liquids of any kind to be pushed, spilled and/or fall into the equipment through enclosure openings.
22. Unplug the power cord from the AC power outlet when left unused for a long period of time.

Repair of Equipment:

23. Refer all servicing to qualified service personnel. Servicing is required when the equipment 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 equipment, the equipment has been exposed to rain or moisture, does not operate normally, or has been dropped.
24. Do not attempt to service beyond that described in the operating instructions. All other service should be referred to qualified service personnel.
25. 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.
26. 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.

Thank You

Your decision to own this McIntosh MC206 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: 607-723-3636

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

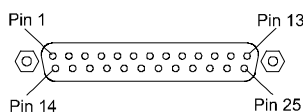
Table of Contents

Safety Instructions	2
Thank You and Please Take a Moment.....	3
Technical Assistance and Customer Service	3
Table of Contents and General Notes	4
Introduction	4
Performance Features	4
Dimensions	5
Installation	6
Rear Panel Connections	7
How to Connect	8
Front Panel Displays and Controls	10
How to Operate and Read the Power Output Meters	11
Notes	12
Specifications	14
Packing Instruction	15

General Notes

1. The following Connecting Cable is available from the McIntosh Parts Department:
Power Control Cable Part No. 170-202
Six foot, 2 conductor shielded, with two 1/8 inch stereo mini phone plugs.
2. For additional connection information, refer to the owner's manual(s) for any component(s) connected to the MC206.
3. The MC206 mutes the speaker outputs for approximately two seconds when first turned on.
4. It is very important that loudspeaker cables of adequate size be used, so that there will be no power loss. The size is specified in Gauge Numbers or AWG, (American Wire Gauge). The smaller the Gauge number, the larger the wire size. The MC206 Loudspeaker Connection Terminals will accept up to a 10 AWG wire size:
If your loudspeaker cables are 50 feet (38.1m) or less, use at least 14 Gauge.
If your loudspeaker cables are 100 feet (76.2m) or less, use at least 12 Gauge.
5. In the event that the MC206 over heats, 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 MC206 has returned to a safe operating temperature, normal operation will resume.
6. The Multi-Channel Input DB25 Connector allows for easy connecting of a McIntosh MX130/132 or C39 A/V Control Center, Audio and Power Control connections, to the MC206. If a McIntosh MSE1 Surround Expander is connected to the MX130/132 or C39, then discrete Audio and Power Control Cables should be used between them and the MC206. The Diagram and Pin Identification list for the Multi-Channel Input is as follows:

Multi-Channel Input



Multi-Channel Amp DB25 Connector Pin Layout

1. Left Front +	14. Left Front Gnd.
2. Center Front +	15. Center Front Gnd.
3. Right Front +	16. Right Front Gnd.
4. N/C	17. N/C
5. Left Surround +	18. Left Surround Gnd.
6. Right Surround +	19. Right Surround Gnd.
7. Left Back Surround +	20. Left Back Surround Gnd.
8. Right Back Surround +	21. Right Back Surround Gnd.
9. N/C	22. N/C
10. N/C	23. N/C
11. N/C	24. System Calibrate Gnd.
12. System Calibrate	25. Power Control Gnd.
13. Power Control In	

Introduction

Now you can take advantage of traditional McIntosh standards of excellence in the MC206 Power Amplifier. Six 200 watt high current output channels will drive any high quality loudspeaker system to its ultimate performance. The MC206 reproduction is sonically transparent and absolutely accurate. The McIntosh Sound is "The Sound of the Music Itself."

Performance Features

• Power Output

The MC206 consists of six Power Amplifier Channels, each capable of 200 watts into 4 ohm or 120 watts into 8 ohm loudspeakers with less than 0.005% distortion.

• High Current Output

A peak output current of 25 amperes per channel ensures that the MC206 will successfully drive high quality loudspeakers such as McIntosh for a truly exciting sound experience.

• Power Guard and Sentry Monitor

The MC206's Patented McIntosh Power Guard Circuits prevent each of the amplifier channels from being overdriven into clipping, with its harsh distorted sound that can also damage your valuable loudspeakers. The Sentry Monitor Power Output Protection Circuits ensure the MC206 will have a long and trouble free operating life.

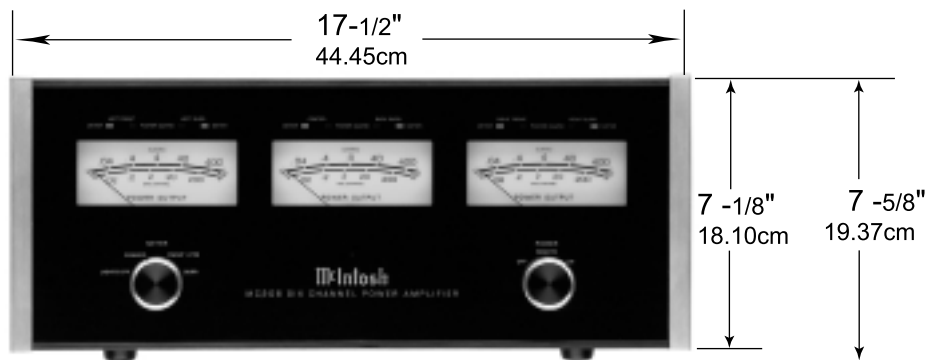
• Illuminated Power Meters

Three Front Panel Illuminated Power Output Meters can be selected to precisely indicate the power output of each of the six channels.

