

# SACD/CD Player



# MCD500 Owner's Manual



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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.

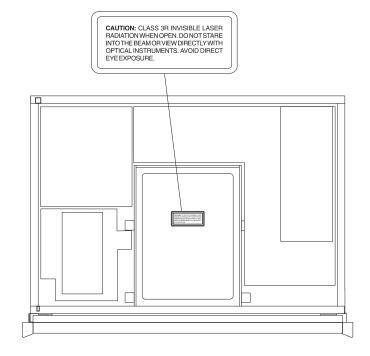
CAUTION - Invisible Laser Radiation when open. DO NOT stare into the beam or view directly with optical instruments. Use of controls or adjustments or performance of procedures other than those specified in the Owners Manual may result in Hazardous Radiation Exposure.

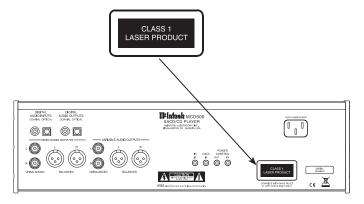
## **LUOKAN 1 LASERLAITE KLASS 1 LASER APPARAT**

VAROITUS! Laitteen kayttaminen muulla kuin tassa kayttoohjeessa mainitulla tavalla saattaa altistaa kayttajan turvallisuusluokan 1 ylittavalle nakymattomalle lasersateiiylle.

VARNING! Om apparaten anvands pa annat satt an i denna bruksanvisning specificerats, kan anvandaren utsattas for osynbg laserstraining, som overskrider gransen for laserklass 1.

> This product incorporates an embedded CLASS 3R Laser (IEC60825-1).





# IMPORTANT SAFETY INSTRUCTIONS!

# PLEASE READ THEM BEFORE OPERATING THIS EQUIPMENT.

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.

- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
- 16. To completely disconnect this equipment from the a.c. mains, disconnect the power supply cord plug from the a.c. receptacle.
- 17. The mains plug of the power supply cord shall remain readily operable.
- 18. Do not expose batteries to excessive heat such as sunshine, fire or the like.



#### Thank You

Your decision to own this McIntosh MCD500 SACD/CD Player 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:	
r urchase Date.	
Dealer Name:	

#### **Technical Assistance**

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

McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903

Phone: 607-723-1545 Fax: 607-724-0549

#### **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

Copyright 2008 © by McIntosh Laboratory, Inc.

#### **Table of Contents**

Safety Instructions	2
Thank You and Please Take a Moment	
Technical Assistance and Customer Service	
Table of Contents	
General Information	
Disc Information	
Connector and Cable Information	
Introduction	
MCD500 Features	
Dimensions	
Installation	
Tilstallation	0
Connections:	
Rear Panel Connections	9
MCD500 Connections	
MCD500 Direct to Power Amplifier Connections	
Connection Diagrams (Separate Sheet). Mc1A and M	
Front Panel Features:	
Front Panel Displays, Controls, Push-buttons and Jack	12
Front Panel Information Displays	
Tront I and information Displays	13
Remote Control:	
Remote Control Push-buttons	14
How to Operate by Remote Control	
Tion to operate by remote control	10
Operation:	
How to Operate the MCD500	16
Additional Information:	
Specifications	22
Packing Instruction	22

#### **General Information**

- 1. For additional connection information, refer to the owner's manual(s) for any component(s) connected to the MCD500 SACD/CD Player.
- The Super Audio Compact Discs Audio Signals are converted internally from Digital to Analog. There is no Digital Audio Signal present at the MCD500 Coaxial and Optical Output Connectors during playback of a SACD Disc.
- 3. A PCM version of the decoded MP3 and WMA Signals is available at the Digital Audio Outputs.
- 4. The MCD500 internal Digital to Analog Converter is designed to decode 2 channel PCM (Pulse Code Modulation) signal present at the Coaxial or Optical Digital Audio Input into 2 channel analog audio.

#### General Information, con't

- 5. When discarding the unit, comply with local rules or regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.
- 6. For additional information on the MCD500 and other McIntosh Products please vist the McIntosh Web Site at www.mcintoshlabs.com.





#### **Disc Information**

- 1. Compact Discs that are not round (e.g. Novelty discs with octagonal or heart shapes) will not play properly in the MCD500 and should not be tried, as possible damage may occur.
- 2. The MCD500 SACD/CD Player is designed to play all standard CD Audio Discs that conform to the Official Compact Disc Standards which is indicated by the disc Symbol. It will also play most CD-R and CD-RW discs, however some recorded discs may not be able to play due to the condition of the recording.
- 3. CD Audio Discs recorded in the MP3 and WMA Formats will playback on the MCD500, except discs that contain multi-session recordings. Some MP3 or WMA recorded discs may not be able to play due to the condition of the recording. When ever possible, set the writing software to the ISO9660 Level 1 standard.
- 4. The CD audio side of the Dual Disc does not meet the Compact Disc Digital Audio specifications found in the industry "Redbook"; the MCD500 may not read Dual Discs.
- 5. Several of the SACD performance features available on the MCD500 are active only if the SACD Disc includes the supporting encoded information.

#### Connector and Cable Information

#### **XLR Connectors**

Below is the Pin configuration for the XLR Balanced Output Connectors on the MCD500. Refer to the diagram for connection:

PIN 1: Shield/Ground

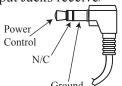
PIN 2: + Output

PIN 3: - Output



#### **Power Control Connector**

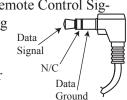
The MCD500 Power Control Input/Output Jacks receive/ send Power On/Off Signals when connected to other McIntosh Components. A 1/8 inch stereo mini phone plug is used for connection to the Power Control Input/Output on the MCD500.

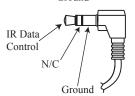


Note: The Data ad Power Control Connecting Cable is available from the McIntosh Parts Department: Data and Power Control Cable Part No. 170-202 Six foot, shielded 2 conductor, with 1/8 inch stereo mini phone plugs on each end.

