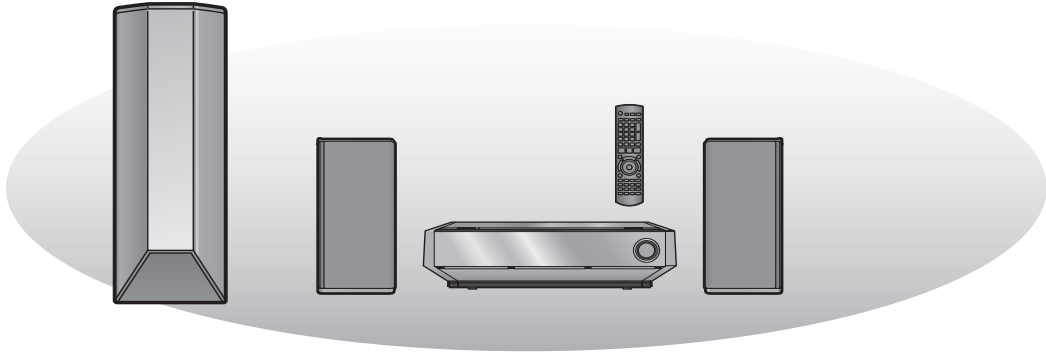# Panasonic®

Operating Instructions

DVD Home Theater Sound System

Model No. **SC-PTX7**

Region number

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

Example:

| 1 | ALL | 1 2 4 |

DVD AUDIO/VIDEO

COMPACT disc DIGITAL VIDEO

RAM COMPATIBLE PLAYER

HDMI™ HIGH-DEFINITION MULTIMEDIA INTERFACE

gracenote.

(((XM))) READY®

EZSYNC™ HDAVI Control

ENERGY STAR

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

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

Music Jukebox
You can record up to 39,000 songs in the Music Jukebox

31

Music Shuffle
Automatic song selection to match your mood

49

MultiRoom
Wireless multiroom, multisource audio from different rooms
(with purchase of SH-FX85)

80

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

Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

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

System	SC-PTX7
Main unit	SA-PTX7
Front/center speakers	SB-FCX7
Subwoofer	SB-HWX7

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.**
- **USE ONLY THE RECOMMENDED ACCESSORIES.**
- **DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**

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. The mains plug of the power supply cord shall remain readily operable.
To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.

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.

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

FCC Note:

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

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC caution: To maintain compliance with FCC regulations, shielded interface cables must be used with this equipment. Operation with non-approved equipment or unshielded cables may result in interference to radio and TV reception. Any changes or modifications not approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

Declaration of Conformity
Trade Name: Panasonic
Model no.: SA-PTX7

Responsible Party:
Panasonic Corporation of North America
One Panasonic Way
Secaucus, NJ 07094

Support Contact:
Panasonic Consumer Electronics Company
Telephone No.: 1-800-211-7262

Panasonic
SA-PTX7

CAUTION	LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class
CAUTION	CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 +A2/ Class 1M
VARNING	KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD, BETRAKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.
FORSIGTIG	SYNLIG OG USYNLIG LASERSTRÅLING KLASS 1M, NÅR LÅGET ER ÅBENT. UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO!	AVATTAESSA OLET ALTTIINA LUOKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ. LASERSÄTEILYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M, WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTION	RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 1M, EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
注意	ここを開くと可視及び不可視レーザ光が出ます。ビームを見たり、触れたりしないでください。
注意	打开时有可见及不可见激光辐射。避免光束照射。 GB7241, 1-2001/3B 类 RQLXS0075

(Inside of product)

-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Although the AC power switch is in the off position (standby/on indicator is solidly lit red), the unit is not completely disconnected from the mains. Remove the plug from the main electrical outlet if you will not be using the unit for an extended period of time. Place the unit so the plug can be easily removed.

This device complies with RSS-210 of the IC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference,
(2) This device must accept any interference received, including interference that may cause undesired operation of the device.

User memo:

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.

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Licensed AAC patents (U.S. patent numbers);

08/937,950	5,274,740	97/02874	08/557,046	5,581,654
5848391	5,633,981	98/03036	08/894,844	05-183,988
5,291,557	5 297 236	5,227,788	5,299,238	5,548,574
5,451,954	4,914,701	5,285,498	5,299,239	08/506,729
5 400 433	5,235,671	5,481,614	5,299,240	08/576,495
5,222,189	07/640,550	5,592,584	5,197,087	5,717,821
5,357,594	5,579,430	5,781,888	5,490,170	08/392,756
5 752 225	08/678,666	08/039,478	5,264,846	
5,394,473	98/03037	08/211,547	5,268,685	
5,583,962	97/02875	5,703,999	5,375,189	

Table of contents

*Advanced
Operations*

Reference

Accessories

Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts.
(Product numbers correct as of December 2006. These may be subject to change.)

Only for U.S.A.: To order accessories, refer to "Accessory Purchases" on page 110.
Only for Canada: To order accessories, call the dealer from whom you have made your purchase.

☐ **1 Remote control**
(EUR7662YZ0)

☐ **2 Remote control batteries**

☐ **1 AM loop antenna**
(N1DAAAA00002)

☐ **1 FM indoor antenna**
(RSA0007-L)

☐ **1 Video cable**
(K2KA2BA00001)

☐ **2 Speaker cables for front/center speaker**
[REEX0720A (White)]
[REEX0720B (Red)]

☐ **1 Speaker cable for subwoofer**
(REE1402)
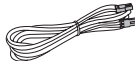
☐ **1 AC power supply cord**
(K2CB2CB00018)

Preparing the remote control

Remote control   **Batteries**

Insert so the poles (+ and −) match those in the remote control.
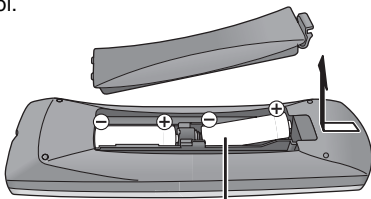
R6/LR6, AA

●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 severely damage the remote control.

Remove the batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

■ *Use*
Aim at the remote control signal sensor, avoiding obstacles, at a maximum range of 7 m (23 feet) directly in front of the unit.

10°
30°   30°
30°

Features

Getting Started
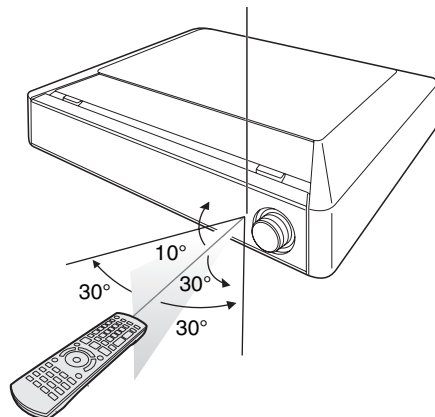
High Speed Recording from CD to HDD
(up to 4X recording speed)   (➜ page 34)

Recorded songs are automatically provided with the title, artist, and other information by the built-in Gracenote database※.
※ A connection to the Internet is necessary to obtain the newest CD title information.
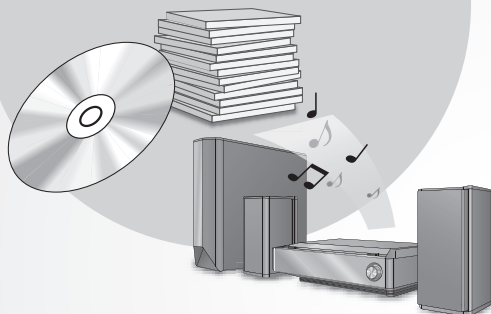
DVD Playback
(➜ page 50)
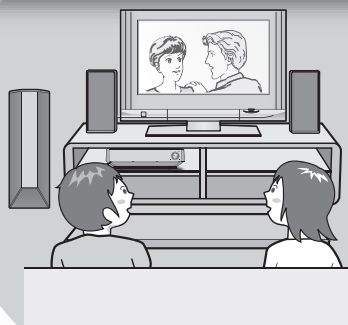
You can enjoy DVD movie software with the included 3.1 ch speakers.

Easy Location of HDD recording contents
(➜ page 46)

ENERGETIC
MELLOW
EMOTIONAL
RELAXING
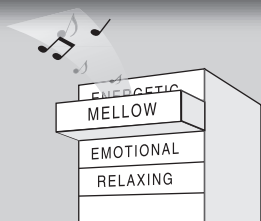
- You can search for tracks recorded to the HDD by using several methods such as song title, artist, album, most recently recorded, or most often played.
- By simply pressing one of the MUSIC SHUFFLE buttons, you can play tracks that have a certain impression or mood (Energetic, Mellow, Relaxing, or Emotional).

iPod recording/playings
(➜ page 78)

You can record tracks in iPod to the HDD, and also play tracks in iPod using this unit's speakers.
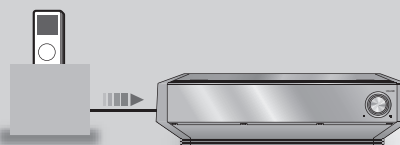
Import WMA/MP3 from a PC
(➜ page 40)
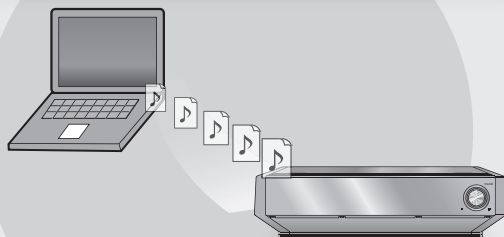
You can import WMA/MP3 from a PC via a network connection.

Enjoy audio from this unit in a different room. (Multiroom function)
(➜ page 80)
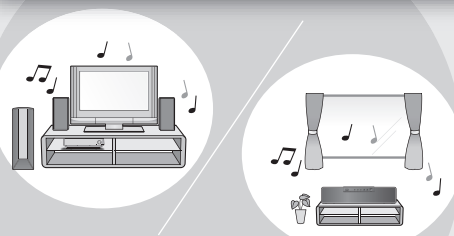
By using Panasonic wireless accessory SH-FX85 (not included), you can listen to audio from this unit in a different room.

RQT8926

9

STEP 1 Speaker location

This unit comes equipped with a Dolby Virtual Speaker circuit installed. Using just the front/center speakers, the subwoofer, and by reproducing acoustic effects very similar to 5.1ch surround, you can enjoy a true "home theater" experience even within a limited space.

Front/center speaker

- Outputs the elements of the front and center speakers. An effect similar to hearing the audio track from the center of the TV screen can be obtained.
- Leave 70 mm (2^{25}/$_{32}$″) (or more) of space in between the TV and the speakers and adjust audio to your liking.
- Look on the bottom of the speakers to identify the left and right speakers.

60°

Subwoofer

- Place to the right or left of the television, on the floor, or a sturdy shelf so that it will not cause vibration. Leave about 30 cm (11^{13}/$_{16}$″) from the television.
- Leave 50 mm (2″) (or further) from the wall.

(L)   (R)

Main unit

Note
- Keep your speakers at least 10 mm (^{13}/$_{32}$″) away from the system for proper ventilation.
- To allow for proper ventilation and to maintain good airflow around the main unit, position it with at least 50 mm (2″) of space on all sides.
- Do not block the ventilation holes of the main unit.

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 curtains.

Use only supplied speakers
Using other speakers can damage the unit, and sound quality will be adversely 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.

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 are reverberating due to 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.
- Do not touch the netted area of the speakers.
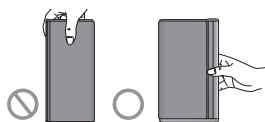
If irregular coloring occurs on your television
The front/center speakers are designed to be used close to a television, but the picture may be affected with some televisions and setup combinations.
If this occurs, turn the television off for about 30 minutes.
The demagnetizing function of the television should correct the problem. If it persists, move the speakers further away from the television.

Caution
- **The main unit and supplied speakers are to be used only as indicated in this setup. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.**
- **Do not attempt to attach these speakers to walls using methods other than those described in this manual.**

Speaker installation options

■ *Attaching to a wall*

You can attach the front/center speakers to a wall.

● The wall or pillar on which the speakers are to be attached should be capable of supporting 10 kg (22 lbs) per screw. Consult a qualified building contractor when attaching the speakers to a wall. Improper attachment may result in damage to the wall and speakers.

1 Drive a screw (not included) into the wall.

∅4.0 mm ($^5/_{32}''$)

Wall or pillar

∅7.5 to 9.4 mm ($^{19}/_{64}''$ to $^3/_8''$)

4.0 to 6.0 mm ($^5/_{32}''$ to $^1/_4''$)
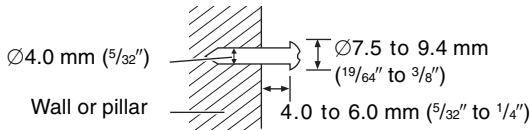
2 Fit the speaker securely onto the screw(s) by matching them with the hole(s).

Front/center speaker

24.5 mm ($^{31}/_{32}''$)
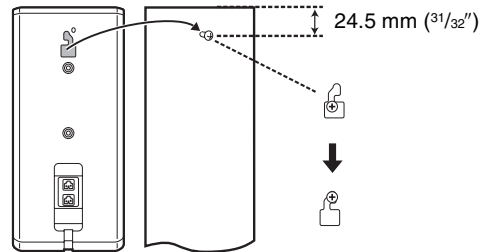
■ *Fitting speaker stands* (not included)

Ensure the stands meet these conditions before purchasing them.

Note the diameter and length of the screws and the distance between screws as shown in the diagram.

● The stands must be able to support over 10 kg (22 lbs).
● The stands must be stable even if the speakers are in a high position.

Front/center speaker

55 mm ($2^5/_{32}''$)

60 mm ($2^3/_8''$)

Plate thickness plus 7 mm to 10 mm (plus $^9/_{32}''$ to $^{13}/_{32}''$)

5 mm ($^3/_{16}''$), pitch 0.8 mm ($^1/_{32}''$)

Metal screw holes
For attaching to speaker stands

Speaker stand※
(not included)
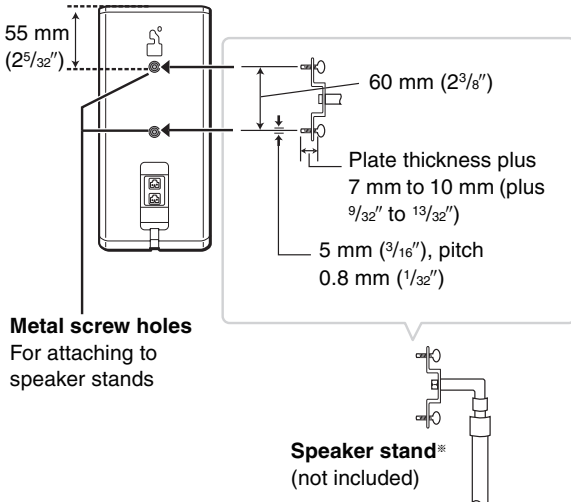
※ This is one example of configuring speaker stands.

Preventing the speakers from falling over

Preparation
Attach screw eyes (not included) to secure the speakers to a wall.

Screw eye (not included)   **Wall**

String (not included)

Approx. 150 mm ($5^{29}/_{32}''$)
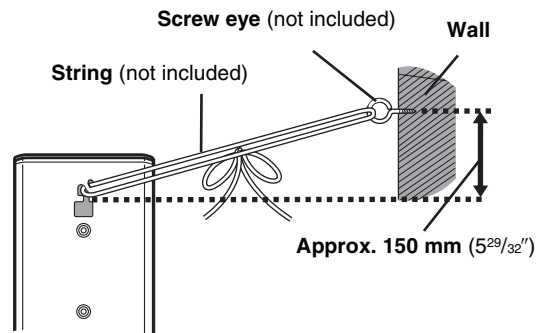
1 Thread the string (not included) through the slot on the rear of the front/center speakers to prevent them from falling over.

2 Loop the string through the screw eye and tie tightly.

● You will need to obtain the appropriate screw eyes to match the walls and pillars to which the screw eyes are going to be fastened.
● Consult with a qualified housing contractor concerning the appropriate procedure when attaching to a concrete wall or a surface that may not have strong enough support. Improper attachment may result in damage to the wall or speakers.

Expand your listening options with a Multiroom wireless sound system.
Optional Panasonic wireless accessory SH-FX85 (→ page 80)

You can enjoy a Multiroom wireless sound system when you use the optional Panasonic wireless accessory SH-FX85.
For details, please refer to the operating instructions for the optional Panasonic wireless accessory.

STEP 2 **Basic connections**

❶ Speaker cable for front/center speakers	❷ Speaker cable for subwoofer	❸ AM loop antenna	❹ FM indoor antenna

Using FM/AM outdoor antenna (optional) (➔ page 63).

● Look on the bottom of the speakers to identify the left and right speakers.

Red

White

❶

❶

Front/center speaker (R)

SPEAKERS CENTER WOOFER (4Ω) FRONT (8Ω)

DIGITAL TRANSMITTER

XM

DIGITAL OUT

AUX IN

EXT

LOOP

AM ANT

Front/center speaker (L)

COMPONENT VIDEO OUT

LOOP ANT GND

75Ω

FM indoor antenna
Affix this end of the antenna where reception is best.

Subwoofer   **Main unit**

AC IN

OPTION V.1
DC OUT 5V 500mA MAX

10BASE-T/ 100BASE-TX LAN

❸

PUSH

Adhesive tape

❹

❷

Violet

> Stand the antenna up on its base. Place the antenna where reception is best.
> Keep loose antenna cable away from other wires and cables.

Connecting the speakers and subwoofer to the terminals (❶, ❷)

Connect the speaker to the terminal that matches the color of the speaker connector. (Insert until you hear it click into place.)

