



McIntosh Laboratory, Inc. 2 Chambers Street Binghamton, New York 13903-2699 Phone: 607-723-3512 www.mcintoshlabs.com

MP1100
Phono Preamplifier
Owner's Manual





Important Safety Information is supplied in a separate document “Important Additional Operation Information Guide”

Thank You

Your decision to own this McIntosh MP1100 Phono Preamplifier 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: 607-723-3512
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

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General Information

1. For additional connection information, refer to the owner's manual(s) for any component(s) connected to the MP1100 Phono Preamplifier.
2. The Main AC Power going to the MP1100 and any other McIntosh Component(s) should not be applied until all the system components are connected together. Failure to do so could result in malfunctioning of some or all of the system's normal operations. When the MP1100 and other McIntosh Components are in their Standby Power Off Mode, the Microprocessor's Circuitry inside each component is active and communication is occurring between them.
3. The Balanced and Unbalanced Outputs may be used simultaneously, connected to different Preamplifiers or component recording device.
4. The MP1100 internal Analog to Digital Converter Circuitry is designed to encode 2-channel PCM (Pulse Code Modulation) Digital Signals. The Coaxial and Optical Digital Audio Outputs are for PCM Digital Signals.
5. Sound Intensity is measured in units called Decibels and "dB" is the abbreviation.
6. 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.
7. For additional information on the MP1100 and other McIntosh Products please visit the McIntosh Web Site at www.mcintoshlabs.com.

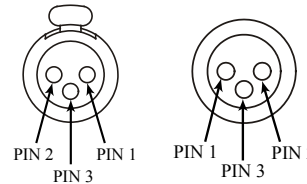


Connector and Cable Information

XLR Connectors

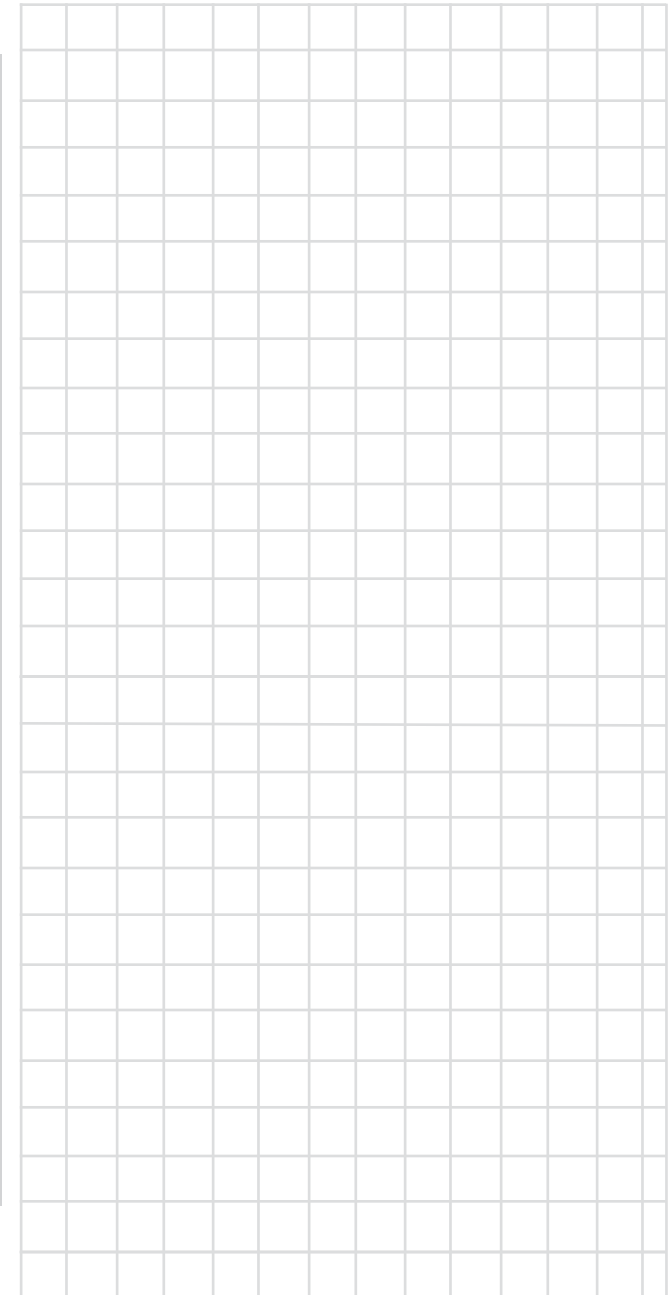
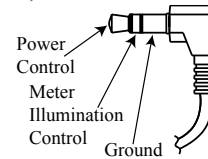
Below is the Pin configuration for the XLR Balanced Output Connector on the MP1100. Refer to the diagram for connections:

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



Power Control (Trigger) Connectors

When the MP1100 TRIGGER IN Connector receives a Power Control On Signal (5 to 12 volts) it will make that signal available at the TRIGGER OUT Connector to control other connected McIntosh Components. An additional connection is for controlling the illumination of the Output Meters on McIntosh Components. A 3.5mm stereo mini phone plug is used for connection to the Power Control (Trigger) Connectors on the MP1100.





Introduction

The McIntosh MP1100 Phono Preamplifier is one of the finest Phono Preamplifiers ever created and has the ability for connections to components with analog and digital inputs. The MP1100 reproduction is sonically transparent and absolutely accurate. The McIntosh Sound is “The Sound of the Music Itself.”

Performance Features

• Electromagnetic Input Switching

Digital Logic Circuits drive Electromagnetic Switches on Inputs and operating functions for reliable, noiseless, distortion free switching.

• Vacuum Tube Phono Amplification

The MP1100 utilizes Vacuum Tube Amplification Circuitry for the Phono Inputs. The circuits use the latest designs providing the lowest possible noise and distortion.

• Fully Balanced Circuitry

The MP1100 utilizes the very latest in Fully Balanced Circuitry from the Input Connectors all the way to the Output Connectors for the lowest possible noise and distortion.

• Moving Coil and Moving Magnet Phono Inputs

The MP1100 has three precision Phono Preamplifier Circuits with unbalanced and balanced connections. They have the ability to be configured for Moving Coil or Moving Magnet Cartridges. The close tolerance resistors and capacitors used in the Equalization Circuitry provide an extremely flat frequency response.

• Selectable Phono Cartridge Loading

Adjustable Capacitance and Resistance Loading are available for both Moving Coil and Moving Magnet Phono Cartridges. Resistance Loading is selectable from values of 25 ohms to 47,000 ohms. Capacitance Loading is selectable from values of 50 picofarads to 400 picofarads.

• Balanced and Unbalanced Outputs

The Balanced Outputs allow connection using long cable lengths without a loss in sound quality. The MP1100 also has unbalanced Output connections for compatibility with a wide range of audio components.

• Rumble and Scratch Filters

Selectable Rumble and Scratch Filters can improve the quality of sound when playing back older vinyl recordings.

• Digital Audio Outputs

The Digital Outputs encode PCM Signals from the selected Input (Phono and Line). Coaxial and Optical Outputs process Digital Signals at 96kHz or 192kHz with 24-Bit resolution. The Digital Outputs have two different output level settings and the Digital Circuitry can be switched Off providing true analog only signal processing.

• USB Digital Audio Output

The USB Digital Output provides Digital Signals at 96kHz or 192kHz with 24-Bit resolution from the selected Input.

• Dual Mono Design

The circuitry for both channels is totally separate, physically isolated and shielded which helps to assure total channel isolation.

• Selectable Equalizer

In addition to normal RIAA Equalization Standard, the MP1100 provides the ability to select four alternative Equalization Settings of LP, AES, NAB or 78. This helps to assure a desired tonal balance when playing a wide variety of phonograph records made before the RIAA Equalization Standard was employed.

• Alphanumeric Fluorescent Display

The Front Panel Information Display indicates the Source Selection, Cartridge Loading, Equalizer and Setup Mode Selections. The display intensity is adjustable.

• Illuminated Output Meters

The Illuminated Output Meters are peak responding, and indicate the output of the MP1100 Phono Preamplifier.

• Special Power Supply

The Multi Regulated Power Supply and a special R-Core Power Transformer ensure stable noise free operation even though the power line varies.

• Remote Control with External Sensor Input

The Remote Control provides control of the MP1100 operating functions. The External Sensor Input provides Remote Control when the MP1100 is located behind closed doors or in another room.

• Power Control Connections

The Power Control (PWR CTRL) TRIGGER INPUT Connection provides convenient Turn-On/Off of the MP1100 when connected to a McIntosh Component with Power Control TRIGGER OUT. The MP1100 TRIGGER OUT Connection provides Turn-On/Off operation when connected with other McIntosh Audio Components.

• LED Front Panel Illumination

The even illumination of the Front Panel is accomplished by multiple extra long life Light Emitting Diodes (LEDs) arranged with a special orientation.

• Glass Front Panel and Super Mirror Chassis Finish

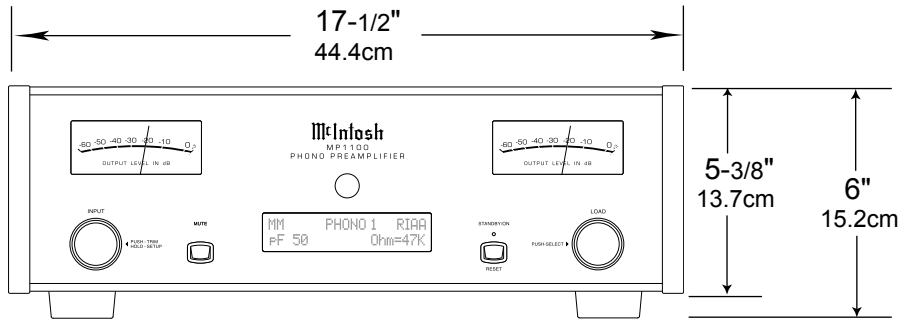
The famous McIntosh Illuminated Glass Front Panel and the Lower Chassis are Stainless Steel with a Mirror Finish. The Upper Chassis and Top Cover is hairline brushed black Titanium Stainless Steel Finish. This will ensure the pristine beauty of the MP1100 will be retained for many years to come.



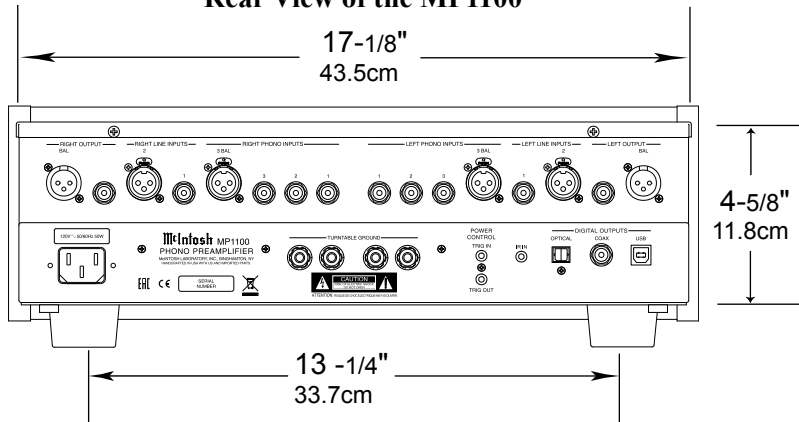
Dimensions

The following dimensions can assist in determining the best location for your MP1100. There is additional information on the next page pertaining to installing the MP1100 into cabinets.