#### **Data and IR Input Port Connectors**

The MCD500 Data In Port receives Remote Control Signals. A 1/8 inch stereo mini phone plug is used for connection. The IR Ports also use a 1/8 inch stereo mini phone plug and allow the connection of other brand IR Receivers to the MCD500.







#### Introduction

The McIntosh MCD500 SACD/CD Player offers the latest in audio technology, providing state of the art reproduction of audio program sources. A full complement of performance features allows for the enjoyment of the SACD special audio format available on discs. Audio CDs are also reproduced with flawless realism. The advanced mechanical design of the transport ensures many years of smooth trouble free operation.

#### **MCD500 Features**

#### • Twin Laser Pickup

The MCD500 incorporates two laser elements, with different wavelengths, that are focused through one lens assembly. This unique design allows reading both the CD and Super Audio Compact Disc (SACD) Discs Formats.

#### Advanced Transport

The MCD500 has a new transport with a Die Cast Mechanism Base and Disc Tray. It has the latest in advanced digital servo for faster, quieter and accurate operation. The SACD and CD Audio Data is read into memory from the disc at twice the normal rate. The fast read speeds help to insure better disc tracking and error correction processing.

#### • Super Audio Disc Playback

The MCD500 plays the higher resolution SACD Discs with extreme precision and musical elegance.

#### • Quad Balanced Digital to Analog Converter

The 8 channel 24-bit, 192kHz Digital to Analog Converter is used in a Stereo Quad Balanced mode. All levels of music are reproduced with a wide dynamic range and extremely low distortion.

#### • Digital Audio Inputs

The MCD500 has both a Coaxial and an Optical Digital Input for using the internal Digital to Analog Processor Circuitry to Decode PCM Signals from an external source.

#### • Digital Audio Outputs

There are Coaxial and Optical Digital Outputs for external decoding of the PCM Signal.

#### • Front Panel Level Control

With headphones connected to the MCD500, the Level Control allows varying the volume level of the music. It can also be used for matching the volume level of the MCD500 with other components in the system.

### • Multi-Function Front Panel Display

The MCD500 Front Panel display indicates the current disc playback status, digital input status and the variable audio output volume level.

#### • Drive a Power Amplifier Directly

The Variable Output Connections provide up to 6 Volts. This is more than enough signal to drive any Power Amplifier directly; forming a high quality SACD/CD Disc Playback System.

#### Balanced Outputs

The MCD500 has both variable and fixed Balanced Outputs, permitting long cable lengths without a loss in sound quality.

#### Power Control

The Power Control Input connection provides convenient Turn-On/Off of the MCD500 when connected to a McIntosh System with Power Control. The Power Control Output connection can control a McIntosh Power Amplifier in a high quality disc playback system.

#### • Full Function Remote Control

The Remote Control provides complete control of the MCD500 operating functions including adjustment of the volume level. The push-buttons on the Remote Control are illuminated

#### Special Power Supply

The Linear Power Supply has both a special R-Core Power Transformer and Multiple Regulators to ensure stable noise free operation even though the power line varies.

#### • Extruded Side Panels

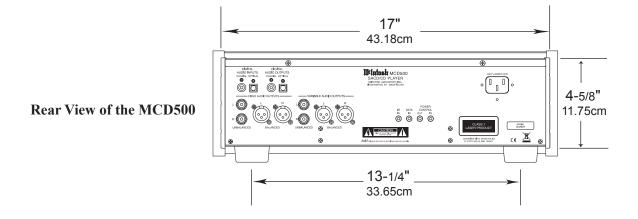
The sides of the MCD500 are extruded aluminum panels with a bead blast textured surface and a black anodized finish. In the recessed area of the Top Panel is a screened glass panel with a block diagram of the MCD500 Circuitry.

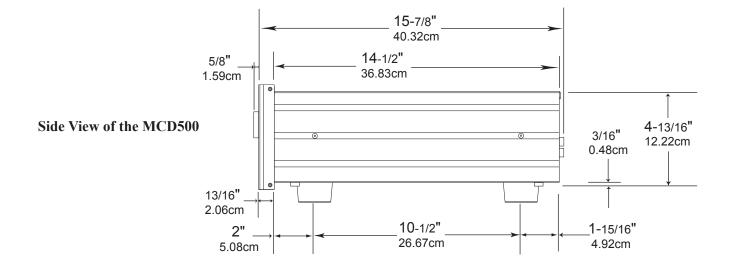
#### • Fiber Optic Solid State Front Panel Illumination

The Illumination of the Glass Front Panel is accomplished by the combination of custom designed Fiber Optic Light Diffusers and extra long life Light Emitting Diodes (LEDs). This provides even Front Panel Illumination and is designed to ensure the pristine beauty of the MCD500 will be retained for many years.

#### **Dimensions**

The following dimensions can assist in determining the best location for your MCD500. There is additional information on the next page pertaining to installing the MCD500 into cabinets.