When disconnecting:
Press down on the protruding piece and pull out.

Front/center speaker

White
Red
White
Red

Subwoofer

Violet
Violet

Protruding piece
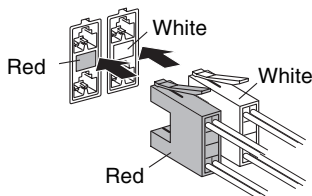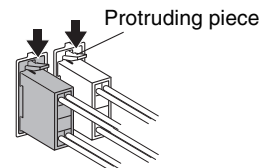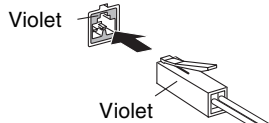
Connecting the AM loop antenna (❸)

① While pushing, insert the wire fully.

Red — White
Black

② Loosen the terminal screw with a Phillips-head screwdriver.

③ ④ Re-tighten the terminal screw.
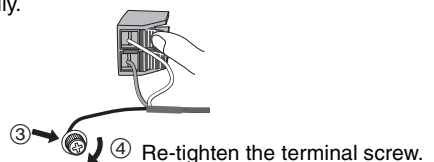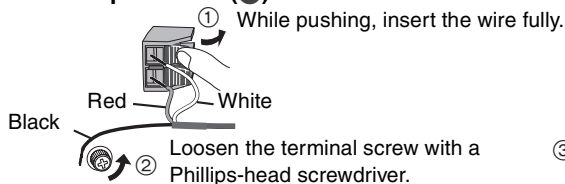
6 **Video cable**

7 **AC power supply cord**

Audio cable (not included)
This audio connection will enable you to play audio from your television through your home theater system (➔ page 86).

Television (not included)

VIDEO IN AUDIO IN AUDIO OUT L R

5

6

(R) CENTER SPEAKERS SUB-WOOFER (4Ω) FRONT (8Ω) XM DIGITAL TRANSMITTER DIGITAL OPTICAL OUT IN(TV) COMPONENT VIDEO OUT Y PB PR VIDEO OUT TV IN AUX EXT AM ANT LOOP ANT GND FM ANT 75Ω HDMI AV OUT

AC IN OPTION V.1 DC OUT 5V 500mA MAX LAN (10BASE-T/ 100BASE-TX)

Main unit

7

Note
The included AC power supply cord is for use with the main unit only.
Do not use it with other equipment. Also, do not use the cord for other equipment with the main unit.

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

Conserving power
The main unit consumes a small amount of power when it is in standby mode (approx. 0.5 W). To save power when it 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 main unit.

═══ **Optional Connections** ═══

■ **For those who want to enjoy higher picture quality and have a TV equipped with an HDMI terminal (➔ page 17)**
■ **For those who have a cable box or VCR (➔ page 18)**
■ **For those who want to enjoy 5.1 ch surround sound by connecting with an amplifier or receiver (➔ page 18)**
■ **For those who want to connect this unit with an external device (such as an MP3 player) (➔ page 19)**
■ **For those who want to connect to XM satellite radio (➔ page 19)**
■ **For those who want to connect to a network and import new album/artist information (➔ page 20)**
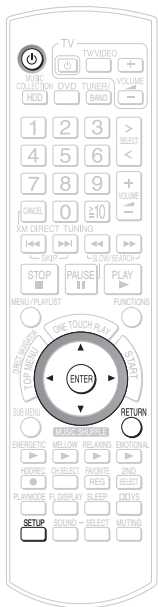
The QUICK SETUP screen assists you to make necessary settings.

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
● Do not use any other Video cables except the supplied one.

1   **Press [⏻].**

2   **Press [SETUP].**

3   **Press [▲ ▼] to select "Setup for Video" and press [ENTER].**

> **⑥ Setup**
>
> **QUICK SETUP**
>
> Select the menu language.
>
> **English**
> **Français**
> **Español**
>
> ▲▼ to select and press ENTER   RETURN to return
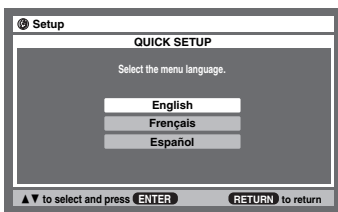
4   **Press [▲ ▼] to select the menu language and press [ENTER].**

> **⑥ Setup**
>
> **QUICK SETUP**
>
> Use QUICK SETUP to make basic settings.
> Would you like to use QUICK SETUP?
>
> **Yes**
> **No**
>
> ▲▼ to select and press ENTER   RETURN to return

5   **Press [▲ ▼] to select "Yes" and press [ENTER].**

> **⑥ Setup**
>
> **QUICK SETUP**
>
> Select the type of TV you have connected.
>
> **Standard (Direct View TV)**
> **CRT Projector**
> **LCD TV/Projector**
> **Projection TV**
> **Plasma TV**
>
> ▲▼ to select and press ENTER   RETURN to return
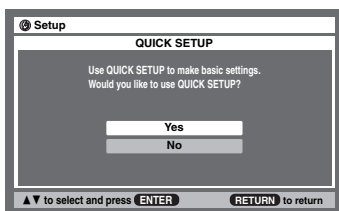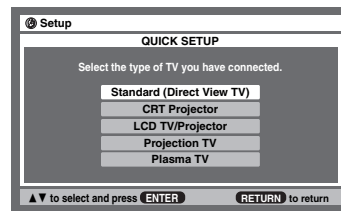
6   **Press [▲ ▼] to select the TV Type and press [ENTER].**

> **⑥ Setup**
>
> **QUICK SETUP**
>
> Select your TV's aspect ratio
>
> **4 : 3**
> **16 : 9**
>
> ▲▼ to select and press ENTER   RETURN to return
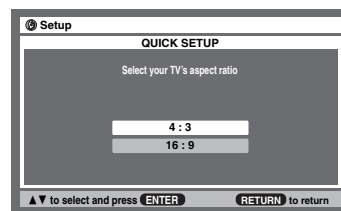
7   **Press [▲ ▼] to select TV Aspect ratio and press [ENTER].**
   4:3:   Regular aspect television (4:3)
   16:9: Widescreen television (16:9)

8   **Press [ENTER].**

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

To change these settings later
Select "QUICK SETUP" in the "Others" menu (➜ page 93).

■ *To have the unit start up immediately*
By setting "Power Off Mode" to "Quick-Start Mode", this unit can be started up immediately from standby mode.
1   Press [SETUP].
2   Press [▲ ▼] to select "Other Setup ".
3   Press [▲ ▼] to select "Power On/Off" and press [▶].
4   Press [▲ ▼] to select "Power Off Mode" and press [ENTER].
5   Press [▲ ▼] to select "Quick-Start Mode" and press [ENTER].

Note
Power consumption during standby will increase when this unit is set to "Quick-Start Mode".

STEP 4 Setting the clock
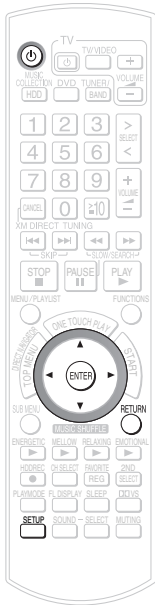
Preparation
1   To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2   Press [⏻].

1   **While stopped**
     Press [SETUP].
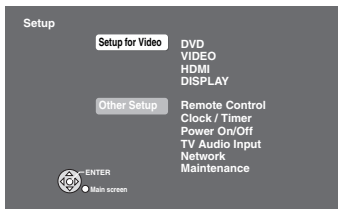
2   Press [▲ ▼] to select "Other Setup" and press [ENTER].

3   Press [▲ ▼] to select "Clock/Timer" and press [▶].
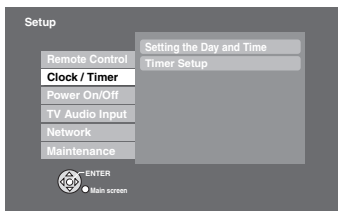
4   Press [▲ ▼] to select "Setting the Day and Time" and press [ENTER].
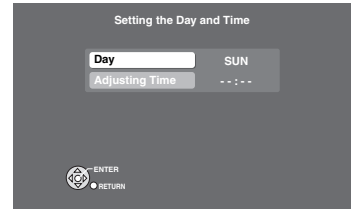
5   Press [▲ ▼] to select the "Day" and press [ENTER].
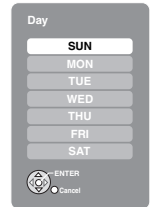
6   Press [▲ ▼] to select the day and press [ENTER].

7   Press [▲ ▼] to select "Adjusting Time" and press [ENTER].
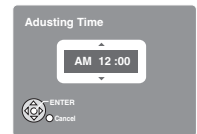
8   Press [▲ ▼] to set the time and press [ENTER].
     ● This can be set quickly by pressing and holding [▲ ▼].

The clock starts.

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

Note
● This is a 12-hour clock.
● Reset the clock regularly to maintain accuracy.
● If there is a power failure or the plug is disconnected from the household AC outlet, set this again.

< > SELECTOR   ∨ TUNING ∧
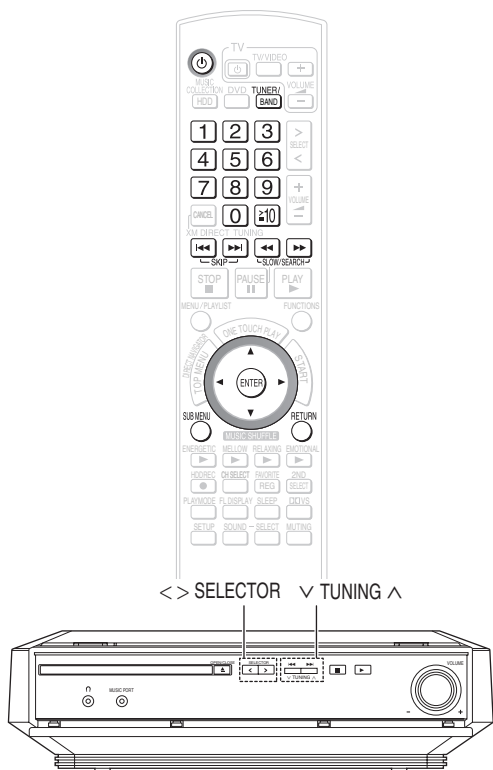
Radio operations are described mainly with the remote control.
You can alternatively use the corresponding button on the main unit.
※1 [< > SELECTOR]   ※2 [∨ TUNING ∧]

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [ᵕ].

Setting preset stations automatically

Up to 30 stations can be set in each band, FM and AM.

1 **Press [TUNER/BAND]※1 to select "FM" or "AM".**

2 **Press [◀◀ ▶▶] to select the lowest frequency (FM: 87.9 or 87.5, AM: 520).**

3 **Press [SUB MENU].**

4 **Press [▲ ▼] to select "Auto Memory" and press [ENTER].**

```
FM      Auto Memory


Do you want to start Auto Memory?
Start point : XX.X MHz?

        Yes            No
```

5 **Press [◀ ▶] to select "Yes" and press [ENTER].**
The tuner presets all the stations it can receive into the channels in ascending order.
- "Auto Memory Completed." is displayed when the stations are set, and the radio tunes to the last preset station.
- "Memory setting failed." is displayed when automatic presetting is unsuccessful. Preset the channels manually (➔ page 62).

■ *FM frequency step*
The step is factory-set to 0.2-MHz (200-kHz), but you can change it to receive broadcasts allocated in 0.1-MHz (100-kHz) steps.
Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND]※1 to select "FM".
2 Press [SUB MENU].
3 Press [▲ ▼] to select "Select Frequency Step" and press [ENTER].
4 Press [▲ ▼] to select the frequency step and press [ENTER].
5 Press [◀ ▶] to select "Yes" and press [ENTER].
Note
After changing the setting, previously preset frequencies will be cleared and the timer setting of FM recording will be canceled. Preset them again.

To return to the previous screen
Press [RETURN].

Selecting the preset channels

Check that the radio station(s) are correctly set.

1 **Press [TUNER/BAND]※1 to select "FM" or "AM".**

2 **Press the numbered buttons to select the channel.**
- To select a 2-digit number
  e.g. "12": [≧10] ➔ [1] ➔ [2].

```
  CH  12
```
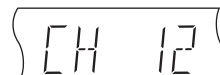
Alternatively, press [I◀◀ ▶▶I]※2 to select the channel.

Optional connections and settings

To enjoy higher picture quality

Using the following connections, you can enjoy higher picture quality.

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

The COMPONENT VIDEO OUT terminals provide a purer picture than the VIDEO OUT terminal. These terminals can be used for either interlaced or progressive output. 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.

Audio cable (not included)

AUDIO OUT
L
R

Television (not included)

Video cables (not included)

P_B P_R Y
COMPONENT VIDEO IN

Main unit
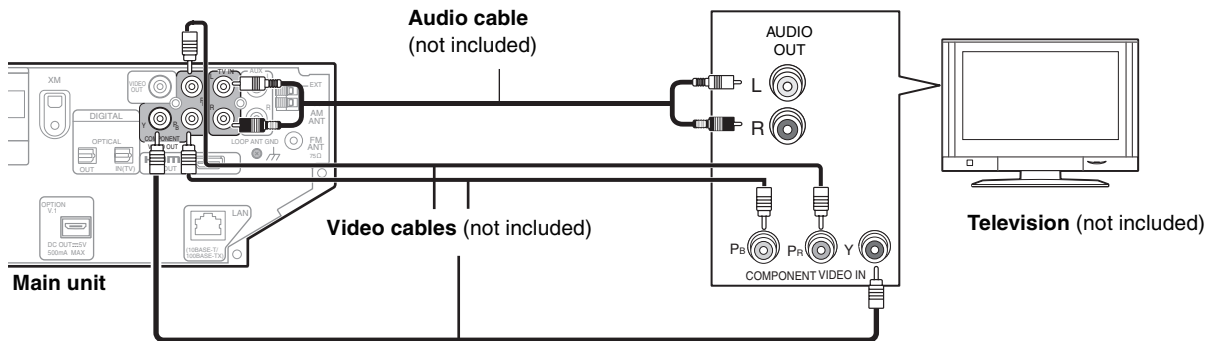
Note
● The description of the component video input terminals depends on the television or monitor (e.g. Y/P_B/P_R, Y/B-Y/R-Y, Y/C_B/C_R). Connect to terminals of the same color.

Tips
● After making this connection, select "Darker" from "Black Level Control" (➜ page 92, "Video" menu).

To enjoy progressive video
● Connect to a progressive output compatible television.
● Set "Video Output Mode" to "480p", and then follow the instructions on the menu screen (➜ page 60, Picture Menu).
● All Panasonic televisions that have 480p input connectors are compatible. Consult the manufacturer if you have another brand of television.

■ *Connecting to a television with the HDMI terminal*

HDMI is the next-generation interface for digital devices. When connected to an HDMI compatible unit, an uncompressed digital video and audio※ signal is transmitted. You can enjoy high quality, digital video and audio※ with just one cord. When connecting to an HDMI-compatible HDTV (High Definition Television), the output can be switched to 1080p,1080i or 720p HD video.

HDMI-compatible television (not included)

HDMI AV IN

HDMI cable (not included)

Main unit
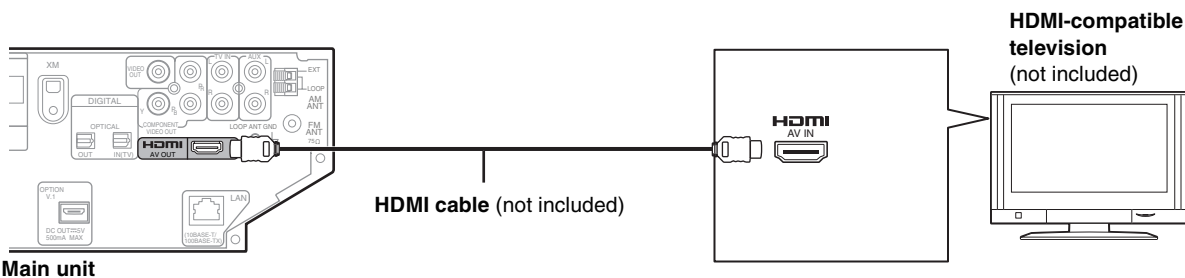
Necessary Settings:
● Set "Video Mode" to "On" and "Audio Output" to "Off"※ (➜ page 93, "HDMI" menu).
● Set "Video Output Mode" (➜ page 60, Picture Menu).

※ When "Audio Output" is set to "On" (➜ page 93, "HDMI" menu), CD and DVD audio will also be output from the TV. However, while recording a CD to the HDD (➜ page 34), audio will not be output from the television speakers.

Note
● It is recommended that you use Panasonic's HDMI cable. [Recommended part number: RP-CDHG15 (1.5 m/4.9 ft.), RP-CDHG30 (3.0 m/9.8 ft.), RP-CDHG50 (5.0 m/16.4 ft.), etc.]
● Non-HDMI-compliant cables cannot be utilized.
● When connecting with a Panasonic TV (VIERA) equipped with the "HDAVI Control" function, linked operations would be possible. See page 76 for the details.

Connecting to the Set Top Box (Satellite receiver, Cable box, etc) or video cassette recorder

Use the following connections when you want to output audio of your cable TV or VCR through this unit's speakers.
● **Do not connect through the video cassette recorder.**
  Due to copy guard protection, the picture may not be displayed properly.
  Turn the television off before connecting, and refer to the television's operating instructions.

To your cable TV service or television antenna

Insert fully, with this side facing up.

