

**MCD 7000**  
COMPACT DISC PLAYER

**McIntosh<sup>®</sup>**

OWNERS MANUAL

COMPACT  
**disc**  
DIGITAL AUDIO



VARIOUS REGULATORY AGENCIES  
REQUIRE THAT WE BRING THE  
FOLLOWING INFORMATION TO YOUR  
ATTENTION. PLEASE READ IT CAREFULLY.

WARNING: TO PREVENT FIRE OR SHOCK  
HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN  
OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK DO  
NOT USE THE (POLARIZED) PLUG ON THIS UNIT  
WITH AN EXTENSION CORD, RECEPTACLE OR  
OTHER OUTLET UNLESS THE BLADES CAN BE  
FULLY INSERTED TO PREVENT BLADE EXPOSURE.

The serial number, purchase date, and McIntosh  
Laboratory Service Contract number are important to you  
for possible insurance claim or future service. Record this  
information here.

Serial Number

Purchase date

Service Contract Number

Upon application, McIntosh Laboratory provides a Ser-  
vice Contract to the original purchaser. Your McIntosh  
Authorized Service Agency can expedite repairs when you  
provide the Service Contract with the instrument for repair.

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Your MCD 7000 Compact Disc Player will give you many years of satisfactory performance. If you have any questions, please contact:

## CUSTOMER SERVICE

**McIntosh Laboratory Inc.**  
**2 Chambers Street**  
**Binghamton, New York 13903-9990**  
**Phone: 607-723-3512**

**Take Advantage of 3 years  
of Contract Service...  
Fill in the Application NOW.**

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## McINTOSH THREE YEAR SERVICE CONTRACT

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An application for A THREE YEAR SERVICE CONTRACT is included with this manual.

The terms of the contract are:

1. Your completely filled in application for the SERVICE CONTRACT must be postmarked within 30 days of the date of purchase of the instrument.
2. To receive the SERVICE CONTRACT, all information on the application must be filled in. The SERVICE CONTRACT will be issued when the completely filled in application is received by McIntosh Laboratory Incorporated in Binghamton, New York.
3. To receive the SERVICE CONTRACT, your purchase must be made from a McIntosh franchised dealer.
4. The SERVICE CONTRACT is issued to you as the original purchaser. To protect you from misrepresentation, this contract cannot be transferred to a second owner.
5. Any McIntosh authorized service agency will repair McIntosh instruments at normal service rates. To receive service under the terms of the SERVICE CONTRACT, the SERVICE CONTRACT CERTIFICATE must be presented when the instrument is taken to the service agency.
6. Always have service done by a McIntosh authorized service agency. If the instrument is modified or damaged as a result of unauthorized repair, the SERVICE CONTRACT will be cancelled. Damage by improper use or mishandling is not covered by the SERVICE CONTRACT.
7. McIntosh will provide all parts, materials and labor needed to return the measured performance of the instrument to the original performance limits. The SERVICE CONTRACT does not cover any shipping costs to and from the authorized service agency or the factory.
8. Units in operation outside the United States and Canada are not covered by the McIntosh Service Contract, irrespective of the place of purchase. Nor are units acquired outside the U.S.A. and Canada, the purchasers of which should consult with their dealer to ascertain what, if any, service contract or warranty may be available locally.

**This manual will help you to install, operate and program your Compact Disc player. Read the text carefully and become familiar with the facilities to enjoy to the fullest this new way of listening to music, noise free.**

McIntosh has earned world renown for its technological contributions for improved sound. When you bought McIntosh you bought not only high technology that leads to superior sound reproduction, you bought technological integrity proven by time. The McIntosh Compact Disc Player is the newest evidence of McIntosh technological integrity.

Music reproducing instruments that carry the McIntosh name have always been designed for technological leadership and to maintain the McIntosh reputation for best sound, for durability and for long life. McIntosh has always earned the foremost reputation for quality performance. McIntosh has provided user oriented facilities and appearance and McIntosh design always provides for ease of maintenance or repair. These fundamental elements are incorporated in the McIntosh Compact Disc Player.

The Compact Disc has proven to be a significant improvement in audio technology. By using sophisticated digital and optical technologies, the Compact Disc delivers outstanding sound reproduction and gives you operating features which have never been seen in home entertainment equipment.

In the Compact Disc system, the original sound is sampled, measured and quantized (converted to binary numbers). It thus becomes a pulse code modulated (PCM) signal representing the original sound, but before being encoded on disc, it is specially processed to keep the sound pure, and to make playback easy and convenient. Control and display information is added to provide fast access and programming possible.

Special Eight-to-Fourteen modulation (EFM) ensures that a maximum of sound information can be packed into the disc which requires a minimum of error correction, provides vital timing information, and improves trackability.

The task of the compact disc player is to decode the encoded data, use it to control drive motor speed and laser spot tracking, correct errors, derive the sound information, and present it in a way to satisfy the most critical ears, your ears. McIntosh has the best thought-out design which will bring you the highest satisfaction.

Your McIntosh MCD 7000 Compact Disc Player, above all others will uncover the total encoded sound....unaltered.

## PLAYER LOCATION

The MCD 7000 may be installed in a McIntosh cabinet or custom installed in furniture of your choice. Always provide adequate ventilation. Never place it above heat generating components such as high powered amplifiers. Provide 1½ inches (3 cm) of space above the player so as not to interfere with a cooling air flow. Always use the compact disc player horizontally, out of direct sunlight and away from other heat sources.

## REMOVE THE TRANSIT SCREWS

On the bottom of the player are two screws which lock the player mechanism to protect it during transportation. Remove these screws and keep them in a safe place. To prevent damage, these screws must be replaced if the player is to be transported.

## CUSTOM INSTALLATION

The PANLOC system of installing equipment conveniently and securely, is a product of McIntosh research. Turned clockwise, the PANLOC buttons on the front panel lock firmly in place. A counterclockwise turn of the PANLOC buttons unlocks the chassis from its mounting.

To install the instrument in a McIntosh cabinet, follow the instructions that are enclosed with the cabinet. For any other type of installation follow these instructions:

### 1. Unpack from Carton

Open the carton and remove the PANLOC brackets, hardware package, and mounting template. Remove the instrument from its plastic bag and place it upside down on the shipping pallet. Unscrew the four plastic feet from the bottom of the chassis and unscrew and remove the transit screws. Unless the transit screws are in place when the instrument is transported, damage can occur. Keep the transit screws in a safe place.

