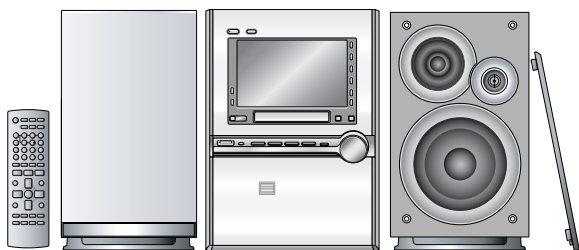# Panasonic®

Operating Instructions
DVD Stereo System

Model No. **SC-PM91D**

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Table of contents

Operations in these instructions are described mainly for the remote control, but you can do the operations on the main unit if the controls are the same.

DVD
AUDIO/VIDEO

COMPACT disc
DIGITAL VIDEO

RAM
COMPATIBLE
PLAYER

Region number
The player plays DVD-Video marked with labels containing the region number "**1**" or "**ALL**".
Example:

1   **ALL**   **1 2 4**

As an ENERGY STAR® Partner[1], Panasonic has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

[1] For Canada only: The word "Participant" is used in place of the word "Partner".

P   PC

RQT7932-3P

IMPORTANT SAFETY INSTRUCTIONS

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

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION!

THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR
PERFORMANCE OF PROCEDURES OTHER THAN THOSE
SPECIFIED HEREIN MAY RESULT IN HAZARDOUS
RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR
YOURSELF. REFER SERVICING TO QUALIFIED
PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK
OR PRODUCT DAMAGE, DO NOT EXPOSE THIS
APPARATUS TO RAIN, MOISTURE, DRIPPING OR
SPLASHING AND THAT NO OBJECTS FILLED WITH
LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON
THE APPARATUS.

CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE,
BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE.
ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT
RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE
TO OVERHEATING, ENSURE THAT CURTAINS AND
ANY OTHER MATERIALS DO NOT OBSTRUCT THE
VENTILATION VENTS.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. 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.
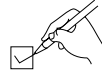
The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

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.

System	SC-PM91D
Main unit	SA-PM91D
Speakers	SB-PM91

Accessories

Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts. (As of January 2005)

In U.S.A. to order accessories, refer to "Accessory Purchases" on page 35.

☐ **1 Remote control** (N2QAJB000136)

☐ **1 AC power supply cord** (K2CB2CB00006)

☐ **1 FM indoor antenna** (RSA0007-L)

☐ **1 Antenna plug** (K2RC021B0001)

☐ **2 Batteries** for remote control

☐ **1 AM loop antenna** (N1DAAAA00001)

☐ **1 Video cable** (RJL1P016B15A)

Note

• The included AC power supply cord is for use with this unit only. Do not use it with other equipment.
• Do not use an AC power supply cord from other equipment.

User memo:

DATE OF PURCHASE _____

DEALER NAME _____

DEALER ADDRESS _____

_____

TELEPHONE NUMBER _____

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER _____SC-PM91D_____

SERIAL NUMBER _____

Disc information

Discs that can be played

Disc	Logo	Indication in these operating instructions	Remarks	
DVD-RAM	DVD RAM RAM4.7	**RAM**	Recorded using Version 1.1 of the Video Recording Format (a unified video recording standard).	• Recorded with DVD-Video recorders, DVD-Video cameras, personal computers, etc. • Remove discs from their cartridges before use.
		JPEG	Recorded using the DCF (Design rule for Camera File system) standard.	• Recorded with Panasonic DVD-Video recorders. • To play JPEG files, select "Play as Data Disc" in Other Menu (➡ page 19).
DVD-Audio	DVD AUDIO	**DVD-A**	—	
		DVD-V	Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select "Play as DVD-Video" in Other Menu (➡ page 19).	
DVD-Video	DVD VIDEO DVD VIDEO	**DVD-V**	—	
DVD-R/ DVD-RW	DVD R R4.7 DVD RW		Discs recorded and finalized[1] on a DVD-Video recorder or DVD-Video camera are played as DVD-Video on this unit.	
+R (Video)/ +RW (Video)	—	**DVD-V**	Discs recorded and finalized[1] on a DVD-Video recorder or DVD-Video camera are played as DVD-Video on this unit. • Note that you cannot use some of the features described in these instructions with these discs, and some information may not be displayed correctly. This is due to the disc format and does not indicate a malfunction.	
Video CD	COMPACT disc DIGITAL VIDEO		—	
SVCD	COMPACT disc SUPER VIDEO	**VCD**	Conforming to IEC62107.	
CD	COMPACT disc DIGITAL AUDIO COMPACT disc DIGITAL AUDIO TEXT	**CD**	This unit is compatible with HDCD, but does not support Peak Extend function (a function which expands the dynamic range of high level signals). HDCD-encoded CDs sound better because they are encoded with 20 bits, compared with 16 bits for all other CDs. • During HDCD play, "HDCD" appears on the unit's display.	
CD-R CD-RW	—	**WMA** **MP3** **JPEG** **CD** **VCD**	• This unit can play CD-R/RW (audio recording disc) recorded with the formats on the left. Close the session or finalize[1] the disc after recording. • **HighMAT discs** WMA, MP3 or JPEG files only. To play without using the HighMAT function, select "Play as Data Disc" in Other Menu (➡ page 19).	

[1]A process that allows play on compatible equipment.
• It may not be possible to play the above discs in all cases due to the type of disc or condition of the recording.

■ Discs that cannot be played
DVD-ROM, CD-ROM, CDV, CD-G, SACD, Divx Video Discs and Photo CD, DVD-RAM that cannot be removed from its cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

Playing DVDs and Video CDs
The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus). Read the disc's instructions carefully.

■ Playing PAL system DVD-Audio
This unit converts PAL to NTSC for play. The picture is compressed to show it in its entirety, but this may cause it to be stretched vertically.

■ Using DualDiscs
The "CD" sides of DualDiscs do not meet the CD-DA standard so it may not be possible to play them on this unit.

Disc information

RQT7932

4

Tray/disc handling procedure

Adhere to the following to avoid problems.

Opening/closing a disc tray
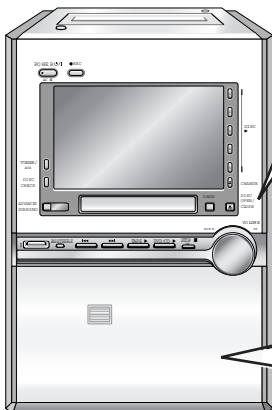
Open/close the tray only with [▲, DISC OPEN/CLOSE].

DISC
OPEN/
CLOSE

Do not pull.

Do not push.

Inserting discs correctly
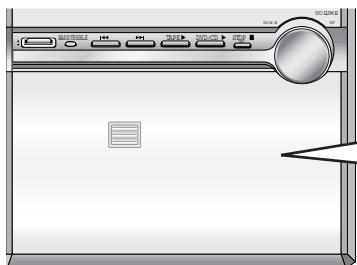
Insert disc inside the guide.
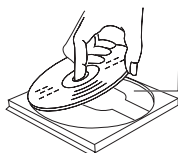
12 cm

8 cm
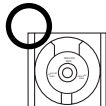
• Place the disc label up in the center of the tray.
• Insert only one disc into each tray.

Cleaning discs

DVD-A DVD-V VCD CD

Wipe with a damp cloth and then wipe dry.
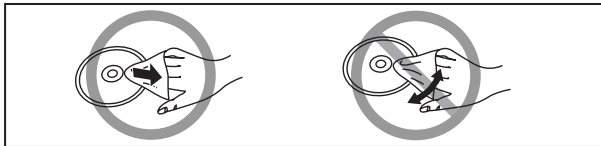
RAM and other recordable formats
• Clean with an optional DVD-RAM/PD disc cleaner (LF-K200DCA1, where available).
• Never use cloths or cleaners for CDs, etc.

Disc handling precautions

• Do not attach labels or stickers to discs (This may cause disc warping, rendering it unusable).
• Do not write on the label side with a ball-point pen or other hard writing instrument.
• Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
• Do not use scratch-proof protectors or covers.
• Do not use the following discs:
  – Discs with exposed adhesive from removed stickers or labels (rented discs, etc).
  – Discs that are badly warped or cracked.
  – Irregularly shaped discs, such as heart shapes.

Tray/disc handling procedure

Simple setup

Cables and equipment are sold separately unless otherwise indicated.

Positioning and connecting the speakers

a. Positioning

Tweeter

Speaker   Main unit   Speaker
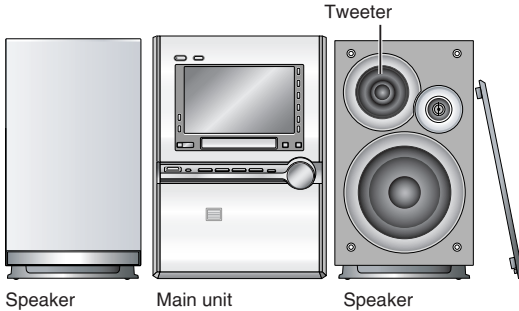
Place the speakers so that the tweeters are on the inside.

> **Caution**
> • **Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.**
> • **Do not attach these speakers to walls or ceilings.**

The speaker cabinets are simulated wood.

Use only the supplied speakers
• Using other speakers can damage the unit and sound quality will be negatively affected.
• Set the speakers up on an even surface to prevent them from falling. Take proper precautions to prevent the speakers from falling if you cannot set them up on an even surface.

Positioning for best effect
How you set up your speakers can affect the bass and the sound field. Note the following points.
• Place speakers on flat secure bases.
• Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtain.
• Keep your speakers at least 10mm ($^{13}/_{32}$") away from the system for proper ventilation.
• To avoid damage to the speakers, do not touch the speaker cones if you have taken the nets off.

Notes on speaker use
• You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
• Reduce the volume in the following cases to avoid damage.
  – When playing distorted sound.
  – When the speakers emit strange noise (howling) from a record player, noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
  – When adjusting the sound quality.
  – When turning the unit on or off.
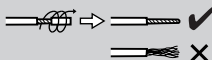
If irregular coloring occurs on your television
These speakers are designed to be used close to a television, but the picture may be affected with some televisions and set-up combinations.
If this occurs, turn the television off for about 30 minutes.
The television's demagnetizing function should correct the problem. If it persists, move the speakers further away from the television.
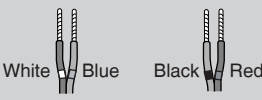
b. Connecting

Twist the vinyl tip and pull off.

OR
If the cords do not have vinyl tips, directly connect them to the terminals.

Confirm the colors of the tags on the ends of the cords.

White Blue   Black Red

Note
• Never short-circuit positive (+) and negative (–) speaker wires.
  Incorrect connection can damage the speakers.

For White tags:
- Connect to grey terminals.
For Blue, Black and Red tags:
- Connect so tag colors match the terminal colors.
Cords with white and blue tags are for high frequency.
Cords with red and black tags are for low frequency.

The labels HIGH and LOW stand for high frequency and low frequency, respectively.

Connect the left (L) side in the same way.

Grey   Blue   Black   Red

❶ ❷ ❸

HIGH(6Ω) LOW(6Ω)
SPEAKERS(SB-PM91)

Right speaker

Copper (White tag)

Silver (Blue tag)   Silver (Black tag)

Copper (Red tag)
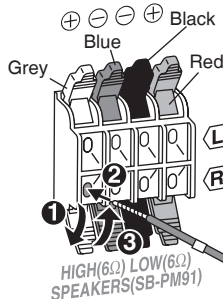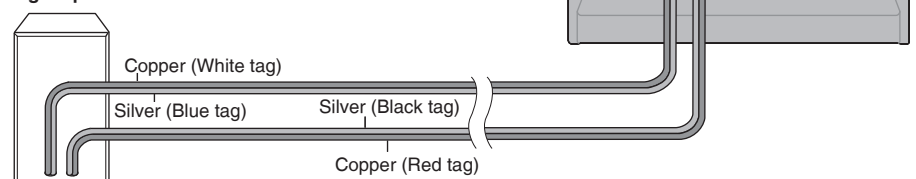
STEP **2**   **Television**

Video cable

(included)

■ **Connecting a television with a VIDEO IN terminal**

VIDEO
IN

Video cable
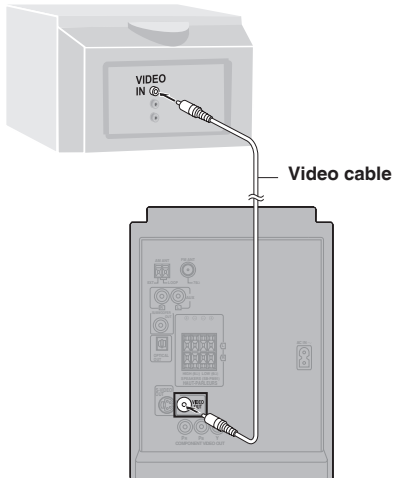
VIDEO OUT terminal
Do not connect the unit through a video cassette recorder,
because the picture may not be played correctly due to the copy
guard.

■ **Connecting a television with an S-VIDEO IN terminal**

S-VIDEO
IN

S-VIDEO cable
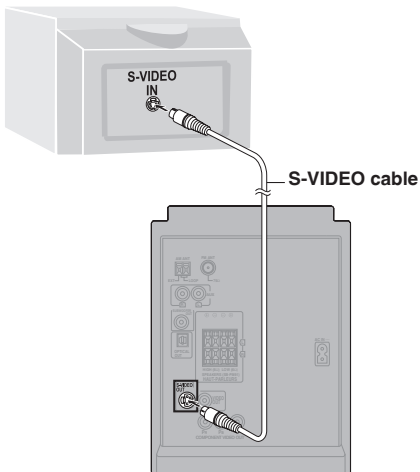
S-VIDEO OUT terminal
The S-VIDEO terminal achieves a more vivid picture than the
VIDEO OUT terminal by separating the chrominance (C) and
luminance (Y) signals. (Actual results depend on the television.)

