



McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903-2699 Phone: 607-723-3512 [www.mcintoshlabs.com](http://www.mcintoshlabs.com)

# MA8950

INTEGRATED AMPLIFIER  
OWNER'S MANUAL





## Thank You from all of us at McIntosh

You have invested in a precision instrument that will provide you with many years of enjoyment. Please take a few moments to familiarize yourself with the features and instructions to get the maximum performance from your equipment. If you need further technical assistance, please contact your dealer who may be more familiar with your particular setup including other brands. You can also contact McIntosh with additional questions or in the unlikely event of needing service.

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## Please Take A Moment

For future reference, you can write down your serial number and purchase information here. We can identify your purchase from this information if the occasion should arise:

**Serial Number:** \_\_\_\_\_

**Purchase Date:** \_\_\_\_\_

**Dealer Name:** \_\_\_\_\_

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## Introduction

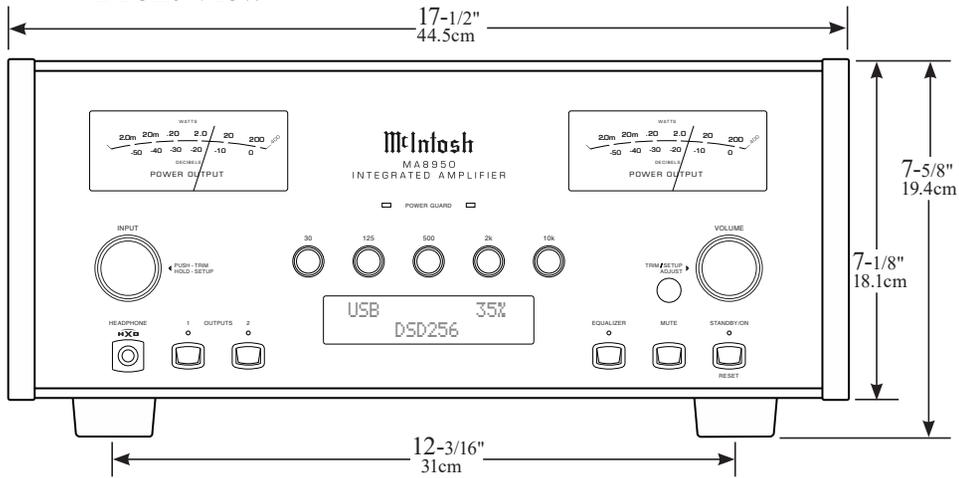
The MA8950 Integrated Amplifier offers 200 watts per channel and combines McIntosh's amplification expertise and preamplifier technologies into one comprehensive stereo sound system component.

## Safety First

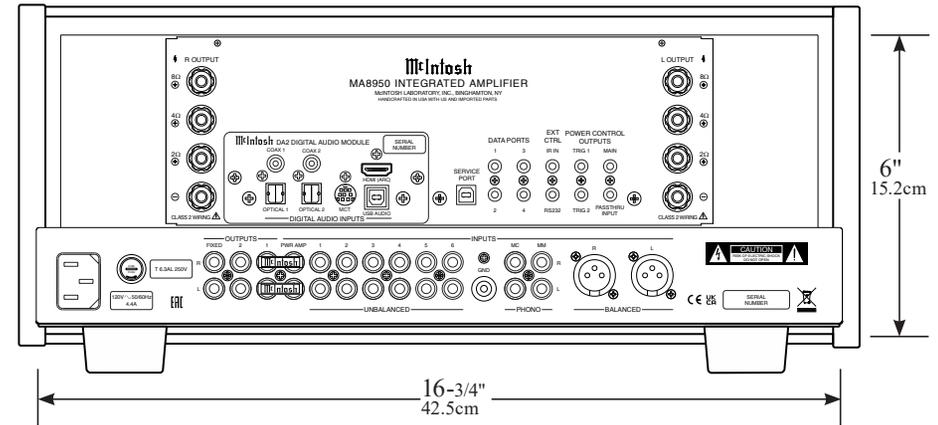
Please read the safety instructions included in a separate document called **Important Additional Operation Information Guide**.

Dimensions

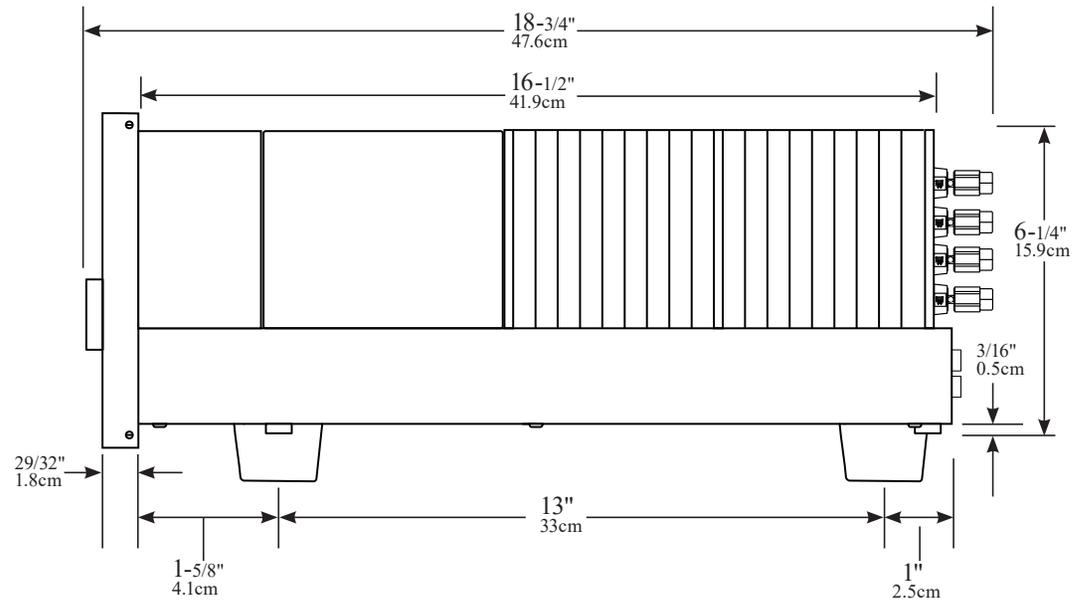
Front View



Rear View



Side View

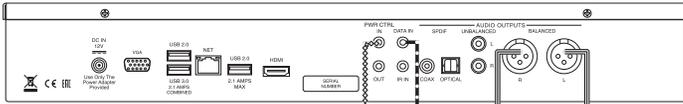


## Connection Diagrams: Input and Control

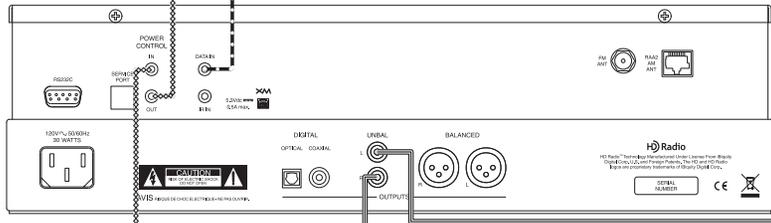
### Connection Legend:

- Data Cable\* Digital Signal Cable
  - Sensor/Keypad Cable Ground Wire
  - Power Control Cable\* Audio Signal Cable
  - Loudspeaker Cable
- \* 2 conductor shielded with 1/8 inch stereo mini phone plug on each end.