RF cable (not included)

RF IN

RF OUT

OPTICAL OUT

RF cable (not included)

Optical digital audio cable※ (not included)

Set Top Box (Satellite receiver, Cable box, etc) or video cassette recorder (not included)

Video cable (included)

XM

DIGITAL

OPTICAL

RF IN

VIDEO IN   AUDIO IN   AUDIO OUT

L

R

Main unit

Audio cable (not included)

Television (not included)
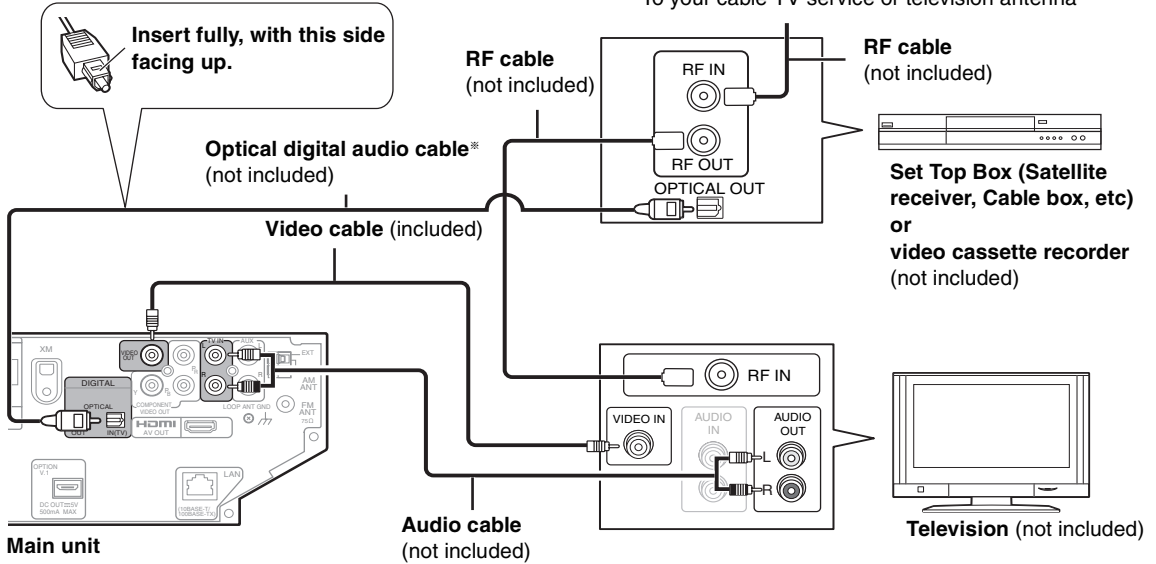
※This unit can decode the surround signal from the Set Top Box (Satelite receiver, Cable box, etc).
  1 Press [SETUP].
  2 Press [▲ ▼] to select "Other Setup" and press [ENTER].
  3 Press [▲ ▼] to select "TV Audio Input" and press [▶].
  4 Press [ENTER].
  5 Press [▲ ▼] to select "DIGITAL IN" and press [ENTER].
  6 Press [RETURN] to exit the screen.
  7 Then press [> SELECT <] to switch the selector to "TV Audio" as the source.
  Set the optical input settings (➜ page 83, Selecting to the sound effects).

Note
● Before purchasing an optical digital audio cable, check the terminal shape of the equipment to be connected.

Connecting to the 5.1 channel amplifier

To enjoy multi-channel surround sound DVD-Video, connect an amplifier with a built-in Dolby Digital or DTS decoder using an optical digital audio cable.

Insert fully with this side facing up.

XM

DIGITAL

OPTICAL

OUT   IN(TV)

AV OUT

OPTION V-1

DC OUT 5V 500mA MAX

LAN

OPTICAL IN

Main unit

Optical digital audio cable (not included)

Amplifier (not included)
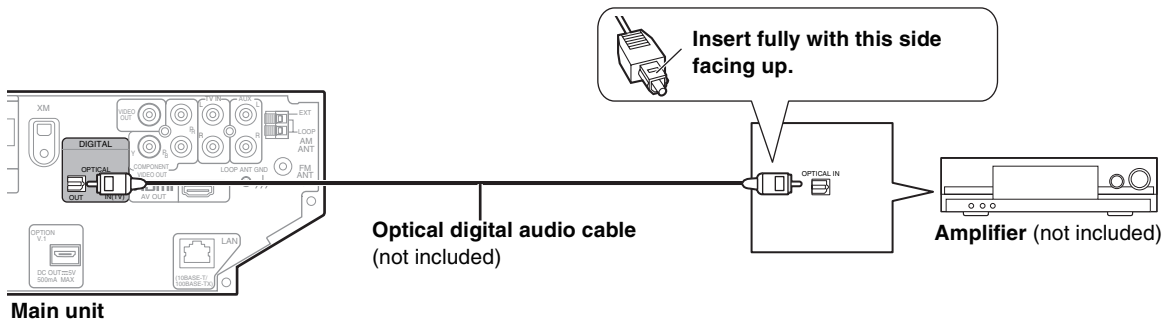
Necessary Settings:
Set "PCM Digital Output","Dolby Digital" and "DTS Digital Surround" (➜ page 92, "Audio" menu)
Note
● Using the connections shown above, you can output CD or DVD audio only. You cannot output audio from the HDD, Tuner or externally connected devices.
● Before purchasing an optical digital audio cable, check the terminal shape of the equipment to be connected.
● You cannot use DTS Digital Surround decoders not suited to DVD.
● Even if using this connection method, output will be in only 2 channels when playing DVD-Audio.

Connecting to the other audio equipment

AUX and Music Port allow you to enjoy music from a tape deck or other external devices (e.g. MP3 player etc.) through this unit. For more information about using these connections, see page 38 and 86.

When using AUX terminal

Audio cable
(not included)

Tape deck

R   L
PLAY OUT

Main unit
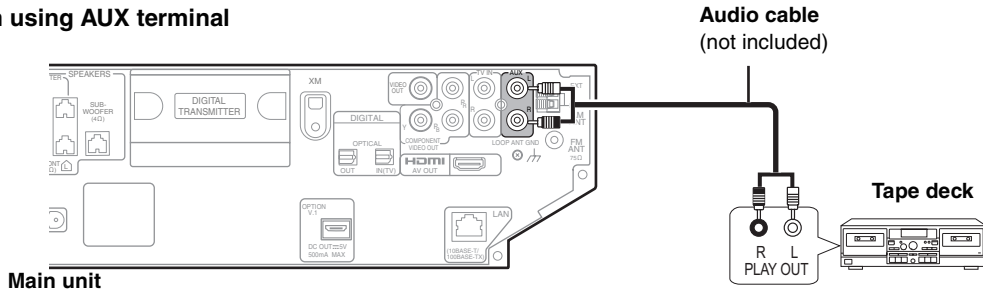
When using Music Port terminal

Music Port plug type: ∅3.5 mm (1/8″) stereo mini plug

External device

Audio cable
(not included)

Main unit
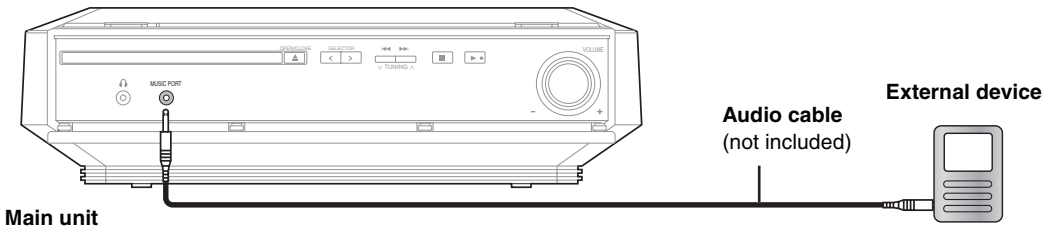
Connecting to the XM antenna

XM Satellite Radio users should use the connection method shown below.
Subscription is required to receive XM Satellite Radio. Refer to page 64 for details.

XM antenna (not included)

Main unit

Network connection

By connecting to the Internet, you can use the following functions:
- You can obtain the most recent CD title information from the online Gracenote® database.
  [This unit has an abbreviated Gracenote® database in the HDD. CD title information can be obtained even if you are not connected to the Internet. (➔ page 31, About the Gracenote® database)].
- Importing WMA/MP3 data (➔ page 40), data backup (➔ page 88), etc., are all functions that use the network. (Functions other than those listed above are not supported by network services.)

When you have a dedicated Internet connection (such as cable, broadband, etc.), after checking with your Internet Service Provider (ISP) and the service agreement, make connections and settings using indicated equipment.
For further information about network connection visit the following homepage.
http://panasonic.jp/support/global/cs/audio

Internet

Main unit

PC

Straight LAN cable (not included)

WAN

4 3 2 1 LAN

LAN

Hub or broadband router

Telecommunications equipment (modem, etc.)

- When using a modem with broadband router capabilities, and if there are no open modem ports, connect a hub. If the modem does not have broadband router capabilities, connect a broadband router.
- Use a router that supports 10BASE -T/100BASE -TX.

Note
- The name for the terminal may differ depending on the device.
- Refer to the operating instructions for the connected device.
- Inserting any cable other than a LAN cable in the LAN terminal can damage the unit.

■ *Router settings*
- We recommend setting the DHCP for the router to "ON" (the setting to automatically assign IP addresses).
  This is usually set to "ON", therefore changes may be unnecessary.
- Depending on the security settings of the router, this unit may not be able to connect to the Internet.

■ *Settings for this unit*
- When the DHCP server function is set to "ON", you can use the default settings for this unit; no changes to the settings are necessary.
- Depending on the router settings, you may need to make changes to the network settings on this unit (➔ page 95, Changing the network settings).

Note
CD title information cannot be obtained from the online Gracenote® database if you connect to the Internet using a Proxy connection.

■ *Responsibility disclaimer*
- Panasonic will not accept responsibility for unintended consequences, malfunctions, hang-ups, or other damage resulting from connections of unapproved devices or software.
- Implementing router security requires a high level of knowledge of networking. If you are setting security levels, do so at your own risk. Panasonic accepts no responsibility for problems caused by security settings. Furthermore, Panasonic cannot address questions relating to the settings and usage of each device.
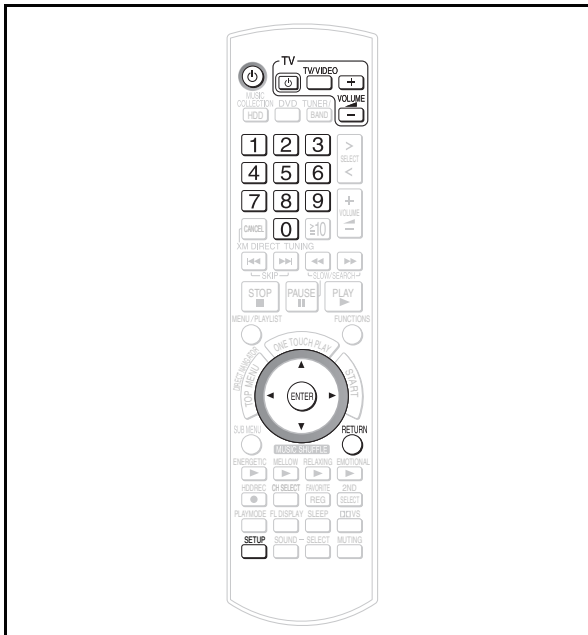
Television operation

You can operate the television through the unit's remote control.
Point the remote control at the television
While pressing [⏻ TV], enter the code with the numbered buttons.

e.g., "0250": [0] ➜ [2] ➜ [5] ➜ [0]

Manufacturer and Code No.

Panasonic National QUASAR	0051/0250	PHILIPS (RC-5)	0054
		RCA	0047
		SAMSUNG	0060/0587/0702
FISHER	0154	SANYO	0154
GE	0047	SHARP	0093/0165
GOLDSTAR	0178/0317/0457	SONY	0000
HITACHI	0145	SYLVANIA	0054
JVC	0053	THOMSON	0047
LG	0178/0317/0457	TOSHIBA	0156
MAGNAVOX	0054	ZENITH	0017
MITSUBISHI	0150		

Test by turning on the television ([⏻ TV]).
Repeat the procedure until you find the code that allows correct operation.

Operating the television	
[⏻ TV]	(Turn the television on/off)
[TV/VIDEO]	(Change the television's video input mode)
[＋ － VOLUME]	(Adjust the television volume)

●If your television brand is not listed or if the code listed for your television does not allow control of your television, this remote control is not compatible with your television.

When other Panasonic equipment is located nearby

Change the remote control code on the main unit and the remote control (the two must match) if you place other Panasonic products close together.
Use "Mode 1", the factory set code, under normal circumstances.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].

1 **While stopped**

Press [SETUP].
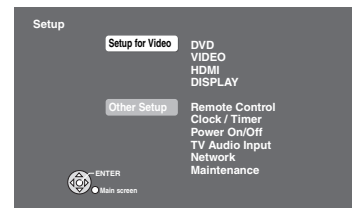
2 Press [▲ ▼] to select "Other Setup" and press [ENTER].

3 Press [▲ ▼] to select "Remote Control" and press [▶].

4 Press [▲ ▼] to select "Remote Control" and press [ENTER].
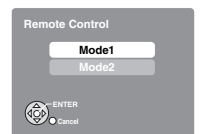
5 Press [▲ ▼] to select the mode ("Mode 1" or "Mode 2") and press [ENTER].

6 To change the code on the remote control
While pressing [ENTER], press and hold the numbered button ([1] or [2]) for more than 5 seconds.

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

∎ *When the following indicator and display appears on the unit's display and the TV.*

Please set your remote control to Mode2.

The unit's remote control code
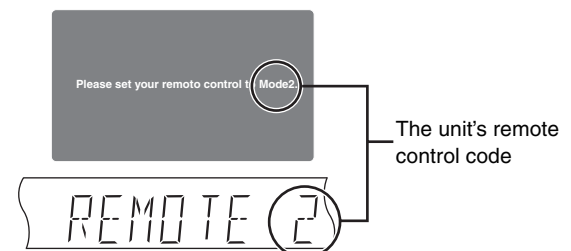
REMOTE 2

Change the code on the remote control to match the main unit's (➜ step 6).

HDD (Hard disk drive) handling care

The HDD is a high precision recording instrument and because of its long recording capability and high speed operation it is a very special device that is easily susceptible to damage.

■ *The HDD is a device that is not built to withstand vibration/shock or dust*
Depending on the setup environment and handling of the HDD some content may become damaged and play and recording may no longer be possible. Especially during operation, do not subject the unit to any vibration, shock, or remove the AC power plug from the household AC outlet. In the event of a power failure during recording or play, the content may be damaged.

■ *Back up the HDD periodically*
As a precaution for HDD failure, we recommend making a backup of the HDD periodically. However, in some cases where the HDD is heavily damaged, backups may not be restored.

■ *Immediately request service as soon as you feel there may be a problem with the HDD*
If there is an irregularity within the HDD, repetitive strange sounds or distortion ("broken up" audio) may result. Using the HDD in this condition may worsen the problem and in the worst case the HDD may no longer become usable. As soon as you notice this type of problem, request service. Recorded content (data) on an HDD that has become unusable is unrecoverable.

■ *Setup precautions*
- **Do not place in an enclosed area where the rear cooling fan is covered up.**
- **Place the unit on a surface that is flat and not subject to vibration or impact.**
- **Do not place on anything that generates heat like a video cassette recorder, etc.**
- Do not place in an area often subject to temperature changes.
- Place in an area where condensation does not occur. Condensation is a phenomenon where moisture forms on a cold surface when there is an extreme change in temperature. Condensation may cause internal damage to the unit.

- **Conditions where condensation may occur**
  – When there is an extreme change in temperature (moving from a very hot location to a very cold location, or vice versa, or when subjected to an air conditioner or when cooled air directly impacts the unit.) When the HDD (warms during operation) is subjected to cold air, condensation may form on the inside of the HDD and may cause damage to the HDD heads, etc.
  – When there is high humidity or a lot of steam in the room.
  – During the rainy season.

In the above situation, **without turning the unit on**, let the unit adjust to the room temperature and wait 2–3 hours until condensation is gone.

■ *Cigarette smoke, etc. causes malfunction or breakdown*
The unit may breakdown if cigarette smoke or bug spray/vapor, etc. gets inside the unit.

■ *While operating*
- Do not move the unit or subject to vibration or impact. (The HDD may become damaged.)
- Do not remove the AC power plug from the household AC outlet, or flip the power breaker switch.

While the unit is on, the HDD is rotating at high speed. Sound or movement due to rotation is normal.

■ *When moving the unit*
① Remove the CD.
② Turn the unit off.
③ After "GOOD-BYE" is finished displaying, remove the plug from the wall within 2 minutes, or wait until conversion and analysis is complete to remove the AC power supply cord from the household AC outlet.
④ Once the HDD is no longer rotating and has come to a complete stop (after waiting about 2 minutes), move the unit carefully so as to avoid any vibration or shock. (After the power has been turned off, the HDD will briefly continue to rotate due to inertia.)

After the power to the unit has been turned off, (unit enters "Standby Mode"), if there are recorded tracks that have not yet been converted or analyzed, the HDD will begin conversion and analysis of these recorded tracks after about 2 minutes.

During conversion/analysis:
- Do not remove the AC power supply cord.
- If you are using an extension cord and/or power strip with a power switch, do not switch the power to off.

■ *Indemnity concerning recorded content*
Panasonic does not accept any responsibility for damages directly or indirectly due to any type of problems that result in loss of recording or edited content (data), and does not guarantee any content if recording or editing does not work properly. Likewise, the above also applies in a case where any type of repair is made to the unit (including any other non-HDD related component).

