

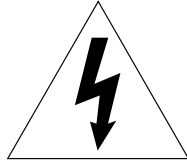
***PROFESSIONAL***

Model PMD350 User Guide

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Combination Stereo Cassette Deck/CD Player

**marantz®**

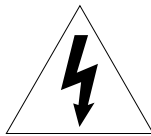


## CAUTION

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK)  
NO USER-SERVICEABLE PARTS INSIDE  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



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



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE  
BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOC SÉLECTRIQUES,  
INTRODUIRE LA LAME LA PLUS LARGE DE LA  
FICHE DANS LA BORNE CORRESPONDANTE DE LA  
PRISE ET POUSSER JUSQU'AU FOND.

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## LASER SAFETY

This unit employs a laser, Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

"CAUTION - USE OF CONTROLS OR ADJUSTMENTS  
OR PERFORMANCE OF PROCEDURE  
OTHER THAN THOSE SPECIFIED HEREIN  
MAY RESULT IN HAZARDOUS RADIATION  
EXPOSURE.

# SAFETY INSTRUCTIONS

READ BEFORE OPERATING EQUIPMENT

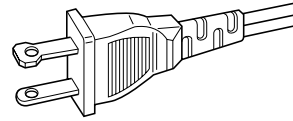
This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions — The safety and operating instructions should be retained for future reference.
3. Heed Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions — All operating and use instructions should be followed.
5. Water and Moisture — The appliance should not be used near water—for example, near a bathtub, wash-bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



8. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
10. Heat — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
11. Power Sources — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

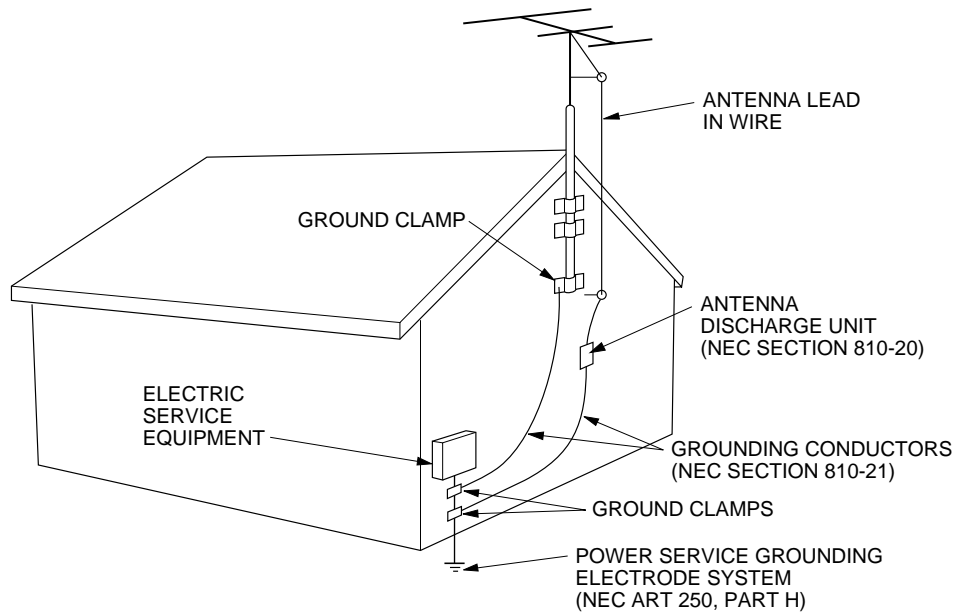
12. Grounding or Polarization — Precautions should be taken so that the grounding or polarization means of an appliance is not defeated.



AC POLARIZED PLUG

13. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
14. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
15. Power Lines — An outdoor antenna should be located away from power lines.
16. Outdoor Antenna Grounding — If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70 — 1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. 1.
17. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
18. Object and Liquid Entry — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
19. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
  - A. The power-supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has spilled into the appliance; or
  - C. The appliance has been exposed to rain; or
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
  - E. The appliance has been dropped, or the enclosure damaged.
20. Servicing — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**FIGURE 1**  
**EXAMPLE OF ANTENNA GROUNDING ACCORDING TO**  
**NATIONAL ELECTRICAL CODE INSTRUCTIONS**  
**CONTAINED IN ARTICLE 810 -"RADIO AND TELEVISION EQUIPMENT"**



NEC - NATIONAL ELECTRICAL CODE

**NOTE TO CATV SYSTEM INSTALLER:**

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**NOTE:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the

- interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

**NOTE:** Changes or modifications may cause this unit to fail to comply with part 15 of the FCC Rules and may void the user's authority to operate the equipment.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

