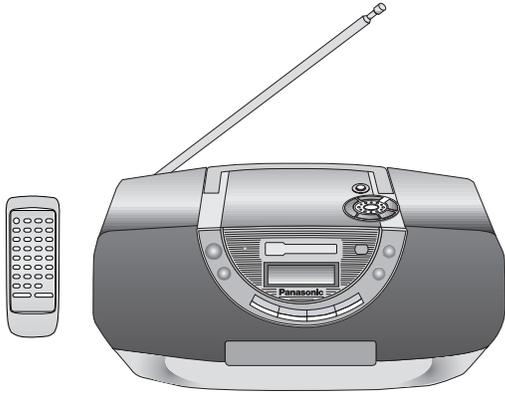


# Panasonic®

## Portable Stereo CD System

Operating Instructions



Model No. **RX-EX1**



COMPACT  
disc  
DIGITAL AUDIO

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

P PC

RQT5671-1P



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### THE FOLLOWING APPLIES ONLY IN THE U.S.A.:

#### CAUTION:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

# IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the safety precautions listed below. Keep these operating instructions handy for future reference.

## Safety

1. **Power source**—Connect the unit to a power source of the type described in these instructions or as marked on the unit.
2. **Polarization**—The unit is equipped with a polarized power plug where one blade is wider than the other. This safety feature ensures that the plug fits into your household AC outlet only one way. If the plug doesn't fit one way, try reversing it. If the plug still doesn't fit, contact an electrician to replace the obsolete outlet. Do not attempt to defeat the safety purpose of the plug.
3. **Power cord protection**—Route the AC power supply cord so that it will not be walked on or pinched by items placed on or against it. Never take hold of the plug or cord with wet hands. Always grasp the plug body firmly when connecting and disconnecting it.
4. **Overloading**—When connecting the AC power supply cord, be careful not to overload the household AC outlet, extension cord, or outlet from any other device as this can result in fire or electric shock.
5. **Nonuse periods**—Turn the unit off when it is not in use. Unplug the unit from the household AC outlet if it is not to be used for a long time. Unplug the unit during lightning storms.
6. **Attachments and accessories**—Use only the attachments and accessories recommended in these operating instructions.

## Installation

### Placement

1. **Ventilation**—Situate the unit so that it receives proper ventilation. Do not install in a confined space such as a bookcase or cabinet. Allow at least 10 cm (4 inches) clearance from the rear of the unit. To prevent the risk of electric shock or fire due to overheating ensure curtains and other materials do not obstruct the unit's ventilation.
2. **Foreign material**—Ensure objects and liquids do not get into the unit. Avoid exposing the unit to excessive smoke, dust, mechanical vibration, and shock.
3. **Magnetism**—Situate the unit away from equipment and devices that generate strong magnetic fields.
4. **Stacking**—Do not place heavy objects on top of this unit.
5. **Surface**—Place the unit on a flat, level surface.
6. **Carts and stands**—Use the unit only with carts and stands recommended by the manufacturer. Move carts with care. Sudden stops, excessive force, and uneven surfaces can cause carts to overturn.
7. **Wall and ceiling mounting**—Do not mount the unit on walls or ceilings unless specified in the instructions.



### Environment

1. **Water and moisture**—Do not use the unit near water, such as near a bathtub or swimming pool. Avoid damp basements.
2. **Heat**—Situate the unit away from heat sources, such as radiators.  
Do not situate where temperatures fall below 5°C (41°F) or rise above 35°C (95°F).

### Maintenance

(See page 9 for details.)

Unplug the unit from the household AC outlet before cleaning.

Clean with a damp cloth.

Do not use abrasive pads, scouring powders, or solvents.

### Service

1. **Damage requiring service**—The unit should be serviced by qualified service personnel if:
  - (a) The AC power supply cord or the plug has been damaged; or
  - (b) Objects or liquids have gotten into the unit; or
  - (c) The unit has been exposed to rain; or
  - (d) The unit does not operate normally or exhibits a marked change in performance; or
  - (e) The unit has been dropped or the cabinet damaged.
2. **Servicing**—Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3. **Replacement parts**—When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
4. **Safety check**—After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

### Listening caution



Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion—and, most importantly, without affecting your sensitive hearing.

We recommend you to avoid prolonged exposure to excessive noise.

Sound can be deceiving. Over time your hearing “comfort level” adapts to higher volumes of sound. So what sounds “normal” can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

- **If this unit is not used for a long period of time or is used only from an AC power source, remove all the batteries to prevent potential damage due to possible battery leakage.**
- Align the poles (+ and –) properly when inserting the batteries.
- Do not mix old and new batteries or different types of batteries.
- Do not recharge ordinary dry cell batteries.
- Do not heat or disassemble the batteries. Do not allow them to contact flame or water.
- Do not keep together with metallic objects such as necklaces.
- Do not use rechargeable type batteries.
- Do not use batteries if the covering has been peeled off.

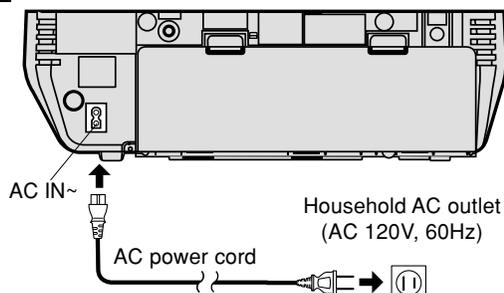
Mishandling of batteries can damage other items, cause damage to the unit, and may cause a fire through short-circuiting or electrolyte leakage.

If electrolyte leaks from the batteries, consult your dealer.

Wash thoroughly with water if electrolyte comes in contact with any part of your body.

## Power Sources

**A**

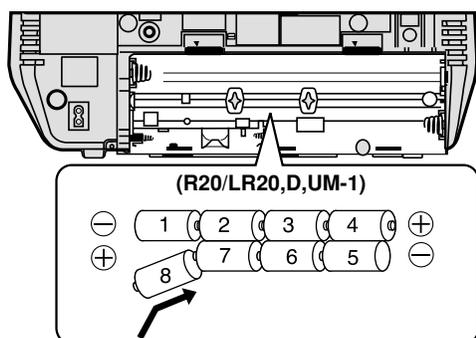


**A**

### Operating the unit on AC power

Connect the AC power cord.

**B**



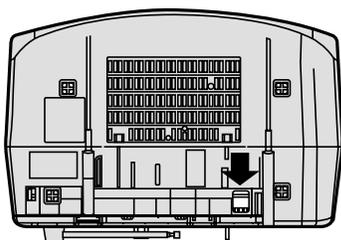
**B**

### Using batteries (not included)

The unit cannot be powered by batteries if the AC power cord is connected.

The remote control cannot turn the unit on when batteries are used.

**C**



**C**

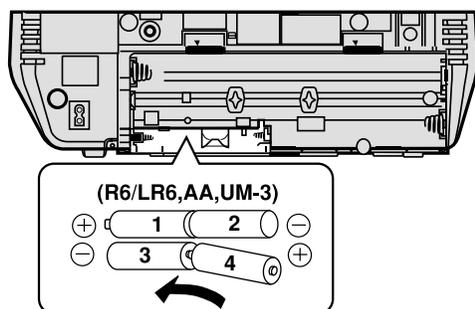
### Removing the batteries

Open the battery cover, insert a finger into the hole in the bottom of the unit and push out.

#### Battery life

"" lights when the batteries are running down. Replace all the batteries with new ones.

**D**



**D**

### Memory Back-up Batteries

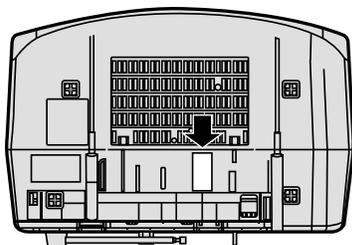
Insert these batteries to save the information contained in the memory, such as the clock and timer settings, if there is an interruption to the power supply.

These batteries do not power the unit.

#### Replacing the batteries

- The memory batteries last about one year.
- Connect the unit to AC power before replacing the batteries.
- Extend the life of the memory batteries by always pressing [ POWER,  $\phi/1$  ] to turn the unit off before disconnecting the unit from the AC power source or replacing the power batteries.

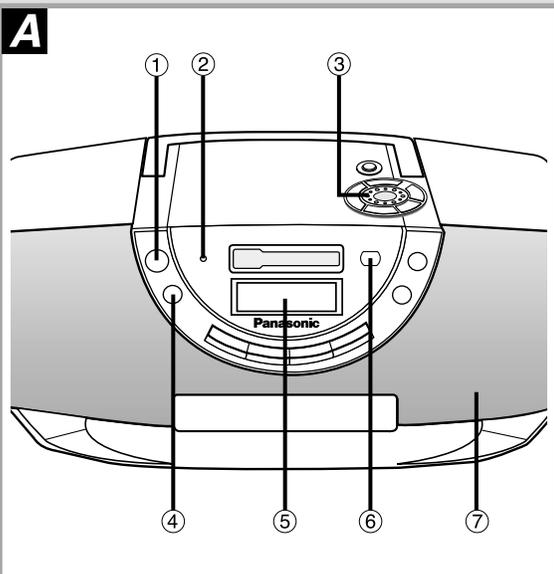
**E**



**E**

### Removing the batteries

Open the battery cover, insert a finger into the hole in the bottom of the unit and push out.