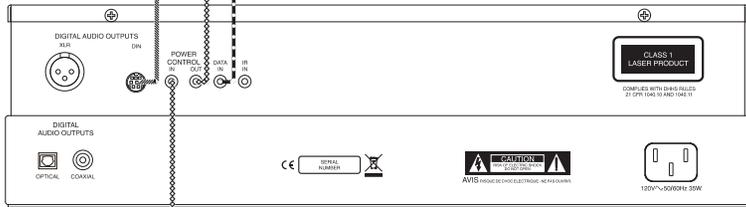
### Media Server



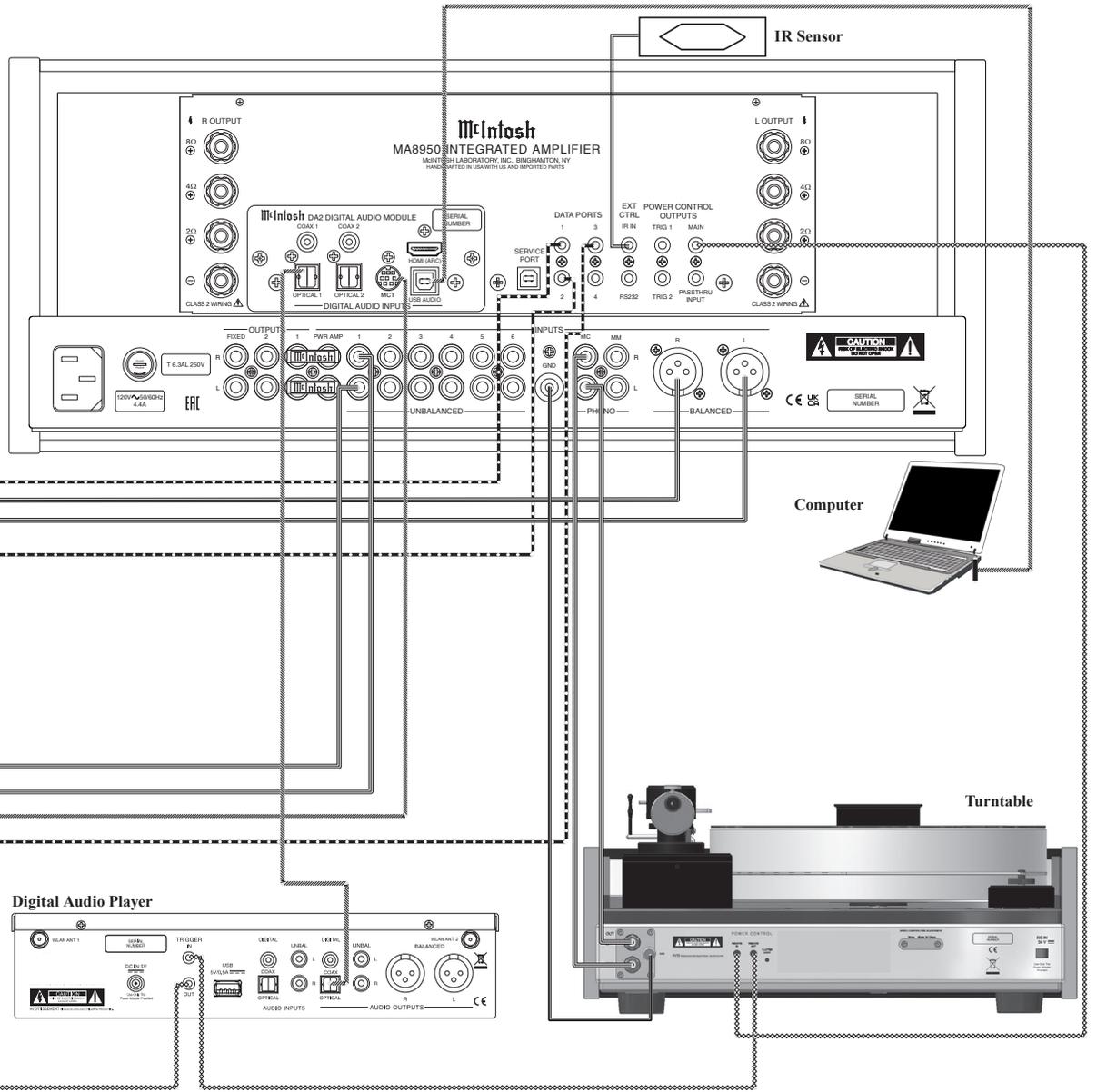
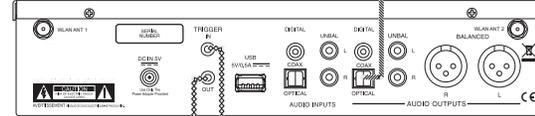
### AM/FM Tuner



