MA6500 Integrated Amplifier

MA6500
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.

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 prevenir les chocs electriques pas utiliser cette fiche polarisee avec un prolongateur, une prise de courant ou un autre sortie de courant, sauf si les lames peuvent etre inseres 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 MA6500 Integrated 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

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Introduction

Your decision to own this McIntosh MA6500 Integrated 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.

Performance Features

- **Power Output**
  The MA6500 consists of two separate power amplifier channels, each capable of 200 watts and a sophisticated control center in one compact unit with less than 0.005% distortion.

- **Power Guard**
  Both channels include the patented McIntosh Power Guard circuit that prevents the amplifier from being overdriven into clipping with its harsh distorted sound that can also damage your valuable loudspeakers.

- **Electronic Input Switching**
  Digital Logic integrated circuits drive Electromagnetic switches on all six inputs and operating functions for reliable, noiseless, distortion free switching.

- **Speaker Switching**
  Front panel Speaker push-buttons control two switched outputs that allow you to send signals to two separate pairs of loudspeakers.

- **Sentry Monitor and Thermal Protection**
  McIntosh Sentry Monitor power output stage protection circuits ensure the MA6500 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 MA6500 are peak responding, and indicate the power output of the amplifier.
MA6500 Dimensions

The following dimensions can assist in determining the best location for your MA6500. There is additional information on the next page pertaining to installing the MA6500 into cabinets.
Installation

The MA6500 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 MA6500 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 MA6500 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 MA6500. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MA6500 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.
Connect the MA6500 power cord to a live AC outlet. Refer to information on the back panel to determine the correct voltage.

**POWER CONTROL**
- Output sends turn-on signal to a McIntosh Component

**The EXT (external) SENSORS for a McIntosh Keypad or IR Sensor**

**POWER AMP INPUT Switch**
- Allows an external preamplifier connection to the MA6500 Power Amplifier

**DATA PORTs**
- Send signals to compatible source components to allow you to remote control them

**GND terminal**
- Accepts a ground wire from a turntable

**PH/AUX INPUTS**
- Accept signals from a Moving Magnet phono cartridge or an audio high level signal, depending on the position of the PH/ AUX Switch

**CD1 and CD2 inputs**
- Accept signals from separate CD players

**MAIN OUTPUTS**
- Supply the Preamplifier Output to an external power amplifier

**TAPE OUTPUTS**
- Supply record signals for tape recorders

**POWER AMP IN inputs**
- Accept signals from separate external preamplifier

**HOME Data Port**
- Is for use with the optional HC-1 Home Controller

**SUM Data Port**
- Connects to a McIntosh Remote Control Translator

**SPKERS 1 and 2**
- The signal output controlled by the front panel SPEAKER push-buttons

**TUNER inputs**
- Accept signals from the output of a tuner

**TAPE OUT-PUTS**
- Supply record signals for tape recorders

**TAPE inputs**
- Are for tape recorders

**VIDEO inputs**
- For audio signals from a LV, VCR, TV or the optional A/V Selector

**POWER AMP IN**
- Accepts signals from separate external preamplifier

**Fuse holder, refer to information on the back panel to determine the correct fuse size and rating**

**SPEAKERS 1 and 2**
- The signal output controlled by the front panel SPEAKER push-buttons

**The PH/AUX Switch**
- Selects signals from a Moving Magnet phono cartridge or an audio high level signal

**PH (Phono)/AUX INPUTS**
- Accept signals from a Moving Magnet phono cartridge or an audio high level signal
How to Connect Loudspeakers

Caution: The supplied AC Power Cord should not be connected to the Rear Panel of the MA6500 Amplifier until after the Loudspeaker Connections have been made. Failure to observe this could result in Electric Shock.

1. Prepare the Loudspeaker Hookup Cables that attach to the 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.
     Note: Banana Plugs are for use in the United States and Canada only.

2. Connect the loudspeaker cables to the appropriate terminals (SPEAKERS 1 or 2) for your loudspeakers, being careful to observe the correct polarities.

3. Install the plastic protective loudspeaker terminal covers that were supplied with your amplifier. Refer to figures 7 and 8.