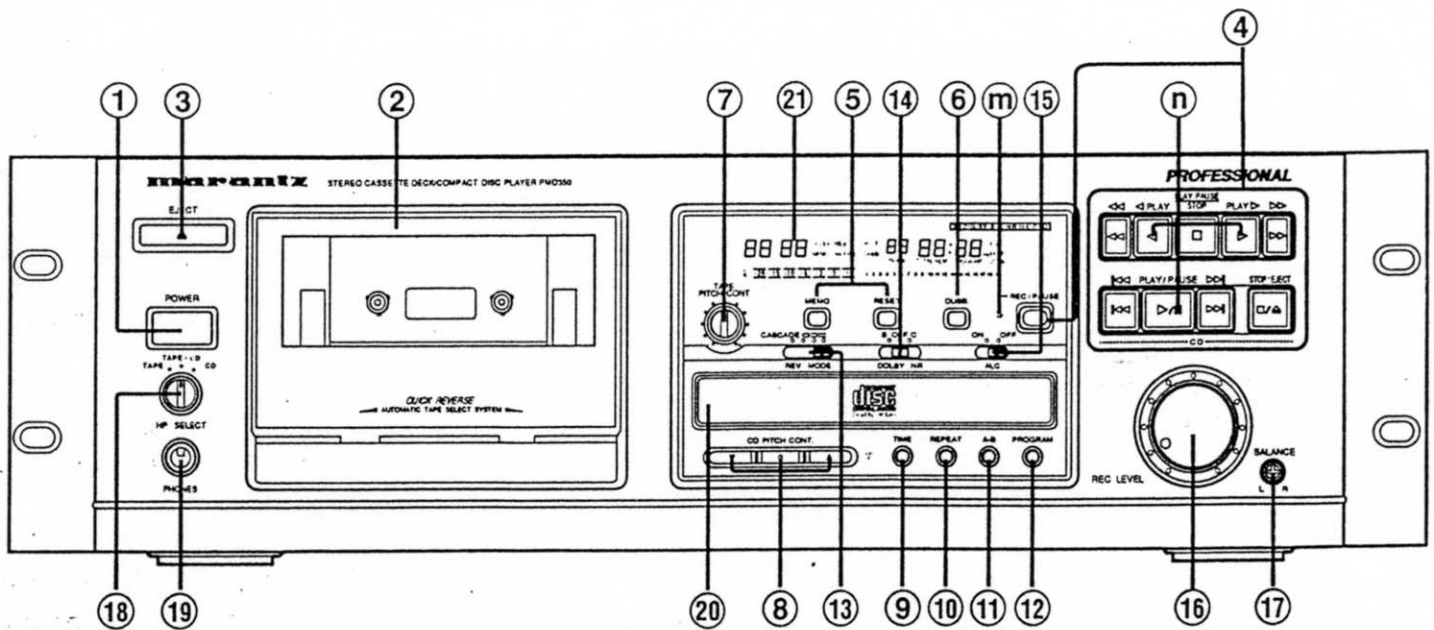
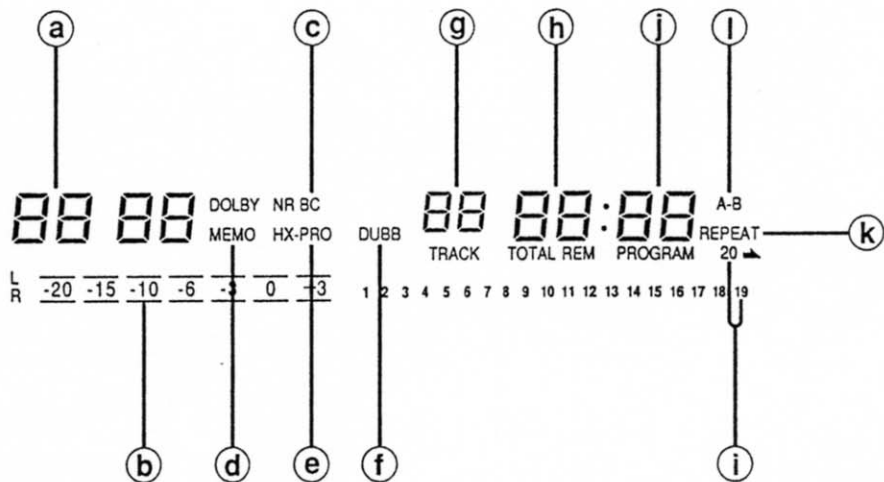
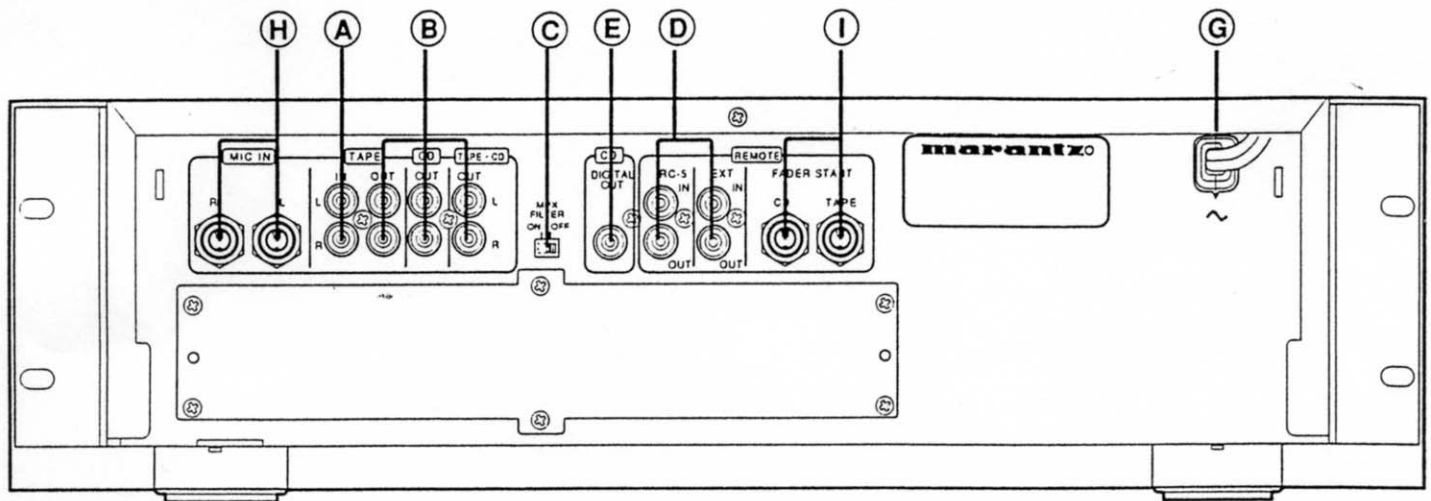


Figure 1

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## INTRODUCTION

Thank you for selecting the Marantz PMD350 combination Stereo Cassette Deck/CD Player. Please read these operating instructions carefully. We recommend that you read the entire user guide prior to connecting and operating the unit. It is also recommended that all connections be made prior to operating the unit.

Please refer to this manual to identify controls and connections for operation of the unit.

## PRECAUTIONS

The following precautions should be taken when operating the equipment.

### GENERAL PRECAUTIONS

When setting the equipment ensure that:

- Air is allowed to circulate freely around the equipment.
- The equipment is on a vibration free surface.
- The equipment will not be exposed to interference from an external source.
- The equipment will not be exposed to excessive heat, cold, moisture or dust.
- The equipment will not be exposed to direct sunlight.
- In addition, never place heavy objects on the equipment.
- Never place heavy objects on the equipment.
- Should the unit become exposed to moisture do not operate the unit until it has been thoroughly inspected by a electrically competent technician.
- Do not break the connection to the AC main power by pulling the power cord. Remove from the outlet by pulling on the plug only.

## FEATURES

### QUICK OPTICAL AUTOREVERSE

In addition to the normal tension reversing circuitry the PMD350 tape transport also employs optically sensed quick autoreverse circuitry. This circuitry reacts to the clear areas of the tape, usually the leader tape, and, when detected will reverse the direction of the tape transport. This process minimizes the loss of signal being recorded or played back. This reverse process applies to all tape playback and recording modes, including autoreverse and continuous mode.