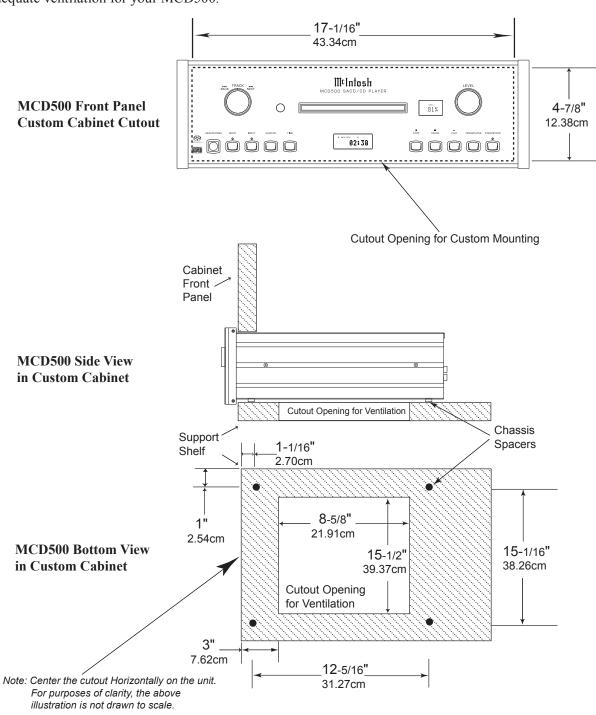
#### Installation

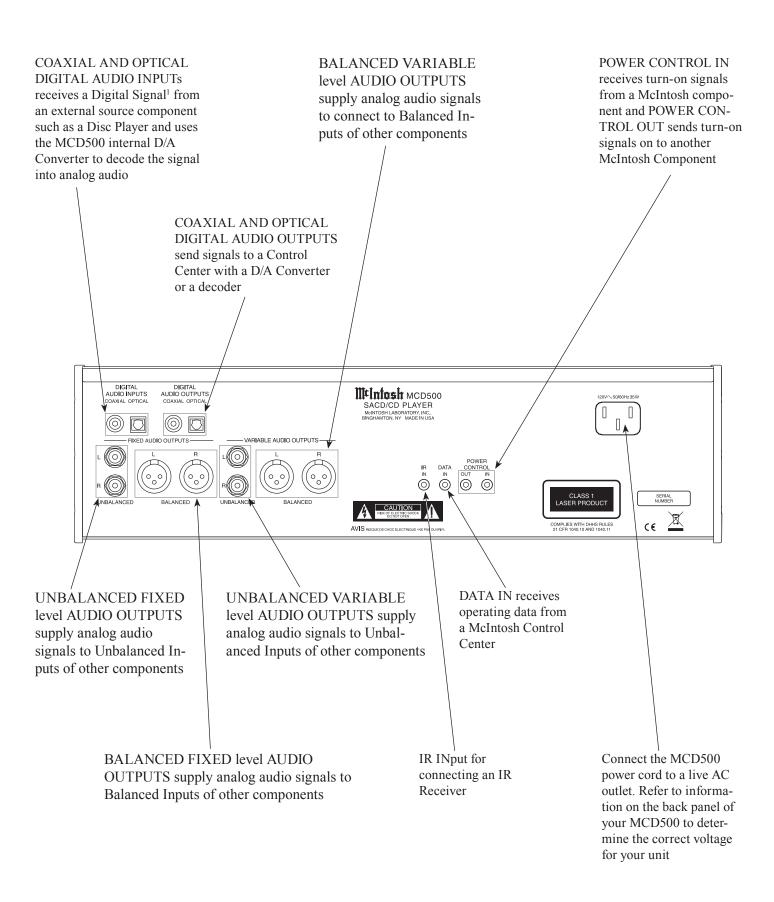
The MCD500 can be placed upright on a table or shelf, standing on its four feet. It also can be custom installed in a piece of furniture or cabinet of your choice. The four feet may be removed from the bottom of the MCD500 when it is custom installed as outlined below. The four feet together with the mounting screws should be retained for possible future use if the MCD500 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 MCD500.

Allow at least 2 inches (5.08cm) above the top, 2 inches (5.08cm) below the bottom and 1 inch (2.54cm) on each side of the SACD/CD Player, so that airflow is not obstructed. Allow 17 inches (43.18cm) depth behind the front panel. Allow 1-1/8 inch (2.9cm) 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.

Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MCD500 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.





<sup>&</sup>lt;sup>1</sup> - For additional information Refer to page 4 "General Information", note 4.



#### **MCD500 Connections**

The MCD500 has the ability to be remotely switched On/Off from a McIntosh Preamplifier or A/V Control Center via the Power Control connection. The MCD500 Data Port Connection allows for the remote operation of basic functions using the Preamplifier or A/V Control Center Remote Control. With an external sensor connected to the MCD500, remote control operation is possible from another room and/or when the MCD500 is located in a cabinet with the doors closed.

The connection instructions below, together with the MCD500 Connection Diagram located on the separate folded sheet "Mc1A, is an example of a typical audio or audio/video system. Your system may vary from this, however the actual components would be connected in a similar manner. For additional information refer to "Connector and Cable Information" on page 5.

#### **Power Control Connections:**

- Connect a Control Cable from the Preamplifier or A/V Control Center Power Control ACC Jack to the POW-ER CONTROL IN Jack on the McIntosh MCD500 SACD/CD Player.
- 2. Optionally, connect a Control Cable from the MCD500 SACD/CD Player POWER CONTROL OUT jack to the external Disc Player Power Control In Jack.
- 3. Optionally, connect a Control Cable from the MCD500 SACD/CD Player Power Control Out jack to the Music Server PWR (Power) CTRL (Control) In Jack.
- 4. Connect any additional components in a similar manner, as outlined in steps 1 thru 3.

#### **Data Control Connections:**

 Connect a Control Cable from the Preamplifier or A/V Control Center CD2 Data Port Jack to the McIntosh MCD500 SACD/CD Player DATA IN Jack.

#### **Sensor Connections:**

6. Connect an external Sensor to the McIntosh MCD500 SACD/CD Player IR IN Jack.

#### **Digital Audio Connections:**

- Optionally, connect a Cable from the McIntosh MCD500 SACD/CD Player COAXIAL or OPTICAL OUTPUT to the Coaxial or Optical Input on the Preamplifier or A/V Control Center.
- 8. Optionally, connect a Cable from the MCD500 SACD/CD Player COAXIAL INPUT to the Coaxial Output on the Disc Player.

Note: Optical connections may be used instead of the Coaxial Connections.

 Optionally, connect a Cable from the MCD500 SACD/ CD Player OPTICAL INPUT to the Optical Output on the Music Server. Note: Coaxial connections may be used instead of the Optical Connections.

#### **Analog Audio Connections:**

- 10. Connect Balanced Cables from the McIntosh MCD500 SACD/CD Player BALANCED FIXED AUDIO OUT-PUT Connectors to the Preamplifier or A/V Control Center Balanced Input Jacks.
- 11. Optionally, connect an Audio Cable from the MCD500 SACD/CD Player UNBALANCED FIXED AUDIO OUTPUT Connectors to the Preamplifier or A/V Control Center Balanced Input Jacks.

Note: Preamplifiers require either a Balanced or Unbalanced audio connection. A/V Control Centers usually require unbalanced connections for proper operation of Zone B and the record output, with Balanced connections as optional.