### 2. Mark the Cabinet Panel.

Tape the mounting template in position on the cabinet panel where the instrument is to be installed. The broken lines that represent the outline of the rectangular cutout also represent the outside dimensions of the chassis. Make sure these lines clear shelves, partitions, or any equipment. With the template in place, first mark the six A and B holes and the four small holes that locate the corners of the cutout. Then, join the four corner markings with pencil lines, using the edge of the template as a straightedge.

### 3. Drill Holes

Use a drill with a 3/16 inch (5 mm) bit held perpendicular to the panel and drill the six A and B holes. Then, using a drill bit slightly larger than the tip of your saw blade, drill one hole at each of two diagonally opposite corners. The holes should barely touch the inside edge of the penciled

outline. Before taking the next step, make sure that the six A and B holes have been drilled.

### 4. Saw the Panel Cutout

Saw carefully on the inside of the penciled lines. First make the two long cuts and then the two short cuts. After the rectangular opening has been cut out, use a file to square the corners and smooth any irregularities in the cut edges.

### 5. Install the Mounting Strips

In the hardware package you will find two mounting strips, and two sets of machine screws. For panels that are less than 1/2 inch (12.7 mm) thick, use the 3/4 inch (19.1 mm) screws; for panels that are more than 1/2 inch (12.7 mm) thick, use the 1-1/4 inch (31.8 mm) screws.

Starting at the right-hand side of the panel, insert a screw of the proper length into the center hole in the panel, marked B on the template. On the back of the panel, align a mounting strip with the holes in the panel and tighten the screw until the screwhead is pulled into the wood.

Repeat this procedure to attach the mounting strip to the left side of the panel.

### 6. Attach the PANLOC Brackets

Using two screws of the proper length in the A holes on each side, attach the PANLOC brackets to the cabinet panel; the short flange is mounted against the front (face) of the cabinet panel. The screws pass through the PANLOC bracket flange, the cabinet panel, and then through the mounting strips previously mounted.

### 7. Install the Instrument

Guide the AC power cord through the panel opening to the back of the cabinet; then, slide the instrument into the opening carefully so that the rails on the bottom of each side of the chassis engage the tracks on the mounting brackets. Continue to slide the instrument into the cabinet until the front panel is flush with the cabinet panel. Turn the PANLOC buttons at the lower left and right corners of the instrument panel clockwise to lock the unit firmly in the cabinet. Turn the PANLOC buttons counterclockwise to unlock the instrument. It can then slide outward to permit the removal of the instrument from the cabinet.

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# 4 INSTALLATION

## AUDIO OUTPUTS

Fold out the photograph on the inside of the back cover. It will help you in connecting the MCD 7000 to your stereo.

The MCD 7000 has two sets of output jacks. One set, FIXED OUTPUT, is not affected by the front panel OUTPUT level control. The output of the other set, VARIABLE LEVEL, can be adjusted by the OUTPUT LEVEL control. Use the FIXED OUTPUT jacks to feed program to a stereo preamplifier or other equipment with its own volume control.

Use the VARIABLE OUTPUT jacks to connect to a power amplifier or a tape recorder where control of the volume at the player is desired. There is no difference in the signal quality at either pair of output jacks. Both pairs of output jacks may be used simultaneously.

Connect the player to the "CD", "AUX", or other high level input on the preamplifier. Do not connect to the "PHONO" input. Connect the Left player output to the left preamplifier input. Connect the Right player output to the right preamplifier input.

## AC POWER

Plug the AC power cord into a 120 volt 50/60 Hz receptacle at the rear of the preamplifier or into a wall outlet.

## INSERTING THE BATTERIES IN THE REMOTE CONTROL

Your McIntosh Digital Disc Player is complete including Remote Control. In your hand you have the ability to control all normal operating functions of the disc player with the exception of the TIME display. It can only be changed by the front panel touch-buttons.

The remote control runs on four AAA, UM4 or R03 1.5 Volt batteries. Slide open the cover on the back of the remote control and insert the batteries as shown in the diagram in the battery compartment, then slide the cover closed again.

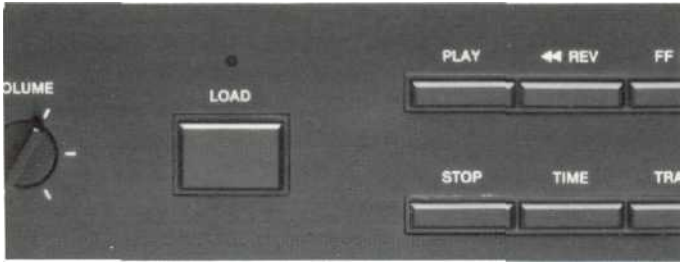
Battery life is normally about one year. Remove the batteries as soon as they are dead to prevent damage by possible battery leakage or in case the remote control is not to be used for a length of time.



**FOLD OUT THE PHOTOGRAPH ON THE INSIDE OF THE BACK COVER. IT WILL ASSIST YOU IN LOCATING THE CONTROLS AND TOUCH-BUTTONS. THE NUMBERS ON THE PHOTOGRAPH REFER TO THE PARAGRAPH NUMBERS THAT FOLLOW.**

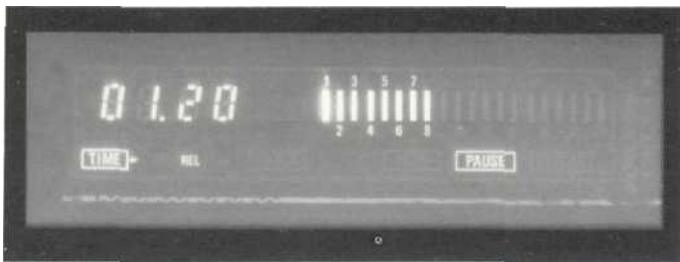
Before attempting to operate your Compact Disc player, familiarize yourself with the controls and what they do.

1. **POWER:** Touch to switch the player on and off.



**LOAD:** Touch to open or close the disc drawer. A light just above the **LOAD** touch-button shows when the control is operating.

**PLAY:** Touch to close the disc drawer and to start play. Touch to return to the beginning of the track being played.



4. **DISPLAY AREA:** An on/off indicator that presents information about the number of tracks on the disc, the playing time, the progress of play and particular functions of the player, and it signals errors during operation or programming. (See also: "THE DISPLAY").