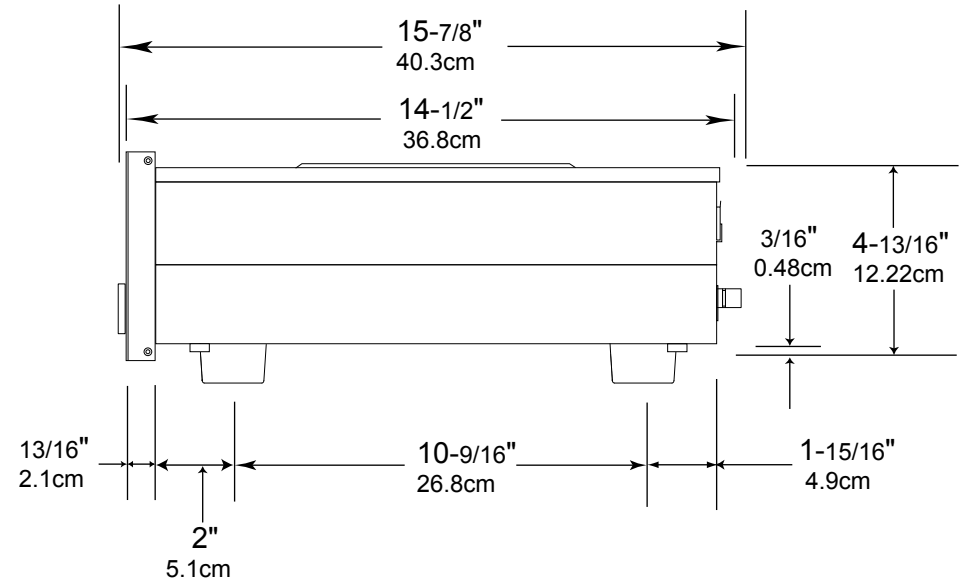
Front View of the MP1100



Rear View of the MP1100



Side View of the MP1100



Installation

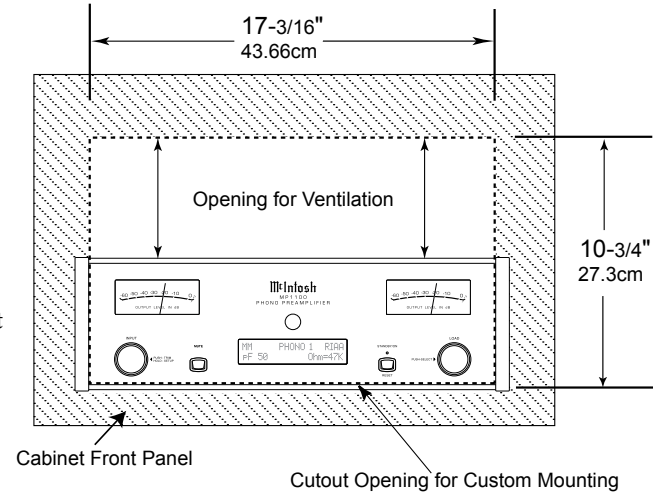
The MP1100 can be placed upright on a table or shelf, standing on its four feet. It also can be custom installed in a piece of furniture or cabinet of your choice. The four feet may be removed from the bottom of the MP1100 when it is custom installed as outlined below. The four feet together with the mounting screws should be retained for possible future use if the MP1100 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 MP1100. Cool operation ensures the longest possible operating life for any electronic instrument. Do not install the MP1100 directly above a heat generating component such as a high powered amplifier. If all the components are installed in a single cabinet, a quiet running ventilation fan can be a definite asset in maintaining all the system components at the coolest possible operating temperature.

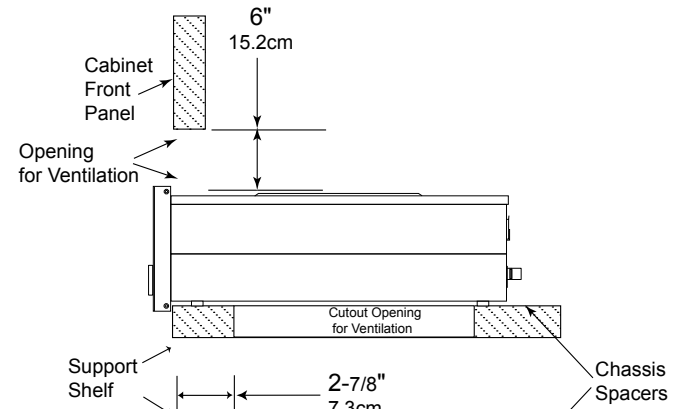
A custom cabinet installation should provide the following minimum spacing dimensions for cool operation.

Allow at least 6 inches (15.2cm) above the top, 2 inches (5.1cm) below the bottom and 1 inch (2.5cm) on each side of the Preamplifier, so that airflow is not obstructed. Allow 18-1/2 inches (47.0cm) depth behind the front panel. Allow 1-7/16 inch (3.7cm) 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.

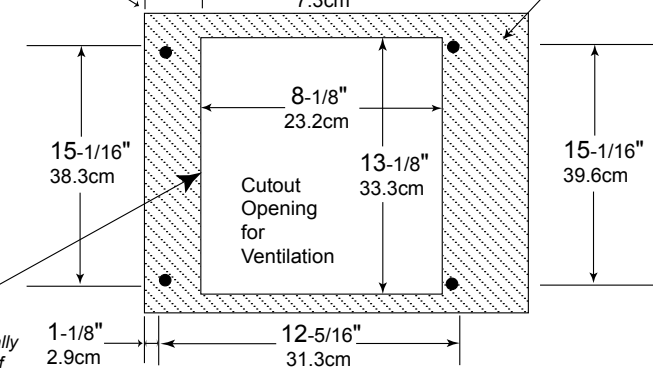
**MP1100 Front Panel
Custom Cabinet Cutout**



**MP1100 Side View
in Custom Cabinet**



**MP1100 Bottom View
in Custom Cabinet**

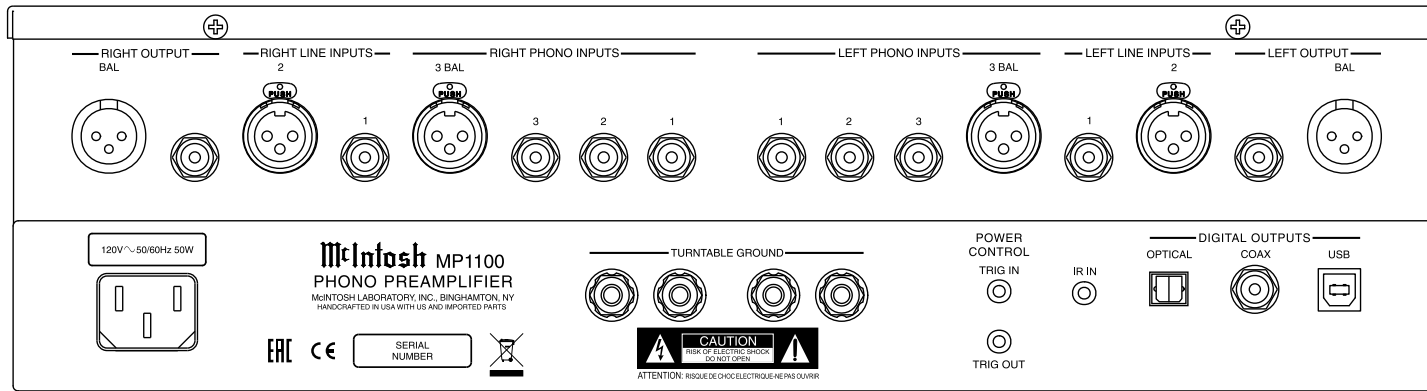


Note: Center the cutout horizontally on the unit. For purposes of clarity, the above illustration is not drawn to scale.

Rear Panel Connections

The identification of Rear Panel Connections for the MP1100 Phono Preamplifier is located on a separate folded sheet contained in the Owner's Manual Packet. Refer to separate sheet "Mc1B" for the Rear Panel Connections.

MP1100 Phono Preamplifier Rear Panel



Connecting Components

The MP1100 has the ability to automatically switch power On/Off from Components via the PWR CTRL (Power Control) TRIGGER connections. Follow the connection instructions below, together with the MP1100 Input/Output/Control Connection Diagram located on a separate folded sheet “McIA” contained in the Owner’s Manual Packet. The connections are 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 3.

Power Control (Trigger) Connections:

1. Connect a Control Cable from the MP1100 Power Control TRIGGER Out Jack to the Power Control In on the Turntable 1.
2. Optionally, connect a Control Cable from the Turntable 1 Power Control Out Jack to the Power Control In on the Turntable 2.
3. Optionally, connect a Control Cable from the Main Audio Preamp Power Control Out to the MP1100 Power Control TRIGGER IN.

Note: This optional Power Control Connection will allow the MP1100 to automatically switch ON and OFF when the Main Audio Preamp is On or Off.

4. Connect any additional Components in a similar manner, as outlined in steps 1 and 2.

Audio Connections:

5. Connect Audio Cables from the MP1100 PHONO 1 INPUT Jacks (Left and Right) to Turntable 1 (Left and Right) Output Jacks.

Note: If Turntable 1 has Balanced XLR Output Connectors and has a Phono Cartridge installed (with Balanced Output Connections), connect XLR Audio Cables to the MP1100 PHONO 3 INPUT BALANCED Connectors.

6. Optionally, connect Audio Cables from the MP1100 PHONO 2 INPUT Jacks (Left and Right) to Turntable 2 (Left and Right) Output Jacks.

Note: If Turntable 2 has Balanced XLR Output Connectors and has a Phono Cartridge installed (with Balanced Output Connections), connect XLR Audio Cables to the MP1100 PHONO 3 INPUT BALANCED Connectors.

7. Connect an additional Turntable in a similar manner, as outlined in steps 5 and 6.
8. Connect an Audio Cable from the MP1100 LINE 1 INPUT (Left and Right) Jacks to the Integrated Amplifier REC Output Jacks.

Note: If the component has Balanced Output Connections use the MP1100 LINE 2 BALANCED INPUT.

9. Connect any additional Components in a similar manner, as outlined in step 8.

Optional USB Connection:

10. Connect a USB cable with (Type A to Type B) connectors from the MP1100 USB DIGITAL OUTPUT connector to an available USB connector on the computer.

Analog Output Connection:

11. Connect XLR audio cables from the MP1100 BALANCED OUTPUT (Left and Right) to the Analog only Preamp Balanced Input 5 (Left and Right).

Note: If the Preamp has Unbalanced Inputs then connect the MP1100 unbalanced Output Jacks to the Preamp unbalanced Input Jacks.

Optional Digital Output Connection:

12. Connect a Digital Coaxial Cable from the MP1100 COAXIAL DIGITAL AUDIO OUTPUT Jack to the Digital only Preamp Digital Audio Input Coaxial 2 Jack.

Note: If the Preamp has Optical Inputs then connect the MP1100 Optical Output Connector to the Preamp Optical Input Connector.

Ground Connections:

13. Connect the Ground Cable coming from the Turntable(s) to the MP1100 TURNTABLE GROUND Binding Post(s).

AC Power Cord Connections:

14. Connect the MP1100 to a live AC Outlet using the supplied Power Supply Cord.

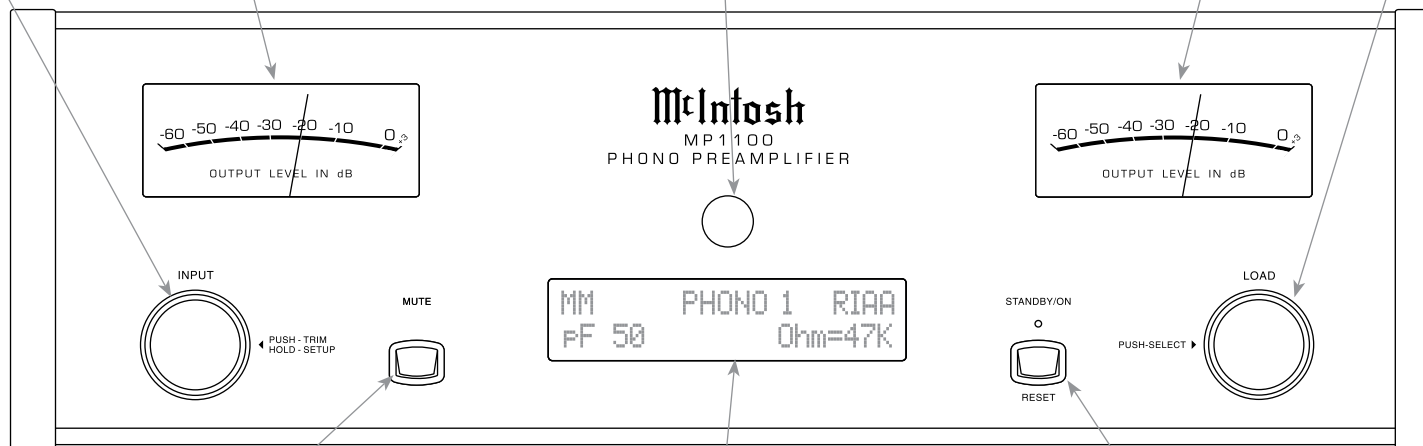
INPUT Control used to select a source for listening and recording. The control is also used to enter the TRIM or SETUP Modes and select the various functions