#### **AC Power Cords Connections:**

12. Connect the McIntosh MCD500 SACD/CD Player AC Power Cord to a live AC outlet.

# MCD500 Direct to a Power Amplifier Connections

The MCD500 has the ability to be connected directly to a Power Amplifier and remotely switch the amplifier and other source components On/Off via the Power Control connection. The connection instructions below, together with the MCD500 Connection Diagram located on the separate folded sheet "Mc1B, is an example of a typical audio system. Your system may vary from this, however the actual components would be connected in a similar manner. For additional information refer to "Connector and Cable Information" on page 5.

#### **Power Control Connections:**

- 1. Connect a Control Cable from the McIntosh MCD500 SACD/CD Player POWER CONTROL OUT Jack to the Power Amplifier Power Control input jack.
- 2. Optionally, connect a Control Cable from the Power Amplifier Power Control Out jack to the external Disc Player Power Control In Jack.
- 3. Optionally, connect a Control Cable from the external Disc Player Power Control Out jack to the Music Server PWR (Power) CTRL (Control) In Jack.
- 4. Connect any additional components in a similar manner, as outlined in steps 1 thru 3.

#### **Digital Audio Connections:**

 Optionally, connect a Cable from the MCD500 SACD/ CD Player COAXIAL INPUT to the Coaxial Output on the Disc Player.

Note: Optical connections may be used instead of the Coaxial Connections.

 Optionally, connect a Cable from the MCD500 SACD/ CD Player OPTICAL INPUT to the Optical Output on the Music Server.

Note: Coaxial connections may be used instead of the Optical Connections.

#### **Analog Audio Connections:**

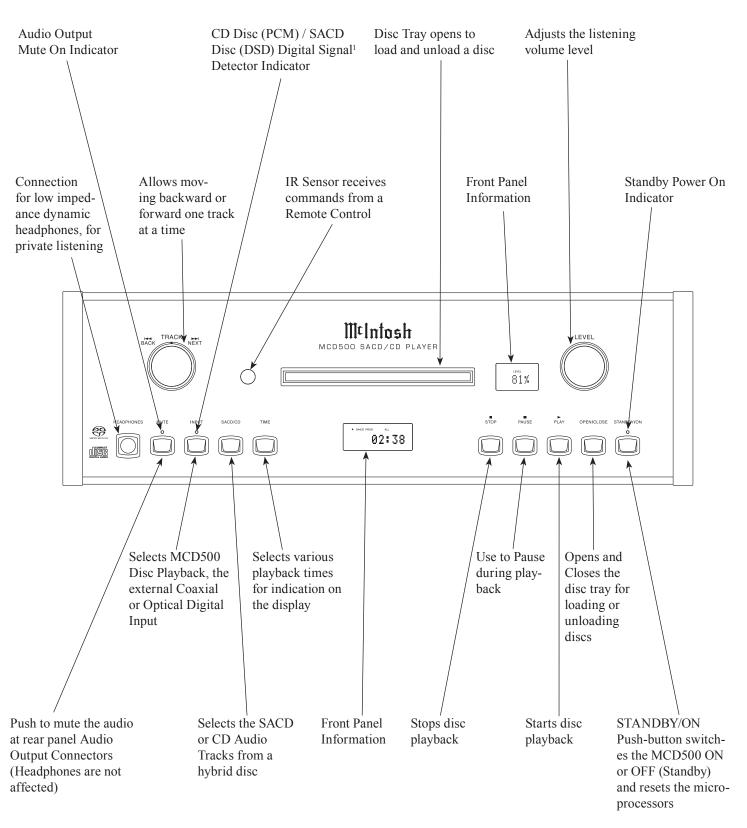
 Connect Balanced Cables from the McIntosh MCD500 SACD/CD Player BALANCED VARIABLE AUDIO OUTPUT Connectors to the Power Amplifier Balanced Input Jacks.

Note: The Unbalanced audio connections may be used instead of Balanced connections.