Dimensions

The following dimensions can assist in determining the best location for your MC206. There is additional information on the next page pertaining to installing the MC206 into cabinets.

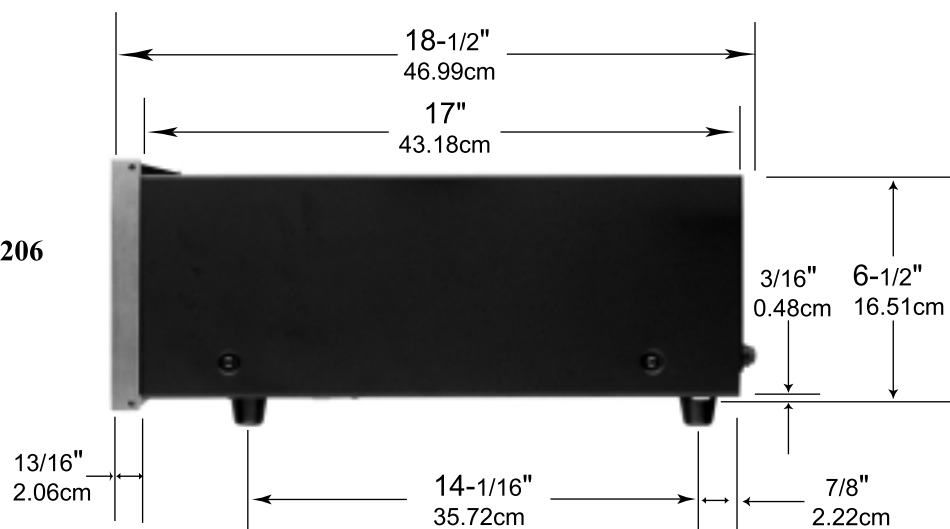
Front View of the MC206



Rear View of the MC206



Side View of the MC206



Installation

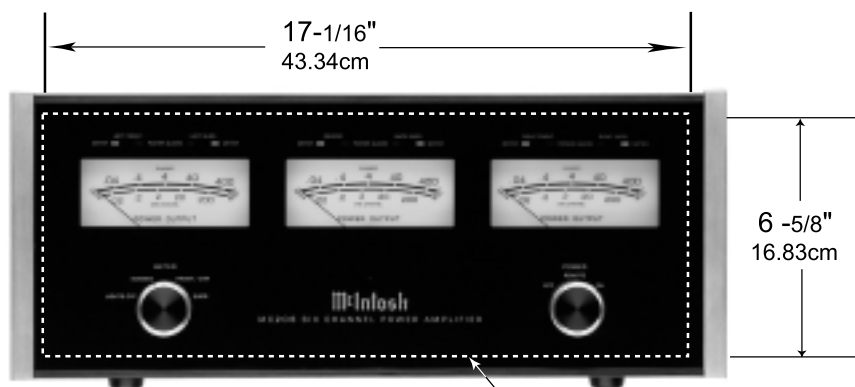
The MC206 can be placed upright on a table or shelf, standing on its four feet. It also can be custom installed in a piece of furniture or cabinet of your choice. The four feet may be removed from the bottom of the MC206 when it is custom installed as outlined below. The four feet together with the mounting screws should be retained for possible future use if the MC206 is removed from the custom installation and used free standing. It also can be custom installed in a piece of furniture or cabinet of your choice. The required panel cut-out, ventilation cut-out and unit dimensions are shown.

Always provide adequate ventilation for your MC206. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MC206 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.

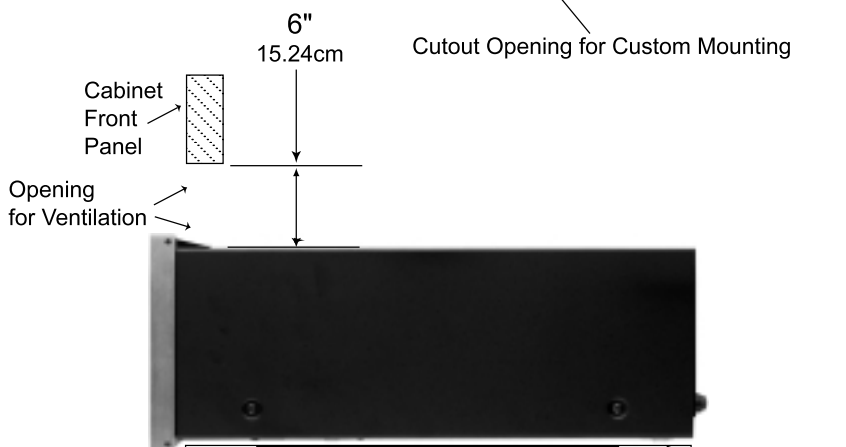
A custom cabinet installation should provide the following minimum spacing dimensions for cool operation. Allow at least 6 inches (15.24cm) above the top, 2 inches (3.81cm) below the bottom and 1 inch

(2.54cm) on each side of the amplifier, so that airflow is not obstructed. Allow 20 inches (50.8cm) depth behind the front panel. Allow 1 inch (2.54cm) in front of the mounting panel for knob clearance. Be sure to cut out a ventilation hole in the mounting shelf according to the dimensions in the drawing.