### TAPE AND CD PITCH CONTROL

The PMD350 tape player and CD player both allow for adjustment of the playback pitch from -12% to +12%. The feature is particularly useful for adjusting the unit playback pitch to allow you to tune the PMD350 to accompanying instruments and choirs.

### RC-5 REMOTE CONTROL COMPATIBILITY

The PMD350 comes equipped with an RC-5 remote in and out port. Through the use of various remote control options Marantz has available the major functions of the unit can be operated via wired or wireless remote control.

### ONE TOUCH DUBBING

The PMD350 allows for the dubbing of the CD to the tape with one button start control. This feature allows you to manually or automatically select the recording level you desire.

### DUAL CD MEMO POINTS

The PMD350 allows you to select two points within the CD playback mode and repeat the audio playback within these points until a stop command is issued.

### LOCKABLE REM TRACK TIME MODE

The CD time display can be toggled between the various modes of display. In addition to this, when a display mode is set the unit will remain in the selected mode until you change it.

This is particularly useful for DJ's monitoring the audio during performances and programs.

### ONE TRACK PLAY AND STOP MODE

The PMD350 can be set to allow for the CD player to play the selected track and return to the stop mode rather than continue on to the next track on the CD.

### AUDIO QUE CD PLAY

The CD player on the PMD350 contains the Audio Que feature. This feature allows the CD player to advance to the beginning of the audio within the track rather than start from the track start flag. This feature helps to minimize the silence at the beginning of a CD track playback.

### DOLBY NR SYSTEMS

The Dolby Noise Reduction systems compress and amplify the tape during recording in order to raise the signal-to-noise ratio on the tape. During playback, these signals are expanded and attenuated by the same amount in order to regain the original dynamic range of music. An additional result of this expansion and attenuation is that the noise floor of the recording is reduced significantly. Dolby B typically reduces noise by 10dB.

Dolby C typically reduces noise by 20 dB.

### DOLBY HX PRO HEADROOM EXTENSION

The Dolby HX PRO system monitors the total amount of effective bias during recording and instantaneously compensates for any excess bias by reducing the deck's bias signal level accordingly. The system operates independently on each channel. HX Pro is unlike a noise reduction system because it functions only during recording and no decoding is required. Therefore a tape recorded with the HX Pro system can be played back on any other cassette deck while retaining the benefits of HX Pro.

## REAR PANEL CONNECTIONS

- A** LINE INPUT  
These jacks should be connected to the LINE OUTPUT of your source.
- B** LINE OUTPUT(Tape,CD,Mix)  
These jacks should be connected to the appropriate INPUT of your PA or monitoring system.
- C** MPX FILTER SWITCH  
When recording FM broadcast with Dolby NR, set this switch to the ON position.
- D** RC-5 REMOTE CONTROL JACKS  
These jacks are used with the Marantz infrared or wired remote accessories to provide remote control operation of the PMD350. These jacks can be serially linked to provide serial remote control operation of multiple RC-5 equipped products as well.
- E** DIGITAL OUTPUT JACKS(IEC958 type II)  
This connector outputs the digital signal of the CD Player. Connect this jack to other IEC958 type II digital inputs such as a D/A Converter, digital sound processor or amplifier with IEC958 type II digital inputs such as the Marantz Compact Disc Recorder.
- F** REMOTE EXT(extension) JACKS  
Connection with other Marantz components equipped with the REMOTE EXT. jacks will allow for extended cascade operation of several units.
- G** POWER CORD  
120VAC input power connector.
- H** MIC(MICROPHONE) INPUT JACKS  
For use with microphones as the input source into the tape deck. When microphones are installed into these jacks, the line inputs are automatically switched off and only the microphone signal is input into the unit. For mono recording insert the microphone into the L (Left) jack .
- I** FADER START JACKS  
Upon receiving a dry switch contact closure on the jack connections, the CD Player can be switched in and out of play and play/pause mode. The Tape deck can be switched in and out of play and stop or the record and stop mode.

## FRONT PANEL FEATURES

- 1** POWER SWITCH BUTTON  
Push the POWER switch in to turn power to the unit on and off. When power is turned off, all past setting are removed from memory and the unit returns to its default setting upon the next power up.
- 2** CASSETTE TAPE HOLDER  
This section holds the cassette tape for tape Play and Record functionality. Tapes that have the record protect knock-out removed will not enter into the record mode.
- 3** EJECT BUTTON  
Press the eject button to open the cassette tape holder.

## **4** TAPE DECK AND CD PLAYER CONTROL

### TAPE DECK CONTROL BUTTONS

■ : STOP BUTTON

Press the stop button to cancel all current operations of the tape deck.

▶ : FORWARD PLAY BUTTON

Press the forward play button to engage the tape deck into the forward play function.

◀ : REVERSE PLAY BUTTON

Press the reverse play button to engage the tape deck into the reverse play function.

◀◀ : REWIND BUTTON

Press the rewind button to engage the tape transport into fast rewind mode from the right(take-up) to the left(supply) reels.

▶▶ : FAST FORWARD BUTTON

Press the fast forward button to engage the tape transport into the fast forward wind mode from the left(supply) to the right(take-up) reels.

● : REC/PAUSE BUTTON

Press the rec / pause button to engage the tape transport into the record pause mode. In this mode the tape deck is armed to begin recording. The tape record mode can be engaged by pressing the forward play ▶ or reverse play ◀ buttons.

### CD PLAYER CONTROL BUTTONS

■ ▲ STOP/EJECT BUTTON

Press the Stop/Eject button to stop the CD Player while in the play mode. Press the Stop/ Eject button while in the Stop mode to open the door and eject the disk. During the program mode the Stop/Eject button will cancel the current program as long as the CD player is in the Stop mode.

▶ || PLAY/PAUSE BUTTON

Press the PLAY/PAUSE button the change the CD player mode from CD play to CD pause or from CD pause to CD play.

◀◀ PREVIOUS BUTTON

When the CD player is in the play or pause mode, pressing the PREVIOUS button will skip back one track for every time the button is pushed.

During the program mode this function is used along with the next button to select the desired tracks to be played.

Press and hold during playback to fast reverse the CD play.

▶▶| NEXT BUTTON

When the CD player is in the play or pause mode, pressing the NEXT button will skip forward one track for every time the button is pushed. During the program mode this function is used along with the previous button to select the desired tracks to be played.

Press and hold during playback to fast forward the CD play.