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.
How to Connect Audio Components

1. Connect an Audio Cable from the McIntosh CD Player Audio Outputs to the MA6500 CD2 INPUTS.
2. Connect an Audio Cable from a McIntosh Tuner 1 Outputs to the MA6500 TUNER INPUTS.
3. Connect an Audio Cable from a Turntable to the PH/AUX INPUTS and the Turntable Ground Connection to the GND grounding post.
4. Connect an Audio Cable from the MA6500 TAPE OUTPUTS to the Record Inputs of a Tape Recorder and from the MA6500 TAPE INPUTS to a Tape Recorder Outputs.
5. Connect a Control Cable from the MA6500 POWER CONTROL ACC Jack to the Power Control In on the McIntosh Tuner.
6. Connect a Control Cable from the McIntosh Tuner Power Control Out Jack to the Power Control In jack on the McIntosh CD Player.
7. Connect a Control Cable from the MA6500 TUNER DATA PORT Jack to the McIntosh Tuner Data In (Tuner 1).
8. Connect a Control Cable from the MA6500 CD2 DATA PORT Jack to the McIntosh CD Player Data In Jack.
9. Connect an RG6 or RG59U coaxial cable from the External SENSOR Jack to a Keypad. 
   Note: A Wall Mounted IR Sensor may also be used in place of the keypad.
10. Connect the MA6500 Power Cord to a live AC outlet.
How to Connect for Video Switching

1. Connect a Data cable from the MA6500 VIDEO DATA PORT to the Audio/Video Selector Data In jack.
2. Connect the Audio/Video Selector Control Center Audio Outputs to the MA6500 VIDEO INPUTS.
3. Connect the Audio/Video Selector Video Monitor Output to a Monitor/TV.
   *Note: Either or both Audio/Video Selector Monitor Output(s) may be connected to the Monitor/TV.*
4. Connect a McIntosh DVD/CD Player Audio Outputs to the Audio/Video Selector V-Aux Audio Inputs, the Video Output to the Audio/Video Selector Video Input and the Control Out to the Audio/Video Selector Data Output jack.
5. Connect a Control Cable from the MA6500 POWER CONTROL ACC Jack to the Power Control In on the McIntosh DVD/CD Player.
6. Connect other video source components to the appropriate audio and video and data jacks on the Audio/Video Selector.
Front Panel Controls, Push-Buttons and Switch

- **BASS control** provides 12dB boost or cut with a flat center position.
- **TREBLE control** provides 12dB boost or cut with a flat center position.
- **METER** indicates the Left Channel Power Output of the amplifier.
- **POWER GUARD** LEDs light when the amplifier’s channel POWER GUARD circuit activates.
- **The BALANCE control** allows adjustment of the relative volume balance between channels.
- **POWER switch** turns all AC power completely ON or OFF.
- **VOLUME control** allows adjustment of the listening level for both channels.
- **METER** indicates the Right Channel Power Output of the amplifier.
- **LOUDNESS** provides frequency response contoured to compensate for the behavior of the human ear at softer listening levels.
- **POWER GUARD** circuits activate.
- **STANDBY/ON** push-button turns the MA6500 ON, or OFF (Standby).
- **MONO** push-button combines the left and right channel signals for Mono operation.
- **MUTE** push-button mutes the listening audio.
- **SPEAKERS 1 and 2** push-buttons turn the speakers On or Off.
- **HEADPHONES jack** allows connection of Stereo Headphones for private listening.
- **IR Sensor** receives commands from a remote control.
- **Select any one of the six Audio signal sources**.
How to Operate

Power On
Press the POWER switch to ON. The Red LED above the STANDBY/ON push-button, lights to indicate the MA6500 is in Standby mode. To turn On the MA6500, press the STANDBY/ON push-button. The MUTE LED will light for approximately two seconds after turn on. Refer to figures 9 and 10.

Note: For normal operation, turn the MA6500 On and Off with the Standby/On push-button. If the amplifier is not going to be used for an extended time, turn off all AC Power with the Power Switch. You may also turn On the MA6500 by simply pressing the desired Source Selection Push-button on the Front Panel or Remote Control.

Source Selection
Select the desired source with the appropriate push-button switch on the Front Panel or Remote Control. Refer to figures 10 and 11 and page 15 for additional information.

Volume Control
Adjust the VOLUME control for the desired listening level.

