



D/A Converter



MDA1000 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.

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.

Thank You

Your decision to own this McIntosh MDA1000 D/A Converter 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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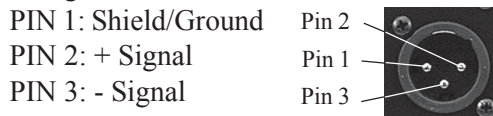
Important Information

1. It is recommended that a qualified professional assist you in the choice and installation of a McIntosh Audio System for your home.
2. Before making any connections to the MDA1000, make sure that the Main POWER Switch is in the Off position. When the MDA1000 and other McIntosh Components are in their Standby Mode the Microprocessor's Circuitry inside each component is active and communication is occurring between them. Failure to do so could result in malfunctioning of some or all of the system's normal operations.
3. The following Connecting Cable is available from the McIntosh Parts Department:
Data and Power Control Cable Part No. 170-202
 Six foot, 2 conductor shielded, with two 1/8 inch stereo mini phone plugs.
4. When the MDA1000 Digital XLR Input is used to connect with the Digital XLR Output of the McIntosh MCD1000 CD Transport Component, it is important to use a twisted pair shielded cable.
5. For additional connection information, refer to the owner's manual(s) for any component(s) connected to the MDA1000.
6. With the LEVEL Control active, the MDA1000 is capable of driving a power amplifier directly. When the MDA1000 is connected to a Preamplifier Input and the LEVEL Control is active, LEVEL Control settings above 81 (as indicated on the Front Panel Alphanumeric Display) may cause some Preamplifier Inputs to overload due to the high signal level.

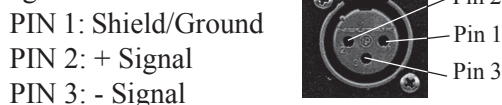
Connector Information

XLR Connectors:

Below is the Pin configuration for the XLR Balanced Analog Audio Output Connectors on the MDA1000. Refer to the diagram for connection:

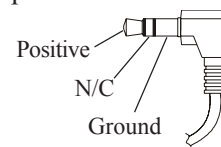


Below is the Pin configuration for the XLR Balanced Digital Audio Input Connectors on the MDA1000. Refer to the diagram for connection:



Power Control and Trigger Connectors

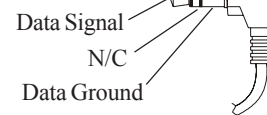
The MDA1000's Power Control Outputs provide a 5 volt signal. Use a 1/8 inch stereo mini phone plug to connect to the Power Control Input on other McIntosh Components.



Data and IR Port Connectors

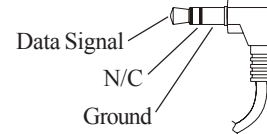
The MDA1000's Data Port Output provides Remote Control Signals and the IR Input Port allows for the connection of other brands IR Sensors. Use a 1/8 inch stereo mini

Data Port Connector



phone plug to connect to the Data Port Inputs on McIntosh Source Units.

IR Input Port Connector



Introduction

The new McIntosh MDA1000 D/A Converter offers a highly refined Balanced/Parallel Circuit utilizing eight of Burr Brown's most sophisticated 24 Bit Digital to Analog (D/A) chips. Combine a MDA1000 with a McIntosh MCD1000 CD Transport and you will enjoy a playback system of unparalleled performance.

Performance Features

● Shielded 768kHz Up Sampling Module

The McIntosh designed Up Sampling Module converts all of the incoming Digital Signals to the higher frequency of 768kHz with 24Bit resolution before the Digital to Analog process begins.

● Shielded 24 Bit Digital to Analog Circuits

The MDA1000 utilizes McIntosh's own specially designed 24-bit Balanced Parallel Digital to Analog Converter Circuitry operating at 768kHz. This offers the widest possible dynamic range, lowest noise level and extremely low distortion. All of this produces sound quality that is truly exceptional.

● Special Analog Filter and Output Amplifier

The third order Butterworth gentle slope analog filter removes any remaining digital artifacts from the output signal. The low impedance Output Amplifier drives both the Balanced and Unbalanced Output Connections.

● Balanced and Unbalanced Outputs

Balanced connections guard against induced noise and allow long cable runs without compromising sound quality. There are also Unbalanced connections for components without Balanced Inputs.

● Precision Tracking Volume Control

Volume levels are controlled by a Precision Digitally Controlled Attenuator System with a tracking accuracy of 0.1dB. There is also a Volume Control Bypass Mode for a fixed output level.

● Alphanumeric Fluorescent Display

The Multifunction Front Panel Display indicates the Source Selection, Volume Levels and the Setup Mode Selections. The displays intensity is fully adjustable.

● Digital Inputs with Title Reassignment

The MDA1000 has provisions for three Coaxial Digital In-

puts, three Optical Digital Inputs and one XRL Balanced Digital Input. Any of the seven inputs can have their Input Title reassigned to match the sources connected to the MDA1000.

● Precision Parts

Only the finest precision 1% tolerance metal film resistors and 5% tolerance Polyfilm Filter Capacitors are used throughout.

● Low Distortion

Distortion levels of all types are less than 0.002%. Music is amplified with total transparency and accuracy.