■ *A warning about data management:*
This unit records the history of your operations (user information), and this history includes data such as track data recorded, user playlist information, and the various settings you made on this unit. Depending on where you place this unit, your personal information could be compromised and used by a third party. Use caution and discretion when considering where to use this unit.
Also note that if this unit is sent for repair, user information may be checked as well.
To prevent compromising your personal information, please delete or change all personal user information before sending in for repair.

■ *Cautions about disposal or transferring ownership of this unit*
Before disposing or transferring ownership of this unit, delete all recorded data and user playlist information (➔ page 94, Delete All Tracks in the Music Collection). Furthermore, change any settings as necessary.

In the event that user information is changed, lost, misused, compromised, or any damage or loss occurs as a result, Panasonic will not accept any responsibility. Please be aware of this before using this unit.

Discs used with this unit

Discs that can be recorded to this unit's HDD (HDD)

Disc	Logo	Data type	Remarks
CD	COMPACT disc DIGITAL AUDIO	CD	Music discs ≥This unit is not compatible with HDCD. ≥Operation and sound quality of CDs that do not conform to CD-DA specifications (copy control CDs, etc.) cannot be guaranteed.
CD-R/RW	—	CD / WMA [*1] / MP3 [*1] [*1]See also "Tips for making data discs" (➜ page 25).	By recording in CD-DA, WMA, or MP3 format, and closing the session or finalizing[*2] the CD-R/CD-RW disc when recording is complete, you can record tracks from the disc to this unit's HDD. [*2]A process that allows play on other equipment.
DVD-RAM	DVD RAM RAM4.7	MP3	This unit can record only MP3 files on these recordable DVDs. DVD-R/RW discs need to be finalized.
DVD-R/RW	DVD R R4.7 DVD R W		

≥DVD content cannot be recorded to this unit's HDD (except for MP3 files in recordable DVD).

Discs that can be played

■ *Commercial discs*

Disc	Logo	Indicated in these instructions by	Remarks
DVD-Video	DVD VIDEO DVD VIDEO	DVD-V	High quality movie and music discs
DVD-Audio	DVD AUDIO	DVD-A	High fidelity music discs* * Some DVD-Audio discs contain DVD-Video content. To play DVD-Video content, select "Play as DVD-Video" (➜ page 61, Other Menu).
VCD	COMPACT disc DIGITAL VIDEO	VCD	Music discs with video Including SVCD (Conforming to IEC62107)
CD	COMPACT disc DIGITAL AUDIO	CD	Music discs ≥This unit is not compatible with HDCD. ≥Operation and sound quality of CDs that do not conform to CD-DA specifications (copy control CDs, etc.) cannot be guaranteed.

■ *Recorded discs* (Yes: Can be used, No: Cannot be used)

Disc	Logo	Recorded on a DVD recorder, etc.		Recorded on PC, etc.			Necessity of finalize[*6]
		DVD-VR [*2]	DVD-V [*4]	WMA	MP3	JPEG	
DVD-RAM	DVD RAM RAM4.7	Yes	—	No	Yes	Yes	Not necessary
DVD-R/RW	DVD R R4.7 DVD R W	Yes	Yes	No	Yes	Yes	Necessary
DVD-R DL	DVD R R DL	Yes[*3]	Yes	No	No	No	Necessary
+R/+RW	—	No	(Yes)[*5]	No	No	No	Necessary
+R DL	—	No	(Yes)[*5]	No	No	No	Necessary
CD-R/RW[*1]	—	—	—	Yes	Yes	Yes	Necessary[*7]

- It may not be possible to play the discs in all cases due to the type of discs, the condition of the recording, the recording method and how the files were created (➜ below, Tips for making data discs).

※1 This unit can play CD-R/RW recorded with CD-DA or Video CD format.
   WMA MP3 JPEG This unit also plays HighMAT discs.
※2 Discs recorded on DVD recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

※3 Discs recorded on DVD recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).
※4 Discs recorded on DVD recorders or DVD video cameras using DVD-Video Format.
※5 Recorded using a format different from DVD-Video Format, therefore some functions cannot be used.
※6 A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary", the disc must first be finalized on the device it was recorded on.
※7 Closing the session will also work.

∎ *Tips for making data discs*

Format	Disc	Extension	Reference
WMA	CD-R/RW	".WMA" ".wma"	• Compatible compression rate: between 48 kbps and 320 kbps • You cannot play WMA files that are copy protected. • This unit is not compatible with Multiple Bit Rate (MBR: a file that contains the same content encoded at several different bit rates).

MP3	DVD-RAM
	DVD-R/RW
	CD-R/RW
		".MP3"
		".mp3"
			• Sampling frequency and compatible compression rate
			   DVD-RAM, DVD-R/RW : 11.02, 12, 22.05, 24 kHz (8–160 kbps)
			                                       44.1, 48 kHz (32–320 kbps)
			   CD-R/RW : 8, 11.02, 12, 16, 22.05, 24 kHz (8–160 kbps)
			                                       32, 44.1, 48 kHz (32–320 kbps)

JPEG	DVD-RAM DVD-R/RW CD-R/RW	".JPG" ".jpg" ".JPEG" ".jpeg"	• JPEG files taken on a digital camera that conforms to DCF Standard Version 1.0 are displayed. – Files that have been altered, edited or saved with picture editing software may not be displayed. • This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (e.g., TIFF) or play pictures with attached audio.

- If groups were created away from the root like "002 group" in the illustration below, the eighth one onwards is displayed on the same vertical line in the menu screen.
- There may be differences in the display order on the menu screen and PC screen.
- This unit cannot play files recorded using packet write.
- This unit is not compatible with ID3 tags.

Naming folders and files (Files are treated as contents and folders are treated as groups on this unit.)
At the time of recording, prefix folder and file names. This should be with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times).

e.g., 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
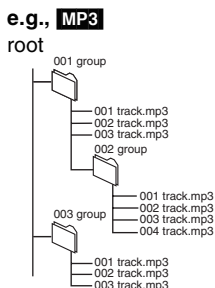
DVD-RAM
- Discs must conform to UDF 2.0.

DVD-R/RW
- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit is not compatible with multi-session. The default session only is played.

CD-R/RW
- 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.

Note about using a DualDisc
The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so play may not be possible.

Regarding DVD-Audio
Some multi-channel DVD-Audio will prevent down-mixing (➜ page 108, Glossary) of all or part of their contents if this is the manufacturer's intention. When playing such discs, or such parts of the disc, unless the number of connected speakers is the same as the disc's channel specification, audio will not be output properly (e.g., part of the audio is missing, multi-channel audio cannot be selected and audio is played in two channels). Refer to the disc's jacket for more information.

∎ *Discs that cannot be played*
Blu-ray, HD DVD, AVCHD discs, Version 1.0 of DVD-RW, DVD-ROM, CD-ROM, CDV, CD-G, SACD, DivX Video Discs, Photo CD, DVD-RAM that cannot be removed from their cartridges, 2.6-GB and 5.2-GB DVD-RAM, PAL discs※ and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.
※ You can play DVD-Audio; however, still pictures may be displayed enlarged.

Disc handling care

■ *How to hold a disc*

Do not touch the recorded surface.

■ *Concerning non-cartridge discs*

Be careful about scratches and dirt.

■ *If there is dirt or condensation on the disc*

Wipe with a damp cloth and then wipe dry.

■ *Handling precautions*

● Do not attach labels or stickers to discs. (This may cause disc warping and un-balanced rotation, rendering it unusable.)
● Write on the label side of the disc only with a soft, oil-based felt pen. Do not use ballpoint pens or other hard writing implements.
● 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 drop, stack, or impact discs. Do not place objects on them.
● Do not use the following discs:
  – Discs with exposed adhesive from removed stickers or labels (rental discs, etc.).
  – Discs that are badly warped or cracked.
  – Irregularly shaped discs, such as heart shapes.

● Do not place in the following areas:
  – In direct sunlight.
  – In very dusty or humid areas.
  – Near a heater.
  – Locations susceptible to significant difference in temperature (condensation can occur).
● To protect discs from scratches and dirt, return them to their cases or cartridges when you are not using them.

Control reference guide

Remote control

Instructions for operations are generally described using the remote control.
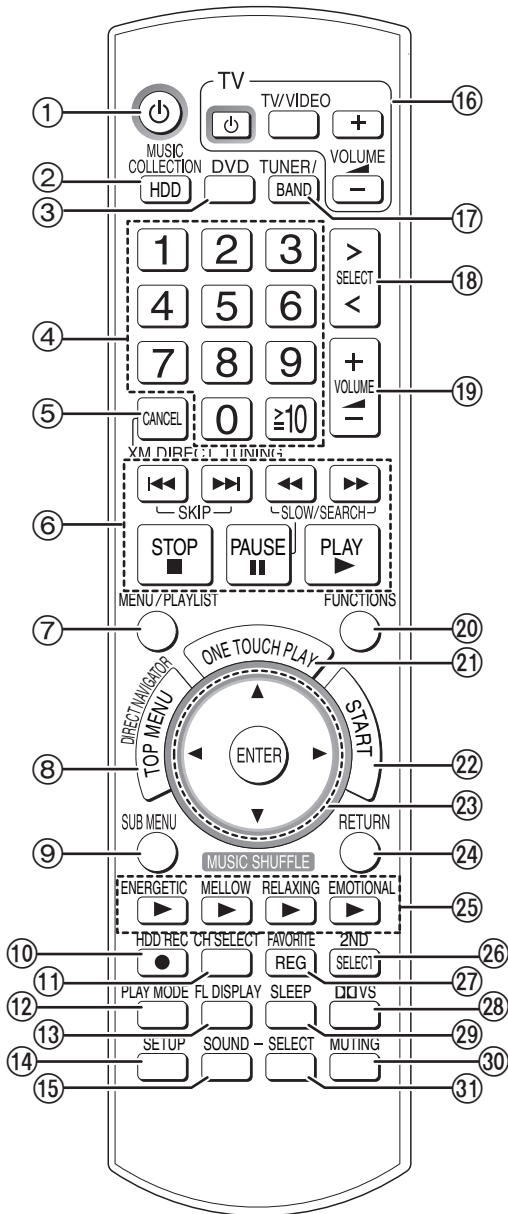
① Turn the unit on (➜ page 14)
② Select the HDD drive (➜ page 45)
③ Select the DVD/CD drive
④ Select channels and title numbers, etc./Enter numbers
⑤ Cancel items
   Start XM direct tuning (➜ page 65)
⑥ Basic operations for playback (➜ page 45, 50, 52)
⑦ Show a disc menu or playlist (➜ page 36, 51)
⑧ Show a disc top menu or program list (➜ page 50, 51)
⑨ Show sub menu
⑩ Start recording to HDD (➜ page 34)
⑪ Select speaker channels (➜ page 82)
⑫ Select play mode (➜ page 54, 57)
   Change radio reception mode (➜ page 62)
⑬ Switch information on the main unit's display
   – When the selector is set to "DVD/CD", elapsed time, track number information, etc. can be switched depending on what is being played.
   – When the selector is set to "XM" (➜ page 66)
⑭ Show Setup menu (➜ page 14, 91)
⑮ Select the sound effect to set (➜ page 82)
⑯ Television operations
⑰ Select the source FM/AM/XM
⑱ Select the source
   Music Collection→ DVD/CD→ FM→ AM→ XM

   OPTION ←MUSIC PORT ←AUX ←——TV Audio

⑲ Adjust the volume
⑳ Show FUNCTIONS window
㉑ Start up and play a disc automatically/control both the home theater system and the television (➜ page 76)
㉒ Show Start menu (➜ page 30)
㉓ Selection/enter, frame-by-frame (➜ page 50)
㉔ Return to previous screen
㉕ Music shuffle (➜ page 49)
㉖ Show the menu for Multiroom function (➜ page 81)
㉗ Register the current track to Favorites (➜ page 70)
㉘ Turn Dolby Virtual Speaker on/off (➜ page 83)
㉙ Set SLEEP timer (➜ page 86)
㉚ Mute the sound (➜ page 86)
㉛ Set the sound effect (➜ page 82)

■ *Using the cursor*

●**Select items on menu screens and set items.**
Press up, down, left, or right to select an item.
You can also move frame-by-frame (backward/forward).
While paused, press [◄] or [►] (left/right).
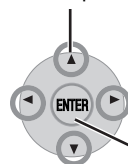
Press [ENTER] to confirm.

Main unit

When opening and closing the front cover, be careful not to touch the power button, especially during recording.
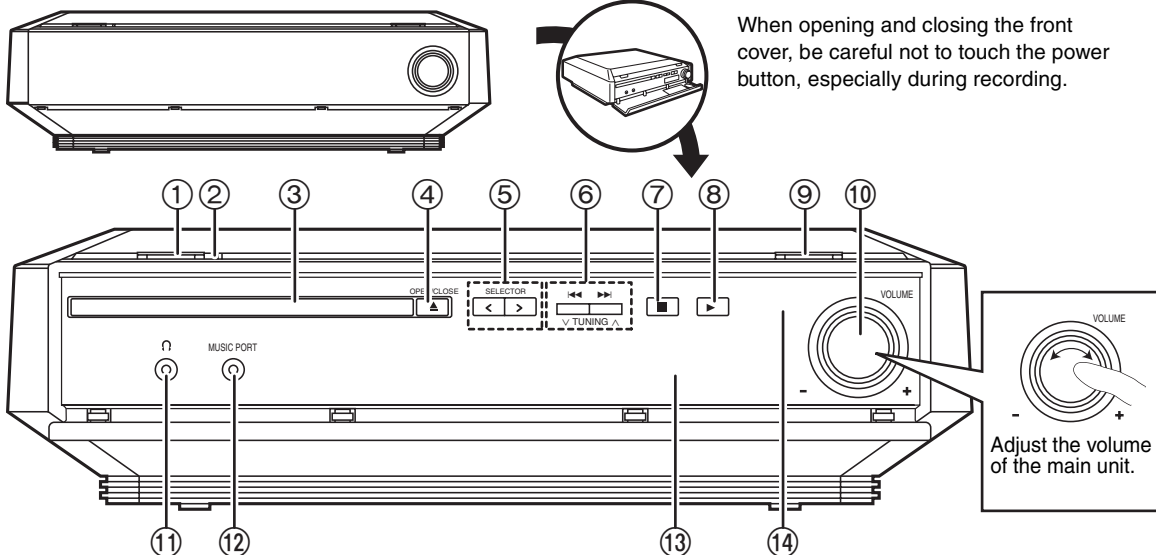
① **POWER button (POWER ⏻/I)** (➔ page 14)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

② **Standby/on indicator**
When the unit is connected to the AC power supply, this indicator lights up in standby mode and goes out when the unit is turned on.

③ Disc tray

④ Open/close disc tray (➔ page 29)

⑤ Select the source
Music Collection→ DVD/CD→ FM→ AM→ XM

OPTION ←MUSIC PORT ←AUX ←——TV Audio

⑥ Skip, Select preset radio stations/channels
⑦ Stop playback (➔ page 45, 50, 52)
⑧ Start playback (➔ page 45, 50, 52)
⑨ Start recording to HDD (➔ page 34)
⑩ Adjust the volume
⑪ Connector for headphones (➔ page 86)
⑫ Connector for external device (➔ page 86)
⑬ Display (➔ page 29)
⑭ Remote control signal sensor

Rear panel terminals (➔ page 12–13, 17–20)

VOLUME

Adjust the volume of the main unit.

■ *If the front cover comes off*
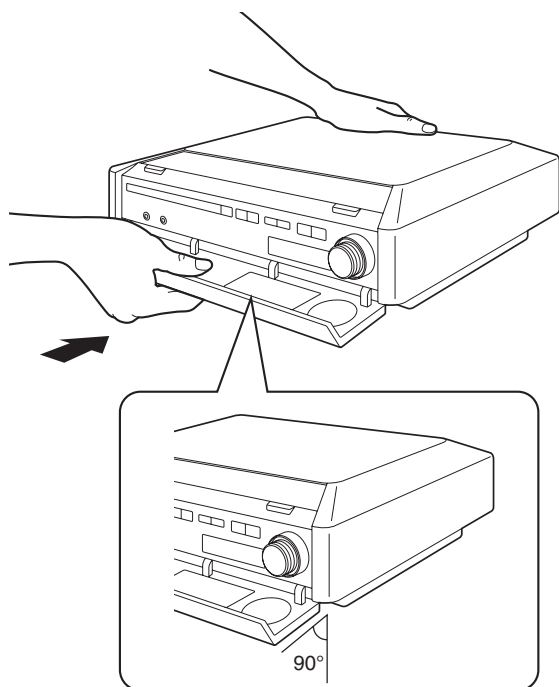
1 **Hold rear side of main unit by one hand and match up left or right side protruding hook on the cover first with the corresponding slot on the unit.**
2 **Push the hook firmly towards the unit until it clicks into place. Then push the succeeding hooks one by one until all have clicked into place.**
3 **Check that the cover now moves correctly.**
   ●If it does not, remove it and repeat the above procedure.