- 5-6. **◀◀REV AND F▶▶:** Touch and hold to provide quick access to a particular passage.
7. **REPEAT:** Touch to repeat the disc or a program.
8. **PAUSE:** Touch to interrupt and hold play at a chosen point. Touch again to continue the playback.
9. **STOP:** Touch to stop play during playback and to delete a program.
10. **TIME:** Displays the total playing time of the disc, the elapsed playing time to this moment, or the time of each track individually.
11. **TRACK:** Touch to display the track number, and to display index numbers when they are encoded on the disc.
12. **BACK TRACK:** Touch to return to a previous track during play.
13. **NEXT TRACK:** Touch to move to the next track during play.

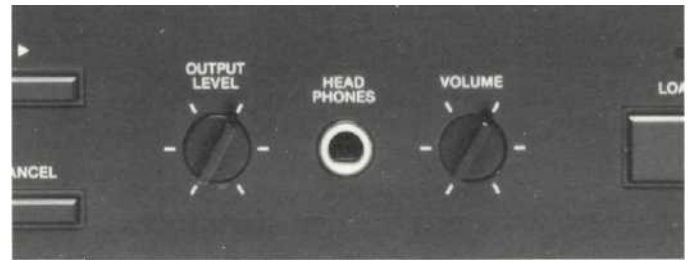
## 6 FRONT PANEL CONTROLS



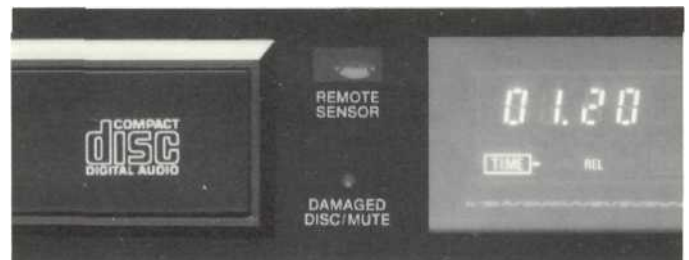
14. SCAN: Touch to close the disc drawer and to automatically play the beginning 10 seconds of each track on the disc.
- 15-16. ◀ PROGRAM ▶: Touch to search for the track you want to begin with, and select tracks for entry into the program memory.
17. STORE: Touch to store tracks when entering a track in the program memory.
18. CANCEL: Touch to delete an unwanted selection in a program and to allow changing a program.
19. OUTPUT LEVEL: Adjust to match the disc player's output level with other program sources when feeding a power amplifier.
20. HEADPHONES: Jack provided for private headphone listening.
21. VOLUME: Adjust the loudness in the headphones.



22. REMOTE SENSOR: Receives the coded infra-red signals from the remote control.
23. DAMAGED DISC/MUTE: Lights when a playing disc is damaged or has errors which are correctable by electronic interpolation. It also lights when the player is muted by more seriously damaged discs, or when PAUSE, STOP, ◀◀ REV, FF ▶▶, BACK TRACK and NEXT TRACK are used and when a disc is not playing.



24. PANLOC: Turn to secure the player in a cabinet.



## POWER

Touch the POWER touch-button to turn the player on. The track indicator will light up.

Touch POWER again and the player is turned off. The track indicator goes off.

## LOAD

Touch the LOAD touch-button and the LOAD light illuminates. After 1 second the drawer slides out. If the drawer is obstructed, it will not continue to open. Should this happen, touch LOAD twice in succession to bring the drawer fully out.

With your hand open, and thumb and fingers extended, hold the disc at the rim and place it **label side up**, in the disc drawer.

Close the drawer by touching PLAY, SCAN or LOAD. Use PLAY if you want to play the complete disc, SCAN if you first want to preview the disc or choose tracks from it, and LOAD if you want to program the disc or if you want to begin play with a particular track. In each case, the drawer slides in when the button is touched. If the drawer is obstructed as it closes, the drawer will come out again after about 3 seconds.

The DAMAGED DISC/MUTE indicator remains lighted until play begins. If the light remains on and the disc refuses to play, make sure that the disc is in the drawer label side up.

To close the drawer when it is empty touch the LOAD button. The DAMAGED DISC/MUTE sign will light. To prevent the entry of dust, do not leave the drawer open.

Opening the drawer during play, will stop the disc.

## PLAY

To play the complete disc, close the drawer by touching PLAY. After the contents list on the disc has been read, the number of tracks on the disc will be displayed on the track indicator. The first bar of the track indicator becomes brighter and the first track begins to play. When play begins, elapsed playing time on this track is displayed.

As each track ends, the bright bar for that track goes off and the next bar becomes brighter. Meanwhile, the time between tracks is counted off, followed by a display of the elapsed time played on that track.

To go back to the beginning of a track while it is playing, touch PLAY. The track is then repeated from the beginning. When all the tracks have been played, all the bars of the track indicator and the DAMAGED DISC/MUTE indicator will light. All other indicators turn off.

## SCAN

The drawer will close and the first 10 seconds of each track will be played when the SCAN touch-button is used to initiate play. As each track is previewed its bar on the display blinks on and off. Bars for tracks that have been played are off.

When the beginnings of all tracks have been previewed, the SCAN sign goes off, and the laser pick-up returns to the beginning of the first track, the first bar on the track indicator becomes brighter and the PAUSE sign lights. To listen to the disc, start play by touching PAUSE. The PAUSE sign will go off and the disc will play.

Any track can be entered in the memory for later playing while using SCAN to preview the tracks. For each wanted track, touch STORE while the track is playing. The indicator bar will turn on to indicate that the wanted track is stored in the memory. The player will immediately preview the next track, the indicator bar for that track will blink on and off and all other non-stored indicator bars will turn off.

If before you have previewed all tracks, you decide to listen to all of the remaining tracks on the disc, touch PLAY. The SCAN sign will go off and the remaining tracks will play in their entirety, beginning with the track whose bar was blinking.

When all tracks have been previewed, SCAN will go off, the stored bars are displayed with the first stored bar brighter and the PAUSE sign lights. To listen to the stored program, touch PAUSE. The PAUSE sign will go off and the disc will play the stored tracks in the sequence selected.

## THE DISPLAY

The display presents many different types of information.

**TRACK INDICATOR:** As soon as the POWER button is touched, the player is switched on and the 20 numbered vertical bars of the track indicator light. The track indicator goes off again when the AC power is switched off.