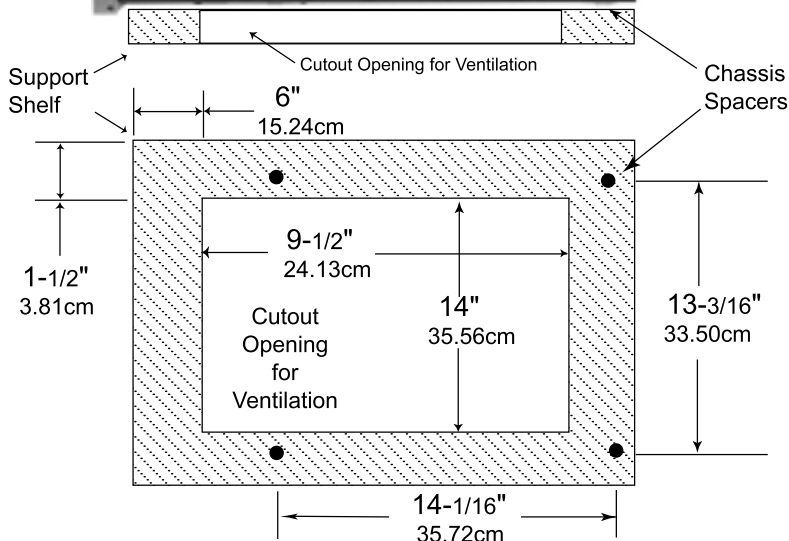
**MC206 Front Panel
Custom Cabinet Cutout**



**MC206 Side View
in Custom Cabinet**



**MC206 Bottom View
in Custom Cabinet**



INPUTS for discrete audio cables from an A/V Control Center or Preamplifier Audio Outputs

MULTI-CHANNEL INPUT accepts a 25 conductor DB25 computer type cable that connects all audio and power control signals

Individual Input LEVEL Controls for each channel

POWER CONTROL IN receives turn On/Off signals from a McIntosh component and the POWER CONTROL OUT sends that turn On/Off signal to the next McIntosh component



Main Fuse holder, refer to information on the back panel of your MC206 to determine the correct fuse size and rating

Connect the MC206 power cord to a live AC outlet. Refer to information on the back panel to determine the correct voltage

OUTPUT Connections for 4 ohm or 8 ohm Loudspeaker for each pair of channels

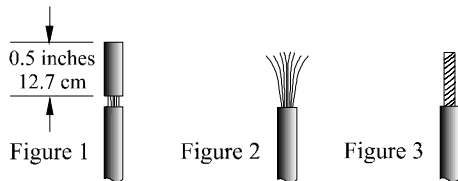
How to Connect the MC206 for Six Channels

Caution: The supplied AC Power Cord should not be connected to the Rear Panel of the MC206 Amplifier until after the Loudspeaker Connections have been made and the supplied protective Terminal Connection Covers have been installed. Failure to observe this could result in Electric Shock.

1. Connect a power control cable from the McIntosh A/V Control Center Power Control Out to the McIntosh Surround Expander Power Control In.
2. Connect a power control cable from the McIntosh Surround Expander Power Control Out to the MC206 POWER CONTROL IN.
3. Connect cables from the Audio Outputs of a McIntosh A/V Control Center and Surround Expander to the MC206 INPUTS, making sure to match up the channel identifications between both units.
4. Prepare the Loudspeaker Hookup Cables that attach to the MC206 Power Amplifier by choosing one of the methods below:

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.

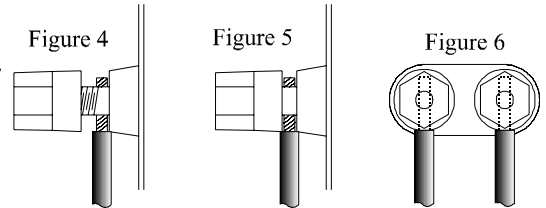


Note: If desired, the twisted ends can be tinned with solder to keep the strands together; or attach spade lug and/or banana connector.

Spade lug or prepared wire connection:

Insert the spade lug connector or prepared section of the cable end into the terminal side access hole, and tighten the terminal cap until the cable is firmly

clamped into the terminal so the wires cannot slip out. Refer to figures 4, 5 & 6.



Banana plug connection:

Insert the banana plug into the hole at the top of the terminal. Tighten the top portion of the terminal post and the set screw to secure the banana plug in place.

Note: The use of Banana Plugs is for use in the United States and Canada only.