■ **Connecting a television with COMPONENT VIDEO IN
terminals**

COMPONENT
VIDEO IN
P$_R$
P$_B$
Y

Video cables
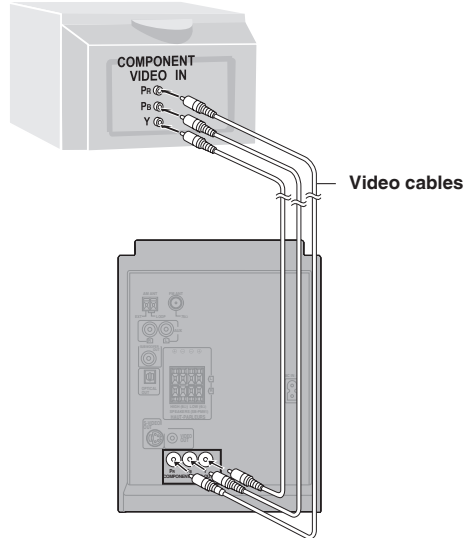
COMPONENT VIDEO OUT terminals
These terminals can be used for either interlace or progressive
output and provide a purer picture than the S-VIDEO OUT terminal.
Connection using these terminals outputs the color difference
signals (P$_B$/P$_R$) and luminance signal (Y) separately in order to
achieve high fidelity in reproducing colors. The description of the
component video input terminals depends on the television or
monitor (e.g. Y/P$_B$/P$_R$,Y/B-Y/R-Y, Y/C$_B$/C$_R$). Connect to terminals of
the same color.
• After making this connection, change the black level for a better
  picture ("Video" tab - Black Level Control, ➡ page 21).

To enjoy progressive video
1. Connect to the component video input terminals on a 480P
   compatible television. (Video will not be displayed correctly if
   connected to an incompatible television.)
2. Select "480p" for Video Output Mode (Picture Menu, ➡ page 19).
• All televisions manufactured by Panasonic and that have 480P
  input connectors are compatible. Consult the manufacturer if
  you have another brand of television.
• If the unit is connected to the television through VIDEO OUT
  or S-VIDEO OUT, output will be interlace, irrespective of the
  settings.

Connecting the antennas and AC power supply cord

Connect the AC power supply after all other connections are complete.

AM loop antenna	FM indoor antenna	AC power supply cord
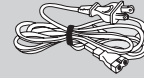
Conserving power
The unit consumes power (approx. 0.4 W) even when it is turned off with [⏻]. To save power when the unit is not to be used for a long time, unplug it from the household AC outlet. You will need to reset some memory items after plugging in the unit.

Click!

AM AN ❶

EXT ❷

FM indoor antenna
Fix the other end of the antenna where reception is best.
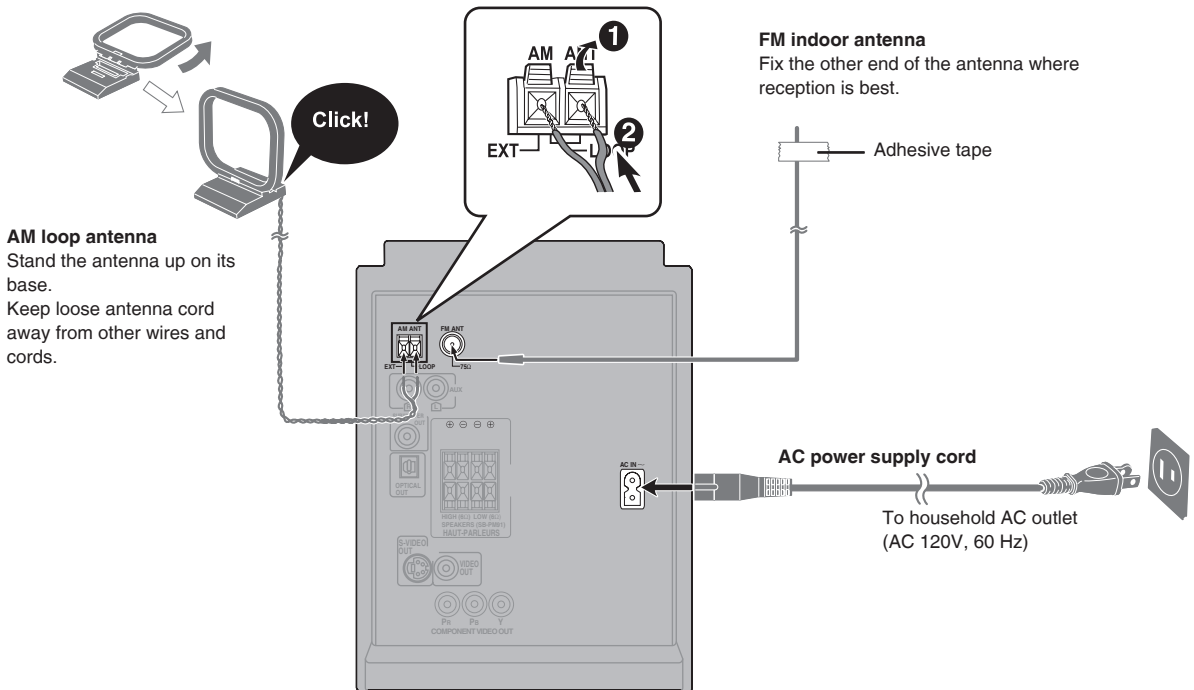
Adhesive tape

AM loop antenna
Stand the antenna up on its base.
Keep loose antenna cord away from other wires and cords.

AC power supply cord

To household AC outlet
(AC 120V, 60 Hz)

The remote control

Remote control	Batteries

❸ ❶
❷
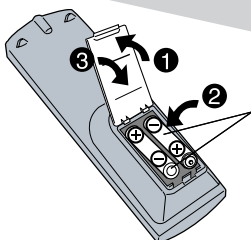
R6/LR6, AA
• Insert so the poles (+ and –) match those in the remote control.
• Do not use rechargeable type batteries.

■ **Do not:**
• mix old and new batteries.
• use different types at the same time.
• heat or expose to flame.
• take apart or short circuit.
• attempt to recharge alkaline or manganese batteries.
• use batteries if the covering has been peeled off.
Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

Remove if the remote control is not going to be used for a long period of time. Store batteries in a cool, dark place.
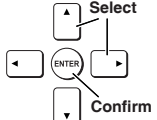
■ **Use**
Aim at the sensor, avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.

STEP 5 **QUICK SETUP**

Turn on the television and select the appropriate video input on the television to suit the connection for the unit.

1
Power ON.

2
Select "DVD/CD".

3
Show the QUICK SETUP screen.

4
Select the option from the screen.

Select

Confirm

5
Press to finish QUICK SETUP.

6
Press to exit.

STEP 6 **Setting the time**

SLEEP
CLOCK/
TIMER

1 Select "CLOCK".

SETUP
∨/REW   or   CANCEL
∧/FF

2 Set the time (press within 6 seconds or so).

SLEEP
CLOCK/
TIMER

3 Press [CLOCK/TIMER] to finish setting the time.

• This is a 12-hour clock.
• Press [DISPLAY] when the unit is on to display the time.
  The time is also shown for about 5 seconds when you select "CLOCK" again.
• Reset the clock regularly to maintain accuracy.

DEMO function

When the unit is first plugged in, a demonstration of its functions may be shown on the display.
If the demo setting is off, you can see a demonstration by turning on the demo.

The display changes each time the button is held down.
Demonstration (demo on) ↔ **NO DEMO** (off)

You can reduce the power consumed in standby mode by turning the demonstration off.

Note

You cannot turn the demo function on and off when the unit is on.

STOP ■
—DEMO—
Press and hold.

Cassette lid

PHONES
Headphone jack
Reduce the volume level and connect the headphones.
Headphones plug type: 3.5 mm ($^1/_8$") stereo.
Avoid listening for prolonged periods of time to prevent hearing damage.

OPEN ▲ (➡ 24, 25)
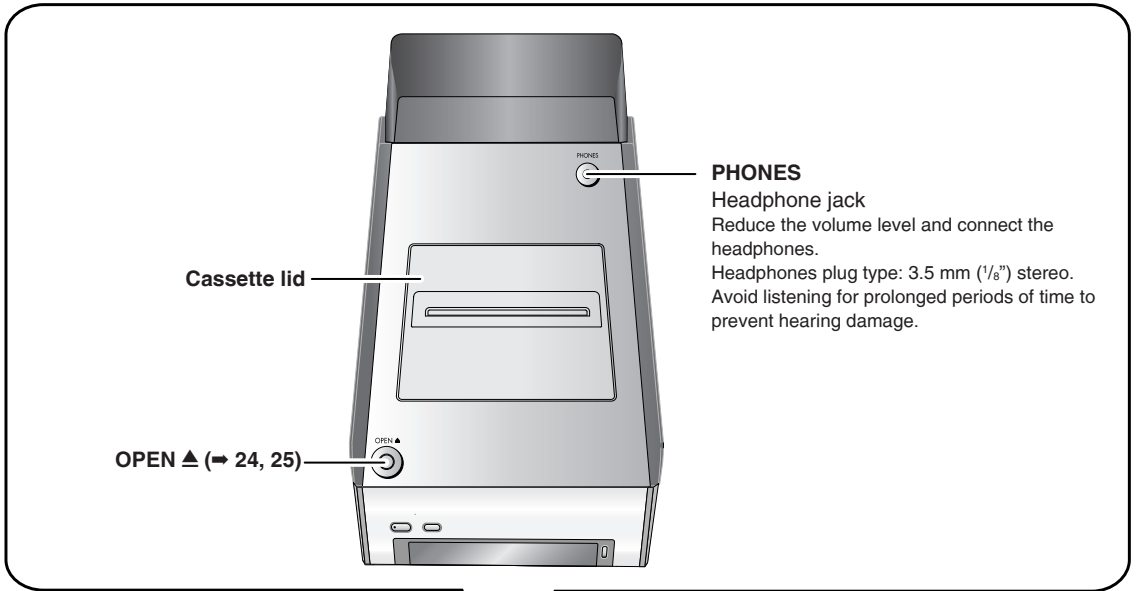
AC IN (AC supply indicator)
This indicator lights when the unit is connected to the AC power supply.
POWER ⏻/| (standby/on switch)
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.

●REC (➡ 25)

H.BASS (➡ 26)

TUNER/AUX (➡ 23, 29)

DISC CHECK (➡ 13)

ADVANCED SURROUND (➡ 26)

Remote control sensor

EQ jog, BASS/TREBLE (➡ 26)

1– 5 (disc direct play buttons) (➡ 13)

▲, CHANGE (➡ 13)

▲, DISC OPEN/CLOSE (➡ 5, 12)

VOLUME, UP, DOWN

Disc trays (➡ 5, 12)
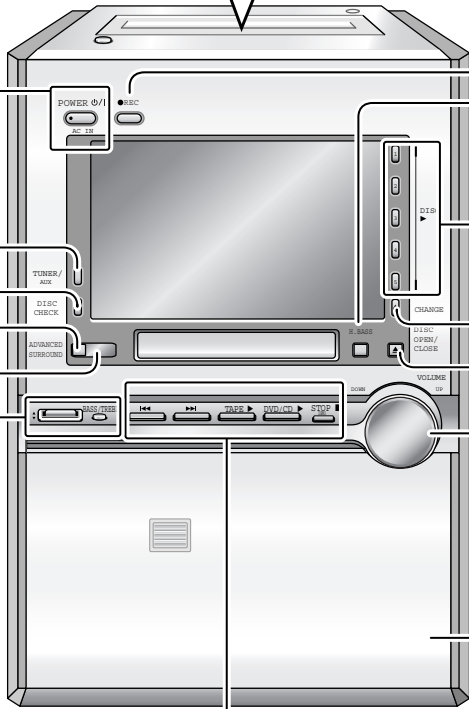
|◄◄ ►►| (time adjust, disc skip, radio channel select, tape fast-forward/rewind/TPS) (➡ 9, 12, 23, 24)

TAPE ► (➡ 24)

DVD/CD ► (➡ 12)

STOP ■, –DEMO (➡ 9, 12, 24)

CLOCK/TIMER, SLEEP (➡ 9, 27, 28)

⏲ PLAY/REC, AUTO OFF (➡ 27, 28)

⏻, TV ⏻ (➡ 9, 29)

DISPLAY, DIMMER (➡ 9, 27)

H.BASS, SUBWOOFER (➡ 26, 30)

SURROUND, M.RE-MASTER (➡ 26, 27)

SOUND, A.ONLY (➡ 26, 27)

DISC, ALL DISC,
disc buttons 1 to 5 (➡ 13)

GROUP (➡ 13)

Numbered buttons

REPEAT (➡ 14)

PLAY MODE (➡ 14, 23)

PGM (➡ 15, 23)

■, STOP (➡ 12, 24)

QUICK REPLAY (➡ 13)

II, PAUSE (➡ 12)

CM SKIP (➡ 13)

TUNER/AUX (➡ 23, 29)

DVD/CD ▶ (➡ 12)

TAPE ▶, ● REC (➡ 24, 25)

TOP MENU, DIRECT NAVIGATOR
(➡ 13, 17)

MENU, PLAY LIST (➡ 13, 16, 17)

▲, ▼, ◄, ►, ENTER

FUNCTIONS, QUICK OSD (➡ 18, 20)

RETURN, ANGLE/PAGE (➡ 13, 14, 18)

I◄◄ ►►I, ∨/REW, ∧/FF, SETUP,
CANCEL (➡ 9, 12, 23, 24)

◄◄, ►► SLOW/SEARCH, TV CH ∨, ∧
(➡ 12, 23, 29)

SHIFT
To use functions labeled in orange:
While pressing [SHIFT], press the
corresponding button.

