

KENWOOD

MINIDISC PERSONAL STEREO SYSTEM

MDX-01

MDX-02

INSTRUCTION MANUAL

KENWOOD CORPORATION



Before applying power

 **Caution : Read this page carefully to ensure safe operation.**

Units are designed for operation as follows.

AC voltage AC 220 V only

Safety precautions

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	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.		

The marking of products using lasers (Except for some areas)

**CLASS 1
LASER PRODUCT**

The marking is located on the rear panel and says this product has been classified as Class 1. It means that there is no danger of hazardous radiation outside the product

CAUTION
INVISIBLE LASER RADIATION
WHEN OPEN AVOID EXPOSURE
TO BEAM

Inside this laser product, a laser diode classified as Class 3B laser radiation is contained as alerted by the internal caution label shown above. To avoid exposure to laser beams, do not open the cover.

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IMPORTANT SAFEGUARDS

Please read all of the safety and operating instructions before operating this appliance. Adhere to all warnings on the appliance and in the instruction manual. Follow all the safety and operating instructions. These safety and operating instructions should be retained for future reference.

- 1. Power sources** – The appliance should be connected to a power supply only of the type described in the instruction manual or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the instruction manual.
- 2. 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, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
- 3. CAUTION – Polarization** – This appliance may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 4. Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the appliance and to protect it from overheating, and these openings must not be blocked or covered. The appliance should be situated so that its location or position does not interfere with its proper ventilation.
To maintain good ventilation, do not put records or a table-cloth on the appliance. Place the appliance at least 10 cm away from the walls. Do not use the appliance on a bed, sofa, rug or similar surface that may block the ventilation openings. This appliance should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 5. Water and moisture** – The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- 6. Temperature** – The appliance may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).
- 7. Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- 8. Electric shock** – Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this appliance, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this appliance.
- 9. Enclosure removal** – Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.
- 10. Cleaning** – Unplug this appliance from the wall outlet before cleaning. Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.
- 11. Lightning** – For added protection for this appliance during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the appliance due to lightning and power-line surges.
- 12. Abnormal smell** – If an abnormal smell or smoke is detected, immediately turn the power OFF and unplug the appliance from the wall outlet. Contact your dealer or nearest service center.

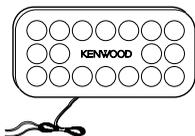


- 13. Damage requiring service** – The appliance should be serviced by qualified service personnel when:
- A.** The power-supply cord or the plug has been damaged.
 - B.** Objects have fallen, or liquid has been spilled into the appliance.
 - C.** The appliance has been exposed to rain or water.
 - D.** The appliance does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
 - E.** The appliance has been dropped, or the enclosure damaged.
 - F.** The appliance exhibits a marked change in performance.
- 14. Servicing** – The user should not attempt to service the appliance beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.
- 15. Power lines** – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- 16. AC outlets** – Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical appliances, such as an iron or toaster, to it to prevent fire or electric shock.
- 17. Overloading** – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 18. Attachment** – Do not use attachments not recommended by the appliance manufacturer as they may cause hazards.
- 19. Replacement parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- 20. Safety check** – Upon completion of any service or repairs to this appliance, ask the service technician to perform safety checks to determine that the appliance is in proper operating condition.

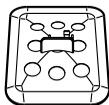
Connections

Confirm that the following accessories are present

AM loop antenna (x 1)



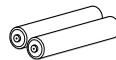
AM loop antenna stand (x 1)



Remote control unit (x 1)



R6/SUM-3 batteries for remote (x 2)



Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

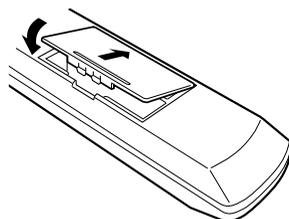
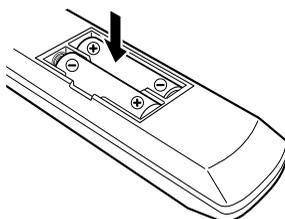
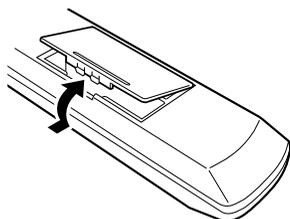
Keep this manual handy for future reference.

Loading batteries in the remote control unit

(1) Remove the battery compartment cover of the remote.

(2) Insert two R6/SUM-3/"AA"-size batteries following the polarity indications.

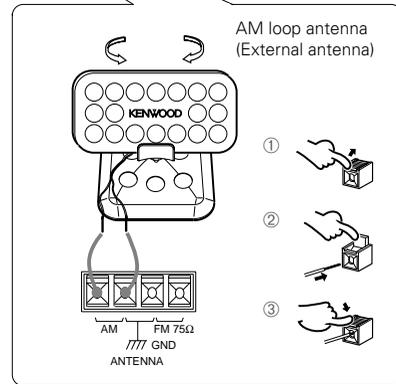
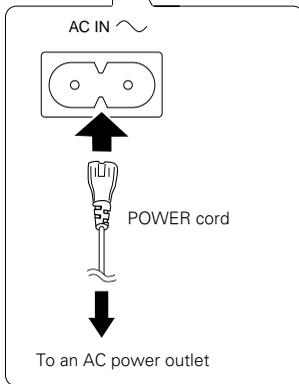
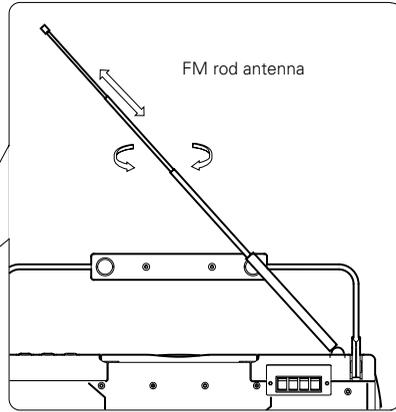
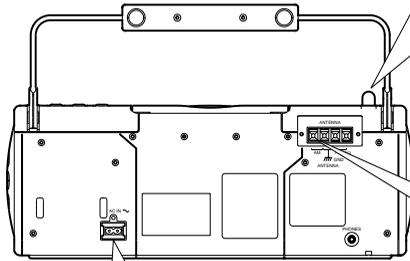
(3) Attach the battery compartment cover.



- The provided batteries are intended for use in operation checking, and their service life may be short.
- When the remote-controllable distance becomes short, replace both of the batteries with new ones.
- If direct sunlight or the light of a high-frequency fluorescent lamp (inverter type, etc.) is incident to the remote sensor on the main unit front panel, malfunction may occur. In such a case, change the installation position to avoid malfunction.
- When pressing more than one remote control keys successively, press each key securely by leaving an interval of 1 second or more between keys.
- The standard remote-control range is within about 6 meters from the main unit front panel. Be sure to point the remote to remote sensor on the front panel.

Connecting the accessories

Extend the FM antenna and orient it to obtain the best receiving condition possible.



Plug the power cord to a 220 V AC, 50 Hz wall power outlet.

- When removing the power cord connection, unplug the power plug of the wall outlet first.

POINT

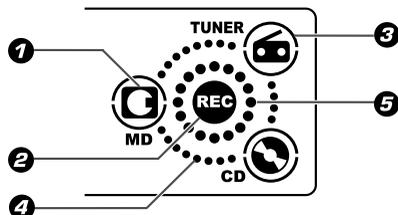
- Be sure to insert each connection cord securely. If a cord is plugged in incompletely, audio may not be output or noise may be generated.
- Before connecting or disconnecting any connection cord, be sure to first unplug the power cord from the wall power outlet.
- Do not install the speakers near a TV set. Otherwise, color irregularities due to magnetism may be observed on the TV screen.
- Be sure to put the unit to the STANDBY more before plugging or unplugging the power cord.

The provided antenna has been designed for indoor use. Place it in a position as apart as possible from a TV and power cords and orient it to obtain the best receiving condition.

Continued on next page →

Mode display

The area on the right of the display panel shows the input selection (source) and current operation mode.



- ❶ Source display/CD, MD and TUNER
- ❷ Recording indicator
- ❸ Selected input source display
- ❹ Recording direction display
- The points blink when recording pauses.
- ❺ Volume indicator and Play/Pause mode indicator
- Two points blink to indicate the Pause mode.

In regard to demonstration

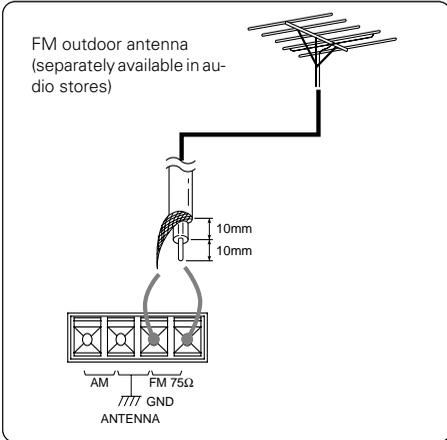
This unit incorporates a demonstration mode (display only). The demonstration shows the display conditions of various operation modes by switching them sequentially, but the audio does not vary during it.

When the power supply fails and restores or the power cord is unplugged and plugged during operation, the unit automatically enters the demonstration mode ("DEMO ON").

To cancel demonstration mode : Press the SET/DEMO key while "DEMO ON" is indicated.

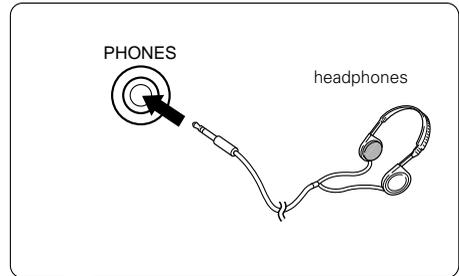
To enter demonstration mode : Keep on pressing the SET/DEMO key for more than 2 seconds while the unit is ON.

Connecting other components



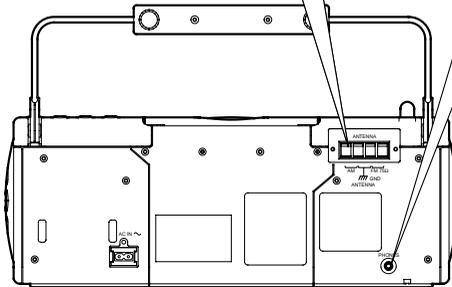
Distribute the antenna lead indoors using a commercially available 75Ω coaxial cable and connect it to the FM ANTENNA terminals.

- Installation of the outdoor antenna is dangerous work. Have your dealer or antenna installation specialist install it whenever possible.



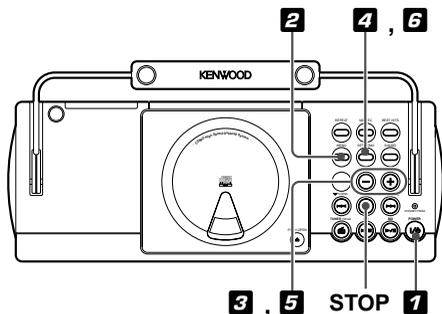
Plug the optional headphones equipped with stereo mini-plugs.

- When listening audio through speakers, unplug the headphones from the PHONES jack.



Adjusting the present time

To use the timer function, it is required to set the built-in clock of the unit to the correct time. The clock shows the time of day in 12-hour system.



Main unit only

1 Press the **POWER** key to turn power on.

2 Press and hold the **MENU** key for more than 3 seconds.



3 Press the **VOLUME/MULTI CONTROL UP (+)** or **DOWN (-)** key to input the figure of hour.

Example: Adjustment to 8:07am



12 o'clock of day is displayed as "12:00pm" and 12 o'clock of night is displayed as "12:00am".

4 Press the **SET/DEMO** key.



5 Press the **VOLUME/MULTI CONTROL UP (+)** or **DOWN (-)** key to input the figure of minute.



6 Press the **SET/DEMO** key.

To check the time of day :

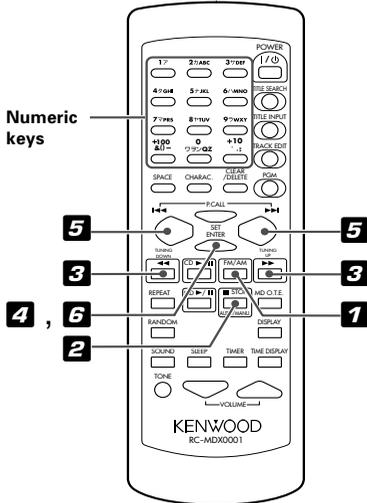
Press the **STOP** key (or the STOP key on the remote) while the unit is in the **STANDBY** mode.