When a disc has been placed in the drawer, it may be closed by a touch on either the LOAD, PLAY or SCAN touch-buttons. The moment the disc drawer closes, '00' appears on the left of the display to show that the player is reading the contents list encoded on the disc. After the contents list has been read, the number of bars that remain lighted on the track indicator shows the number of tracks on the disc, e.g. 14 for a disc with 14 tracks. The bright bar indicates the track being played. If the LOAD touch-button is used to close the drawer, the total time on the disc is displayed, the bars for each track on the disc light and below the numbers for the total time, the words TIME and TOT for total also light.

If the PLAY touch-button is used to close the drawer the display shows TIME RELative and the time of the music being played from the track whose bar indicator is brighter.

If the SCAN touch-button is used to close the drawer the display shows TIME RELative and time of the music played from the track whose bar indicator is blinking.

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# 8 OPERATION

**TIME-TOTAL:** At anytime the disc is playing, touch the TIME touch-button to display the total time on the disc. This number remains unchanged while the disc is in play.

**TIME-ABSolute:** To know the elapsed playing time of all tracks including the pauses encoded between tracks on the record, touch the TIME touch-button twice in succession after play has begun. The sign TIME ABS appears under the advancing minutes and seconds. To switch back to relative-time, touch the TIME touch-button a third time.

**TRACK:** At anytime the disc is playing, touch the TRACK touch-button to display the number of the track being played. The track number is shown on the left of the display and is the number before the point. The digits after the point are index numbers and are displayed only when the disc has these numbers encoded. Touch the TIME touch-button again to return to the time indication. Index numbers cannot be programmed, but are a useful aid when searching for a particular passage. Only those track numbers will be displayed that have been programmed when using ◀ PROGRAM or PROGRAM ▶

**ERROR:** Indicating an incorrect or inappropriate instruction, the red ERROR sign lights for a short time.

Touching SCAN, PAUSE, and REPEAT causes the corresponding signs at the lower right of the display to light.

**DAMAGED DISC/MUTE:** If there is a fault with the disc, the red light "illuminates."

### THE REMOTE CONTROL

When the player is switched on and the disc is in the drawer, all the player functions can be operated using the remote control, except TIME.

The remote control works up to a distance of about 24 feet (8 meters). Although the player can receive the infra-red beam also via reflection, we recommend aiming the remote control directly at the REMOTE sensor.

### NEXT TRACK

To play a later track on the disc, touch NEXT TRACK. Each touch moves the laser pen and the bright bar on the track indicator one track. Allow a moment between each touch. Play is temporarily interrupted while the laser pick-up moves.

If you touch NEXT TRACK during play of the last track, the ERROR sign will light as a reminder that there is no next track. Play of the last track continues.

### BACK TRACK

To play an earlier track on the disc, touch BACK TRACK. Each touch moves the laser pen and the bright bar on the track indicator one track. Play is temporarily interrupted while the laser pick-up moves.

If you touch BACK TRACK during play of the first track,

the ERROR sign will light, as a reminder that there is no previous track. Play of the first track continues.

### ◀ PROGRAM ▶

Use ◀PROGRAM ▶ to start play with a track other than the first track. Touch the LOAD touch-button to close the drawer. The player will read the contents list then display the playing time of the disc above TIME TOTAL and the track indicator will list the number of tracks. Touch PROGRAM ▶ until the wanted track indicator bar blinks on and off. If you pass the wanted track, touch ◀ PROGRAM until the proper bar blinks.

Start play by touching PLAY. Do this within 7 seconds after the selected bar has started to blink, otherwise the bar will light continuously again; play will then begin with the first track. As long as you have not touched PLAY, however, you can re-activate the required track using either PROGRAM touch-button.

When PLAY is touched, the selected bar becomes brighter, and all the bars before it go off. Play begins as soon as the laser pick-up reaches the indicated track.

### ◀◀ REV - FF ▶▶

During play, you can quickly locate a particular music passage in a track by holding in ◀◀ REV or FF ▶▶. While you hold ◀◀ REV, the laser pick-up moves toward the beginning of the track or disc; while you hold FF ▶▶, the laser pick-up moves toward the end of the track or disc. By using ◀◀ REV and FF ▶▶ alternately, you can find any part of any passage. After release, play restarts at once.

During ◀◀ REV and FF ▶▶, the laser pick-up moves at three successive speeds: for the first 3 seconds relatively slowly, for the next 3 seconds faster, and after approximately 6 seconds at maximum speed. If you continue to hold down the FF ▶▶ or ◀◀ REV the numbers of the time display run on at a corresponding rate. When nearing the desired passage, release momentarily to go back to the lowest speed.

If, by holding in ◀◀ REV, the laser pick-up moves beyond the run-in of the first track, the ERROR indication lights and the laser pick-up stops at the beginning of the track. The disc continues to spin, however, so that play resumes upon release.

If, by holding in FF ▶▶, the laser pick-up moves beyond the run-out of the last track, the ERROR indication lights, and the laser pick-up moves back over the disc about 20 seconds and remains at that point until FF ▶▶ is released. This prevents the disc stopping unexpectedly during search.

### PAUSE

The laser pick-up can be stopped exactly at the start of a track or a passage by touching PAUSE and the PAUSE

sign will light. To start play, touch PAUSE again. The PAUSE sign will go off.

To interrupt play, touch PAUSE. The disc continues to spin, but the sound stops, and the PAUSE sign lights. Touch PAUSE again and the sound starts at the exact point where it was interrupted. The PAUSE sign will go off.

#### REPEAT

To hear the whole disc again, touch REPEAT before the disc ends. The REPEAT sign will light, and the disc will repeat continuously until you touch REPEAT again. The REPEAT sign will go off and the disc will play on to the end and stop. Touch LOAD or STOP, the REPEAT sign will go off and play will stop at once.

#### STOP or LOAD

To stop play before the end of the disc, press STOP or LOAD. All the bars on the track indicator light again, and all other indicators go off.

#### LISTENING WITH HEADPHONES

With headphones connected to the HEADPHONES jack, you can listen to discs without having to use an amplifier. Adjust the sound level with the VOLUME control.

The headphones must have a 0.25 inch (6.3 mm) jack plug and an impedance between 8 and 1000 ohms.