−, +, VOLUME, TV VOL −, + (➡ 12, 29)

MUTING, TV/VIDEO (➡ 27, 29)

Panasonic

Control guide: remote control

Discs — Basic play

DISC CHECK

1–5

▲, CHANGE

▲, DISC OPEN/CLOSE

VOLUME, UP, DOWN

STOP ■

DVD/CD ▶

Disc trays
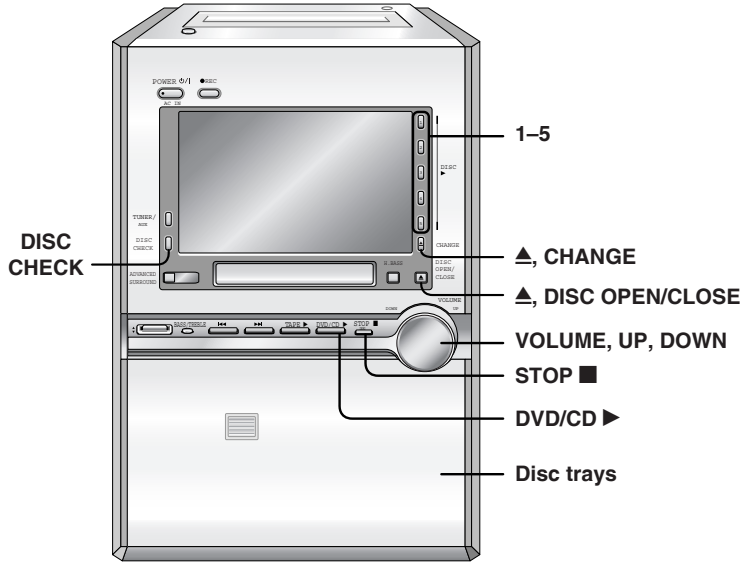
- **If the disc contains both audio data (WMA and MP3) and JPEG,** select "All" to play both, "Audio" to play WMA/MP3, or "Picture" to play JPEG while the menu is displayed (except `JPEG` on `RAM`). You can also access the menu by pressing [TOP MENU].

1

DISC OPEN/CLOSE

Open the disc tray.
- The unit turns on automatically and a tray opens.

2

Place disc.
Label must face upward.

Disc tray · Tray number

- Load double-sided discs so the label for the side you want to play is facing up. (➡ Tray/disc handling procedure, page 5)

`RAM`

- Remove TYPE 2 and 4 discs from their cartridges before use. Read the instructions for the disc carefully.

3

DISC OPEN/CLOSE

Close the disc tray.

4

DVD/CD ▶

Start play.
- It may take some time for play to start but this is normal.

Volume adjustment	— TV VOL + / VOLUME	
Stop	STOP ■	The stopped play position is memorized when "RESUME" is displayed. • Press [DVD/CD ▶] to resume play. • Press [■, STOP] to clear the position.
Pause	PAUSE ❙❙	• Press [DVD/CD ▶] to restart play.
Skip	SETUP ∨/REW ⏮ · CANCEL ∧/FF ⏭	

Search (during play)	∨ TV CH ∧ SLOW/SEARCH ◀◀ ▶▶	• Up to 5 steps. • Press [DVD/CD ▶] to restart play.
Slow-motion	PAUSE ❙❙ ➡ ∨ TV CH ∧ SLOW/SEARCH ◀◀ ▶▶	• Up to 5 steps. • Press [DVD/CD ▶] to restart play. • `DVD-A` Motion picture parts only. • `VCD` Forward direction only.
Frame-by-frame (during pause)	◀ ENTER ▶	• `DVD-A` Motion picture parts only. • `VCD` Forward direction only. • Pressing [❙❙, PAUSE] also activates forward direction. • Press [DVD/CD ▶] to restart play.

Enter number	① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪ ≧10 **SHIFT** + CANCEL ∧/FF ►►I	**RAM** **DVD-A** **DVD-V** **VCD** **CD** Example: To select 12: [≧10] ➡ [1] ➡ [2] **VCD** with playback control • Press [■, STOP] then press the numbered buttons. **WMA** **MP3** **JPEG** Example: To select 123: [1] ➡ [2] ➡ [3] ➡ [ENTER] • Press [SHIFT]+[CANCEL] to cancel the number(s).

Disc menu	TOP MENU ◯ DIRECT NAVIGATOR MENU ◯ PLAY LIST ANGLE/PAGE ◯ RETURN	**DVD-A** **DVD-V** Shows a disc top menu **DVD-V** Shows a disc menu **VCD** Shows a disc menu

On-screen item select	▲ Select ◄ ENTER ► ▼ Confirm

Return to previous screen	ANGLE/PAGE ◯ RETURN

Skip back a few seconds (during play)	QUICK REPLAY ◻	• This may not work while playing some parts of a disc or at all with some discs (only when the elapsed play time can be displayed).

Skip 60 seconds forward (during play)	CM SKIP ◻	• This may not work while playing some parts of a disc or at all with some discs (only when the elapsed play time can be displayed).

Selecting a disc	ALL DISC DISC ◯ ➡ ▲ Select ◄ ENTER ► ▼ Confirm	or ① ② ③ ④ ⑤

Selecting a group	**DVD-A** **WMA** **MP3** **JPEG** GROUP ◯ ➡ ▲ Select ◄ ENTER ► ▼ Confirm or GROUP ◯ ➡ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪ ≧10 ▲ ◄ ENTER ► ▼ Confirm

Group skip	**WMA** **MP3** **JPEG** ▲ Select ◄ ENTER ► ▼

All disc play (during stop)	**SHIFT** + ALL DISC DISC ◯ • ALL DISC ON ⟷ ALL DISC OFF • DVD discs and JPEG tracks are skipped. • HighMAT menus and video CD playback control are disabled.

Changing a disc in the desired tray	1 2 ◯ CHANGE ➡ DISC ► 3 4 5	Press [▲,CHANGE] again to close the tray. • You can also remove a disc while another is playing (except in all-disc random, program play or during recording).

Checking the disc location	DISC CHECK ◯ Press again to close the tray.	This feature lets you check whether a 12 cm disc is in a tray. • If a disc is being played, the corresponding tray will not open. • Do not remove or insert discs during a disc check. • Do not pull out the trays during a disc check.

• Multiple-channel signals are down-mixed to stereo (2-channel) (➡ Home theater—Enjoying more powerful sound, page 29).
• **When playing VCDs with playback control (PBC)**
  Pressing buttons to perform skip, search or slow-motion may take you to a menu screen.
• Lights when a Dolby Digital or DTS disc is played.

DOLBY DTS

Discs — Convenient functions

QUICK OSD FUNCTIONS	**Soundtracks**

`RAM` `DVD-A` `DVD-V` `VCD`
(Discs with multiple soundtracks)

During play
Press [FUNCTIONS] then [▲, ▼] to select "Audio".
Use the Functions menu to change the soundtrack to the one you want (➡ Audio, page 18).

`RAM` `VCD`
You can also select "L", "R" or "L R".
(Karaoke discs: You can also switch the vocals on and off. Read the disc's instructions for details.)
`DVD-A`
Play restarts from the beginning of the soundtrack when changing soundtracks that are accompanied by still pictures.

Audio attributes
LPCM/PPCM/$\square\square$Digital/DTS/MPEG: Signal type
kHz: Sampling frequency
bit: Number of bits
channel: Number of channels
Example:
3 /2 .1ch

- 1: Low frequency effect (not displayed if there is no signal)
- 0: No surround
  1: Mono surround
  2: Stereo surround (left/right)
- 1: Center
  2: Front left + Front right
  3: Front left + Front right + Center

QUICK OSD FUNCTIONS	**Subtitles**

`DVD-A`(Motion picture parts only)
`DVD-V`(Discs with multiple subtitle languages)`VCD`(SVCD only)
During play
Press [FUNCTIONS] then [▲, ▼] to select "Subtitle".
Use the Functions menu to switch the subtitles on and off and to change the language to the one you want (➡ Subtitle, page 18).

`RAM`
You can only switch the subtitles on or off.

To change the subtitle position and brightness (➡ Display Menu, page 19)**.**

SHIFT + ANGLE/PAGE RETURN	**Angles and pages**

During play

`DVD-V`(with multiple angles)
Press to select the angle.
`JPEG`
Press to rotate the picture.
`DVD-A`
Press to change the pages.

REPEAT	**Repeat play**

(Only when the elapsed play time can be displayed
`JPEG`: Works with all JPEG contents.)
During play
Press [REPEAT] to select an item to be repeated.
For 1-disc play
`RAM`
  PG REPEAT[#1] → DISC REPEAT → REPEAT OFF
- During play list play
  SCENE REPEAT → PL REPEAT[#2] → REPEAT OFF
`DVD-V`
  CHAPTER REPEAT → TITLE REPEAT[#3] → REPEAT OFF
`VCD` `CD`
  TRACK REPEAT → DISC REPEAT → REPEAT OFF
`DVD-A`
  TRACK REPEAT → GROUP REPEAT[#3] → REPEAT OFF
`WMA` `MP3`
  CONTENT REPEAT → GROUP REPEAT[#3] → REPEAT OFF
`JPEG`
  GROUP REPEAT[#3] → REPEAT OFF
- You can also repeat play of content and group on HighMAT discs.
For All-disc play (➡ page 13)
`VCD` `CD` `WMA` `MP3`
  TRACK (or CONTENT) REPEAT → DISC (or GROUP) REPEAT → ALL CD'S REPEAT → REPEAT OFF

To repeat only your favorite tracks, contents or chapters
Start program play (➡ Program play, page 15) and press [REPEAT] to select the repeat mode.

[#1] Program repeat (➡ Playing the programs on DVD-RAM, page 17).
[#2] Play list repeat (➡ Using the play lists on DVD-RAM, page 17).
[#3] **During program and random play**
  "ALL REPEAT" is displayed.

PLAY MODE	**Random play**

`DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3` `JPEG`
During stop

1. **Press [PLAY MODE] to show the Random Playback screen.**

2. (`DVD-A` `DVD-V` `WMA` `MP3` `JPEG`)
   Press the numbered buttons to select a group (`WMA` `MP3` `JPEG` then press [ENTER]) or a title.
   Example: `DVD-V`
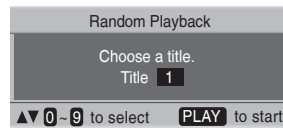
   ```
   Random Playback

   Choose a title.
   Title   1

   ▲▼ 0~9 to select      PLAY  to start
   ```
   `DVD-A`
   - You can select more than one group or all groups.
   - To deselect a group, select the group again.

3. **Press [DVD/CD ▶].**

Note
- During random play in All Disc play, empty trays are skipped and the playback control function on Video CDs is canceled.
- During random play, this unit can access up to 4000 audio or picture contents and 400 groups.
- `DVD-A`If you select bonus groups, you will have to enter a password.
- For HighMAT discs, select "Play as Data Disc" (➡ Other Menu, page 19) to use random play.

(PGM)	**Program play (up to 32 items)**

Programming from a single disc

DVD-A DVD-V VCD CD WMA MP3 JPEG

During stop

1 Press [PGM].
"PGM" appears.
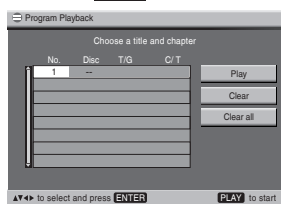
2 Press the numbered buttons to select the items (WMA MP3 JPEG then press [ENTER]).
 • Repeat this step to program other items.
 • **To select an item using the cursor buttons**
   Press [ENTER] and [▲, ▼] to select an item, then press [ENTER] again to confirm the number.

Example: DVD-V

Program Playback

Choose a title and chapter

No.	Disc	T/G	C/ T	
1	--			Play
				Clear
				Clear all

▲▼◄► to select and press ENTER   PLAY to start

3 Press [DVD/CD ▶] to play.

Programming from multiple discs

VCD WMA MP3 JPEG
During stop

1 Select ALL DISC ON (➡ page 13).

2 Follow the steps above.
Select the discs in step 2.

• **To exit the program mode**
 Press [PGM] so "PGM" goes out.
 Press [PGM] again to go back to the program.
• **To add or change the program**
 Press [▲, ▼] to select an available item, then repeat step 2.
• **To clear the whole program**
 Select "Clear all" and press [ENTER].
• **To clear an item**
 Press [SHIFT]+[CANCEL], or select "Clear" and press [ENTER].
• **To skip a page**
 Press [SHIFT]+[ANGLE/PAGE].

 Note
• Clear the existing program before creating a new program.
• Times are not displayed while programming.
• Items the unit cannot find can be programmed but are canceled during play. This is also the case if you program discs other than Video CD and CD.
• The program is cleared when you switch the unit to standby, select another source, or move the disc out of the play position.
• DVD-A If you select bonus groups, you will have to enter a password.
• For HighMAT discs, select "Play as Data Disc" (➡ Other Menu, page 19) to use program play.