POINT

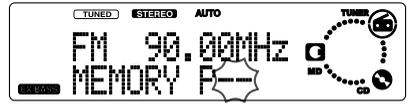
- After a power failure or when the power cord is unplugged and plugged again, the time should be adjusted again.
- Accurate time adjustment is possible by pressing the **SET/DEMO** key at the same time as a time announcement indicating the 00 second of the minute.

Presetting radio stations

Each of the desired stations can be preset individually. Up to 40 stations can be stored in the preset memory.



- 4** Press the ENTER key during reception.



- 5** While "P--" is blinking, press the ◀◀ or ▶▶ key repeatedly to select the desired preset number.

Press and hold the ◀◀ or ▶▶ key to skip unnecessary preset numbers. The preset number can also be selected by pressing numeric keys.

Examples :

To select preset No. 13 : +10, 3

To select preset No. 20 : +10, +10, 0

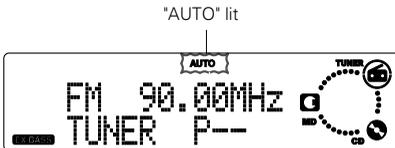
- 6** Press the ENTER key again.

Remote control only

- 1** Press the FM/AM key so that the "AM" or "FM" band is selected.



- 2** Press the AUTO/MANU. key so that "AUTO" is lit.



- 3** Press the ◀◀ or ▶▶ key to tune in the desired station.

To preset another station :

Repeat steps **1** to **6**.

To preset a station with weak radio wave :

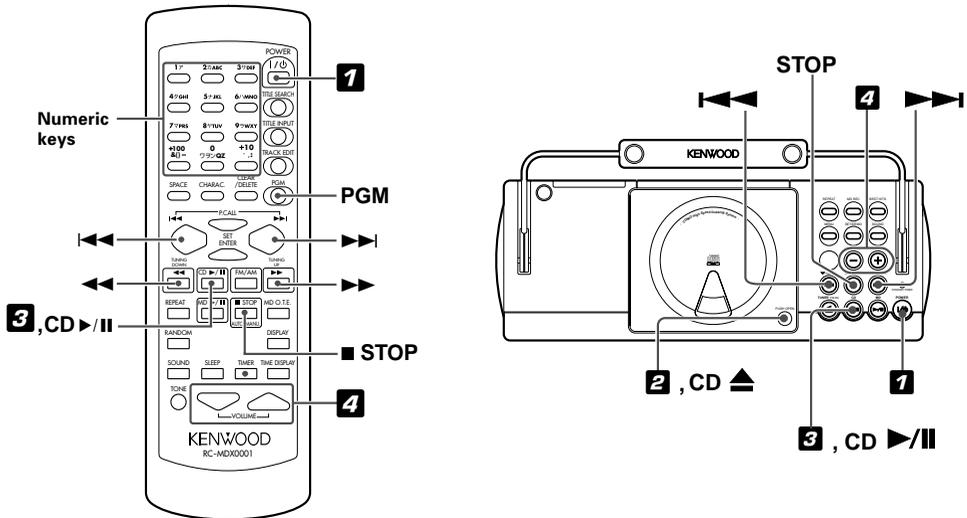
In step **2**, select the manual tuning mode by pressing the AUTO/MANU. key so that "AUTO" is not lit.

POINT.

- When a station is preset in a preset number which stores a previously preset station, the newly preset information overwrites the previously preset information.

Playback of CD

To play a CD.

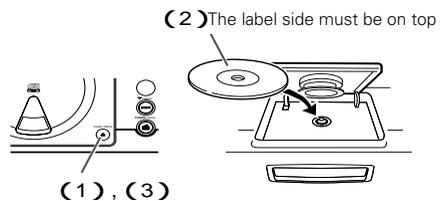


1 Press the **POWER I/O** key to turn power on.

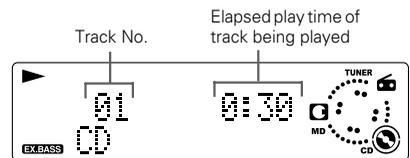
2 Insert a CD.

The CD should be placed horizontally on the tray. To prevent malfunction, do not place it obliquely.

- (1) Open the CD door by pressing the area marked "PUSH OPEN ▲" of the CD door.
- (2) Place a CD.
- (3) Close the CD door.



3 Press the **CD >||** key.



4 Press the **VOLUME/MULTI CONTROL UP (+)** or **DOWN (-)** key or one of the **VOLUME** keys on the remote until the desired listening volume is obtained.

Key operations of CD

Purpose	Operation
To stop playback	Press the STOP ■ key (or the ■ STOP key on the remote).
To let playback pause	Press the CD ►/ key. Press it again to resume playback.
To skip a track	Press the ►► key to skip to the next track. Press the ◀◀ key to skip to the previous track.
To fast forward audio	Press and hold the ►► key on the remote during playback, and release the key at the position you want to restart normal playback.
To fast reverse audio	Press and hold the ◀◀ key on the remote during playback, and release the key at the position you want to restart normal playback.
To start playback from the desired track	Specify the desired track number using the numeric keys on the remote. Examples : Track No. 10 : +10, 0 Track No. 23 : +10, +10, 3 If "PGM" is lit, turn it off by pressing the PGM key on the remote.

To take out the CD :

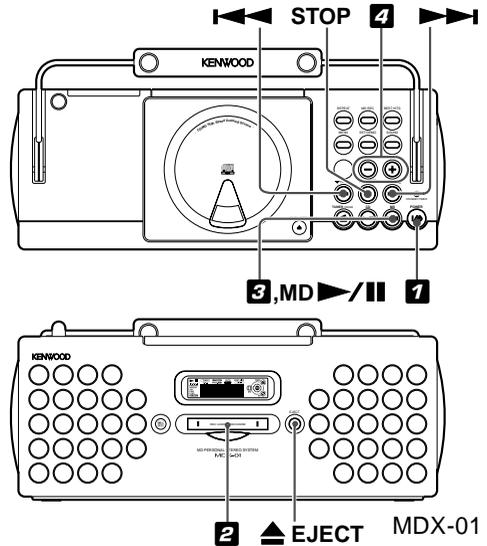
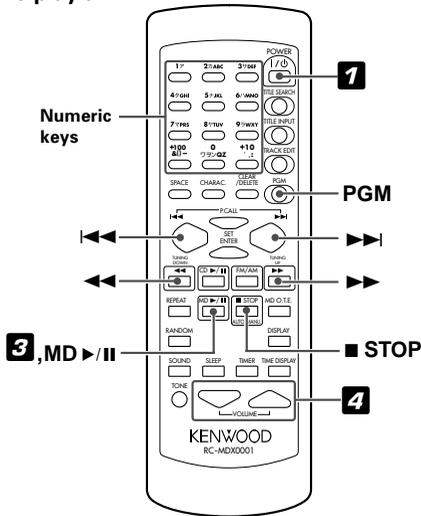
Stop playback and press the area marked "PUSH OPEN ▲" on the CD door to open it.



- Do not force open or close the CD door, for this will lead to malfunction.
- When a CD has been inserted while the power is OFF, simply pressing the CD ►/|| key in the STANDBY mode turns the power ON and starts playback automatically. (One-touch operation)
- When a CD-TEXT disc is played, the text information recorded in the CD (disc title and track titles) is displayed automatically (see page 20).
- For the types of CDs that can be played on this unit, see "Discs which can be played with this unit" (page 53).

Playback of MD

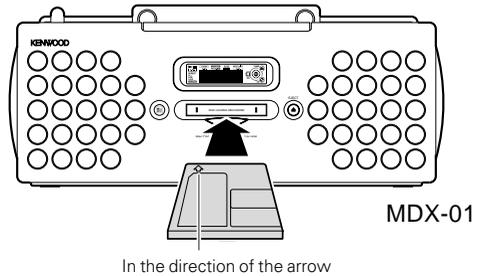
To play a MD.



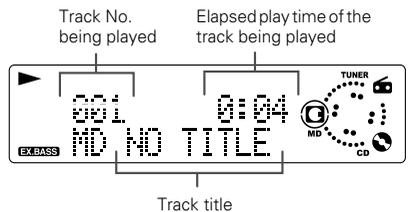
1 Press the **POWER** |/⏻ key to turn power on.

2 Insert a MD.

Insert a MD into the insertion slot of the main unit.



3 Press the **MD** ▶/|| key.



4 Press the **VOLUME/MULTI CONTROL UP (+)** or **DOWN (-)** key or one of the **VOLUME** keys on the remote until the desired listening volume is obtained.

Key operations of MD

Purpose	Operation
To stop playback	Press the STOP ■ key (or the ■ STOP key on the remote).
To let playback pause	Press the MD ►/ key. Press it again to resume playback.
To skip a track	Press the ►► key to skip to the next track. Press the ◀◀ key to skip to the previous track.
To fast forward audio	Press and hold the ►► key on the remote during playback, and release the key at the position you want to restart normal playback.
To fast reverse audio	Press and hold the ◀◀ key on the remote during playback, and release the key at the position you want to restart normal playback.
To start playback from the desired track	Specify the desired track number using the numeric keys on the remote. Examples : Track No. 10 : +10, 0 Track No. 23 : +10, +10, 3 Track No. 100 : +100, 0 If "PGM" is lit, turn it off by pressing the PGM key on the remote.

To take out the MD :

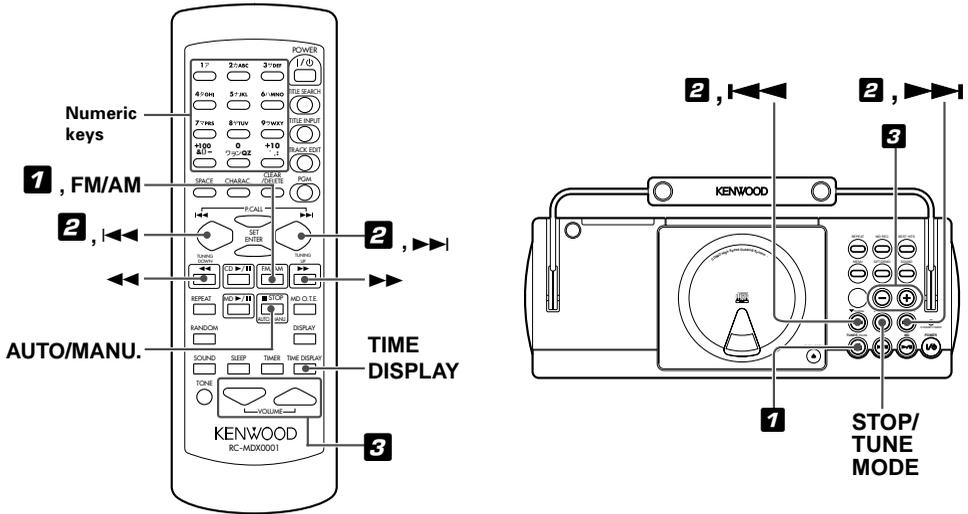
Stop playback and press the EJECT ▲ key.



- The MD cannot be inserted or ejected in the STANDBY mode. Do not force insert an MD in the STANDBY mode, for this will lead to malfunction.
- When a MD has been inserted while the power is OFF, simply pressing the MD ►/|| key in the STANDBY mode turns the power ON and starts playback automatically. (One-touch operation)
- When the MD contains recording of title information, the titles of the disc or tracks recorded in the MD are displayed automatically.
- This unit is capable of playing back a monaurally recorded MD.

Receiving broadcast stations

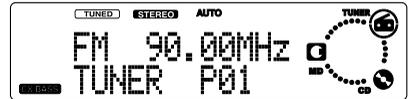
Previously stored (preset) radio stations can be tuned in with a one-touch operation. For the preset procedure, see "Presetting radio stations" (page 11).



1 Press the TUNER FM/AM key (or the FM/AM key on the remote).

2 Press the \leftarrow or \rightarrow repeatedly to select the desired station preset number.

Each press of the key switches the preset station in sequence.



3 Press the VOLUME/MULTI CONTROL UP (+) or DOWN (-) key or one of the VOLUME keys on the remote until the desired listening volume is obtained.