90°

The unit's display

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩⑪⑫ ⑬

PRG PGM TG RND D.MIX SLP MONO ST C   ⅮⅮ DTS ⅮⅮ PLⅡ

⑭ REC

⑮ EQ H.BASS ⅮⅮ VS

⑯ W1

⑰   ⑱ ⑲ ⑳

① Lights when disc is ready to use.
② Lights when the unit outputs progressive video signal.
③ Program playback indicator (➜ page 57)
④ T: Title number/Track number
   G: Group number
⑤ Random playback indicator (➜ page 54, 57)
⑥ D.MIX indicator
   When off: Down-mixing is possible.
   When lit: The disc prevents down-mixing so only the two
              front channels can be played.
⑦ SLEEP indicator (➜ page 86)
⑧ Radio broadcast display (➜ page 62)
   ST: Stereo
   MONO: Monaural
⑨ C: Content number
   T: Track number

⑩ Dolby Digital indicator
   Lights when Dolby Digital decoder is being used.
⑪ DTS indicator
   Lights when DTS decoder is being used.
⑫ Timer setting indicator (➜ page 85)
   Lights when the scheduled timer recording is set.
⑬ Dolby Pro Logic Ⅱ indicator (➜ page 83)
⑭ Recording indicator (➜ page 34)
⑮ Dolby Virtual Speaker indicator (➜ page 83)
⑯ Multiroom indicator (➜ page 80)
⑰ Main display section/Progress indicator (➜ below)
⑱ Equalizer indicator (➜ page 82)
⑲ Repeat play indicator (➜ page 54, 58)
⑳ H.BASS indicator (➜ page 82)

●Indicators on the front display for functions that this unit does not support will not light.

■ *Progress indicator*

The progress of the following operations:
– importing MP3/WMA to the HDD
– conversion and analysis of data on the HDD
– compression of data on the HDD
– division/combination of LPCM tracks
– back-up of data from the HDD
– restoring of data to the HDD
is indicated on the unit's display as shown on the right:

▢ -- -- -- -- -- -- --	**12.5% completed**
▢ ▢ -- -- -- -- -- --	**25% completed**
▢ ▢ ▢ -- -- -- -- --	**37.5% completed**
▢ ▢ ▢ ▢ -- -- -- --	**50% completed**
▢ ▢ ▢ ▢ ▢ ▢ ▢ ▢	**100% completed**

How to insert the disc

Insert label-up.

Press [▲OPEN/CLOSE] on the main unit to open the tray and insert a disc. (Press the button again to close the tray.)
●It is not possible to play continuously from one side of a double sided disc to the other. You will need to eject the disc and turn it over.
●[RAM] Remove the disc from its cartridge before use.

Unit care

The precision parts in this unit are readily affected by the environment, especially temperature, humidity, and dust. Cigarette smoke can also cause the unit to break or malfunction.

Clean this unit with a soft, dry cloth.
●Never use alcohol, paint thinner or benzine to clean this unit.
●Before using chemically treated cloth, carefully read the instructions that came with the cloth.
Do not use commercially available lens cleaners as they may cause malfunction. Cleaning of the lens is generally not necessary although this depends on the operating environment.

Do not place the unit on amplifiers or equipment that may become hot.
The heat can damage the unit.

Note
Do not obstruct the rear panel's internal cooling fan.
Before moving the unit, ensure the disc trays are empty. Failure to do so will risk severely damaging the discs and the unit.

Utilizing the Start menu

By using the Start menu you can access the main functions quickly and easily.

1 Press [START].

```
Start
♪ Listen
▶ Watch
⊘ Import/Record
♪ Multiroom Listen
✔ Setup

      ENTER
   ● Main Screen
```

2 Press [▲ ▼] to select an item and press [ENTER].

Each sub-level menu is displayed. Follow the on-screen instructions for operation.

Listen:
Play music or receive radio broadcasts

```
Listen
   Music Collection
   Disc
   Tuner
   TV Audio
   Other Inputs

      ENTER
   ● RETURN
```

Multiroom Listen:
Operate the Multiroom function

```
Multiroom Listen
MAIN ROOM        ANOTHER ROOM
DVD/CD           Main Room Source
                 Music Collection
                 DVD/CD
                 FM
                 AM
                 XM

      ENTER
   ● RETURN
```

Watch:
Operate DVD playback

```
  DVD
 VIDEO
```

Setup:
Change the unit's settings, set timer and use other functions

```
Setup
Setup for Video    DVD
                   VIDEO
                   HDMI
                   DISPLAY
Other Setup        Remote Control
                   Clock / Timer
                   Power On/Off
                   TV Audio Input
                   Network
                   Maintenance
      ENTER
   ● Main Screen
```

Import/Record:
Import/Record music

```
Import / Record
   From Disc
   From PC
   From Others
   From Tuner

      ENTER
   ● RETURN
```

Displaying track information

When [MUSIC COLLECTION] is pressed, or while a track from the HDD is playing, the following screen is displayed on the television. You can check information about the track.

Main Screen

```
① Music Collection ⟩ Other Playlists
                ♥ Favorites
② 👤 Mozart
   ⊘ Life with Mozart
   ♪ Eine Kleine Nacht Musik
③ ▶ 2:45                          5:42
                    Tracks       3 of 12
                    Total Time   56:00
④ LPCM
   🖼 ⟲ Repeat
   ⏱ REC
   (◎) ● Track List
      ⑤  ⑥
```
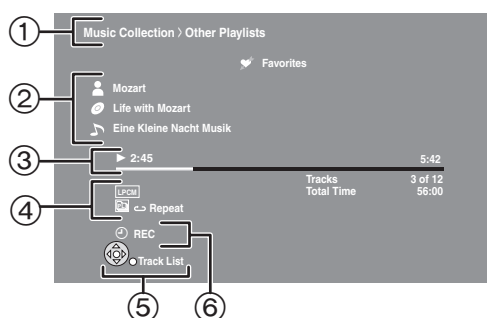
① How the track was selected is displayed
② Track information
③ Playback status, elapsed playtime, track time
④ Playback range/mode

🔂	One track
📃	Playlist
📑	All playlists
⟲	Repeat play mode
⤬	Random play mode

⑤ The availability and functions for [▲ ▼ ◄ ►], [ENTER], [RETURN] is displayed.
⑥ Timer setting indicator (➜ page 85)

RQT8926

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Before recording

A brief introduction about recording and importing from a PC

Recording
This unit can record audio to the internal HDD from a variety of sources including commercial CDs, radio, music files (WMA/MP3), and audio from externally connected devices (portable digital audio players, etc.). This unit can also access the Gracenote database to obtain title information for music CDs, radio broadcasts, or other analog recordings made with externally connected devices. (For recording details, see page 32.)

Importing from a PC
You can import WMA/MP3 files from your PC to this unit. This differs from recording because the files are saved in the HDD in the same format as they are saved on your PC. (LPCM and AAC conversion is not performed.)

Various audio sources

| WMA | MP3 |

WMA/MP3 file on PC

| WMA | MP3 |

CD Automatically connects to the Gracenote database and track title information, etc. is obtained (→ below).

RECORD

All tracks recorded are saved as LPCM. (See page 33.)

IMPORT

Imported WMA/MP3 files are saved "as-is" (without conversion) in this unit's HDD.

Music Jukebox
You can record up to 39,000※ songs in the Music Jukebox.

※ The number of songs depends upon various conditions.

This unit

After tracks recorded from sources other than a CD or WMA/MP3 files imported from a PC are saved in this unit's HDD, you can manually access the Gracenote database to obtain track title information, etc. (→ below)

About the Gracenote® database

The Gracenote® database is a database used to search and retrieve CD title information.
By connecting to the Internet, the unit can access the Gracenote server and obtain the most recent CD title information. When a CD is inserted or recording from a CD begins, the unit will automatically search for and obtain information about the inserted CD (→ page 34).

If this unit is not connected to the Internet:
A portion of the Gracenote database comes pre-installed on this unit, so titles and artist information can be obtained. Please note however that the newest CD titles, etc. may not be registered yet to the internal database. This unit has an internal database containing information for approximately 350,000 album titles.

Searching for titles other than on CD:
Using the Gracenote database, information can also be obtained for other types of tracks recorded to the HDD (→ page 73, Searching for track names, artist names and album names within the Gracenote database and entering them automatically).

- If it takes a long time to access the Gracenote database, check if the unit's network connection (→ page 20) and the network settings (→ page 95) are correct.
- Some CDs may have title information that is similar to other CDs. In this case, try obtaining the CD title information again (→ page 73), or after recording to the HDD has completed enter the CD title information manually (→ page 72).
- For some CDs, multiple title suggestions will be found, therefore select the appropriate title (→ page 73). When you want to change the title, manually make changes after recording to the HDD is complete (→ page 72).

Before recording

You can make these kinds of recordings.

Recording tracks from a music CD (CD-DA) (Commercial CD, Recordable CD) — *Digital recording* →

Recording WMA/MP3 tracks from recordable discs (Recordable CD or DVD) — *Analog recording* →

Recording from the radio (FM/AM) — *Analog recording* →

Recording from an external device — *Analog recording* →
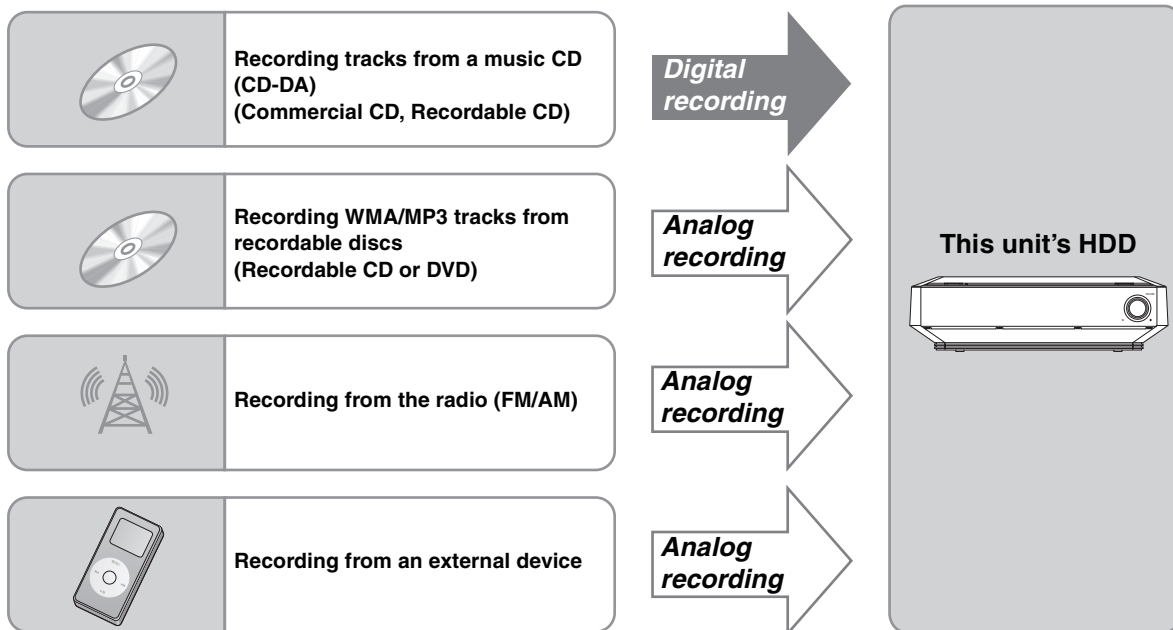
This unit's HDD

IMPORTANT
DVD content cannot be recorded to this unit's HDD (except for MP3 files in recordable DVD).

How recordings work

Tracks are initially recorded to the HDD and saved as LPCM. When the recording mode is set to AAC, AAC conversion takes place while the unit is in standby mode. In addition to AAC conversion, track analysis for the "Music Shuffle" function (➜ page 49) also takes place during standby mode.

Initially recorded as LPCM   *While the unit is in standby mode*   *Track data in the HDD*

Recording in LPCM recording mode

Audio signal is recorded (uncompressed)

Converted to AAC and compressed

Record → LPCM (This unit's HDD) → LPCM ⌄ AAC → **Analysis for Music Shuffle** → LPCM + AAC ※

Recording in AAC recording mode → AAC (LPCM data is deleted)
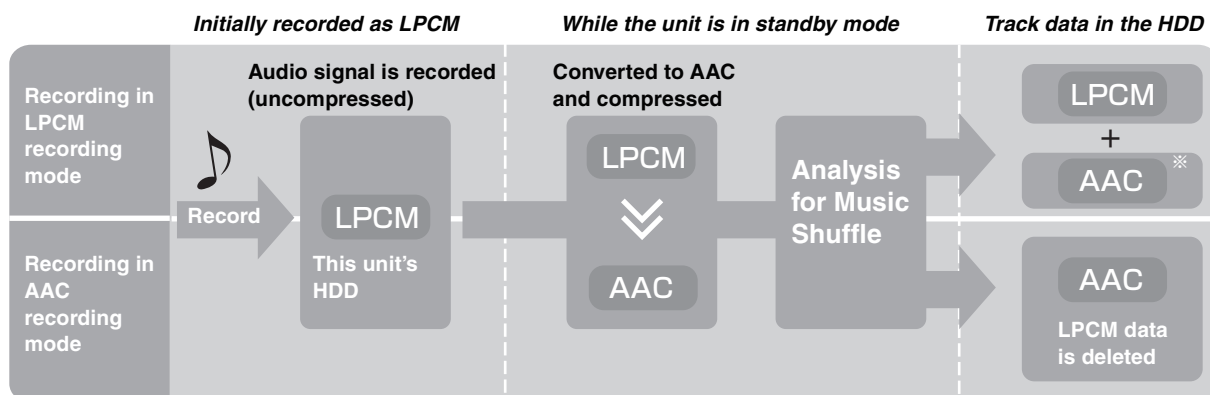
※With LPCM recording mode, AAC data created (XP mode only) is not displayed in the Track List.

■ *About AAC conversion of recorded tracks and Music Shuffle analysis*

- ●Conversion/analysis is performed when the unit is in standby mode. 2 minutes after the unit is set to standby mode, conversion/analysis starts and the unit's display starts to show "_ _ _ _". Leave the power cord plugged in.
  You can also perform conversion/analysis immediately (➜ page 42).
- ●This unit usually takes about one-third of the recording time to complete analysis and conversion.
  For example, a 60-minute recording will take about 20 minutes to complete conversion and analysis. (For tracks imported from a PC, time will be shorter as the tracks only need to be analyzed.)
- ●Tracks can be played even if conversion and analysis is incomplete. However, the same track may sound slightly different before and after AAC conversion.
- ●You can also compress LPCM tracks to AAC to increase the amount of the available space on the HDD (➜ page 43).

Recording modes

With these settings you can adjust the audio quality when recording tracks to the HDD. Recordings made with higher bitrates use more space, reducing the total available space on the HDD.

Recording mode

	Recording mode/ bitrate	Possible recording time	Explanation
Higher audio quality ↕ **Longer recording time**	LPCM	Approx. 104 hours	The audio signal is digitally recorded without any compression.
	AAC(XP) 128 kbps	Approx. 1,230 hours	The audio is initially recorded as LPCM and converted to AAC when this unit is in standby mode. AAC is a compression format which compresses the audio data into a smaller size. Audio quality and the amount of tracks that can be recorded will differ depending on the bitrate.
	AAC(SP) 96 kbps	Approx. 1,640 hours	
	AAC(LP) 64 kbps	Approx. 2,460 hours	

Recording mode settings at the time of purchase:
The recording mode for each selector is set to "LPCM" at the time of purchase. The recording mode for each selector can be set individually (➜ page 34).

If you want to change the recording mode to AAC, please note the following:
Recordings made to this unit are initially recorded in LPCM, and then are converted to AAC. Therefore if you are making continuous, long recordings, the maximum amount of recordings you can make must fit within the LPCM limits for maximum possible recording time as described in the chart above. In the event that you are making many recordings, continue recording after the music data has been converted to AAC format (➜ page 32, How recordings work).

Note
LPCM audio quality does not exceed the audio quality of the original recording.

Basic Operations

Recording to HDD

RQT8926

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Recording a CD

● CD ►HDD
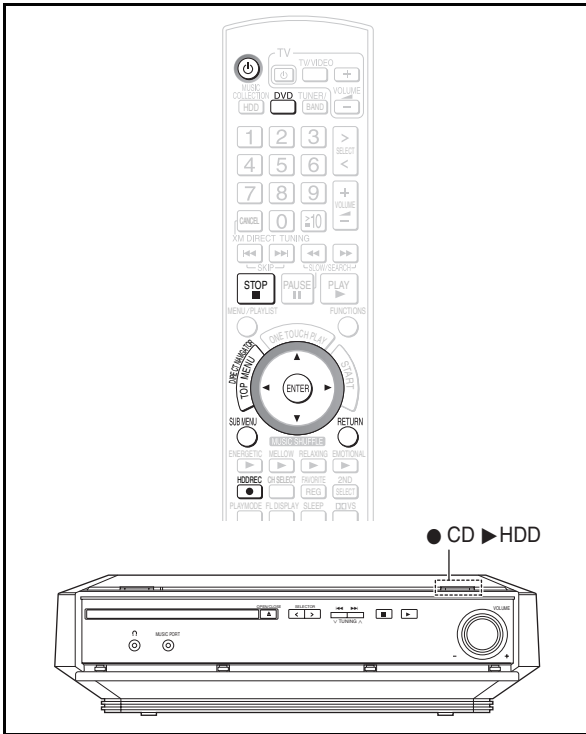
CD

This unit digitally records tracks in CD-DA format from a commercial CD or recordable CD to this unit's HDD.
Using the Gracenote database, the unit automatically searches for the CD title.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".
4 Insert a disc (➜ page 29).

The unit starts accessing the Gracenote database and searches for the title information.

Searching the database.
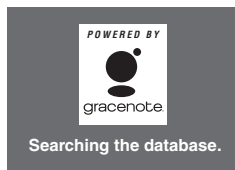
● A network connection (➜ page 20) is necessary to obtain CD title information for the newest releases.
If search results indicate that multiple titles were found
Press [▲ ▼] to select the appropriate title and press [ENTER].