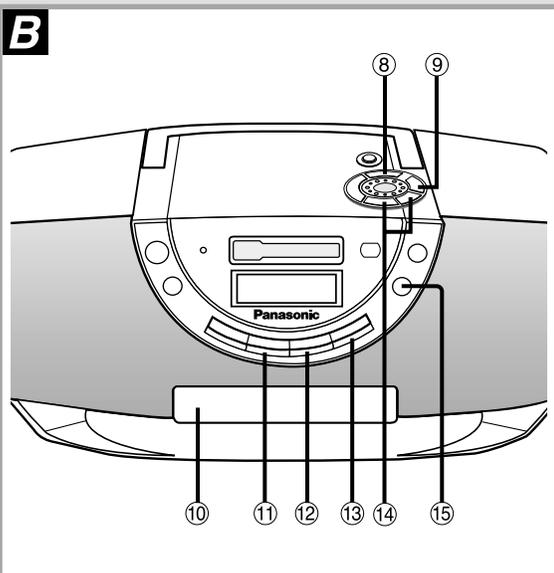
## A Basic controls

Number	Designation	Reference Page
--------	-------------	----------------

- ① **Standby/on switch (POWER, ⏻/⏻)** ..... 10  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Power indicator (POWER)**  
The indicator lights red when the unit is turned on.
- ③ **Volume control (- VOLUME +)** ..... 10,13,15
- ④ **Harmonic enhancer sound (H.E.S)** ..... 18
- ⑤ **Display panel**
- ⑥ **Remote control signal sensor (SENSOR)** ..... 8
- ⑦ **Speaker**

### Note

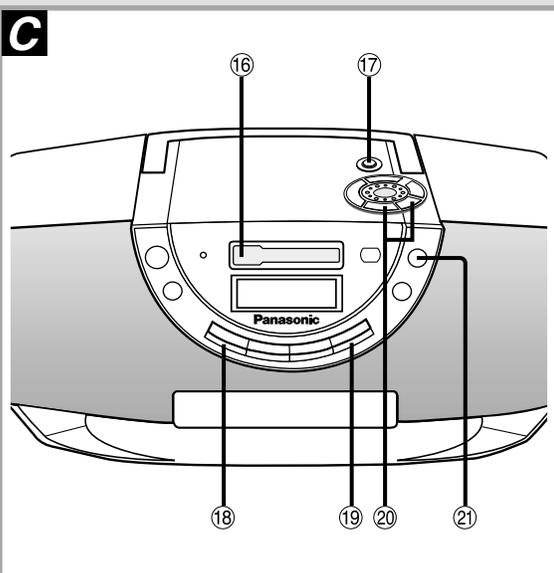
These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.



## B Tuner/CD controls

Number	Designation	Reference Page
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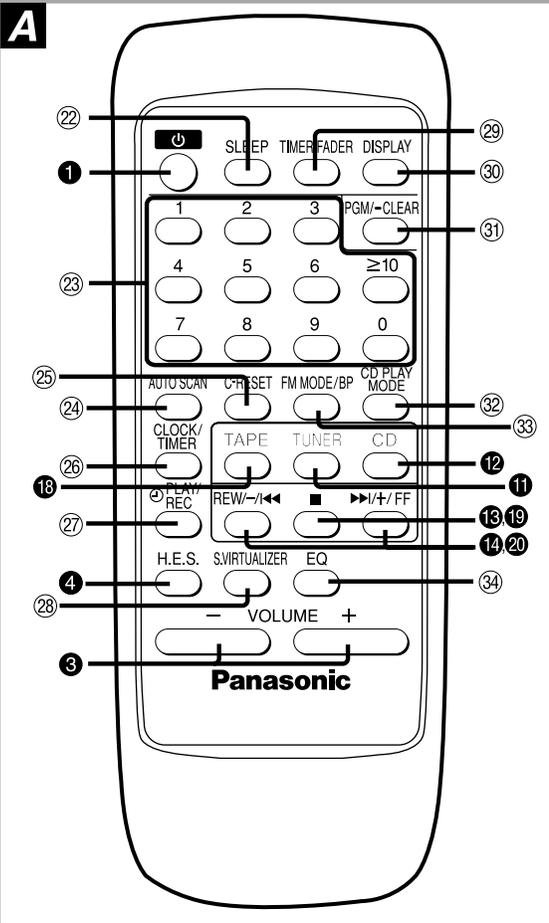
- ⑧ **CD recording mode button (CD REC MODE)** ..... 17
- ⑨ **Tune mode (TUNE MODE)** ..... 13,14
- ⑩ **CD Tray**
- ⑪ **Band button (TUNER BAND)** ..... 13,14
- ⑫ **CD play/pause button (▶/|| CD)** ..... 10
- ⑬ **Stop, TAPE/CD mode select button (■ TAPE/CD)** ..... 10
- ⑭ **Tuning/CD skip/search/track select buttons (REW/-/◀◀, ▶▶/+/FF)** ..... 10,13,14
- ⑮ **CD tray open/close button (▲ CD)** ..... 10



## C Cassette deck controls

Number	Designation	Reference Page
--------	-------------	----------------

- ⑯ **Deck**
- ⑰ **Record/record pause button (●/||)** ..... 16-18
- ⑱ **Cassette play button (▶ TAPE)** ..... 15
- ⑲ **Stop, TAPE/CD mode select button (■ TAPE/CD)** ..... 15
- ⑳ **Rewind/fast forward buttons (REW/-/◀◀, ▶▶/+/FF)** ..... 15
- ㉑ **Tape eject button (▲ TAPE)** ..... 17



## A Buttons

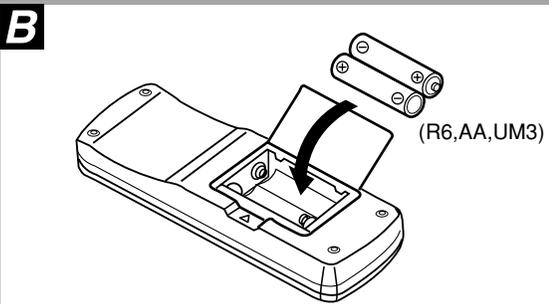
Number	Designation	Reference Page
22	Sleep timer button (SLEEP)	20
23	Numbered buttons	11-12, 14
24	Auto scan button (AUTO SCAN)	13
25	Tape counter reset button (C-RESET)	15
26	Clock/timer button (CLOCK/TIMER)	9, 19
27	Play timer/ record timer button (PLAY/REC)	19
28	Sound virtualizer button (S.VIRTUALIZER)	18
29	Timer fader button (TIMER FADER)	20
30	Display select button (DISPLAY)	9, 15
31	CD Program/clear, tuner preset button (PGM/-CLEAR)	12, 14
32	CD play mode button (CD PLAY MODE)	11
33	FM mode BP button (FM MODE/BP)	13, 18
34	Equalizer button (EQ)	18

When the unit is supplied with AC power, buttons 1, 3, 4, 11 to 14 and 18 to 20 function in the same way as the controls on the main unit. To save power, the unit cannot be turned on from the remote control when batteries are used.

## B Batteries (not included)

Insert so the poles (+ and -) match those in the remote control.

Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place. Replace if the unit does not respond to the remote control even when held close to the front panel.



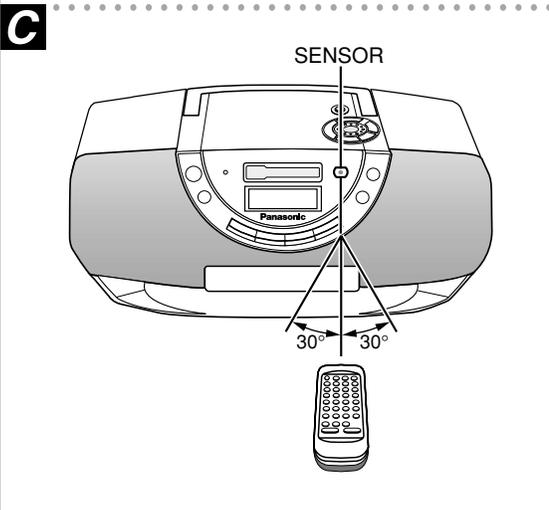
## C Use

Aim at the sensor, avoiding obstacles, at a maximum range of 7 meters directly in front of the unit.

- Keep the transmission window and the unit's sensor free from dust.
- Operation can be affected by strong light sources, such as direct sunlight, and the glass doors on cabinets.

### Do not;

- put heavy objects on the remote control.
- take the remote control apart.
- spill liquids onto the remote control.



## Setting the Time

This is a twelve hour clock.

The example shows how to set the clock to 1:30 p.m.

### Remote control only

**1** Press [⏻] to turn the unit on.

**2** Press [CLOCK/TIMER] to select "CLOCK".  
Each time the button is pressed:



**3** Within 10 seconds

Press [REW/-/⏮] or [FF/+/⏭] to set the time.

**4** Press [CLOCK/TIMER] to start the clock.  
The original display is restored shortly after.

### When batteries are used

The unit cannot be turned on with the remote control.

#### Note

The clock may lose or gain some time over a period.  
Readjust if necessary.

### A Displaying the clock

#### Remote control only

Press [DISPLAY].

### B Using Headphones (not included)

Reduce volume before connection.

Avoid listening for prolonged periods of time to prevent hearing damage.