## **5** TAPE COUNTER BUTTON

MEMO BUTTON

Press the MEMO button to store a memory point into the counter memory. Once this point is set, the tape deck will rewind or fast forward until it reaches this point in the tape and will stop. To cancel the memory control press the MEMO button again.

RESET BUTTON

Press the RESET button to reset the current tape counter reading from its existing point to "0000".



## 6 DUBB BUTTON

Press the DUBB button to engage the tape transport into the dubbing mode from the CD player. Once the DUBB button is pressed, the CD player will copy directly to the tape deck.

## 7 TAPE PITCH BUTTON

Rotate the tape deck pitch control to adjust the tape deck playback pitch from -12% to +12%.

While the control is in the center detent position, the tape deck is at normal(0% pitch variance) speed. This control has no effect on the tape pitch during the record mode.

## 8 CD PITCH CONTROL BUTTON

By pressing the CD player pitch control buttons you can adjust the CD player playback pitch from -12% to +12% in .1% increments. You can return the CD player to the normal speed position by pressing the center "0" control.

Holding the pitch + or - controls for 2 or more seconds will cause the pitch to adjust in .5% increments.

**CAUTION:** When the CD pitch control is used, digital lock may not occur with some D/A converters.

## 9 TIME BUTTON

By pressing the TIME button you can adjust the CD player time displayed from the following formats. **NORMAL**- Displays the time elapsed within the current track being played. **REM**- Displays the remaining time left of the current track being played. **TOTAL REM**- Displays the total time remaining on the current disk being played. This control can be toggled between the various displays by pressing the TIME button multiple times.

## 0 REPEAT BUTTON

By pressing the REPEAT button you can program the CD player to repeat all tracks of the current disk. When there is a CD play program that is currently active, this function will repeat the current program selections. To clear this function, press the repeat control button again.

## q A-B BUTTON

The A-B BUTTON allows you to repeat a specific section in the current CD track that is being played. When this control is pressed the first time, the A-B indicator flashes and this position on the track is noted as the start or A point.

When this control is pressed again, the A-B indicator lights continuously, and this position on the track is noted as the end or B point. After setting the end point the CD player returns to the start point (A), and plays until it reaches the end point (B). The CD player will repeat this function until the stop or A-B button is pressed again.

## W PROGRAM BUTTON

The PROGRAM button will place the CD player into the program entry mode or the single track play mode. When the PROGRAM button is pressed once, the CD player enters the program entry mode and the program indicator will begin to flash. Pressing the PROGRAM button again will place the CD player in the single track play mode, and the track indicator will begin to flash. Pressing the PROGRAM button again will return the CD player to the normal play mode.

## e REVERSE MODE SWITCH

The Reverse Mode switch allows you to set the automatic tape direction operation of the tape transport during playback, normal recording or dubbing. The 4 positions of this switch are as follows;

⇨: One-way mode.

In this position the tape will play or record one side of the tape and stop.

⇨⇨: Two-way mode.

In this position the tape will play or record both sides of the tape and stop.

↻: Continuous mode

In this position the tape will play the tape in a continuous loop until the stop command is given. In the record mode the tape will record both sides of the tape and stop.

## CASCADE MODE:

In this position multiple Marantz tape decks that are equipped with the "EXT" cascade connector can be looped together to allow for extended cascade playback or recording. In this mode the tape will play or record both sides of the tape and at the end of the tape on the first deck a command will be issued causing the next deck in line to begin cascade play or record. This will continue until the end of the last tape on the last deck of the loop is reached.

## r DOLBY NOISE REDUCTION SWITCH

The Dolby Noise Reduction switch allows for the encoding or decoding of Dolby B or C Noise Reduction. When recording with Dolby Noise Reduction on, select the type(B or C) of noise reduction desired and place the switch in the appropriate position. When playing a tape with Dolby Noise Reduction encoded onto it, place this switch in the same position(B or C) as it was recorded in.

## t AUTOMATIC RECORD LEVEL SWITCH (ALC)

The ALC switch allows for automatic control of the source level during recording. When this switch is set to the OFF position, the level of recording is controlled by the manual record level adjustment. When this control is set to the ON position, the record level is set automatically. In this position the manual record level adjustment has no effect on the recording.

## y MANUAL RECORD LEVEL CONTROL

The manual record level control allows you to adjust the record level up or down during recording.

## u RECORD BALANCE CONTROL

The recessed balance control allows for the adjustment of the record level between the left and right channels. By using a Phillips type screwdriver, you can adjust this balance control between Left(Counter-clockwise) and Right(Clockwise).

## i HEADPHONE SELECTOR SWITCH

Used to switch the headphone output.

## O HEADPHONES JACK

The headphones jack is used to allow monitoring of the Tape, CD or Tape/CD Mix through headphones. This jack requires that a 1/4" headphone jack connection be made and the desired source can be selected by the HP SELECT switch located directly above the headphone input jack.

## p COMPACT DISC TRAY

The Compact Disc tray is used to hold the desired CD for playback.

## DISPLAY INDICATORS

Tape counter display indicates the amount of tape that has been transported across the head in digits.

Level indicators display the record or playback signal levels of the tape deck.

Dolby NR B C indicators display the type of Dolby noise reduction that has been selected.

¶ MEMO indicator is Displayed when the tape deck memory function is turned on.

HX PRO indicator is displayed showing HX PRO is activated.

DUBB indicator is displayed when dubbing from the CD player to the tape deck.

TRACK number indicator displays the track number that the CD has identified in play or pause mode. In the stop mode, the number of tracks on the entire CD or the numbers of the tracks programmed to play are displayed. When the TRACK number indicator is flashing it indicates that the CD player is in the single track play mode. When in this mode the CD player will play the selected track and go to the stop mode.

TRACK time indicator displays the playing time of the CD in 4 digits representing minutes and seconds. This display typically represents elapsed time of the track being played. When the REM indicator is displayed, the time shown represents the remaining time of the track being played. When the TOTAL REM indicator is displayed, this represents the total remaining time of the CD or of the program currently being played. In the stop mode the total playing time of the CD is displayed. The flashing colon, “:” indicates that the CD pitch control is in use.

TRACK number indicator(1 through 20), displays the track numbers on the CD. When in the program mode the tracks programmed are displayed. Upon completion of playing a track, the number will disappear. When playing a CD with more than 20 tracks on it, the “=>” indicator is displayed.

D PROGRAM indicator is displayed to indicate that the CD player is in the program mode. The indicator flashes during the program play entry mode. This indicator can be turned on and off by pressing the program button.