To tune a radio station using numeric keys :

Input the preset number of the desired station using the numeric keys on the remote.

Examples : Track No. 23 : +10, +10, 3

Track No. 40 : +10, +10, +10, +10, 0

Receiving non-preset broadcast stations

A radio station can be tuned either by auto tuning or manual tuning according to the current reception condition.

(1) Press the STOP ■ /TUNE MODE key of the main unit (or the AUTO/MANU. key on the remote) to select the tuning mode.

When "AUTO" is lit: Indicates the auto mode (stereo reception) which is suitable when the receiving condition is good.

When "AUTO" is not lit: Indicates the manual mode (monaural reception) which is suitable when the receiving condition is poor.

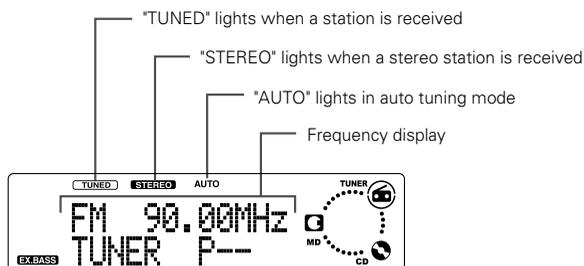
- Usually leave "AUTO" lit (auto tuning mode, stereo reception).

(2) While "AUTO" or "MANUAL" is lit, press the ◀◀ or ▶▶ key of the main unit to start tuning.

Tuning can also be started by pressing the ◀◀ or ▶▶ key on the remote.

Auto tuning: Each press of the key tunes the next station automatically.

Manual tuning: Press and hold the key until the next station is tuned.

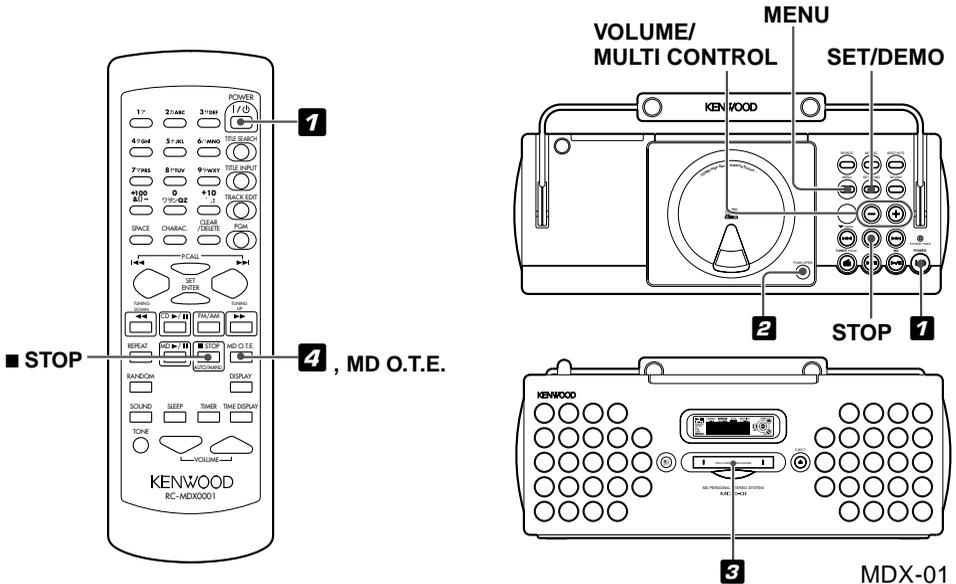


POINT

- When the unit is in the STANDBY mode, simply pressing the TUNER FM/AM key (or the FM/AM key on the remote) turns the power ON and starts radio play automatically. (One-touch operation)
- Press and hold the ◀◀ or ▶▶ key during tuning to skip unnecessary radio stations.
- Every time the TIME DISPLAY key on the remote is pressed, the display is switched alternately between the frequency display and time of day display.

Recording CD onto MD (MD O.T.E.)

The MD O.T.E. (One-Touch Edit) function makes it possible to record all tracks in a CD on an MD with a one-touch operation (All-track recording). It is also capable of recording the currently played CD track on an MD with a one-touch operation (Single-track recording).

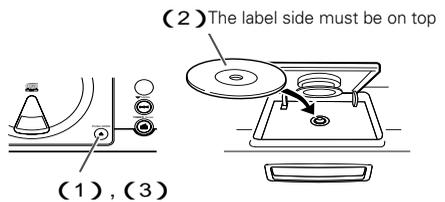


1 Press the **POWER** I/O key to turn power on.

2 Insert a CD.

The CD should be placed horizontally on the tray. To prevent malfunction, do not place it obliquely.

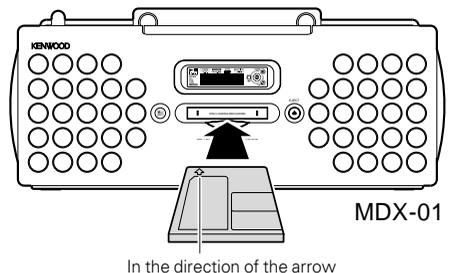
- (1) Open the CD door by pressing the area marked "PUSH OPEN ▲" of the CD door.
- (2) Place a CD.
- (3) Close the CD door.



If the CD is already playing, stop it.

3 Insert a recordable MD.

Insert the MD into the insertion slot of the main unit.



In the direction of the arrow

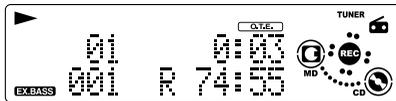
4 Press the MD O.T.E. key on the remote.

If you are operating the main unit :

- Press the keys within intervals of less than 5 seconds.

(1) Press the MENU key.

(2) Press the VOLUME/MULTI CONTROL UP (+) or DOWN (−) key so that "REC MODE ?" is displayed, then press the SET/DEMO key.



(3) Press the VOLUME/MULTI CONTROL UP (+) or DOWN (−) key so that "CD → MD <NORM>" is displayed, then press the SET/DEMO key.

Recording of CD tracks starts from the first track of the CD.

Recording the CD track being played (Single-track recording)

(1) Play the CD track to be recorded.

(2) Press the MD O.T.E. key on the remote.

If you are operating the main unit :

- Press the keys within intervals of less than 5 seconds.

(1) Press the MENU key.

(2) Press the VOLUME/MULTI CONTROL UP (+) or DOWN (−) key so that "REC MODE ?" is displayed, then press the SET/DEMO key.

(3) Press the VOLUME/MULTI CONTROL UP (+) or DOWN (−) key so that "CD → MD <NORM>" is displayed, then press the SET/DEMO key.

Recording starts after returning to the beginning of the current track.

To stop recording in the middle :

Press the STOP ■ key (or the ■ STOP key on the remote). This stops both playback and recording.

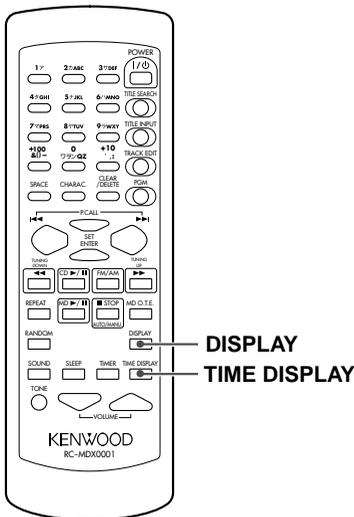


- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.
- For the types of MDs that can be recorded on this unit, see "Handling of Mini Disc" (page 53).

Displayed information

The display on the main unit shows the time and other information of CD and MD. The brightness of the display can be adjusted.

Viewing the CD information



The displayed information switches each time the TIME DISPLAY key on the remote is pressed.

1. Elapsed play time of the track being played



2. Remaining play time of the track being played



3. Elapsed play time of the disc



4. Remaining play time of the disc



POINT

- Only the information of 1 and 2 is displayed during 1-track repeat or random playback.
- When the displayed time reaches 100 minutes or more, the display shows " - - - : - - ".

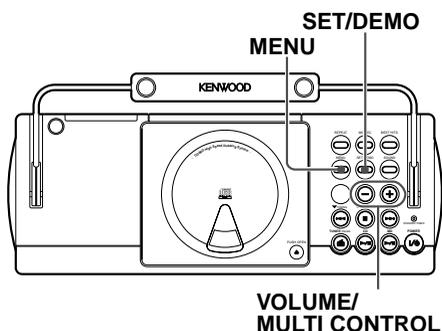
CD TEXT function

When a CD-TEXT disc is played, the main unit automatically shows the disc titles and track titles recorded in the disc provided that they are composed of alphanumeric characters.

This unit cannot display the text information of certain CD TEXT discs.

Up to 1000 characters can be displayed. "TEXT FULL" is displayed for the information of the 1001st and later characters.

Adjusting the display back light brightness



Main unit only

- 1** Press the MENU key.
- 2** Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "BACK LIGHT ?" is displayed, then press the SET/DEMO key.



- 3** Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key to select the desired brightness, then press the SET/DEMO key.

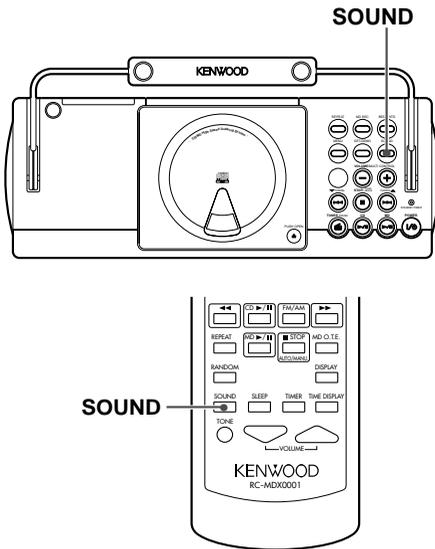
H: Normal brightness
L: Low brightness

POINT

- The back light brightness cannot be adjusted while the sleep timer is activated.
- Even when the brightness is set to "L", it may turn high momentarily when a key is pressed.

Adjusting the tone

Enhancement of bass and treble (EX.BASS/LOUDNESS)



Press the SOUND key repeatedly until the desired tone enhancement is displayed.

"EX. BASS" : Enhances the bass tone regardless of the current volume.

"LOUDNESS" : Enhances both the bass and treble tones according to the current volume. (Effective during low-volume listening)

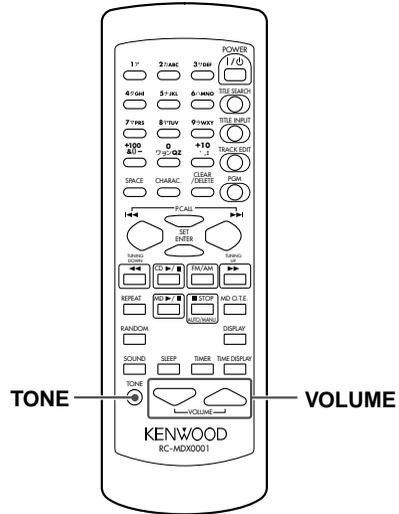
Both indicators off : Bass and treble set using the TONE function.

Display when "EX. BASS" is selected



Example: "EX. BASS"

Fine adjustment of bass and treble (TONE)



Remote control only

1 Press the TONE key on the remote repeatedly until "BASS" or "TREBLE" is displayed.

"BASS" : Low frequency level adjustment.

"TREBLE" : High frequency level adjustment.



2 Adjust the VOLUME keys to the desired level.

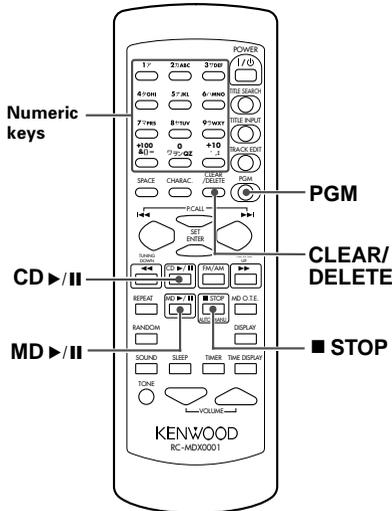
The high or low frequency level can be adjusted in the range between -8 and +8.

POINT

- The "LOUDNESS" or "EX. BASS" mode is canceled if the bass or treble level is adjusted while "LOUDNESS" or "EX. BASS" is lit.