Plug type: 3.5 mm stereo

## Maintenance

### If the surfaces are dirty

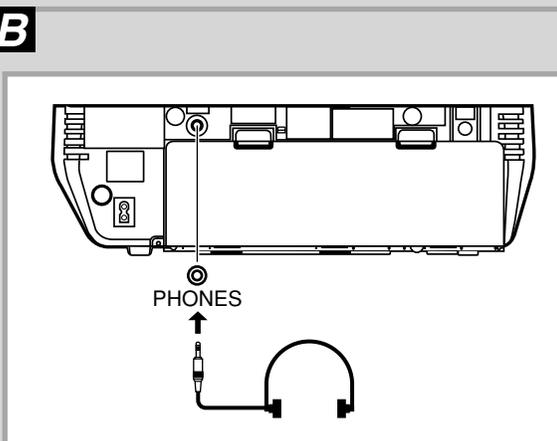
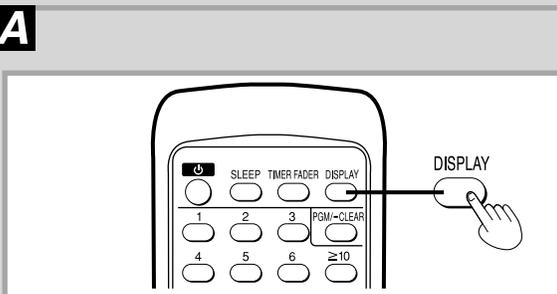
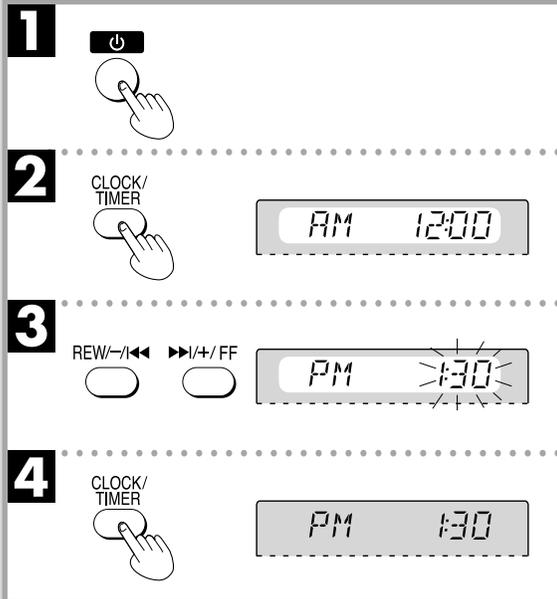
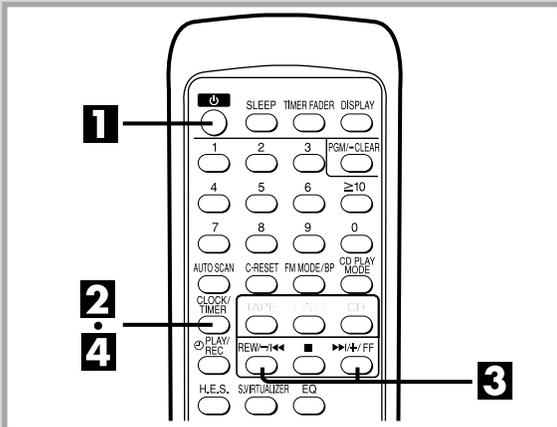
To clean this unit, wipe with a soft, dry cloth.

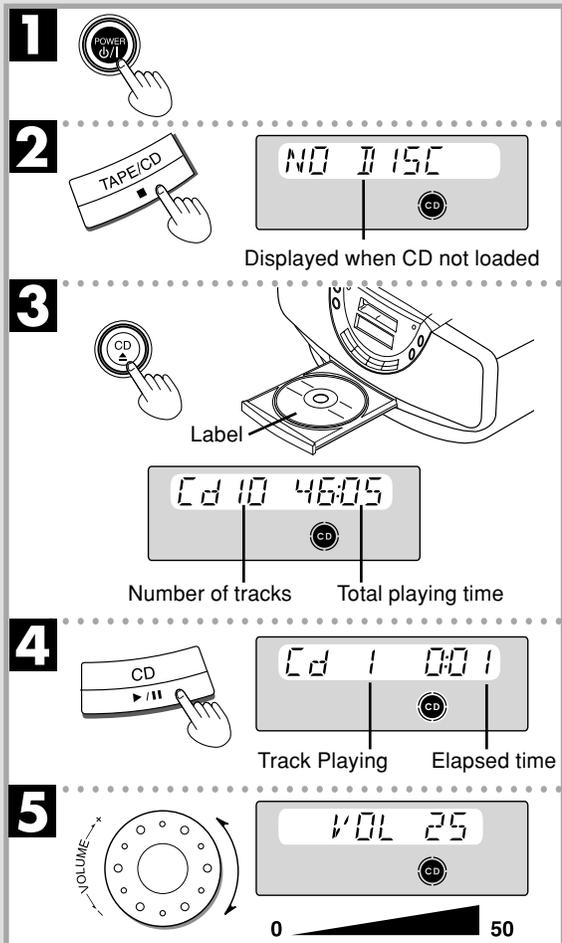
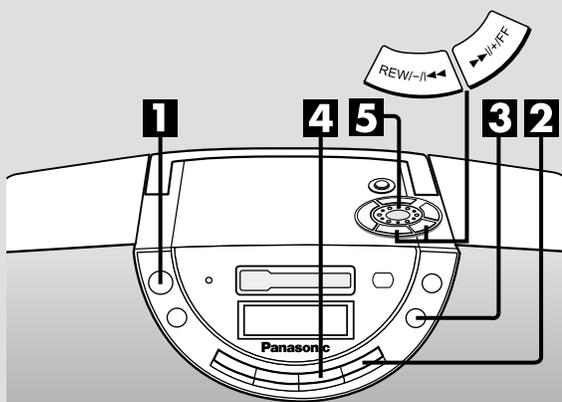
If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner, or benzene to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

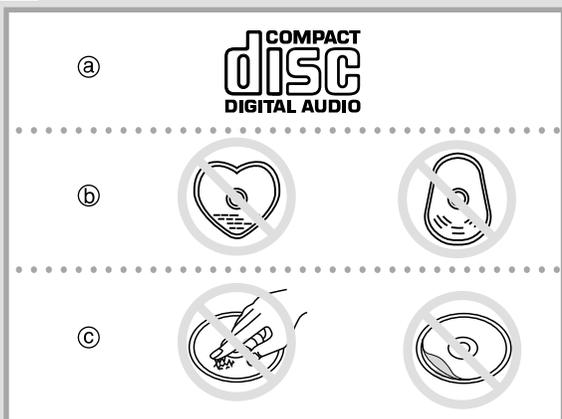
### For a cleaner crisper sound

Clean the heads regularly to assure good quality playback and recording. Use a cleaning tape (not included).





## A



## CDs

- 1** Press [POWER,  $\text{O}/\text{I}$ ] to turn the unit on.
- 2** Press [■ TAPE/CD] to switch to CD mode.  
Each time the button is pressed  
TAPE  $\leftrightarrow$  CD
- 3** Press [▲ CD] to open the tray, load a CD, and press [▲ CD] to close the tray.
- 4** Press [▶/|| CD] to start play.  
Plays to the end of the CD and stops.
- 5** Turn [← VOLUME →] to adjust the volume.

### To stop play

Press [■ TAPE/CD].

### One touch play (When using AC power)

When a CD is loaded, press [▶/|| CD].

The unit comes on and play starts.

### To pause play

Press [▶/|| CD] during play.

Press again to resume play.

### To skip tracks

Press [REW/-/I◀◀] (backward) or [▶▶/+/FF] (forward).

### Searching through tracks

Press and hold [REW/-/I◀◀] (backward) or [▶▶/+/FF] (forward) during play.

### Note

If this unit causes interference to other equipment (radios and televisions) separate it from the equipment.

## A CD selection

Choose CDs with this mark: (Ⓐ)

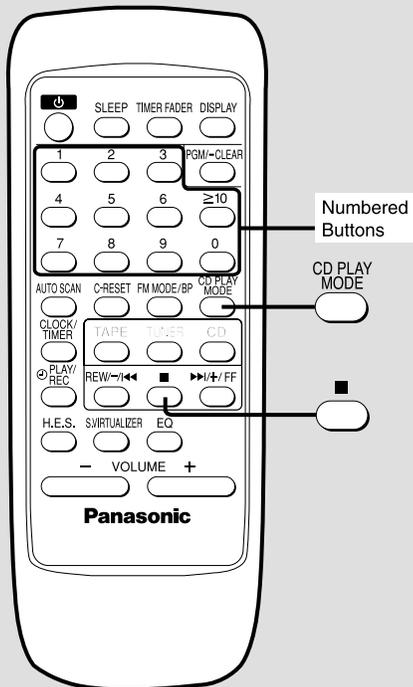
This unit can play CD-DA format audio CD-R and CD-RW that have been finalized\* upon completion of recording.

It may not be able to play some CD-R or CD-RW due to the condition of the recording.

\*Finalizing is a process that enables CD-R/CD-RW players to play audio CD-R and CD-RW.

### Do not

- use irregularly shaped CDs (Ⓑ).
- use CDs with labels and stickers that are coming off or with adhesive exuding from under labels and stickers. (Ⓒ)
- attach scratch-proof covers or any other kind of accessory.
- write anything on the CD.
- clean CDs with liquids. (Wipe with a soft, dry cloth.)
- use CDs printed with label printers available on the market.



## Other modes of play

### Preparation:

Press [■] to switch to CD mode.

### Remote control only

**A Direct access play**  
Starts normal play from a selected track

### Select the track with the numbered buttons.

For tracks numbered 10 and over, press [ 10 ] then the two digits.