Discs — Using navigation menus

MENU / **PLAY LIST**

**Playing data discs**
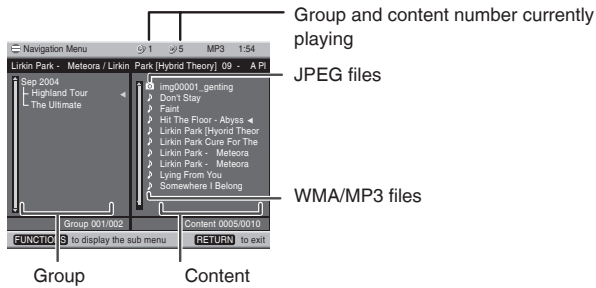`CD` `WMA` `MP3` `JPEG`

- You can play JPEG files on DVD-RAM or play HighMAT discs without using the HighMAT function (➡ Other Menu, page 19).
- Only a content list appears when playing CDs, but information for CD-Text discs is correctly displayed.

■ **Using navigation menus**

1 **Press [MENU].**
2 **Press [▲, ▼, ◄, ►] to select the group or audio/picture content and press [ENTER].**

Example: `WMA` `MP3` `JPEG`

Group and content number currently playing

JPEG files

WMA/MP3 files

Group   Content

- **To play WMA/MP3 while showing JPEG images**
  First select the JPEG file you want to show, **then** select the WMA/MP3 file(s).
- **To skip a page**
  Press [SHIFT]+[ANGLE/PAGE].
- **To exit the screen**
  Press [MENU].

QUICK OSD / **FUNCTIONS**

Using the submenu `WMA` `MP3` `JPEG`
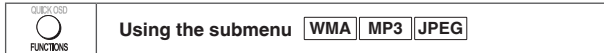
1 **While the navigation menu is displayed, press [FUNCTIONS].**

Example (actual items depend on the disc)

Multi	Show groups and content
List	Show content
✓Tree	Show groups
Thumbnail	Show thumbnails `JPEG`
Next group	Go to next group `WMA` `MP3`
Previous group	Go to previous group `WMA` `MP3`
All	List both WMA/MP3 and JPEG files
✓Audio	List WMA/MP3 files only
Picture	List JPEG files only
✓Help display	Show help bar or the elapsed play time indicator
Find	Enter a title to find content and groups (➡ below)

2 **Press [▲,▼] to select the item and press [ENTER].**

- **To return to the menu**
  Press [RETURN].

■ **Finding a track or group title**
`WMA` `MP3` `JPEG`
To find a group: highlight one of the group names
To find content: highlight an item in the content column

1 **Select "Find" in the submenu.**

★A   Find
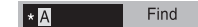
2 **Press [▲,▼] to select a character and press [ENTER].**
- Repeat to enter other characters.
- Lower case is also searched.
- Press [◄◄, ►►] to skip between A, E, I, O, and U.
- Press [◄] to erase a character.
- Erase the asterisk (★) to search only for the titles starting with that word.

3 **Press [►] to select "Find" and press [ENTER].**
The search results screen appears.

4 **Press [▲,▼] to select the content or group and press [ENTER].**

Playing HighMAT discs

`WMA` `MP3` `JPEG`
A menu appears when you select the disc.
Press [▲, ▼, ◄, ►] to select then press [ENTER].
When you press [ENTER]:

Menu: Takes you to the next menu which shows play lists or another menu.

Play list: Play starts.

- **To display the screen**
  Press [TOP MENU].
- **To return to the menu above the current one**
  Press [RETURN].
- **To change the menu background**
  Press [FUNCTIONS].
  The background changes to the one recorded on the disc.
- **To exit the screen**
  Press [■, STOP].

MENU / **PLAY LIST**

Selecting from the lists
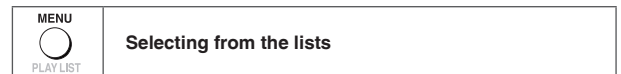
1 **During play
Press [MENU].**
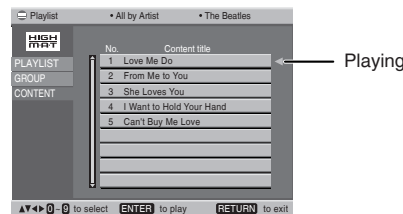
Playing

2 **Press [◄] then [▲, ▼] to switch between the play list, group and content lists.**
3 **Press [►] then [▲, ▼] to select an item and press [ENTER].**

- **To skip a page**
  Press [SHIFT]+[ANGLE/PAGE].
- **To exit the list screen**
  Press [MENU].

○ DIRECT NAVIGATOR   **Playing the programs on DVD-RAM**

1 **Press [DIRECT NAVIGATOR] to show the program list.**

2 **Press [▲, ▼] or the numbered buttons to select the item.**
The selected program plays in the background.

DIRECT NAVIGATOR

No.	Date	On	Title	Contents
1	11/ 1(WED)	12:05	Friends of a feather	▶
2	1/ 1(MON)	1:05	Sunny day	▶
3	2/ 2(TUE)	2:21	Penguins habitat	▶
4	3/ 3(WED)	3:37	Irresistible	▶
5	4/ 10(THU)	11:05	Hot cakes	▶

▲▼ 0 - 9 to select   RETURN to exit

3 **Press [ENTER] to confirm.**

• Titles appear only if you have entered them.
• You cannot change program and disc titles.
• Press [▶] to show the contents of the program.
• **To skip a page**
  Press [SHIFT]+[ANGLE/PAGE].

Indication on the unit's display.
PG: Program number

○ PLAY LIST   **Using the play lists on DVD-RAM**

You can play the groups of scenes (play lists) created on DVD video recording equipment.

1 **Press [PLAY LIST] to show the play list menu.**

2 **Press [▲, ▼] or the numbered buttons to select the item.**

≡ Playlist

No.	Date	Length	Title
1	11/ 1	0:00:01	I'm only a woman
2	1/ 1	0:01:20	Sunny day
3	2/ 2	1:10:04	Breathless
4	3/ 3	0:10:20	Irresistible
5	4/10	0:00:01	Hot cakes

▲▼ 0 - 9 to select and press ENTER   RETURN to exit

3 **Press [ENTER] to confirm.**

• You can only select a play list if the disc contains play lists.
• **To skip a page**
  Press [SHIFT]+[ANGLE/PAGE].
Indication on the unit's display.
PL: Play list number

Tips for making WMA/MP3, CD text and JPEG discs
• Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
• This unit is compatible with multi-session but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.
• The order in which the tracks appear in the menus may differ from the order shown on your computer.

Naming folders and files
At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them (this may not work at times).
Files must have the extension:
".WMA" or ".wma"
".MP3" or ".mp3"
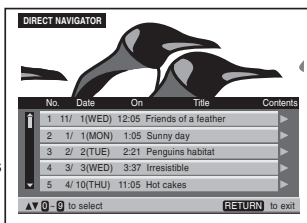".JPG", ".jpg", ".JPEG" or ".jpeg"

Example: MP3
root
001 group
  001 track.mp3
  002 track.mp3
  003 track.mp3
002 group
  001 track.mp3
  002 track.mp3
  003 track.mp3
  004 track.mp3
003 group
  001 track.mp3
  002 track.mp3
  003 track.mp3
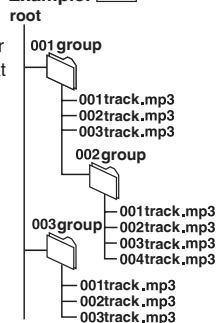
WMA
• Noise may occur when playing WMA files.
• You cannot play WMA files that are copy protected.
MP3
• This unit is not compatible with ID3 tags.
• If you play an MP3 track that includes still picture data, it will take some time before the music itself starts playing and the elapsed time will not be displayed during this time. Even after the track starts, the correct play time will not be displayed.
JPEG
• To view JPEG files on this unit:
  —Take them on a digital camera that meets the DCF (Design rule for Camera File System) standard. Some digital cameras have functions that are not supported by the DCF standard like automatic picture rotation which may render a picture unviewable.
  —Do not alter the files in any way or save them under a different name.
• This unit cannot display moving pictures, Motion JPEG and other such formats, still pictures other than JPEG (i.e. TIFF) or play associated sound.
CD (CD text only)
When making your own CD text discs
The unit plays the tracks in the order you record them so you do not have to prefix the titles with numbers.

RQT7932

Discs — Using On-screen menus

QUICK OSD
○
FUNCTIONS | **To get disc information or to play from a specified item**

1

QUICK OSD
○
FUNCTIONS

Show the FUNCTIONS screen

2

Select ▲ Go to the next menu
◄ ENTER ►
Return to the previous menu ▼ Confirm

Select the menu.

3

Select
Select ▲
① ② ③
◄ ENTER ► ④ ⑤ ⑥
▼ Confirm ⑦ ⑧ ⑨
⓪ ≧10

Make the settings.

4

ANGLE/PAGE
○
RETURN

Press to exit.

Actual items depend on the disc.

Example:

☑ Functions

①	Title	1/4	Play Speed	⑨
②	Chapter	1/20	Play Menu	⑩
③	Time	0:00:00	Picture Menu	⑪
④	Audio	1 English	Audio Menu	⑫
⑤	Subtitle	Off	Display Menu	⑬
⑥	Marker (VR)		Other Menu	⑭
⑦	Still Picture	3		
	Angle	1/1		
⑧	Thumbnail			
	Rotate Picture			
	Slideshow	Off		
	Other Settings			

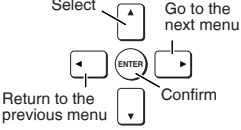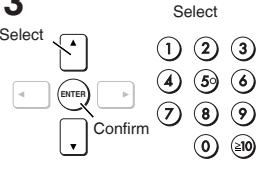|	
①	**Program, Group, Title, Track, Chapter, Play list, Content** To start from a specific item.
②	**Time** **Time Slip** (during play) `RAM` `DVD-A` `DVD-V` To skip the time forward or backward. 1. Press [ENTER] to select Time Slip. 2. Press [▲, ▼] to select the time and press [ENTER]. • Press and hold [▲, ▼] to alter faster. **Time Search** `RAM` `DVD-A` `DVD-V` To start from a specific time. **Elapsed/Remaining Time** `RAM` `DVD-A` `DVD-V` `VCD` `CD` To change between elapsed or remaining time display.
③	**Audio** (➡ Soundtracks, page 14).
④	**Subtitle** (➡ Subtitles, page 14)

⑤	**Marker (VR)** `RAM` To recall a marker recorded on DVD-Video recorders.
⑥	**Still Picture** `DVD-A` To view the still pictures. Next Picture Previous Picture
⑦	**Angle** `DVD-V` (Discs with multiple angles) To select the angle. (➡ Angles and pages, page 14)
⑧	**Thumbnail** `JPEG` To show thumbnail images. **Rotate Picture** `JPEG` (➡ Angles and pages, page 14) **Slideshow** `JPEG` To turn the slideshow on or off. To change the timing (0–30 seconds) of the slideshow.
⑨	**Other Settings—Play Speed** `RAM` `DVD-A` (Motion picture parts only) `DVD-V` **To change play speed** – from x0.6 to x1.4 (in 0.1 unit steps) • After you change the speed: Digital output switches to PCM-2ch. • Sound is stereo as long as "Normal" is selected.

⑩

Play Menu

Repeat
(➡ Repeat play, page 14)
A-B Repeat
`RAM` `DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3`
Except still picture part on `RAM` .
Repeat a section between points A and B within an item.
[ENTER] (start point) ➡ [ENTER] (finish point)
To cancel: [ENTER]
• A-B repeat cancels when you press [QUICK REPLAY].
Marker
`DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3` `JPEG`
To mark a position to play again (Marker).
• Press [▶] to highlight the first asterisk and press [ENTER] again to mark a position.
 You can mark up to 5 positions.
 To mark another position: [◀, ▶] ➡ [ENTER]
 To recall a marker: [◀, ▶] ➡ [ENTER]
 To erase a marker: [◀, ▶] ➡ [SHIFT]+[CANCEL]
• This feature does not work during program and random play.
Advanced Disc Review
`RAM` `DVD-V`
To start Advanced Disc Review. For details, ➡ Advanced Disc Review, page 21.

⑪

Picture Menu

Picture Mode
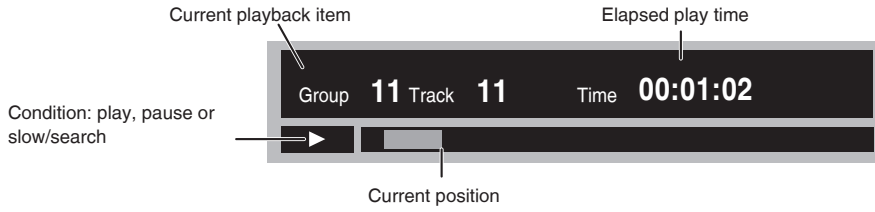`RAM` `DVD-A` `DVD-V` `VCD` `JPEG`
Normal
Cinema1: Mellows images and enhances detail in dark scenes.
Cinema2: Sharpens images and enhances detail in dark scenes.
Animation
Dynamic
User: Enables settings you make in "Picture Adjustment".
Picture Adjustment
Contrast Brightness Sharpness Color
Gamma (Adjusts the brightness of dark parts.)
Depth Enhancer
• Reduce the rough noise in the background to give a greater feeling of depth.