REPEAT indicator is displayed when the CD player is in the repeat mode.

A-B indicator is displayed when the tape deck is in the A-B repeat mode. When the A-B indicator is flashing, this indicates standby for the setting of point B.

m REC indicator is displayed when the tape deck is in the Record mode. When the REC indicator is flashing, this indicates the tape deck is in the Record Pause mode.

£ TAPE DECK PLAY indicator(located inside of the tape play button) displays the direction and mode of the tape transport, Play or Pause. When the indicator is flashing this indicates the transport is in the pause mode and the direction the transport is assigned. When the indicator is constantly on, this indicates that the transport is in the play or record mode and the direction that the transport is assigned. This indicator will not light if there is not a tape in the transport.

CD PLAYER PLAY indicator(located inside of the CD play button) displays a constant indicator when the CD Player is in the Play mode and a flashing indicator when the CD Player is in the Pause mode.

## Operations

The following operating procedures are based on the assumption that the power switch is set to the ON position and that all input and output connections have already been made. For examples of input and output connections, please refer to the section in this manual marked “Connections”.

## CASSETTE DECK OPERATION

### CASSETTE TAPE PLAYBACK

1. Open the cassette holder by pressing the eject button. Load a cassette tape into the cassette holder and close. The indicator on the play control button will begin to flash.
2. Set the Dolby Noise Reduction control switch to the same position as the tape was originally recorded in(i.e. tapes recorded with Dolby B noise reduction need to have this switch in the Dolby B position, tapes recorded with Dolby C noise reduction need to have this switch in the Dolby C position, and tapes recorded without Dolby Noise Reduction need to have this control set to the Off position).
3. Set the reverse mode control switch to the desired position.
4. Press the play control button to begin playback in the forward direction. Press the play control button to begin playback in the reverse play direction. When the tape enters into the playback mode the indicator on the play control button will change from the flashing mode to a constant on mode to indicate playback is operating.
5. Pressing the stop control button will stop the tape transport during playback.

### CASSETTE TAPE REWIND/FAST FORWARD

Regardless of the direction that the tape transport is currently in, pressing the (Fast Forward) control button will place the tape transport in the high speed fast forward mode and the tape will advance quickly from left to right. Pressing the (Rewind) control button will place the tape transport in the high speed rewind mode and the tape will retract quickly from right to left.

In either the fast forward or the rewind mode, the tape transport will continue to fast forward or rewind until the stop control button is pressed or the end of the tape is reached.

### CASSETTE TAPE RECORD

1. Open the cassette holder by pressing the eject button. Load a recordable cassette tape into the cassette holder and close. The indicator on the play control button will begin to flash. (If you wish to change the tape direction, press the play control button and then press the stop control button).
2. Set the Dolby Noise Reduction control switch to the position that you want to record the tapes noise reduction in(i.e. tapes to be recorded with Dolby B noise reduction need to have this switch in the Dolby B position, tapes to be recorded with Dolby C noise reduction need to have this switch in the Dolby C position, and tapes to be recorded without Dolby Noise Reduction need to have this control set to the Off position). When recording FM broadcast with Dolby Noise reduction on, set the MPX switch to the On position.
3. Set the reverse mode control switch to the desired position.
4. Set the ALC control mode switch to the desired position, on or off.

5. Press the rec/pause control button. The REC indicator will begin to flash indicating the tape transport is in the record pause mode.
6. If the ALC control button is in the Off position, using the manual record level control adjust the input signal to the desired recording level.
7. Press the play control button to begin recording in the forward direction. Press the play control button to begin recording in the reverse direction. When the tape enters into the playback mode the REC indicator and the play control button indicator will change from the flashing mode to the constant on mode. This indicates the tape transport is in the record mode.
8. To pause the tape transport during recording press the rec/pause control button. Press the play control button to resume recording.
9. Pressing the stop control button will stop the tape transport during recording. Pressing the 1 rewind in the play/record direction or the 2 FAST FORWARD in the play/record direction will cause the unit to return to the position the recording began at.

## COMPACT DISC PLAYER OPERATION

### COMPACT DISC PLAYBACK

1. Open the compact disc tray by pressing the STOP/EJECT button. Load a compact disc onto the compact disc tray and close the tray by gently pushing the front of the compact disc tray or by pressing the STOP/EJECT button. The CD player display will show the general data of the current CD.
2. To begin playback of the compact disc press the CD play/pause control button. The indicator in the CD PLAY/PAUSE button will illuminate, the display will show the data for the first track and the track will begin to play.
3. To pause the CD during playback, press the CD PLAY/PAUSE button. The display will remain in the current position and the 5 indicator in the CD PLAY/PAUSE button will begin to flash. Pressing the CD PLAY/PAUSE button will resume normal playback from the point that the CD player was paused.
4. Upon completion of playback of the last track in the disc the CD Player will return to the stop mode. You can also stop the CD playback by pressing the STOP/EJECT button once. Pressing the STOP/EJECT button again will cause the CD tray to open.

### SELECTING THE TRACK FOR PLAYBACK

1. By pressing the CD NEXT or the CD PREVIOUS buttons you can select the track to be played. Each press of the CD button will advance the CD player to the beginning of the next track and enter into the play pause mode. Each press of the CD button will cause the CD player to skip to the beginning of the previous track and enter into the play pause mode. Pressing the CD PLAY/PAUSE button will resume playback at the beginning of the selected track.

## PROGRAMMING PLAYBACK TRACKS

### (PROGRAM PLAY MODE)

This procedure allows you to program selected tracks for playback in the order you desire.

1. By pressing the PROGRAM button once you will place the CD player into the programming mode for playback. Once the PROGRAM button is pressed the PROGRAM indicator in the CD display will begin to flash. This indicates the CD player is in the program entry mode.
2. By pressing the CD NEXT or the CD PREVIOUS buttons you can select the track to be programmed. Each press of the CD button will advance the CD player to the beginning of the next track. Each press of the CD button will cause the CD player to skip to the beginning of the previous track. When the desired track number has been selected, leave the CD player untouched for approximately 1.5 seconds and the selected track will be stored in the playback program. Continue this procedure until all desired tracks (20 tracks maximum) have been programmed.
3. By pressing the PLAY/PAUSE button the CD player will exit the program entry mode and enter the program play mode. The PROGRAM indicator in the CD display will go to constant on and the CD player will begin to play in the order selected during the programming.
4. By pressing the STOP/EJECT button the CD player will stop playing but will remain in the program play mode. The program will remain in memory.
5. When the STOP/EJECT button is pressed while the CD player is in the stop mode and while the program is still engaged, the memorized program will be cleared.