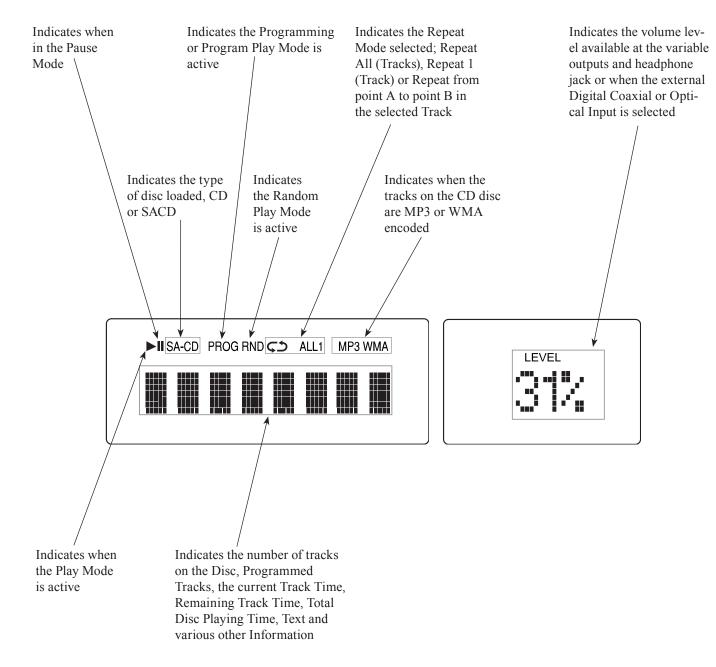
#### **AC Power Cords Connections:**

8. Connect the McIntosh MCD500 SACD/CD Player AC Power Cord to a live AC outlet.

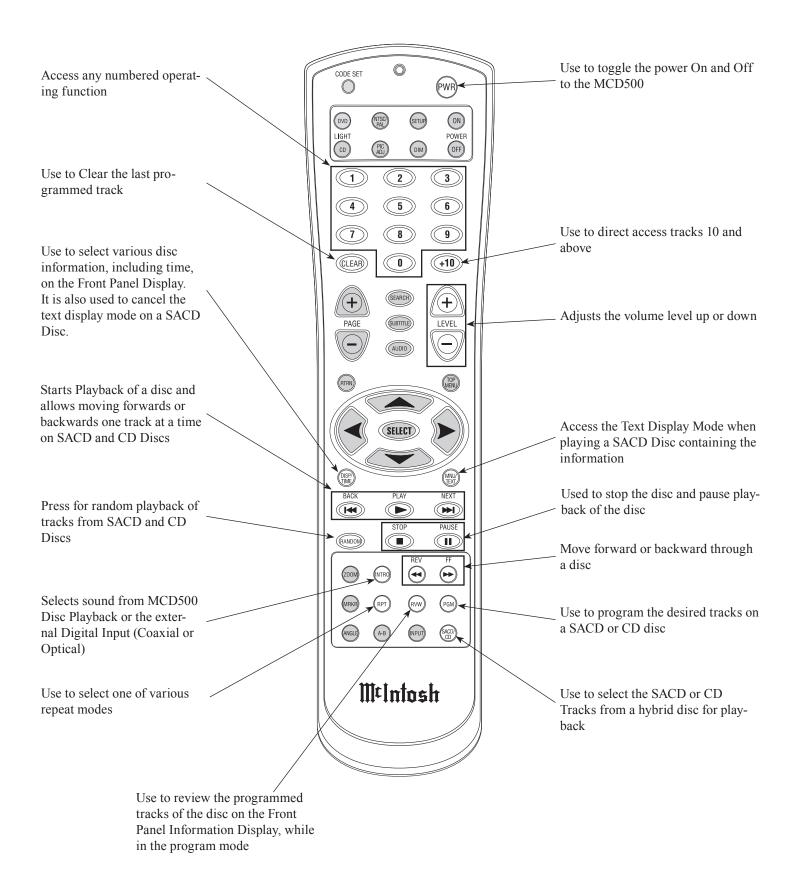




<sup>&</sup>lt;sup>1</sup> PCM (Pulse Code Modulation) Digital Signal type used for CD Discs and DSD (Direct Stream Digital) Digital Signal type used for SACD Discs







Note: The Remote Control Push-buttons with a "grayed background" are for use with other McIntosh Products.

#### How to use the Remote Control

The Remote Control is capable of performing basic Operating Functions for the MCD500 SACD/CD Player.

- Notes: 1. Refer to the "How to Operate" Section of this manual for additional information using this Remote Control.
  - 2. The translucent Remote Control Push-buttons will illuminate for approximately 3 seconds when activated.

#### **Play**

With a disc loaded, press the PLAY ▶ Push-button to start the disc playing.

#### Stop

Press the STOP ■ Push-button to stop disc playback and return to displaying the table of contents of the disc.

#### **Numbered Push-buttons**

Press 1 through 9 to directly access one of the first nine Disc Tracks using the Front Panel Information Display. For track numbers greater than 10, press the +10 Push-button followed by the 0-9 Push-button. For example, to access Disc Track 23, press the +10 Push-button twice and then the 3 Push-button.

#### **Pause**

Press the PAUSE II Push-button to temporarily stop disc playback at any time. Press the PLAY ▶ Push-button to resume playback.

#### **REV** and FF

Press the REV (Reverse) ← or FF (Fast Forward) → Pushbutton to start moving rapidly through a track on the disc. When the desired location is reached release the REV (Reverse) ← or FF (Fast Forward) → Push-button to resume normal playback.

#### **Back and Next**

Press the NEXT ▶ Push-button to move forward one track or the BACK № Push-button to move back to the beginning of the current track playing.

Note: If the BACK 144 Push-button is pressed during play-back of the first three seconds of the track, the MCD500 will start playing back the previous track from the beginning. If the Front Panel Information Display is indicating time, the display will momentarily indicate the track number.

#### SACD/CD

Press to select the SACD or CD Tracks from a hybrid disc for playback.

#### Display/Time

Press the DISPlay/TIME Push-button to access various disc times. It is also used to return the Front Panel Information Display to indicating time instead of text information on a SACD Disc.

#### Menu/Text

Press to select the various text information on a SACD Disc such as Album, Artist and Track Titles (disc dependent)

#### **Repeat Modes**

Press the RPT (Repeat) Push-button to select either One Track, All Tracks or cancel the Repeat Mode.

#### **Program**

Press the PGM (Program) to activate the Program Mode to playback only certain disc tracks in the desired order.

#### Review

Press the RVW (Review) Push-button to review the Programmed Tracks from the disc on the Front Panel Information Display, while in the Program Mode.

#### Clear

Press the CLEAR Push-button to erase a program track(s).



### **How to Operate the MCD500**

#### **Power On**

The Red LED above the STANDBY/ON Push-button lights to indicate the MCD500 is in Standby mode. To Switch ON the MCD500, press the STANDBY/ON Push-button on the Front Panel or the PWR (Power) Push-button on the Remote Control. Refer to figures 6 and 16.

Note: When AC Power is initially applied to the MCD500 the unit will momentarily switch On and then go into the Standby Mode.

#### How to Load a Disc

- 1. Press the OPEN/CLOSE Push-button. The disc tray will slide out allowing a disc to be loaded. Refer to figure 1.
- 2. Press the OPEN/CLOSE Push-button and the disc tray will close. Refer to figures 6, 2, 3 and 5. Loading of disc's Table of Contents (number of tracks) will be indicated on the Front Panel Information Display. When a SACD Disc is loaded the Front Panel Display will scroll the Album Title first and

then display the number of tracks. Refer to figures 4 and

Note: When a Disc is placed in the tray and the PLAY Push-button is pressed, the tray will close and the first track will start playing.

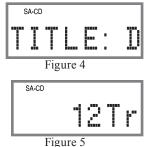


Figure 3

SA-CD

Figure 1

Figure 2

SA-CD

#### How to Play a SACD Disc

With a disc already loaded into the MCD500, press the PLAY▶

Push-button on the Front Panel of the MCD500 or Remote Control. Refer to figures 6 and 16. The Disc will start playing the first track of the SACD Layer.