**B Repeat play**  
Plays a track or all tracks repeatedly

### Press [CD PLAY MODE] before or during play to select the mode.

Each time the button is pressed

- 1- : One track repeated
  - ↓  
 : All tracks repeated
  - ↓  
[RANDOM]
  - ↓  
No display (cancelled)
- Press [CD] to start play if in the stop mode.

### To repeat selected tracks

- ① Start program play (▶ page 12).
- ② Press [CD PLAY MODE] to select “”.

### To cancel

Press [CD PLAY MODE] until “1-” and “” are cleared. The mode is also cancelled if the CD tray is opened.

**C Random play**  
Plays the tracks once each in random order

### Press [CD PLAY MODE] before or during play to select “[RANDOM]”.

Each time the button is pressed

- 1- → → [RANDOM] → No display (cancelled)

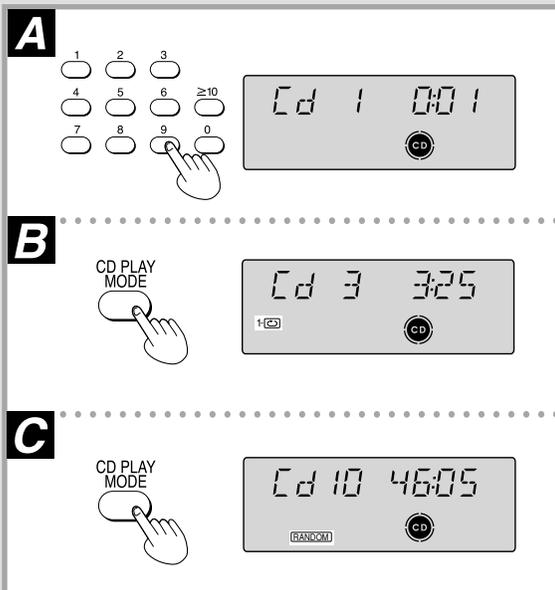
Press [CD] to start play if in the stop mode.

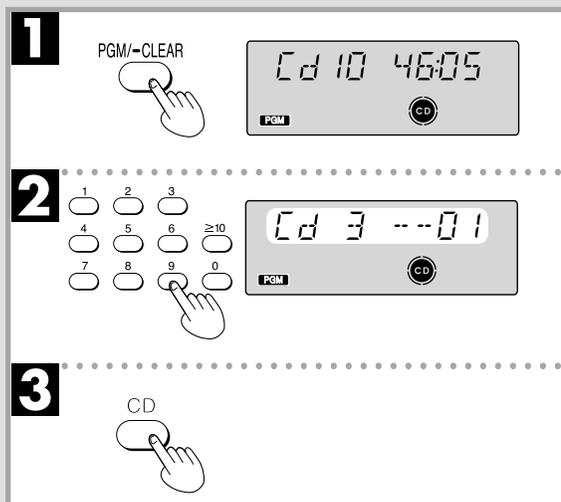
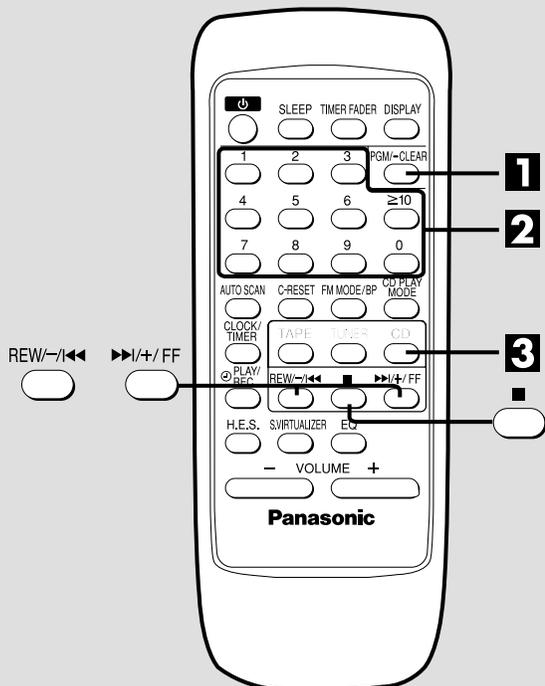
### To cancel

Press [CD PLAY MODE] to clear “[RANDOM]”. If canceled during play, play continues to the end of the disc. The mode is also cancelled if the CD tray is opened.

### Note

- Random play does not work when “PGM” is displayed (press and hold [ PGM/-CLEAR ] first).
- Tracks cannot be selected with the numbered buttons.
- You cannot skip to tracks already played.
- Search can be done within the track in play only.





## CDs

**Program play:**

Select up to 36 tracks to play in the order you choose

**Preparation:**

Press [■] to switch to CD mode.

**Remote control only**

- 1** Press [PGM/-CLEAR].
- 2** Enter the track number with the numbered buttons.  
For tracks numbered 10 and over, press [ 10 ] then the two digits.  
Repeat this step to program the tracks in the required order.
- 3** Press [CD].  
All the tracks are played in the selected order.

The program remains intact even if play is stopped or the unit is turned off. "Cd-P" appears when play is stopped to indicate the contents are in the memory.

**To cancel**

Press and hold [PGM/-CLEAR] in the stop mode until "CLEAR" is displayed.

The mode is also canceled if the CD tray is opened.

**"FULL" is displayed**

If more than 36 tracks have been programmed.

**"-- --:-- --" is displayed**

If the total play time of the program exceeds 100 minutes. You can still program and play tracks.

**To check the contents of the program**

While stopped

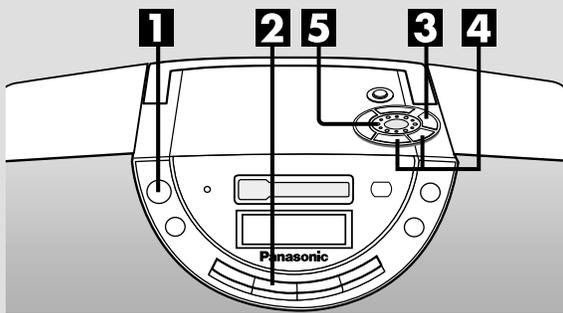
Press [REW/-/◀◀] or [▶▶/+/FF].

Each time one of the buttons is pressed, a track and its order in the program are displayed.

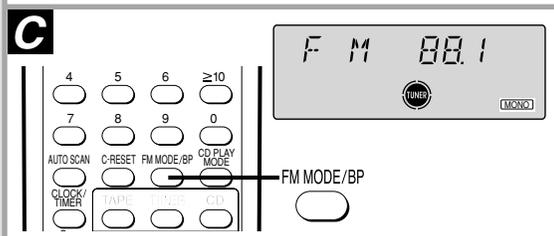
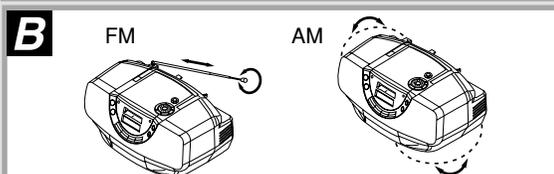
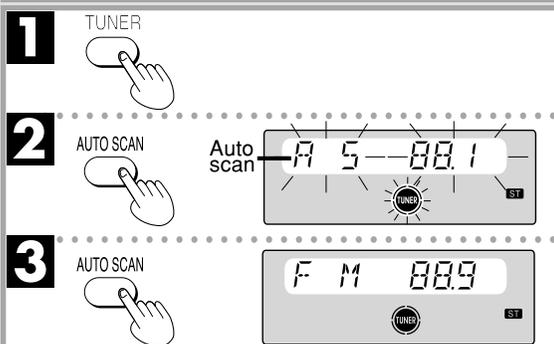
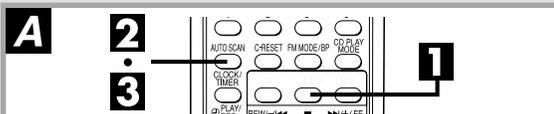
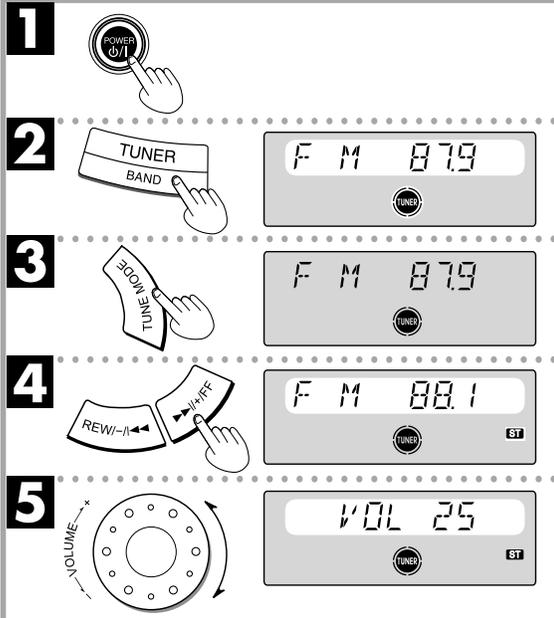
**Note**

Program play does not work when "[RANDOM]" is displayed (press [CD PLAY MODE] to clear it) (➔ page 11). Search can be done within tracks only.