Meter indicates the Left Channel Output of the Preamplifier

IR Sensor receives commands from a Remote Control

Meter indicates the Right Channel Output of the Preamplifier

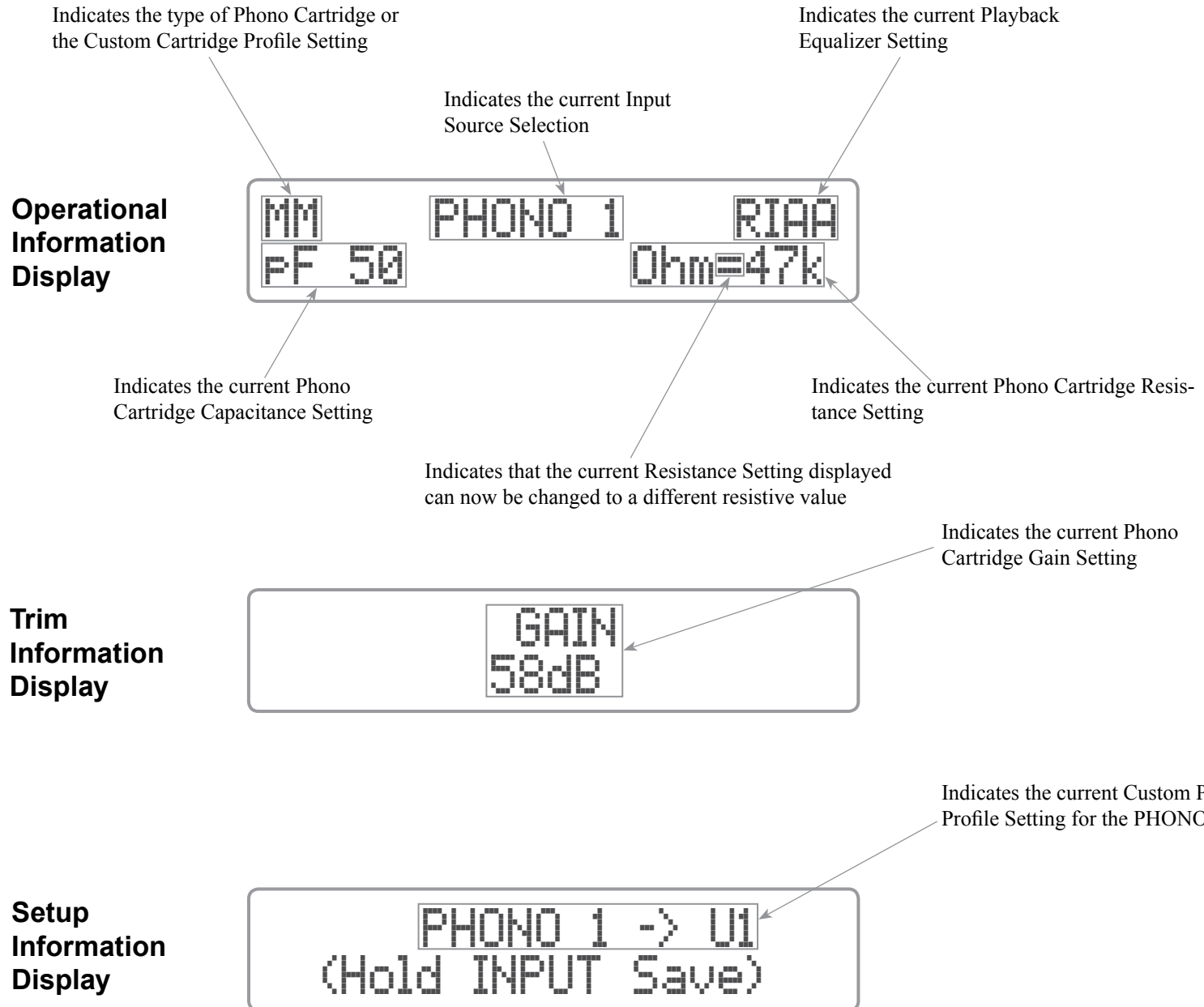
LOAD Control used to select the Resistance value in Ohms and Capacitance value in Picofarads that is added to the Input Signal Path for a flat Frequency Response from the connected MM or MC Phono Cartridge



MUTE Push-button mutes the audio from the Loudspeakers and Headphones

STANDBY/ON Push-button with indicator, switches the MP1100 ON or OFF (Standby) and resets the microprocessors

INFORMATION DISPLAY indicates the Sources, Resistive value in Ohms and Capacitance value in Picofarads, other Audio Settings, Operational Functions and Setup Mode Settings



Press to activate the TRIM MODE followed by using the Directional Push-buttons

Directional Push-buttons, use ▲ and ▼ Push-buttons to change the selected TRIM Function Setting, use the ► and ◀ Push-buttons to select the desired TRIM Function

Press to Power the MP1100 ON and OFF

LED illuminates during the time a remote command is sent and when programming the remote control

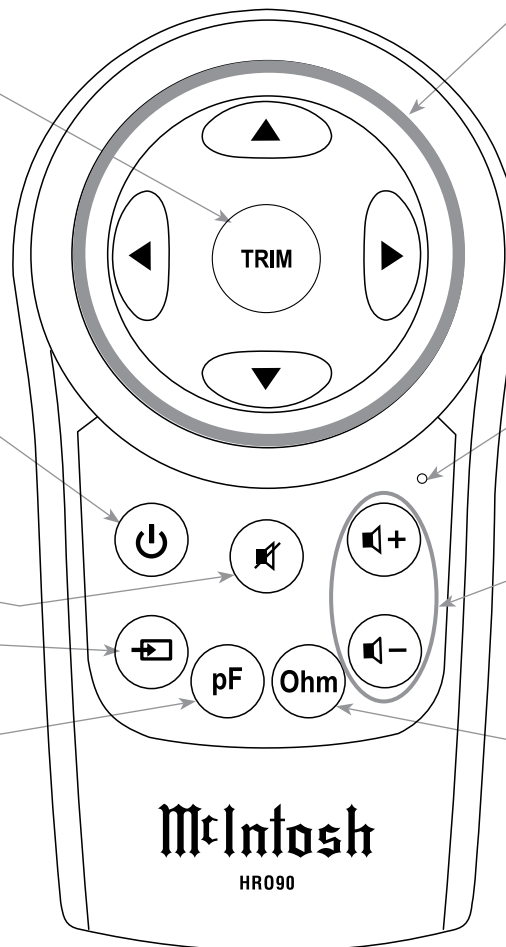
Mutes the audio

Adjusts the Volume Up or Down on a McIntosh Component that is IR Code Compatible

Steps through the available INPUTS

Steps through the Phono Cartridge Capacitance Settings when one of the available PHONO Inputs is selected

Steps through the Phono Cartridge Resistance Settings when one of the available PHONO Inputs is selected



How to Operate the Setup Mode

Your McIntosh MP1100 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 Information Display. Refer to the MP1100 Front Panel Illustration on the previous page while performing the following steps.

Note: If the MP1100 is currently On, proceed to step 2.


1. Press the STANDBY/ON Push-button on the Front Panel or press the  (Power ON) Push-button on the Remote Control to switch On the MP1100. The MP1100 will go through a TUBE WARMUP (15 seconds) with the Tubes in the MP1100 glowing an amber color and a brief startup initialization with the Front Panel Information Display indicating “MP1100, TUBE WARMUP”. The illumination of the Tubes will now glow a green color; this is followed by the last Input Source listened to. Refer to figure 1.



Figure 1

2. Press and hold in the INPUT Control until the Front Panel Information Display indicates “MP1100, V_ ___ - S/N: AFH ___” (or higher Firmware version). Refer to figure 2.
3. Rotate the INPUT Control to select the next Setup Mode Menu item, “SETUP: Input On/Off, (Hold



Figure 2

INPUT). Refer to figure 3. Continue to rotate the INPUT CONTROL to view the other SETUP Mode Options.

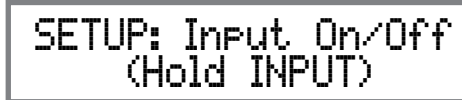


Figure 3

4. To exit from the SETUP Mode, press the INPUT Control and the Front Panel Display will revert back to its normal display. Refer to figure 1.

Default Settings

The Default Settings Chart below indicates the Function Name, Default Setting and the Page Number for additional information.

| Default Settings | | |
|-------------------|--------------|----------|
| Function Name | Setting | Page No. |
| MP1100 | V_ ___ - ___ | 13 |
| Input | On / Off | 13 |
| Input Rename | PHONO 1 | 14 |
| Save Profile | PHONO 1->U1 | 15 |
| Digital Out | On | 16 |
| Tube Lights | On | 16 |
| Front IR (Sensor) | Enabled | 16 |
| Power Mode | Enabled | 17 |

Firmware Version

The MP1100 functionality is controlled by internal software that is known as Firmware. The Version of the Firmware in the MP1100 can be identified at any time by utilizing the Setup Mode.

1. Press and hold in the INPUT Control to enter Setup Mode.

2. Referring to the Front Panel Information Display the number after the character “V” is the Firmware number. Refer to figure 2.
3. To exit the Setup Mode, press the INPUT Control.

Input Settings

The MP1100 provides the ability to switch unused INPUTS Off (or back On if they have been previously switched Off). The default INPUT Names can be changed to match the name of the component connected to it or any other custom name desired (within 10 Characters).

INPUT SWITCHED ON/OFF:

In the following example, the PHONO 3 Input will be switched Off.

Note: When an INPUT is switched Off, its name will no longer appear on the Front Panel Information Display when using the INPUT Control (Front Panel or Remote Control).

1. Press and hold in the INPUT Control to enter the SETUP MODE. Refer to figure 2.
2. Rotate the INPUT Control until “SETUP: Input On/Off, (Hold INPUT)” appears on the Information Display. Refer to figure 3.
3. Press and hold in the INPUT Control until “SETUP: _____, On” appears on the Display. If necessary rotate the INPUT Control to select the PHONO 3 Input. Refer to figure 4.



Figure 4

4. To switch the PHONO 3 Input Off, rotate the LOAD Control until the display indicates “SETUP: PHONO 3, Off”, refer to figure 5 on the next page.



Figure 5

- Exit the SETUP Mode by several presses of the INPUT Control.

In the following example, the PHONO 3 Input will be switched On.

Note: When an INPUT is switched ON, its name will appear on the Front Panel Information Display when using the INPUT Control (Front Panel or Remote Control).

- Press and hold in the INPUT Control to enter the SETUP MODE. Refer to figure 2, on page 13.
- Rotate the INPUT Control until “SETUP: Input On/Off, (Hold INPUT)” appears on the Information Display. Refer to figure 3, on page 13.
- Press and hold in the INPUT Control until “SETUP: _____, Off” appears on the Display. If necessary rotate the INPUT Control to select the PHONO 3 Input. Refer to figure 5.
- To switch the PHONO 3 Input On, rotate the LOAD Control until the display indicates “SETUP: PHONO 3, On”. Refer to figure 4 on page 13.
- Exit the SETUP Mode by several presses of the INPUT Control.

RENAME INPUT:

In the following example, the LINE 1 Input will be renamed to match up with the component connected (refer to page 9, step 8).

The MP1100 Default Input Names (PHONO 1, PHONO 2, PHONO 3, LINE 1, etc.) as indicated on the Front Panel Display, can be customized to a different name up to ten characters long (TUNER, CD PLAYER, etc.). The available characters for renaming the input include the following: ! < > * , / - _ 0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z .

In the following example, the LINE 1 Input will be renamed to “INTGRT AMP”.

- Press and hold in the INPUT Control to enter the SETUP MODE. Refer to figure 2, on page 13.
- Rotate the INPUT Control until “SETUP: Input Rename, (Hold INPUT)” appears on the Information Display. Refer to figure 6.



Figure 6

- Press and hold in the INPUT Control until “SETUP: LINE 1, (Hold INPUT)” appears on the Display. If necessary rotate the INPUT Control to select the LINE 1 Input. Refer to figure 7.



Figure 7

- Press and hold in the INPUT Control until “RENAME: LINE 1, >LINE 1 <” appears on the Display. The character “L” is flashing to indicate it is ready to be changed. Refer to figure 8.



Figure 8

- Rotate the LOAD Control to change the character “L” to “I”. Refer to figure 9.

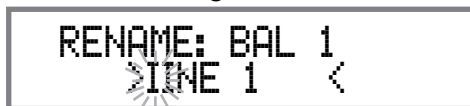


Figure 9

- Rotate the INPUT Control until the character “I” is flashing, then rotate the LOAD Control to change the character “I” to “N”. Refer to figure 10.



Figure 10

- Rotate the INPUT Control until the second character “N” is flashing, then rotate the LOAD Control to change the character “N” to “T”. Refer to figure 11.



Figure 11

- Rotate the INPUT Control until the “E” is flashing, then rotate the LOAD Control to change the character “E” to “G”. Refer to figure 12.