Playing CD or MD tracks in the desired sequence (PGM)

Use the following procedure to program up to 32 desired tracks in a desired order.



Remote control only

1 CD : Press the CD >|| key.
MD : Press the MD >|| key.

2 Press the ■ STOP key.

3 Press the PGM key.



4 Select the desired track.

Examples of track number inputs:

Track No. 23: +10, +10, 3

Track No. 40: +10, +10, +10, +10, 0

(Go to step 5 within 8 seconds.)

5 Press the PGM key.

To select other tracks, repeat steps 4 and 5 for each.

If you commit a mistake :

Press the CLEAR/DELETE key to clear the track number and restart selection.

6 CD : Press the CD >|| key.
MD : Press the MD >|| key.

To stop program playback :

Press the ■ STOP key (or the STOP ■ key of the main unit).

To clear a programmed track :

Press the CLEAR/DELETE key in stop mode. Each press clears the currently last programmed track.

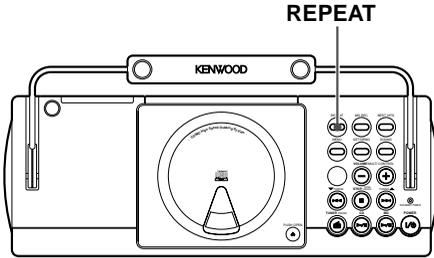
To clear all programmed tracks, press the PGM key.



- When "PGM FULL" is displayed, no more track can be programmed.

Repeating a CD or MD (REPEAT)

Use the following procedure to play the desired track(s) repeatedly. Repeat playback can also be activated in the program playback or random playback mode.



Press the REPEAT key during playback repeatedly until "REPEAT" or "REPEAT ALL" is lit.

"REPEAT" : Repeats playback of a single track being played.

"REPEAT ALL" : Repeats playback of all tracks in a disc.

Display when "REPEAT" is selected



To cancel repeat playback :

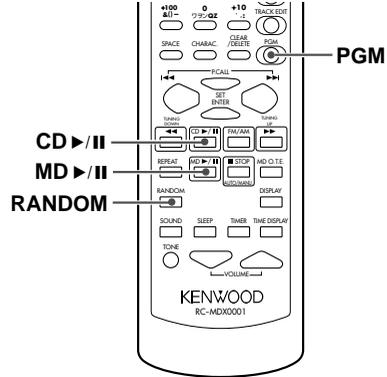
Press the REPEAT key repeatedly until neither "REPEAT" or "REPEAT ALL" is lit.



- When repeat playback is activated during random playback or program playback, "REPEAT" is lit and all of the disc tracks or programmed tracks will be played repeatedly.

Playing a CD or MD in a random (RANDOM)

Use the following procedure to play tracks in a random. This will renew the enjoyment of the same disc that you have already played many times.



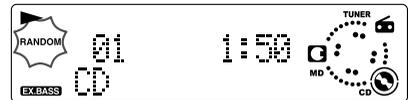
Remote control only

1 CD : Press the CD >/II key.

MD : Press the MD >/II key.

If "PGM" is lit, press the PGM key on the remote to turn it off before the above.

2 Press the RANDOM key so that "RANDOM" is lit.



To cancel random playback :

Press the RANDOM key so that "RANDOM" is not lit.



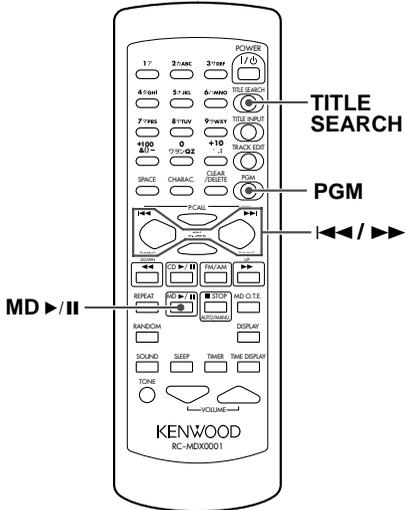
- Random playback stops after having all of the tracks on the disc.

Searching an MD track by the title



- This unit is capable of assigning the disc title and track titles to an MD (page 32).

With an MD containing the recording of track titles, the desired track can be searched by specifying the title.



Remote control only

- 1 Press the MD >|| key.**

If "PGM" is lit, press the PGM key on the remote to turn it off before proceeding.

- 2 Press the TITLE SEARCH key.**



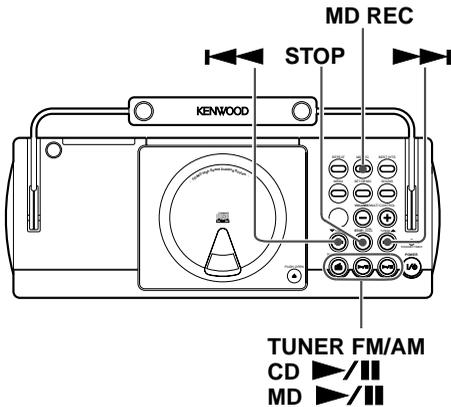
- 3 Press the <<< or >>> key repeatedly until the desired track title is displayed.**

- 4 Press the MD >|| key.**

Recording on MD

This unit cannot record audio in monaural mode.

Desired music source can be recorded on MDs.



Main unit only

1 Insert a recordable MD.

2 Select the music source to be recorded.

CD: Press the CD ►/|| key.

Radio: Press the TUNER FM/AM key.

If a CD has already been inserted, playback starts immediately: Stop it by pressing the STOP ■ key (or the ■ STOP key on the remote).

3 Press the MD REC key.

The unit enters record-pause mode.



4 When the recording source is ready for playback, press the MD REC key again.

5 Play the recording source.

To stop recording :

Press the STOP ■ key (or the ■ STOP key on the remote).

To let recording pause :

Press the MD ►/|| key during recording. Press the MD REC key again to resume recording from the pause.

In case a message is displayed and recording will not start :

See "Display message list" (page 57).

Tips for recording CD onto MD

When the MD recorder in record-pause mode, the recording can be started automatically at the same time as the playback of CD is started. (Sync recording)

- (1) Put the CD player in play-pause mode.
- (2) Press the ◀◀ or ▶▶ key for the required number of times to select the CD track to be recorded.
- (3) Press the MD REC key to put the MD recorder in record-pause mode.
- (4) Start playing the CD.

MD recording starts in synchronism.

POINT.

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Continued on next page →

Recording on MD (continued)

Recording and track numbers

MD track numbers are used to search the beginning of a track or programming tracks.

- Track numbers are assigned automatically in the following cases:
 - When the CD track changes during digital recording from CD to MD.
 - When audio is input after a no-sound period of more than 2 seconds.
 - When low-level sections have continued during recording of classic music, etc.
 - When the MD REC key is pressed in record-pause mode to resume recording.
- When the TRACK EDIT key on the remote is pressed during editing, a new track number is assigned at that position.
- Unnecessary track numbers can be removed by the following operations:
 - EDIT (page 42) for erasing unnecessary tracks.
 - COMBINE (page 39) for erasing an unnecessary track number by combining two tracks.

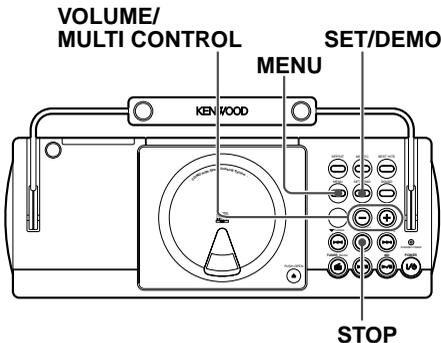
POINT

- The MD cannot be inserted or ejected while the unit is in the STANDBY mode. Do not force insert an MD in the STANDBY mode, for this will lead to malfunction.
- When recording a CD onto an MD, the digital recording is set automatically.
When recording a radio broadcast on an MD, the analog recording is set automatically.
- It is convenient to use the MD O.T.E. recording when recording a CD onto an MD (page 18).

The MD records signals in two ways; "digital recording" for directly recording the digital signal output from the CD and "analog recording" for recording an analog signal by converting it to a digital signal.

High-speed recording of all CD tracks onto an MD

All of the tracks in a CD can be recorded in half the usual period of time.



Main unit only

1 Make preparation for recording.

See steps 1 to 3 in "Recording CD onto MD" (page 18).

2 Press the MENU key.

3 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "REC MODE ?" is displayed, then press the SET/DEMO key.

4 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "CD → MD <HIGH>" is displayed, then press the SET/DEMO key.

The CD starts to be played at the double speed and the signal is recorded onto the MD also at the double speed.

When all CD tracks have been recording, both the CD and MD stop automatically.

Perform the operations in steps 2 to 4 within 5 seconds.

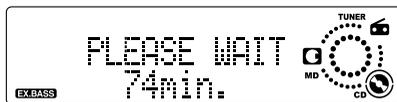
To stop recording in the middle :

Press the STOP ■ key (or the ■ STOP key on the remote). This stops both playback and recording.



- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.
- Once high-speed recording of "CD → MD <HIGH>" has been started, it is not permitted to record the same CD by high-speed recording within 74 minutes after the start of previous high-speed recording. It is also prohibited to continue high-speed recording of more than 31 discs within 74 minutes.

If you want to record the same CD again, use the MD O.T.E. recording (page 18).



Time until the high-speed recording of the same CD is permitted

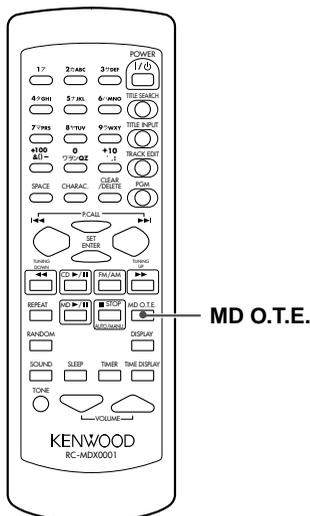
Recording CD tracks onto MD by CD program playback

To stop recording in the middle :

Press the STOP ■ key (or the ■ STOP key on the remote). This stops both playback and recording.



- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.



Remote control only

1 Make preparation for recording.

See steps **1** to **3** in "Recording CD onto MD" (page 18).

Be sure to put the MD in stop mode.

2 Program the CD tracks in the desired order.

See steps **1** to **5** in "Playing CD or MD tracks in the desired sequence" (page 24).

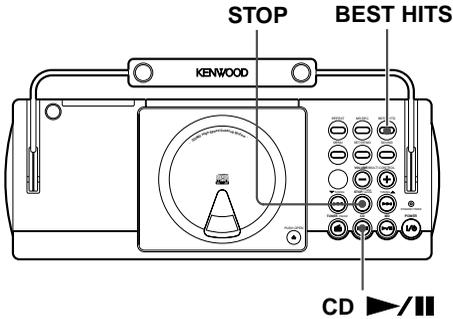
3 Start recording.

Press the MD O.T.E. key.

The CD will be played in the programmed sequence and recording will start simultaneously.

Recording only the first track of CD (BEST HITS)

Only the first track of each CD can be recorded. This function is convenient for recording the first tracks of multiple single CDs on a single MD.



Main unit only

1 Make preparation for recording.

See steps 1 to 3 in "Recording CD onto MD" (page 18).

2 Press the CD ►/|| key.

3 Press the STOP ■ key.

If "PGM" is lit, turn it off by pressing the PGM key on the remote.

4 Press the BEST HITS key.

Recording starts.
When the first track of the CD has been recorded, both the CD and MD stop automatically.

5 Replace the CD and press the BEST HITS key.

Record the first tracks of other CDs by repeating this step.

To stop recording in the middle :

Press the STOP ■ key (or the ■ STOP key on the remote). This stops both CD playback and MD recording.

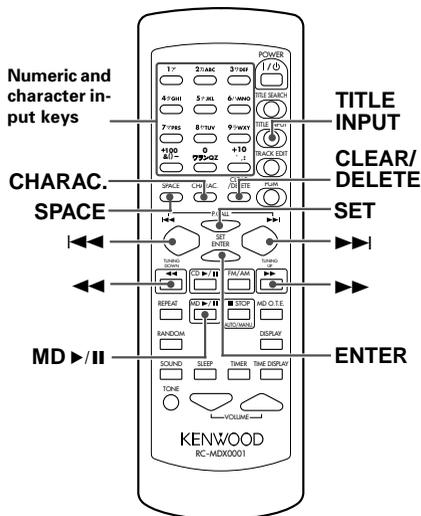


- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Editing the MD titles

Assigning a title to a disc or track

When titles are assigned to a disc and its tracks, the titles can be displayed during playback. The titles can also be used in searching tracks by titles.