Setting the recording mode/recording method

Use the following methods to change the settings for audio quality of recordings and how recording is executed.
● You will also perform this procedure when recording audio formats other than CD. Items displayed will change depending on the audio format used for recording.

1 Press [SUB MENU].
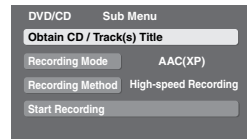
2 Press [▲ ▼] to select "Recording Mode" and press [ENTER].
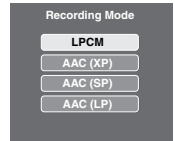
3 Press [▲ ▼] to select the recording mode and press [ENTER].
Recording modes (➜ page 33)

CD only
4 Press [▲ ▼] to select "Recording Method" and press [ENTER].
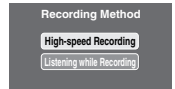
5 Press [▲ ▼] to select the recording method and press [ENTER].
High-speed Recording: Records in high speed (max. 4×).
Listening while Recording: Audio is recorded at normal speed when listening while recording to the HDD.

Basic recordings

On the remote control: press [● HDD REC].
On the main unit: press [● CD ►HDD].

To start recording immediately after the recording mode/recording method settings (above)
After step 5 of "Setting the recording mode/recording method" (above)
1 Press [▲ ▼] to select "Start Recording" and press [ENTER].
2 Press [◄ ►] to select "Yes" and press [ENTER].

Recording of the all tracks on the CD starts.
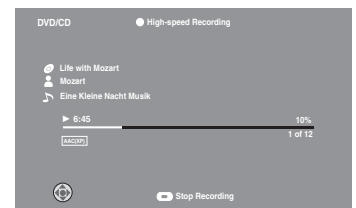
● Titles obtained from the Gracenote database will be applied to the tracks recorded.
● If the play mode is set to Repeat playback or Random playback (➜ page 57, 58):
With [● HDD REC] (remote control): Recording cannot be performed. Turn repeat and random settings off.
With [● CD ►HDD] (main unit):Recording of the all tracks of the CD starts. Repeat and random play settings are automatically turned off.

To stop recording

Press [∎].

Tracks that are stopped partially through recording (incomplete recordings) will not be recorded to the HDD.

≥Additionally, nothing will be recorded if the current recording is stopped in the index portion (e.g. when "−0:03" etc. is displayed) between two tracks.

To select the track to start recording with

[Possible only when the recording method is set to "Listening while Recording" (➜ page 34, step 5)].

1 Press [TOP MENU], and the track list will be displayed.
2 Press [▲ ▼] to select the track to start recording with and press [ENTER].
3 Press [● HDD REC].
   Recording starts from the selected track and continues to the end of the CD.

To record a track while playing

[Possible only when the recording method is set to "Listening while Recording" (➜ page 34, step 5)].

While the disc is playing, press [● HDD REC].

≥Playback stops, and then restarts from the beginning of the track being played and records until the end of the disc.

To return to the previous screen

Press [RETURN].

Note

≥Recordings cannot be paused.
≥No audio can be heard during high-speed recording.
≥The response to adjustments made to the volume while recording may be a bit slow, however this is not an indication of any problem.
≥During high-speed recording, the elapsed time and status bar shown on-screen may appear to have stopped, but this is not an indication of a problem.
≥When listening while recording audio from CDs that have no intermissions between tracks (e.g. DJ mix CDs), there may be some distortion when switching tracks. (However, this has no effect on the quality of the recording itself.)
≥Recording or play of CDs, etc. with copyright restrictions that are not in compliance with CD standards is not guaranteed.
≥Some music CDs have SCMS (Serial Copy Management System) restrictions. Due to copyright protection restrictions, these types of CDs cannot be recorded to the HDD.

Tips

≥If "The CD has already been recorded." is displayed, the unit is trying to record a CD again that has previously been recorded. Follow the on-screen menu and select the appropriate operation.

Add to this Album playlist:

The CD will be recorded and added in the Album playlist of the CD (which has already been recorded). If the album title has been changed since it was recorded first, this item cannot be displayed.

Record as a New Album:

The CD will be recorded as a different album. The recorded album will be named "XXXXX (Name of the Album)~XX (Number)".

Cancel:

Recording will be canceled.

Basic Operations

Recording to HDD

Recording WMA and MP3 discs
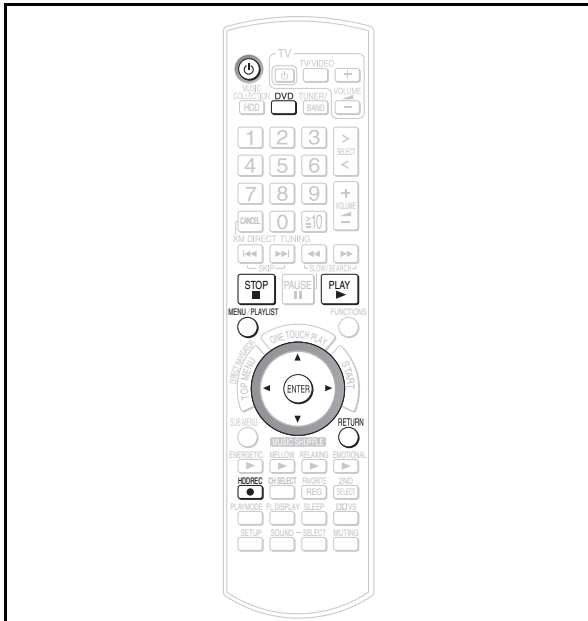
WMA MP3

WMA/MP3 tracks from recordable discs will be recorded to the HDD as an analog recording.

- WMA/MP3 recording is performed in "Listening while Recording" (➜ page 34, step 5) mode.
- Discs that contain data other than WMA/MP3 may not be recorded.
- You cannot perform this recording with [● CD ▶HDD] (main unit).

Recordable CD: WMA/MP3 tracks can be recorded.
Recordable DVD: Only MP3 tracks can be recorded.

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".
4 Insert the WMA/MP3 disc (➜ page 29).

Basic WMA/MP3 recording

Press [● HDD REC].
Recording starts, and all WMA/MP3 tracks on the disc are recorded.

- If "Random (Repeat) play mode" is displayed, turn random and repeat settings off (➜ page 57, 58).

To change the recording mode before recording
Follow steps 1 to 3 of "Setting the recording mode/recording method" on page 34. (The recording method is automatically set to "Listening while Recording".)

To stop recording
Press [■].
Tracks that are stopped partially through recording (incomplete recordings) will not be saved to the HDD.

To select the track to start recording with
1 Press [MENU], and the track list will be displayed.
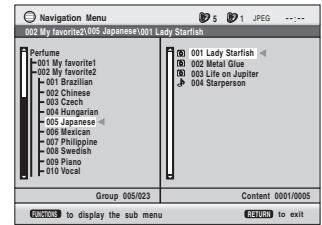
2 Press [▲ ▼] to select the folder to start recording with and press [ENTER].
3 When you want to select a track
   Press [▲ ▼] to select the track to start recording with and press [ENTER].
4 Press [● HDD REC].
   Recording starts from the selected folder or track and continues to the end of the disc.

To return to the previous screen
Press [RETURN].

Note
- Recordings cannot be paused.

Tips
How titles are added
The names of the artist, album and track are added as shown below.
Artist name: "_Unknown Artist"
Album name: The folder's name of the recorded track
Track name: The file name of the track

- After recording is complete, you can manually change the title or you can search and obtain title information from the Gracenote database (➜ page 72).

Selecting specific WMA/MP3 tracks to record from recordable discs

If you use the program play mode, you can specify multiple WMA/MP3 tracks from recordable discs, and record them all at once (➜ page 57).

1 Create a list of tracks to play with the program play mode (➜ page 57).

2 Press [● HDD REC].
   All tracks in the program play list are recorded.

To start recording from partway through the program play mode
1 Press [▶] (PLAY) before step 2 (above) to play the program play list.
2 While the track that you want to record is playing or paused, press [● HDD REC].
   Recording will start from the currently playing or paused track and will record until the end of the last track in the program play list.

Recording radio broadcasts
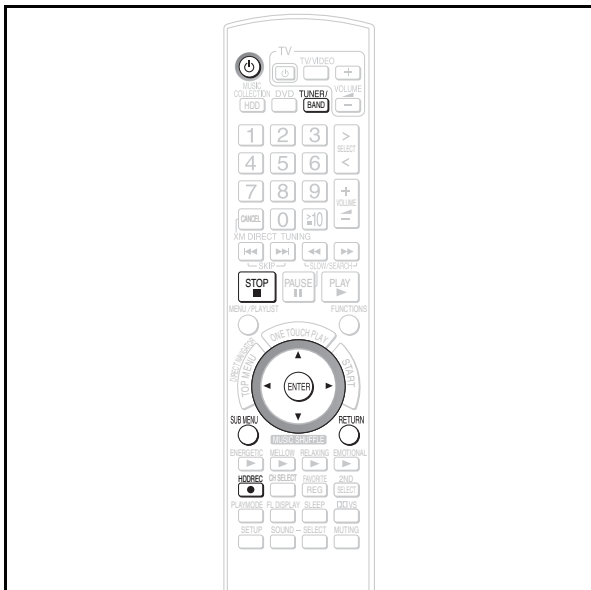
You can record radio broadcasts to the HDD. After recording starts, track data will be recorded and divided using the time settings selected before the recording starts. Therefore the recording (from start to finish) will be made and divided into multiple tracks.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [TUNER/BAND] and select "FM" or "AM".
   Order: FM → AM → XM → (Return to FM)
   ●XM broadcasts cannot be recorded.

1 Tune in to the radio station that you want to record (→ page 62).
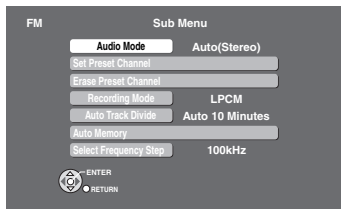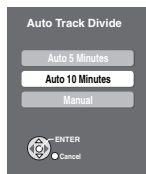
2 Press [SUB MENU].

3 Press [▲ ▼] to select "Auto Track Divide" and press [ENTER].

4 Press [▲ ▼] to select the method of division and press [ENTER].
   Auto 5 Minutes: Tracks are divided into 5-minute recordings.
   Auto 10 Minutes: Tracks are divided into 10-minute recordings.
   Manual: Divide tracks at the point you like. (For division methods, see right.)

5 Press [RETURN].

6 Press [● HDD REC].
   Recording starts.
   Titles are automatically added (→ below).

To change the recording mode before recording
Follow steps 1 to 3 of "Setting the recording mode/recording method" on page 34. (The recording method cannot be selected.)

To stop recording
Press [■].

To pause recording
Press [● HDD REC].
●To continue recording, press [● HDD REC] once more (The track is divided).

To manually divide tracks
While recording, press [ENTER] at the point where you want to divide the track.
●When dividing tracks, create at least a 2-second space between two tracks. (Tracks divided with less than 2-second of space cannot be divided.)
●Tracks recorded in "Manual" mode that exceed 60 minutes will automatically be divided.

To return to the previous screen
Press [RETURN].

Note
●Radio broadcasts cannot be recorded by pressing [● CD ▶HDD] on the main unit. Use [● HDD REC] on the remote control.
●The audio may sound broken up in the space between tracks recorded to the HDD.

Tips
About titles for recordings from the radio
All tracks created from the start to the end of the recording are treated as a single playlist (recorded data). Each track recorded from the radio is given title as shown below.

How titles are added (example)
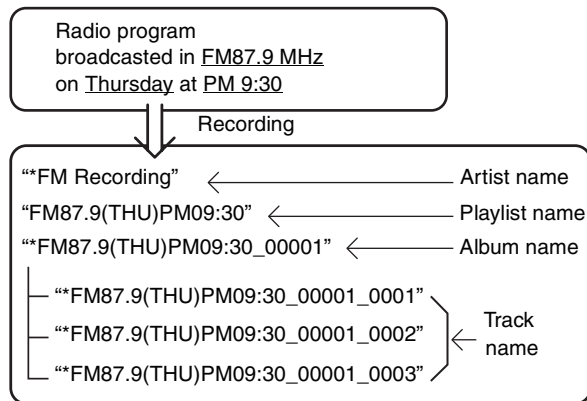
●When audio is recorded with the scheduled timer function (→ page 84), recording will start slightly earlier than the set time to prevent cutting off the beginning of the recording.Therefore, the playlist will be given a name that is one minute earlier than the set recording time.
●After recording is complete, you can manually change the title or you can search and obtain title information from the Gracenote database (→ page 72).

Recording audio from external devices
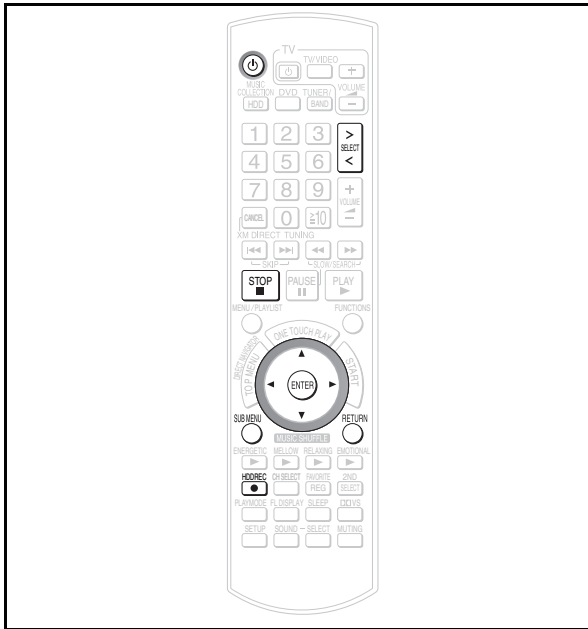
You can record audio tracks to the HDD from externally connected devices. After recording starts, track data will be recorded and divided using the time settings selected before the recording starts. Therefore the recording (from start to finish) will be made and divided into multiple tracks.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Connect the device from which you want to record/play (➜ page 18, 19).
4 Press [> SELECT <] to switch the selector.
 AUX: If connected to the AUX terminal
 TV Audio: If connected to the TV IN terminal
 ≥You cannot record when "TV Audio Input" is set to "DIGITAL IN" (➜ page 83).
 MUSIC PORT: If connected to the Music Port terminal
 ≥When the audio output level of the external device is too high, audio may be distorted. Adjust the volume on the external device.

1 Press [SUB MENU].
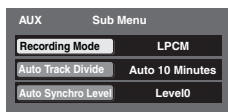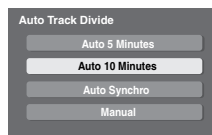
AUX	Sub Menu
Recording Mode	LPCM
Auto Track Divide	Auto 10 Minutes
Auto Synchro Level	Level0

2 Press [▲ ▼] to select "Auto Track Divide" and press [ENTER].

Auto Track Divide
Auto 5 Minutes
Auto 10 Minutes
Auto Synchro
Manual

3 Press [▲ ▼] to select the method of division and press [ENTER].
Auto 5 Minutes: Tracks are divided into 5-minute recordings.
Auto 10 Minutes: Tracks are divided into 10-minute recordings.

Auto Synchro: When external equipment starts playing, recording starts automatically. The unit searches for silence in between tracks, and when a break of 3 seconds or longer is found, recording pauses (the track is divided) and will restart again when audio is found.
Manual: Divide tracks at the point you like. (For division methods, see below.)

4 Press [RETURN].

5 Press [● HDD REC].
Auto 5 Minutes, Auto 10 Minutes, Manual:
Recording starts.
Auto Synchro:
Unit enters recording standby mode.

6 Starting play on an external device.
≥**Auto Synchro:** Recording starts once audio is output. Titles are automatically added (➜ page 39).

To change the recording mode before recording
Follow steps 1 to 3 of "Setting the recording mode/recording method" on page 34. (The recording method cannot be selected.)

To stop recording
Press [■].

To pause recording
Press [● HDD REC].
≥To continue recording, press [● HDD REC] once more (The track is divided).

To manually divide tracks
While recording, press [ENTER] at the point where you want to divide the track.
≥When dividing tracks, create at least a 2-second space between two tracks. (Tracks divided with less than 2-second of space cannot be divided.)
≥Tracks recorded in "Manual" mode that exceed 60 minutes will automatically be divided.

To adjust the synchro level
For synchro recordings, if the recording does not start, or the tracks are not divided correctly between tracks, make adjustments and record again.

1 Press [SUB MENU].
2 Press [▲ ▼] to select "Auto Synchro Level" and press [ENTER].
3 Press [▲ ▼] to select the level and press [ENTER].
 You can make adjustments within a range of 25 levels.
 −12 (Low) ↔ 0 (Standard) ↔ +12 (High)

 ≥If the track is quiet, recording may not start. In this case, lower the value.
 ≥If recording from a cassette tape, etc. with a lot of noise, tracks may not be divided correctly or recording may not start. In this case, raise the value.

≥Audio from external devices cannot be recorded by pressing [● CD ►HDD] on the main unit. Use [● HDD REC] on the remote control.
≥The audio may sound broken up in the space between tracks recorded to the HDD.
≥Depending on the audio quality or volume of external devices connected, obtaining the title information with the Gracenote database, the analysis for Music Shuffle function or "Auto Synchro" division method when recording may not work properly.