5. Connect the Loudspeaker Hookup Cables from the MC206 OUTPUT Terminals to the loudspeakers, being careful to observe the correct polarities and channel designation.

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.

6. Attach each of the three supplied Terminal Connection Covers with the four Pan Head Mounting Screws (6-32 x 5/16 inch) to the Rear Panel of the MC206 Amplifier. Refer to figures 7 and 8.

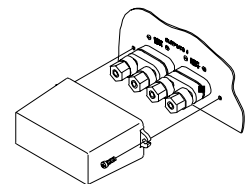
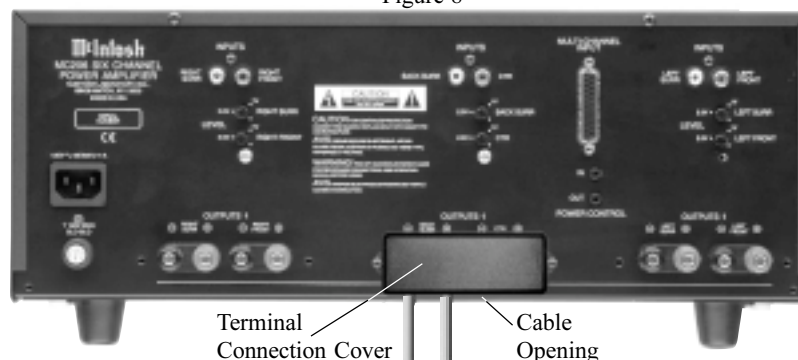


Figure 7

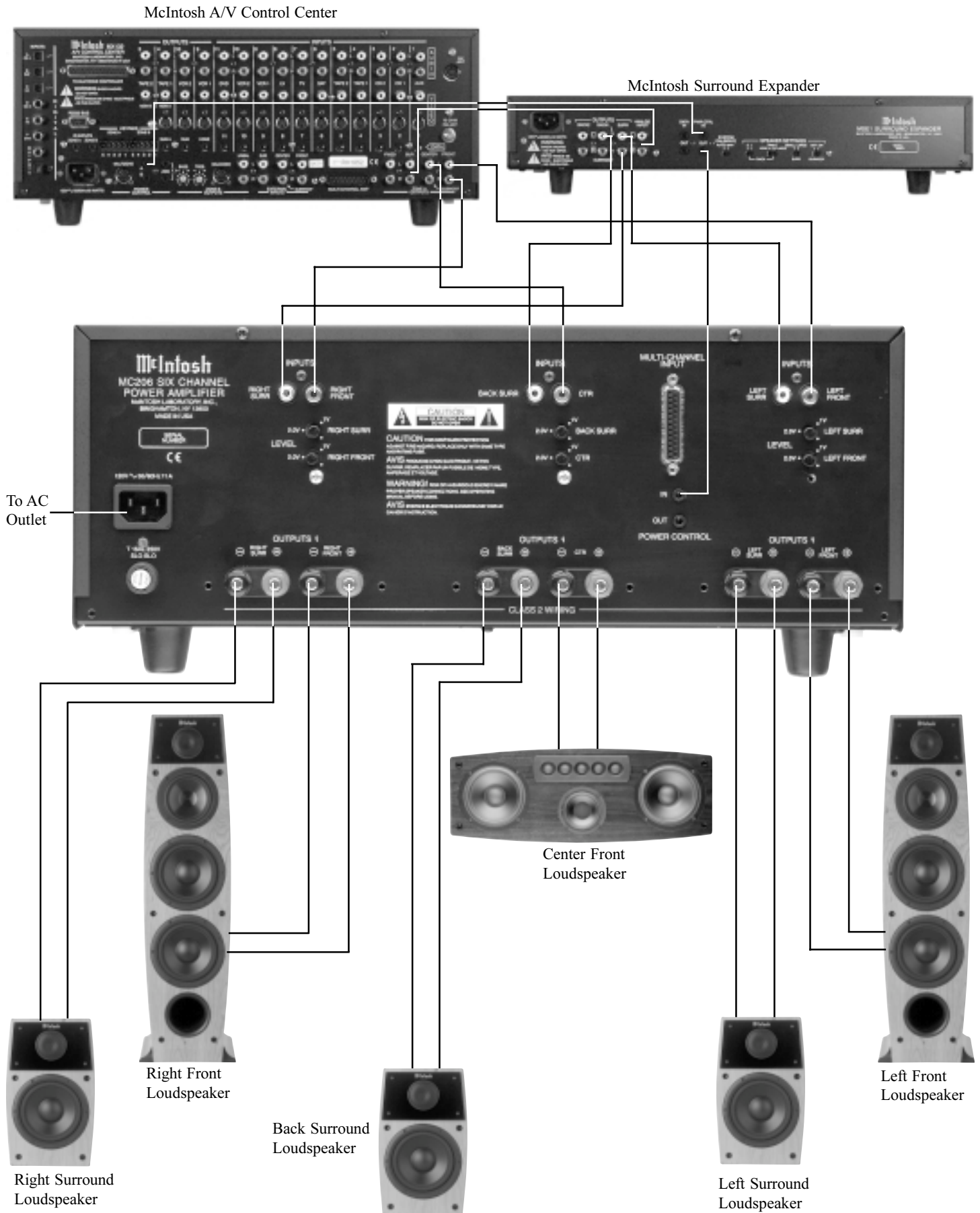
Note: There are four openings on the bottom edge of the cover to allow the Loudspeaker Cables to exit the MC206.