PH/AUX Inputs
When using a phono player with a moving magnet cartridge connected to the PH/AUX inputs, set the PH AUX switch to the PH position. When using an auxiliary program source component connected to the PH/AUX inputs, set the PH AUX switch to the AUX position. Refer to figure 12.

Balance Control
Adjust the BALANCE control as needed to achieve approximately equal listening volume levels in each loudspeaker. Turn the BALANCE to the left to emphasize the Left Channel by reducing the level of the Right Channel. Turn the BALANCE to the right to emphasize the Right Channel by reducing the level of the Left Channel.

Bass and Treble Controls
Adjust the BASS and TREBLE controls to suit your listening preferences. The bass or treble intensity can be increased with clockwise rotation and decreased with counterclockwise rotation. All tone control circuit elements are removed from the signal path when the controls are in the center or flat position.

Loud Switch
Press the LOUD push-button to add loudness bass compensation to the volume control for improved low level listening.

Mono
Press the MONO push-button to combine left and right stereo signals to mono at the SPEAKERS 1 and 2 and HEADPHONES output.

Mute
Press the MUTE push-button to mute audio in all outputs except the HEADPHONES and TAPE OUTPUT. The MUTE LED above the push-button will flash on and off to indicate that Mute is active. To unmute audio, press MUTE, press the Remote Control Volume push-button(s) or press an Input push-button.
Speakers 1 and 2
Press SPEAKERS 1 or 2 push-buttons to switch the two pairs of speakers on or off. You can press either push-button individually, or both together. Refer to figure 13.

Headphones Jack
Connect a pair of dynamic headphones to the Headphones Jack for private listening. Press Mute to mute all other outputs including the amplifier connected to the loudspeakers. Refer to figure 13.

Reset of Microprocessors
In the event that the controls of the MA6500 stop functioning, push the POWER switch OFF and wait about two minutes. Then push the POWER switch ON followed by pushing the STANDBY/ON push-button. This will reset the MA6500 microprocessors and the Integrated Amplifier should be functioning normally.

Note: The above condition is usually caused by either interruptions in AC power and/or major changes that may occur in AC power line voltage.

Using a Separate Power Amplifier
There are two different ways to use a separate power amplifier with a MA6500. The first way is to use the separate amplifier instead of the MA6500 built-in power amplifier. Connect the loudspeakers to the separate power amplifier and set the rear panel POWER AMP INPUT Switch to the EXT position. Refer to figure 14.

Note: When a separate power amplifier is connected to the MA6500 and the POWER AMP INPUT Switch to the EXT position, the MA6500 Front Panel SPEAKERS Push-button Switches will no longer function.

The second way is to use both a separate power amplifier and the MA6500 built-in power amplifier. Connect one pair of loudspeakers to the separate power amplifier and the second/third pair to the MA6500. Set the rear panel POWER AMP INPUT Switch to the INT position. Refer to figure 14.

Note: The MA6500 VOLUME Control will affect the sound level of all the loudspeakers.

How To Make A Tape Recording
1. Select the source signal you wish to record with the appropriate Front Panel input push-button. If you wish to record from an Audio/Video source connected to the optional McIntosh Audio/Video Selector Audio/Video Selector, using the Remote Control, select the desired source connected to the McIntosh Audio/Video Selector. Refer to figure 15.

2. Adjust the record level using the tape recorder volume control and proceed with the recording process.

3. To listen to the tape playback of the program source just recorded, press the TAPE input push-button.

Note: The MA6500 TAPE OUTPUTS are not affected by the VOLUME or BALANCE controls.

Power Output Meters
The MA6500 Power Output Meters indicate the power delivered to the loudspeakers and are based on using 4 and 8 ohm loudspeakers. 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 table below.