### SACD/CD Transport



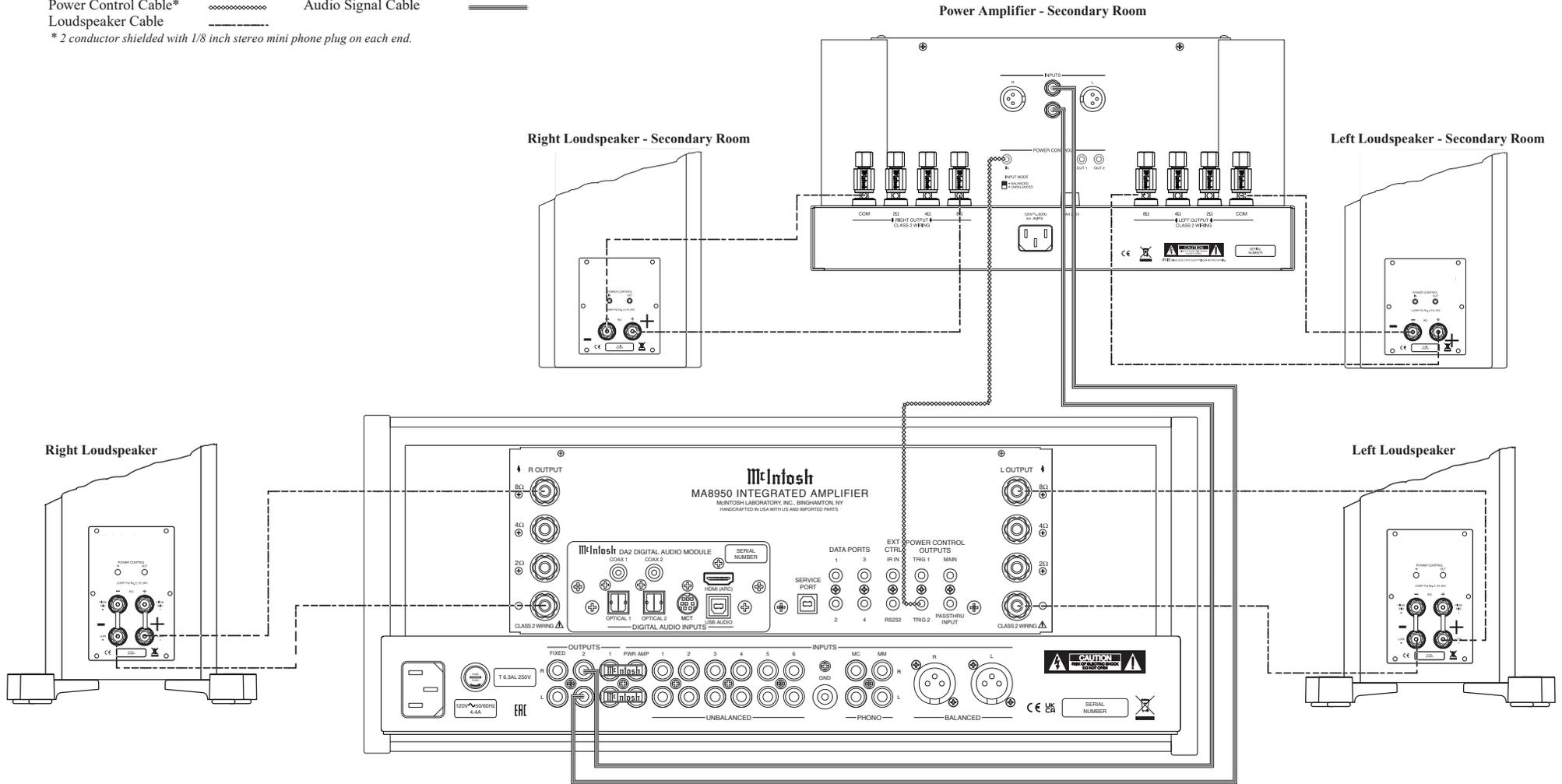
### Digital Audio Player

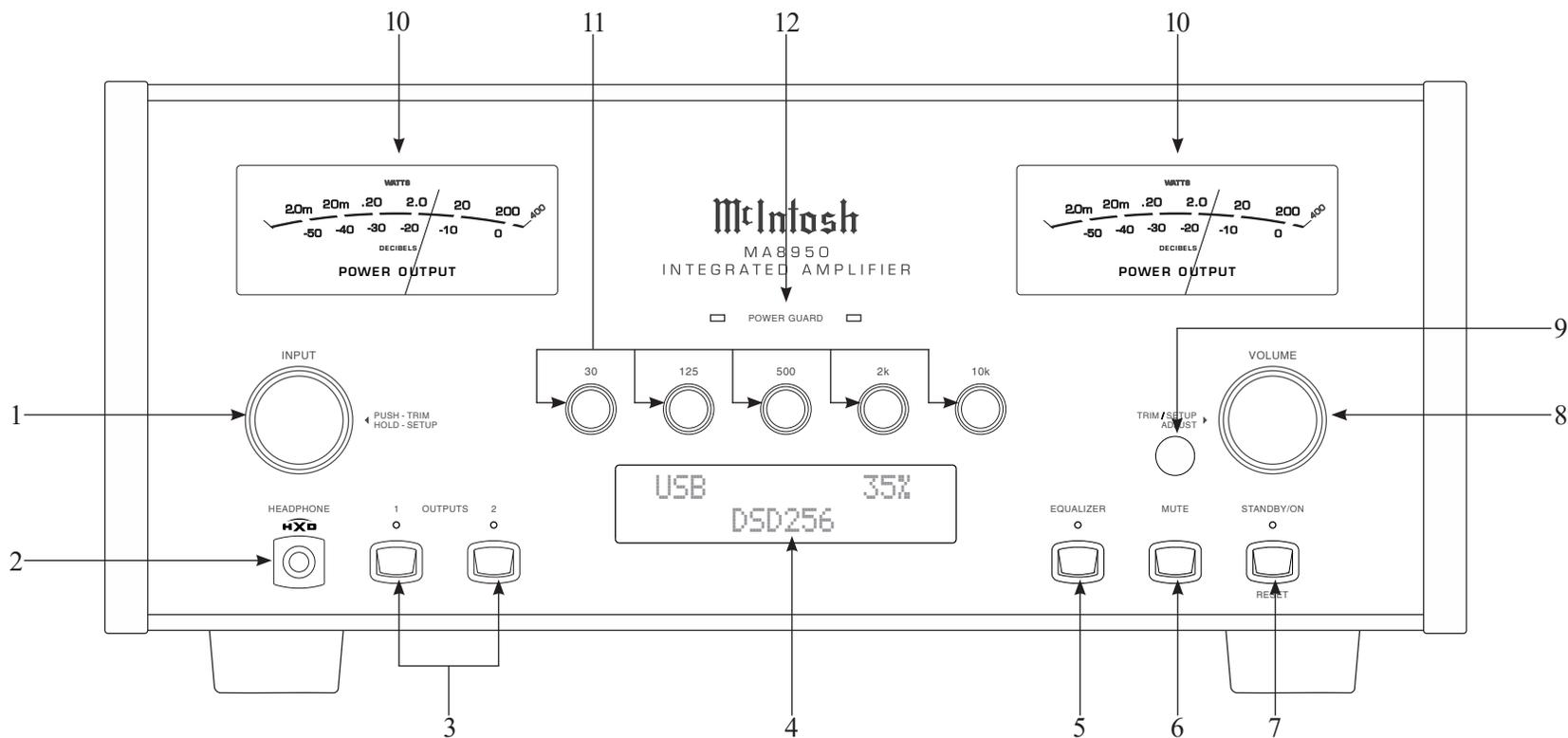


# Connection Diagram: Output and Loudspeakers

**Connection Legend:**

- Data Cable\*                    Digital Signal Cable
  - Sensor/Keypad Cable        Ground Wire
  - Power Control Cable\*        Audio Signal Cable
  - Loudspeaker Cable
- \* 2 conductor shielded with 1/8 inch stereo mini phone plug on each end.*





## Navigating the Front Panel

- 1. Input Control Knob:** Rotate this to select different Input sources for playback, as well as navigate through different options in the menus. Access menus by holding or pressing the Knob in.
- 2. Headphone Jack:** Plug in your .25" headphones here to gain access to the headphone amplifier.
- 3. Outputs Toggle Buttons (1 and 2):** You can toggle playback through the outputs using these buttons.
- 4. Information Display:** This will show information based on your current selection. Shows inputs and Menu options for navigation.
- 5. Equalizer Toggle Button:** Toggle the Equalizer On or Off for the currently selected Input with this button.
- 6. Mute Button:** This will mute all audio playback from the MA8950.

**7. Standby/On Button:** You can turn the device On or Off - put it in Standby Mode - using this button.

**8. Volume Knob:** Adjust the Volume with this Knob. You will also use this to adjust Settings in the menus.

**9. IR Sensor:** This is how the MA8950 receives commands from your Remote Control.

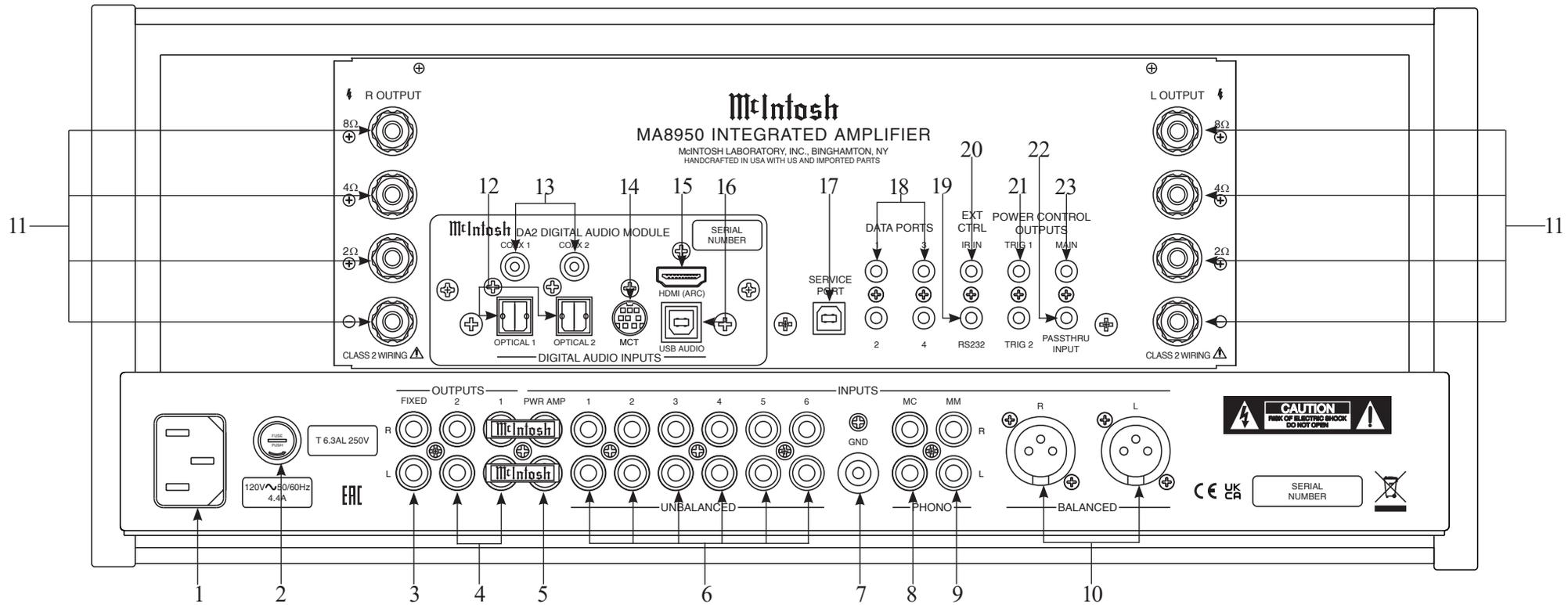
**10. Power Output Meters:** These gauge the power Output from the amplifier channels.

**11. Frequency Adjustment Knobs:** These will adjust the frequencies marked above each Knob for the sound coming through the any Input that has the Equalizer is activated.

**12. Power Guard Lights:** These LED lights will illuminate when McIntosh's patented Power Guard automatically kicks on to prevent playback distortion and protect your system from damage.

## Navigating the Rear Panel

- 1. Main Power:** Attach the included power cable here.
- 2. Main Fuse Holder:** This is where the main fuse to power the unit is located.
- 3. Fixed Outputs:** An RCA connector cable will produce a fixed, non-adjustable Volume level signal from here.
- 4. Outputs (1 and 2):** Use these ports with an RCA cable to send the signals to a subwoofer or power amplifier. Connect included Jumper Plugs (see next page) to Output 1 and PWR AMP to use onboard amp.
- 5. PWR AMP Input:** The included Jumper Plugs connect Output 1 to the onboard power amplifier. Also used as a loop for room correction with Outputs 1 and 2.
- 6. Unbalanced Inputs (1-6):** You can connect up to six high-level unbalanced signals using an RCA connection with these ports.