#### PROGRAMMING

The McIntosh Compact Disc player has many programming capabilities. You can decide the sequence in which you want to hear selected tracks, repeat a track more than once in a program, and play the tracks on a disc in a selected sequence. To do this, it is necessary to store your choice in the memory of the player with the help of the ◀ PROGRAM ▶ and STORE touch-buttons. The memory has a capacity of 20 entries, which means that a maximum of 20 tracks can be stored. If you exceed the maximum of 20 tracks, the ERROR sign lights to remind you that the memory is full and cannot accept any more commands.

Placing the disc in the drawer, and closing it using LOAD, permits the laser pen to read the contents list and then display the number of bars corresponding to the number of tracks on the disc. The display shows the highest track number that can be stored. Although the total playing time is displayed, it is not important during programming.

Read the program contents from the list provided with the disc, then decide on the tracks you want to include in the program. For each track, start the correct track indicator bar blinking using either PROGRAM ▶ or ◀ PROGRAM. When the chosen track bar is blinking, touch STORE. If you go past the required bar, go back using ◀ PROGRAM.

Store the track within 7 **seconds** of the time a bar starts to blink or after 7 seconds the bar lights continuously if you have not yet stored any other tracks, or goes off if you have. After 7 seconds the track can then no longer be stored and the ERROR sign will light if you now press STORE. You can re-activate the missed track again using PROGRAM.

Here is an example of a program: from a disc containing 14 tracks, you want to listen to tracks 7, 3, 9, 5, 12, 10 and finishing by repeating track 3.

Fourteen bars on the track indicator are lit indicating that there are fourteen available tracks on the disc. Hold down PROGRAM ▶ until bar 7 blinks on and off, then touch STORE. Bar 7 now lights continuously to show that track 7 has been stored, bar 8 starts to blink, and the remaining bars go off.

Continue by holding down ◀ PROGRAM until bar 3 blinks and then touch STORE again. Bar 3 now lights continuously too, and bar 2 starts to blink.

Select and store the remaining tracks in turn by the use of PROGRAM ▶ or ◀ PROGRAM, and then STORE. During this process the bars of already stored tracks will start to blink again without effect on the program.

As soon as the last track is stored, bars 7, 3, 9, 5, 12 and 10 are lit and bar 2 blinks. In about 5 seconds, this last one will go off by itself. You have completed the planned program.

If you notice, during or after programming, that you have stored a wrong track, you can correct this by starting the corresponding bar blinking using the proper PROGRAM touch-button and then touching CANCEL. To show that the wrong track has been deleted, the bar goes off. Now store the correct track. Using our example: you have stored '4' instead of '5'. you go back to '4' using NEXT TRACK and touch CANCEL. Bar 4 goes off and bar 5 begins to blink. Enter bar 5 in the memory using STORE.

To clear the whole program touch STOP.

To start play touch PLAY; the bar for the first track in the program then becomes brighter. The progress of play can be followed as the bar of each track played goes off in turn, while the bar of the track being played becomes brighter. You can see how many tracks remain at any time by the number of bars lit normally. During play of a program, you can still modify the program by adding or deleting tracks.

To go back to the beginning of a track touch PLAY. To go on to the next programmed track, touch NEXT TRACK. During the last track, the ERROR sign will light and the last track will continue to play. To go to a previous programmed track, touch BACK TRACK. During the first track, the ERROR sign will light and the first track will continue to play.

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# 10 OPERATION

When playing a program or searching for a particular passage, ◀◀REV or FF ▶▶ is limited to the space between the beginning and end of the track being played. The laser pick-up cannot be moved outside these limits to prevent moving to another track, either programmed or not programmed, which would modify the program. When either limit is reached the ERROR sign lights and the laser pick-up stops until you release the ◀◀ REV or FF ▶▶ touch-button.

To hold play at the beginning of a track or a passage, or to interrupt the program, touch PAUSE. To begin play again, touch PAUSE. It will resume at the exact point it was interrupted. The PAUSE sign will go off.

If you want to repeat the program, touch REPEAT. The bars for all the stored tracks remain lit, and the one that is brighter is the one for the track in play.

A program is retained in the memory until the last track has been played. The memory is then cleared, and all the bars on the track indicator light evenly while all other indicators go off. If you have touched REPEAT, the program remains in the memory until the REPEAT, STOP or LOAD button is touched.

If you touch STOP or LOAD before the end of a program, the memory is immediately cleared.

Discs with more than 20 tracks can be played and all player functions operate during the first 20 tracks on the disc. After the twentieth, beginning at any specific track, reviewing the disc, or selecting tracks using SCAN does not function. You can only use these with the first 20 tracks. The ability to program is also limited to the first 20 tracks. Tracks above 20 cannot be stored in the memory.

The track indicator works normally for the first 20 tracks and all 20 bars will light. As play progresses, these go off successively except the twentieth, which remains lit at a lower intensity when the twentieth track has completed play. At that time, the ERROR sign lights continuously to show that there is still a number of tracks to follow. The actual number, however, is no longer indicated by a corresponding number of bars on the track indicator. You can, of course, touch TRACK to display the tracks numerically. This indicator counts beyond 20.

#### DISC MAINTENANCE

For the best results, apply the same care in storing and handling the Compact Disc as with conventional records. Even though the music track in the disc is covered with a protective layer, treat the disc carefully. Always pick up discs by the edge, and put them back in their protective cases immediately after use.

Wipe fingerprints, dust or dirt off with the soft, lint-free cloth provided with your player. Wipe in a straight line from center to edge. You can breathe on the disc first if

necessary. Cleaning agents for conventional records, detergent or abrasive cleaners must never be used.

Never write on the label side of the disc. Writing will emboss the disc and destroy the digital data. If you follow these suggestions, the Compact Disc will provide a lifetime of pure listening enjoyment.

#### PLAYER MAINTENANCE

The player mechanism has self-lubricating bearings, and must not be oiled or greased. The disc drawer should be kept free of dust.

The greatest care has been taken in the manufacture of your McIntosh Compact Disc player. In case of operational difficulties and to save you unnecessary service calls, here is a list of their possible causes and suggested solutions. Should you need further guidance, contact your dealer. He will be able to advise you. Under no circumstances should you open up the player. To do so can void the service contract.

**1. After touching POWER, the track indicator does not light.**

- Touch the POWER touch-button again. POWER was not pressed in far enough. They require only .007" movement to engage.
- The player is not properly plugged into the 120V AC supply.
- There is no 120V AC supply. Plug in another electrical appliance and see if it functions in the same outlet.