Video Output Mode
`RAM` `DVD-A` `DVD-V` `VCD` `JPEG`
To switch between Progressive (480P) and Interlace (480I) video.
Transfer Mode
`RAM` `DVD-A` `DVD-V` `VCD`
If you have chosen "480p" (➡ see above), select the method of conversion for progressive output to suit the type of material.
Auto1: For viewing film material
Auto2: For viewing film material (the same as Auto 1, but able to convert 30-frame-per-second progressive video)
Video: For video material

⑫

Audio Menu

Advanced Surround
(➡ Advanced Surround, page 26)
Dialogue Enhancer
`DVD-V`
(Dolby Digital, DTS, 3-channel or over, where the dialogue is recorded in the center channel)
This makes the dialogue in movies easier to hear.
On ←→ Off (Factory preset)
• This does not work or has less effect with some discs.
Multi Re-master
(➡ Multi Remaster–Enjoying more natural sound, page 27)
Sound Enhancement
`RAM` `DVD-A` `DVD-V` `VCD` `CD` `WMA` `MP3`
Enhances audio output to produce a warm hall-like sound.

⑬

Display Menu

Subtitle Position `DVD-V`
0 to –60 in 2 unit steps.
Subtitle Brightness `DVD-V`
"Auto" to automatically adjust the brightness against the background, or 0 to –7.
Information
`JPEG`: Off, Date, Details
`WMA` `MP3` (HighMAT only): Off, On
4:3 Aspect `RAM` `DVD-A` `DVD-V` `VCD` `JPEG`
To select how to show images made for 4:3 aspect screens on a 16:9 aspect television.
(Go to "Video" tab in the Setup menus, and select "16:9" for "TV Aspect" (➡ page 21).)
Normal: Laterally stretches images.
Auto: Expands 4:3 letterbox images to fill more of the screen. Other images appear in full in the center of the screen.
Shrink: Images appear in the center of the screen.
Zoom: Expands all images to fill the screen.
If your television has a similar feature, use it instead for a better effect.
Just Fit Zoom
`RAM` `DVD-A` (motion picture parts only) `DVD-V` `VCD`
Preset zoom ratios suitable for the following video formats are available.
Auto
4:3 Standard   4:3
European Vista   1.66:1
16:9 Standard   16:9
American Vista   1.85:1
Cinemascope1   2.35:1
Cinemascope2   2.55:1
Manual Zoom
`RAM` `DVD-A` (motion picture parts only) `DVD-V` `VCD`
Fine adjustments
Press [▲, ▼].
Bit Rate Display
`RAM` `DVD-A` (motion picture parts only) `DVD-V` `VCD`
When you select "On":
During play:
 shows the bitrate (approximate) of the video being played
During pause:
 shows the data volume of the frame and type of picture (➡ Glossary— I/P/B, page 31)
GUI See-through
To enable the on-screen menu to become translucent.
GUI Brightness (–3 to +3)
To adjust the brightness of the on-screen displays.

⑭

Other Menu

Setup
Open the Setup menu to change the player's settings (➡ page 21).
Play as DVD-Video or Play as DVD-Audio
• Select "Play as DVD-Video" to play DVD-Video contents of DVD-Audio.

Play as DVD-VR, Play as HighMAT or Play as Data Disc
• Select "Play as Data Disc" to play JPEG files on DVD-RAM or to play HighMAT disc without using the HighMAT menus.

SHIFT ＋ QUICK OSD FUNCTIONS	**To show disc information and play position — QUICK OSD**

RAM DVD-A DVD-V VCD CD WMA MP3

Press [SHIFT]+ [QUICK OSD] to show information about the disc playing.

Current playback item   Elapsed play time

Group **11** Track **11**   Time **00:01:02**

Condition: play, pause or slow/search ▶

Current position

• **To exit the screen**
  Press [SHIFT]+ [QUICK OSD].

Discs — Changing the player's settings

1	2	3	4	5
SHIFT + **SETUP** V/REW |◀◀|	Select ▲ ◀ (ENTER) ▶ ▼ Go right	Select ▲ ◀ (ENTER) ▶ ▼ Confirm	Select ▲ ◀ (ENTER) ▶ ▼ Confirm	**SHIFT** + **SETUP** V/REW |◀◀|
Show the Setup menu.	**Select the menu tab.**	**Select the item.**	**Make the settings.**	**Press to exit.**
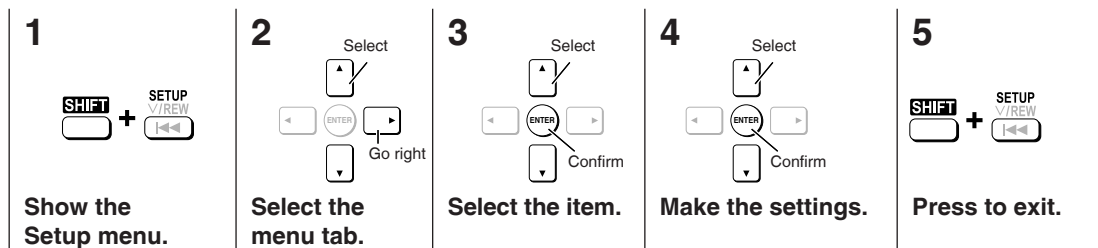
- **The settings remain intact even if you switch the unit to standby.**
- **Underlined items are the factory preset.**

■ "Disc" tab—To choose the language and set a rating level

			Language options
Audio Choose the audio language.	• English • Original[#1]	• (Language options) • Other★★★★[#2]	• French • Spanish
Subtitle Choose the subtitle language.	• Automatic[#3] • (Language options)	• English • Other★★★★[#2]	
Menus Choose the language for disc menus.	• English • Other★★★★[#2] Changing the menu language from QUICK SETUP (➡ page 9) also changes this setting.	• (Language options)	
Advanced Disc Review Choose the mode for Advanced Disc Review (➡ page 19).	• Intro Mode: Plays the first few seconds of each title. • Interval Mode: Plays a few seconds of the disc at ten-minute intervals.		

Ratings

Set a ratings level to limit DVD-Video play. The password screen is shown when you select levels 0 to 7.

To enter a password

1. Input a 4-digit password with the numbered buttons.
   - If you enter a wrong number, press [SHIFT]+[CANCEL] to erase it.
   - Do not forget your password.
2. Press [ENTER].
   - The lock symbol appears closed to show the rating is locked.
3. Press [ENTER] to confirm the 4 digits.

If you insert a DVD-Video that exceeds the ratings limit you set, a message appears on the television.
Follow the on-screen instructions.

Setting ratings (When level 8 is selected)
- 8 No Limit
- 1 to 7: Prohibits play of DVD-Video with corresponding ratings recorded on them.
- 0 Lock All: To prevent play of discs without ratings levels.

Changing ratings (When level 0 – 7 is selected)
- Unlock Player
- Change Level
- Change Password
- Temporary Unlock

[#1] The original language of each disc is selected.
[#2] Input a code number with the numbered buttons (➡ Language code list, page 22).

[#3] If the language selected for "Audio" is not available, subtitles of that language automatically appear if available on the disc.

■ "Video" tab—To make settings to suit your television

TV Aspect Choose the setting to suit your television and preference. • Changing the TV aspect from QUICK SETUP (➡ page 9) also changes this setting.	• 4:3 Pan&Scan: Regular aspect television (4:3) The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc).
	• 4:3 Letterbox: Regular aspect television (4:3) Widescreen software is shown in letterbox style on a 4:3 aspect television.
	• 16:9 Widescreen television (16:9)
TV Type Select to suit the type of television.	• Standard (Direct View TV) • CRT Projector • Projection TV • LCD TV/Projector • Plasma TV
Time Delay When connected with an AV amplifier and Plasma display, adjust if you notice the audio is out of sync with the video.	• 0ms • 20ms • 40ms • 60ms • 80ms • 100ms
Still Mode Specify the type of picture shown when paused.	• Automatic • Field • Frame
Black Level Control Change the black level of the picture if you connected a television through the COMPONENT VIDEO OUT terminals.	• Lighter: When connected through VIDEO OUT or S-VIDEO OUT. • Darker: When connected through COMPONENT VIDEO OUT.

Discs — Changing the player's settings

RQT7932

■ **"Audio" tab—To make settings to suit your digital connection and other audio settings**

PCM Digital Output Select the maximum sampling frequency of PCM digital output. Check the digital input limitations of the equipment you connect.	<u>Up to 48 kHz</u>: Signals over 48 kHz converted to 48 or 44.1 kHz **Up to 96 kHz:** Signals over 96 kHz converted to 48 or 44.1 kHz • Signals from copy-protected discs are converted to 48 or 44.1 kHz irrespective of the setting. • Some equipment cannot handle sampling frequencies of 88.2 kHz, even if it can handle 96 kHz. Read your equipment's operating instructions for details.
Dolby Digital	• <u>Bitstream</u>: Select if the equipment you connected can decode the signal. • PCM: Select if the equipment you connected cannot decode the signal.
DTS Digital Surround	
IMPORTANT **If the equipment you connected cannot decode the signal, the setting must be changed to PCM. If not, signals the equipment cannot process will be output by this unit, causing high levels of noise which can damage your hearing and the speakers.**	
Dynamic Range Compression (Dolby Digital only)	• <u>Off</u> • On: Adjust for clarity even when the volume is low through compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing.

■ **"Display" tab—To choose the on-screen message language or to turn languages off**

Menu Language Choose the language for these menus and the on-screen messages.	• <u>English</u> • Français • Español
On-Screen Messages Choose whether to show on-screen messages or not.	• <u>On</u> • Off

■ **"Others" tab— To make other settings**

QUICK SETUP	• <u>Yes</u> • No
Re-initialize Setting This returns all values in the SETUP menus to the default settings.	• Yes: The password screen is shown if "Ratings" (➡ "Disc" tab, page 21) are set. Please enter the same password. Turn the unit off and on again. • <u>No</u>

Language code list

Abkhazian:	6566	Danish:	6865	Italian:	7384	Norwegian:	7879	Swedish:	8386
Afar:	6565	Dutch:	7876	Japanese:	7465	Oriya:	7982	Tagalog:	8476
Afrikaans:	6570	English:	6978	Javanese:	7487	Pashto, Pushto:	8083	Tajik:	8471
Albanian:	8381	Esperanto:	6979	Kannada:	7578	Persian:	7065	Tamil:	8465
Ameharic:	6577	Estonian:	6984	Kashmiri:	7583	Polish:	8076	Tatar:	8484
Arabic:	6582	Faroese:	7079	Kazakh:	7575	Portuguese:	8084	Telugu:	8469
Armenian:	7289	Fiji:	7074	Kirghiz:	7589	Punjabi:	8065	Thai:	8472
Assamese:	6583	Finnish:	7073	Korean:	7579	Quechua:	8185	Tibetan:	6679
Aymara:	6589	French:	7082	Kurdish:	7585	Rhaeto-Romance:	8277	Tigrinya:	8473
Azerbaijani:	6590	Frisian:	7089	Laotian:	7679	Romanian:	8279	Tonga:	8479
Bashkir:	6665	Galician:	7176	Latin:	7665	Russian:	8285	Turkish:	8482
Basque:	6985	Georgian:	7565	Latvian, Lettish:	7686	Samoan:	8377	Turkmen:	8475
Bengali; Bangla:	6678	German:	6869	Lingala:	7678	Sanskrit:	8365	Twi:	8487
Bhutani:	6890	Greek:	6976	Lithuanian:	7684	Scots Gaelic:	7168	Ukrainian:	8575
Bihari:	6672	Greenlandic:	7576	Macedonian:	7775	Serbian:	8382	Urdu:	8582
Breton:	6682	Guarani:	7178	Malagasy:	7771	Serbo-Croatian:	8372	Uzbek:	8590
Bulgarian:	6671	Gujarati:	7185	Malay:	7783	Shona:	8378	Vietnamese:	8673
Burmese:	7789	Hausa:	7265	Malayalam:	7776	Sindhi:	8368	Volapük:	8679
Byelorussian:	6669	Hebrew:	7387	Maltese:	7784	Singhalese:	8373	Welsh:	6789
Cambodian:	7577	Hindi:	7273	Maori:	7773	Slovak:	8375	Wolof:	8779
Catalan:	6765	Hungarian:	7285	Marathi:	7782	Slovenian:	8376	Xhosa:	8872
Chinese:	9072	Icelandic:	7383	Moldavian:	7779	Somali:	8379	Yiddish:	7473
Corsican:	6779	Indonesian:	7378	Mongolian:	7778	Spanish:	6983	Yoruba:	8979
Croatian:	7282	Interlingua:	7365	Nauru:	7865	Sundanese:	8385	Zulu:	9085
Czech:	6783	Irish:	7165	Nepali:	7869	Swahili:	8387		

The radio

Manual tuning

1

TUNER/
AUX

Select "FM" or "AM".

FM ⟶ AM ⟶ AUX

2

∨ TV CH ∧
SLOW/SEARCH
◀◀   ▶▶

Select the frequency of the desired station.

3

—TV VOL+
−   +
VOLUME

Adjust the volume.

• Press and hold [◀◀] or [▶▶] until the frequency starts scrolling to start automatic tuning. Tuning stops when a station is found.

"ST" is displayed when a stereo FM broadcast is being received.

If noise is excessive in FM
Press [PLAY MODE] to display "MONO".
To cancel, press [PLAY MODE] again.
The mode also cancels when you change the frequency.

■ FM frequency step (main unit only)
The step is factory-set to 0.2 MHz, but you can change it to receive broadcasts allocated to 0.1 MHz steps.
1. Select "FM".
2. Press and hold [TUNER/AUX] on the main unit.
   After a few seconds the display changes to show the current minimum frequency. Continue to hold the button down. The minimum frequency changes and the step is changed.
To return to the original step, repeat the above steps.

Note

Any preset stations are cleared by this procedure. Preset them again.