● Remote Power, Data Control and External IR Input

Remote Power Control In/Out allows the MDA1000 to turn On/Off with a McIntosh Audio Control Center. The Data Port Input allows Remote Control Operation from another McIntosh Component. The IR Input allows for the connection of an IR Receiver.

● Remote Control Operation

A Remote Control is included that allows for complete control of major functions.

● Glass Front Panel

The famous McIntosh Illuminated Glass Front Panel with a three dimensional look ensures the pristine beauty of the MDA1000 will be retained for many years.

● Fiber Optic Solid State Front Panel Illumination

The Illumination of the Front Panel is accomplished by the combination of custom designed Fiber Optic Light Diffusers and Light Emitting Diodes (LEDs). This provides even Front Panel Illumination, together with the extra long life LEDs.

● Machined Top and Side Panels

The Top and Side of the MDA1000 are machined from thick aluminum panels with a smooth black anodized finish. In the recessed area of the Top Panel is a screened glass panel with a block diagram of the MDA1000's circuitry.

● Special Power Supply

A fully regulated Power Supply with a special R-Core Power Transformer, ensures stable noise free operation even though the power line varies.

Dimensions

The following dimensions can assist in determining the best location for your MDA1000. There is additional information on the next page pertaining to installing the MDA1000 into cabinets.

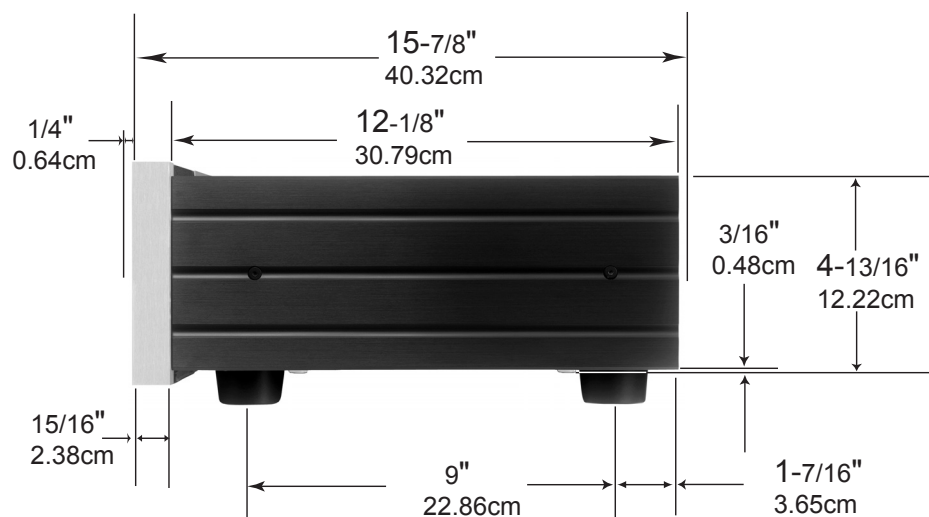
**Front View
of the
MDA1000**



**Rear View
of the
MDA1000**



**Side View
of the
MDA1000**



Installation

The MDA1000 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 MDA1000 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 MDA1000 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 MDA1000. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MDA1000 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.

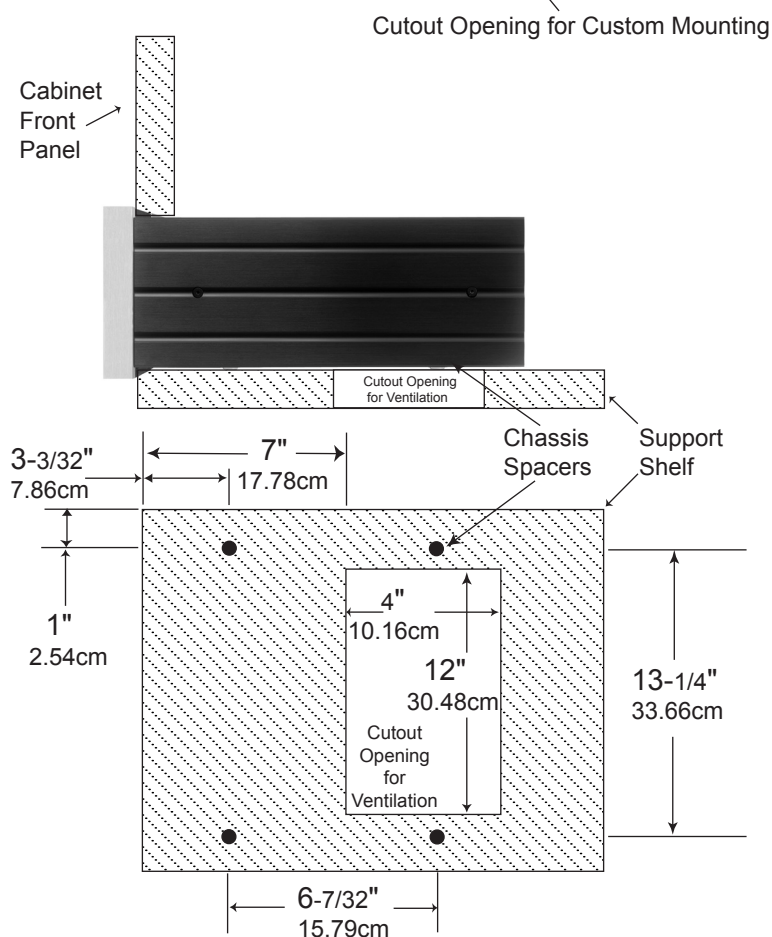
A custom cabinet instal-

lation should provide the following minimum spacing dimensions for cool operation. 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 D/A Converter, 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.