**Navigating the Rear Panel** *continued*

- 7. GND Input:** This is where you would put a ground wire from a turntable to prevent noise.
- 8. MC Phono Input:** A turntable with a moving coil cartridge will plug in here with an RCA cable.
- 9. MM Phono Input:** A turntable with a moving magnet cartridge will plug in here with an RCA cable.
- 10. Balanced Inputs:** Plug in an XLR connector cable to these ports for balanced signals.
- 11. Loudspeaker Output Terminal Posts:** Connect loudspeakers to these posts.
- 12. Optical Inputs (1 and 2):** These ports accept optical connections for digital signals.
- 13. Coax Inputs (1 and 2):** You will connect coaxial cables for digital signals into these ports.

- 14. MCT Input:** Used to transfer signals from McIntosh products with an MCT connector. Required for SACD audio.
- 15. HDMI (ARC) Input:** Connect an HDMI cord here to share control and connectivity with a compatible ARC TV.  
*Note: The HDMI ARC functionality of the MA8950 is only compatible with ARC TVs. Other devices will not work.*
- 16. USB Audio Input:** A USB Type-B connector will go here to receive a digital signal from a computer.
- 17. Service Port:** This USB Type-B port will be used for service purposes only.
- 18. Data Ports (1-4):** Using 3.5mm data cables (see next section), you can plug other McIntosh devices into these ports and control them with your McIntosh Remote Control.

- 19. RS232 Port:** Using a 3.5mm-to-DB9 cable, you can connect the device to a computer or another controller device through here.
- 20. IR In Port:** Connect an external IR sensor here with a 3.5mm connector.
- 21. Trigger Ports (1 and 2):** Connecting external components to these ports via a 3.5mm connection (see next section) will allow you to send a signal to turn those devices On or Off from a signal sent by the MA8950.
- 22. Passthru Input:** Connecting other devices with a 3.5mm connector, in addition to their main connection, will enable Passthru Mode when enabled in the Setup Menu, producing unaltered audio.
- 23. Main Output Control Port:** McIntosh devices can turn each other On and Off when connected via a 3.5mm connector to these ports.

## Connector and Cable Information

### XLR Connectors

Below is the Pin configuration for the XLR Balanced Input Connectors on the MA8950. Refer to the diagram for connection:

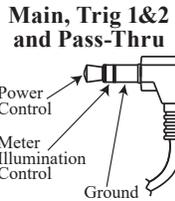
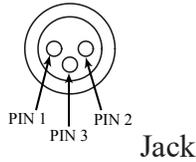
- PIN 1: Shield/Ground
- PIN 2: + Output
- PIN 3: - Output

### Power Control and Trigger Connectors

The Power Control Trigger Output Jacks send and Passthru Input Jack receives Power On/Off Signals (+12 volt/0 volt) when connected to other McIntosh Components.

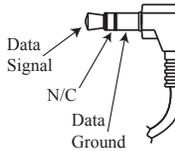
An additional connection is for controlling the illumination of the Power Output Meters on McIntosh Power Amplifiers.

A 3.5mm stereo mini phone plug is used for connection to the Power Control, Trigger and Passthru Outputs.



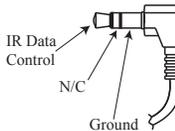
### Data Port Connectors

The Data Out Ports send Remote Control Signals to Source Components. A 3.5mm stereo mini phone plug is used for connection.



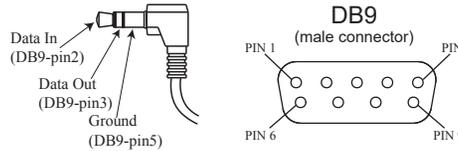
### IR IN Port Connectors

The IR IN Port also uses a 3.5mm stereo mini phone plug and allows the connection of other brand IR Receivers to the MA8950.



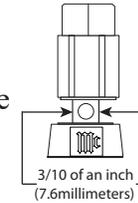
### RS232-C Data Port Cable

The RS232 Data Cable is a 3.5mm stereo mini phone plug to a sub miniature DB 9 connector:



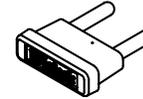
### Output Terminal Connector

When cables with spade lugs are used for Loudspeaker Connection, the spade lugs need an opening of at least 3/10 inch (7.6mm)



### McIntosh Plug-In Jumper Connector (x2 Included)

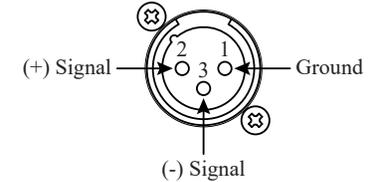
The MA8950 utilizes two phono style Plug-In Jumpers to connect the Pre-amplifier Output to the Power Amplifier Input.



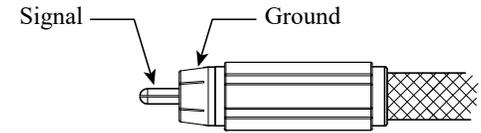
*Note: Additional or replacement Jumper Connectors can be obtained from the McIntosh Parts Department under Part No. 117781.*

## Connector Information

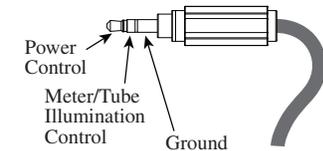
### XLR Connectors



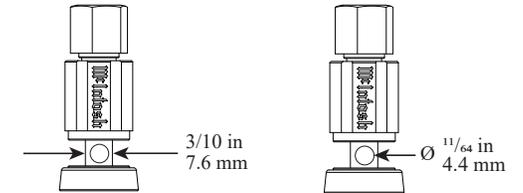
### RCA Connectors



### Power Control Connectors



### Output Terminals



## Connecting a Loudspeaker

### Loudspeaker Impedance

Each amplifier has a 2 ohm, 4 ohm, 8 ohm and (—) COM output terminal. Based on the specifications of your loudspeaker, determine the best impedance to use for each connection. It is a safe bet to use the lower impedance output terminals for a speaker whose impedance falls between two choices.

### Loudspeaker Cables

When connecting loudspeakers to the MA8950, it is very important to use cables of adequate size. The size is specified in AWG (American Wire Gauge). The smaller the gauge number, the larger the wire size.

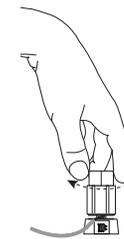
Loudspeaker Cable Wire Gauge Guide			
Loudspeaker Impedance	Cable Distance		
	25 feet (7.62 meters) or less	50 feet (15.24 meters) or less	100 feet (30.48 meters) or less
2 ohms	12AWG	10AWG	8AWG
4 ohms	14AWG	12AWG	10AWG
8 ohms	16AWG	14AWG	12AWG

When connecting loudspeaker cables to the MA8950 output terminals follow the steps below:

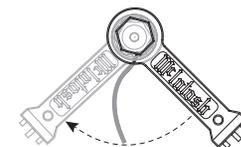
1. **Make sure AC power is disconnected.**
2. Rotate the top of the output terminal counter-clockwise until an opening appears.

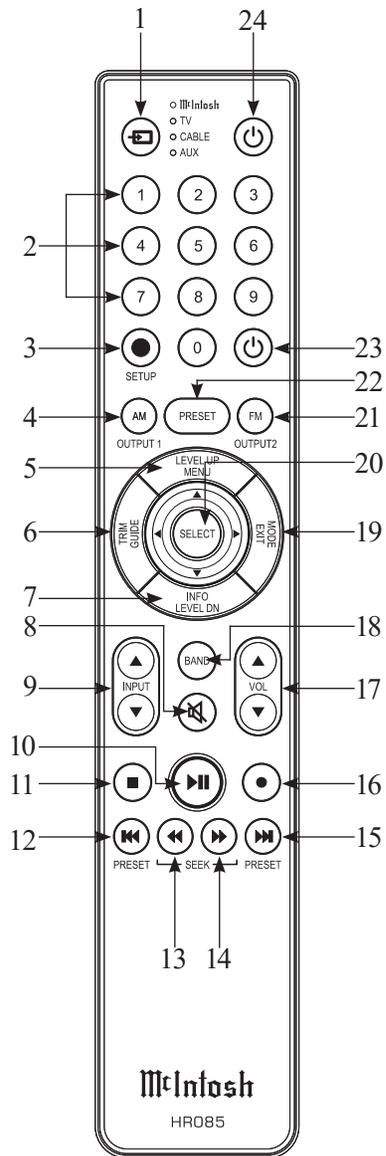


3. Insert the loudspeaker cable into the output terminal. **Proper polarity must be maintained for all connections. (+/-)**
4. Rotate the top of the output terminal clockwise until it is finger tight.