## CD TO TAPE DUBBING

The CD source can be dubbed directly on to the tape deck by two means, manual recording or automatic level control (ALC On). During manual record dubbing the level desired is adjusted by manually adjusting the record level control. After the desired level is adjusted, you then release the tape deck to record. During ALC dubbing the record level is adjusted automatically based on the peak levels of the source and the tape deck enters the dubbing mode automatically.

## MANUAL LEVEL TAPE DUBBING

1. By pressing the CD STOP/EJECT button and the tape eject button you can load the CD to be dubbed onto the CD tray and a recordable tape into the tape transport. Gently press the front of each of the mechanism to close them. The CD display will register the general CD data and the tape play indicator located inside of the tape PLAY button will begin to flash.
2. Prepare the tape for dubbing by rewinding it to the beginning of the first side that the tape is to be recorded onto.
3. Set the ALC switch to the OFF position.
4. Press the DUBB button once. The REC indicator will begin to flash, the DUBB indicator will light and the CD player will enter play mode. At this point you can adjust the record level control to achieve the desired record level.
5. After adjusting the record level, press the DUBB button again. The CD player will return to the stop mode, and the tape transport will enter into the record mode. After approximately 5 seconds the CD player will enter the playback mode and begin to play the first track, dubbing it onto the tape.
6. When either the CD transport or the tape transport have reached the end and stopped, the other transport will also stop.
7. To end the dubbing during a session, press the STOP on the tape transport or the STOP/EJECT button on the CD player.

## AUTOMATIC RECORD LEVEL TAPE DUBBING

1. By pressing the CD STOP/EJECT button and the tape eject button you can load the CD to be dubbed onto the CD tray and a recordable tape into the tape transport. Gently press the front of each of the mechanism to close them. The CD display will register the general CD data and the tape play indicator located inside of the Tape PLAY button will begin to flash.
2. Prepare the tape for dubbing by rewinding it to the beginning of the first side that the tape is to be recorded onto.
3. Set the ALC switch to the ON position.
4. Press the DUBB button once. The REC indicator will begin to flash, the DUBB indicator will light and the CD player will enter play mode. The CD will automatically begin to search the source for the peak level. This procedure could take as long as 5 minutes to complete. Once the peak level has been determined, the record level for dubbing will be set automatically.
5. After the record level has been set, the tape transport will enter into the record mode. After approximately 5 seconds the CD player will enter the playback mode and begin to play the first track, dubbing it onto the tape.
6. When either the CD transport or the tape transport have reached the end and stopped, the other transport will also stop.
7. To end the dubbing during a session, press the STOP on the tape transport or the STOP/EJECT button on the CD player.

### Notes:

When dubbing is started with a program of CD tracks, the tracks are dubbed in the order that the original playback was programmed for. For assistance in programming playback, see the section marked "Program Playback".

During dubbing, a blank space of approximately 4 seconds is automatically inserted between CD tracks. This may hinder some dubbing such as live recordings on CD.

The CD peak level that is detected during ALC level dubbing may vary from one recording to another, however the effect will be minimal.

When recording with the reverse mode control set to the two way or the continuous mode there may be an interruption in recording of approximately 1 second during the optical reversing of the tape transport.

## EXTENDED CASCADE OPERATION

By using the cascade feature on the PMD350 with other PMD350's or other Marantz products offering the cascade feature, several units can be connected to supply long playback or recording functionality.

## EXTENDED CASCADE PLAYBACK

1. Refer to the user guide of the other components to assure that all connections and switch settings are set correctly.
2. Assure that the "EXT" jack on the rear of all units are connected. Starting with the first unit to operate, connect the "EXT" out jack to the "EXT" input on the second unit to operate. Continue this set-up procedure until all units that are to operate in the cascade mode have the "EXT" control jacks serially linked together.
3. Set the PMD350 reverse mode control switch to the cascade position.
4. Begin the playback of the first source by pressing the play control button. The unit will enter playback mode. After the first source has completed playback, the next component in the cascade will begin playback. This will continue until the last unit linked in the cascade chain has completed playback and entered the stop mode.
5. To exit out of the cascade playback mode, press the stop control button of the source machine currently in playback mode.

## EXTENDED CASCADE RECORDING

1. Refer to the user guide of the other components to assure that all connections and switch settings are set correctly.
2. Assure that the "EXT" jack on the rear of all units are connected. Starting with the first unit to operate connect the "EXT" out jack to the "EXT" input on the second unit to operate. Continue this set-up procedure until all units that are to operate in the cascade mode have the "EXT" control jacks serially linked together.
3. Set the PMD350 reverse mode control switch to the cascade position.
4. Place all components that are linked together in the cascade mode into the record pause mode.
5. Begin the recording of the first source by pressing the play control button. The unit will enter record mode. After the first source has completed recording, the next component in the cascade will begin recording. This will continue until the last unit linked in the cascade chain has completed recording and entered the Stop mode.
6. To exit out of the cascade record mode, press the stop control button of the source machine currently in record mode.

### NOTES:

If all components have not be set up correctly, tape or CD loaded, record pause armed, etc., the cascade function will stop upon reaching this source machine.

If the cascade function is started with the tape first the PMD350 will go to CD playback next and then to the next component. If the playback is started with the CD first the PMD350 will play the CD then go to the next component.

Before beginning the cascade record function hand wind the tape leaders so that no leader is showing. This will minimize interruptions in your recordings.

## SYNCHRONIZED RECORDING CONTROL

The PMD350 is capable of connecting with other Marantz RC-5 based products to allow for synchronized start of the product recording through the starting of the play function of the CD player or the tape transport of the PMD350.

By connecting the RC-5 output jack to the RC-5 input jack of another Marantz recorder, the PMD350 will issue a command for the recording to start as soon as the play control button is pressed on the PMD350. Pressing the stop or the stop/eject control button on the PMD source deck will place the attached component into the record pause mode.

During the cascade recording mode, the PMD350 can be attached to other Marantz RC-5 based decks for the purpose of small scale duplication of the dubbing source. This is accomplished by linking the RC-5 output connector to the RC-5 input of the recording deck and placing the PMD350 reverse mode control switch into the cascade position.