**MDA1000 Front Panel
Custom Cabinet Cutout**



**MDA1000 Side View
in Custom Cabinet**



**MDA1000 Bottom View
in Custom Cabinet**

Connect the MDA1000 power cord to a live AC outlet. Refer to information on the back panel to determine the correct voltage

IR INPUT for connecting an IR Receiver

DATA PORTs send signals to compatible source components to allow remote control operation

BALANCED AUDIO OUTPUTS contain analog stereo signals to connect to Balanced inputs of other components



DATA IN receives operating data from a McIntosh Control Center

OPTICAL DIGITAL AUDIO INPUTS receive digital audio signals from source components

UNBALANCED AUDIO OUTPUTs contain analog stereo signals to connect to Unbalanced inputs of other components

POWER CONTROL IN receives turn-On signals from a McIntosh Component and POWER CONTROL OUT sends turn-On signals on to another McIntosh Component

COAXIAL DIGITAL AUDIO INPUTS receive digital audio signals from source components

Balanced DIGITAL AUDIO INPUT receives digital audio signals from the McIntosh MCD1000 CD Transport

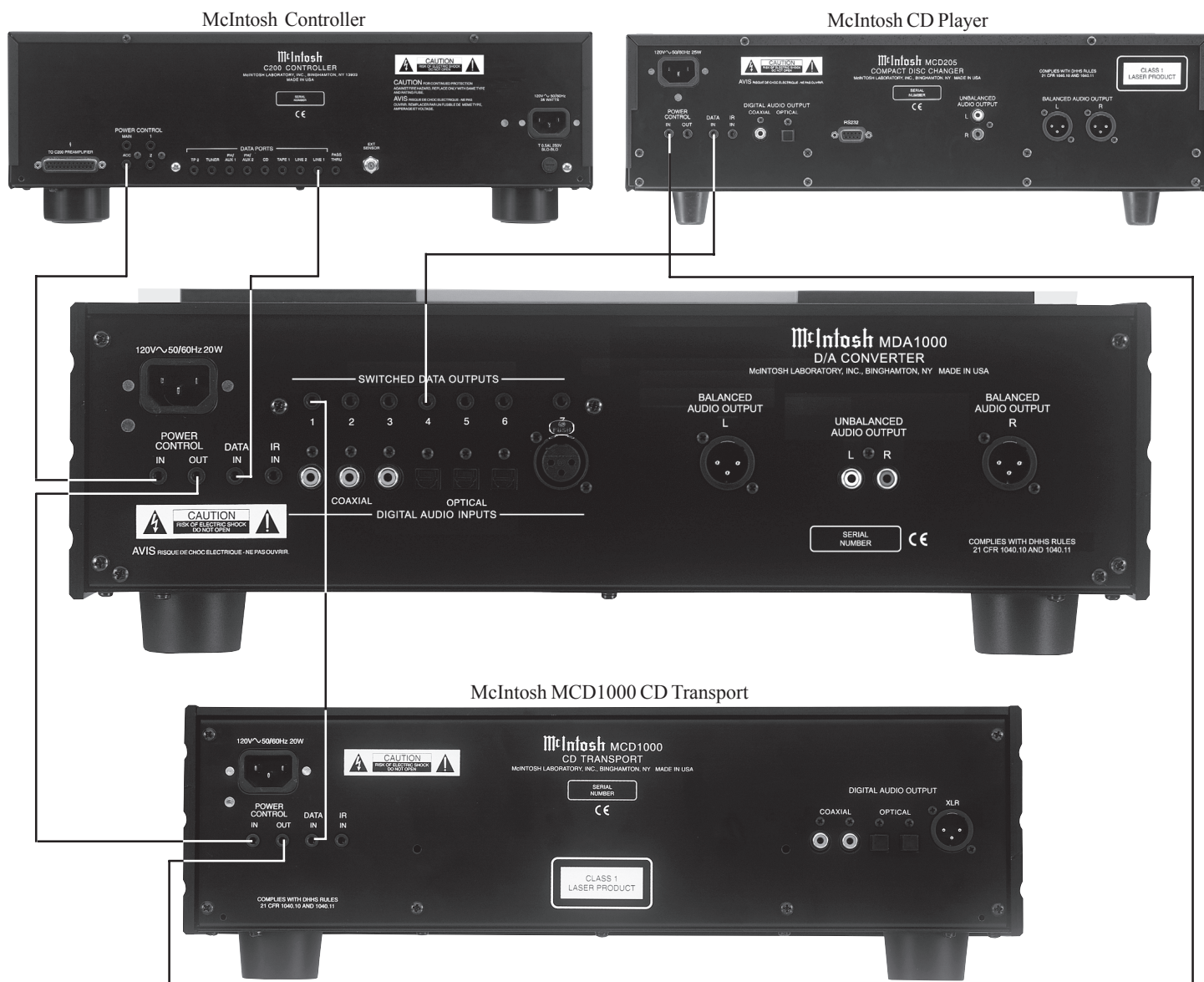
How to Connect for Power Control and Data

The Power Control Connections facilitate the ability to switch power On and Off to the McIntosh Source Components automatically with the McIntosh Control Center/Preamplifier. Data Control Connections facilitate the ability to remotely operate McIntosh Source Components using the supplied MDA1000 D/A Converter Remote Control or the McIntosh Control Center/Preamplifier Remote Control.