To change from the default SACD Layer to CD Layer,

press the SACD/CD Push-button (on the Front Panel or Remote Control) once to see the current selection and a second time to change the selection. Refer to figures 6, 7, 8 and 16.

The Player will load the CD Table of Contents (Number of tracks and Total Playing Time) at this time. To start playing the CD Layer press the PLAY ▶ Push-button.



Figure 8

- Notes: 1. Changing between the SACD and CD Layer can be accomplished at any time by performing the above procedure.
  - 2. The default setting for SACD/CD Hybrid is to play the SACD Layer. The default setting may be changed to play the CD Layer instead. With the MCD500 On and no disc loaded, press the SACD/CD Push-button utill the Front Panel Display indicates CD. Refer to figures 6, 9, 7 and 8.
  - 3. Some SACD Disc(s) SA-CD have the abil-DISC ity of displaying the Album Title and Figure 9 Artist. With the disc loaded, SACD Table SA-CD of Contents read and the disc stopped, press the MNU/TEXT Figure 10 Push-button once for SA-CD scrolling the Title and twice for scrolling the Artist Name. Display of the Artist Figure 11 information is not

available during playback of the disc. Refer to figures 10 and 11.

4. In a similar manner, some SACD Disc(s) have the ability of scrolling the Track Number and Title by pressing the MNU/TEXT Push-button **after** the Track has started to play. Refer to figure 12.



Figure 6

5. The Text Display
Mode may be canceled by pressing the
DSP/TIME Pushbutton on the Remote



Control. Refer to figure 16.

6. One of the Track Time Modes may also be displayed instead of the Track Number, by pressing the DSP/TIME Push-button on the Remote Con-

trol. Refer to figure
13. For additional
information on the
Time Display Modes
refer to "Display
Modes" on page 19.



#### How to Play a CD Disc

With a disc already loaded into the MCD500, press the

PLAY ▶ Push-button on the Front Panel of the MCD500 or Remote Control. Refer to figures 6, 14 and 16.



#### How to Pause a Disc

This feature allows for the temporary stopping of disc playback. Refer to figures 6, 15

and 16.

1. When playing a Disc, press the PAUSE II Push-button to temporarily stop playback.



2. Press the PLAY ▶ Push-button to resume playing the disc.

#### **Track Back**

Return to the beginning of the Track currently playing by rotating the MCD500 Front Panel TRACK BACK MCControl counterclockwise and then releasing the control or momentarily pressing the BACK MCPush-button on the Remote Control. Rotate and hold the TRACK BACK MCControl or press and hold the BACK MCPush-button for rapid selection of the desired previous Tracks. Refer to figures 6 and 16.

#### **Track Next**

Advance to the next Track by rotating the MCD500 Front Panel TRACK NEXT >>> Control clockwise and then releasing the control or momentarily pressing the NEXT >>> Push-button on the Remote Control. Rotate and hold the TRACK NEXT >>> Control or press and hold the NEXT >>> Push-button for rapid selection of the next desired Track. Refer to figures 6 and 16.

#### **Fast Forward or Reverse**

Using the Remote Control, press the FF (Fast Forward) → or REV (Reverse) ← Push-button to search back and forth rapidly through a Track on a disc. To return to normal playback release the same FF (Fast Forward) → or REV (Reverse) ← Push-button. Refer to figure 16.

#### **Stop Mode**

Press the STOP ■ Push-button at any time to stop Playback. To listen to the disc again, press the PLAY Push-button and playback will start from the beginning of the disc.

#### **Volume Level**

The MCD500 has both Fixed and Variable Output Level Connections. The Variable Output Level Connections (Rear Panel and Front Panel Headphone Jack) are controlled by the Front Panel Level Control and the LEVEL Push-buttons on the Remote Control. Refer to figures 6, 16 and 17. The Front Panel Volume Level Information Display will indicate the Volume Level from 0 - 100%.

Note: When the Volume Level is 81%, the Rear Panel Variable Outputs will be at the same volume level as the Fixed Outputs.



Figure 16



Figure 17

#### Mute

Press the MUTE Push-button to mute the audio (-50dB down in level) at both the Fixed and Variable Output Connections on the Rear Panel. Refer to figure 6. The LED above the MUTE Push-button will illuminate. Pressing the MUTE Push-button a second time restores the audio at the output connections and the LED will no longer be illuminated.

Note: The Headphone Jack is not affected by the Mute Function.

#### **Direct Track Selection**

The MCD500 Front Panel Display indicates the Disc Track currently playing. Use the Remote Control NUMERIC Push-button(s) to enter the desired Track Number. Refer to pages 14 and 15 for additional information using the Remote Control.



#### How to Operate the MCD500, con't

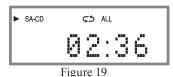
#### Repeat

This allows repeating a Track, Disc, Program Mode or Random Play Mode on a continuous basis. Refer to figures 6 on page 16 and figure 36.

1. With the disc playing (Regular, Program or Random

Playback Modes), press the RPT (Repeat) Push-button once to activate the Track Repeat ( $\hookrightarrow$  1); press the RPT Push-button twice to activate the Disc Repeat (♀与All). Refer to figures 18 and 19.





4. To cancel the previously selected Repeat Mode, press

the RPT (Repeat) Push-button until the word "1" or the word "ALL" in the Front Panel Information Display is extinguished.

#### Random Playback

This feature allows for listening to Tracks of a Disc in a Random Order. Refer to figure 6 on page 16 and figure 36. Note: The MCD500 must be in STOP Mode with the Disc Loaded and the Table of Contents read before the Random Playback Mode Feature can be activated.

1. With the MCD500 in the STOP■ Mode press the Random Push-button. The word RND (Random) will

be indicated in the Information Display. Refer to figure 20.

► SA-CD 02:36

Figure 20

2. Press the PLAY ▶ Pushbutton to start Random

Playback. After all the tracks have been played the MCD500 will stop.

Notes: 1. To provide continuous playback of the disc, press the RPT Push-button twice to activate the *Disc Repeat (*← *SAll) after the Random Playback Mode has started. If Repeat*  $(\hookrightarrow \supset 1)$  *is selected,* the current track will repeat.