7. Connect the MC206 Power Cord to an active AC outlet.

Figure 8



How to Connect the MC206 for Six Channels



POWER OUTPUT METERS
indicate power output of the
amplifier channel(s)

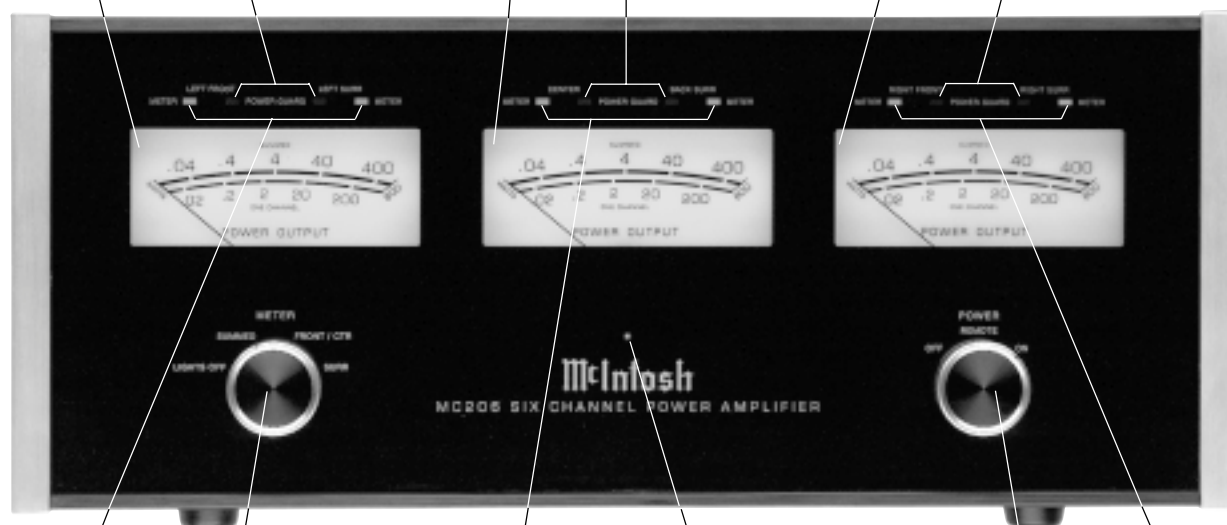
POWER GUARD LEDs
light when the LEFT
FRONT, or LEFT
SURROUND Amplifier
Channel POWER
GUARD Circuit activates

POWER OUTPUT METERS
indicate power output of the
amplifier channel(s)

POWER GUARD LEDs
light when the CENTER
or BACK SURROUND
Amplifier Channel
POWER GUARD Cir-
cuit activates

POWER OUTPUT METERS
indicate power output of the
amplifier channel(s)

POWER GUARD LEDs
light when the RIGHT
FRONT or RIGHT
SURROUND Amplifier
Channel POWER
GUARD Circuit activates



METER LEDs
indicate the
Power Output
Meter is display-
ing the LEFT
FRONT and/or
LEFT
SURROUND
Channels

METER LEDs
indicate the
Power Output
Meter is display-
ing the CENTER and/
or BACK
SURROUND
Channels

Remote On Indicator
lights when the amplifier
is in the Remote Turn-On
Mode

METER LEDs
indicate the
Power Output
Meter is display-
ing the RIGHT FRONT
and/or RIGHT
SURROUND
Channels

METER Switch selects
the Display Modes of the
Power Output Meters

POWER Switch Turns
AC Power Off, Remote
(On/Off) or On

How to Operate

Power On

To have the MC206 turn On or Off when a A/V Control Center turns On or Off, rotate the POWER Switch to the REMOTE Position. For manual operation, rotate the POWER Switch to the ON or OFF Position as desired. Refer to figure 9.



Figure 9

Note: There must be a power control connection between the MC206 and the McIntosh A/V Control Center or Surround Decoder in order for the remote power turn-on to function.

Input Level Controls

When using a McIntosh A/V Control Center or Surround Decoder set all six level controls to the 2.0V position. If an A/V Control Center or Surround Decoder has a 1.0V output rating, set the controls to the 1.0V position. If an increase or decrease in amplifier sensitivity is required for other applications, set the controls as desired. Refer to figure 10.



Figure 10

Meter Selection

Rotate the meter mode switch to select the meter operation mode you desire. Refer to figure 11.

LIGHTS OFF - Meter lights are turned off and the meters are in the Summed Mode.

SUMMED - Each meter displays the combined outputs of two channels. The Left Meter indicates the Left Front



Figure 11

combined with the Left Surround, the Center Meter indicates the Center Front combined with the Back Surround and the Right Meter indicates the Right Front combined with the Right Surround; refer to the upper meter scale(s). Refer to figure 12.