Tips
How titles are added (example)

```
┌──────────────────────────────────┐
│ The audio from AUX terminal      │
│ recorded on Thursday at PM 9:30  │
└──────────────────────────────────┘
           │   Recording
           ▼
┌──────────────────────────────────────────────┐
│ "*AUX Recording"        ←──────── Artist name │
│ "AUX(THU)PM09:30"       ←──────── Playlist name│
│ "*AUX(THU)PM09:30_00001"  ←────── Album name  │
│                                               │
│ ── "*AUX(THU)PM09:30_00001_0001"      ┐       │
│ ── "*AUX(THU)PM09:30_00001_0002"      ├ Track │
│                                       ┘ name  │
│ ── "*AUX(THU)PM09:30_00001_0003"              │
└──────────────────────────────────────────────┘
```
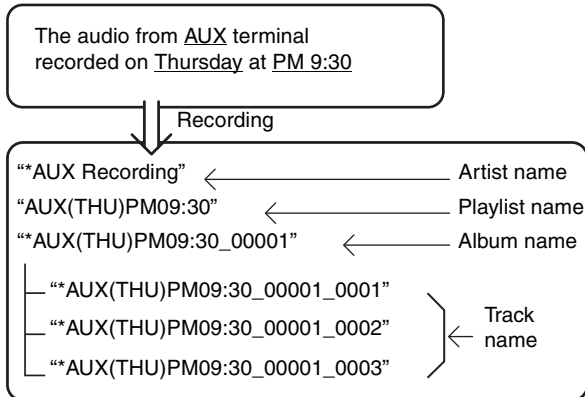
≥After recording is complete, you can change the title or you can search and obtain title information from the Gracenote database (➜ page 72).
≥About synchro recordings:
Depending on the recording source, the first few seconds of a recording may not be recorded. Also, depending on synchro level settings, the number of tracks on the recording source may differ from the number of tracks on the recording destination. In this case, adjust the synchro level (➜ page 38) and record again. Tracks recorded as LPCM can be combined and divided after recording has completed (➜ page 74).

Basic Operations

Recording to HDD

Importing WMA/MP3 from a PC
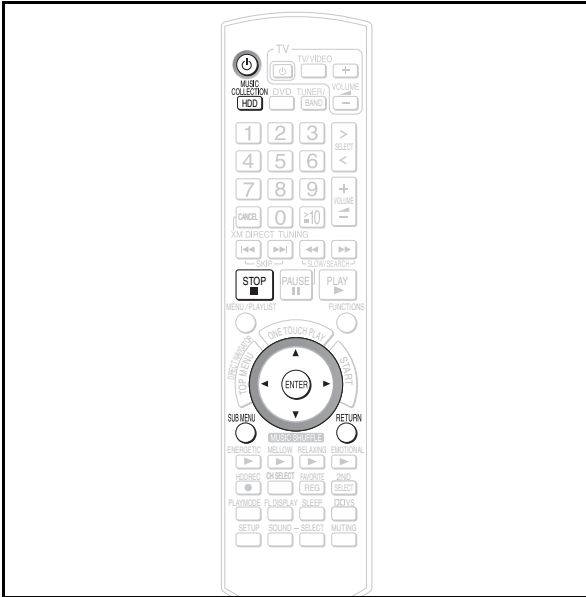
WMA   MP3

With a network connection (LAN home network), you can save
WMA/MP3 data from your PC in the HDD of this unit.
**You can import recordings without any audio distortion or
degradation.**

- ●Supported OS: Windows XP SP2
- ●File formats that can be imported
  - – extensions: WMA,MP3
    - ●MP3 files in compliance with MP3 standards
    - ●MPEG-1 Audio Layer III
    - ●MPEG-2 Audio Layer III (LSF)
  - – compatible bitrate: 32 kbps to 192 kbps
  - – files without copyright restrictions
- ●Tracks can also be Imported from NAS (Network Attached
  Storage).

Preparation
1 Connect this unit and the PC to the network (➜ page 20), or
   connect this unit and the PC directly (➜ page 90).
2 To display the picture turn on the television and select the
   appropriate video input to suit the connections to this unit.
3 Press [ᶃ].
4 Press [MUSIC COLLECTION] to switch the selector to
   "Music Collection".

Preparations and items to check on the PC
1 Set the "Shared Folder" (➜ page 41, Setting the "Shared
   Folder"), and move the folder containing WMA/MP3 files to
   the "Shared Folder", or move the folder containing WMA/
   MP3 files to the "Shared Documents" folder.
   - ●It is necessary to name the PC and the PC Shared Folder
     using only characters that can be used on this unit. If
   necessary, make changes to the "Shared Name" and "Full
     Computer Name" on the PC.

2 Checking the PC name (Computer name).
   e.g., For "Windows XP Home Edition"
   From the "Start" menu, select "System" in "Control Panel",
   and click on the "Computer Name" tab, and make note of
   the name given in the "Full Computer Name" field.

Main unit operations
From the Main Screen (➜ page 30)

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Import from PC" and press
   [ENTER].**
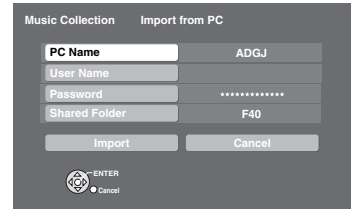
3 **Press [▲ ▼] to select "PC Name" and press [ENTER].**

4 **Enter the PC name (➜ page 69) and press [∎] (Set).**
   - ●Enter the name that you checked in step 2 of
     "Preparations and items to check on the PC" (➜ left)
     (Up to 15 characters).

   If the PC name, etc. is displayed
   If you have previously imported data or performed a
   backup (➜ page 87), then PC name, etc. may be
   displayed. In this case, check the PC name and make any
   changes that may be necessary.

5 **Repeat steps 3 and 4 and enter other items.**

   User Name: The user account name used when
                  Windows XP was registered.
   Password: Password set for the user name
   - ●Passwords will be displayed as " *************** ".
   Shared Folder: Name of the shared folder on the PC.

6 **Press [▲ ▼ ◄ ►] to select "Import" and press [ENTER].**
   The list inside the shared folder on the PC will be
   displayed.
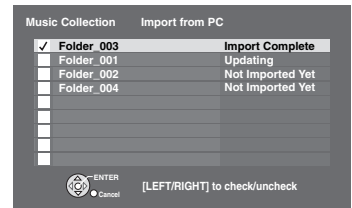
7 **Select the folder to be imported with [▲ ▼] and add a
   check mark with [◄ ►].**

   To select all the folders
   Press [SUB MENU] and select "Mark All".
   - ●To remove the check marks from all the folders, select
     "Unmark All".

8 **Press [ENTER].**

9 **Press [◄ ►] to select "Yes" and press [ENTER].**

   Import starts and the current status and remaining time is
   displayed. After importing is finished, the status message
   appears.
   - ●If import does not start, refer to "Messages" (➜ page 98)
     to address to any problems.

To stop importing
Press [■].
Tracks that finished importing up to the point stopped can be recorded.

To return to the previous screen
Press [RETURN].

Note
- When the unit is set to standby mode, this unit performs analysis of WMA/MP3 tracks imported to the HDD for Music Shuffle (→ page 49). AAC conversion is not performed for the WMA/MP3 tracks imported from a PC.
- Tracks that have not been analyzed will appear in the playlist screen with a "🎵" mark next to them.
- The audio may sound broken up in the space between tracks imported from a PC.
- If a track contains large data such as JPEG, etc., the track may be muted or not play at all.
- When using NAS (Network Attached Storage), input the user name and password registered with NAS (→ page 40, step 5).

Tips
How titles are added
If the music data on the PC uses music information tags, the artist name, album name, and track titles will be added.
If there is no tag information, the names of the artist, album and track are added as shown below.

Artist name: "_Unknown Artist"
Album name: The folder's name of the recorded track
Track name: The file name of the track

About WMA/MP3 data imported to this unit:
Operations for tracks imported from a PC will play and edit (excluding Combine/Divide functions), etc. in the same manner as tracks recorded to the HDD in this unit.

Setting the "Shared Folder"

For further information, refer to the Windows operating instructions or Windows "Help".

e.g., For "Windows XP Home Edition"

1 Right click on the folder that you want to share, and select "Sharing and Security...".

2 Add check marks to "Share this folder on the network" and "Allow network users to make changes to files".

3 Make note of the "Shared Name" field. (Necessary for later operations.)

4 Click "OK".

Depending on the PC, stability issues may cause problems such as tracks to fail to import, or imported tracks may be unusable, etc. Panasonic and/or its retailer's responsibility are limited to gross negligence or malicious intent by Panasonic and/or its retailers. Neither Panasonic nor its retailers will accept any responsibility for direct or indirect loss or damage to your music data.

Basic Operations

Recording to HDD
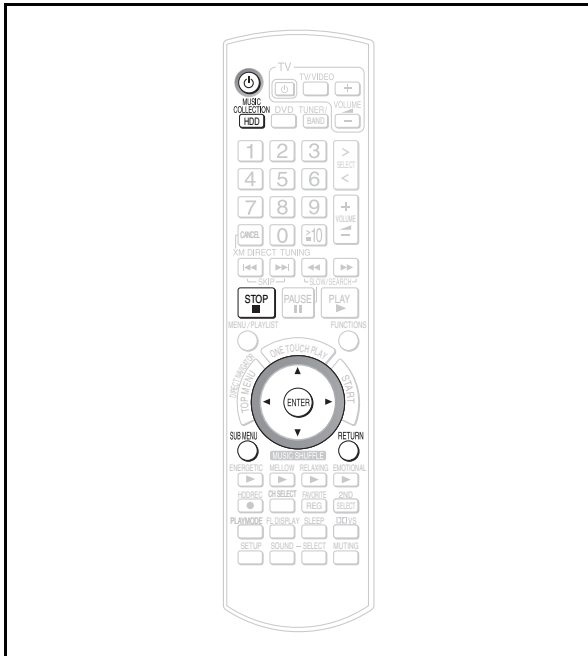
HDD

You can increase the available disc space on the HDD or you can obtain detailed information about the HDD/tracks.

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [Í].
3 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

LPCM tracks are deleted once they are converted to AAC. You cannot revert the track after conversion.

Performing conversion and analysis immediately

AAC conversion and analysis for Music Shuffle is usually executed two minutes after the unit is set to standby mode. With the procedure below you can start the process immediately.
This track management can be performed by either selecting all tracks on the HDD that have not been converted or analyzed yet, or a specified playlist.

From the Main Screen (➜ page 30)

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Track Manager" and press [ENTER].

3 Press [▲ ▼] to select "Convert/Analyze" and press [ENTER].

≥While the track is playing, you will be asked if you want to stop play.
If you want to perform conversion/analysis:
Press [◄ ►] to select "Yes" and press [ENTER].

4 Press [▲ ▼] to select the item to be converted/ analyzed and press [ENTER].

All of HDD: All tracks in the HDD will be converted and analyzed.
All of this Playlist: All tracks within the selected playlist will be converted and analyzed.

5 Press [◄ ►] to select "Yes" and press [ENTER].

Conversion and analysis starts. (Once complete, the unit will return to the previous screen.)

To stop partway through
Press [∎].

To return to the previous screen
Press [RETURN].

Note
≥Play and record cannot be performed during conversion and analysis.
≥If you are trying to compress a playlist without any LPCM tracks, the message "There are no tracks that can be converted or analyzed." will be displayed. Select a different playlist.

Compressing LPCM tracks to AAC

By converting tracks recorded in LPCM to AAC, you can increase the amount of available space on the HDD. Compression is performed on the playlist that includes the track currently displayed on the Main Screen.

From the Main Screen (➔ page 30)

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Track Manager" and press [ENTER].

3 Press [▲ ▼] to select "Compress LPCM Tracks to AAC" and press [ENTER].
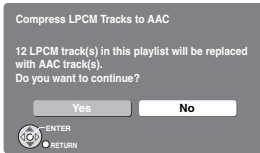
> **Compress LPCM Tracks to AAC**
>
> 12 LPCM track(s) in this playlist will be replaced with AAC track(s).
> Do you want to continue?
>
> | Yes | No |
>
> ENTER
> RETURN

4 Press [◀ ▶] to select "Yes" and press [ENTER].

> **Compress LPCM Tracks to AAC**
>
> LPCM track(s) will be erased, and this action cannot be undone.
> Do you want to continue?
>
> | Yes | No |
>
> ENTER
> RETURN

5 Press [◀ ▶] to select "Yes" and press [ENTER].

> **Compress LPCM Tracks to AAC**
>
> Convert to AAC(XP)
> Convert to AAC(SP)
> Convert to AAC(LP)
>
> ENTER
> RETURN
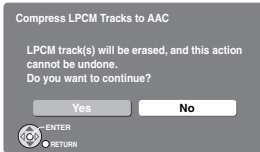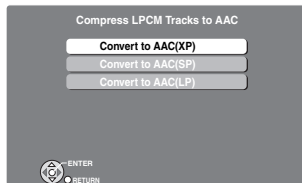
6 Press [▲ ▼] to select the compression mode and press [ENTER].
Compression starts.
After compression is complete, the remaining space in the HDD is displayed.

7 Press [ENTER].

To stop partway through
Press [■].

To return to the previous screen
Press [RETURN].

[Note]
- Play and record cannot be performed during conversion and analysis.
- If you are trying to compress a playlist without any LPCM tracks, the message "No LPCM tracks in this playlist." will be displayed. Select a different playlist.

Viewing track or HDD information

Displays the detailed information of the track or HDD.

From the Main Screen (➔ page 30)

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Track Manager" and press [ENTER].

> **Music Collection   Track Manager**
>
> View Track Information
> View Hard Disk Drive Information
> Edit Track Name
> Edit Artist Name
> Edit Album Name
>
> ENTER
> RETURN
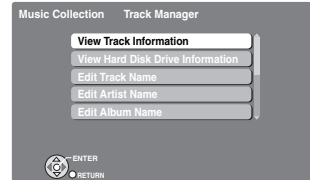
3 When viewing the track information:
Press [▲ ▼] to select "View Track Information" and press [ENTER].

When viewing the HDD information:
Press [▲ ▼] to select "View Hard Disk Drive Information" and press [ENTER].

Detailed information about the track/HDD is displayed.

e.g., Track information

> **Music Collection**
>
> View Track Information
> [Length]   3:06
> [File Type]   LPCM
> [Bit Rate]   1411kbps
> [Sample Rate]   44.1kHz
> [Channel No]   2
>
> RETURN
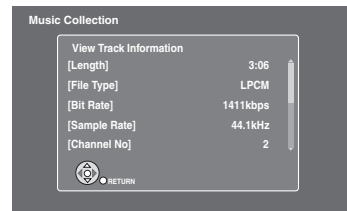
To return to the previous screen
Press [RETURN].

[Tips]
For "View Track Information" only
You can also perform the operations above from the Track List. When the track you want to view track information for is selected,
1 Press [SUB MENU].
2 Press [▲ ▼] to select "View Track Information" and press [ENTER].

A brief introduction about search and playback of tracks recorded to the HDD

You can easily search for tracks that have been recorded to this unit's HDD by using a variety of categories based on your preferences. From the lists created by your search, you can select the tracks that you want to listen to. These lists that are created are referred to as "Playlists". Tracks are played when a selection is made in a playlist. Playlists are classified into the following categories.

■ *Playlists with tracks sorted by basic details (artist, album, track)*

These playlists are created using basic details such as artist names or album names. Also you can search tracks by track names (➔ page 47).

■ *Playlists generated by Music Shuffle function*

"Music Shuffle" is a function that automatically decides the feeling or impression of tracks, and then classifies the track into one of four different groups. If you select a specific group from "Music Shuffle", the tracks within the group will appear in a random playlist each time. Depending on the track, some tracks cannot be classified into any groups of Music Shuffle playlists (➔ page 49).

■ *User-specific playlists ("Other Playlists" in the top menu of Music Collection)*

Aside from the playlists created by using basic details (as mentioned above), this unit has some other special types of playlists such as "User Playlists", which allow you to arrange any tracks in any order, or "Most Often Played" playlist, the tracks of which are automatically selected and arranged based on the frequency of playback. There are other user-specific or automatically arranged playlists like "Favorites", "Recently Ripped" and "Analog Recorded". For more information about these useful playlists, see page 48.

Tracks recorded to HDD	*Select the playlist*	*Tracks are shown and select the track*	*Track is played and enjoy listening*

Select a category to search for tracks

- ●**Artist name**
- ●**Album name**
- ●**Track name**
  (➔ page 47)

Select a playlist from Music Shuffle function

- ●**Energetic**
- ●**Mellow**
- ●**Relaxing**
- ●**Emotional**
  (➔ page 49)

User-specific playlist selection

- ●**User Playlists**
- ●**Favorites**
- ●**Most Often Played**
- ●**Recently Ripped**
- ●**Analog Recorded**
  (➔ page 48)

Track List (playlist)

Music Collection ◄ Playlist001 ►
Eine Kleine Nacht Musik MOZART
Fantasia K.397 MOZART
Le nozze di Figaro, overture MOZART
Symphony No.34 MOZART
Symphony No.35 "Haffner" MOZART
Symphony No.40 MOZART
The Elopement from the Harem MOZART
Turkischer Marsch MOZART
Six German Dances MOZART
Symphony No.36 MOZART
Play RETURN 1 of 10

Main Screen

Music Collection ⟩ Other Playlists
Favorites
Mozart
Life with Mozart
Eine Kleine Nacht Musik
► 2:45 5:42
Tracks 3 of 12
Repeat Total Time 50:00
REC
Track List

Playing tracks from the HDD

`HDD`

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

Basic playback

Press [▶] (PLAY).