5. Place the McIntosh wrench over the top of the output terminal and rotate it one quarter of a turn (90°). **Do not over tighten.**





*Note: The included McIntosh HR085 Remote Control has buttons used to control multiple devices. While operating the MA8950 with the Remote, nothing will happen when pressing buttons that activate features not present on the MA8950. Refer to HR085 Owner's Manual on [www.mcintoshlabs.com](http://www.mcintoshlabs.com).*

**1. Switch Device:** Select different devices for Remote operation. Selected device is indicated by the LED light when buttons are pressed.

**2. Numbers:** You can select tuner presets and manually enter disc tracks and radio stations – among other numerical functions – using these buttons.

**3. Setup:** The Setup Button gives you access to the additional functions for the buttons represented in blue text. It's like using the “Shift” key on a keyboard to access special characters above the number keys. *(Note: Cannot be used to enter Setup Mode.)*

**4. AM Tuner/Output 1:** Access AM Tuner or press Setup followed by this button to toggle Output 1.

**5. Level Up/Menu:** Adjusts Trim Functions Settings Menu on compatible devices.

**6. Trim/Guide:** Enters Trim Functions Menu opens Guide on compatible devices.

**7. Info/Level Down:** Adjusts Trim Functions Settings accesses Info on compatible devices.

**8. Mute:** Mutes audio playback.

**9. Input:** Changes and selects different inputs.

**10. Play/Pause:** Pressing this button will halt playback of active media, and it will resume from where it left off if you press the button again.

**11. Stop:** Cancels media playback and resets progress through it.

**12. Previous/Previous Preset:** You can go back to your previous media selection by pressing this button. Also allows you to navigate to a previous tuner preset.

**13. Fast Reverse/Seek Down:** Navigate backwards through the current active media using this button. This is also used to adjust the tuner downwards.

**14. Fast Forward/Seek Up:** Navigate forward through the current active media using this button. This is also used to adjust the tuner upwards.

**15. Next/Next Preset:** You can go forward to your next media selection by pressing this button. Also allows you to navigate to a later tuner preset.

**16. Record:** On devices with a record function, this will begin recording the actively playing media.

**17. Volume:** Adjust the Volume with these buttons.

**18. Band:** You will have the option to change the band on your connected tuner or select certain options on a variety of McIntosh models.

**19. Mode/Exit:** This will exit the Trim Functions Menu. It will also display information or certain options.

**20. Select:** Where applicable, you can press this button to select any highlighted option.

**21. FM Tuner/Output 2:** Access FM Tuner or press Setup followed by this button to toggle Output 2.

**22. Preset:** Press this button followed by a number (0-9) to immediately select that stored preset.

**23. Power Off:** Whichever device you have selected on the Remote Control will turn Off when you press this button.

**24. Power On:** Whichever device you have selected on the Remote Control will turn On when you press this button.

### Additional Discrete Commands

Additional discrete commands for external control systems are available:

- BALANCED
- UNBAL 1, 2, 3, 4, 5, 6
- PHONO MM,MC
- COAX 1,2
- OPT 1,2
- USB
- MCT
- HDMI (ARC)
- Power (Cycle)

These additional commands can be accessed using an optional McIntosh HR093 Service Remote Control. Contact McIntosh Technical Assistance or your dealer for more information.

## Setting Up Your MA8950

### Using Knobs for Menu Navigation

In addition to their normal use, you will use the Input Control Knob and the Volume Knob to enter the Menu, navigate through the selections, and adjust the different Settings options.

#### Entering Setup Menu:

To enter the Setup Menu, hold the Input Control Knob. Once the Display shows the unit model, the firmware version, and the serial number, release the Knob and you are in the Setup Menu. See next section for the Setup Menu overview.

*Note: "Enter Code" will appear if the Input Control Knob is held too long. This is for support purposes only. Press the Knob again to exit.*

#### Entering Trim Functions Menu:

A brief deliberate press (not hold) and release of the Input Control Knob will take you to the Trim Functions Menu. See Page 15 for the Trim Functions overview.

#### Selecting/Adjusting Menu Settings:

You can navigate through and select the different options in the menus by rotating the Input Control Knob. To adjust a selected Setting, use the Volume Knob. If a category in a Menu has a Submenu available, the Display will show "Hold Input", allowing you to hold down the Input Control Knob to see additional options.

#### Exiting/Navigating Back:

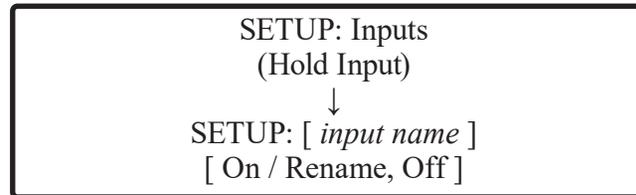
A brief deliberate press (not hold) and release of the Input Control Knob will exit the current Menu. Make additional presses until the Display shows the main operating screen to continue normal use of the unit.

### The Setup Menu

See the previous section for instructions on entering, navigating, and adjusting Settings in the Setup Menu. The following is a list of the available Settings options in the Setup Menu as they will appear on your Display. A down arrow ↓ represents being taken to a Submenu after holding the Input Control Knob while the Display says "Hold

Input". The selectable options will be listed in brackets [ ] and separated by commas, with a brief description underneath of what each option does when selected.

#### Input Settings:

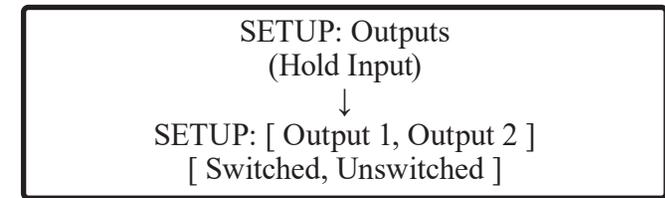


**On / Rename:** The selected Input will be functioning as normal. Hold in the Input Control Knob to enter the Menu to rename the Input\*.

**Off:** The selected Input will be deactivated and will no longer be selectable from the Main Display during normal use. Change this Setting back to "On / Rename" to make it selectable again.

**\*Renaming Inputs:** While in this inputs Submenu, use the Input Control Knob to navigate to the Input with the name you'd like to change (and turn it On using the Volume Knob if it isn't already) so that the Display says "SETUP: [ input name ] On / Rename" and hold the Input Control Knob to begin renaming. The character you are currently adjusting will be blinking. Rotate the Input Control Knob to select which character you want to change and use the Volume Knob to change the character.

#### Output Settings:



**Switched:** The front panel/Remote Control Output buttons will function as normal, allowing you to toggle On and Off the outputs.

**Unswitched:** The front panel/Remote Control Output buttons will be deactivated and the outputs will be always On.



**Mute All Outputs:** When headphones are plugged in, mute audio from all other outputs and play audio from the headphones exclusively.

**Mute No Outputs:** When headphones are plugged in, continue to play audio through other outputs as normal in addition to the audio from the headphones.

### Power Control Triggers Settings:

SETUP: Triggers  
(Hold Input)



SETUP: [ TRIGGER 1, TRIGGER 2 ]  
[ Main, Output 1, Output 2, Input (Hold Input) ]

**Main:** An On/Off signal is sent to devices attached to the TRIG 1 and TRIG 2 ports when the MA8950 is turned On or Off.

**Output 1:** Turns On/Off any devices attached to either TRIG 1 or TRIG 2 when Output 1 is activated, either via the front panel buttons or the Remote Control.

**Output 2:** Turns On/Off any devices attached to either TRIG 1 or TRIG 2 when Output 2 is activated, either via the front panel buttons or the Remote Control.

SETUP: [ TRIGGER 1, TRIGGER 2 ]  
[ Main, Output 1, Output 2, Input (Hold Input) ]



SETUP: TRIGGER [ 1, 2 ]  
[ *input name* ] : [ ON, OFF ]

[ *input name* ] : **ON:** Turns On/Off any devices attached to TRIG 1 or TRIG 2 when the Input is selected on the Main Display during normal use.