Remote control only

1 Select the MD input and insert a recordable MD.

2 Press the TITLE INPUT key.



3 Press the \lll or \ggg key repeatedly until "DISC" or the track number to be titled ("001", etc.) is displayed.

4 Press the SET key.

5 Press the CHARAC. key repeatedly to select the desired character group.

"Aa" : Alphabet group

"12" : Numeral group

Character group

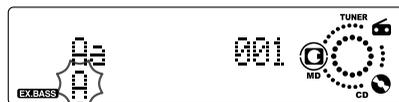


6 Press the numeric and character input key repeatedly until the desired character is displayed.

For the characters that can be used in titles, see "Title editing character list" (page 36).

Press the CLEAR/DELETE key to clear the character which is blinking.

Press the SPACE key to input a space character.



7 Press the SET key to enter the selected character in memory.

Compose the desired title by repeating steps **5** to **7** for each character.

Pressing the CLEAR/DELETE key clears the character located immediately before the cursor.

8 After composing the title, press the ENTER key.

The title is recorded in the MD and scrolled on the display.

To assign other track titles, repeat steps **3** to **8** for each.

9 Press the TITLE INPUT key.

10 Eject the MD.

"WRITING" is displayed.

To stop title input in the middle :

Press the TITLE INPUT key any time before the end of step 7. Editing can also be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

Character input using the ◀◀ and ▶▶ keys

- Perform steps 1 to 4 of "Assigning a title to a disc or track" (page 32).
- Press the ◀◀ or ▶▶ key.



- Press the CHARAC. key to select a character group.

Uppercase alphabet group: ABC...

Lowercase alphabet group: abc...

Numeral and symbol group: 012...

For the characters that can be used in titles, see "Title editing character list" (page 36).

- Press the ◀◀ or ▶▶ key to select the desired character.
- Press the SET key to enter the selected character in memory.

Pressing the CLEAR/DELETE key clears the character located immediately before the cursor.

- Perform steps 8 to 10 of "Assigning a title to a disc or track" (page 32).

Changing a title

- Perform steps 1 to 4 of "Assigning a title to a disc or track" (page 32).
- Press the ◀◀ or ▶▶ key to select the character to be changed.
- Press the CLEAR/DELETE key to clear the character to be changed.
- Perform steps 5 to 10 of "Assigning a title to a disc or track" (page 32).

Deleting a title

- Perform steps 1 to 4 of "Assigning a title to a disc or track" (page 32).
- Press the CLEAR/DELETE key.

Each press deletes one character.

All of the titles can be deleted at once by selecting "ALL ERASE" in step 3 of "Assigning a title to a disc or track" (page 32).

POINT

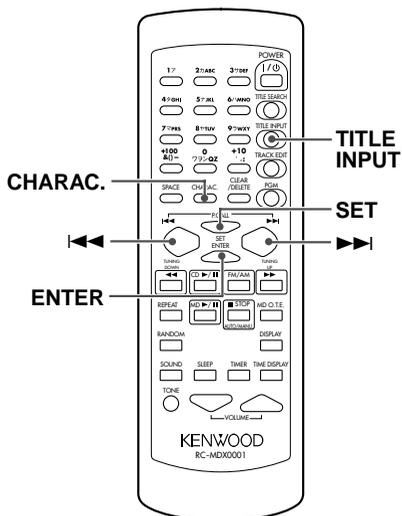
- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.
- If the character to be changed is not displayed, press the ◀◀ or ▶▶ key to move the cursor and display the previously hidden characters.
- If the track to be titled is played before step 2 in "Assigning a title to a disc or track" (page 32) then the TITLE INPUT key is pressed, you can input the title while playing the track to be titled.
- The number of characters that can be input is 1792 characters per disc or 80 characters per track title.

Continued on next page →

Editing the MD titles (continued)

Registering titles

Frequently used titles can be registered and recalled any time for use in title input.



5 Press the ENTER key.

The title is recorded in the MD and scrolled on the display.

To assign other track titles, repeat steps 3 to 5 for each.

6 Press the TITLE INPUT key.

7 Eject the MD.

To stop title input in the middle :

Press the TITLE INPUT key any time before the end of step 4.



- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Remote control only

1 Select the MD input and insert a recordable MD.

2 Press the TITLE INPUT key.

3 Press the <<< or >>> key repeatedly to select one of "[1]" to "[3]", then press the SET key.

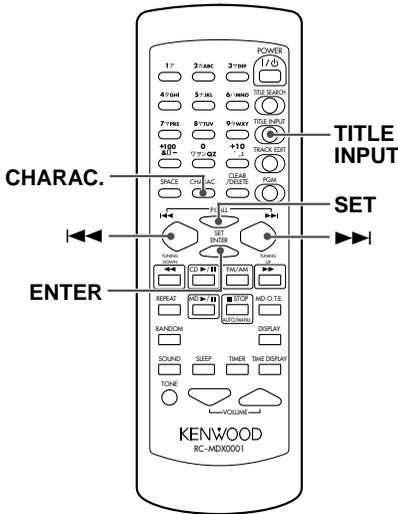


4 Input the title characters.

Perform steps 5 to 7 of "Assigning a title to a disc or track" (page 32).

Copying titles

The disc and track titles can be copied and used with other titles.



Remote control only

1 Perform steps **1** to **4** of "Assigning a title to a disc or track" (page 32).

2 Press the **◀◀** or **▶▶** key.

3 Press the **CHARAC.** key repeatedly until "[123]" is displayed.



4 Press the **◀◀** or **▶▶** key repeatedly to select the title to be copied.

"DISC": Disc title can be copied.

"[001]": Track title can be copied.

"[123]": One of titles stored in title memo 1, 2 and 3 (page 36) can be copied.

5 Press the **SET** key.

The title is copied.

Additional characters can be input after the copied title.

6 Press the **ENTER** key.

The title is recorded in the MD and scrolled on the display.

7 Press the **TITLE INPUT** key.

8 Eject the MD.

"WRITING" is displayed.

To stop title copy in the middle :

Press the **TITLE INPUT** key any time before the end of step **5**.

Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

POINT.

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Continued on next page →

Editing the MD titles (continued)

Title editing character list

The following characters including uppercase and lowercase alphabets, numerals and symbols.

Available characters in title input using the character input keys on the remote

Key \ Group	"Aa"	"12"
1 ア	[1] [2] [3]	1
2 カABC	ABCabc	2
3 サDEF	DEFdef	3
4 タGHI	GHIghi	4
5 ナJKL	JKLjkl	5
6 ハMNO	MNOmno	6
7 マPRS	PRSprs	7
8 ヤTUV	TUVtuv	8
9 ラWXY	WXYwxy	9
0 ワランQZ	QZqz	0
+10 ' , : :	' , : ? ! ; . " _ ` \$	
+100 & () -	& () - / + * = < > # % @	

POINT

- The titles to be copied by title copy cannot be selected with the character input keys.
- Press the SPACE key on the remote to input a space character.

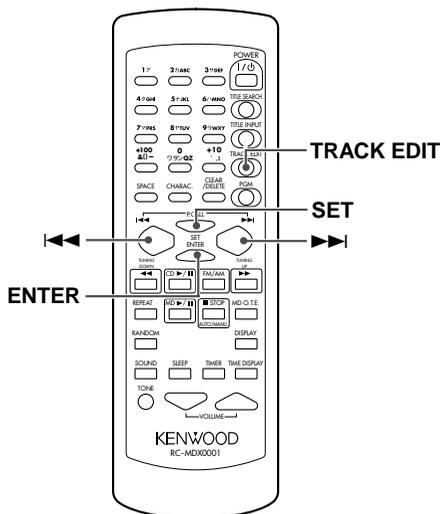
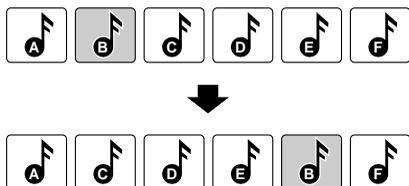
Available characters in title input using the ◀◀ and ▶▶ keys on the remote

Uppercase alphabet group	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Lowercase alphabet group	abcdefghijklmnopqrstuvwxyz
Numeral and symbol group	0123456789 ! " # \$ % & ' () * + , - . / : ; = ` ? @ _
Title memo/title copy group	[1 2 3] [DISC] ([001] ...)

Moving one track

Use the following procedure to select a track and move and insert it to the position of the desired track number. Multiple tracks can be moved and reordered by repeating the procedure for each track. The track numbers before and after the moved track are adjusted automatically.

Image of moving a single track



Remote control only

1 Select the MD input and insert a recordable MD.

2 Press the ◀◀ or ▶▶ key repeatedly to select the track number to be moved.

The track will be played back.

3 Press the TRACK EDIT key repeatedly until "▶ MOVE?" is displayed, then press the SET key.

If "X MOVE" is displayed, the subsequent operation will not be available (see page 53).

4 Press the ◀◀ or ▶▶ key repeatedly to select the move destination position where you want to insert the moved track.

Display when a track has been moved after track no.4.



5 Press the SET key.



6 Press the ENTER key.

7 Eject the MD.

"WRITING" is displayed.

To cancel the MOVE operation in the middle :

Press the TRACK EDIT key any time before the end of step **5**.

Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

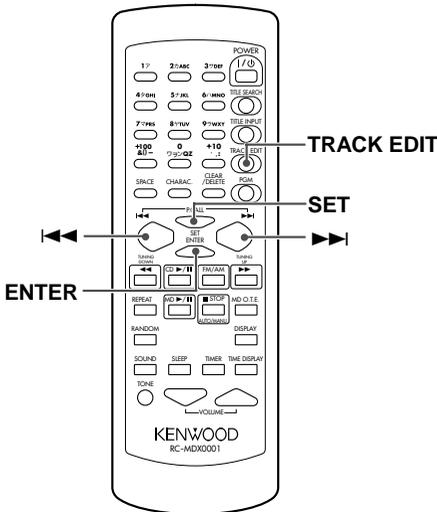
POINT.

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Combining tracks

Use the following procedure to combine two track into a single track. The track numbers after the combined tracks are adjusted automatically.

Image of combining tracks

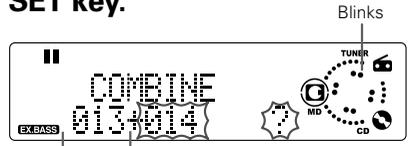


Remote control only

- 1** Select the MD input and insert a recordable MD.
- 2** Press the **◀◀** or **▶▶** key repeatedly to select the earlier track number to be combined.

The track will be played back.

- 3** Press the **TRACK EDIT** key repeatedly until "**▶ COMBINE ?**" is displayed, then press the **SET** key.



Track No. selected in step 2

If "X COMBINE" is displayed, the subsequent operation will not be available (see page 53).

- 4** Press the **◀◀** or **▶▶** key repeatedly to select the later track number to be combined.

Display when combining track Nos. 13 and 17



- 5** Press the **SET** key.



- 6** Press the **ENTER** key.

- 7** Eject the MD.

"WRITING" is displayed.

To cancel the COMBINE operation in the middle:

Press the **TRACK EDIT** key any time before the end of step 5.

Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

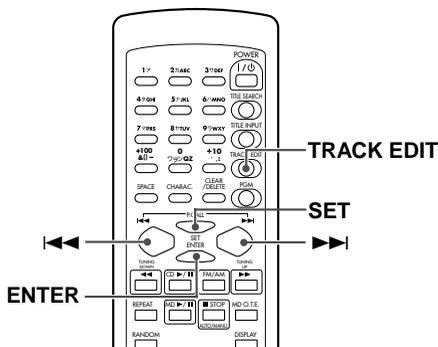
POINT.

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Dividing a track

Use the following procedure to divide a track into two. The track numbers are adjusted automatically.

Image of dividing a track



Remote control only

1 Select the MD input and insert a recordable MD.

2 Press the **◀◀** or **▶▶** key repeatedly to select the track number to be divided.

The track will be played back.