Figure 12

FRONT/CTR - The Left Meter indicates the Left Front Channel, the Center Meter indicates the Center Channel and the Right Meter indicates the Right Front Channel; refer to the lower meter scale(s). Refer to figure 13.

SURR

- The Left Meter indicates the Left Surround Channel, the Center Meter indicates the Back Surround Channel and the right meter indicates the Right Surround Channel; refer to the lower meter scale(s). Refer to figure 13.



Figure 13

Note: When the MC206 is connected to a McIntosh MX132 A/V Control Center with a DB25 conductor cable, the meters will automatically indicate the output of each individual channel(s) (Front and Side Surround) during the Speaker Level Setup Operation of the MX132. This function is independent of any Meter Mode selections on the MC206.

How to Read the Power Output Meters

The MC206 Power Output Meter scales are based on using 4 ohm loudspeakers. If 8 ohm speakers are used, the actual power output is one half the power available to drive 4 ohm loudspeakers. Use the chart(s) below and on the next page to determine the actual power output sent to your loudspeakers. Refer to 14.

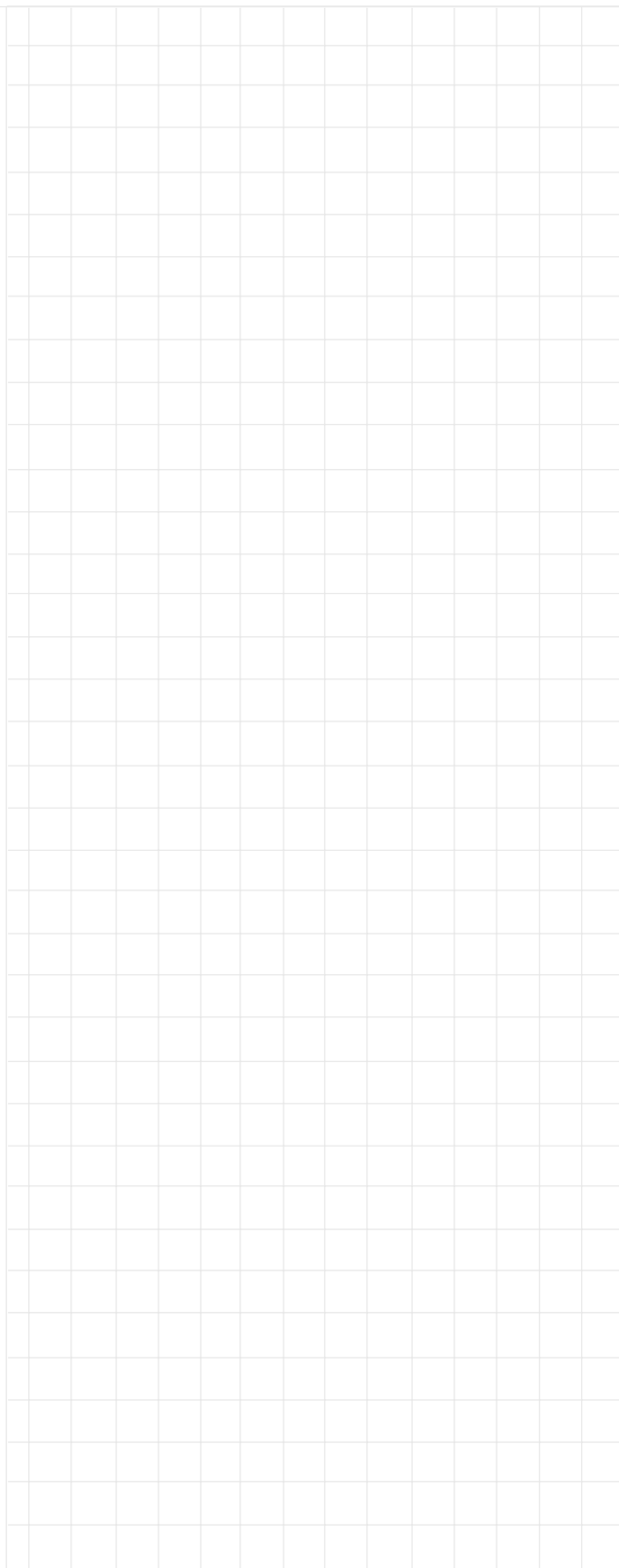


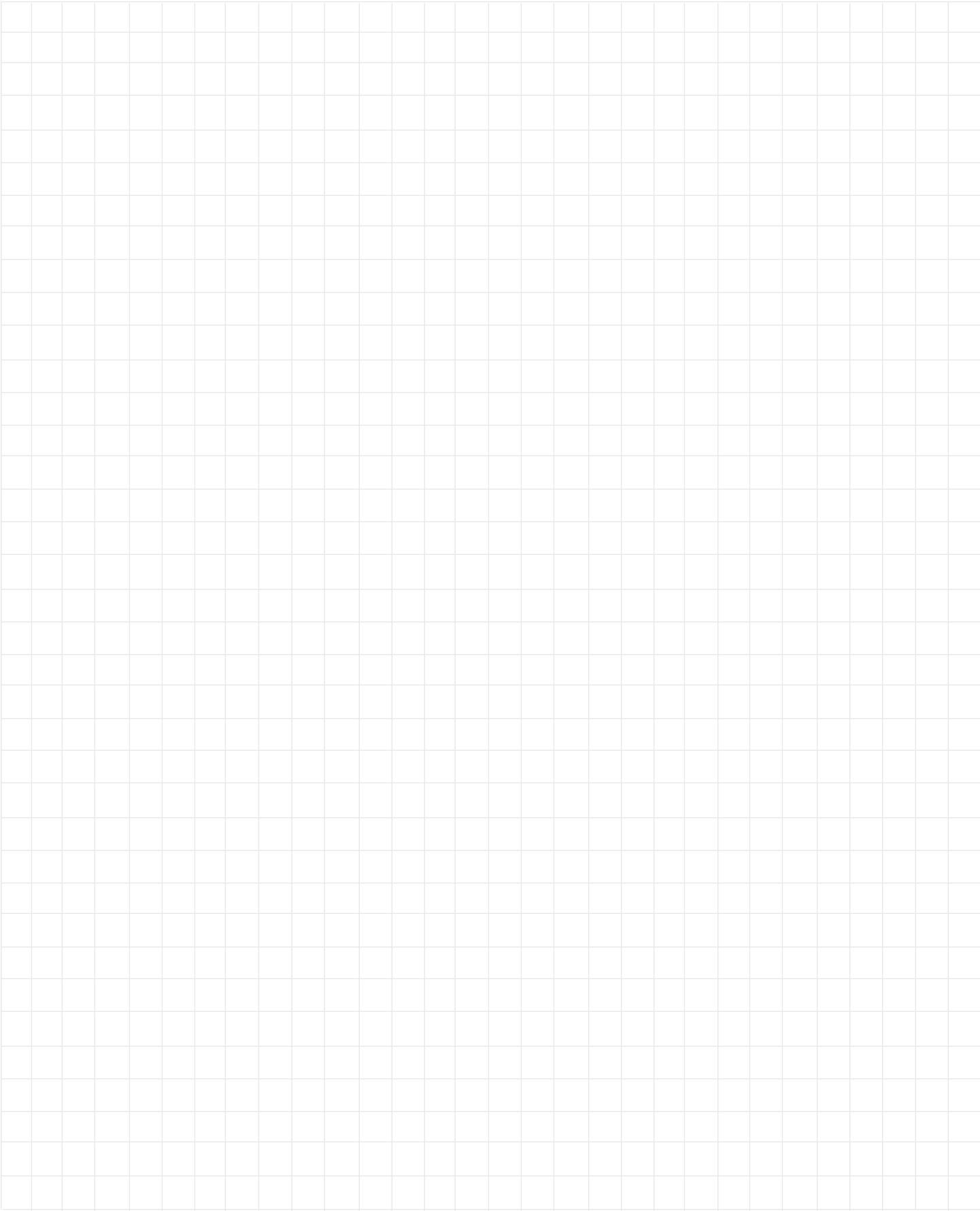
Figure 14

Summed Channels Meter Readings		
Meter Reading	4 Ohm Loudspeaker(s)	8 Ohm Loudspeaker(s)
.04	.04 Watts	.02 Watts
.4	.4 Watts	.2 Watts
4	4 Watts	2 Watts
40	40 Watts	20 Watts
400	400 Watts	200 Watts

Single Channel Meter Readings		
Meter Reading	4 Ohm Loudspeaker(s)	8 Ohm Loudspeaker(s)
.02	.02 Watts	.01 Watts
.2	.2 Watts	.1 Watts