Figure 12

- Rotate the INPUT Control until the “_” is flashing, then rotate the LOAD Control to change the character “_” to “R”. Refer to figure 13.



Figure 13

- Rotate the INPUT Control until the “1” is flashing, then rotate the LOAD Control to change the character “1” to “T”. Refer to figure 14.



Figure 14

- Repeat steps 15 thru 20 until the new name of “RENAME: LINE 1, INTGRT AMP” is indicated on the Front Panel Display. Refer to figures 15 thru 18.



Figure 15



Figure 16



Figure 17



Figure 18

22. To save the new name, press and hold in the INPUT Control until “SAVE, SUCCESSFUL” appears on the Front Panel Information Display. Refer to figure 19.



Figure 19

23. Exit the SETUP Mode by pressing the INPUT Control.

Note: For convenience, an “Input name” chart below has been provided to keep track of changes.

| INPUT NAMES | |
|--------------|----------|
| Default Name | New Name |
| PHONO 1 | |
| PHONO 2 | |
| PHONO 3 | |
| LINE 1 | |
| LINE 2 | |

Profile Store

The MP1100 has the ability to store up to five different Custom Profile Settings for use with the PHONO Inputs. The Profile Setting includes the current phono Gain, Resistance, Capacitance Settings Sample Rate, and Stereo/Mono Mode Settings. Once a Profile has been stored, it can be selected by using the TRIM Cartridge Profile Function. For additional information on using the TRIM Profile Functions refer to “How to Operate” page 19.

Refer to “TRIM Functions” starting on page 19 for selecting the desired Phono, Resistance, Capacitance, Gain, Sample Rate, Stereo/Mono Mode Settings, then perform the following steps to assign and store to one of the five Custom User Profile Settings:

Note: The four Default Profile Settings are permanent.

1. Press and hold in the INPUT Control to enter the SETUP MODE. Refer to figure 2 on page 13.
2. Rotate the INPUT Control until “SETUP: User Profile, (Hold INPUT)” appears on the Information Display. Refer to figure 20.
3. Press and hold in the INPUT Control until “PHONO 1->U1, (Hold INPUT to Save)” appears



Figure 20

on the Display. If necessary rotate the INPUT Control to select the PHONO 1 Input. To select a different Profile to save the new Phono Load and Mode Settings, rotate the LOAD Control to select (U2, U3, U4 or U5). Refer to figure 21.



Figure 21

4. To save the new Profile, press and hold in the INPUT Control until “SAVE, SUCCESSFUL” appears on the Front Panel Information Display. Refer to figure 19.
5. Exit the SETUP Mode by pressing the INPUT Control.

Note: For convenience, a “Stored Profiles” chart below has been provided to keep track of the stored profiles.

| STORED PHONO PROFILES | | | | | | | |
|---|----------------|------------------|-----------------|------|--------|-------------|--|
| Profile | Cartridge Type | Load Capacitance | Load Resistance | Gain | Mode | Sample Rate | |
| U1 | | | | | | | |
| U2 | | | | | | | |
| U3 | | | | | | | |
| U4 | | | | | | | |
| U5 | | | | | | | |
| MM* | MM | 50 pF | 47K Ohms | 46dB | STEREO | 96kHz | |
| MC* | MC | 200 pF | 1K Ohms | 64dB | STEREO | 96kHz | |
| MT5** | MC | 200 pF | 1K Ohms | 52dB | STEREO | 96kHz | |
| MT10** | MC | 200 pF | 400 Ohms | 58dB | STEREO | 96kHz | |
| * Default settings for MM (Moving Magnet) and MC (Moving Coil) Phono Cartridge Types | | | | | | | |
| ** Default settings for Phono Cartridges supplied with McIntosh MT5 and MT10 Turntables | | | | | | | |

Digital Output

One of the MP1100 features is to provide Analog Audio to Digital Audio (DAC) Signal Conversion for the Phono and Line In Inputs. The Digital Audio Processing Circuitry can be disabled (all power to the DAC Circuitry is removed) by performing the following:

1. Select “SETUP: Digital Out, On” as indicated on the Front Panel Information Display. Refer to figures 60, 66 (on page 20) and 22.



Figure 22

2. Rotate the LOAD Control to select “SETUP: Digital Out, Off”. Refer to figure 23.

Note: When “Digital Out, Off” is selected, there will no longer be any Digital Signals present at the OPTICAL, COAX OR USB DIGITAL OUTPUT Connectors on the Rear Panel of the MP1100.



Figure 23

3. Exit the SETUP Mode by several presses of the INPUT Control.

Tube Lights

The MP1100 Top Cover Window allows viewing of the four Vacuum Tubes. LEDS providing illumination of the Tubes may be switched On or Off by performing the following:

1. Select “SETUP: Tube Lights, On” as indicated on the Front Panel Information Display. Refer to figures 60, 66 (on page 20) and 24.



Figure 24

2. Rotate the LOAD Control to select “SETUP: Tube Lights, Off”. Refer to figure 25.

Note: Illumination of Vacuum Tubes during the “Warm Up” period of time will continue when the Trim Setting for Tube Lights is set to Off.



Figure 25

3. Exit the SETUP Mode by several presses of the INPUT Control.

IR Sensor

The MP1100 Front Panel Sensor, which receives the signals from the HR090 Remote Control, can be switched off to prevent interference when an external IR Sensor is connected. To de-activate the Front Panel IR Sensor perform the following steps:

1. Press and hold in the INPUT Control to enter the SETUP Mode. Refer to figure 2 on page 13.
2. Rotate the INPUT Control until “SETUP: Front IR, Enabled” appears on the Information Display. Refer to figure 26.



Figure 26

3. Rotate the LOAD Control to select Disabled. Refer to figure 27.



Figure 27

4. Exit the SETUP Mode by several presses of the INPUT Control.

Power Mode

The MP1100 incorporates an Auto Off Feature, which automatically places the preamplifier into the Power Saving Standby Mode. This occurs approximately 30 minutes after there has been an absence of user activity (includes changes to any of the Operation Functions such as source selection, etc.) or absence of an audio signal. If it is desirable to disable the Auto Off Feature, perform the following steps:

1. Press and hold in the INPUT Control to enter the SETUP Mode. Refer to figure 2 on page 13.
2. Rotate the INPUT Control until "SETUP: Auto Off, Enabled" appears on the Information Display. Refer to figure 28.



SETUP: Auto Off
Enabled

Figure 28

3. Rotate the LOAD Control to select Disabled. Refer to figure 29.



SETUP: Auto Off
Disabled

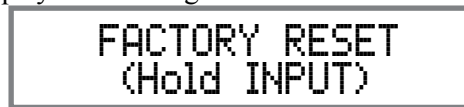
Figure 29

4. Exit the SETUP Mode by several presses of the INPUT Control.

Factory Reset

If it becomes desirable to reset all the adjustable settings (Setup and Trim Settings) to the factory default values, perform the following steps:

1. Press and hold in the INPUT Control to enter the SETUP Mode. Refer to figure 2 on page 13.
2. Rotate the INPUT Control until "FACTORY RESET, (Hold INPUT)" appears on the Information Display. Refer to figure 30.



FACTORY RESET
(Hold INPUT)

Figure 30

3. Press and hold in the INPUT Control until "FACTORY RESET, In Progress!" appears on the Information Display, then release the INPUT Control. Refer to figures 31 and 32.



FACTORY RESET
In Progress

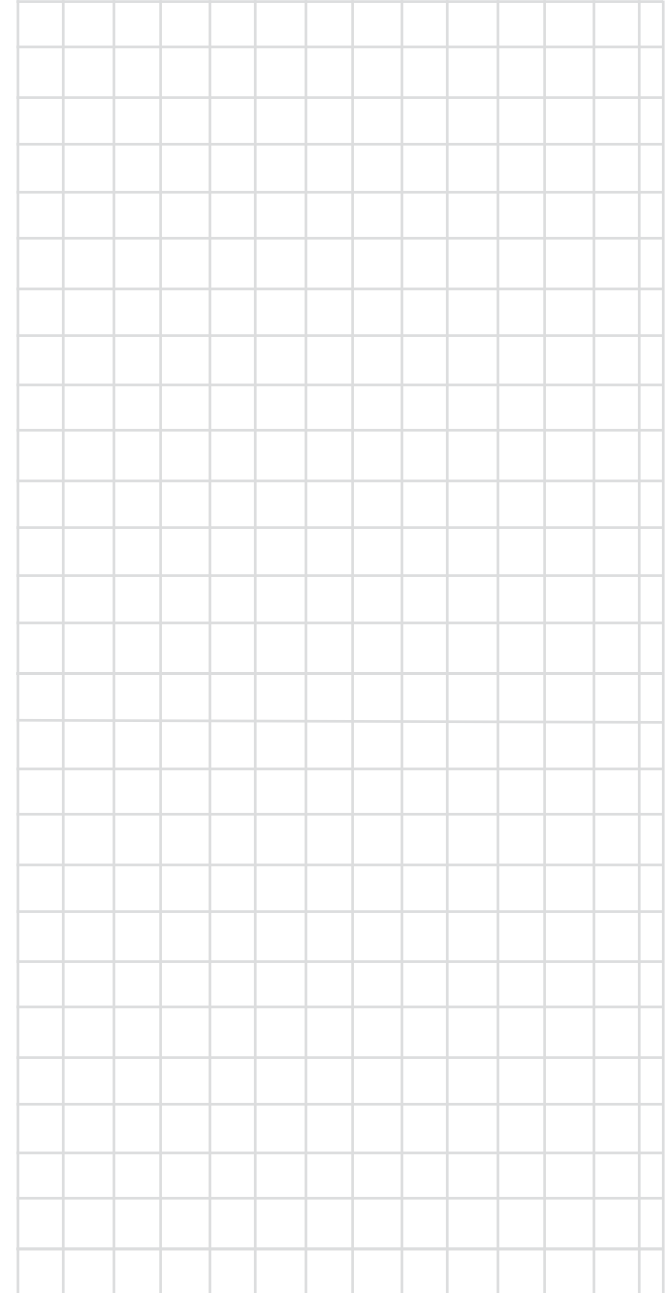
Figure 31



FACTORY RESET
Completed!

Figure 32

4. Press the Front Panel STAND/BY Push-button to switch the MP1100 on.





How to Operate the MP1100

Power On and Off




The Red LED above the STANDBY/ON Push-button lights to indicate the MP1100 is in Standby mode. To switch ON the MP1100, press the STANDBY/ON Push-button on the Front Panel or the  (Power On) Push-button on the Remote Control. The MP1100 will then go through a brief startup initialization with the Front Panel Information Display indicating “MP1100 TUBE WARMUP” for 15 seconds, with the Tubes glowing an amber color. The Front Panel Information Display will then indicate the last used source and its settings, with the Tubes now glow a green color. Refer to figures 60, 61, 62 and 66. To switch OFF the MP1100 press the STANDBY/ON Push-button on the Front Panel or the  Push-button on the Remote Control.



Figure 61

Note: For an explanation of the Remote Control Push-button functions, refer to page 12.

Source Selection

Rotate the INPUT Control to select the desired source or press the Input Selection  Push-button on the

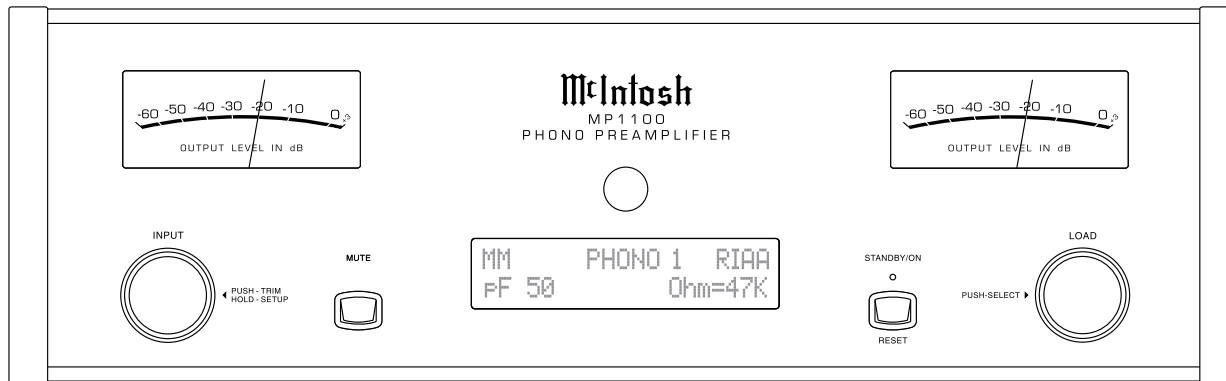


Figure 60

Remote Control. Refer to figures 60, 62 and 66.