3 Find divided point, press the TRACK EDIT key repeatedly until "▶ DIVIDE?" is displayed, then press the SET key.



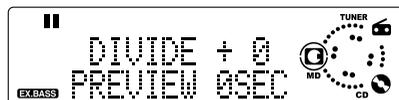
Track No. selected in step 2

New track No. assigned after division

If "X DIVIDE" is displayed, the subsequent operation will not be available (see page 53).

4 Press the SET key again.

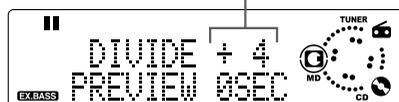
The track dividing point is displayed and the audio of the 3 seconds around it will be played repeatedly.



5 Press the **◀◀** or **▶▶** key repeatedly to adjust the track dividing point.

Adjust while listening to the repeated audio. The dividing point can be adjusted in the range between -31 and +31.

Point display



If you want to divide the track at another point, cancel the DIVIDE operation then restart the procedure from step 2.

6 Press the SET key.



7 Press the ENTER key.

8 Eject the MD.

"WRITING" is displayed.

To cancel the DIVIDE operation in the middle :

Press the TRACK EDIT key any time before the end of step **6**.

Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

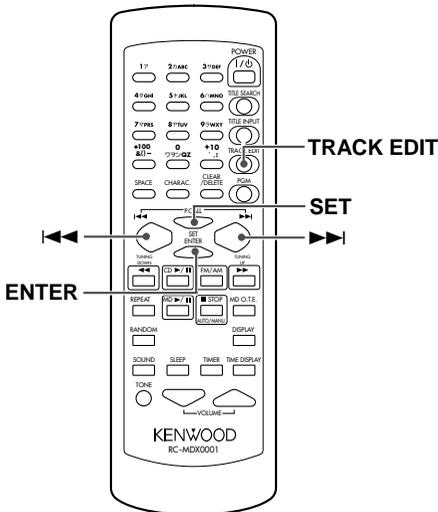
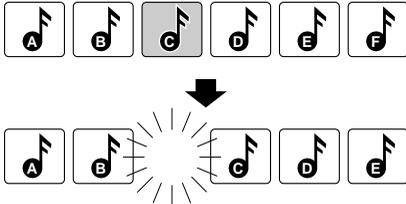
P O I N T

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.
- The two tracks produced by track division do not have a non-recorded blank between them.

Erasing a track

Use the following procedure to erase the track being played. The track numbers will be adjusted automatically.

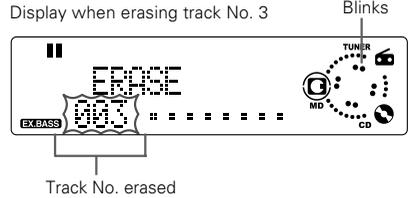
Image of erasing a track



Remote control only

- 1** Select the MD input and insert a recordable MD.
- 2** Press the **⏮** or **⏭** key repeatedly to select the track to be erased.
The track will be played back.

- 3** Press the TRACK EDIT key repeatedly until "**▶ ERASE ?**" is displayed, then press the SET key.



If "X ERASE" is displayed, the subsequent operation will not be available (see page 53).

- 4** Press the SET key.



- 5** Press the ENTER key.

- 6** Eject the MD.

"WRITING" is displayed.

To cancel the ERASE operation in the middle :

Press the TRACK EDIT key any time before the end of step **4**.

Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

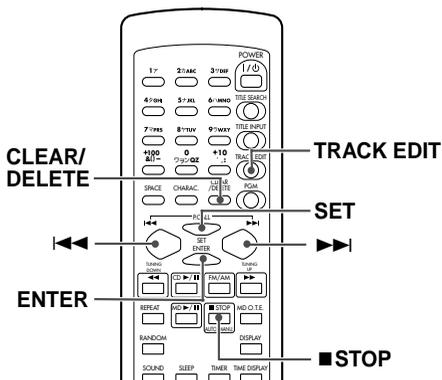
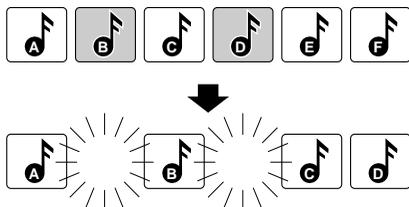
POINT

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Erasing several tracks at a time

Use the following procedure to select up to 32 tracks you want to erase and erase them together. The track numbers are adjusted automatically.

Image of erasing several tracks

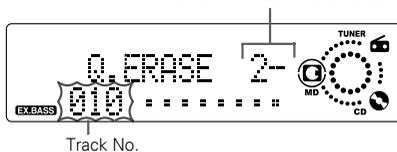


- Press the **◀◀** or **▶▶** key repeatedly to select one of the tracks to be erased.

Select other tracks to be erased by repeating this step for each.

Select "ALL" if you want to erase all tracks in an MD.

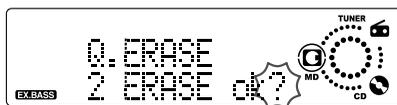
Number of tracks to be erased



Track No.

If you commit a mistake, press the CLEAR/DELETE key to clear the track number and restart selection.

- Press the **ENTER** key.



- Press the **ENTER** key again.

It takes a while until the editing completes.

- Eject the MD.

"WRITING" is displayed.

Remote control only

- Select the MD input and insert a recordable MD.

If the MD is already playing, press the **■** STOP key to stop playback.

- Press the **TRACK EDIT** key repeatedly until "**▶ Q. ERASE ?**" is displayed, then press the **SET** key.



If "X Q.ERASE" is displayed, the subsequent operation will not be available (see page 53).

To cancel the Q. ERASE operation in the middle:

Press the **TRACK EDIT** key any time before the end of step **2**.

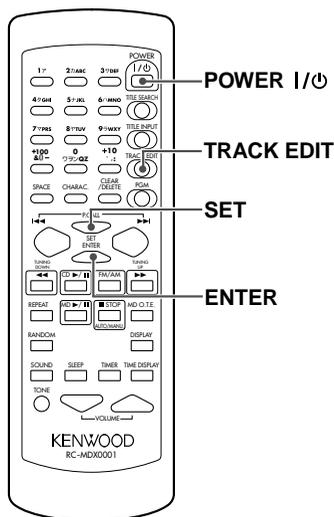
Editing can be canceled provided that it is attempted before "WRITING" is displayed. For the procedure, see "Canceling editing" (page 44).

POINT.

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.

Canceling editing

Editing can be canceled provided that it is attempted before "WRITING" is displayed.



To cancel the CANCEL operation in the middle :

Press the TRACK EDIT key any time before the end of step 1.

POINT

- Be careful not to apply vibration to the unit while "WRITING" is displayed, because the MD recorder is writing recorded and edited data in the MD in this period. Also, to avoid loss of recorded and edited data, do not unplug the power cord before "WRITING" disappears.
- "WRITING" is displayed in the following cases :
 - When recording of MD completes.
 - When MD is ejected.
 - When the POWER I/⏻ key is pressed to put the unit in the STANDBY mode.
- The CANCEL operation is not available unless editing has been started.

Remote control only

- 1 While the MD is in stop mode, press the TRACK EDIT key repeatedly until "▶ CANCEL" is displayed, then press the SET key.



If "X CANCEL" is displayed, the subsequent operation will not be available (see page 53).

- 2 Press the ENTER key.

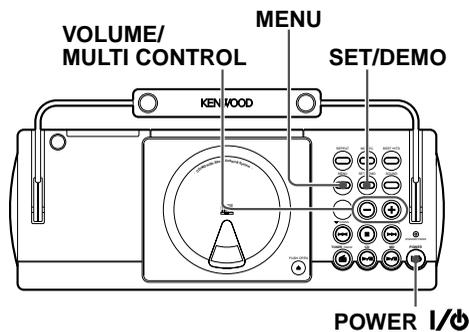
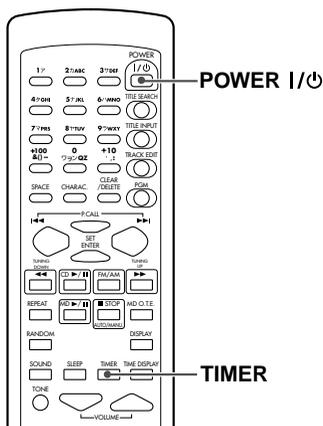
- 3 Eject the MD.

"WRITING" is displayed.

Waking up to the timer playback

(O.T.T. = Operate easy To use Timer)

The O.T.T. timer makes timer-activated playback easy by simply setting the desired time of the day. The unit is turned off automatically in an hour after the start of timer playback. The O.T.T. timer works only once after setting.



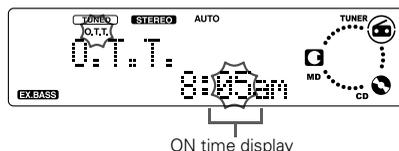
3 Press the MENU key.

4 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "TIMER SET ?" is displayed, then press the SET/DEMO key.

5 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "O.T.T. SET ?" is displayed, then press the SET/DEMO key.

6 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key repeatedly to select the time at which the timer is activated (ON time).

The ON time can be set in 5-minute steps.

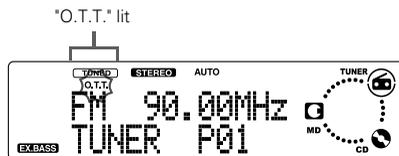


ON time display

7 Press the SET/DEMO key.

■ Execution

8 Press the TIMER key on the remote repeatedly so that "O.T.T." is lit.



"O.T.T." lit

■ Setting

1 Make preparations according to the source to be played.

2 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key to adjust the listening volume.

Continued on next page →

Waking up to the timer playback (continued)

9 Press the **POWER** | / key to turn the unit to the **STANDBY mode**.

The STANDBY/TIMER indicator lights green.

The O.T.T. timer is activated and playback will start when the set ON time comes.

To cancel O.T.T. timer :

Press the TIMER key on the remote until "O.T.T." disappears.

To re-execute O.T.T. timer with the same setting as before :

After preparing the source to be played, press the TIMER key on the remote repeatedly until "O.T.T." is lit.

To check or change the timer setting :

Restart the procedure from step **7** again.

P O I N T .

- Be sure to adjust the time of the day (page 10) before using the timer functions.
- If the STANDBY/TIMER indicator is blinking in green, the timer setting may be erroneous or the time of the day is not adjusted. Re-set the applicable item.
- The O.T.T. timer cannot be used for program playback of CD or MD.
- When O.T.T. timer was canceled, the O.T.T. timer setting remains in memory unless it is newly set again.

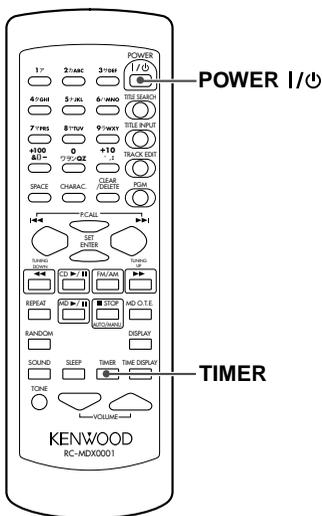
Program timer

(PROG.1, PROG.2)

Two timer programs are available to enable automatic power ON/OFF at the specified times of every day.

Timer playback using program timer

Use the following procedure to play the selected source at the selected time period.



■ Setting

1 Make preparations according to the source to be played.

CD : Insert a CD.
MD : Insert an MD.
Radio : Preset stations.

2 Press the MENU key.

3 Press the VOLUME/MULTICONTROL UP (+) or DOWN (-) key so that "TIMER SET ?" is displayed, then press the SET/DEMO key.

4 Press the VOLUME/MULTICONTROL UP (+) or DOWN (-) key to select "PROG.1 SET ?" or "PROG.2 SET ?", then press the SET/DEMO key.

5 Select the time to start timer playback (ON time).

Press the VOLUME/MULTICONTROL UP (+) or DOWN (-) key to select the figure of hour, then press the SET/DEMO key.



Timer ON time

Also select the figure of minute in the same way as above.

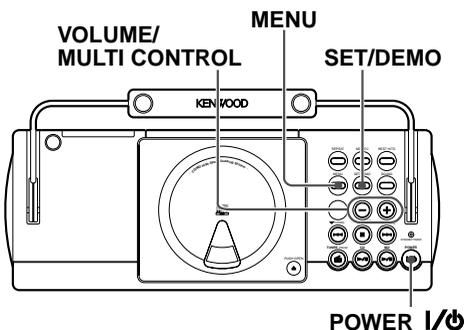
6 Select the time to stop timer playback (OFF time).