[ *input name* ] : **OFF:** Prevents any devices attached to TRIG 1 or TRIG 2 from turning On/Off when the Input is selected on the Main Display during normal use.

### Data Ports Settings:

SETUP: Data Ports  
(Hold Input)



SETUP: [ DATA PORT (1-4) ]  
[ All Data, *input name* ]

**All Data:** Devices connected to all four data ports will receive the same data from the Remote Control.

[ *input name* ]: Dedicate one of the data ports to a specific Input, forcing that data port to only send data received from that Input when it receives commands from the Remote Control.

### Passthru Settings:

SETUP: PASSTHRU  
[ *input name*, Off ]

[ *input name* ]: Enables Passthru for the signal received by the MA8950 from the selected Input, which will bypass the onboard preamplifier and send it straight to the onboard power amplifier without altering it in any way.

**Off:** Disables Passthru, and the MA8950 will process each Input signal as normal.

### HDMI CEC Settings:

SETUP: HDMI CEC  
[ ON, OFF ]

**ON:** Allows compatible devices to use CEC (Consumer Electronics Control) to control certain functions of the MA8950.

**OFF:** Prevents MA8950 from being controlled w/CEC.

SETUP: HDMI CEC PWR  
[ ON, OFF ]

**ON:** Allows compatible devices to use CEC (Consumer Electronics Control) to power On/Off the MA8950 or be powered On/Off by the MA8950.

**OFF:** Prevents devices from using CEC to power On/Off the MA8950 or be powered On/Off by the MA8950.

### HDMI Lip Sync Mode Settings:

SETUP: Lip Sync Mode  
[ Auto, Manual ]

**Auto:** The MA8950 will automatically synchronize video and audio signals received through HDMI.

**Manual:** Disabled auto video/audio synchronization through HDMI, allowing you to manually calibrate audio/video sync from connected devices.

### Digital Gain Settings:

SETUP: Digital Gain  
(Hold Input)  
↓  
SETUP: [HDMI, OPTI 1, OPTI 2] Gain  
[ Volume in dB ]

To get more even playback Volume from your connected digital devices, adjust their individual volumes with this Setting. The defaults are +15dB for HDMI and +0dB for Optical.

### Comm Port Baud Rate Settings:

SETUP: RS232  
[ *rate in bits* ] Baud

The speed at which the MA8950 communicates with devices plugged into the Comm Port (the Baud Rate) can be adjusted with this Setting. It is recommended to leave this at the highest Setting of 115200.

### IR Codes Settings:

SETUP: IR Codes  
[ Normal, Alternate ]

By default, the included HR085 Remote Control sends "Normal" IR codes when buttons are pressed. Any McIntosh device set to receive "Normal" IR codes will receive the signal. To prevent controlling multiple devices with the Remote at once, change this Setting

## Setting Up Your MA8950 *continued*

to "Alternate" to prevent signals from the Remote being read. You can also set the Remote itself to send "Alternate" codes. Refer to the HR085 manual on the McIntosh website for instructions on how to do so.

### IR Sensor Settings:

SETUP: Front IR  
[ Enabled, Disabled ]

You can enable or disable the functionality of the IR sensor to change whether or not the MA8950 will accept commands from the Remote Control. You may want to do this if you have an external IR sensor that operates the MA8950 with other devices.

### Power Saving Settings:

SETUP: Auto-Off  
[ Enabled, Disabled ]

**Enabled:** The MA8950 automatically enters Standby Mode after approximately 30 minutes of inactivity.

**Disabled:** The MA8950 will not power Off automatically and will remain On until you turn it Off.

### Factory Reset:

FACTORY RESET  
(Hold Input)

While on this option, hold the Input Control Knob until the Display says "In Progress!" and immediately release. Once the Display says "Completed!", your unit's Settings will be set back to their factory defaults.

## Using Your MA8950

*Note: In the unlikely event that your commands are no longer being registered by the unit, you can try resetting the microprocessors. To do so, hold the Standby/On button down until the LED power indicator light switches Off. Release the button, and when the light illuminates again, you can press the button again to power the unit On and resume normal operation. This will also revert the Settings to factory defaults. Be sure to let off the button as soon as the LED lights back up.*

### **Powering On/Turning Off**

While the unit is in Standby Mode (no lights except the LED indicator light are On), press the Standby/On front panel button to power On the unit. While the unit is On, press the button to enter Standby Mode (turn it Off). Using the Remote Control, press the Power On and Power Off buttons where appropriate.

### **Selecting an Input for Playback**

You can change the current playback source by rotating the Input Control Knob or by using the Input Buttons on the Remote Control.

### **Adjusting the Volume**

Rotate the Volume Knob or use the Volume Buttons on the Remote Control to adjust the Volume. The current Volume level is represented by a percentage on the Display.

*Note: The Volume control does not affect audio through the Fixed Outputs.*

### **Adjusting Trim Functions**

The Remote Control can be used to enter, navigate and adjust Settings in the Trim Function Menu.

*Note: The Balance, Input Trim, and Equalizer Settings in this Menu will only be adjusted and affect the currently selected Input and their configurations will be independently saved.*

The following is a list of descriptions of the various options in the Trim Functions Menu.

### Adjusting Audio Balance:

You may want one loudspeaker to be louder than the other. While on the Balance Setting, use the Volume Knob to adjust the meter to whichever channel you wish to be louder. The more filled the meter is under a channel, the louder that channel will get, while the opposite channel will get quieter.

### Enabling/Disabling the Equalizer:

Turning On the Equalizer will allow you to adjust the sound frequency for the selected Input using the Frequency Adjustment Knobs. Sound will adjust for each Input that has it activated.

*Note: The Equalizer does not affect audio through the Fixed Outputs.*

### Adjusting Input Trim Levels:

Devices connected to the various inputs may be sending audio at varying volumes to the MA8950. This could result in uneven playback Volume when changing sources. To correct this, you can raise or lower the Volume of an Input as it enters the MA8950 by adjusting its Trim level with this Setting.

### Adjusting Phono Resistance (Turntables):

With the MC Phono source Input selected, the option to change the phono resistance becomes available in the Trim Functions Menu. Make sure to match this number to your turntable's recommended phono resistance level.

### Toggling Stereo/Mono:

Stereo allows the left and right channels to have separate independent audio signals. Mono sends the same signal through both channels. You can toggle between the two with this Setting.

### Toggling the Meter Backlights:

You can turn On/Off the illumination of the power meters here.

### Adjusting Display Brightness:

Use the Volume Knob to adjust the Brightness level of the Display.

### Enabling/Disabling HXD:

This option will become available if headphones are plugged in. Enable this option to experience McIntosh's patented Headphone Crossfeed Director (HXD) or disable it to have unaltered audio playback through the headphones.

### **Muting the Audio**

Use the mute button on the front panel or the Remote Control to mute the audio coming from the MA8950.

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## **Getting the Most Out of Your MA8950**

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### **Using the Autoformer**

Your MA8950 comes equipped with independent connectors specifically allocated for loudspeakers of 2-, 4-, and 8-ohm impedance. Separating these connections allows McIntosh to use its patented Autoformer to provide the full 200 watts of power regardless of your speakers' specifications.

### **Using the Five-Band Equalizer**

As with all McIntosh products, your MA8950 produces the clearest, most accurate form possible of any audio that pumps through it. If the audio sent from the source is suboptimal, however, then the "clearest, most accurate form" might not be ideal for every situation. If you find yourself wanting to adjust the audio frequencies, enable the Equalizer (with the button on the front panel or in the Trim Functions Menu) to activate the functionality of the five Frequency Adjustment Knobs. Turning the knobs will adjust from the low frequencies (30Hz) up to the high frequencies (10,000Hz). Experiment with different rotations

of the knobs to produce your desired sound. The Equalizer will affect the sound for any Input that has it on, and its On/Off status will be saved per Input.