**2. After touching LOAD, the disc drawer does not slide out.**

- The player is not switched on and the track indicator would not be lit.
- The microprocessor has not received the command correctly. Touch STOP and then touch LOAD again to see if the drawer opens.
- The drawer drive is not functioning, You cannot correct this yourself, if a disc is in position, remove it by pulling the drawer open carefully, then push the drawer in to close it again.

**3. After touching LOAD, PLAY or SCAN, the disc drawer does not slide in.**

- The 120 VAC supply has been disconnected and the track indicator will not be lit.
- The microprocessor has not received the correct command. Touch STOP and then touch LOAD, PLAY or SCAN again to see if the drawer closes..
- The drawer drive is not functioning. You cannot correct this yourself. If a disc is in position, remove it, than push the drawer in carefully to close it.

**4. After closing the drawer the Indication '00' goes off and stays off after a few seconds.**

- The transport screws have not been removed.
- The disc is not inserted label up or there isn't a disc in the drawer and you have missed the ERROR DISC sign.
- The disc is dirty. Clean the disc, or use another, clean disc.
- The disc is defective. See if another disc clears the problem.
- There is an unwanted object in the disc drawer, such as a piece of paper or a remnant of the packaging.
- The player is not horizontal.

**5. The disc is being played as shown by the time elapsed indicator, but there isn't any sound.**

- The microprocessor has not received the correct command. Check if touching STOP and then re-starting clears the problem.
- The preamplifier is not switched on.
- The preamplifier source selector is not turned to the input to which the player is connected.
- The preamplifier, amplifier or the loudspeakers connected to it are not working. Check with another sound source.
- The connection between the player and the preamplifier is broken.
- The input to which the player is connected is defective. Check by connecting the player to another input.

**6. The sound is poor or distorted or you can hear only one channel.**

- The transport screws have not been removed.
- The disc is dirty or badly scratched. Clean the disc or use another clean, scratch-free disc.
- There is an unwanted object in the disc drawer, such as a piece of paper or a remnant of packaging.
- The preamplifier or the loudspeakers connected to it are not working properly. Check with another sound source.
- The player is connected to the PHONO input not the CD, AUX, or other high level input of the preamplifier.
- One of the plugs of the connecting cable is either not connected or not properly connected.
- The player is not horizontal.

**7. Programming is not working properly.**

- The disc is dirty or badly scratched. Clean the disc or try programming with a scratch-free disc.
- The microprocessor has not processed the commands properly. Clear the program by touching STOP and store it again; re-start play.
- All 20 memory places are already programmed and you have missed the ERROR sign that shows this. Check by comparing the number of bars lit on the track indicator with the number of tracks that you wanted to store.

**8. The following problems can be caused by the same circumstances:**

Playback does not begin with the first track on the disc or of the program, but with another track.

Playback stops before the end of the disc or the program.

- The microprocessor has not processed the command correctly. Touch STOP and re-start to clear the memory.
- The disc is dirty or badly scratched. Clean the disc or use another, clean, scratch-free disc.

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# 12 HELPFUL HINTS

- The disc is defective. Try another disc.
- There is an unwanted object in the disc drawer such as a piece of paper or a remnant of packaging.
- The player is not horizontal.

**9. The player does not react to commands from the remote control.**

- The batteries are low and the distance to the player is too great. Aim in the direction of the player.
- Direct sunlight or high intensity room light shining on the remote sensor. Shade the sensor from sunlight.
- The batteries are dead.

### TYPICAL AUDIO PERFORMANCE

- Number of channels: 2 left and right.
- Frequency Range: 2-20,000 Hz,  $\pm 0.3$  dB
- Dynamic Range: 96 dB
- Signal-to-Noise Ratio: 96 dB
- Channel Separation: 94 dB (at 1000 Hz)
- Total Harmonic Distortion: 0.003% (at 1000 Hz)
- Wow and Flutter; quartz crystal precision
- Sampling Rate: 176.4 kHz
- D/A Conversion: 16-bit equivalent through oversampling with digital filter and 14-bit D/A conversion
- Error Correction System: Cross Interleave Reed Solomon Code (CIRC)
- Audio Output Level: 2V
- Impedance Headphones: 8-1000 ohms

### OPTICAL READOUT SYSTEM

- Laser: semi-conductor AlGaAs
- Wave length: 800 nm

### SIGNALFORMAT

- Sampling Frequency: 44.1 kHz
- Quantization: 16 bit linear/channel

### DISC

- Diameter: 120 mm
- Thickness: 1.2 mm
- Rotation (seen from reading side): counter-clockwise
- Scanning velocity: 1.2-1.4 m/s
- Rotation speed: 500-200 rpm
- Playing time (maximum): 74 min. (stereo)
- Track pitch: 1.6  $\mu$ m
- Material: plastic

### TOUCH-BUTTONS AND CONTROLS

- AC Power
- SCAN
- ◀ Program
- Program ▶
- Store
- Stop
- Time
- Track
- Back Track
- Next Track
- Play
- ◀◀ Rev
- FF ▶▶
- Repeat
- Pause

### CONTROLS

- Output Level
- Headphone Volume
- Front Panel Headphone Jack

### SPECIAL FEATURE

- Damaged Disc/Mute Error Correction Indicator

### POWER SUPPLY

- 120V, 50/60 Hz, 33 watts

### MECHANICAL INFORMATION

#### SIZE:

Front panel measures 16 1/8 inches wide (41 cm) by 5 7/16 inches high (13.8 cm) by 13 inches deep (33 cm), including connectors. Knob clearance required is 3/4 inches (1.9 cm) in front of mounting panel.

#### FINISH:

Front panel is glass with gold/teal nomenclature illumination with anodized gold and black aluminum. Chassis is black.

#### MOUNTING:

Exclusive McIntosh developed professional PANLOC.

#### WEIGHT:

22 pounds (10 kg) net, 34 pounds (15.4 kg) in shipping carton.