<table>
<thead>
<tr>
<th>Meter Reading</th>
<th>Actual Power Output (4 ohms)</th>
<th>Actual Power Output (8 ohms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>200 Watts</td>
<td>100 Watts</td>
</tr>
<tr>
<td>20</td>
<td>20 Watts</td>
<td>10 Watts</td>
</tr>
<tr>
<td>2.0</td>
<td>2 Watts</td>
<td>1 Watts</td>
</tr>
<tr>
<td>.20</td>
<td>0.2 Watts</td>
<td>0.1 Watts</td>
</tr>
<tr>
<td>.02</td>
<td>20 Milliwatts</td>
<td>10 Milliwatts</td>
</tr>
</tbody>
</table>
Remote Control Push-Buttons

- Press to Power the MA6900 ON or OFF
- Selects one of the twelve High Level Audio/Video Sources or Phono Input
- Selects CD Player or Tape Recorder Functions and also performs various functions on a variety of McIntosh Components
- Use to select tuner presets, disc tracks or any numbered operation
- Selects Speaker 1, AM Tuner Operating Functions and Disc Selection on certain McIntosh CD Players
- Mutes the audio
- Adjusts the volume level up or down
- Press the push-button to illuminate the keys
- Selects the REWind Mode on Disc Players and Tuning Down the AM/FM Dial
- Selects Functions for McIntosh Home Controller and as a “shift” key when used with the AM or FM push-buttons to select Speakers 1 or 2
- Selects On Screen Functions for McIntosh DVD Players and certain CD Players
- Selects the Fast Forward Mode on Disc Players and Tuning Up the AM/FM Dial
- Press MODE to switch between Stereo or Mono Modes
- Press TRIM to turn the Loudness Control On or Off
- Selects Speaker 2, FM Tuner Operating Functions and Track Selection on certain McIntosh CD Players
- Press to REVIEW Tuner Station Presets and selects certain functions on McIntosh CD Players

Note: The Remote Control push-buttons that are blackened out are for use with other McIntosh Products.
How to Operate by Remote Control

The supplied remote control is capable of directly controlling the functions of contemporary McIntosh Source Components connected to the MA6500. Earlier McIntosh source components and other brand source components can be controlled by the MA6500 with the addition of a McIntosh Remote Control Translator (RCT).

Note: Your McIntosh Dealer can assist you with the installation and operation of the Remote Control Translator (RCT).

Mute
Press the MUTE push-button to mute audio at the SPEAKERS 1 and 2 and the MAIN OUTPUT Jacks. The TAPE OUTPUTS and HEADPHONES output are not affected by the MUTE function. The MUTE LED above the push-button will flash on and off to indicate that Mute is active. Press MUTE a second time to unmute audio.

Mono
Press the MODE push-button to combine left and right Stereo Signals to Mono at the SPEAKERS 1 and 2 and the MAIN OUTPUT Jacks.

Trim
Press the TRIM push-button to active the Loudness Compensations circuit.

Input Source Selection
Press any of the twelve input push-buttons to select a program source. When one of the Audio/Video Inputs (SAT, LV, TV, VCR, VCR2 and DVD) are selected by remote control, the MA6500 will automatically switch to the VIDEO Input. If the Front Panel VIDEO Push-button is pressed, the source device connected to the VIDEO INPUT Jacks will be heard. When the optional McIntosh MVS Audio/Video Selector is added, multiple Audio/Video Inputs Sources, such as LV, TV, VCR, VCR2 and DVD (V-Aux), will become available by just pressing the desired program source push-button on the remote control.

CD/Tape Functions
Use these push-buttons to operate a CD player, CD changer or tape recorder.

Numbered Push-buttons
Press push-buttons 0 through 9 to access tuner station presets or CD tracks/discs.

Disc and Track
Use the DISC and TRACK push-buttons when a CD player or changer is being used.

Tuner Push-buttons
Press the AM or FM push-button to select the desired broadcast band. Press and release the Channel Up ▲ or Down ▼ push-button to move from station to station. Press and hold a Channel Up ▲ or Down ▼ push-button to move continuously from station to station. Press REVIEW to start the automatic brief audition of each of the presets stored in the tuner memory. Press REVIEW a second time to stop on a station preset and exit the Review process.

Volume
Press the Up or Down VOLUME push-button to raise or lower the listening volume level.

Note: The TAPE OUTPUTS are not affected by volume changes.

Speaker Selection
Press HOME push-button followed by the SPEAKER 1 or 2 push-buttons either separately or together, to activate the loudspeakers connected to the MA6500.

Acc On
Press ACC ON to turn the power ON to a McIntosh Disc Player.

Acc Off
Press ACC OFF to turn the power OFF to a McIntosh Disc Player.

E
Press E to perform various functions on a variety of McIntosh Components. It will also pause the playing of a disc or tape player.