1. Connect a Power Control Cable from the MDA1000 POWER CONTROL IN Jack to the appropriate Power Control Out Jack on the McIntosh Control Center/Preamplifier.

Note: If the MDA1000 is connected to a McIntosh MCD1000 CD Transport in a system without a McIntosh Control Center or Preamplifier, the MDA1000's Power Control In should be connected to the MCD1000 Power Control Out Jack.

2. Connect a Power Control Cable from the MDA1000 POWER CONTROL OUT Jack to the McIntosh MCD1000 CD Transport Power Control In Jack.
3. Optionally, connect a Power Control Cable from the MCD1000 Power Control Out Jack to the McIntosh CD Player Power Control In Jack.
4. Connect a Data Control Cable from the MDA1000 DATA IN Jack to the LINE 1 Data Port on the McIntosh Control Center/Preamplifier.
5. Connect a Data Control Cable from the MDA1000 DATA SWITCHED DATA OUTPUTS Jack 1 to the McIntosh MCD1000 CD Transport Data In Jack.
6. Connect a Data Control Cable from the MDA1000 DATA SWITCHED DATA OUTPUTS Jack 4 to the McIntosh CD Player Data In Jack.



How to Connect for Audio

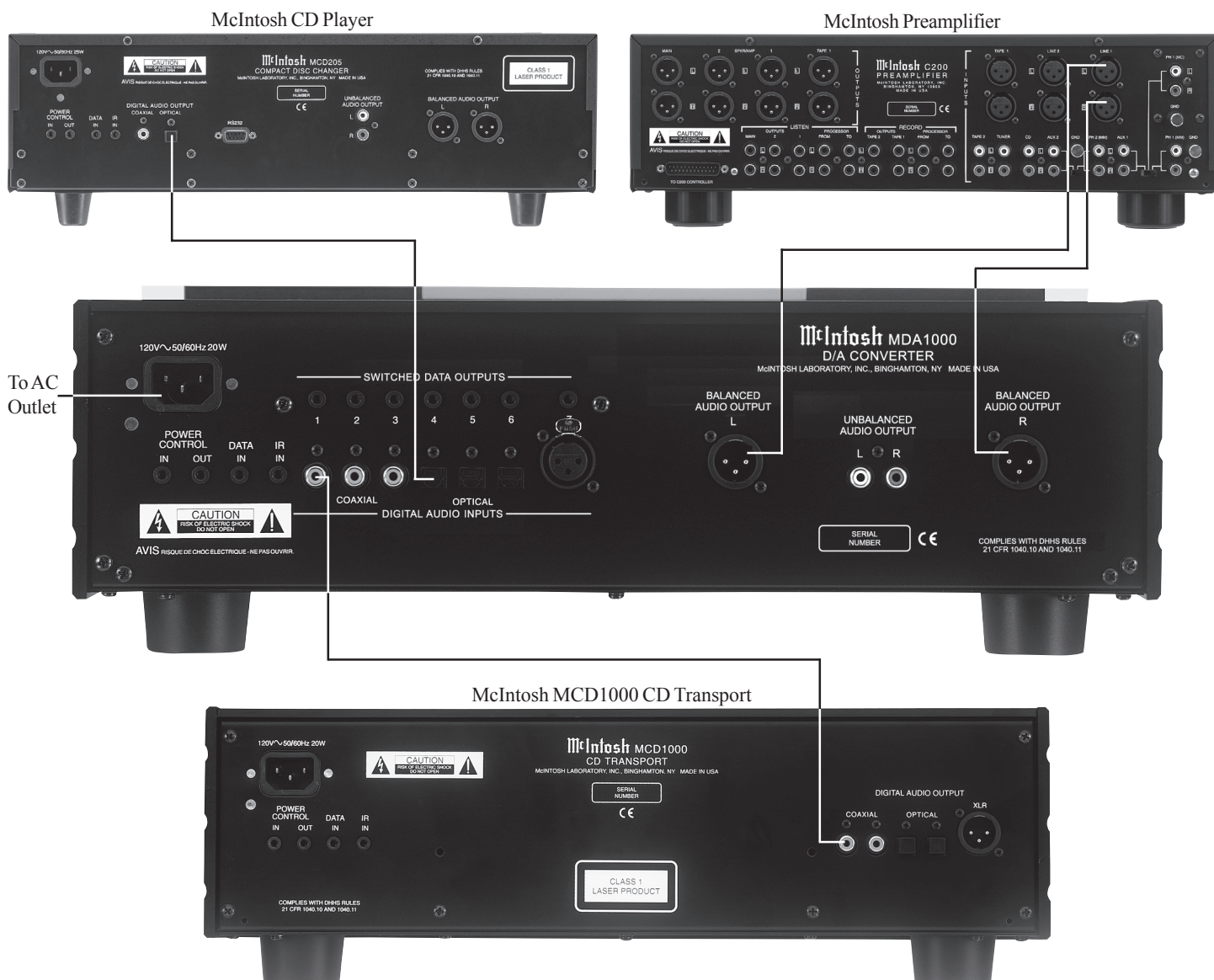
1. Connect Audio Cables from the McIntosh MDA1000 Left and Right BALANCED AUDIO OUTPUTS to the McIntosh Audio Control Center/Preamplifier Line 1 Balanced Inputs.