## The Radio: manual tuning



- 1** Press [POWER,  $\phi$ /I] to turn the unit on.
- 2** Press [TUNER BAND] to select FM or AM.  
Each time the button is pressed: AM  $\leftrightarrow$  FM
- 3** Press [TUNE MODE] to select the manual tuning mode.  
Make sure that "PGM" is not displayed.
- 4** Press [REW/-/  $\lll$ ] or [  $\ggg$  /+/FF] to select a station.  
"ST" is displayed during FM stereo broadcasts.
- 5** Turn [-  $\leftarrow$ VOLUME $\rightarrow$ +] to adjust the volume.



### Auto-tuning

Press and hold [REW/-/  $\lll$ ] or [  $\ggg$  /+/FF] until the frequency starts changing rapidly. Stops when it finds a station. (Interference may also cause it to stop. Start auto-tuning again if this occurs.) To stop auto-tuning Press [REW/-/  $\lll$ ] or [  $\ggg$  /+/FF].

### A Using auto scan

#### Remote control only

You can search for a station by listening to all tuned-in stations for 8 seconds each.

- 1** Press [TUNER] to select "FM" or "AM".
- 2** Press [AUTO SCAN].  
Auto scan starts.
- 3** Press [AUTO SCAN] when you find the desired station.  
Auto scan ends when it reaches the original frequency again. To stop during the process, press [AUTO SCAN].

#### B To improve reception

**FM:** Change the length and position of the antenna.  
**AM:** Change the facing of the unit.

#### Note

- AM reception is briefly interrupted if a tape deck is operated.
- To improve reception when using the unit in a building or vehicle use it near a window.

### C If noise is excessive in FM

#### Remote control only

Press [FM MODE/BP] to display "MONO".

Monaural sound is selected ("ST" goes off) and noise reduces when reception is weak.

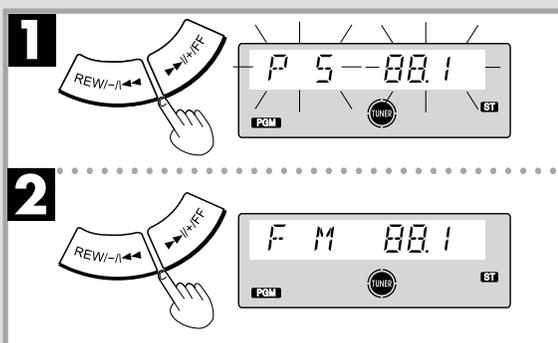
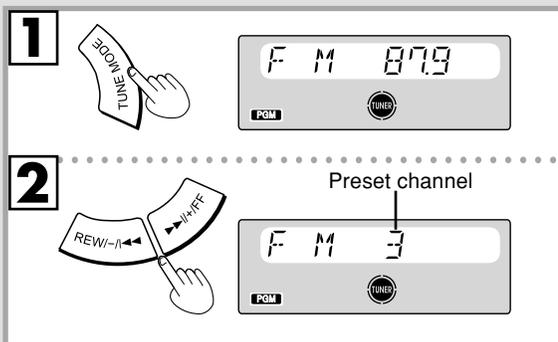
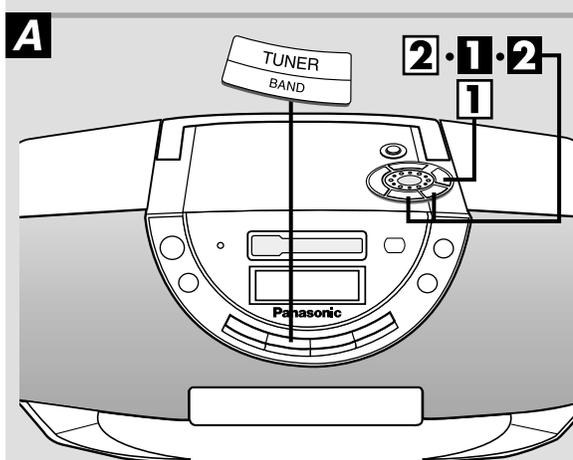
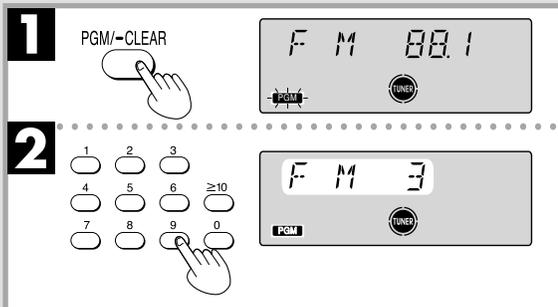
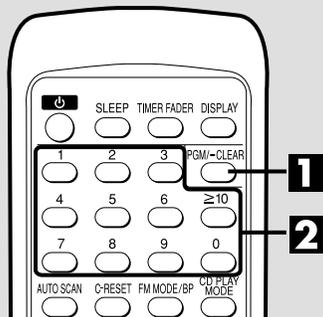
Press [FM MODE/BP] again to cancel the mode.

#### To receive FM broadcasts allocated in 0.1MHz

##### Main unit only

First press [TUNER BAND] to select "AM". Now, press and hold [TUNER BAND]. The display changes in a few seconds to show the current lowest FM frequency. Continue to hold down the button.

The minimum frequency changes and the step is changed at the same time. Changing the step erases all preset stations. Repeat the above to change the step back.



## The Radio: preset tuning

### Presetting radio stations

#### Remote control only

Tuning is simpler if you preset stations. You can preset 12 FM and 12 AM stations.

**Preparation:** Tune to the station you want to preset. ( → page 13)

**1** Press [PGM/-CLEAR].

**2** While "PGM" is flashing Press the numbered buttons to enter the station into a channel (1 to 12).

- To enter channels 10, 11, and 12 Press [10], then the two digits.
- If "PGM" stops flashing Press [PGM/-CLEAR] again.

### A Selecting channels

**Preparation:** Press [TUNER BAND] to select FM or AM.

**1** Press [TUNE MODE] to display "PGM".

**2** Press [REW-/<<<] or [FF/>>>] to select the channel.

#### On the remote control

Press the numbered button(s) to select the channel (1 to 12). To select channel 10, 11 or 12, press  $\geq 10$ , then the two digits.

### Using preset scan

You can search for a station by listening to all preset channels for 8 seconds each.

#### Main unit only

**Preparation:** Press [TUNE MODE] to display "PGM".

**1** Press and hold [REW-/<<<] or [FF/>>>] until "PS" appears on the display. Preset scan starts.

**2** Press [REW-/<<<] or [FF/>>>] when you find the desired channel.

Preset scan ends after searching through each preset channel once.

To stop during the process, press [REW-/<<<] or [FF/>>>]

### Cancelling a preset channel

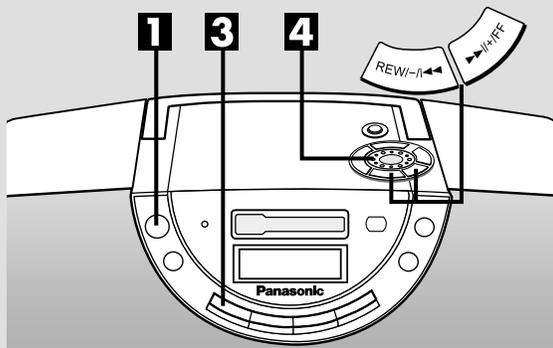
e.g. If channel 3 is not needed.

- ① Select channel 3.
- ② Press [PGM/-CLEAR] on the remote control.
- ③ With 10 seconds Press [REW-/<<<] or [FF/>>>] so "--" is displayed.
- ④ Press [PGM/-CLEAR] on the remote control. Now when [REW-/<<<] or [FF/>>>] is pressed, channel 3 is skipped.

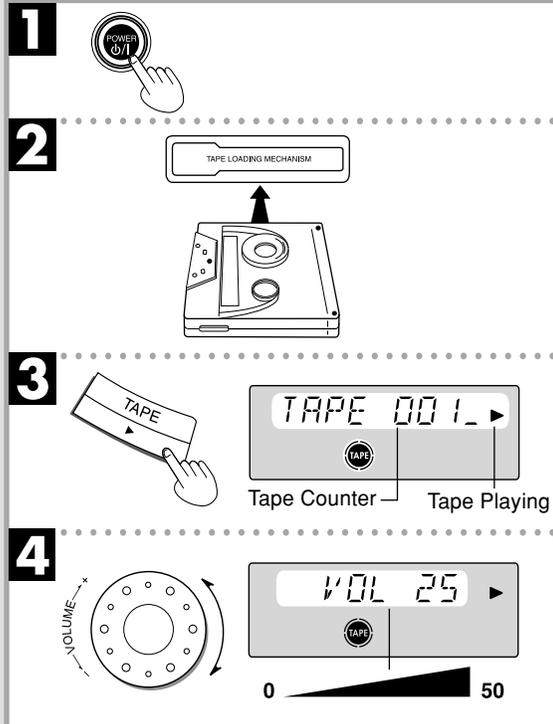
#### Note

The channel can still be selected with the remote control.

## Cassettes



- 1** Press [POWER,  $\phi$ /I] to turn the unit on.
- 2** Insert a cassette into the deck.  
Play starts from the side facing up.
- 3** Press [▶ TAPE] to start play.
- 4** Turn [← — VOLUME — +] to adjust the volume.



### To stop play

Press [■ TAPE/CD].

### To eject tape

Stop tape play, then press [▲ TAPE].

### One touch play (When using AC power)

When a cassette is loaded, press [▶ TAPE].

The unit comes on and play starts.

### Fast-forward and rewind

Press [REW/←/⏮] (rewind) or [▶▶/+/FF] (fast-forward).

### Selection of tapes

Use normal position tapes to play correctly.