### **Using Bi-Amplification on Loudspeakers**

**WARNING:** *If the loudspeakers you are attempting to connect for bi-amplification have Jumper Plugs connecting the mid/high and low frequencies, they must be removed before making the connections to the amplifier(s). Failure to do so may result in damage to your equipment.*

The MA8950's onboard power amplifier may be used in conjunction with a separate external power amplifier to connect a loudspeaker for bi-amplification, allowing more flexible power control to the separate mid/high and low frequencies of the loudspeaker. You will do this by first removing the McIntosh Jumper Plugs from the Output 1 ports and the PWR AMP ports on the MA8950. In their place, bridge each of the left and right channels of the Output 1 and PWR AMP ports with a shielded RCA Y splitter. Connect the open ends of each of the Y splitters to your separate external power amplifier.

### **Using the HXD with Headphones**

Enable Headphone Crossfeed Director (HXD) to improve the sound localization for your headphones. HXD restores the directionality component of the spatial sound stage, giving you the quality and immersion of a loudspeaker paired with the privacy of headphones.

### **Listening Worry-Free (Auto Protection)**

The internal McIntosh Power Guard monitors and adjusts sound waves at the speed of light, preventing harsh sounding distortion and clipping that could damage your speakers. The Power Guard LED lights on the front panel will be lit when it automatically activates.

The MA8950 also includes an internal Sentry Monitor, which gauges the amount of incoming electricity and will automatically protect your unit in the event of improper current flow, allowing you to listen while knowing your unit is safe.

### **Using the Onboard Power Amplifier**

To use the internal preamplifier and power amplifier simultaneously, connect the Output 1 ports and the PWR AMP ports using the included Jumper Plugs. This audio will be produced through Output 1.

### **Using External Power Amplifiers**

While your MA8950 comes fully equipped with a preamplifier and a power amplifier with the capability of playing the crystal-clear audio you'd expect from McIntosh amps through your loudspeakers, you have the option to attach separate power amplifiers if you so choose. You can do this while using the onboard power amplifier, or you can disable the onboard power amplifier and only use separate ones.

### **Using MA8950 with External Amp**

Connect your loudspeakers to the MA8950 and use the Output 2 ports to send a signal to an external amplifier, leaving the McIntosh Jumper Plugs that are bridging the Output 1 ports and the PWR AMP ports right where they are.

### **Using Only External Amps**

To disable the functionality of the onboard power amplifier, disconnect any loudspeakers from the MA8950 and remove the McIntosh Jumper Plugs bridging the Output 1 ports and the PWR AMP ports. This will turn your MA8950 into a dedicated preamplifier, allowing you to send signals from Output 1 and Output 2 to external power amplifiers.

**Using Your MA8950** *continued*

**Using Audio Passthru**

When using the MA8950 as part of a home theater system, you will likely want to enable audio Passthru to ensure proper flexibility with your audio signals. To do this, connect a cable from one of your A/V processor’s trigger ports to the MA8950’s Passthru Input port. Then, connect left and right audio signals from the A/V processor to a left and right Input port, respectively, on the MA8950. Finally, enable that Input for Passthru in the Setup Menu.

**Viewing Coax/Optical Inputs Sample Rate**

When coaxial or optical inputs are selected and producing a signal, the Display will show the sample rate of the signal under the input name. If no signal is being received through the inputs, the Display will show a dotted line under the input name.

**USB Audio**

The USB audio input of the DS200 provides the capability to receive music/sound in a digital format from a connected computer.

**Using USB Playback**

You can play audio from your computer through the MA8950 while it’s connected via USB. You can see the sample rate of the playback on the second line of the Display while the USB Input is selected. The sample rate is affected by the audio source and the software used for playback.

**Software Requirements**

Apple® computers with OS-10.6.8 or later require no additional driver install to communicate with the MA8950.

For Windows-based computers (PC), Windows 7 (Service Pack 1) or later is required. The correct McIntosh USB audio driver must be installed for the PC to communicate with the MA8950.

To install the McIntosh USB driver for Windows-based computers download the latest driver from the McIntosh website: <https://www.mcintoshlabs.com/products/specialty-products/MA8950>.

The driver can be found in the Downloads section of the webpage under Software Updates. Choose the DA2 Digital Audio Module: McIntosh USB Audio Windows Driver. You may select this driver in many third-party applications such as JRiver Media Center. The MA8950 display will show the sampling rate or bit rate for the USB input.

**Trademark and License Information**

The McIntosh MA8950 incorporates copyright protected technology that is protected by U.S. patents and other intellectual property rights. The MA8950 uses the following Technologies:

Trademark	License Information
	ASIO is a trademark and software of Steinberg Media Technologies GmbH
	Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio, and the double-D symbol are trademarks of Dolby Laboratories.
	For DTS patents, see <a href="http://patents.dts.com">http://patents.dts.com</a> . Manufactured under license from DTS, Inc. DTS, the Symbol, DTS and the Symbol together, and Digital Surround are registered trademarks and/or trademarks of DTS, Inc. in the United States and/or other countries. DTS, Inc. All Rights Reserved.
	The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

## Amplifier Specifications

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### FTC Power Output Rating

200 watts

### Power Output

200 watts is the minimum sine wave continuous average power Output per channel, both channels operating

### Output Load Impedance

2, 4 or 8 ohms

Rated Power Band

20Hz to 20,000Hz

### Total Harmonic Distortion

0.005% maximum with both channels operating from 250 milliwatts to rated power, 20Hz to 20,000Hz

### Intermodulation Distortion

0.005% maximum, if the instantaneous peak power is 400 watts or less per channel with both channels operating for any combination of frequencies from 20Hz to 20,000Hz

### Dynamic Headroom

2.0dB

### Wide Band Damping Factor

Greater than 40

### Power Guard

Less than 2% THD with up to 16dB overdrive at 1,000Hz

### Frequency Response

+0, -0.5dB from 20Hz to 20,000Hz

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

### Preamplifier Output 1 and 2 (for rated Input)

1.4V unbalanced (8V Maximum)