Set in the same way as the ON time.



Timer OFF time

Continued on next page →

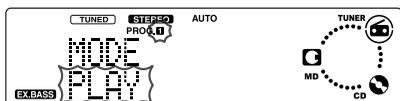


Program timer (continued)

- 7** Press the **VOLUME/MULTICONTROL UP (+)** or **DOWN (-)** key to select "PLAY" or "AI PLAY", then press the **SET/DEMO** key.

"PLAY" : The source will be played at the adjusted volume before entering the **STANDBY** mode.

"AI PLAY" : The playback volume will increase gradually after the start of timer playback.



- 8** Press the **VOLUME/MULTICONTROL UP (+)** or **DOWN (-)** key to select the music source to be input, then press the **SET/DEMO** key.

The input source can be selected from "CD", "MD" and "TUNER" (radio).

- 9** To listen to radio broadcasting, press the **VOLUME/MULTICONTROL UP (+)** or **DOWN (-)** key to select the preset number of the desired station, then press the **SET/DEMO** key.

This operation is not required when an input source other than "TUNER" is selected.

- 10** Press the **VOLUME/MULTICONTROL UP (+)** or **DOWN (-)** key to adjust the listening volume.

The source will be played at the adjusted volume.

This step is not required when "AI PLAY" is selected.

■ Execution

- 11** Press the **TIMER** key on the remote repeatedly so that the program number to be executed ("PROG.1" or "PROG. 2") is lit.



- 12** Press the **POWER I/⏻** key to put the unit in the **STANDBY** mode.

When the timer program is activated and the unit enters the **STANDBY** mode, the **STANDBY/TIMER** indicator lights in green. When the set **ON** time comes, the timer program is executed and playback starts.

To cancel program timer :

Press the **TIMER** key on the remote so that "PROG.1" and "PROG.2" are not lit.

To check or change the timer setting :

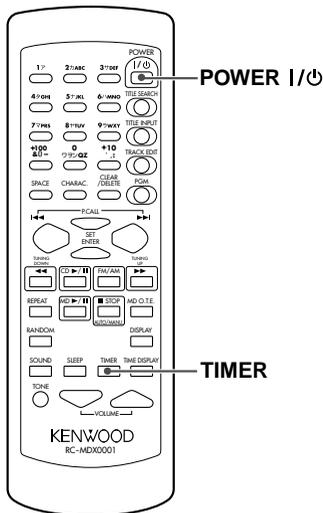
Restart the procedure from step **7** again.

POINT.

- Be sure to adjust the time of the day (page 10) before using the timer functions.
- The program timer cannot be used for program playback of CD or MD.
- PROG.1 and PROG.2 should be set so that their operating periods do not overlap. Leave at least 1 minute of interval between the two programs.
- The program timer setting is held in memory even after it is canceled. The program timer setting remains in memory unless it is newly set again.
- If the **STANDBY/TIMER** indicator is blinking in green, the timer setting may be erroneous or the time of the day is not adjusted. Re-set the applicable item.

Timer recording using program timer

Use the following procedure to record a radio (TUNER) broadcasting at the designated period of time.



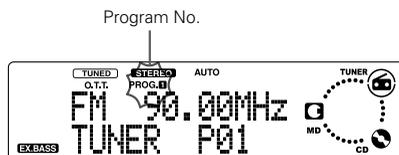
2 Perform steps **2** to **6** of "Timer playback using program timer" (page 47).

3 Press the VOLUME/MULTICONTROL UP (+) or DOWN (–) key so that "REC" is displayed, then press the SET/DEMO key.

4 Press the VOLUME/MULTICONTROL UP (+) or DOWN (–) key to select the preset station number to be recorded, then press the SET/DEMO key.

■ Execution

5 Press the TIMER key on the remote repeatedly so that the program number to be executed ("PROG.1" or "PROG.2" is lit.



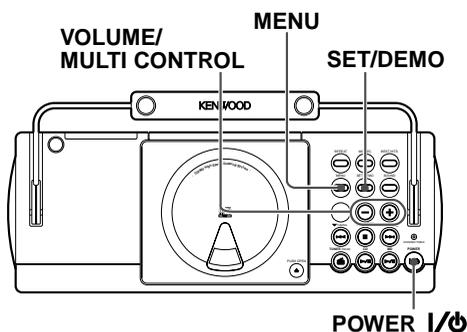
6 Press the POWER I/O key to put the unit in the STANDBY mode.

When the timer program is activated and the unit enters the STANDBY mode, the STANDBY/TIMER indicator lights in green. When the set ON time comes, the timer program is executed and recording starts.

■ Setting

1 Make preparation for recording.

See steps **1** and **2** in "Recording CD onto MD" (page 18).



To cancel program timer :

Press the TIMER key on the remote so that "PROG.1" and "PROG.2" are not lit.

To check or change the timer setting :

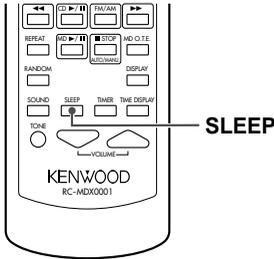
Restart the procedure from step 4 again.

P O I N T

- Be sure to adjust the time of the day (page 10) before using the timer functions.
- PROG.1 and PROG.2 should be set so that their operating periods do not overlap. Leave at least 1 minute of interval between the two programs.
- The speakers do not output audio during timer recording.
- The program timer setting is held in memory even after it is canceled. The program timer setting remains in memory unless it is newly set again.
- If the STANDBY/TIMER indicator is blinking in green, the timer setting may be erroneous or the time of the day is not adjusted. Re-set the applicable item.

Sleep timer (SLEEP)

Use the following procedure to turn the unit OFF automatically when the designated period of time has elapsed. The sleep timer period can be set to up to 90 minutes in 10-minute steps.



Remote control only

Press the SLEEP key repeatedly until the desired OFF time.

Each press increments the period by 10 minutes.
10 → 20 ... 80 → 90 → OFF → 10 ...



When the set period has elapsed, the unit is automatically turned OFF.

To check the remaining sleep timer :

Press the SLEEP key during execution of the sleep timer.

To cancel sleep timer :

Press the SLEEP key repeatedly so that "SLEEP" disappears.

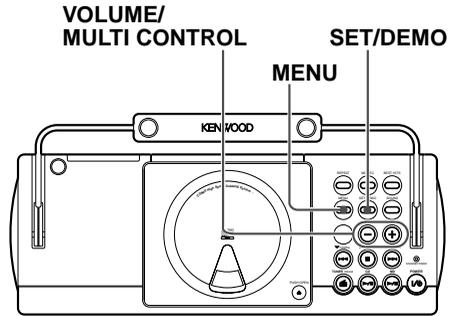


- During execution of the sleep timer, the back light is dimmed to the "L" brightness even when it has been set to "H".

Automatic power save

(A.P.S. = AUTO POWER SAVE)

When the unit is left for more than 30 minutes while the CD and MD are in stop mode or while the "TUNER" input is selected and the volume is set to "0", the unit can be set to turn off automatically.



1 Press the MENU key.

2 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key so that "A.P.S. SET ?" is displayed, then press the SET/DEMO key.

3 Press the VOLUME/MULTICONTROL UP (+) or DOWN (−) key to select A.P.S. "ON" or "OFF".



Operating precautions

Caution on condensation

Condensation (of dew) may occur inside the unit when there is a great difference in temperature between this unit and the outside.

This unit may not function properly if condensation occurs. In this case, leave the unit for a few hours and restart the operation after the condensation has dried up.

Be specially cautious against condensation in a following circumstance:

When this unit is carried from a place to another across a large difference in temperature, when the humidity in the room where this unit is installed increases, etc.

Note related to transportation and movement

Before transporting or moving this unit, carry out the following operations.

- (1) Remove the CD or MD from the unit.
- (2) Press the ►/|| key of the MD.
- (3) Wait for some time and verify that the display becomes as shown in the figure.



- (4) Press the ►/|| key of the CD.
- (5) Wait for some time and verify that the display becomes as shown in the figure.



- (6) Wait a few seconds and turn the unit OFF.

Maintenance of the unit

When the front panel or case becomes dirty, wipe with a soft, dry cloth. Do not use thinner, benzene, alcohol, etc. for these agents may cause discoloration.

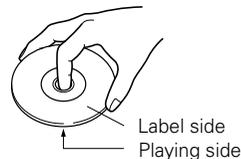
In regard to contact cleaner

Do not use contact cleaners because it could cause a malfunction. Be specially careful not to use contact cleaners containing oil, for they may deform the plastic component.

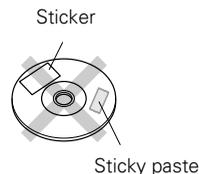
Handling of discs

Disc handling precautions

Hold the discs so that you do not touch the playing surface.

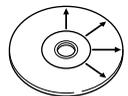


Do not attach paper or tape to either the playing side or the label side of the discs.



Cleaning

If fingerprints or foreign matter become attached to the disc, lightly wipe the disc with a soft cotton cloth (or similar) from the center of the disc outwards in a radial manner.



Storage

When a disc is not to be played for a long period of time, remove it from the player and store it in its case.

Discs which can be played with this unit

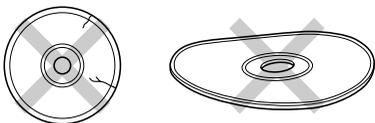
CD (12cm, 8 cm) and the audio part of CDV, CD-G and CD-EXTRA.

Use discs that comply with the IEC standard, for example a disc carrying the  marking on the label surface.

Never play a cracked or warped disc

During playback, the disc rotates at high speed in the player.

Therefore, to avoid danger, never use a cracked or deformed disc or a disc repaired with tape or adhesive agent.



Please do not use discs which are not round because they may cause a malfunction.

Disc accessories

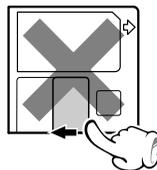
The disc accessories (stabilizer, protection sheet, protection ring, etc.) which are marketed for improving the sound quality or protecting discs as well as the disc cleaner should not be used with this system because they may cause malfunction.

Handling of Mini Disc

As the Mini Disc is accommodated inside a cartridge, it can be handled without caring about dust or fingerprint. However, stained or soiled cartridge may cause malfunction. To enjoy beautiful sound for extended period of time, take care on the following points.

Do not touch the disc directly.

Do not touch the disc by opening the shutter with your hand. The cartridge will be damaged if it is forced open.



Storage position

Do not leave Mini Discs in place where the temperature and/or humidity are extremely high (for example, in a place subject to direct sunlight).

Dust countermeasure

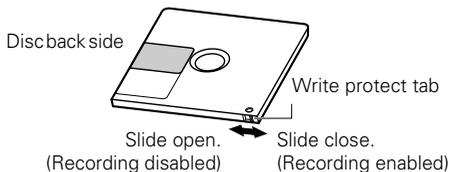
The shutter of the disc cartridge is permanently open while the disc is loaded in the set. Therefore, to prevent dust from penetrating inside the disc, take the disc out of the unit immediately after completion of recording or playback.

Care

Wipe periodically dust and dirt attached on the cartridge with a dry cloth.

Write protect tab

To protect recorded contents against accidental erasure, set the write protect tab of the disc open. Return the tab to the original position when you want to record signals on the disc.



POINT

- When a protected disc is inserted, "PROTECTED" is displayed on the unit.
- When the inserted disc cannot be edited because it is protected or it contains too small number of tracks, "X OOOOO" is displayed on the unit.

US and foreign patents licensed from Dolby Laboratories.

Memory backup function

Stored contents which are cleared immediately when power plug is unplugged from power outlet.

- Clock display (Cleared in 75 minutes)
- MD recorder section (Cleared immediately)

Stored contents which are cleared in at least a day after power plug is unplugged from power outlet.