High position and metal position tapes can be played, but the unit will not be able to do full justice to the characteristics of these tapes.

### Cassette tape care

- Tapes exceeding 100 minutes are thin and can break or get caught in the mechanism.
- Tape slack can get caught up in the mechanism and should be taken up before the tape is played.
- Endless tapes can get caught up in the deck's moving parts if used incorrectly.

## Before Recording

Use household AC power or new batteries when recording, to avoid poor recording caused by the batteries running down.

Television can cause interference to recording made on this unit if the two are too close to each others.

### Selection of tapes for recording

Use normal position tapes.

High position and metal position tapes can be used, but the unit will not be able to record or erase them correctly.

### Volume and sound quality in recording

- Recording level is set automatically.
- Recording are unaffected by changes to sound quality.

### To display the tape counter while recording

#### Remote control only

Press [DISPLAY].

Each time you press the button in the CD or radio mode:

→ ① Present state → ② Present time → ③ Tape counter

### To reset the tape counter

Press [C-RESET].

The counter resets to "000".

**A**

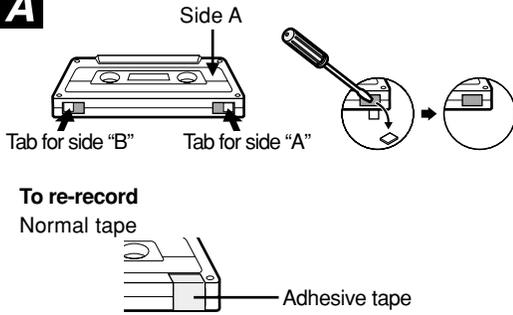
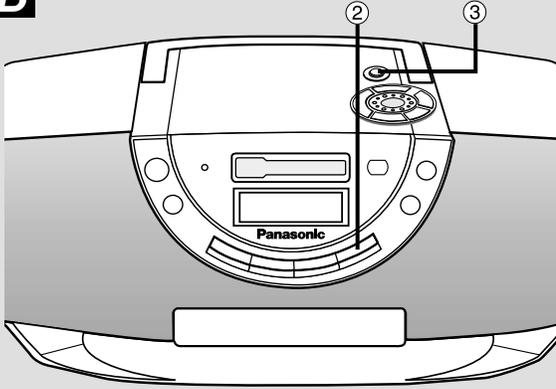
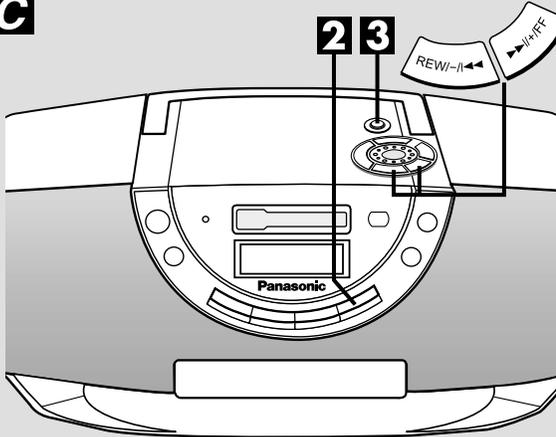
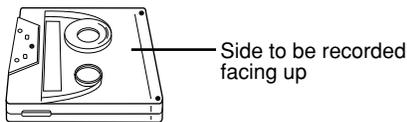
DISPLAY

C-RESET

① Present state (e.g., elapsed play time of CD)

② Present time

③ Tape counter

**A****B****C****1****2****3****D****Before Recording****A Erasure prevention**

The illustration shows how to remove the tabs to prevent recording. To record on the tape again, cover as shown.

**B Erasing recording**

- 1 Insert the cassette with the side to be erased facing up.
- 2 Press [■ TAPE/CD] to switch to TAPE mode.
- 3 Press [●/||].

**C Recording CDs****Preparation:**

- Insert a CD ( ➔ page 9)
- To record from the beginning of the tape  
Wind on the leader tape.

**1 Insert a cassette with the side for recording facing up.****2 Press [■ TAPE/CD] to switch to CD mode.**

Each time the button is pressed  
TAPE ↔ CD.

**3 Press [●/||] to start recording.**

CD play and recording start at the same time.  
The cassette stops when the CD finishes.

**To stop recording**

Press [■ TAPE/CD].

**To pause recording**

Press [●/||].

Press again to resume recording.

**To continue recording from another CD on the same tape**

- 1 Press [▲ CD] and insert the other CD.
- 2 Press [●/||].

Recording begins from where it stopped.

**To record selected tracks**

- 1 Do step 1 and 2, program the tracks ( ➔ page 12).
- 2 Press [●/||].

**To skip unwanted tracks**

- 1 Press [●/||] to pause recording. (The CD also pauses.)
- 2 Press [REW/-/◀◀] or [▶▶/+/FF] so the next track you wanted to record is displayed.
- 3 Press [●/||] to resume recording.

## Recording CDs

You can record the whole CD (ALL-REC) or a selected track(1-REC).

### A ALL-REC

**Preparation:** Insert a CD (➔ page 10)

- 1** Press [■ TAPE/CD] to switch to CD mode.
- 2** Press [CD REC MODE] so "ALL-REC" is displayed.  
Each time the button is pressed  
➔ ALL-REC ➔ 1-REC ➔ OFF
- 3** Insert a cassette with the side for recording facing up.
- 4** Press [●/||] to start recording.  
The unit rewinds the tape, records 10 seconds of silence, and then starts recording.

#### To stop recording

Press [■ TAPE/CD]. The CD also stops.

#### If a track is interrupted at the end of the side facing up

Recording and CD pauses.

To record the track again on the opposite side

1. Press [▲ TAPE], flip the cassette, and insert it.
2. Press [●/||].

The unit records 10-second of silence, and resumes recording from the beginning of the cut-off track.

#### To record selected tracks

- ① Program tracks (➔ steps **1** and **2** on page 12).
- ② Do steps **2** to **4** above.

#### Note

You cannot use ALL-REC with repeat or random play (➔ page 11).

### B 1-REC

**Preparation:** Insert a CD (➔ page 10) and a cassette. Wind the tape to where you want to start recording.

- 1** Press [■ TAPE/CD] to switch to CD mode.
- 2** Press [CD REC MODE] so "1-REC" is displayed.
- 3** Press [REW/-/◀◀] or [▶▶/+/FF] to select the track you want to record.
- 4** Press [●/||] to start recording.  
CD play and recording start at the same time.

#### To stop recording

Press [■ TAPE/CD]. The CD also stops.

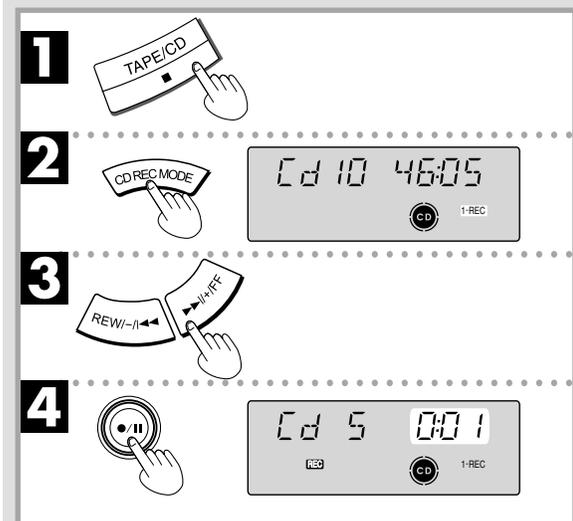
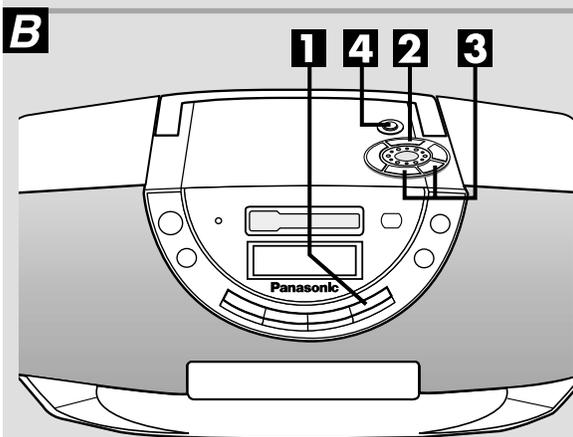
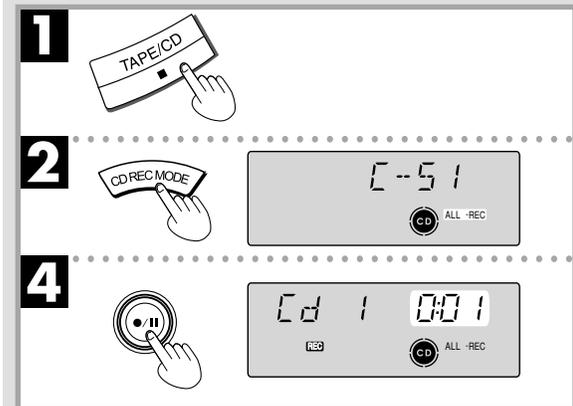
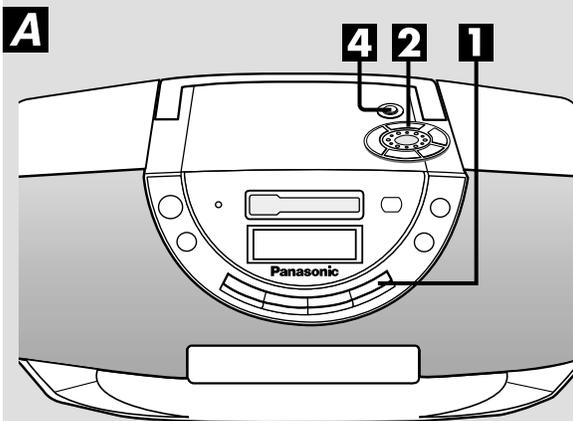
#### To record a track in play