## REMARKS

### CAUTION

- If you must stop playback or recording in the middle of a tape, be sure to press the **STOP** button first, then turn the power off. If the power is turned off in the middle of an operation, the cassette tape remains loaded, and it may be impossible to eject. In such a case, turn the power on, enter PLAY mode, then press STOP, and the eject the tape.
- The same caution as above applies in case of power failure. To prevent damage, never attempt to force the removal of a cassette while the power is off.

### ERASURE OF TAPE

When a program source is recorded onto a tape, the previously recorded sound is erased automatically, and replaced with the new recording. If you wish to erase a tape without recording, set the REC LEVEL control to the minimum(0) position and let the tape travel in the Record mode.

### AUTO TAPE SELECTOR

This unit is equipped with an auto tape selector which automatically sets the bias and equalizer level using the detection holes provided in the cassette shell. The bias and equalizer levels are automatically set according to the type of cassette as follows. (See Figure 3)

- |                       |                  |             |
|-----------------------|------------------|-------------|
| • Normal tapes        | EQ; 120 $\mu$ S, | Bias; Low   |
| • HIGH/Position tapes | EQ; 70 $\mu$ S,  | Bias; High  |
| • Metal tapes         | EQ; 70 $\mu$ S,  | Bias; Metal |

### TO PROTECT VALUABLE RECORDINGS

In the record mode, information previously recorded on the tape will automatically be erased. To prevent this from happening, use a small screwdriver to break out one or both safety tabs (See Figure 4).

It is possible to restore the recording capability of either side of the cassette by covering the opening with clear adhesive tape (See Figure 5).

## CARE AND MAINTENANCE

This section describes the care and maintenance tasks that must

be performed to optimize the operation of your Marantz equipment.

### MAINTENANCE FOR TAPE

#### Head Cleaning

If the heads are not cleaned for a long period, dirt or dust may be deposited on the heads and capstans, causing degraded high-frequency characteristics, volume drop, or degraded recording and erasure performances.

To prevent this, clean the heads, etc., periodically as follows.

1. Turn the power off.
2. Open the cassette holder by pressing the EJECT button.
3. As shown in Figure 2, clean the parts which come in contact with tape, including the heads, capstans, tape guides, pinch wheels, etc., with a cotton swab soaked in head cleaning solution.

#### Head Demagnetization

When a magnetized metallic objects (such as a screwdriver tip, etc.) comes in contact with a head or capstan, or when the deck has been used for a long period of time, the head may be magnetized and noise may be generated. If the head is extremely magnetized, the high frequencies in recorded tapes could even be erased.

To prevent this, demagnetize the heads and capstans periodically (every 20 hours of use) using a commercially-available head demagnetizer. (For the operation, please refer to the instruction manual supplied with your head demagnetizer.)

Caution: Be sure to turn the power of the cassette deck off before using a head demagnetizer.

### CLEANING OF EQUIPMENTAL SURFACES

The exterior finish of your unit will last indefinitely with proper care and cleaning. Never use scouring pads, steel wool, scouring powders or harsh chemical agents (e.g., lye solution), alcohol, thinners, benzine, insecticide or other volatile substances, as these will mar the finish of the equipment. Likewise, never use cloths containing chemical substances. If the equipment gets dirty, wipe the external surfaces with a soft, lint-free cloth.

If the equipment becomes heavily soiled:

- dilute some liquid soap in water, in a ratio of one part detergent to six parts water
- dip a soft, lint free cloth in the solution and wring the cloth out until it is damp
- wipe the equipment with the damp cloth
- dry the equipment by wiping it with a dry cloth.

## REPAIRS

Only the most competent and qualified technicians should be allowed to service your unit. Marantz and its factory trained warranty station personnel have the knowledge and special equipment needed for repair and calibration of this precision instrument.

In the event of difficulty, call the toll-free telephone number listed on the face of the warranty to obtain the name address of the Marantz Authorized Service Center nearest you. In many cases, the dealer where you purchased your Marantz unit may be equipped to provide service. Please include the model and serial number of your unit together with a copy of your purchase receipt and a full

description of what you feel is abnormal in its behavior.

## TROUBLESHOOTING

Should faults occur it is in many cases not necessary to consult your dealer or technical service department. On the basis of the following checks you will be able to rectify a number of conditions yourself without difficulty.

If the condition cannot be remedied after the following check, please consult your dealer or nearest Marantz service agent.

### TAPE DECK

The tape does not travel.

1. Check that the power cord is plugged properly.
2. Check that the POWER switch is set to ON.
3. Check that the tape is rewound.

The tape travels, but no sound is output.

1. Check that the cassette tape is recorded.
2. Check that the mixer, amplifiers and speakers are connected and functioning properly.

Tape will not record.

1. Check that the protection tabs of cassette tape are not broken.
2. Check that the recording level is set properly.

Sound is distorted.

1. Check that the recording level is not too high.
2. Check that the head is not dirty.

Sound is unstable.

1. Check that the head is not dirty.
2. Check that the pinch wheels and capstans are not dirty.
3. Check that the tape is wound regularly.

Noise is noticeable.

1. Check that the head is not dirty.
2. Check that the head is not magnetized.
3. Check that the DOLBY NR switch is set properly according to the tape.

Hum interferes with the sound.

1. Check that cords are connected properly.
2. Check that there is not any source of magnetism (TV, motor, transformer, etc.) placed near the unit.
3. When this unit and amplifier are stacked, hum noise is sometimes generated depending on the amplifier model. In such a case, place the components in positions where interference does not occur.

### CD PLAYER

The disc fails to rotate.

1. Check that the power cord is plugged in properly.
2. Check that the POWER switch is set to ON.
3. Check that the disc is placed in the correct position on disc tray.
4. Check that the disc is placed properly with the label side facing up.
5. Check that the disc is not dirty.
6. Check that the disc is not scratched.
7. Check that the disc is not warped.
8. Check that the transport screws have been removed.

The disc is rotating but no sound is heard.

1. Check that the amplifier and speakers are connected properly.
2. Check that the amplifier is turned ON.
3. Check that the amplifier's volume control is not set at the minimum level.
4. Check that the amplifier's input selector switch is set to the

correct input ("CD" or "AUX" whichever corresponds to the input jacks the CD player is connected to).

The disc stops in mid-operation.

1. Check that the disc is not dirty.
2. Check that the disc is not scratched.
3. Check that the disc is not warped.

The sound drops out or noise is heard.