Preset tuning

Preset channels to make selection simpler. You can set up to 15 stations each in the FM and AM bands.

Automatic presetting

Tune to the frequency where presetting is to begin (➡ see above).

PGM

Press and hold.
(release when "AUTO" appears)

The tuner presets the stations it can receive into the channels in ascending order.
When finished, the last station to be set is played.

Manual presetting

Tune to the desired station (➡ see above).

1

PGM

Press to select.
("PGM" appears)

2

① ② ③
④ ⑤ ⑥
⑦ ⑧ ⑨
⓪ ≧10

Press while the station is flashing to select the channel.
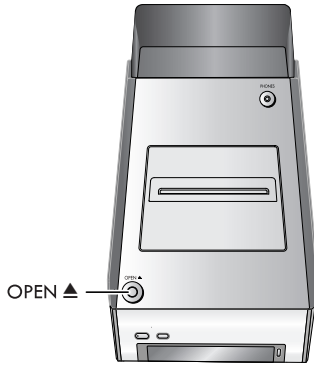
The station occupying a channel is erased if another station is preset in that channel.

Selecting channels

1. Press [TUNER/AUX] to select "FM" or "AM".
2. Press the numbered buttons or [|◀◀∨/REW] or [▶▶|∧/FF] to select the channel.

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23

Play

Cassette tape selection and care

Use normal position tapes.
High position and metal position tapes can be played, but the unit is not able to do full justice to the characteristics of these tapes.
• 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 wound up before the tape is played.
• Endless tapes can get caught up in the deck's moving parts if used incorrectly.
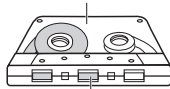
OPEN ▲

1

OPEN ▲

Press to open and insert a cassette.
Make sure that the cassette is fully inserted and close the lid by hand.

Side to be played back facing up.

Insert the cassette with the exposed tape facing you.

2

● REC
TAPE ▶

Start play.
• To play the other side of the tape, turn the tape over and restart play.

Volume adjustment	— TV VOL + VOLUME
Stop	STOP ■

| Fast-forward and rewind (while stopped)	SETUP ∨/REW CANCEL ∧/FF ⏮ ⏭
Finding the beginning of a track (TPS: Tape Program Sensor) (during play)	SETUP ∨/REW CANCEL ∧/FF ⏮ ⏭ TPS finds the beginning of a track and resumes play from there. Each press increases the number of tracks skipped, up to a maximum of 9.

TPS may not operate correctly in the following situations:
• If the interval between tracks is less than 4 seconds
• If there is noise between tracks
• If there are silent parts within tracks

Recording
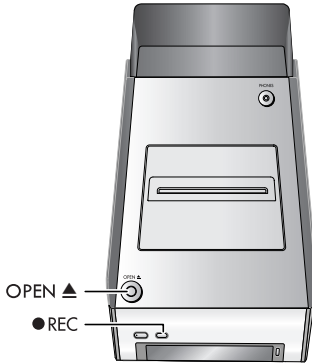
Types of tapes which can be recorded correctly

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.
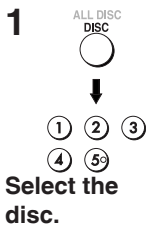
Before recording

Wind up the leader tape so recording can begin immediately.

Volume, surround effects, sound field and quality

- Recording level is set automatically.
- The volume, sound field and quality have no effect on recording. They can be adjusted for playback.
- Multi-channel sources are automatically down-mixed to 2 channels during recording.

Recording from disc(s)

- **Insert the cassette** (➡ page 24)
- **Insert the disc(s) you want to record** (➡ Discs—Basic play, page 12)**.**

1 ALL DISC
DISC
⬇
① ② ③
④ 5⊙
Select the disc.

2 STOP ■
Press to stop playback.

3 SHIFT + ●REC TAPE ▶
Press to start recording (play starts)**.**

Recording specific disc(s) or tracks

- **Insert the cassette** (➡ page 24)

1 **Program the tracks** (➡ page 15)**.**

2 **Press [SHIFT] + [●REC] (main unit: [●REC]) to start recording.**

If the tape finishes before the disc
The disc continues playing. Press [■, STOP] to stop it.

Recording from the radio

- **Insert the cassette** (➡ page 24)

1 **Tune to the station** (➡ The radio, page 23)**.**

2 **Press [SHIFT] + [●REC] (main unit: [●REC]) to start recording.**

- When recording an AM broadcast, sound is momentarily interrupted when you start and stop the recording.

### Recording from an external unit

For connections and operation, ➡ "Using an external unit", page 29.
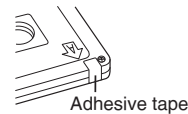- **Insert the cassette** (➡ page 24)

1 **Press [TUNER/AUX] to select "AUX".**

2 **Press [SHIFT] + [●REC] (main unit: [●REC]) to start recording.**

3 **Start play on the external source.**
(For details, refer to the external unit's instruction manual.)

Erasure prevention

Use a screwdriver or similar object to break out the tab.

Side A

Tab for side B   Tab for side A
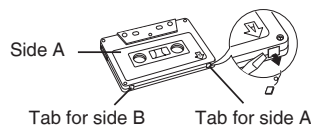
To record on the tape again, cover the hole with adhesive tape.

Adhesive tape

Erasing recordings

1. Press [TAPE ▶] and then [■, STOP].
2. Press [SHIFT]+[●REC] (main unit: [●REC]).

To stop recording
Press [■, STOP].
When recording discs, the disc also stops.
- To record or erase the other side, turn the tape over.

Sound field and sound quality

ADVANCED SURROUND

BASS/TREBLE and EQ jog

H.BASS

SUBWOOFER
H.BASS
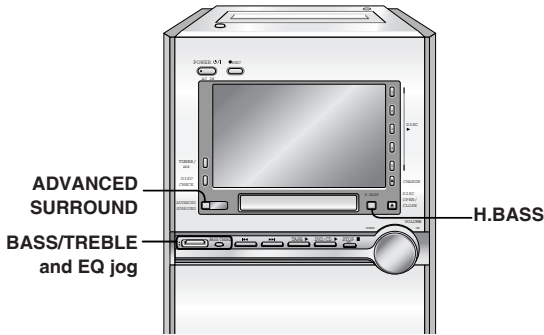
Enhancing the bass

Press [H.BASS] to select a setting.
Every time you press the button:

> H.BASS LVL 1 → H.BASS LVL 2
> H.BASS OFF ←

• Actual effect depends on the disc.

M.RE-MASTER
SURROUND
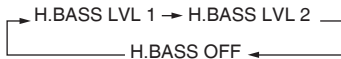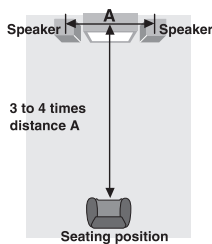
Advanced Surround

(2 channels or more)
Enjoy a surround-like effect when using front speakers or headphones.
The effect broadens when playing discs with surround effects and sound seems to come from speakers on either side of you.
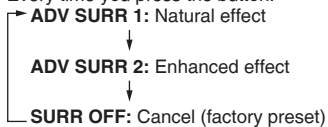
Optimum seating position

A

Speaker | **Speaker**

3 to 4 times distance A

Seating position

Press [SURROUND] (main unit: [ADVANCED SURROUND]).

ADV SURR 1

Every time you press the button:
ADV SURR 1: Natural effect
↓
ADV SURR 2: Enhanced effect
↓
SURR OFF: Cancel (factory preset)

• Actual effect depends on the disc.
• Turn off if it causes distortion.
• Do not use in combination with surround effects on other equipment.

A.ONLY
SOUND

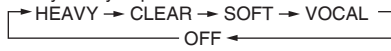## Changing sound field and quality

Preset EQ

1 Press and hold [SOUND] to select "PRESET EQ".
Every time you press and hold the button:
MANUAL EQ ←→ PRESET EQ

2 Press [SOUND] to select a setting.
Every time you press the button:
> HEAVY → CLEAR → SOFT → VOCAL
> OFF ←

HEAVY: Adds punch to rock
CLEAR: Clarifies higher sounds
SOFT: For background music
VOCAL: Adds gloss to vocal

Manual EQ

1 Press and hold [SOUND] to select "MANUAL EQ".
Every time you press and hold the button:
MANUAL EQ ←→ PRESET EQ

2 Press [SOUND] to select a setting.
Every time you press the button:

B   0 ←→ T   0
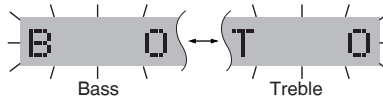
Bass   Treble

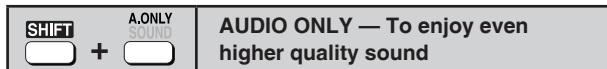**3 Press [–, +, VOLUME] while either "B" (bass) or "T" (treble) is flashing to change the level.**

On the main unit
1. Press [BASS/TREBLE] to select "B" or "T".
2. Push the EQ jog up or down to change the level.

SHIFT + **A.ONLY** SOUND	**AUDIO ONLY — To enjoy even higher quality sound**

You can enjoy higher quality audio by stopping the video output.
During play
Press [SHIFT] + [A.ONLY].
• AUDIO ONLY cancels if you press [SHIFT]+[A.ONLY] again or switch the unit to standby.
• There is output to the screen only when:
  – the disc is stopped.
  – performing operations such as searching.
  – on screen display is displayed.

Note
The feature may not work depending on the discs' recording.
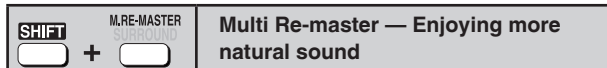
SHIFT + **M.RE-MASTER** SURROUND	**Multi Re-master — Enjoying more natural sound**

RAM **DVD-A** **DVD-V** **CD**
Discs recorded with multi channels LPCM at 44.1 kHz or 48 kHz
This feature gives you a more natural sound by adding the higher frequency signals not recorded on the disc.

WMA **MP3**
Discs recorded at 44.1 kHz or 48 kHz
This feature reproduces the frequencies lost during recording to give you a sound closer to the original.

During play
Press [SHIFT]+[M.RE-MASTER].

```
M. RMTR 1
```

Setting	**RAM** **DVD-A** **DVD-V** **CD** Type of music	**WMA** **MP3** Effect level
1	High tempo (e.g., pops and rock)	Light
2	Various tempos (e.g., jazz)	Medium
3	Low tempo (e.g., classical)	Strong
Off	Off	Off

Note
The actual output sampling frequency depends on the PCM Digital Output setting (➡ PCM Digital Output, page 22) when using a digital connection (➡ Home Theater — Enjoying more powerful sound, page 29).

Convenient functions
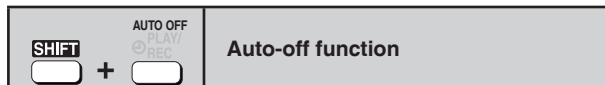
SHIFT + **AUTO OFF** ⏻PLAY/ REC	**Auto-off function**

Only when disc or tape is selected as the source
To save power, the unit turns off if it is left unused for 10 minutes.

Press [SHIFT] + [AUTO OFF].
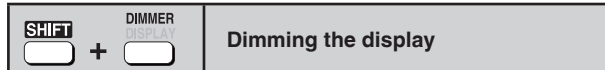"A.OFF" is shown on the display.
This function does not work if the source is tuner or AUX.

To cancel
Press [SHIFT]+[AUTO OFF] again to clear "A.OFF" from the display.

For your reference
"A.OFF" remains displayed if disc or tape is selected as the source.

SHIFT + **DIMMER** DISPLAY	**Dimming the display**

Use this when you are going to sleep or any other time you would prefer to dim the display panel.

Press [SHIFT] + [DIMMER].
To return to the original brightness, press [SHIFT]+[DIMMER] again.

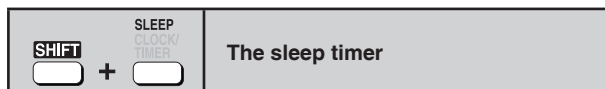| **TV/VIDEO** **MUTING**	**Muting the volume**

Press [MUTING].

```
-MUTING-
```

Volume is reduced to minimum.

To cancel
Press [MUTING] again or reduce the volume to minimum, then raise it to the required level.
Muting also cancels when you switch the unit to standby.

SHIFT + **SLEEP** CLOCK/ TIMER	**The sleep timer**

This timer turns the unit off after a set time.

While enjoying the desired source:
Press [SHIFT] + [SLEEP] to select the time (minutes).
Every time you press the button:
SLEEP 30 → SLEEP → 60 → SLEEP 90 → SLEEP 120 → SLEEP OFF

To cancel the sleep timer
Press [SHIFT]+[SLEEP] to select "SLEEP OFF".

To confirm the remaining time
Press [SHIFT]+[SLEEP] once.
The remaining time is shown for about 5 seconds.
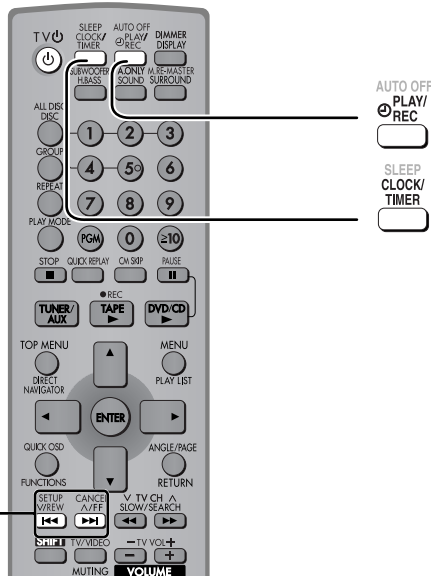
To change the setting
Press [SHIFT]+[SLEEP] to select the new setting.