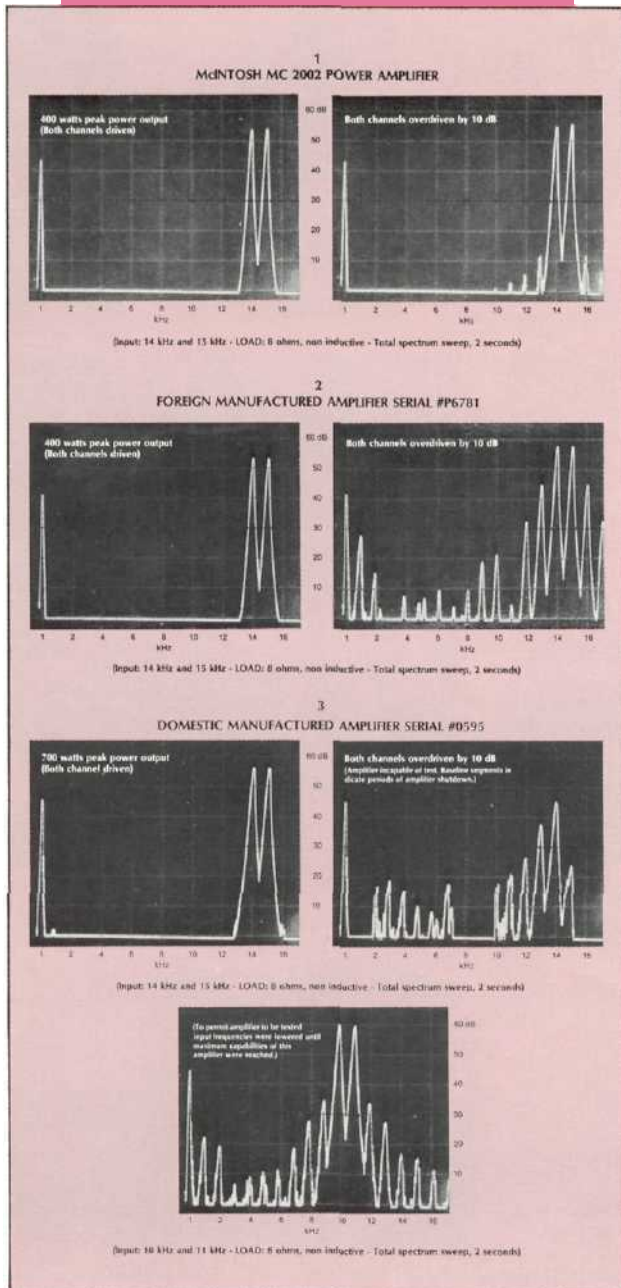
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# 14 PERFORMANCE LIMITS



"...McIntosh is  
one of a kind  
in the world of  
quality audio..."

McIntosh owner  
M. C. Memphis, TN



Compact Discs have been proclaimed to have a large increase in "dynamic range". Dynamic range is the ratio, usually given in decibels, between the softest, quietest sound on the disc and the loudest. Most Compact Discs claim a dynamic range in excess of 90 decibels. In numerical ratio this is greater than 1000 times the ratio of practical commercial analog records.

For equipment to be "digital ready" it must be able to handle overdrive without "breaking up" or grossly distorting the sound. With one exception all power amplifiers today are incapable of accepting 10 decibels of overdrive without gross distortion. Some amplifiers totally collapse under this punishment. McIntosh has devised a new test which shows the spectral fidelity of amplifiers under stress.

SPECTRAL FIDELITY is one of the most meaningful characteristics of an amplifier. The harmonic distortion and the two tone intermodulation measurements are important criteria in predicting the sonic performance. However, to obtain better correlation with human hearing response, we need to know not only the energy in the distortion spectrum, but also the number of discords and their frequency spacing from the desired tones. This is what the Spectral Fidelity testing can do, enlarge the scope of the data and showing its meaning more fully.

In these oscillograms, you can see the difference in Spectral Fidelity when a McIntosh is stressed, and when other amplifiers are stressed.

1. The McIntosh stressed 10 dB above rated power.
2. A foreign amplifier stressed 10 dB above rated power.
3. An American manufactured amplifier which had to be tested "under-stressed" since it could not take 10 dB of overload.

The McIntosh shows only 3 distortion components, which are more than 44 and 50 dB down, roughly equivalent to 0.3% distortion. The other amplifier shows 17 discords, some of which are only 10 dB down, or 30% distortion, with many less than 30 dB down, or 3% distortion.

Note in the third oscillogram the complete failure of one of the popular American manufactured amplifiers. When 14 and 15 kHz are amplified at the same time, this amplifier shuts down by "motor boating".

It is no accident that McIntosh amplifiers sound better.  
It is no accident that a McIntosh is a better investment.

- It sounds better
- It is more reliable
- It last longer
- Its resale value is the highest

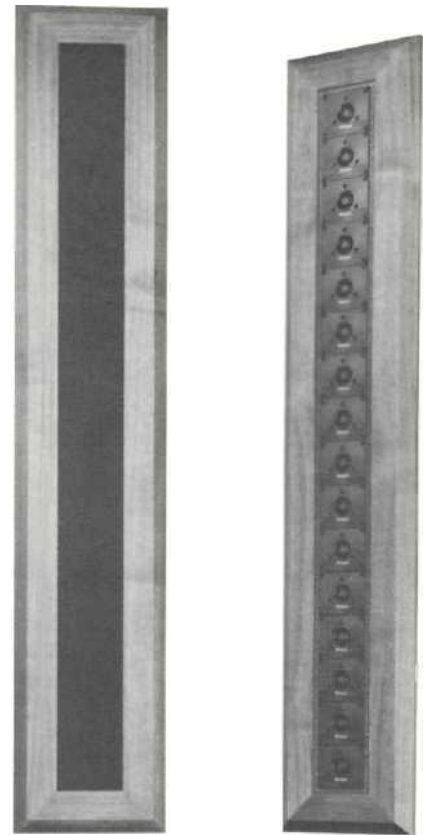
If good enough will do, there are at least 100 answers for you. But if the best is what you need then there is only one real answer....

....the amplifier that in 40 years has outlived 60 others who have simply faded away.

"...Proves out  
 what my grandfather  
 told me, years ago:  
**'BUY THE BEST...  
 QUALITY LASTS' "**

McIntosh owner  
 J. C. Mc. Orchard Lake, MI

Music reproducing instruments that carry the McIntosh name have always been designed to maintain the McIntosh reputation for best sound, for durability and for long life. McIntosh has, since 1949, lead the industry in technological advancement. McIntosh has always earned the foremost reputation for quality performance, McIntosh has provided user oriented facilities and appearance and McIntosh design always provides for ease of maintenance or repair. Regardless of the McIntosh combination you choose you are always assured you have chosen the best, with the latest technology that leads to superior sound reproduction... technology whose integrity has been proven by time.