Note: The MDA1000's UNBALANCED Left and Right AUDIO OUTPUTS may be used instead of the BALANCED Connections. The UNBALANCED and BALANCED AUDIO OUTPUTS may both be used at the same time.

2. Connect a Coaxial Digital Cable from the McIntosh MCD1000 CD Transport Coaxial Digital Audio Output to the MDA1000 COAXIAL 1 DIGITAL AUDIO INPUT.

Note: A Balanced Digital XLR Cable with internal wiring consisting of a Shielded Twisted Pair may be used in place of the Coaxial Digital Cable. The Cable would connect from the MCD1000 CD Transport XLR Output to the MDA1000 XRL DIGITAL AUDIO INPUT number 7.

3. Connect an Optical Digital Cable from the McIntosh CD Player Optical Digital Audio Output to the MDA1000 OPTICAL 4 DIGITAL AUDIO INPUT.
4. Connect the MDA1000 Power Cord to a live AC outlet.



Front Panel Controls, Displays, Push-Buttons, and Switch

Selects various Digital Sources for listening

Adjusts the listening volume level and also selects various setup functions

Indicates the Sources, Volume Levels, Operational Functions and Setup Mode Settings



IR Sensor for Remote Control Operation

Main Switch turns all AC power completely On or Off

This Push-button with indicator, activates the Setup Mode. Setup allows the changing of the Input Titles, Volume Setting and the Display Brightness from the default settings.

Switches the MDA1000 On or Off (Standby). The LED Indicator illuminates when there is incoming AC Power

How to Operate the Setup Mode

Your McIntosh MDA1000 has been factory configured for default operating settings that will allow immediate enjoyment of superb audio without the need for further adjustments. If you wish to make changes to the factory default settings, a Setup Feature is provided to customize the operating settings using the Front Panel Alphanumeric Display.

1. Press the POWER Switch to ON, the LED above the STANDBY/ON Push-button will illuminate and the Front Panel Display will indicate "BYPASS ON" for several seconds and then "1 COAXIAL 44.1". Refer to figures 1, 2 and 3.



Figure 1

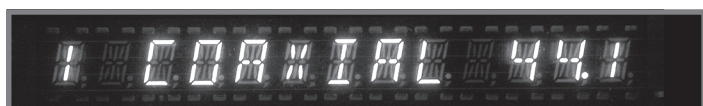


Figure 2

Notes: For normal operation, switch the MDA1000 On and Off with the Standby/On Push-button. If the MDA1000 is not going to be used for an extended period of time, turn Off all AC Power with the Power Switch. If there is no digital signal present at the Coaxial Digital Input 1, the Front Panel Alphanumeric Display will indicate "1 COAXIAL" and not "1 COAXIAL 44.1" as illustrated in figure 2.

2. Press the SETUP Push-button and notice that with each press of the push-button, the Setup Mode advances through two different possible adjustment selections and one informational display.
3. To exit from the Setup Mode, press the SETUP Push-button until the LED above the SETUP Push-button is extinguished and the Front Panel Display reverts back to its normal display. Refer to figure 2.

Default Settings

The following listings indicate the default settings and the page number for instructions on how to change a setting:

Setup Function Name	Setting	Page Number
Bypass	ON	12
Display	MAX	13
Input Title	1 COAXIAL	13

Bypass Mode

The MDA1000 Audio Outputs can be set for either a fixed output level or a variable output that is controlled by the Front Panel LEVEL Control. To change from the default setting of a fixed output level to a variable output level perform the following:

1. Press the SETUP Push-button once to access the BYPASS MODE in Setup. Refer to figures 3 and 4.



Figure 4

2. Rotate the LEVEL Control Counterclockwise until the Front Panel Alphanumeric Display indicates BYPASS OFF. Refer to figure 5.



Figure 5

3. Press the SETUP Push-button three times to exit the Setup Mode. The LED above the SETUP Push-button will be extinguished.



Figure 3

Display Brightness

The Front Panel Alphanumeric DISPLAY Brightness may be varied from the default setting of MAXIMUM (Bright) to MINIMUM (Dim). Follow the steps below for reducing the Display Brightness. Refer to figures 3 and 6.



Figure 6

1. Press the SETUP Push-button two times to access the DISPLAY Mode in Setup.
2. Rotate the LEVEL Control Counterclockwise until the Front Panel Alphanumeric Display Brightness is reduced to the desired setting. Refer to figure 7.



Figure 7

3. Press the SETUP Push-button two times to exit the Setup Mode. The LED above the SETUP Push-button will be extinguished.