- 2. The BACK TRACK function will begin playback from the beginning of the current track.
- 3. The NEXT TRACK function will advance to the next random selection and start playing.
- 3. To cancel the Random Playback Mode, press the STOP■ Push-button, then press the Random Pushbutton.

#### **Program Playback**

This feature allows for playback of selected Tracks on a Disc in the desired order. In the following example, a Disc is programmed to play Track 6 followed by Track 4 and then Track 2.

Notes: 1. The MCD500 must be in STOP Mode with the Disc TOC (Table of Contents) read before the Program Playback Mode Feature can be activated.

- 2. When programming Hybrid SACD Discs, first choose the layer (SACD or CD) so the correct TOC can be read, as some discs have different selections for the SACD and CD Tracks.
- 1. Press the PGM (Program) Push-button to access the

Program Mode. Refer to figures 36 and 21.

2. Enter the first desired selection using the Numeric Push-buttons. Refer to figures 36 and 22.

3. In a similar manner, enter the remaining Tracks. Refer to figures 23 and 24.

Note: To view and/or delete the selections programmed, use the REVIEW Push-button to step through programmed tracks and the CLEAR Push-button to remove any unwanted selections.



Figure 21



Figure 22



Figure 23



Figure 24

4. To start playback of the just entered program, press the PLAY▶ Push-button. The Repeat Mode can be activated to provide continuous playback of the Pro-

grammed Track(s). Refer to figure 25.

Note: To momentarily stop playback, press the PAUSE II Push-



button. To resume Program Playback press the *PLAY* ▶ *Push-button*.

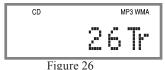
5. To cancel the Program Playback Mode press the STOP■ Push-button followed by pressing the PGM (Program) Push-button.

Once the Program Playback Mode is active, tracks may be added or deleted by first pressing the STOP■ Push-button followed by entering the additional tracks using the Numeric Push-buttons or deleting tracks by using the CLEAR Push-button. Press the PLAY▶ Push-button to resume Program Playback Mode.

#### MP3/WMA Disc Playback

The MCD500 has the ability of playing back MP3 and WMA encoded discs. MP3/WMA allow more tracks on the Disc by using the technique of lossy compression applied to the original audio information. The MP3/WMA

Track has lower audio quality than the original recording. Load a MP3/WMA disc into the MCD500. Refer to figure 26.

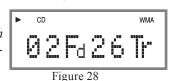


1. Press the PLAY▶ Push-button to start Playback. Refer to figures 27 and 28. After all the tracks have been played the MCD500 will

stop.

Notes: 1. The MCD500 will indicate either elapsed time or remaining time for each track when playing MP3/WMA Discs.





2. When playing MP3/WMA Discs, the left side of the Front Panel Information Display indicates the total number of folders on the disc followed by the Track Number or the Track Time.

#### **Display Modes**

The MCD500 Front Panel Information Display allows for either Track or Time indications. To change from the default setting of Track indication to Time, press the TIME Push-button on the Front Panel or the DISP/TIME Pushbutton on the Remote Control. Refer to figures 6 on page 16 and figure 36.

The Time Display Choices are Single Track Elapse Time (figures 29 and 30), Single Track Remaining Time (figures 31 and 32) or Total Tracks Remaining Time (figures 33 and 34).





Figure 30

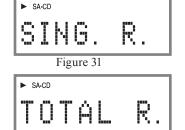


Figure 33

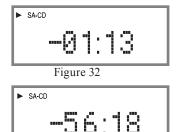


Figure 34

#### **Display Brightness**

The MCD500 Front Panel Information Display has two brightness settings. To change from the default setting (brightest of the two) perform the following:

- 1. If the MCD500 is playing a disc press the STOP■ Push-button.
- 2. Press and hold the PAUSE II Push-button until the brightness level of the two Front Panel Displays changes, then release the PAUSE II Push-button.

Note: Depending on the brightness setting before pressing the push-button, the intensity will go from high to low or low to high.

#### **Resetting the MCD500**

In the unlikely event the MCD500 stops functioning, the microprocessors can be reset by performing the following:

1. Press and hold in the STOP ■ Push-button for approximately three seconds. The Front Panel Display

on the Left side will indicate "INITIAL". release your finger from STOP■ Push-button. Refer to figure 35.



2. Press and hold in the STANDBY/ON Push-button for approximately five seconds. Refer to figure 6 on page 16.

- 3. When the STANDBY/ON LED is no longer illuminated, release the STANDBY/ON Push-button.
- 4. When the STANDBY/ON LED is illuminated press the STANDBY/ ON Push-button, the MCD500 will resume normal operation.

Note: This can be performed with the MCD500 On or in the Standby Mode.



Figure 36



#### How to Operate the MCD500, con't

#### **External Digital Input**

The MCD500 internal D/A (Digital to Analog) Converter may be used to decode a Digital Audio Signal from other source components such as a Music Server or another Disc Player. The MCD500 will decode a two channel PCM Encoded Digital Signal into a two channel Analog Signal. There is both a Coaxial and Optical Digital Input so two Digital Source Components may be connected simultaneously and the MCD500 has electronic switching for selection of the desired music source.

The default Digital Input Selection is playback of a disc in the MCD500. The Front Panel display will indicate the Volume Level (0-100%) at the Variable Audio Outputs. Re-

fer to figures 39 and 37. To select the Coxial External Digital Input press the INPUT Push-button on the Front Panel or press the IN-TRO Push-button on the MCD500 Remote Control. Refer to figure 39 or 41. The Front Panel Display will now indicate "COAX" instead of Volume Level. Refer to figure 38. If the Volume Level is changed, either using the Front Panel LEVEL Control or the LEVEL Pushbuttons on the MCD500 Remote Control the Front Panel Display

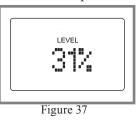




Figure 38

will momentarily indicate the new Volume Level Setting and return to indicating the "COAX" Input.

In a similar manner, if the INPUT Push-button or the INTRO Push-button is pressed a second time the MCD500 will switch to the Optical External Digital Input and will decode the Digital Signal into Analog Sound. Refer to figures 39, 41 and 40.