Figure 62

Load Control

In order for a Phono Cartridge (MM or MC) to deliver sound with the flattest possible frequency response, it is important for the Phono Cartridge to be connected to electronics with an Input Impedance (resistance and capacitance) the same as the Cartridge Load Specifications. The MP1100 offers capacitance and resistance adjustments for MM (Moving Magnet Phono Cartridges) and MC (Moving Coil Phono Cartridges).

Note: Check the information supplied with the Phono Cartridge or with the Turntable (if it was supplied with the Phono Cartridge already installed) for the cartridge's impedance value. If necessary, contact your dealer or the manufacture of the phono cartridge.

The LOAD Control is for changing the Capacitance and/or Resistance Phono Cartridge Loading Values from the default settings. The bottom line of Front Panel Information Display indicates the current Capacitance (50pF) and Resistance (47K) Phono Car-

tridge Loading values, refer to figure 61. The changeable load value is indicated on the Front Panel Display by an Equal Symbol (=) between the Loading Type and Value. To change the current Resistance Load Value, rotate the Front Panel LOAD Control, refer to figures 61 and 63.

To change the Capacitance Load Value first momen-



Figure 63

tarily press the LOAD Control and the Equal Symbol (=) will now appear between the Capacitance Loading Type and Value. Refer to figure 64.

To change the current Capacitance Load Value rotate



Figure 64

the Front Panel LOAD Control, refer to figures 64 and 65.

Trim Functions



Figure 65

The MP1100 has twelve different Trim Selections with Adjustments. The Trim Selections include Cartridge Profile (Phono Inputs), Resistance (Phono Inputs), Capacitance (Phono Inputs), Gain (Phono Inputs), Equalizer (Phono Inputs), Rumble Filter (Phono Inputs), Scratch Filter (Phono Inputs), Digital Out Level, Sample Rate, Mono/Stereo Mode, Meter Lights and Display Brightness. The Trim Settings are stored in memory independently for each Input Source Select-

ed, except the Sample Rate, Meter Illumination and Display Brightness settings of On or Off, which are the same for all inputs.

Note: Selection and Adjustment of all Trim Functions may be performed by pressing the Front Panel INPUT Trim Control and then rotating it to select the desired Trim Function. Then use the LOAD Control to change the setting. The Remote Control TRIM Push-Button together with the Directional Push-buttons can also be used. After pushing the TRIM Push-button, use the ◀ and ▶ Push-buttons to select the desired TRIM Function, and then use ▲ and ▼ Push-buttons to adjust the selected TRIM Setting, refer to figures 60 and 66.

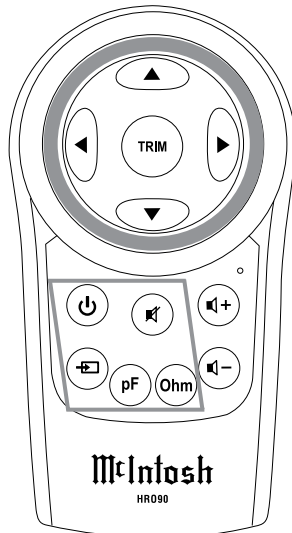


Figure 66

CARTRIDGE PROFILE

There are four default Cartridge Profile Settings and the MP1100 has the ability to store up to five additional Custom Cartridge Profile Settings. Refer to Setup ‘Profile Store’ on page 15 for additional information.

1. Select the desired PHONO Input Source.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “CARTRIDGE PROFILE, (Press TRIM to Set)” as indicated on the Front Panel

Information Display. Refer to figure 67.



Figure 67

4. To select Profile momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control. Refer to figure 68.



Figure 68

5. To select the desired profile (User Profile “U1”) rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 69.



Figure 69

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

RESISTANCE

Change the Resistance Load Setting for a selected Phono Cartridge by performing the following Steps:

1. Select the desired PHONO Input Source.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “RESISTANCE, Ohm 47k” as indicated on the Front Panel Information Display. Refer to figure 70.



Figure 70

4. To select the resistance of 100 ohms, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 71.



Figure 71

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

CAPACITANCE

Change the Capacitance Load Setting for a selected Phono Cartridge by performing the following Steps:

1. Select the desired PHONO Input Source.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “CAPACITANCE, pF 50” as indicated on the Front Panel Information Display. Refer to figure 72.



Figure 72

4. To select the a capacitance of 300 pF, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 73 on the next page.

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CAPACITANCE
PF 300

Figure 73

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

GAIN

To change the Amplification Gain Settings from the default setting for the selected Phono Input, perform the following Steps:

1. Select the desired PHONO Input Source.

Note: Phono 1 was selected for this example.

2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “GAIN, 46dB” as indicated on the Front Panel Information Display. Refer to figure 74.

GAIN
46dB

Figure 74

Note: The default Gain Settings are as follows:

Phono 1 - 46dB

Phono 2 - 64dB

Phono 3 - 58dB

4. To change the current gain setting, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 75.

GAIN
58dB

Figure 75

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

EQUALIZER

To compensate for the mechanical characteristic of the phono record groove size, material type and playback speed; Columbia Record Company established a new

standard known as “LP” using microgroove technology. In 1956 the Record Industry Association of America (RIAA) established a new standard utilizing the “LP” microgroove technology along with a two part equalization standard for optimizing the sound quality and extending the playback time of a record. Part of the equalization occurs during the mastering of the original recording. The other part occurs during amplification of the audio signal from the Phono Cartridge during playback of a recording. For records made from 1956 to the present day the correct Equalization Setting is RIAA. For LP Recordings made before 1956 also try the “LP, NAB or AES”, Equalizer Settings. For playback of 78 rpm speed discs (pre-microgroove recordings) the 78 Equalizer setting may be preferred. For 78 rpm speed discs made after 1956, use the RIAA Equalization Setting. To change from the default RIAA Equalization Setting, performing the following Steps:

1. Select the desired PHONO Input Source.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “EQUALIZER, RIAA” as indicated on the Front Panel Information Display. Refer to figure 76.

EQUALIZER
RIAA

Figure 76

4. To change the Equalizer setting, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figures 77 thru 80.

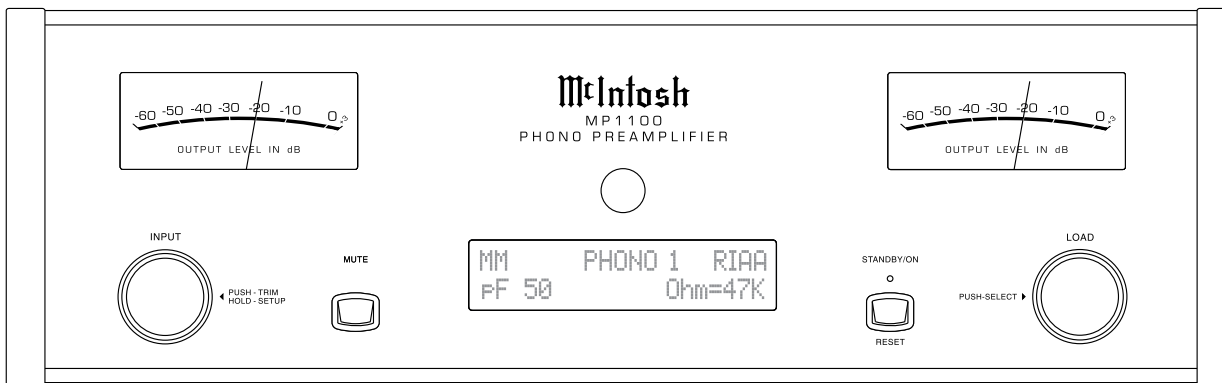


Figure 60



Figure 77



Figure 78



Figure 79



Figure 80

Note: For additional information on the Equalizer Settings, refer to page 27.

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

RUMBLE FILTER

Reduce unwanted Low Frequency Noise known as Rumble by using the MP1100 Rumble Filter. To activate the Rumble Filter perform the following Steps:

1. Select the desired PHONO Input Source.

Note: Phono 1 was selected for this example.

2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “RUMBLE FILTER, Off” as indicated on the Front Panel Information Display.

Refer to figure 81.



Figure 81

4. To activate the Rumble Filter, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 82.



Figure 82

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

SCRATCH FILTER

Reduce unwanted High Frequency Noises known as Scratches by using the MP1100 Scratch Filter. To activate the Scratch Filter perform the following Steps:

1. Select the desired PHONO Input Source.
Note: Phono 1 was selected for this example.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “SCRATCH FILTER, Off” as indicated on the Front Panel Information Display. Refer to figure 83.



Figure 83

4. To activate the Scratch Filter, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 84.



Figure 84

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

DIGITAL OUT LEVEL

The MP1100 provides the greatest possible Dynamic Range when converting the Analog Audio Signal from the playback of Phonograph Recordings to a Digital Audio Signal. There are two Digital Output Settings to accommodate a wide range of Dynamic Range. For most recordings, the default setting of Digital Output High Setting will produce excellent results. Referring to figure 85, if the word CLIP Flashes on the



Figure 85

Front Panel Information Display, switching the Digital Output to the Low Setting will produce better results. To change the Digital Out Setting from High to Low perform the following steps:

1. Select the desired PHONO Input Source.
Note: Phono 1 was selected for this example.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote

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Control to select “DIGITAL OUT LEVEL, High” as indicated on the Front Panel Information Display. Refer to figure 86.



Figure 86

4. To change the Digital Out Level to Low, rotate the Front Panel LOAD Control or press the ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 87.



Figure 87

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

SAMPLE RATE

The MP1100 provides two Analog to Digital Audio Sample Rates 192kHz or 96kHz. This provides the flexibility for choosing either the best sound quality or the greatest compatibility with Digital Playback Devices. Perform the following steps to change from the default Sample Rate of 96kHz (greatest playback device compatibility) to 192kHz (best sound quality):

1. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
2. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “SAMPLE RATE: 96kHz, (Press TRIM to Set)” as indicated on the Front Panel Information Display. Refer to figure 88.



Figure 88

3. Press the INPUT Control (TRIM) or the TRIM Push-button on the Remote Control. Refer to figure 89.



Figure 89

4. Change to the Higher Sampling Rate by rotating the Front Panel LOAD Control or ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 90.



Figure 90

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

MONO/STEREO MODE

By default the Stereo Mode is active for all Input Sources however, any Input Source may be assigned to Mono Mode. To change Stereo Mode to Mono for a given Input Source, perform the following steps:

1. Select the desired Input Source.
2. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
3. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “MONO / STEREO, _____” as indicated on the Front Panel Information Display. Refer to figure 91.



Figure 91

4. Select MONO by rotating the Front Panel LOAD Control or ▲ and ▼ Push-buttons on the Remote Control. Refer to figure 92.



Figure 92

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

METER ILLUMINATION

The MP1100 Front Panel Meter Illumination may be switched On or Off by performing the following:

1. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
2. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select “METER LIGHTS, On” as indicated on the Front Panel Information Display. Refer to figure 93.



Figure 93

3. Rotate the Front Panel LOAD Control or ▲ and ▼ Push-buttons on the Remote Control to select “METER LIGHTS, Off” as indicated on the Front Panel Information Display. Refer to figure 94.



Figure 94

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

INFORMATION DISPLAY ILLUMINATION

The Brightness Level of the MP1100 Front Panel Information Display can be adjusted from bright to dim by performing the following:

1. Momentarily press the Front Panel INPUT Control (TRIM) or the TRIM Push-button on the Remote Control.
2. Rotate the Front Panel INPUT Control (TRIM) or press the ◀ and ▶ Push-buttons on the Remote Control to select "DISPLAY, BRIGHTNESS" as indicated on the Front Panel Information Display. Refer to figure 95.



Figure 95

3. Rotate the Front Panel LOAD Control or ▲ and ▼ Push-buttons on the Remote Control to reduce the Brightness Level. Refer to figure 96.



Figure 96

After approximately 6 seconds the Information Display returns to indicate the Source Selection and Settings.

Mute

Press the MUTE Push-button on the MP1100 Front Panel or the MUTE Push-button on the Remote Control, to Mute the Audio in all outputs. The Front Panel Information Display will indicate the word MUTE. Refer to figure 97.



Figure 97

Pressing the MUTE Push-button a second time will unmute the MP1100.