Figure 9

4. To Re-Title additional input(s) repeat steps 2 and 3.
5. Press the SETUP Push-button to exit the Setup Mode. The LED above the SETUP Push-button will be extinguished.

Re-Title Inputs

The MDA1000 has seven Digital Audio Inputs with assigned titles that will allow for immediate connection, operation and enjoyment. These inputs may be renamed to match the digital components in your system. The following example will illustrate how to rename the 1 COAXIAL Input to 1 CD1. When the Input Selector is rotated to select what was originally the 1 COAXIAL Input, 1 CD1 will now appear on the Front Panel Alphanumeric Display.

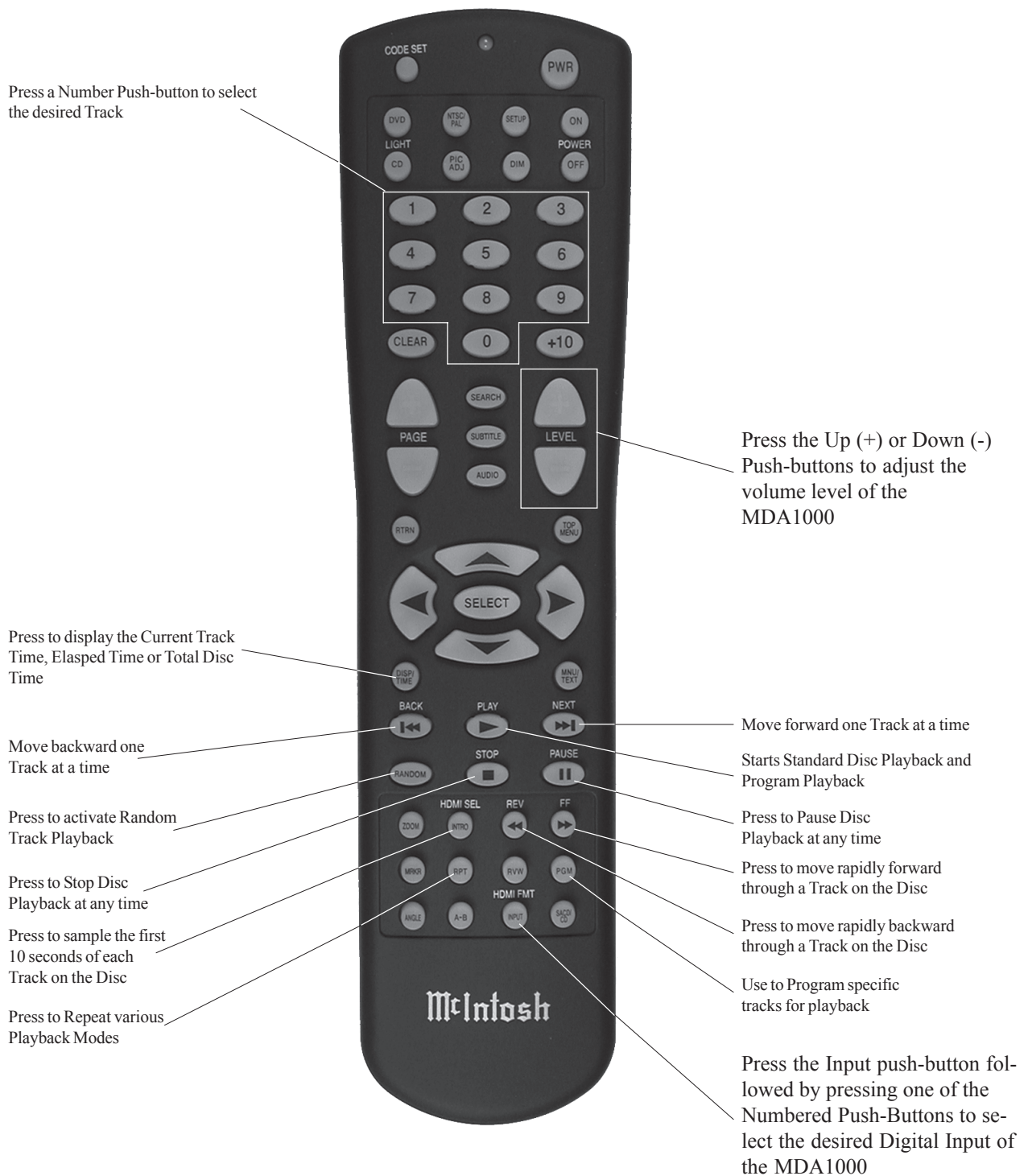
Note: The New Input Titles that are available for all the Inputs include CD1, CD2, CD3, DVD1, DVD2, DVD3, LD, VCR, SAT, AUX1 and AUX2.

1. Press the SETUP Push-button three times to access the Re-Title Mode in Setup. Refer to figures 3.
2. Rotate the INPUT Control Clockwise to select the desired Digital Audio Input to be Re-Titled. Refer to figure 8.



Figure 8

3. Rotate the LEVEL Control Clockwise until the Front Panel Alphanumeric Display indicates the desired input name. Refer to figure 9.



Notes: The buttons with the “small text descriptions” are used to control various transport functions of the McIntosh MCD1000 CD Transport. Push-buttons whose function is not identified above are for use with other McIntosh Products. The Remote Control shipped with your MDA1000 may differ from the illustration above; however, the functionality is the same.