2	2 Watts	1 Watts
20	20 Watts	10 Watts
200	200 Watts	100 Watts

CAUTION: When the MC206 amplifier is used in specific Countries (Austria, Belgium, Germany, Denmark, Spain, Finland, France, United Kingdom, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Sweden), only loudspeakers of 8 ohms impedance or higher should be connected.





Specifications

Power Output

Minimum sine wave continuous average power output per channel, all channels operating is:

200 watts into a 4 ohm load

120 watts into a 8 ohm load

Rated Power Band

20Hz to 20,000Hz

Total Harmonic Distortion

Maximum Total Harmonic Distortion at any power level from 250 milliwatts to rated power output is:

0.005% for 4 or 8 ohm loads

Dynamic Headroom

1.6dB

Frequency Response

+0, -0.25dB from 20Hz to 20,000Hz

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

Sensitivity

1.0 Volt

A-Weighted Signal To Noise Ratio

92dB (113dB below rated output)

Intermodulation Distortion

Maximum Intermodulation Distortion if instantaneous peak output per channel does not exceed twice the rated output, for any combination of frequencies from 20Hz to 20,000Hz, with all channels operating is:

0.005% for 4 or 8 ohm loads

Input Impedance

10,000 ohms

Wide Band Damping Factor

100 at 4 ohms

200 at 8 ohms

Power Requirements

100 Volts, 50/60Hz at 13.2 amps

110 Volts, 50/60Hz at 12.0 amps

120 Volts, 50/60Hz at 11.0 amps

220 Volts, 50/60Hz at 6.0 amps

230 Volts, 50/60Hz at 6.0 amps

240 Volts, 50/60Hz at 6.0 amps

Note: Refer to the rear panel of the MC206 for the correct voltage.