Trim

Momentarily press the Front Panel INPUT Control to activate the MP1100 Trim Functions. Rotate the INPUT Control to select the desired Trim Function and then use the LOAD Control to change the Trim Setting. Refer to figure 60 on page 20 and Trim Functions on pages 19 thru 23. Using the Remote Control press the TRIM Push-button to activate the Trim Mode. Then use the ◀ and ▶ Push-buttons to select the TRIM Function and the ▲ and ▼ Push-buttons on the Remote Control to change the Trim Setting. Approximately 6 seconds after Trim Function Selection and/or adjustments have stopped, the MP1100 will switch the Trim Mode Off.

Output Meters

The MP1100 Output Meters indicate the Output Level in Decibels (dB) available at the Analog Connectors/Jacks and Digital Connectors. Refer to figure 98. The Meters are calibrated in dB (decibels) and respond to all the peaks contained in the musical information. A meter reading of 0dB indicates the MP1100 is delivering its rated output.

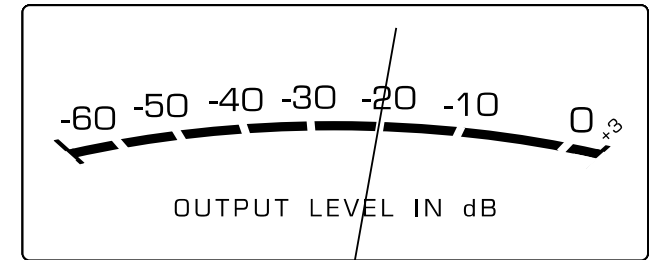


Figure 98



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USB Output Operation and Driver Installation

The MP1100 USB Output provides the capability to record music on your computer from the playback of Phonograph Recordings through the MP1100 Phono Preamplifier, when the computer is connected to the rear panel USB connector.

- Notes:*
1. The MP1100 USB Output is for direct connection to a computer USB using a single input only.
 2. To playback music from an USB Drive, connect the USB Drive to another USB Port on the computer and select the USB Drive with the Media Playback Program.

The MP1100 USB Output is compatible with PC Computers using Microsoft®, Windows 7 (SP1), Windows 8.1 and Windows 10. It is also compatible with Apple® Macintosh® Computers using OS-10.6.8 or later.

When using a PC Computer with Windows, a special McIntosh USB Audio Software Driver needs to be installed on the PC Computer. The driver needs to be installed before connecting the MP1100 USB Output to the USB Port on the computer.

- Notes:*
1. If your computer already has a McIntosh Windows USB Audio Software Driver (for current McIntosh Preamplifiers or Integrated Amplifiers) installed, it is **VERY IMPORTANT TO FIRST UNINSTALL THE DRIVER BEFORE PROCEEDING**. The new driver to be installed in the following steps offers additional capabilities for the MP1100 and is compatible with current McIntosh Preamplifiers or Integrated Amplifiers
 2. If an Apple Macintosh computer is used with the MP1100, no additional driver is required.

The McIntosh USB Audio Windows Driver is available for download from the McIntosh Web Site: <http://www.mcintoshlabs.com/us/Support/Pages/Manuals.aspx>

Under “PRODUCT CATEGORY” select “Pre-amplifiers” then under “MODEL NUMBER” select “MP1100”. Click on “SEARCH” then select “McIntosh-HD USB Audio Windows Drive D v2.0” and download the PC Windows Driver. Follow the instructions below to install the McIntosh MP1100 Driver:

Purpose: To Install the McIntosh USB Audio Windows Driver for use with McIntosh Products with an USB-Digital Connector.

- Requirements:**
1. A PC Computer with a functioning USB Port.
 2. Windows 7 (SP1 or greater), Windows 8 (8.1) or Windows 10 Operating System.
 3. An USB Cable with Type A to Type B Connectors.

Installing the Software

It is important to first install the downloaded software on your computer before connecting the McIntosh Product to the computer. The USB Driver is included in the downloaded software package.

Note: Before installing this software, please check to see if the McIntosh Product(s) with the USB Connector has the latest firmware version, if not update the firmware first.

1. Unzip the downloaded McIntosh Windows USB Driver Software Package.
2. Run “McIntoshHDSwPkg_20160415_v1p9p110p3.zip”. Refer to figures 100 thru 103.
3. When the software has been installed, it is necessary to re-boot the computer. Refer to figures 104 and 105.

After rebooting, a McIntosh-HD icon will appear on the desktop. Refer to figure 106.



Figure 100

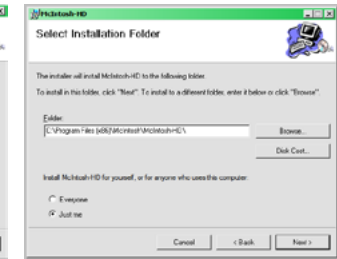


Figure 101

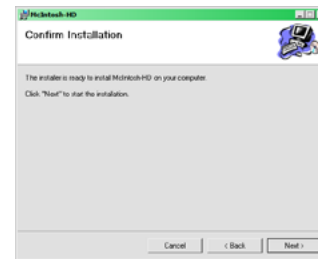


Figure 102

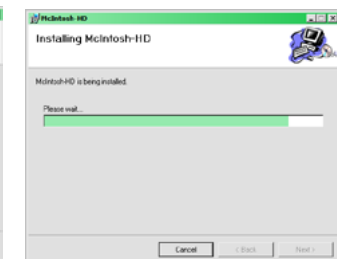


Figure 103

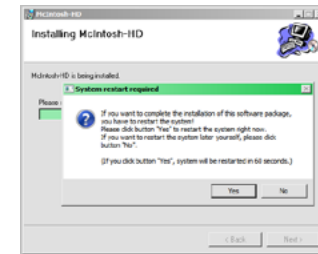


Figure 104

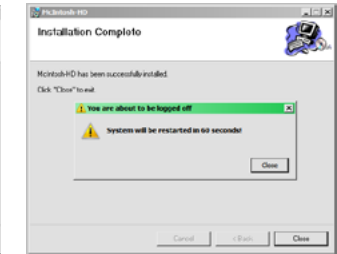


Figure 105

USB Connection

Connect the USB Cable with Type A to Type B connectors between the PC Computer and the McIntosh Product with the USB-Digital Audio Output. An Icon will appear On-Screen indicating Windows has found new hardware. Refer to figure 107.

Upon completion of installing the driver, figure 108 will appear.

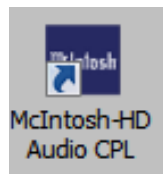


Figure 106

Windows Sound Settings

For proper operation of the McIntosh Product via the Computer USB Connection, it is required to make changes to Windows Sound Settings:

1. From the Windows START button, click on "CONTROL PANEL" followed by selecting "SOUND". Refer to figure 109.
2. Referring to figure 110, first select "McIntosh-HD HS USB Audio" and then click on the "Set Default" button.

Notes: 1. When the McIntosh USB Audio Product is not connected to your computer, the previous default Audio Device will be selected.

2. If other McIntosh Products with USB Audio Connections are also connected to the computer, an additional "McIntosh USB Audio" playback device will appear in the listing. Make sure to select the "McIntosh-HD HS USB Audio" from available playback devices listed when using this McIntosh Product for USB Audio.



Figure 107



Figure 108

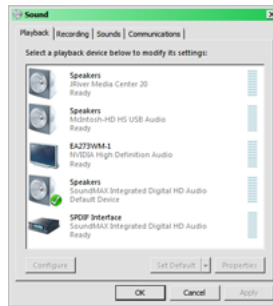


Figure 109

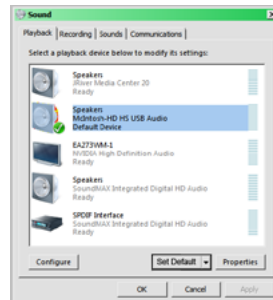


Figure 110

Control Panel Settings

To activate the McIntosh-HD USB Audio Control Panel, Click on the "McIntosh Icon" (located in the Windows notification area on the right side of the task bar) or click on the Windows "Show hidden icons", then select the "McIntosh Icon". Refer to figures 111 and 112.

Notes: 1. It is not necessary for the McIntosh-HD USB Audio Control Panel to be running, unless it is desired to make changes to the default settings.

2. The McIntosh-HD USB Audio Control Panel displays the current Sampling Rate, Bit-Rate and Buffer Size for the music streaming from the computer into the MP1100.
3. When the Media Stream Program on the computer is set to output in the "ASIO" format, the McIntosh-HD USB Audio Control Panel allows for changing the settings parameters on the fly.

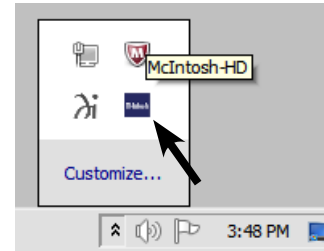


Figure 111

Making a Digital Recording

The MP1100 Digital Outputs (Coaxial, Optical and USB) have a setting of 96,000Hz 24Bit resolution. Before proceeding it is important to change the McIntosh Audio Control Panel default resolution settings of 44,100Hz 16Bit to match MP1100 setting of 96,000Hz 24Bit. Refer to figures 13 and 14 (on page 26). Digital CD Audio Recorders can be connected to the MP1100 Digital Audio COAXial or OPTICAL Output to make a Digital Copy of a Phonograph Recording. The most versatile way of making a digital recording is by using the USB Connection between the MP1100 and a computer using a Digital Recorder Application. There are many third party Applications available for

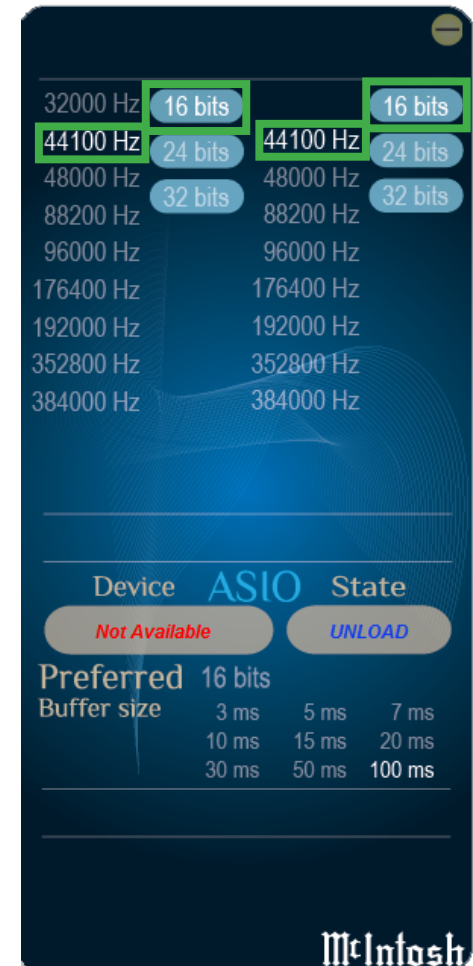


Figure 111

creating Digital Audio Albums. An example of just one of the available applications is "VinylStudio" by Alpinesoft.

How to Operate the MP1100, con't



Figure 112

Reset of Microprocessors

In the unlikely event the controls of the MP1100 stop functioning, the microprocessors can be reset by performing the following:

1. Press and hold in the STANDBY/ON Push-button until all the Front Panel LEDs start flashing, then release the STANDBY/ON Push-button.
2. To switch the MP1100 back On, press the STANDBY/ON Push-button.



MP1100 Graphic Curves

Phonograph Record Playback Equalizer

In order to increase the music playback time and reduce noise of a Record Disc, several different Equalizer Curves have been used over the last 100 years. When a master disc is created, the volume level of the low frequencies are reduced and the volume level of the high frequencies are increased.

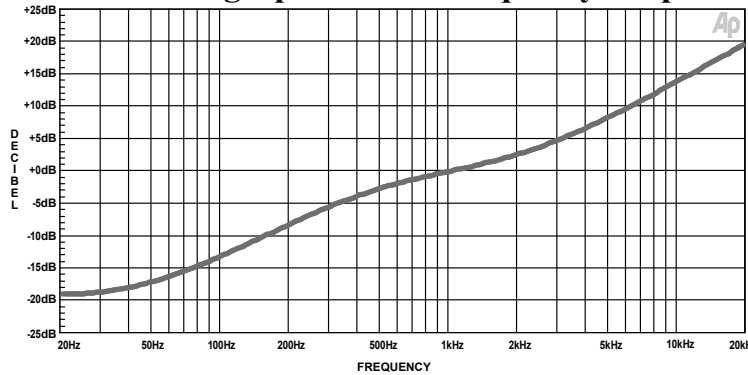
During playback of the Record, the Amplification Equalizer Process restores the correct Frequency Response by increasing the volume level of the low frequencies and reducing the volume level of the high frequencies.