You can use the sleep timer in combination with the play/record timer. Make sure the unit is off before the play/record timer's start time.

Note
The sleep timer will be turned off when you start recording from a disc.

Convenient functions

The play/record timer

You can set the timer to come on at a certain time to wake you up (play timer) or to record a radio station or from the external source (record timer).
The play and record timers cannot be used together.

- **Switch on the unit and set the clock** (➡ Setting the time, page 9)**.**
- **For the play timer,** prepare the desired music source (tape, CD, radio, or external), and set the volume.
- **For the record timer,** check the cassette's erasure prevention tabs (➡ Erasure prevention, page 25) and insert the tape (➡ Cassette tapes, page 24). Tune to the radio station (➡ The radio, page 23) or select the external source (➡ Using an external unit, page 29).

1 Press [CLOCK/TIMER] to select the timer function.
Every time you press the button:
  CLOCK → ⏰ PLAY → ⏰ REC
  └── Previous display ◄──┘
⏰PLAY: to set the play timer
⏰REC: to set the record timer

2 ON time setting
① **(Within 6 seconds or so)**
Press [◄◄∨/REW] or [►►∧/FF] to set the start time.
② **Press [CLOCK/TIMER].**

3 OFF time setting
① **Press [◄◄∨/REW] or [►►∧/FF] to set the finish time.**
② **Press [CLOCK/TIMER].**
The start and finish times are now set.

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

⏰PLAY: to turn the play timer on
⏰REC: to turn the record timer on
(The indicator doesn't appear if the start and finish times or the clock have not been set.)

5 Press [⏻] to turn the unit off.
The unit must be off for the timers to operate.
  - **Play timer:** Play will start in the set condition at the set time with volume increasing gradually to the set level.
  - **Record timer:** The unit comes on 30 seconds before the set time with the volume muted.

To cancel the timer
Press [⏰PLAY/REC] to clear the timer indicator from the display.
(The timer comes on at the set time everyday if the timer is on.)

To change the settings (when the unit is on)
To change the play/record times
Do steps 1, 2, 3 and 5.
To change the source or volume
1. Press [⏰PLAY/REC] to clear the timer indicator from the display.
2. Make changes to the source or volume.
3. Do steps 4 to 5.

To change the timer
Press [⏰PLAY/REC] to select the desired timer.
Every time you press the button:
  ⏰ PLAY → ⏰ REC
    └──(off) ◄──┘
To check the settings
Press [CLOCK/TIMER] while the unit is on to select "⏰PLAY" or "⏰REC".
The settings are shown in the following order:
Play timer: start time → finish time → source → volume
Record timer: start time → finish time → source
To check the settings while the unit is off, press [CLOCK/TIMER] twice.

If you use the unit after the timers are set
After using, check that the correct tape or disc is loaded before turning the unit off.

Note
- If you turn the unit off and on again while a timer is functioning, the finish time setting will not be activated.
- If you selected AUX as the source, when the timer comes on, the unit turns on and engages "AUX" as the source. If you want to playback or record from a connected unit, set that unit's timer to the same time. (See the connected unit's instruction manual.)
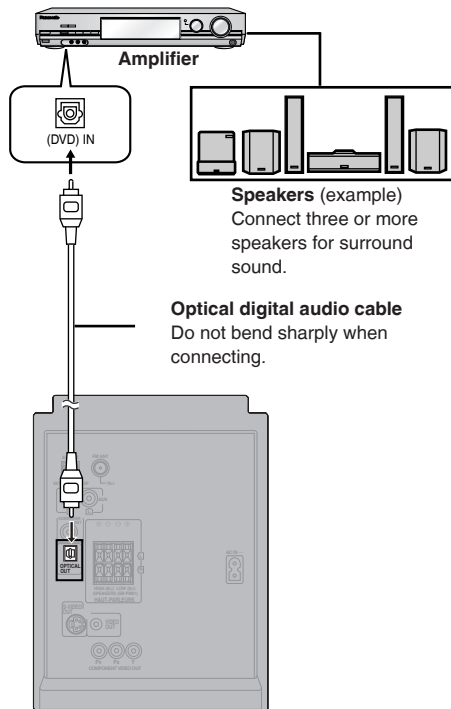
Using other equipment

Before connection
• Disconnect the AC power supply cord.
• Turn off all equipment and read the appropriate operating instructions.
• The equipment connections described are examples only.

> **Peripheral cables and equipment are sold separately unless otherwise indicated.**

Home Theater — Enjoying more powerful sound

Enjoy the powerful movie theater and hall-like sound available with multiple channel audio found on DVD-Video by connecting an amplifier and speakers. (**DVD-A** Even if using this connection, output will be only 2 channels.)

Amplifier

(DVD) IN

Speakers (example)
Connect three or more speakers for surround sound.

Optical digital audio cable
Do not bend sharply when connecting.

To enjoy multi-channel surround sound
Connect an amplifier with a built-in decoder or a decoder-amplifier combination.
Change the settings in "Audio" tab (➡ page 22).
• You can only use DTS Digital Surround decoders that are compatible with DVD.

Recording Output
• With DVD, the following conditions must be met:
  – the disc doesn't have protection preventing digital recording
  – the recording equipment can handle signals with a sampling frequency of 48 kHz
• You cannot record WMA/MP3.
When recording DVDs, make the following settings.
  – Advanced Surround: SURR OFF (➡ page 26)
  – PCM Digital Output: Up to 48 kHz (➡ page 22)
  – Dolby Digital and DTS Digital Surround: PCM (➡ page 22)

Using an external unit

You can playback the sound from a video cassette recorder, tape deck, laser disc player, etc., through this unit's speakers.

AUDIO OUT
R   L

Video cassette recorder

Audio cable
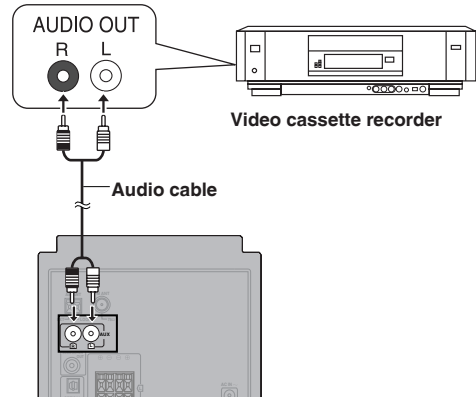
When connecting a record player
We recommend using a record player with a built-in phono equalizer. If your player doesn't have a built-in equalizer, connect it first to a separate equalizer and then connect that to this unit.

TUNER/AUX	**To play**

1 Press [TUNER/AUX] to select "AUX".
The unit comes on.
Every time you press the button:
FM → AM → **AUX**

2 Start playback from the external source.
(For details, refer to the external unit's instruction manual.)

Operating a television

Face the remote control at the television for the following operations.
Turning the television on/off
Press [SHIFT] + [TV⏻].
Switching the television's video input mode
Press [SHIFT] + [TV/VIDEO].
Changing channels
**Press [SHIFT] + [TV CH ∧] or [SHIFT] + [∨ TV CH].**
Adjusting the volume
Press [SHIFT] + [– TV VOL] or [SHIFT] + [TV VOL +].

Note
Some models cannot be operated by this remote control.

Using other equipment

Enjoying more powerful bass

• Connect an active subwoofer (not included).
• Place the subwoofer as close as possible to the front center.

Audio cable

To the subwoofer's input terminal

| [SHIFT] + SUBWOOFER H.BASS | Adjusting the bass |
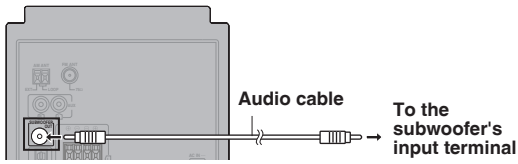
Press [SHIFT] + [SUBWOOFER].

SUB.W ON

Every time you do this:
SUB.W ON ⟷ SUB.W OFF
Adjust the volume on the subwoofer to suit your preference.

Changing the remote control code

Change the code if you find the remote control unintentionally also controls other equipment.

1 <u>**Change the main unit's code.**</u>
①Press [TUNER/AUX] to select "AUX".
②Press and hold [TUNER/AUX] on the main unit and then press and hold [2] (or [1]) on the remote control.
"REMOTE 2" appears on the display.

2 <u>**Change the remote control's code.**</u>
Press and hold [ENTER] and [2] (or [1]) on the remote control for at least 2 seconds.

If the remote control and main unit are using different codes, a message appears on the main unit's display showing the main unit's current code. Follow step 2 to change the remote control's code to match it.
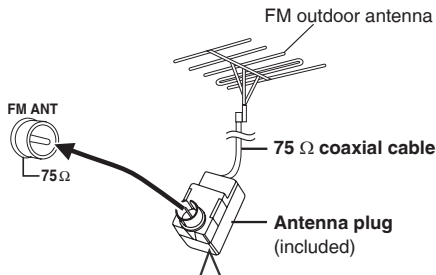
Other antenna connections
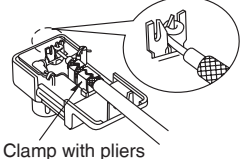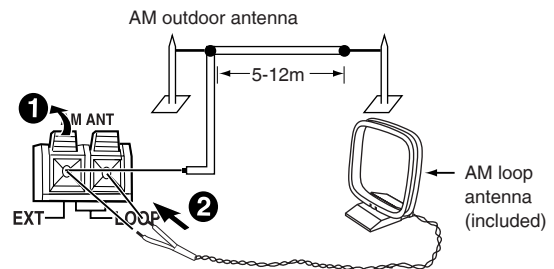
Use outdoor antennas if radio reception is poor.

| FM outdoor antenna (using a television antenna) |

• Disconnect the FM indoor antenna.
• The antenna should be installed by a competent technician.

Rework your outdoor antenna's 75 Ω coaxial cable as follows.

FM outdoor antenna

FM ANT

75 Ω

75 Ω coaxial cable

Antenna plug (included)

1) Remove a piece of the outer vinyl insulator.

10 mm ($^{13}/_{32}$")

10 mm ($^{13}/_{32}$") Peel back

7 mm ($^{9}/_{32}$")

2) Carefully pull the tabs apart to remove the cover.

3) Install the coaxial cable. Clamp the cable conductor, and wind it on so that it does not contact anything else.

4) Attach the cover.

Clamp with pliers

| AM outdoor antenna |

AM outdoor antenna

5-12m

FM ANT

EXT **LOOP**

AM loop antenna (included)

• Run a piece of vinyl wire horizontally across a window or other convenient location.
• Leave the loop antenna connected.

Note

Disconnect the outdoor antenna when the unit is not in use. Do not use the outdoor antenna during a lightning storm.

Using other equipment

Glossary

Decoder

A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

Dynamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

Film and video

DVD-Videos are recorded using either film or video. Usually, film is recorded at 24 frames per second, the rate movies are filmed at, while video is recorded at 30 frames per second.

Frame still and field still

Frames are the still pictures that go together to make a moving picture. There are about 30 frames shown each second.
One frame is made up of two fields. A regular television shows these fields one after the other to create frames.
A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high.
A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

Interlace and progressive output

NTSC, the video signal standard, has 480 interlaced (I) scan lines, whereas progressive scanning uses twice the number of scan lines. This is called 480P. The video signals output from this unit's COMPONENT VIDEO OUT terminals (Y, P_B, P_R) allow you to enjoy higher quality pictures than if the signals were output from the VIDEO OUT terminal or S-VIDEO OUT terminal.

I/P/B

MPEG 2, the video compression standard adapted for use with DVD-Video, codes frames using these 3 picture types.
I: Intra coded picture
 This picture has the best quality and is the best to use when adjusting the picture.
P: Predictive coded picture
 This picture is calculated based on past I or P-pictures.
B: Bidirectionally-predictive coded picture
 This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

Linear PCM (pulse code modulation)

These are uncompressed digital signals, similar to those found on CDs.

Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus.

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the "Customer Services Directory" on page 35 if you reside in the U.S.A., or refer to "Product information" on page 34 if you reside in Canada.
Reference pages are shown in parentheses ().