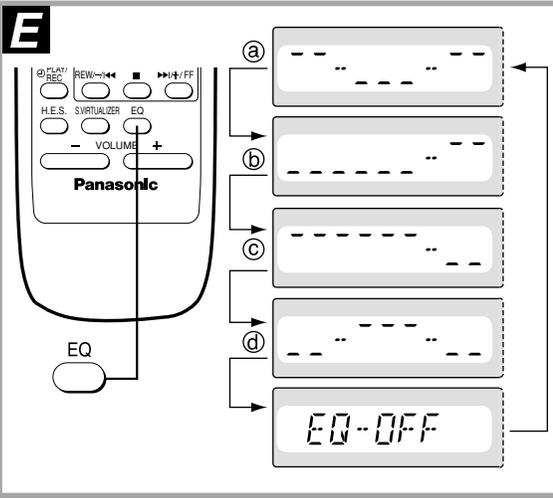
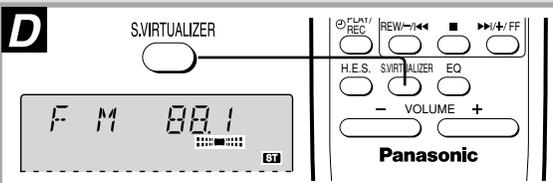
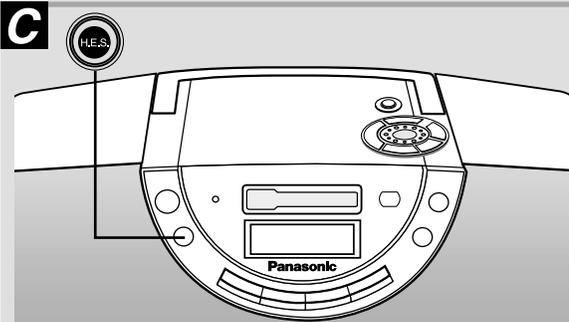
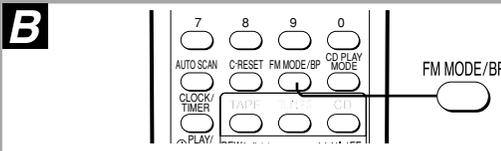
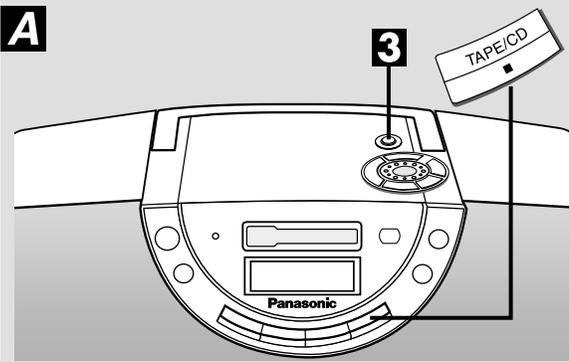
- ① Press [CD REC MODE] to display "1-REC".
- ② Press [●/||].

Recording starts from the beginning of the track and stops when the track finishes.

#### Note

Recording and CD will stop when the tape reaches its end, even if the track has not finished.





## A Recording the Radio

### Preparation:

- Wind on the leader tape.
- To record from part way through the tape  
Wind the tape on to where you want to start recording.

- 1** Insert a cassette with the side for recording facing up.
- 2** Tune to the station (➡ pages 13 and 14).
- 3** Press [ ●/|| ] to start recording.

### To stop recording

Press [ ■ TAPE/CD ].

### To pause recording

Press [ ●/|| ]. Press again to resume recording.

### B Reducing noise when recording AM (Beat Proof function)

#### Remote control only

Press [ FM MODE/BP ] while recording.

Each time the button is pressed: bP1 ↔ bP2

Choose the setting with the least noise.

## C Harmonic Enhancer Sound

You can enjoy clear vocal sound.

Press [ H.E.S. ].

Press again to cancel.

#### Note

Recordings are unaffected by this feature.

## D 3D sound with the Sound Virtualizer

#### Remote control only

You can create a three-dimensional sound field when listening to stereo sound.

Press [ S.VIRTUALIZER ].

Press again to cancel.

#### Note

Recordings are unaffected by this feature.

The actual effect depends on the source played.

## E Sound Quality

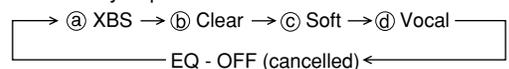
#### Remote control only

You can choose one of four types of sound quality.

- XBS:** Adds punch to rock.
- Clear:** Clarifies higher sounds
- Soft:** For background music
- Vocal:** Adds gloss to vocal

Press [ EQ ] to select a setting.

Each time you press the button:



#### Note

Changes to sound quality do not affect recordings.

# Using the Timer

## Remote control only

You can set the timer to come on at a certain time to wake you up (play timer) or record a radio station (record timer).

### Preparations:

Turn the unit on and set the clock. (➔ page 9).

• **For play timer**, prepare the music source (tape/CD/radio) for listening, and set the volume.

• **For record timer**, check the cassette's erasure prevention tab (➔ page 16: ) and load the cassette with the side for recording facing up. Tune to the radio station (➔ page 13 to 14), and set the volume.

## Setting the start and finish times

**1** Press [CLOCK/TIMER] to select the desired timer function.

Each time you press the button:



**ON**  **PLAY**: to set the play timer

**ON**  **REC**: to set the record timer

Proceed to step **2** before these indicators stop flashing (about 10 seconds).

**2** **1** Press [REW/-/◀◀] or [▶▶/+/FF] to set the start time.

**2** Press [CLOCK/TIMER].

**3** **1** Press [REW/-/◀◀] or [▶▶/+/FF] to set the finish time.

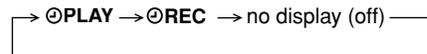
**2** Press [CLOCK/TIMER].

The start and finish times are now set.

## Turning the timer on

**4** Press [ PLAY/REC] to display the timer indicator.

Each time you press the button:



**ON**  **PLAY**: to turn the play timer on

**ON**  **REC**: to turn the record timer on

(The indicator doesn't appear if the start and finish times haven't been set.)

"E" appears if the clock hasn't been set.

**5** Press [⏻] to turn the unit off.

**The unit must be off for timer to operate.**

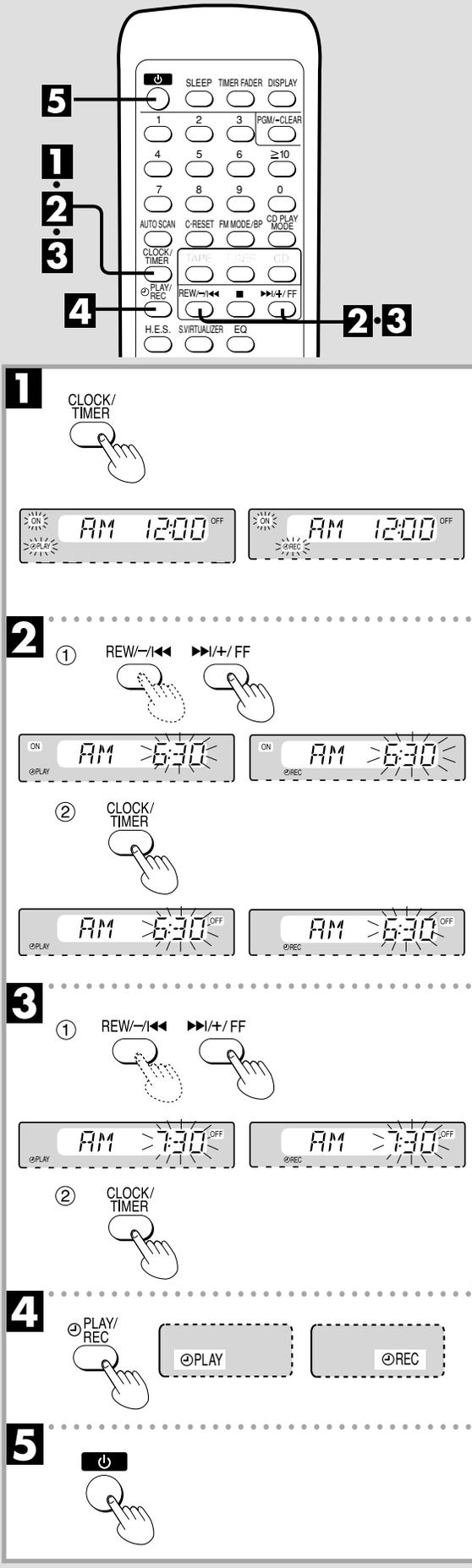
The record timer comes on about 30 seconds earlier than the set time.

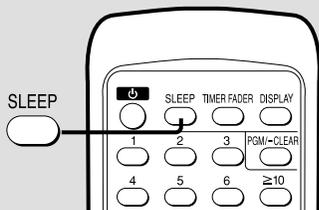
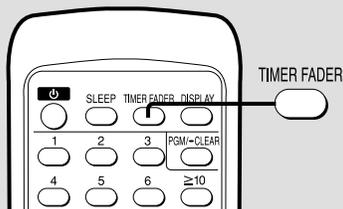
## To cancel the timer

Press [ PLAY/REC] when the unit is on to clear the timer indicators from the display.