Since 1956 the RIAA Equalizer Standard has been in use. The “RIAA Phonograph Record Frequency Response” curve to the right is an example of the actual sound on the record disc. During playback, the RIAA Equalizer is applied during the amplification process restoring the sound quality to a flat Frequency Response. Refer to “RIAA Equalizer Frequency Response” curve to the right side.

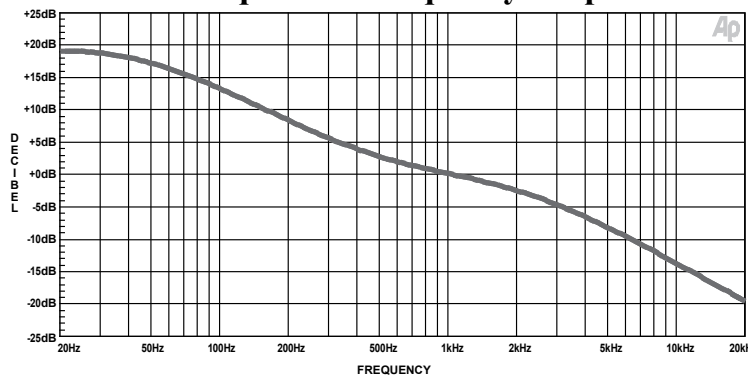
The MP1100 incorporates additional Equalizer Frequency Response Curves for Phonograph Records that were made before 1956. Those Equalizer Curves include LP, NAB, AES and 78 are shown on this and the next page.



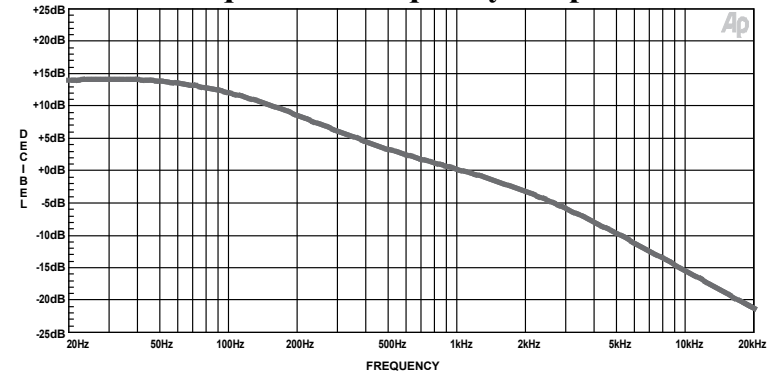
RIAA Phonograph Record Frequency Response



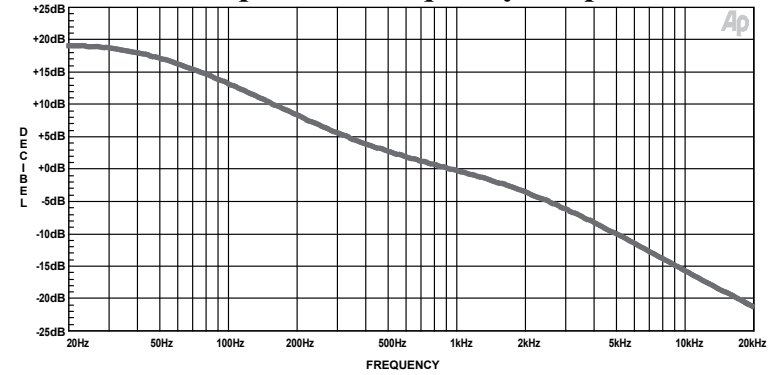
RIAA Equalizer Frequency Response



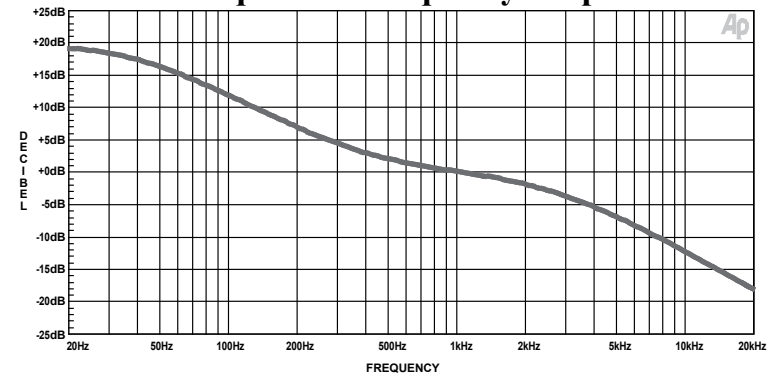
LP Equalizer Frequency Response



NAB Equalizer Frequency Response

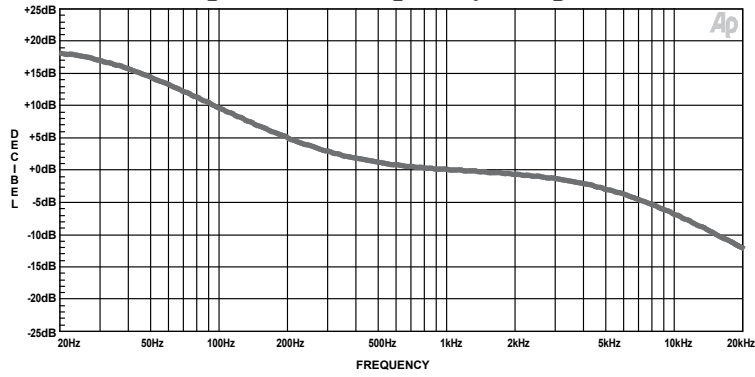


AES Equalizer Frequency Response

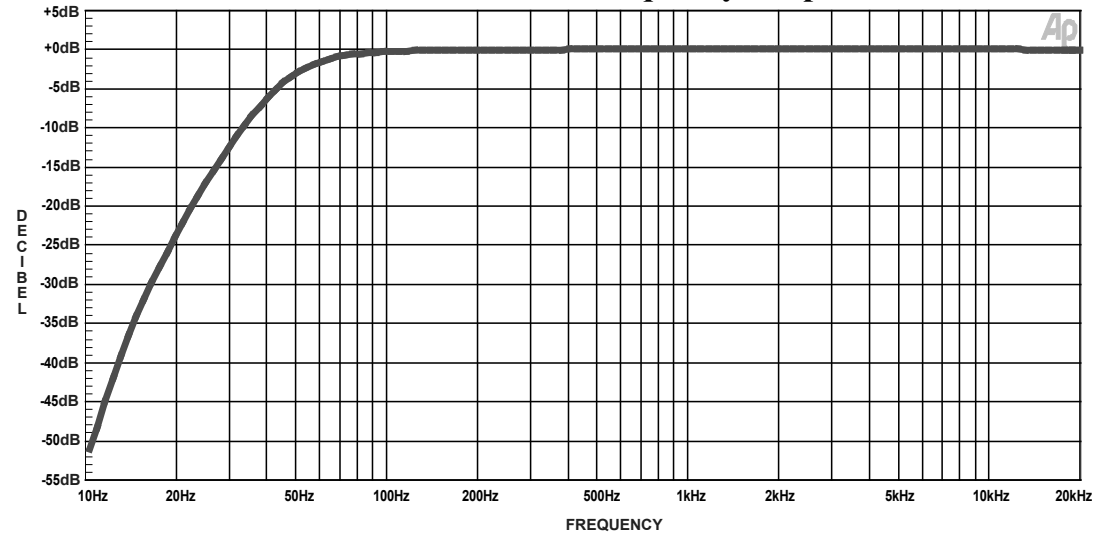




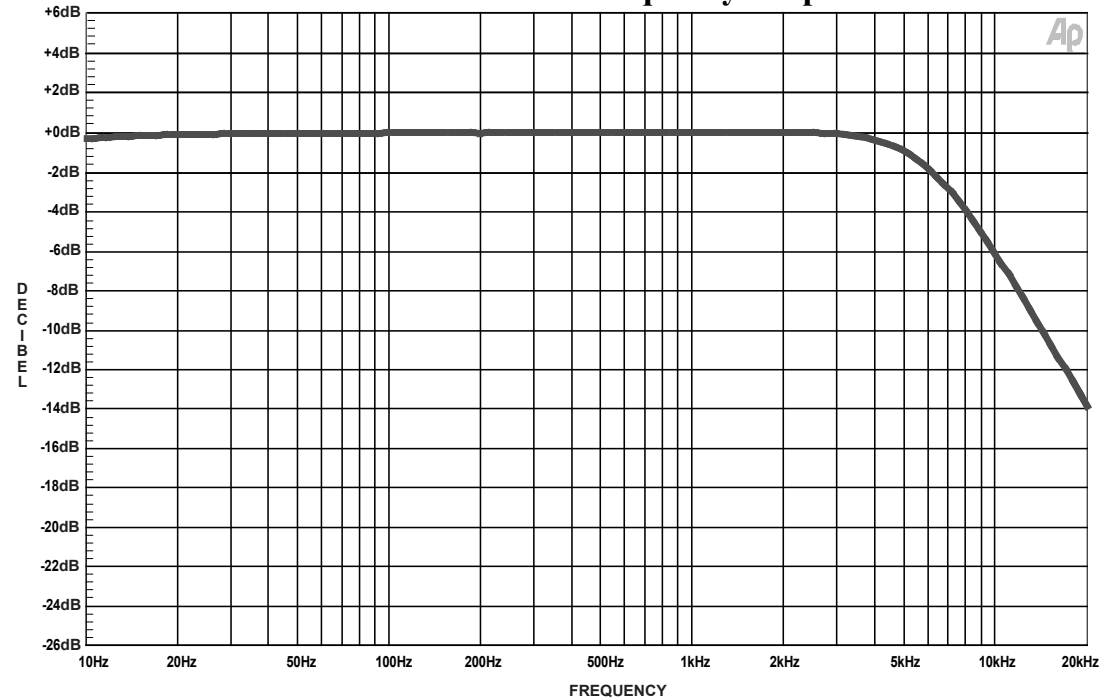
78 Equalizer Frequency Response



MP1100 Rumble Filter Frequency Response



MP1100 Scratch Filter Frequency Response







Specifications

Frequency Response

±0.2dB from 20Hz to 20,000Hz
+0.2, -3dB from 10Hz to 50,000Hz

Total Harmonic Distortion

0.005% maximum from 20Hz to 20,000Hz (Line In)
0.02% maximum from 20Hz to 20,000Hz (Phono In)

Rated Output

4V Balanced
2V Unbalanced

Maximum Voltage Output

20V RMS Balanced
10V RMS Unbalanced

Sensitivity (for rated output)

Phono MM - 10mV
Phono MC - 1.25mV
Line In - 2V Unbalanced
Line In - 4V Balanced

Signal To Noise Ratio (A-Weighted)

Phono MM - 84dB below 5mV input
Phono MC - 80dB below 0.5mV input
Line In - 118dB below rated output

Input Impedance

Phono MM and MC - 25, 50, 100, 200, 400, 1k or 47K
ohms and
50 to 400pf in 50pf steps
Line In - 50k Unbalanced, 100k Balanced

Maximum Input Signal

Phono MM - 100mV
Phono MC - 10mV
Line In - 10V Unbalanced
Line In - 20V Balanced

Voltage Gain

Phono MM and MC - Selectable 40dB, 46dB, 52dB
58dB or 64dB
Line In - 0dB

Output Impedance

100 ohms Unbalanced
200 ohms Balanced

Phono Equalization

RIAA, LP, NAB, AES or 78

Noise Filters

Rumble: -3dB at 50Hz, Slope 24dB per Octave
Scratch: -3dB at 6,000Hz, Slope 12dB per Octave

Digital Outputs

Coaxial, Optical, USB

Digital Output Sample Rates

PCM - 24Bit 96kHz or 192kHz

Power Control (Trigger)

Maximum Input and Output Signal 12VDC, 25mA

Tube Compliment

Four 12AX7A, two per channel

Power Requirements

Field AC Voltage conversion of the MP1100 is not possible. The MP1100 is factory configured for one of the following AC Voltages:

100 Volts, 50/60Hz at 50 watts
110 Volts, 50/60Hz at 50 watts
120 Volts, 50/60Hz at 50 watts
220 Volts, 50/60Hz at 50 watts
230 Volts, 50/60Hz at 50 watts
240 Volts, 50/60Hz at 50 watts

Standby Power, less than 0.5 watts

Note: Refer to the rear panel of the MP1100 for the correct voltage.