How to Operate the Remote Control

Input Selection

Press the INPUT Push-button followed by pressing one of the NUMBERED Push-button (1-7) to select the desired digital input on the MDA1000.

Note: Remote Control Selection of Digital Inputs can also occur using the Remote Control supplied with a McIntosh Preamplifier, Audio Control Center, A/V Control Center, A/V System Controller, Audio/Video Multizone Control System or Integrated Amplifier. This requires the MDA1000's DATA IN Jack be connected to a Data Port on that component. Using the Remote Control supplied with those components, press the REVIEW Push-button followed by the pressing one of the NUMBERED Push-buttons (1-7) to select the desired digital input.

Volume Level

The MDA1000 offers either a fixed volume level (default setting) or a variable volume level at the Audio Output Jacks. If the variable volume level has been selected in the Setup Mode (refer to page 12), use the LEVEL UP (+) or DOWN (-) Push-button on the remote control to adjust the MDA1000 Volume level.

How to Operate the MDA1000

The McIntosh MDA1000 D/A Converter has been factory configured for operating settings that allow immediate enjoyment of superb high fidelity audio without the need for further adjustments. If you wish to make changes to the factory default settings, refer to the SETUP Section of this Owner's Manual starting on page 12.

Power On and Off

1. Press the POWER Switch to ON, the Red LED above the STANDBY/ON Push-button lights to indicate the MDA1000 is in Standby Mode. To Switch On the MDA1000 press the STANDBY/ON Push-button. The LED above the STANDBY/ON Push-button will illuminate and the Front Panel Display will indicate "BYPASS ON" for several seconds and then "1 COAXIAL 44.1". Refer to figures 10, 11 and 12.

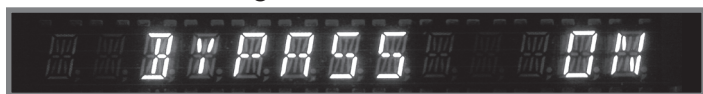


Figure 10

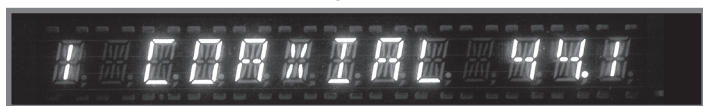


Figure 11

- Notes:*
1. The first time the MDA1000 POWER Switch is set to On it is not necessary to press the STANDBY/ON Push-button.
 2. For normal operation, switch the MDA1000 On and Off with the Standby/On Push-button. If the MDA1000 is not going to be used for an extended period of time, turn Off all AC Power with the Power Switch.
 3. If there is no digital signal present at the Coaxial Digital Input 1 the Front Panel Alphanumeric Display will indicate "1 COAXIAL" and not "1 COAXIAL 44.1".

After the first time the MDA1000 is turned On, the alphanumeric display will indicate the last Digital Input Selected and any Re-Title change made to that Input.

4. If the BYPASS OFF Mode has been selected, the Front Panel Alphanumeric Display will also indicate "LEVEL ____" between indications of "BYPASS OFF" and title of the Input selected. Refer to figures 13 and 14.



Figure 13



Figure 14

Input Selection

Select the desired Source with the Front Panel INPUT Control or using the appropriate the Push-buttons on the Remote Control. Refer to figures 12 and 15.

Volume Control

When the BYPASS OFF Mode of operation has been selected, the Front Panel Level Control is active allowing for changes in the volume level. The remote control supplied with the MDA1000 will also allow for volume level changes by using the LEVEL Up (+) / Down (-) Push-buttons. Refer to figures 13, 14 and 15.

Note: When the MDA1000 is connected to a Preamplifier Input and the LEVEL Control is active, LEVEL Control settings above 81 (as indicated on the Front Panel Alphanumeric Display) may cause some Preamplifier Inputs to overload due to the high signal level. If the BYPASS ON Mode of operation has been



Figure 12

selected and the LEVEL Control is rotated or the LEVEL Up(+) / Down (-) Push-buttons on the remote control are pressed, the Front Panel Alphanumeric Display will momentarily indicate “BYPASS ON”. Refer to figure 10.

Setup

Pressing the SETUP Push-button activates the Setup Mode of the MDA1000 and allows customizing various operating functions. Refer to the SETUP Section of this Owner’s Manual starting on page 12.

Reset of Microprocessors

In the event that the controls of the MDA1000 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 MDA1000 microprocessors and the Audio Control Center will be returned to normal operation.

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.