(The timer comes on at the set time everyday if the timer is on).

(Continued on next page)



**A****B**

## Using the Timer

### To check the settings (when unit is off)

Press [CLOCK/TIMER].

The settings are shown in the following order:

Start time, Finish time → Source → Volume → Clock

### To change the settings (when unit is on)

#### To change the times

Do steps **1**, **2**, **3**, and **5**.

#### To change the source or volume

1. Press [⏪ PLAY/REC] to clear the timer indicator.

2. Make changes to the source or volume.

3. Do steps **4** to **5**.

### You can enjoy other sources after you have set the timer.

Turn the unit off before the timer's start time.

#### Note

The play and record timers cannot be used together.

## A The Sleep Timer

### Remote control only

Set the unit to stop and turn off after a certain time.

While listening to a CD, a cassette, or the radio.

### Press [SLEEP] to select the time (in minutes).

Each time the button is pressed

→ SLEEP 30 → SLEEP 60 → SLEEP 90  
 SLEEP OFF ← SLEEP 120 ←

### To cancel

Press [SLEEP] to select "SLEEP OFF".

### To check the remaining time

Press [SLEEP] once.

The remaining time is shown for about 5 seconds.

### To change the time.

Press [SLEEP] to select the new time.

The sleep timer can be used in combination with the play and record timers. Make sure the unit is off before the play or record timer's set start time.

## B The Timer Fader

### Remote control only

Volume increases slowly to the set level when a timer turns the unit on and decreases slowly when the sleep timer turns the unit off.

### Press [TIMER FADER] to display "FADER".

(All timers will be affected.)

Press again to cancel.

#### Note

This feature does not affect record timer's recordings.

## ONLY FOR U.S.A.

Panasonic Consumer Electronics Company,  
Division of Matsushita Electric Corporation of America  
One Panasonic Way Secaucus, New Jersey 07094

Panasonic Sales Company, Division of Matsushita Electric  
of Puerto Rico, Inc.  
Ave. 65 de Infantería, Km. 9.5  
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

## Panasonic Portable Audio Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair or replace this product with new or refurbished parts or equivalent product, free of charge in the U.S.A. or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of original purchase):

PARTS & LABOR - ONE (1) YEAR

Non-rechargeable batteries are not warranted

Rechargeable batteries - (when applicable) exchange defective item for new one for ten (10) days.

For assistance in the continental U.S.A. in obtaining repairs please ship the product to:

**Panasonic Services Company - Customer Servicenter**  
Suite B 4900 George McVay Drive  
McAllen, TX 78503

In Puerto Rico contact the Panasonic Sales Company.  
Tel.(787) 750-4300 Fax.(787)768-2910

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number where you can be reached.

**IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

Also, the purchaser will be responsible for shipping the unit to the above address.

This warranty is extended only to the original purchaser.

This warranty only covers failures due to defects in materials and workmanship which occur during normal use. The warranty does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, faulty installation, mis-application, improper insertion of consumables, set-up adjustments, maladjustment of consumer controls, improper operation or maintenance, improper antenna, inadequate signal reception or pickup, alteration, modification, power line surge, improper voltage supply, lightning damage, commercial use or service by anyone other than a **PANASONIC SERVICES COMPANY** authorized repair facility, or damage that is attributable to acts of God.

### **LIMITS AND EXCLUSIONS**

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES OR DISCS) RESULTING FROM THE USE OF THIS PRODUCTS, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

*If you have a problem with this product that is not handled to your satisfaction, then write to the Consumer Affairs Department at the Company address indicated above.*

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:  
1-800-211-PANA(7262), Monday - Friday 9 am - 9 pm, Saturday - Sunday 9 am - 7 pm, EST.

Web Site: <http://www.panasonic.com>  
You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

### **Accessory Purchases:**

1-800-332-5368 (Customer Orders Only)  
Panasonic Services Company 20421 84<sup>th</sup> Avenue South, Kent, WA 98032  
(6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday, PST)  
(Visa, MasterCard, Discover Card, American Express, Check)

## Troubleshooting

Before requesting service, make the below checks. If you can't fix the system as described below, or if something not listed here occurs, refer to the enclosed directory to locate an Authorized Service Center convenient to you or contact your dealer.

**For detailed instructions, contact an authorized servicenter in the U.S.A. and Panasonic Canada Inc. Customer Care Centre in Canada.**

**In the U.S.A., call 1-800-211-7262, e-mail [consumerproducts@panasonic.com](mailto:consumerproducts@panasonic.com), or visit [www.panasonic.com](http://www.panasonic.com)**

**In Canada, call 905-624-5505 or visit [www.panasonic.ca](http://www.panasonic.ca)**

Reference pages are shown as black circled numbers ⑥.

### Common problems

"E" is displayed	Indicates incorrect operation. Read the instructions.
"UO1" is displayed	Replace the batteries or use household AC power. ⑥
"UO2" is displayed	Batteries haven't been inserted. Insert batteries or use household AC power. ("UO2" appears only if you have inserted memory batteries.) ⑥

### CD

CD won't play or CD display is incorrect	Clean the CD ⑩ Wait for about an hour for condensation to clear and try again. Make sure the label is facing up. ⑩ Replace the CD if it is scratched, warped, or irregularly shaped. ⑩
--	---

### Cassette deck

Recording not possible	Have the cassette's tabs been removed? Cover the holes with tape. ⑩⑥
Poor sound quality	Clean the heads. ⑨

### Radio

A lot of noise or difficult to tune	Interference may be caused by other equipment. Turn the other equipment off or separate this unit from them. Interference may occur if a remote control from other equipment is used.
-------------------------------------	--

### Remote control

The remote control doesn't work.	Check the batteries are inserted correctly. ⑧ Replace the batteries if they are worn. ⑧
The unit can't be turned on from the remote control.	Use the power button on the main unit if you are using batteries to power the unit. ⑥ ⑧

## Specifications

### Radio

#### Frequency range

FM	87.9–107.9 MHz (200 kHz steps) 87.5–108.0 MHz (100 kHz steps)
AM	520–1710 kHz (10 kHz steps)

### CD player

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Below measurable limit
D/A converter	MASH (1 bit DAC)

### Tape recorder

Track system	4 track, 2 channel, stereo
Monitor system	Variable sound monitor
Recording system	AC bias
Erasing system	Multi Pole magnet
Frequency response	
Normal position	50 Hz–14 kHz

### General

#### Speakers

Full Range	7 cm 5.4 ΩX2
------------	--------------

#### Jacks

Output	PHONES: 3.5 mm stereo (16–64 Ω)
--------	---------------------------------

#### Power requirement

AC	120 V, 60 Hz
----	--------------

Power consumption: 17 W

In standby mode: 1.2 W

Battery	12 V (Eight R20, D, UM-1 batteries)
---------	-------------------------------------

#### Memory back-up for computer/clock

	6V (Four R6, AA, UM-3 batteries)
--	----------------------------------

#### Dimensions (WXHXD)

	380 × 158 × 250 mm
--	--------------------

	14 <sup>31/32</sup> " × 6 <sup>7/32</sup> " × 9 <sup>27/32</sup> " inch
--	---

#### Mass

	3.7 kg (8.2lbs)
--	-----------------

without batteries

#### Note

Specifications are subject to change without notice.  
Mass and dimensions are approximate.

- 1. Damage requiring service**—The unit should be serviced by qualified service personnel if:
  - (a) The AC power supply cord or AC adaptor has been damaged; or
  - (b) Objects or liquids have gotten into the unit; or
  - (c) The unit has been exposed to rain; or
  - (d) The unit does not operate normally or exhibits a marked change in performance; or
  - (e) The unit has been dropped or the cabinet damaged.
- 2. Servicing**—Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3. Replacement parts**—When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
- 4. Safety check**—After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

### Product information

For product information or assistance with product operation:  
In the U.S.A., contact the Panasonic Customer Call Center at 1-800-211-7262, or e-mail [consumerproducts@panasonic.com](mailto:consumerproducts@panasonic.com), or web site (<http://www.panasonic.com>).  
For assistance in the continental U.S.A. in obtaining repairs please ship the product to:

**Panasonic Services Company - Customer Servicenter**  
**Suite B 4900 George McVay Drive**  
**McAllen, TX 78503**

In Puerto Rico contact the Panasonic Sales Company.  
Tel.(787) 750-4300 Fax.(787) 768-2910

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day time phone number where you can be reached.

**IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/ PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.**

Also, the purchaser will be responsible for shipping the unit to the above address.

In Canada, contact Panasonic Canada Inc. Customer Care Centre at 905-624-5505, web site ([www.panasonic.ca](http://www.panasonic.ca)), or an authorized Servicentre closest to you.

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**Panasonic Consumer Electronics  
Company, Division of Matsushita  
Electric Corporation of America**

One Panasonic Way Secaucus,  
New Jersey 07094  
<http://www.panasonic.com>

**Panasonic Sales Company,  
Division of Matsushita Electric of  
Puerto Rico, Inc. ("PSC")**

Ave. 65 de Infantería, Km. 9.5  
San Gabriel Industrial Park, Carolina,  
Puerto Rico 00985

**Panasonic Canada Inc.**

5770 Ambler Drive  
Mississauga, Ontario  
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[www.panasonic.ca](http://www.panasonic.ca)

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