Lighting
Press and release the LIGHTING push-button to momentarily illuminate the upper half of the remote control push-buttons.

Note: While the LIGHTING push-button is being depressed, the remote control will be unable to send a remote command. When the LIGHTING push-button is released the push-buttons will continue to stay illuminated for approximately three seconds thus allowing you to send the desired command. If any of the translucent push-buttons are depressed, they will continue to stay illuminated for approximately three seconds.
Note: The Loudness Compensation Range is a combination of the Loudness Circuitry and the Volume Control’s rotational position. When the Loudness Circuit is active, the first 50% rotation of the Volume Control achieves maximum loudness compensation, as shown on the upper curve. When the Volume control is rotated beyond the 50% point, the loudness compensation is gradually reduced, as shown by the remaining curves.
Specifications

Power Output
Minimum sine wave continuous average power output per channel, all channels operating is:
200 watts into 4 ohm load
120 watts into 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
2.4dB

Frequency Response
+0, -0.5dB from 20Hz to 20,000Hz
+0, -3dB from 10Hz to 100,000Hz

Sensitivity
Phono, 2.5mV for 2.5V rated output (0.5mV IHF)
High Level, 250mV for 2.5V rated output (50mV IHF)
Power Amplifier Input, 2.5V for rated output

Signal To Noise Ratio (A Weighted)
90dB (84dB IHF) below 10mV input, Phono Input
100dB (90dB IHF) below rated output, High Level
110dB below rated output, Power Amplifier

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
Phono, 47K ohms, 65pF
High Level, 22K ohms

Maximum Input Signal
Phono, 90mV
High Level, 8V

Preamplifier Maximum Voltage Output
Phono, 8V at tape output
High Level, 8V at tape output
Main Out, 8V at preamp output

Voltage Gain
High Level to Tape: 0dB
High Level to Main: 20dB

Damping Factor
120 at 4 ohms
230 at 8 ohms

Power Requirements
100 Volts, 50/60Hz at 7.4 amps
110 Volts, 50/60Hz at 6.2 amps
120 Volts, 50/60Hz at 6.2 amps
220 Volts, 50/60Hz at 3.1 amps
230 Volts, 50/60Hz at 3.1 amps
240 Volts, 50/60Hz at 3.1 amps

Note: Refer to the rear panel of the MA6500 for the correct voltage.

Overall Dimensions
Front Panel: 17-1/2 inches (44.45cm) wide, 7-1/8 inches (18.10cm) high. Depth behind front mounting panel is 16-1/2 inches (41.91cm). Clearance required in front of the Front Panel is 1 inch (2.54cm) for knobs.

Weight
74.5 pounds (33.8 Kg) net, 92.5 pounds (41.7 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 four plastic feet are attached to the bottom of the equipment. Three #10 x 2-1/4 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.

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>033888</td>
<td>Shipping carton only</td>
</tr>
<tr>
<td>2</td>
<td>033887</td>
<td>End cap (Foam pad)</td>
</tr>
<tr>
<td>1</td>
<td>033697</td>
<td>Inside carton only</td>
</tr>
<tr>
<td>1</td>
<td>033725</td>
<td>Top Pad</td>
</tr>
<tr>
<td>1</td>
<td>034008</td>
<td>Bottom pad</td>
</tr>
<tr>
<td>2</td>
<td>017218</td>
<td>Plastic foot (spacer)</td>
</tr>
<tr>
<td>1</td>
<td>033699</td>
<td>Wood skid</td>
</tr>
<tr>
<td>2</td>
<td>101204</td>
<td>#10 x 2-1/4 inch Wood screw</td>
</tr>
<tr>
<td>2</td>
<td>104033</td>
<td>#10 x 1-3/4 inch Flat washer</td>
</tr>
<tr>
<td>4</td>
<td>017218</td>
<td>Plastic foot</td>
</tr>
<tr>
<td>4</td>
<td>100159</td>
<td>#10-32 x 3/4 inch Machine screw</td>
</tr>
<tr>
<td>4</td>
<td>104083</td>
<td>#10 x 7/16 inch Flat washer</td>
</tr>
<tr>
<td>1</td>
<td>048572</td>
<td>Sipping Carton Complete</td>
</tr>
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