● **Amplifier section**

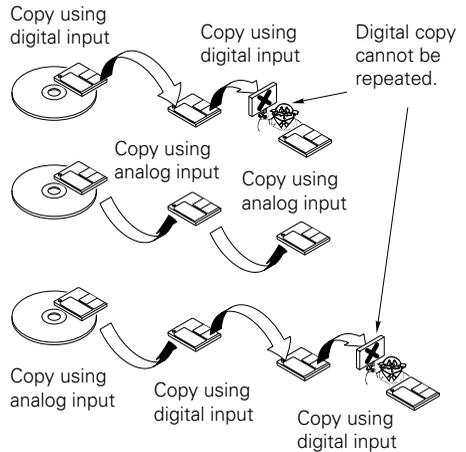
- Input selection
- Volume control value
- Tone control levels
- Timer setting contents

● **Tuner section**

- Receiving band
- Frequency
- Preset stations
- Auto tuning setting

Digital recording and SCMS

Designed for copyright protection, the SCMS (Serial Copy Management System) is a prescription that copying of digital signals as they are in the digital form between digital audio equipment is allowable only for one generation.



In case of difficulty

What seems to be a malfunction is not always so. Before calling for service, check the following table according to the symptom of your trouble.

Operation to reset

The microcomputer may fall into malfunction when a cord is unplugged and plugged again while the unit is ON or due to an external cause. In such a case, the microcomputer should be reset as described below:

Unplug the power cord from the wall outlet and, while holding the REPEAT key depressed, plug the power cord again. This initializes the microcomputer. Note that this clears the previously stored memory.

Common section

Symptom	Remedy
Sound is not produced.	<ul style="list-style-type: none">→ Increase the volume level (page 12).→ Unplug the headphones if they are connected (page 9).
No sound from the headphones.	<ul style="list-style-type: none">→ Check if the headphone plug is inserted properly into the jack (page 9).
Noise interferes.	<ul style="list-style-type: none">→ Install the outside antenna more apart from the streets (page 9).→ Turn nearby electrical appliances off.→ Install the audio system more apart from the TV set.

Amplifier/Speaker section

Symptom	Remedy
The clock display blinks without changing the figures.	<ul style="list-style-type: none">→ Adjust the present time again (page 10).
Timer operation is not possible.	<ul style="list-style-type: none">→ If the present time has not been adjusted or there was a power failure, adjust the present time (page 10).→ Set the timer ON time and OFF time (pages 45 to 51).→ Press the TIMER key on the remote to activate the timer (pages 45, 48 and 49).
Radio stations cannot be received.	<ul style="list-style-type: none">→ Install the antenna (page 7).→ Tune to the frequency of the desired station (page 17).
A station which has been preset cannot be received by pressing the P.CALL key.	<ul style="list-style-type: none">→ Preset stations with tunable frequencies (pages 11).→ If the preset memory has been cleared because the power cord has been unplugged for a long period, preset the stations again (pages 11).

Remote control unit

Symptom	Remedy
Remote control operation is not possible.	<ul style="list-style-type: none">→ Replace batteries with new ones (page 6).→ If the remote is too far away from the system or there is an obstacle in between, point the remote to the remote sensor on the main unit.

MD recorder section (Symptoms related to the MD standard)

Symptom	Remedy
The recordable time of the disc does not increase even when a short track is erased.	<ul style="list-style-type: none">→ When the remaining time of the entire disc is less than 12 sec., the remaining recordable time does not increase.→ When the disc has been edited several times, the remaining recordable time may not increase.
Tracks cannot be combined.	→ When the disc has been edited several times, the tracks may be unable to be combined.
The total of the recorded time and remaining recordable time does not coincide with the recording time specified for the MD.	→ As the minimum unit of disc recording is 2 seconds, the displayed time information may differ from the actual usage of the disc area.
Sound is interrupted after forward or reverse search.	→ When the disc has been edited several times, the sound may be intermittent.
"READING" is displayed for an abnormally long time.	→ When a new recordable MD (with nothing recorded) is inserted, "READING" is displayed longer than usual.

MD recorder section

Symptom	Remedy
Sound is not output even when the play key is pressed.	→ Use a recorded MD.
Recording is not possible.	<ul style="list-style-type: none">→ Restore the position of the write protect tab to the write enabled position. (page 53)→ Select the input source to be recorded. (page 27)

CD player section

Symptom	Remedy
Sound is not produced even when the play key is pressed.	<ul style="list-style-type: none">→ Insert the CD properly (page 12).→ Clean the disc as described in "Disc handling precautions" (pages 52 and 53).→ Remove condensation as described in "Caution on condensation" (page 52).
Sound skips.	<ul style="list-style-type: none">→ Clean the disc as described in "disc handling precautions" (pages 52 and 53).→ Check that the disc is not scratched.→ Install the unit in a place not subject to vibrations.

Display message list

Displayed Message	Meaning
BLANK DISC	→ No MD is inserted in the unit.
BUFFER OVER	→ An attempt is made to perform high-speed recording of more than 30 discs within 74 minutes.
CAN'T COPY	→ An attempt is made to record digital signal from a source while its digital copy has been prohibited by SCMS.
CAN'T EDIT	→ An attempt is made to edit a track which is too short.
DISC ERROR	→ The contents of UTOC* are abnormal. In this case, perform "ALL ERASE" operation (page 43). If this is not possible, use another disc.
DISC FULL	→ There is no recordable area on the disc or an attempt is made to record a 256th track. In this case, use another recordable disc. Note that more than 255 tracks cannot be recorded on a disc.
MD NO DISC	→ An MD is not inserted.
NO TRACKS	→ The MD disc does not contain any track but has a disc title.
PLAY ONLY	→ The inserted MD is a playback only disc.
PROTECTED	→ The inserted MD is write-protected. In this case, enable the recording (page 53).
READING	→ The TOC* information in the disc is being read.
TEXT FULL	→ An attempt is made to display the text information of a CD TEXT disc containing more than 1 kB of text information.
TITLE FULL	→ An attempt is made to assign a title with more characters than usable. See "Total number of title characters" (page 33).
UNIT ERROR	→ There is some trouble with the unit. Return to normal condition may be made by turning the unit OFF then ON again.
WRITING	→ The data related to editing or recording is being written in the disc.

* All minidisks contain a Table of Contents (TOC) in addition to sound signals. The TOC is similar to the table of contents in a book and contains information, such as track numbers, track length, and character information, that cannot be rewritten.

In addition to the TOC, minidisks also contain a special User's Table of Contents (UTOC) that contains track number, track length, and character information, that can be rewritten.

Specifications

Amplifier section

Maximum practical output
..... 2 W + 2 W (EIAJ, 4 Ω)

Tuner section

FM tuner
Tuning frequency range
..... 87.5 MHz ~ 108 MHz

AM tuner
Tuning frequency range
..... 531 kHz ~ 1,602 kHz

MD Recorder section

Laser wave length 765 to 805 nm
Laser power class Class 3B
Reading method
..... Non-contact optical read (using a laser diode)
Recording method
..... Field modulating overwriting
Audio compression method ATRAC
D/A conversion 1 Bit
Wow & flutter Below measurable limit

CD Player section

Reading method
..... Non-contact optical read (using a laser diode)
D/A conversion 1 Bit
Sampling frequency 8 fs (352.8 kHz)
Frequency response 20 Hz to 20,000 Hz
Wow & flutter Below measurable limit

Speakers

Enclosures Bass-reflex type
Speaker units 80 mm, cone type

Power Supply, etc.

Supply voltage/frequency
..... AC 220 V, 50Hz
Rated power consumption 24 W
STANDBY power consumption 0.4 W
Dimensions (including projections)
W 410 mm
H 170 mm
D 190 mm
Weight 4.6 kg (net)

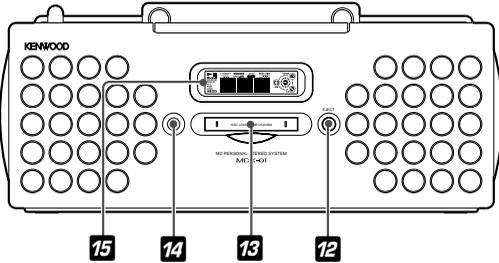


- KENWOOD follows a policy of continuous advancements in development. For reason specifications may be changed without notice.
- The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

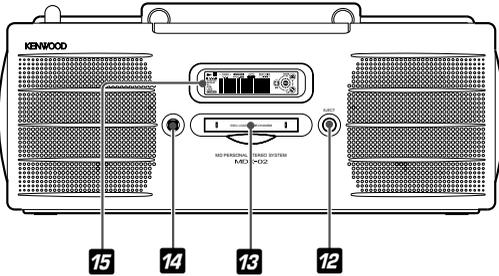
Controls and indicators

Front panel

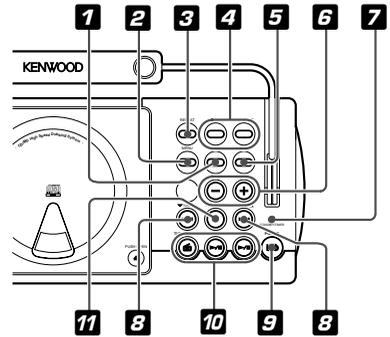
MDX-01



MDX-02



Top panel



- | | | |
|---|---|----------------------------------|
| 1 SET/DEMO (8, 10) | 7 STANDBY/TIMER indicator | 12 ▲EJECT (15) |
| 2 MENU (10) | 8 ▲TUNING▼, ◀◀, ▶▶ (Skip) | 13 MD insertion slot (14) |
| 3 REPEAT (25) | 9 POWER I / ⏻ | 14 REMOTE (Remote sensor) |
| 4 BEST HITS (31)
MD REC (27) | 10 TUNER FM/AM () (11)
CD ▶/⏸ (Play/ Pause) (12) | 15 Display |
| 5 SOUND (23) | MD ▶/⏸ (Play/ Pause) (14) | |
| 6 VOLUME/UP(▶),
VOLUME/DOWN(◀) (10, 12) | 11 STOP ■ (Stop)/ TUNE MODE (12,17) | |

Figures inside parentheses are reference pages.

Standby mode

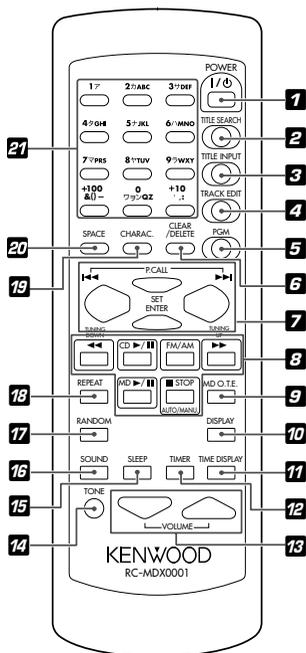
While the standby indicator of the unit is lit, a small amount of current is flowing into the unit's internal circuitry to back up the memory. This condition is referred to as the standby mode of the unit. While the unit is in the standby mode, it can be turned ON from the remote control unit.

Relationship between the STANDBY/TIMER indicator and the status of unit

Indicator condition	Unit status
Off	→ Power is ON.
Red lighting	→ The power cord is plugged into a wall outlet and the power is in the STANDBY mode
Green lighting	→ Timer has been activated.
Green blinking	→ Timer setting is erroneous or the clock has not been adjusted to the time of the day.
Red blinking	→ Failure in the power circuitry. Have your dealer or local KENWOOD representative inspect and service the unit.

Remote control unit

The keys on the remote control unit with the same names as on the main unit have the same function as the keys on the main unit.



- 1** POWER I/O
- 2** TITLE SEARCH (26)
- 3** TITLE INPUT (32)
- 4** TRACK EDIT (37)
- 5** PGM (24)
- 6** CLEAR/DELETE (24, 32)
- 7** ◀◀ P. CALL ▶▶ (Skip SET) (32)
- 8** ◀◀/ TUNING DOWN
▶▶/ TUNING UP
CD ▶/|| (PLay/ Pause) (12)
FM/AM (16)
MD ▶/|| (PLay/ Pause) (14)
■ STOP, AUTO/MANU. (12, 17)
- 9** MD O.T.E. (19)
- 10** DISPLAY (21)
- 11** TIME DISPLAY (21)
- 12** TIMER (45)
- 13** VOLUME (12)
- 14** TONE (23)
- 15** SLEEP (51)
- 16** SOUND (23)
- 17** RANDOM (25)
- 18** REPEAT (25)
- 19** CHARAC. (32)
- 20** SPACE (32)
- 21** Numeric keys (11) / Character input keys (32)

Figures inside parentheses are reference pages.

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____