Overall Dimensions

Width is 17-1/2 inches (44.5cm)
Height is 6 inches (15.2cm) including feet
Depth is 19 inches (48.3cm) including the Front Panel, Knobs and Cables

Weight

26 pounds (11.8 kg) net, 41 pounds (18.6 kg) in shipping carton

Shipping Carton Dimensions

Width is 27 inches (68.6cm)
Height is 12 inches (30.5cm)
Depth is 25 inches (63.5cm)

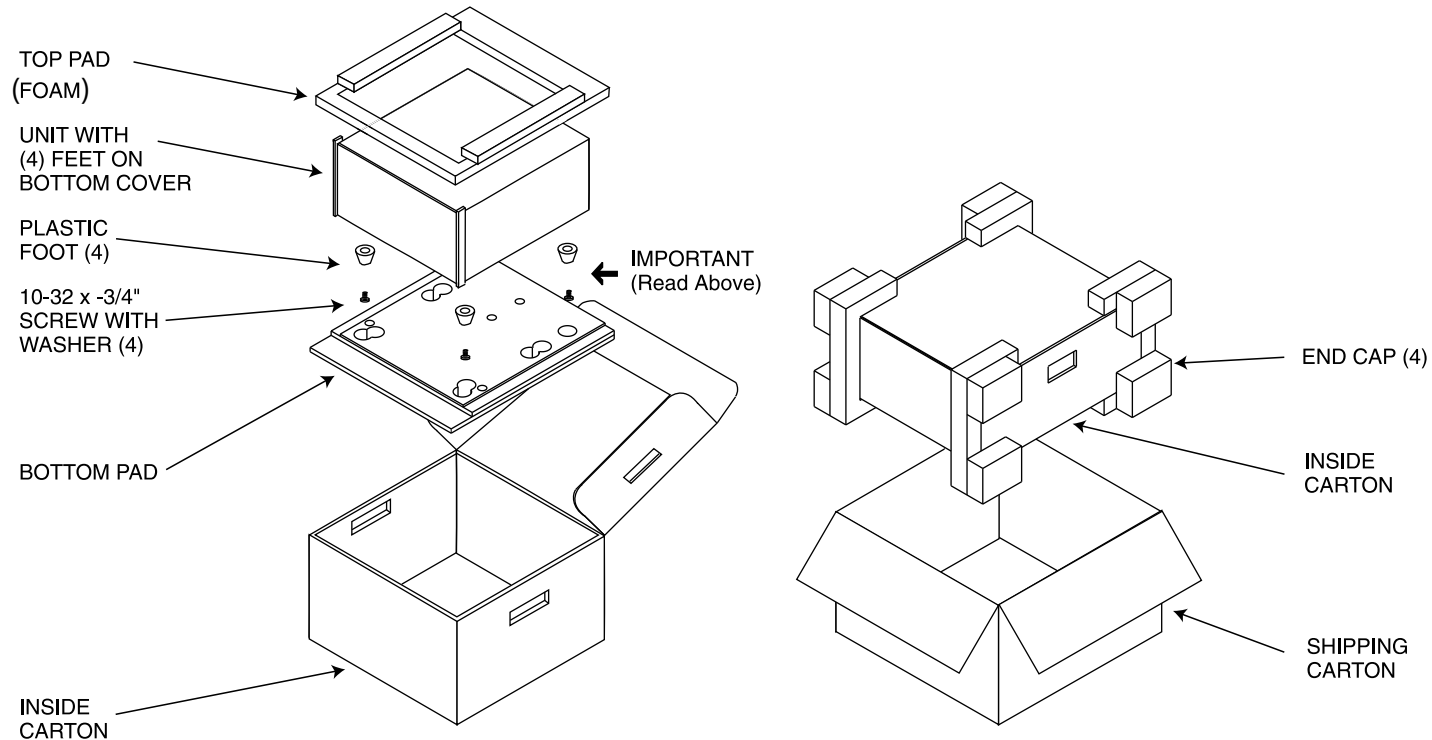
Packing Instructions

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 2. Please see the Part List for the correct part numbers.

| Quantity | Part Number | Description |
|----------|-------------|-----------------------|
| 1 | 033838 | Shipping carton only |
| 2 | 033837 | Side foam pad |
| 1 | 033836 | Inside carton only |
| 1 | 034414 | Top foam pad |
| 1 | 034574 | Bottom pad |
| 4 | 017937 | Plastic foot |
| 4 | 400159 | #10-32 x 3/4" screw |
| 4 | 404080 | #10-7/16" Flat washer |





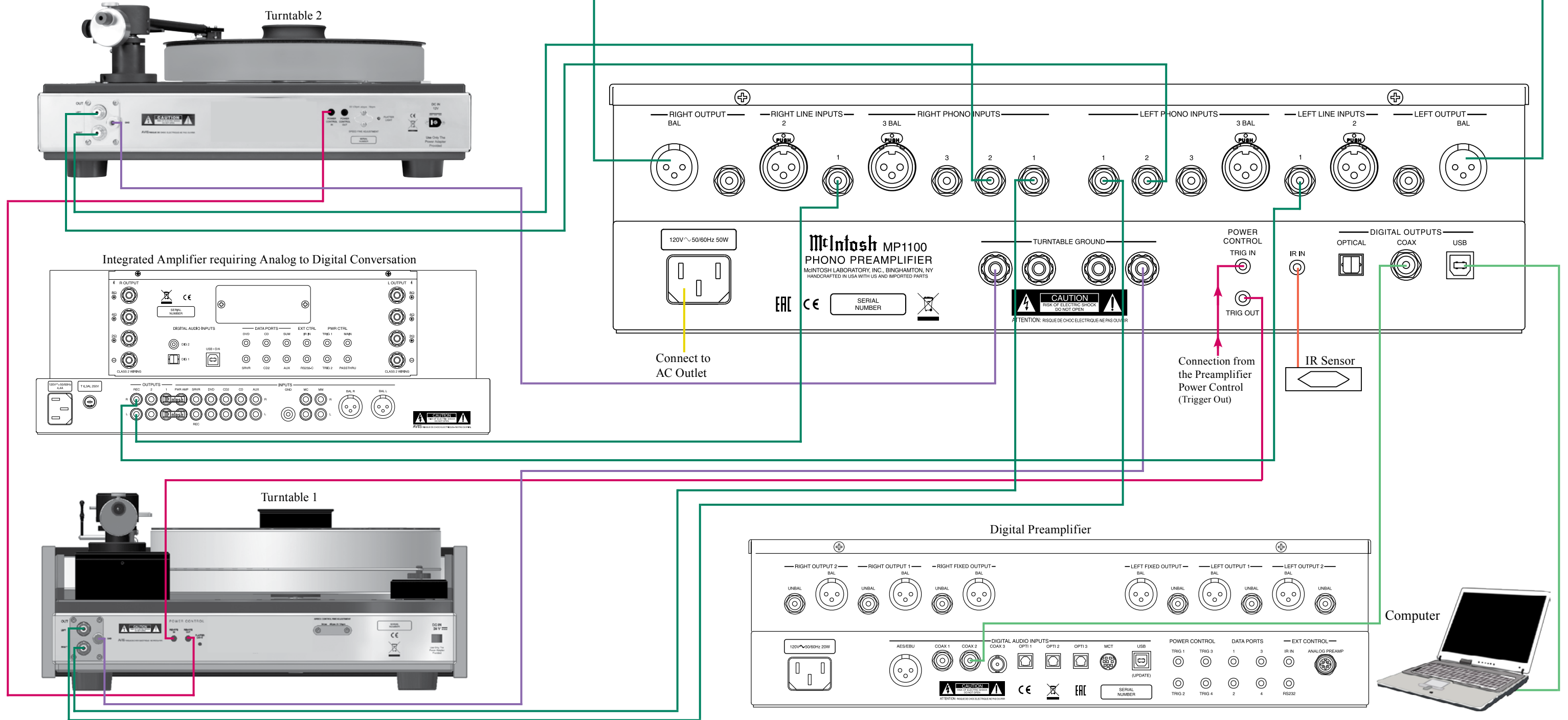
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The continuous improvement of its products is the policy of McIntosh Laboratory Incorporated who reserve the right to improve design without notice.
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Note: Refer to the MP1100 Owner's Manual page 9 for additional connection information.

Connection Legend:

- Data Cable* - — Digital Signal Cable - —
 - Sensor/Keypad Cable - — RS232 Cable - —
 - Power Control Cable* - — Ground Wire - —
 - Audio Signal Cable - — AC Power Cords - —
 - Video Signal Cable - — Loudspeaker Cable - —
 - RF Signal Cable - —
- * 2 conductor shielded with 1/8 inch stereo mini phone plug on each end.



MP1100 Rear Panel Connections

RIGHT OUTPUT BALanced sends signals to a Preamplifier or a recording device

RIGHT OUTPUT unbalanced sends signals to a Preamplifier or a recording device

RIGHT LINE INPUT 2 balanced input receives analog signals for listening to and/or converting into a digital signal

RIGHT LINE INPUT 1 unbalanced input receives analog signals for listening to and/or converting into a digital signal

RIGHT PHONO INPUT 3 BALanced Input accepts signals from Moving Magnet or Moving Coil Phono Cartridges

RIGHT PHONO INPUTS 1 thru 3 Unbalanced Inputs accept signals from a Moving Magnet or Moving Coil Phono Cartridge

LEFT PHONO INPUT 3 BALanced Input accepts signals from Moving Magnet or Moving Coil Phono Cartridges

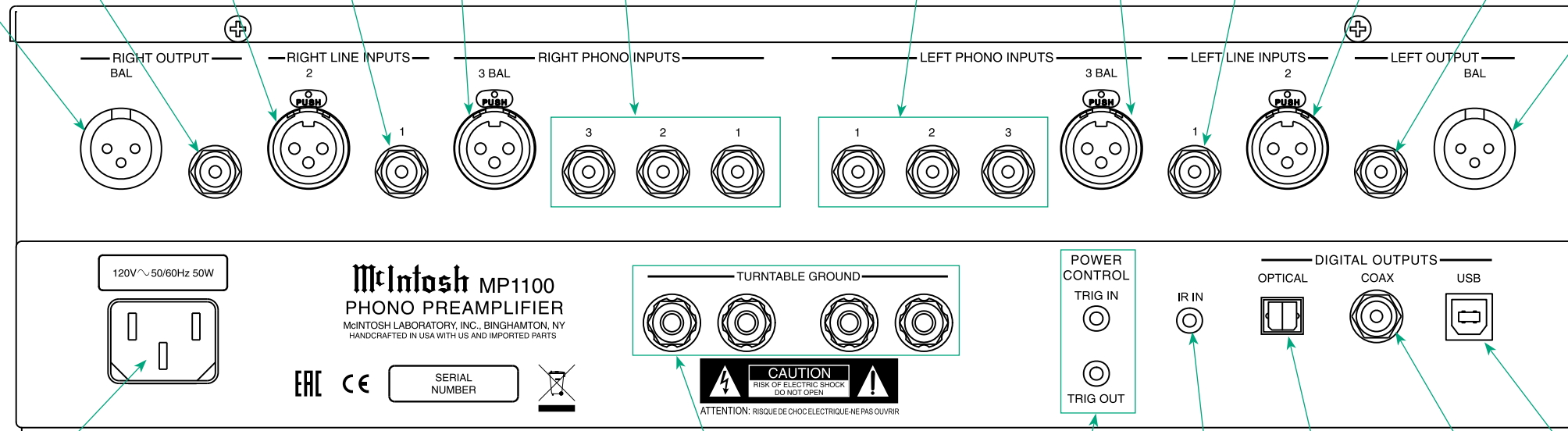
LEFT PHONO INPUTS 1 thru 3 Unbalanced Inputs accept signals from a Moving Magnet or Moving Coil Phono Cartridge

LEFT LINE INPUT 2 balanced input receives analog signals for listening to and/or converting into a digital signal

LEFT LINE INPUT 1 unbalanced input receives analog signals for listening to and/or converting into a digital signal

LEFT OUTPUT BALanced sends signals to a Preamplifier or a recording device

LEFT OUTPUT unbalanced sends signals to a Preamplifier or a recording device



Connect the MP1100 power cord to a live AC outlet. Refer to information on the back panel of your MP1100 to determine the correct voltage for your unit

GROUND terminals accept a ground wire from a turntable

POWER CONTROL TRIGger IN receives turn-on signals from a McIntosh component. TRIGger OUT sends turn-on signals on to another McIntosh Component

IR Input for signals from a compatible IR Room Sensor

OPTICAL DIGITAL AUDIO OUTPUT for components with a Digital Optical Input receiving a digital audio signal

COAXial DIGITAL OUTPUT for components with a Digital Coaxial Input receiving a digital audio signal

USB DIGITAL OUTPUT with control signal for connection to a computer