1. Check that the disc is not dirty.

2. Check that the disc is not scratched.
3. Check that the disc is not warped.

## CLEANING OF EXTERIOR SURFACES

With proper care and cleaning, the exterior finish of your equipment will last indefinitely. Never use scouring pads, steel wool, scouring powders or harsh chemical agents (e.g. lye solution), alcohol, thinners, benzene, insecticide or other volatile substances, as these will mar the finish of the cabinet. Likewise, never use cloths containing chemical substances. If the equipment becomes dirty, wipe the external surfaces with a soft, lint-free cloth.

If the cabinet becomes heavily soiled:

- dilute some washing-up liquid in water, in a ratio of one part detergent to six parts water;
- dip a soft, lint-free cloth in the solution and wring the cloth out until it is damp;

wipe the equipment with the damp cloth;

dry the equipment by wiping it with a dry cloth.

**NOTICE**

- Quick reverse operation will only occur after the transport has been moving for 15 seconds. Before that time it takes approximately 4 seconds to reverse.
- One second of audio is lost during quick reverse.
- Automatic search operations can only operate on one well at a time.
- Eject buttons will not function unless the deck is in the stop mode. Thus, if the power is turned off without hitting the **STOP** button, the door may not open.
- The tape counters are only approximate measurements of minutes and seconds and are not intended for timing-critical applications. They are most accurate with 60 minute tapes.

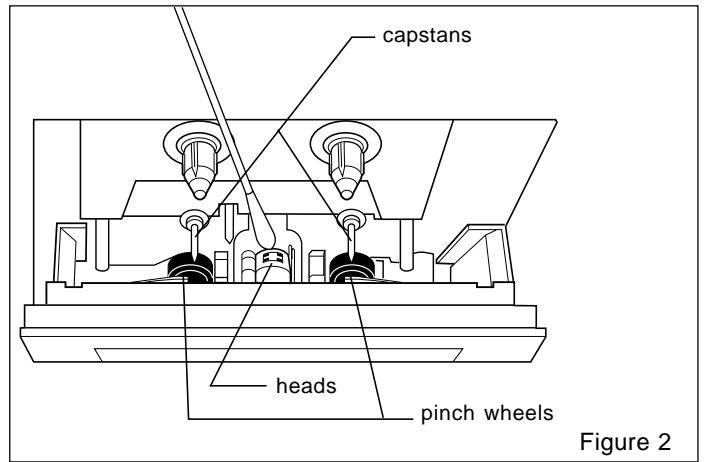


Figure 2

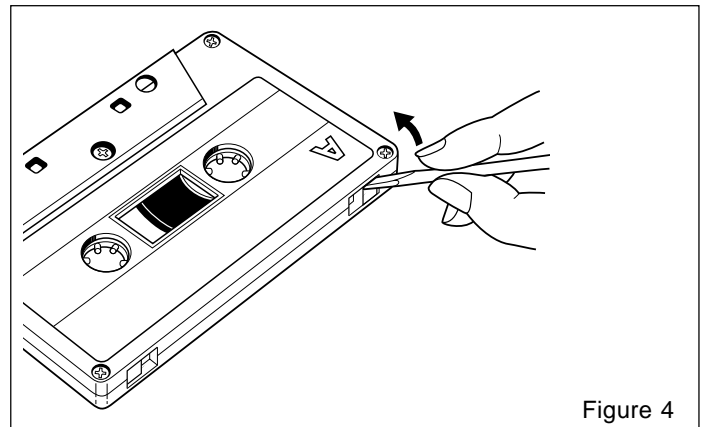


Figure 4

## COMPACT DISCS

The glossy side shining like a rainbow is the front side of the disc, and the side on which the label is printed is the back.

Unlike conventional turntables for playing analog discs, Compact Disc Player reads the information recorded on the disc from underneath without contacting it using a beam of laser light. Therefore, the performance of a compact disc will not degrade like conventional analog records.

Handle discs carefully so as not to damage or scratch the front side.

To protect the disc, avoid placing it in the following locations:

- In direct sunlight or near a source of heat like a heater.
- In a place which is damp or dirty.
- In a place which could be exposed to rain, such as near a window.

Always keep the disc surface clean.

Up to six billion data units are recorded on the front side of the disc. When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.



Wipe in a radial direction.

Do not wipe in circumferential direction.

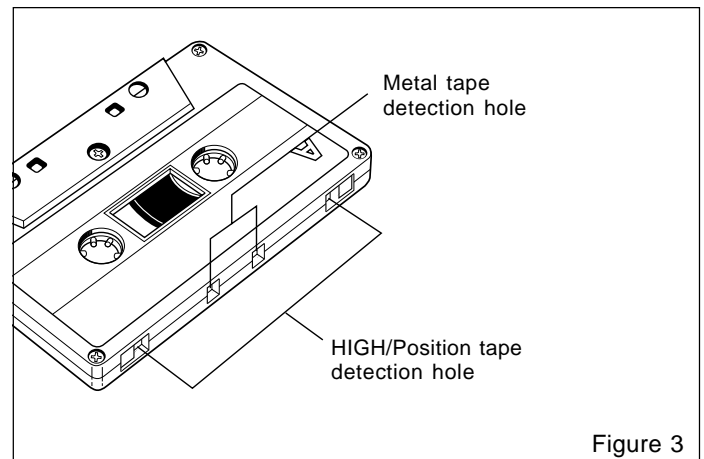


Figure 3

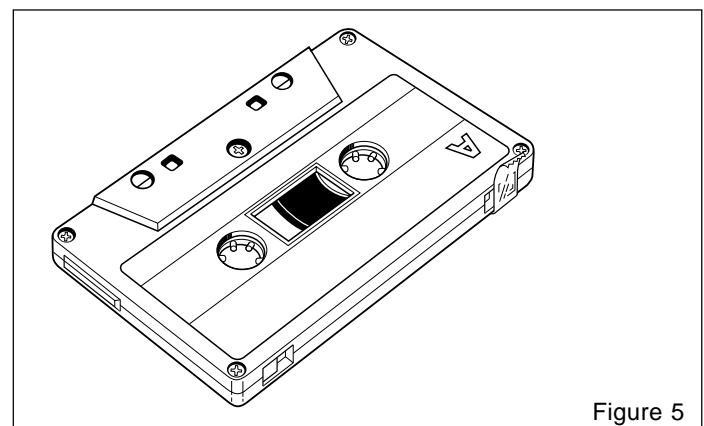



Figure 5

- Do not use conventional record cleaner for analog records, as this will adversely affect the disc surface.
- Store discs properly by placing them in their disc cases.

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