Dimensions

Front Panel: 17-1/2 inches (44.45cm) wide, 7-1/8 inches (18.10cm) high. Depth behind front mounting panel is 18 inches (45.72cm). Clearance required in front of the Front Panel is 1 inch (2.54cm) for knobs.

Weight

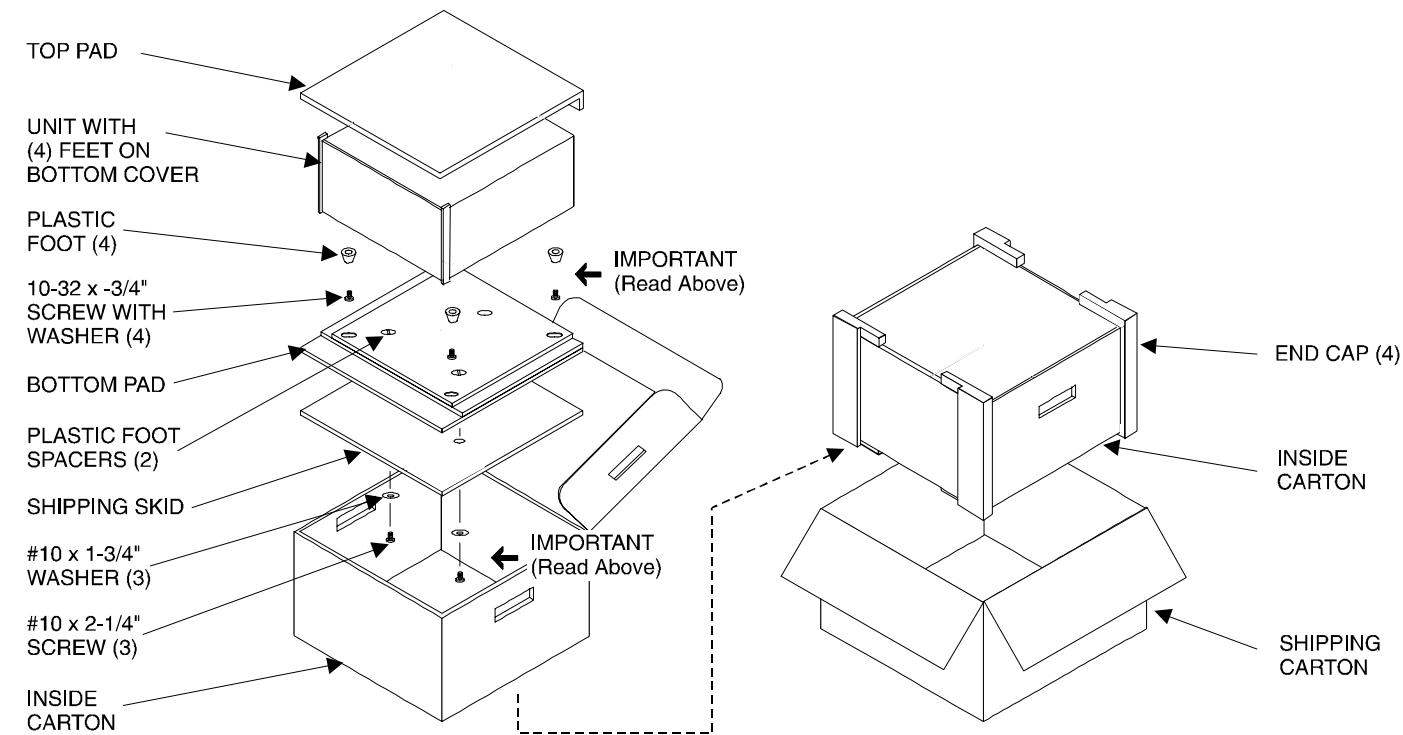
57 pounds (25.9 kg) net, 76 pounds (34.5 kg) in shipping carton

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 three plastic feet are attached to the bottom of the equipment. Three #10 x 2-1/2 inch screws and washers must be used to fasten the unit securely to the bottom pad and wood 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	033888	Shipping carton only
4	033887	End cap (Foam pad)
1	033697	Inside carton only
1	033725	Top Pad
1	034008	Bottom pad
3	017218	Plastic foot (spacer)
1	033699	Shipping skid
3	101169	#10 x 2-1/2 inch Wood screw
3	104033	#10 x 1-3/4 inch Flat washer
4	017218	Plastic foot
4	100159	#10-32 x 3/4 inch Machine screw
4	104083	#10 x 7/16 inch Flat washer



McIntosh[®]

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