The third press of the INPUT Push-button or the INTRO Pushbutton will return to playing the disc in the MCD500 and the Front Panel Display will indicate Volume Level. Refer to figure 37.

Note: When the digital signal changes from PCM (CD Playback) to DSD (SACD Playback) the LED above the Front Panel INPUT Push-button will flash.

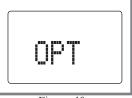


Figure 40



Figure 41



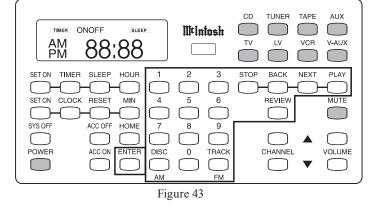
Figure 39

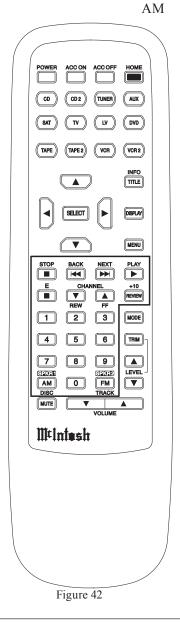
### Operation in a McIntosh System

Intro

The MCD500 basic transport functions may also be controlled by using the Remote Control that comes with a McIntosh Control Center or Preamplifier. McIntosh Keypads can also be used to remotely control the basic transport functions of the MCD500. The labeling of Pushbuttons on some McIntosh Remote Controls and Keypads are different from the supplied MCD500 Remote Control. Refer to the listing below and figures 42 and 43:

MCD500 Remote Control	McIntosh Remote Control/
Push-button	<b>Keypad Push-button</b>
Pause	E/Enter
SACD/CD	Review
Level Down	Channel/Seek Down
Level Up	Channel/Seek Up
+10	FM







#### **Audio Specifications**

#### **Fixed Output level**

2.0Vrms Unbalanced

# 4.0Vrms Balanced

#### Variable Output level

0 - 6.0Vrms Unbalanced 0- 12.0Vrms Balanced

#### **Output Impedance**

600 ohms Unbalanced and Balanced

#### **Frequency Response**

4Hz to 40,000Hz, +0.5, -2dB (SACD) 4Hz to 20,000Hz, ±0.5dB (CD)

#### Signal to Noise Ratio

Better than 110dB (A-weighted)

#### **Dynamic Range**

Better than 100dB

#### **Harmonic Distortion**

0.0015% @ 1000Hz (SACD) 0.0015% @ 1000Hz (CD)

#### **Channel Separation**

Better than 98dB (1,000Hz)

#### **General Specifications**

#### **Digital Input**

Optical: - 15dbm to -21dbm (PCM¹ - CD Format only) Coaxial: 0.5V p-p/75 ohm (PCM¹ - CD Format only) Sampling Frequencies: 44.1kHz (PCM¹)

#### **Digital Output**

Optical: - 15dbm to -21dbm (PCM¹ - CD Format only) Coaxial: 0.5V p-p/75 ohm (PCM¹ - CD Format only) Sampling Frequencies: 44.1kHz (PCM¹)

#### **Transport**

Laser Type: Twin Beam

Laser Beam Wavelength: 650nm (SACD)/790nm (CD)

Laser Power: CLASS IIa/CLASS I

#### **Power Requirements**

100 Volts, 50/60Hz at 35 watts 110 Volts, 50/60Hz at 35 watts 120 Volts, 50/60Hz at 35 watts 220 Volts, 50/60Hz at 35 watts 230 Volts, 50/60Hz at 35 watts 240 Volts, 50/60Hz at 35 watts Standby: Less than 1 watt

Note: Refer to the rear panel of the MCD500 for the correct voltage.

#### **Overall Dimensions**

Width is 17-1/2 inches (44.45cm) Height is 6 inches (15.24cm) Depth is 16-1/2 inches (41.91cm)

Note: When the Disc Tray is opened, the panel clearance required in front of mounting panel is 6-3/4 inches (17.2cm).

#### Weight

28.2 pounds (12.8Kg) net, 44.6 pounds (20.2Kg) in shipping carton

#### **Shipping Carton Dimensions**

Width is 26-1/2 inches (67.3cm) Depth is 24-1/4 inches (62.2cm) Height is 11-3/4 inches (29.9cm)

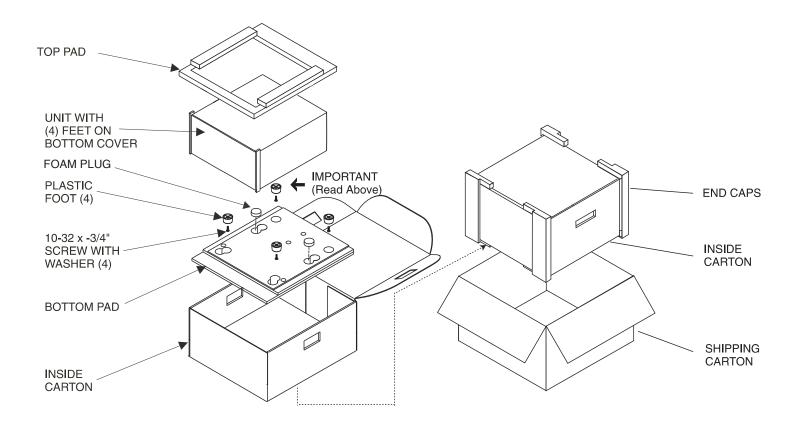
<sup>&</sup>lt;sup>1</sup> PCM (Pulse Code Modulation) Digital Signal type used for CD Discs

## **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. 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 4. Please see the Part List for the correct part numbers.

Quantity 1 4	Part Number 033838 033837	Description Shipping carton only End cap
1	033836	Inside carton only
1	034414	Inner carton foam top pad
1	034301	Bottom pad
2	034446	Foam plug
4	017937	Plastic foot
4	400159	#10-32 x 3/4" screw
4	404080	#10 Flat washer





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

The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated who reserve the right to improve design without notice. Printed in the U.S.A.