Power

No power.	• Insert the AC power supply cord securely. (8)
The unit is automatically switched to the standby mode.	• The unit was switched to standby by the sleep timer or auto-off function. (27)

Operation

No response when any buttons are pressed.	• Some operations may be prohibited by the disc. • The unit may not be operating properly due to lightning, static electricity or some other external factor. Turn the unit off and then back to ON. Alternatively, press [⏻] to switch the unit to standby mode, disconnect the AC power supply cord, and then reconnect it.
No operations can be performed with the remote control.	• Check that the batteries are installed correctly. (8) • The batteries are depleted: replace them with new ones. (8) • Point the remote control at the remote control sensor and operate. (10)
Cannot switch on the television with the remote control.	• Press [SHIFT]+[TV ⏻] first to operate the television. (29)
Play doesn't start (or stops immediately) when you press [DVD/CD ▶].	• Condensation has formed: wait 1 to 2 hours for it to evaporate. • This unit cannot play discs other than the ones listed in these operating instructions. (4) • You can only play DVD-Video if their region number is the same or includes the same region number as the unit or if DVD-Video is marked "ALL". Confirm the region number for the unit on the rear panel. (Front cover) • The disc may be dirty and may require cleaning. (5) • Ensure that the disc is loaded with the label of the side to be played facing upwards. (12) • Check that the DVD-RAM has something recorded on it.
Cannot select alternative languages.	• This function is dependent on software availability. • Try selecting from the disc's menu if one is available. (13)
No menu play.	• This function is dependent on software availability.
No subtitles.	• This function is dependent on software availability. • Subtitles are cleared from the television. Turn on the subtitles. (14)
The position of the subtitles is incorrect.	• Change the position of the subtitles with "Subtitle Position" in the Display Menu. (19)
Soundtrack and/or subtitle language is not the one selected with the Setup menus.	• This function is dependent on software availability.
Cannot change angle.	• This function is dependent on software availability. Even if a disc has a number of angles recorded, these angles may be recorded for specific scenes only.
Cannot access the Setup menu.	• Select "DVD/CD" as the source. • Cancel program and random play. (14, 15)
Cannot add markers.	• You cannot add markers while playing a play list or if the disc's play time doesn't appear on the unit's display.
There are already markers. RAM	• The unit reads and displays the markers added with a DVD video recorder. You can clear them but they will reappear when you switch the unit to standby, change the source, or open the disc tray.
Cannot select random or program play.	• You cannot select random or program play with some DVD-Video.
Folders deeper than the eighth layer on a data disc are not displayed correctly.	• Folders deeper than the eighth layer are displayed as the eighth layer.
You have forgotten your ratings password. Reset all the Setup settings to the factory preset.	• While stopped and "DVD/CD" is the source, press and hold [■, STOP] on the unit and [≧10] on the remote control for about 3 seconds until "Initialized" disappears from the television. Turn the unit off and on again. All settings will return to the default values.
Cannot eject disc.	• The unit may not operate properly if the disc is damaged or dirty. Press [⏻] and after the display disappears, wait a few seconds, then press [⏻] again and eject the disc.

Listening to the radio

Noise is heard. **"ST" flickers or doesn't light.** **Sound is distorted.**	• Adjust the position of the FM or AM antenna. • Use an outdoor antenna. (30)
A beat sound is heard.	• Turn the television off or separate it from the unit.
A low hum is heard during AM broadcasts.	• Separate the antenna from other cables and cords.

Using the cassette deck

Poor quality sound.	• Clean the heads. (34)
Recording is not possible.	• If the erasure prevention tabs have been removed, cover the holes with adhesive tape. (25)

Sound

No sound.
Distorted sound.
	• Check the connections. (6)
	• Turn the volume up.
	• Turn muting off. (27)
	• Turn Advanced surround off if it causes distortion. (26)
	• Switch off the unit, determine and correct the causes, then switch the unit on.
	  Causes include:
	  – Shorting (bare wires touching) of positive and negative speaker wires.
	  – Using speakers with an impedance lower than that rated for this unit.
	  – Straining of the speakers through excessive volume or power.
	  – Using the unit in a hot environment without proper ventilation.

Piercing noise comes from the speakers.	• If you have connected this unit to other equipment through the OPTICAL OUT terminal, ensure you have selected the correct settings for "Dolby Digital" and "DTS Digital Surround" in the Setup menus' "Audio" tab. (22)

Picture

Picture distorted.	• Some distortion is normal during search.
No picture.	• Check the connection. • Make sure the television is on. • Ensure the television's video input setting (e.g., VIDEO 1) is correct.
The picture shown on the television is not normal. (The sides of the picture are cut off, the picture is stretched horizontally, or black bands appear at the top and bottom of the screen.)	• Go to "Video" tab in the Setup menus, and change "TV Aspect" to suit your television. (21) • Use the television to change the aspect to the correct one. **If your television cannot change the aspect when input is progressive**, try changing 4:3 Aspect in Display Menu. (19) • Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder. • Change the size with the zoom function. (19) • Connect to the component video (480P) input terminals on a television compatible with this unit's copy guard system. You cannot view progressive video if your television is not compatible. (7) • The images on PAL system DVD-Audio are compressed for display. They may also appear vertically stretched.
There is ghosting when progressive output is on.	• Change "Video Output Mode" to "480I" so "PROG." on the display goes out. This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlace output. (19)
Picture quality is poor.	• Check the settings in Picture Menu. (19)
The picture on the television disappears or stripes appear on the screen.	• Mobile telephone chargers can cause some disturbance. • The location and orientation of the antenna are incorrect. If you are using an indoor antenna, change to an outdoor antenna. • The television antenna wire is too close to the unit. Separate the antenna wire of the television from the unit.
Menus not displayed correctly.	• Change the zoom ratio to "x1.00". (19) • Set "Subtitle Position" in Display Menu to "0". (19) • Set "4:3 Aspect" in Display Menu to "Normal". (19)

Unit displays

Although the unit is in standby mode, the display lights up and changes continuously.	• Turn off the demo function. (If you set the clock, the demo function turns off automatically.) (9)
The display is dark.	• Press [SHIFT]+[DIMMER] until the display returns to the original brightness. (27)
"DVD NO PLAY"	• You inserted a disc which the unit cannot play; insert one that can. (4) • You inserted a blank DVD-RAM disc.
"DVD NO DISC"	• You haven't inserted a disc; insert one. • You haven't inserted the disc correctly; insert it correctly. (5, 12)
"F61"	• Check and correct the speaker cord connections. (6) If this does not fix the problem, there is a power supply problem. Consult the dealer.
"DVD U11"	• Disc is dirty. Wipe it clean. (5)
"ERROR"	• Incorrect operation performed. Read the instructions and try again.

"DVD H□□"
□□ stands for a number.
	• Trouble may have occurred. The number following "H" depends on the status of the unit.
	  Reset procedure:
	  Press [⏻] to switch the unit to standby mode and then back to ON. Alternatively, press [⏻] to switch the unit to standby mode, disconnect the AC power supply cord, and then reconnect it.
	• If the service numbers fail to clear, note the service number and contact a qualified service person.

Television displays

"Cannot play(display) group xx, content xx."	• You are trying to display incompatible contents.
No on-screen display.	• Go to "Display" tab in the Setup menus, and select "On" for "On-Screen Messages". (22)
The disc's menu is displayed in a different language.	• Go to "Disc" tab in the Setup menus, and select the preferred language for "Menus". (21) (This function is dependent on software availability.)

Troubleshooting guide

Product Service

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.

The servicer will require all components to service your system.
Therefore, should service ever be necessary, be sure to bring the entire system.

Product information

For product information or assistance with product operation:
In the U.S.A., refer to "Customer Services Directory" on page 35.
In Canada, contact the Panasonic Canada Inc. Customer Care Centre at 1-800-561-5505, or visit the website (www.panasonic.ca), or an authorized Servicentre closest to you.

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 that you 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.

RQT7932

Maintenance

To clean this unit, wipe with a soft, dry cloth.
• Never use alcohol, paint thinner or benzine to clean this unit.
• Before using chemically treated cloth, read the instructions that came with the cloth carefully.

For a cleaner, crisper sound (cassette deck)

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

When moving the unit

1 Remove all discs.

2 Press [POWER ⏻/I] on the main unit to turn it off.

3 Disconnect the AC power supply cord.

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

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

Panasonic Audio Products
Limited Warranty

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product or Part Name	Parts	Labor
Audio Products (except items listed below)	One (1) year	One (1) year
USB Reader-Writer, Personal Computer Card Adapters (in exchange for defective item)	One (1) year	Not Applicable
Accessories: Headphones, Cartridges, Microphones, Adapters	Ninety (90) days	Ninety (90) days
Rechargeable Batteries, DVD-R/-RAM Discs (in exchange for defective item)	Ten (10) days	Not Applicable
SD Memory Cards, Rechargeable Battery Packs (in exchange for defective item)	Ninety (90) days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in or mail-in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

Carry-In or Mail-In Service

For Carry-In or Mail-In Service in the United States call 1-800-211-PANA (1-800-211-7262) or visit Panasonic web site: http://www.panasonic.com

For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, travel to and from the servicer, loss of media or images, data or other memory content. The items listed are not exclusive, but are for illustration only.) **ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

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 exclusions 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 a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer Services Directory

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

http://www.panasonic.com/consumersupport

or, contact us via the web at:

http://www.panasonic.com/contactinfo

You may also contact us directly at:
1-800-211-PANA (7262),
Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

http://www.pasc.panasonic.com

or, send your request by E-mail to:

npcparts@us.panasonic.com

You may also contact us directly at:
1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday – Friday 9 am to 8 pm, EST.)
Panasonic Services Company
20421 84th Avenue South, Kent, WA 98032
(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

Service in Puerto Rico

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Limited Warranty

RQT7932

Specifications

AMPLIFIER SECTION

RMS Output Power Stereo mode (Both channels driven)

10% total harmonic distortion

1 kHz	(Low channel) 40 W per channel (6 Ω)
8 kHz	(High channel) 40 W per channel (6 Ω)
Total RMS Stereo mode power	160 W

FTC Output Power Stereo mode (Both channels driven)

10% total harmonic distortion

60 Hz – 3 kHz	(Low channel) 35 W per channel (6 Ω)
3 kHz – 16 kHz	(High channel) 35 W per channel (6 Ω)
Total FTC Stereo mode power	70 W per channel
Phone jack terminal	Stereo, 3.5 mm ($^1/_8$") jack

DISC SECTION

Discs played [8 cm (3") or 12 cm (5")]

(1) DVD-RAM (DVD-VR compatible, JPEG formatted discs)
(2) DVD-Audio
(3) DVD-Video
(4) DVD-R (DVD-Video compatible)
(5) DVD-RW, +R, +RW
(6) CD-Audio (CD-DA)
(7) Video CD
(8) SVCD (Conforming to IEC62107)
(9) CD-R/CD-RW
  (CD-DA, Video-CD, SVCD, MP3, WMA, JPEG formatted discs)
(10) MP3/WMA[1]

- Compatible compression rates:
  MP3: between 32 kbps and 320 kbps
  WMA: between 48 kbps and 320 kbps

(11) JPEG[1]

- Exif Ver 2.1 JPEG Baseline files
- Picture resolution:
  between 320 x 240 and 6144 x 4096 pixels
  (Sub sampling is 4:2:2 or 4:2:0)

(12) HighMAT Level 2 (Audio and Image)
(13) HDCD

[1] The total combined maximum number of recognizable audio and picture contents and groups: 4000 audio and picture contents and 400 groups.

Audio output

Number of channels	2

Digital audio output

Optical digital output	Optical terminal

Pick up

Wavelength

DVD	662 nm
CD/VCD	785 nm

Laser power

For U.S.A.	CLASS IIa/CLASS Ia
For Canada	CLASS 2/CLASS 3a

VIDEO SECTION

Video system	NTSC

Composite video output

Output level	1 Vp-p (75 Ω)
Terminal	Pin jack (1 system)

S-VIDEO output

Y output level	1 Vp-p (75 Ω)
C output level	0.286 Vp-p (75 Ω) (NTSC)
Terminal	S terminal (1 system)

Component video output (480P/480I)

Y output level	1 Vp-p (75 Ω)
P$_B$ output level	0.7 Vp-p (75 Ω)
P$_R$ output level	0.7 Vp-p (75 Ω)
Terminal	Pin jack (Y:green, P$_B$: blue, P$_R$:red)(1 system)

CASSETTE DECK SECTION

Track system	4-track, 2-channel

Heads

Record/playback	Solid permalloy head
Erasure	Double gap ferrite head
Motor	DC servo motor
Recording system	AC bias 100 kHz
Erase system	AC erase 100 kHz
Tape speed	4.8 cm/sec (1–7/8 ips)

Overall frequency response (+3, –6 dB) at DECK OUT

Normal	35 Hz – 14 kHz
S/N ratio	50 dB (A weighted)
Wow and flutter	0.18% (WRMS)
Fast forward and rewind time	Approx. 120 seconds with C-60 cassette tape

FM TUNER SECTION

Frequency range	87.9 – 107.9 MHz (200 kHz step)
	87.5 – 108.0 MHz (100 kHz step)
Sensitivity	2.5 μV (IHF)
S/N 26 dB	2.2 μV
Antenna terminals	75 Ω (unbalanced)
Preset stations	15

AM TUNER SECTION

Frequency range	520 – 1710 kHz (10 kHz steps)

Sensitivity

S/N 20 dB at 1000 kHz	560 μV/m
Preset stations	15

SPEAKER SECTION

Type	3 way, 3 speaker system (Bass reflex)

Speaker units

Full range	10 cm (4") cone type
Tweeter	6 cm (2 $^3/_8$") cone type
Super tweeter	dome type

Impedance

High	6 Ω
Low	6 Ω
Input power (IEC)	80 W(MAX)
Output sound pressure level	80 dB/W (1.0 m)
Crossover frequency	3 kHz, 10 kHz
Frequency range	42 Hz–50 kHz (–16 dB)
	52 Hz–45 kHz (–10 dB)
Dimensions (WxHxD)	145 mm x 249 mm x 225 mm
	(5 $^{23}/_{32}$" x 9 $^{13}/_{16}$" x 8 $^{27}/_{32}$")
Mass	2.34 kg (5.2 lbs)

GENERAL

Power supply	AC 120V, 60 Hz
Power consumption	150 W
Dimensions (WxHxD)	175 mm x 248 mm x 388 mm
	(6 $^7/_8$" x 9 $^3/_4$" x 15 $^9/_{32}$")
Mass	5.7 kg (12.6 lbs)
Operating temperature range	+ 5°C to + 35°C (+41°F to +95°F)
Operating humidity range	5% to 90% RH (no condensation)

Power consumption in standby mode	0.4 W

Note

1. Specifications are subject to change without notice.
   Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.
3. The labels "HIGH (HF)" and "LOW (LF)" on the rear of the speakers refer to High frequency and Low frequency.