### Sensitivity (for rated Output)

High Level, 250mV unbalanced, 500mV balanced

Phono MM, 2.5mV

Phono MC, 0.25mV

Power Amp In, 1.4V

### Signal To Noise Ratio (A-Weighted)

High Level, 95dB below rated Output

Phono MM, 82dB below 5mV Input

Phono MC, 80dB below 0.5mV Input

Power Amplifier, 113dB below rated Output

### Input Impedance

High Level, 20K ohms

Phono MM - 47K ohms; 50pF

Phono MC - 50, 100, 200, 400 or 1,000 ohms; 100pF

### Preamplifier Output Impedance

220 ohms

Equalizer Controls Maximum Input Signal

High Level, 8V unbalanced, 16V balanced

Phono MM, 80mV

Phono MC, 8mV

Power Amplifier In, 16V

### Preamplifier Output Impedance

220 ohms

### Headphone Impedance

100 to 600 ohms

### Voltage Gain

High Level to Rec Output: 0dB

High Level to Output 1 and 2: 15dB

Phono MM to Rec Output: 40dB

Phono MC to Rec Output: 60dB

Phono MM to Output 1 and 2: 55dB

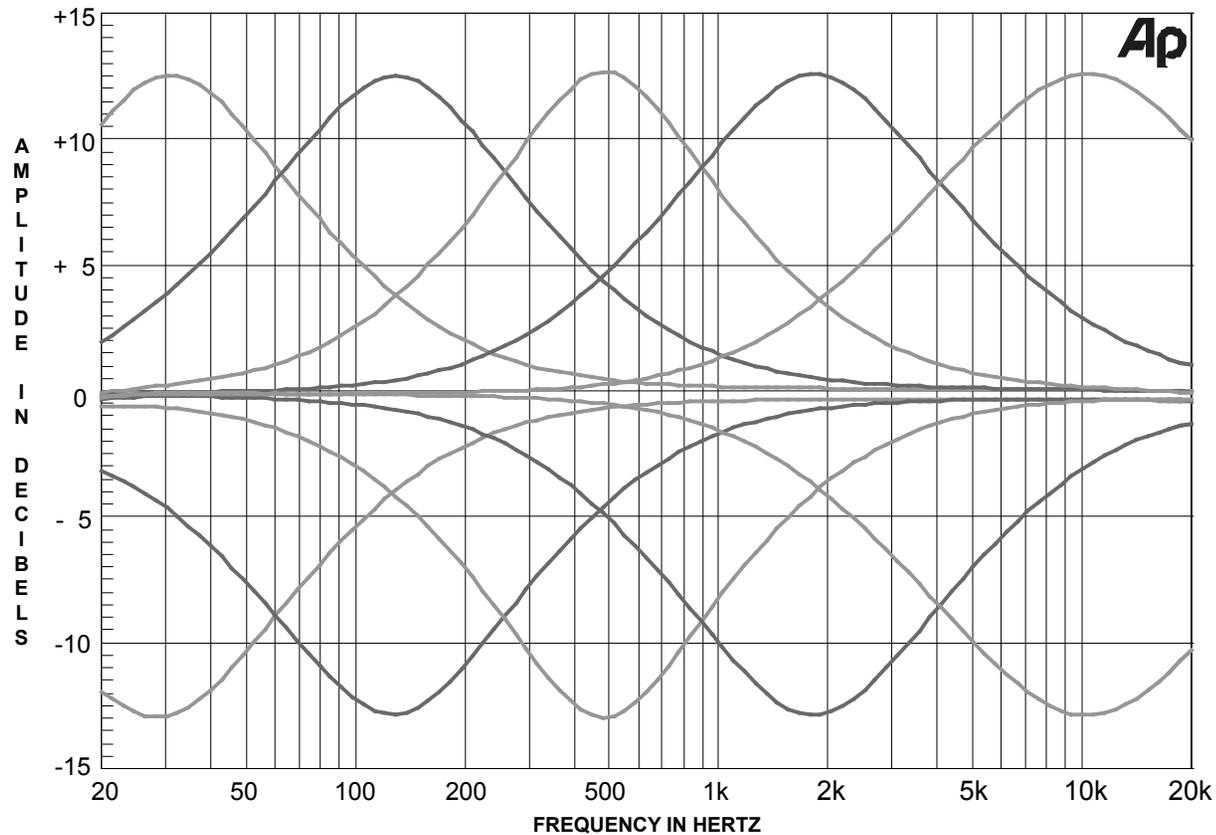
Phono MC to Output 1 and 2: 75dB

Power Amplifier: 29dB

### Power Control and Trigger Output

12VDC, 25mA

## Digital Audio Specifications



**Representative Equalizer  
Boost/Cut Frequency Response**

### Digital Input Sample Rates

Optical: PCM - 16Bit, 24Bit - 44.1kHz to 192kHz

Coaxial: PCM - 16Bit, 24Bit - 44.1kHz to 192kHz

MCT: PCM, SACD, -16Bit, 24Bit - 44.1kHz to 192kHz

USB: PCM - 16Bit, 24Bit, 32Bit - 44.1kHz to 384kHz

DXD - DXD352.8kHz, DXD384kHz

DSD - DSD64, DSD128, DSD256, DSD512

HDMI: PCM 24bit, 44.1kHz - 192kHz

DTS

Dolby Digital

### Digital Input Signal Format

Coaxial and Optical Inputs - SPDIF (PCM)

MCT and USB Inputs - PCM, DSD

### Digital Inputs

Coaxial: 0.5V p-p/75 ohms

Optical: -15dbm to -21dbm (TOS Link)

MCT: 0.5V p-p/75 ohms

USB: USB Type B Connector

## General Specifications

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### Power Requirements

*Field AC Voltage conversion of the MA8950 is not possible. The MA8950 is factory configured for one of the following AC Voltages:*

100 Volts, 50/60Hz at 5.2 amps

110 Volts, 50/60Hz at 4.4 amps

120 Volts, 50/60Hz at 4.4 amps

220 Volts, 50/60Hz at 2.45 amps

230 Volts, 50/60Hz at 2.35 amps

240 Volts, 50/60Hz at 2.25 amps

Standby: Less than 0.25 watt

*Note: Refer to the rear panel of the MA8950 for the correct voltage.*

### Overall Dimensions

Width is 17 ½ inches (44.45cm)

Height is 7 ⅝ inches (19.37cm) including feet

Depth is 22 inches (55.88cm) including the Front Panel, Knobs and Cables

### Weight

75 pounds (34.1 kg) net, 93 pounds (42.3 kg) in shipping carton

### Shipping Carton Dimensions

Width is 29 ½ inches (74.93cm)

Depth is 29 inches (73.66cm)

Height is 17 inches (43.18cm)

## MA8950 Packing Material List

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<u>Qty</u>	<u>Part #</u>	<u>Description</u>
1	033888	Shipping carton
4	033887	End Cap
1	033697	Inner carton
1	033725	Top pad
1	034576	Bottom pad
1	034480	Wood skid
2	017218	Plastic foot (spacer)
2	401204	#10 x 2-1/2 inch wood screw
2	404033	#10 flat washer 1-3/4 inch
4	017937	Plastic foot
4	400159	#10-32 x 3/4 machine screw
4	404080	#10 flat washer

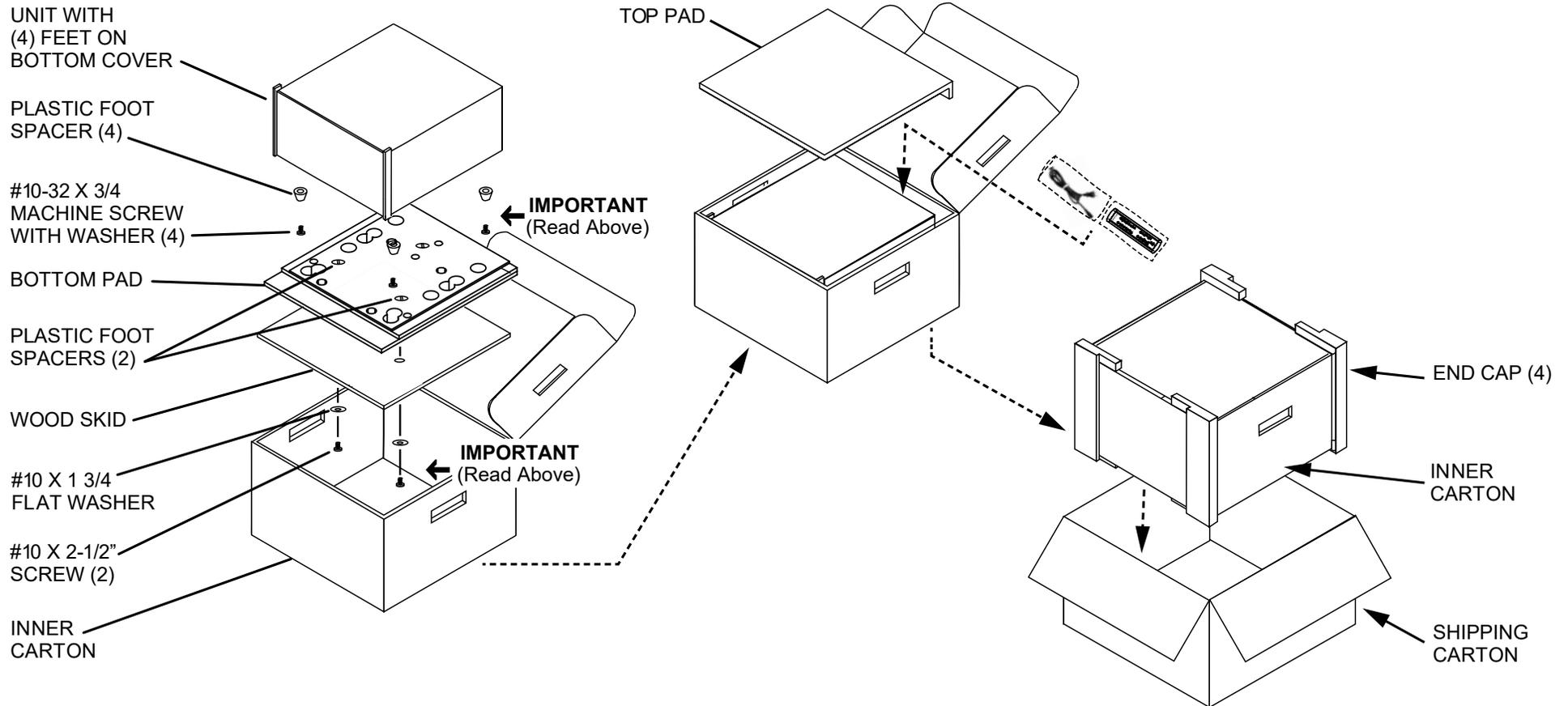
## Packing Instructions

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. Two #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. Refer to page 2.

Please see the Part List for the correct part numbers.



# McIntosh<sup>®</sup>

MADE OF SOUND™

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