Figure 15

Analog Audio Specifications

Frequency Response

±0.5dB from 4Hz to 45,000Hz
(Sampling Frequency - 96kHz and 88.2kHz)

±0.3dB from 4Hz to 22,000Hz
(Sampling Frequency - 48kHz)

±0.3dB from 4Hz to 20,000Hz
(Sampling Frequency - 44.1kHz)

±0.3dB from 4Hz to 15,000Hz
(Sampling Frequency - 32kHz)

Total Harmonic Distortion

0.002% at 1,000Hz

Signal To Noise Ratio

Better than 110dB (A Weighted)

Dynamic Range

Better than 100dB (1,000Hz)

Rated Output Voltage

2V Unbalanced Outputs (BYPASS ON Mode)

6V Unbalanced Outputs (BYPASS OFF Mode)

2V Balanced Outputs (BYPASS ON Mode)

6V Balanced Outputs (BYPASS OFF Mode)

Digital Audio Specifications

Digital Audio Format

IEC958, S/PDIF

Coaxial Inputs (1, 2 and 3)

0.5Vp-p @75ohms

Optical Inputs (4, 5 and 6)

-15 ~ -20dBm

XRL Input (7)

5V p-p @110 ohms

Sampling Frequencies

96kHz, 48kHz, 44.1kHz and 32kHz

General Specifications

Power Requirements

100 Volts 50/60Hz, 20 watts

110 Volts 50/60Hz, 20 watts

120 Volts 50/60Hz, 20 watts

220 Volts 50/60Hz, 20 watts

230 Volts 50/60Hz, 20 watts

240 Volts 50/60Hz, 20 watts

Note: Refer to the rear panel of the MDA1000 for the correct voltage.

Overall Dimensions

Width is 17-1/2 inches (44.45cm)

Height is 6 inches (15.24cm) including feet

Depth is 16-1/8 inches (40.96cm) including the Front Panel and Knobs

Weight

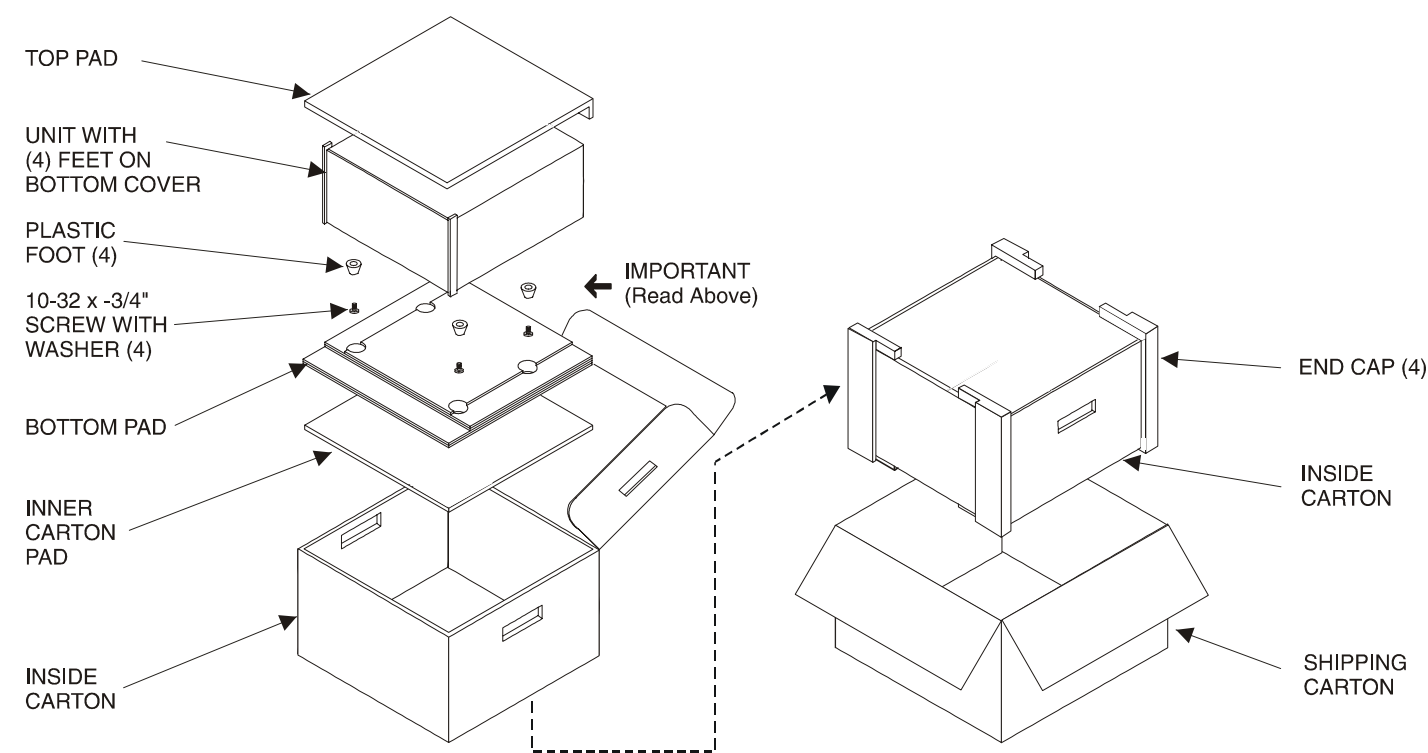
24 pounds (10.89 kg) net, 38 pounds (17.24 kg) in shipping carton

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. This will ensure the proper equipment location on the bottom pad. Failure to do this will result in shipping damage.

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

Quantity	Part Number	Description
1	034075	Shipping carton only
4	033837	End cap
1	034076	Inside carton only
1	033726	Top pad
1	034255	Bottom pad
1	034077	Inner carton pad
4	017937	Plastic foot
4	100159	#10-32 x 3/4" screw
4	104083	#10-7/16" Flat washer





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

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Printed in the U.S.A.