XRT 18  
 Isoplanar Loudspeaker System



MCD 7000  
 Compact Disc Player



C 33  
 Preamplifier

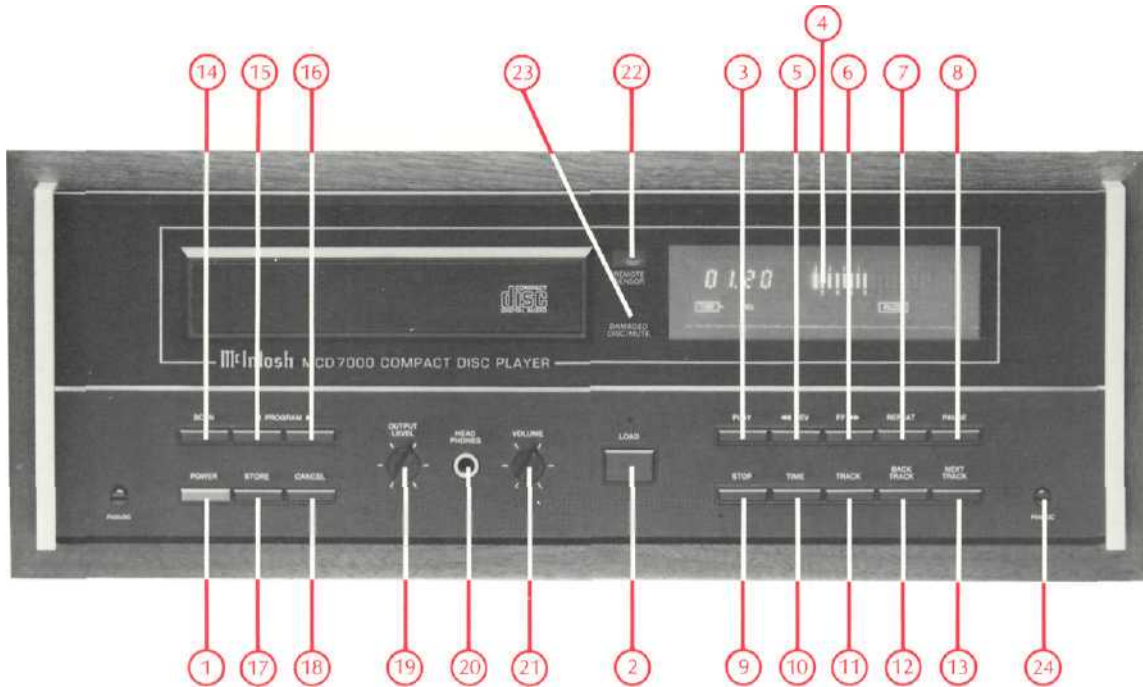


MC 2255  
 Power Amplifier

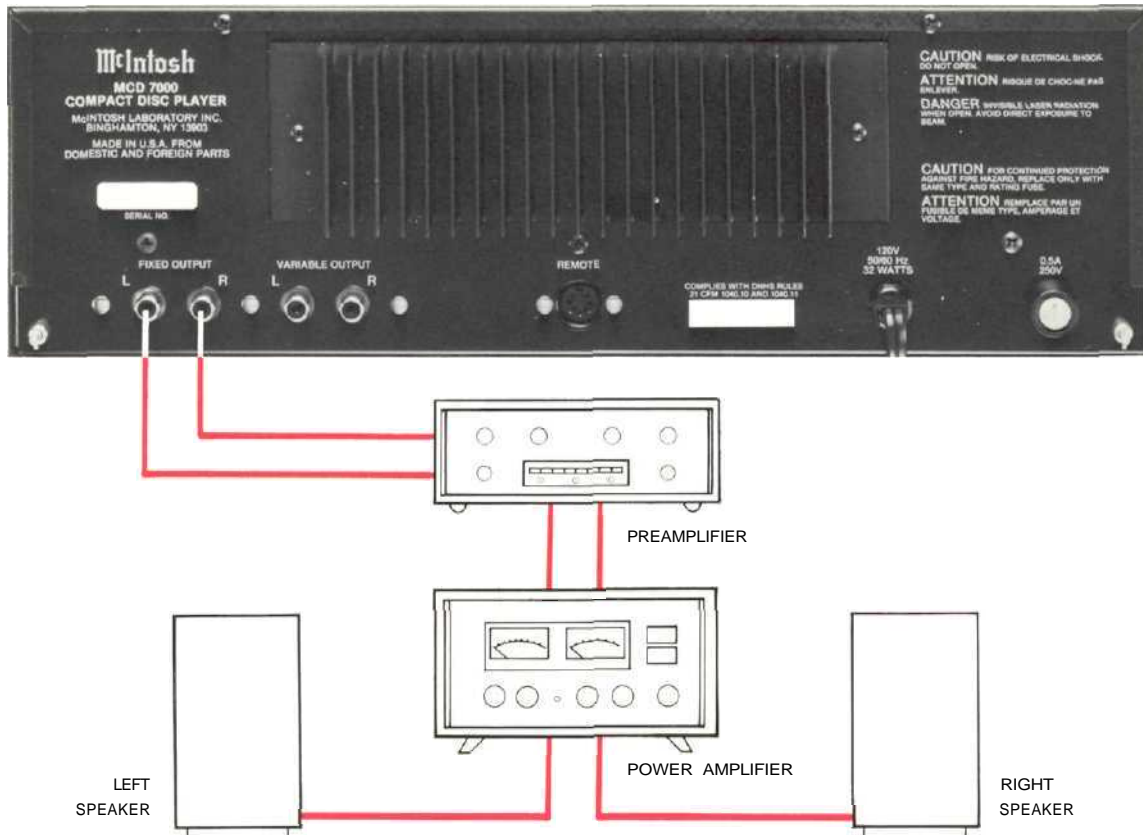
Handcrafted with pride in the United States by dedicated, highly trained craftspeople

# THE LOCATION OF CONTROLS AND TOUCH-BUTTONS

The numbers correspond to the numbered paragraphs on pages 6 and 7.



## TYPICAL CONNECTIONS



# McIntosh<sup>®</sup>

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