The track played last time will begin to play.

Main Screen

```
Music Collection › Other Playlists
                                        ✔ Favorites

👤 Mozart
💿 Life with Mozart
🎵 Eine Kleine Nacht Musik

  ▶ 2:45                                           5:42
                          Tracks            3 of 12
  LPCM                    Total Time        56:00
  ↻ Repeat
  ⊙ REC

  Track List
```
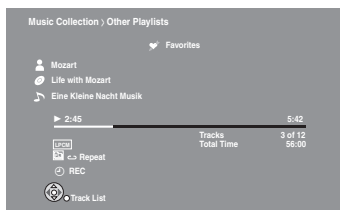
≥When you switched the selector to "Music Collection" just after recording:
The first track of the last recorded source (CD, WMA/MP3 files, radio, or external devices) will begin to play.

≥The Album playlist including the selected track will play through the last track (default setting). You can change the play range (→ page 55).

Operations during playback

STOP ■	**Stop**

PAUSE ‖	**Pause**

≥Press [▶] (PLAY) to restart play.

⏮ ⏭	**Skip**

≥Operate in the Main Screen.

⏪ ⏩	**Search** (during play)

≥Up to 5 steps.
≥Press [▶] (PLAY) to restart play.
≥Audio cannot be heard during search.
≥It may take a little time for audio to be heard after search finishes.
≥Operate in the Main Screen.

`Note`
Audio may be broken up in between tracks.

`Tips`
To play tracks in the order you like
Create a user playlist (→ page 67).

Searching for tracks in the HDD

You can use several methods to easily find tracks in the HDD that you want to listen to.

Searching for/selecting tracks in the HDD

1 From the Music Collection top menu...   *2 Select the desired playlist.*   *3 Tracks are shown and select the track.*   *4 Playback starts.*

Artists

Albums

Tracks

Music Shuffle →
- **Energetic**
- **Mellow**
- **Relaxing**
- **Emotional**

Other Playlists →
- **User Playlists**
- **Favorites**
- **Most Often Played**
- **Recently Ripped**
- **Analog Recorded**

Random Shuffle → **Tracks will be randomly selected and played.**

Track List (playlist)

Music Collection   Favorites

Bleep Bleep	Daniel Bellman
I can feel love	Don Alan
Christmas	John Carney
True White	Alex Elmsley
Summer vacation	Slydini
Playhouse	Slydini

1 of 5

Main Screen

HDD
Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].

Searching from various playlists

1 Press [START].

2 Press [▲ ▼] to select "Listen" and press [ENTER].

3 Press [▲ ▼] to select "Music Collection" and press [ENTER].

Music Collection
- 👤 **Artists**
- 💿 **Albums**
- 🎵 **Tracks**
- 🍷 **Music Shuffle**
- **Other Playlists**
- **Random Shuffle**

ENTER
Main Screen
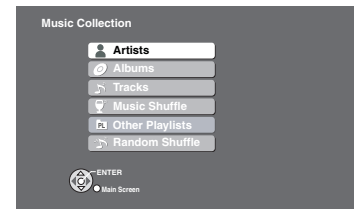
Different ways to search for tracks

👤	**Artists** Search by artist name (→ page 47)
💿	**Albums** Search by album name (→ page 47)
🎵	**Tracks** Search by track name (→ page 47)
🍷	**Music Shuffle** Tracks are automatically selected from the Music Shuffle collection playlist (→ page 49).
PL	**Other Playlists** Search from various user-specific playlists (→ page 48)
🎵	**Random Shuffle** Tracks will be randomly selected and played (→ page 49).

⬤ Searching by artist name

From the top menu of the Music Collection

1 Press [▲ ▼] to select "Artists" and press [ENTER].
All the artist lists are displayed.

```
Music Collection   Artists
◀ DEF  GHI        MNO              ▶
  Debussy
  Deliebes
  Dukas
  Dvorak


        ENTER
        RETURN                    1 of 4
```
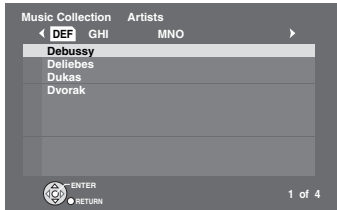
2 Press [▲ ▼] to select the artist and press [ENTER].
● With [◀ ▶] you can select the other alphabet tabs.
All the albums of the selected artist are displayed.

```
Music Collection   Albums
◀         ⬤ Debussy                ▶
  All Tracks of the Artist
  DEBUSSY COLLECTION vol.1
  DEBUSSY COLLECTION vol.2
  DEBUSSY COLLECTION vol.3


        ENTER
        RETURN                    2 of 4
```
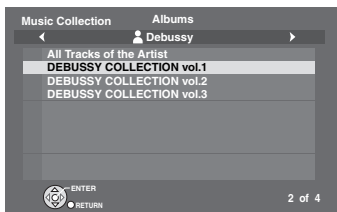
To find artists whose name starts with "The"
Artists whose name starts with "The" cannot be searched for by "The". Instead search by "W" if the artist's name is "The World".

3 Press [▲ ▼] to select the album and press [ENTER].
● With [◀ ▶] you can select the other artists.
All the tracks of the selected album are displayed.
All Tracks of the Artist: Displays all tracks of the selected artist.

4 Press [▲ ▼] to select the track and press [ENTER].
● With [◀ ▶] you can select the other albums.
The selected track starts playing.
● The Album playlist including the selected track will play through the last track (default setting). You can change the play range (➜ page 55).

⬤ Searching by album name

From the top menu of the Music Collection

1 Press [▲ ▼] to select "Albums" and press [ENTER].
All the album lists are displayed.
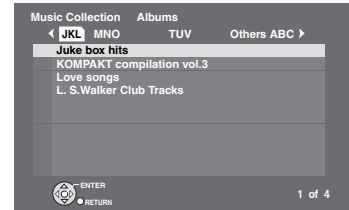
```
Music Collection   Albums
◀ JKL  MNO        TUV      Others ABC ▶
  Juke box hits
  KOMPAKT compilation vol.3
  Love songs
  L. S.Walker Club Tracks


        ENTER
        RETURN                    1 of 4
```

2 Press [▲ ▼] to select the album and press [ENTER].
● With [◀ ▶] you can select the other alphabet tabs.
All the tracks of the selected album are displayed.

```
Music Collection   Tracks
◀      ⬤ L. S.Walker Club Tracks    ▶
  STOMP              L. S.Walker
  Back stretch       L. S.Walker
  Tone curve         L. S.Walker
  Klick              L. S.Walker
  Test tones         L. S.Walker
  Life of strings    L. S.Walker
  Patterns           L. S.Walker
  Kick track         L. S.Walker
  Speaker            L. S.Walker
        Play
        RETURN                    1 of 9
```

3 Press [▲ ▼] to select the track and press [ENTER].
● With [◀ ▶] you can select the other albums.
The selected track starts playing.
● The Album playlist including the selected track will play through the last track (default setting). You can change the play range (➜ page 55).

♪ Searching by track name

From the top menu of the Music Collection

1 Press [▲ ▼] to select "Tracks" and press [ENTER].
All recorded tracks are displayed in alphabetical order.

```
Music Collection   Tracks
◀ WXYZ       Others ABC DEF GHI JKL MNO ▶
  A song for us      Kenton Knepper
  Addiction          Dai Vernon
  Can You Keep A Secret?  Anneman
  Cut and paste      Ken Krenzel
  Cat walk           Daley


        Play
        RETURN                    1 of 5
```

2 Press [▲ ▼] to select the track and press [ENTER].
● With [◀ ▶] you can select the other alphabet tabs.
The selected track starts playing.
● The Album playlist including the selected track will play through the last track (default setting). You can change the play range (➜ page 55).

PL	**Searching from various user-specific playlists**

From the top menu of the Music Collection

1 Press [▲ ▼] to select "Other Playlists" and press [ENTER].

Other Playlists
- 🖼 **User Playlists**
- 💛 Favorites
- 📊 Most Often Played
- ✳ Recently Ripped
- 〰 Analog Recorded

ENTER
RETURN

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

User-specific playlists (Other Playlists)

🖼PL	**User Playlists** Playlists that allow you to freely arrange the tracks and the order in which they appear. (➔ page 67)
💛	**Favorites** A playlist containing favorite tracks you registered (max.99 tracks) (➔ page 70)
📊	**Most Often Played** A playlist created from 99 tracks that are arranged based on the frequency of playback among the most recently played 999 tracks.
✳	**Recently Ripped** A playlist created from the most recently added 99 tracks. Recordings from the radio or other external devices are not included in this playlist.
〰	**Analog Recorded** A playlist containing only analog recordings of the radio or from other external devices.

■ *When "User Playlists" was selected*
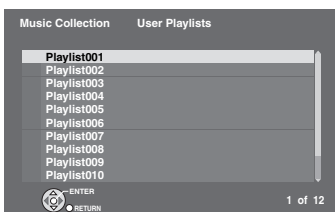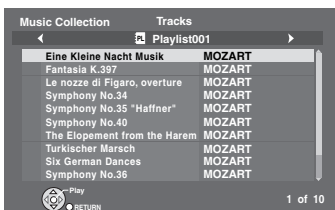
Music Collection   User Playlists
- **Playlist001**
- Playlist002
- Playlist003
- Playlist004
- Playlist005
- Playlist006
- Playlist007
- Playlist008
- Playlist009
- Playlist010

ENTER
RETURN
1 of 12

3 Press [▲ ▼] to select the playlist and press [ENTER].

Music Collection   Tracks
◄ 🖼 Playlist001 ►

Eine Kleine Nacht Musik	MOZART
Fantasia K.397	MOZART
Le nozze di Figaro, overture	MOZART
Symphony No.34	MOZART
Symphony No.35 "Haffner"	MOZART
Symphony No.40	MOZART
The Elopement from the Harem	MOZART
Turkischer Marsch	MOZART
Six German Dances	MOZART
Symphony No.36	MOZART

Play
RETURN
1 of 10

4 Press [▲ ▼] to select the track and press [ENTER].

●With [◄ ►] you can select the other playlists.
The selected track starts playing.

●The playlist including the selected track will play through the last track (default setting). You can change the play range (➔ page 55).

■ *When "Favorites", "Most Often Played" or "Recently Ripped" was selected*
e.g., Favorites

Music Collection   Favorites

Bleep Bleep	Daniel Bellman
I can feel love	Don Alan
Christmas	John Carney
True White	Alex Elmsley
Summer vacation	Slydini
Playhouse	Slydini
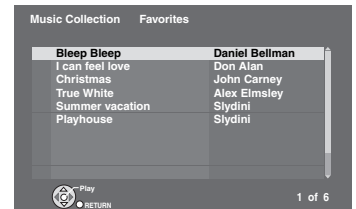
Play
RETURN
1 of 6

3 Press [▲ ▼] to select the track and press [ENTER].

The selected track starts playing.

●The playlist including the selected track will play through the last track (default setting). You can change the play range (➔ page 55).

■ *When "Analog Recorded" was selected*

This list shows the day of the week and time for all analog recordings made from the radio or other external devices.
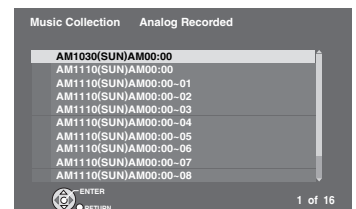
Music Collection   Analog Recorded
- **AM1030(SUN)AM00:00**
- AM1110(SUN)AM00:00
- AM1110(SUN)AM00:00–01
- AM1110(SUN)AM00:00–02
- AM1110(SUN)AM00:00–03
- AM1110(SUN)AM00:00–04
- AM1110(SUN)AM00:00–05
- AM1110(SUN)AM00:00–06
- AM1110(SUN)AM00:00–07
- AM1110(SUN)AM00:00–08

ENTER
RETURN
1 of 16

3 Press [▲ ▼] to select the playlist and press [ENTER].

Music Collection
◄ 〰 AM1110(SUN)AM00:00–03 ►

AM00:00_00004_0001	*AM Recording
AM00:00_00004_0002	*AM Recording
AM00:00_00004_0003	*AM Recording
AM00:00_00004_0004	*AM Recording
AM00:00_00004_0005	*AM Recording

Play
RETURN
1 of 5

4 Press [▲ ▼] to select the track and press [ENTER].

●With [◄ ►] you can select the other playlists.
The selected track starts playing.

●The playlist including the selected track will play through the last track (default setting). You can change the play range (➔ page 55).
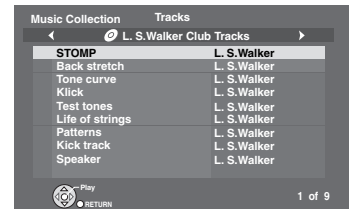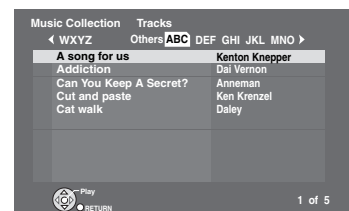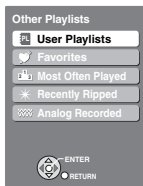
	Music Shuffle **Tracks are automatically selected from** **the Music Shuffle collection playlist.**

This function generates playlists that contain only tracks that have been analyzed and identified as having a certain feeling. This unit uses the beat and tempo, etc. as a basis for deciding which feeling the track fits best with, and then places the track into one of four different Music Shuffle groups.

≥Every time you select a group of the Music Shuffle playlist, the tracks and the order they appear in will change.
≥Depending on the track, some tracks cannot be classified into any groups of Music Shuffle playlists.

From the top menu of the Music Collection

1 **Press [▲ ▼] to select "Music Shuffle" and press [ENTER].**

> **Music Shuffle**
> **Energetic**
> **Mellow**
> **Relaxing**
> **Emotional**
>
> ENTER
> RETURN

The different groups of Music Shuffle

	Energetic		Mellow
	Relaxing		Emotional

≥Each group can contain up to 99 tracks.

2 **Press [▲ ▼] to select the group and press [ENTER].**
≥All selected groups of tracks will be displayed in random order each time.
≥If the group contains more than 99 tracks, 99 tracks are randomly selected and appear in random order.

3 **Press [▲ ▼] to select the track and press [ENTER].**
≥With [◄ ►] you can select the other Music Shuffle groups.
The selected track starts playing.
≥The playlist including the selected track will play through the last track (default setting). You can change the play range (➜ page 55).

About the Music Shuffle function
Music Shuffle analysis is performed while the unit is in standby mode (➜ page 32), therefore tracks are not added to Music Shuffle immediately after recording. MP3/WMA tracks imported from a PC will be also analyzed for Music Shuffle during the standby mode. To analyze tracks immediately, use "Convert/Analyze" (➜ page 42).

Using Music Shuffle directly with the remote control

MUSIC SHUFFLE
ENERGETIC MELLOW RELAXING EMOTIONAL
[►] [►] [►] [►]

By pressing the "MUSIC SHUFFLE" buttons on the remote control, applicable tracks will immediately play.

	Random Shuffle **Tracks will be randomly selected and** **played.**

From the top menu of the Music Collection
Press [▲ ▼] to select "Random Shuffle" and press [ENTER].
All tracks recorded to the HDD will be played at random.
≥When play is stopped, the unit will switch to the Album playlist for that track.
≥If "Repeat Playback" (➜ page 54) is set to "On", random playback will continue until you press [■]. If set to "Off", playback will stop after all tracks on the HDD are played once.
≥"Random Playback" (➜ page 54) and "Play Range" settings (➜ page 55) cannot be selected when Random Shuffle is performed.

Note
≥Tracks that have not been converted or analyzed will appear in the playlist screen with a " ⬇ " mark next to them.

About alphabet tabs
Alphabet tabs are displayed in the order shown below.
Alphabet ➜ Numbers ➜ Other

To return to the previous menu
Press [RETURN].

Tips
You can also select the track or playlist by numbered buttons instead of [▲ ▼].
To enter numerical values more than 2 digits:
For 2 digits (e.g., 12)
[≧10] ➜ [1] ➜ [2]
For 3 digits (e.g., 225)
[≧10] ➜ [≧10] ➜ [2] ➜ [2] ➜ [5]

Basic Operations

Playing back

Playing DVD-Video, recordable DVD or DVD-Audio

DVD-V DVD-VR DVD-A
Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".

4 Insert a disc (➜ page 29).
  ● Load double-sided discs so the label for the side you want to play is facing up.
  ● DVD-RAM: Remove discs from their cartridges before use.

Basic playback

Play begins automatically after insertion of the disc.
● When a menu screen appears
  (➜ right, "Showing disc menu", step 2)
● When the disc is inserted, switching the selector to "DVD/CD" will also start play.

Operations during playback

STOP ■	**Stop**

The position is memorized while "RESUME" is on the unit's display.
● Press [▶] (PLAY) to resume. **(Resume play)**
● Press [■] to clear the position.
● Even after the unit is turned off or the selector is changed, the position is memorized (Normal playback only).
● DISCS CONTINUE TO ROTATE WHILE MENUS ARE DISPLAYED. Press [■] when you finish to preserve the unit's motor and your television screen.

PAUSE ❚❚	**Pause**

● Press [▶] (PLAY) to restart play.

[◀◀] [▶▶]	**Skip**

DVD-VR Can also skip to the markers recorded on DVD recorders.

[◀◀] [▶▶]	**Search** (during play) **Slow-motion** (during pause)

● Up to 5 steps.
● Press [▶] (PLAY) to restart play.

	DVD-V DVD-VR **Frame-by-frame** (during pause)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪ ≥10	**Select the item with the numbered buttons**

e.g., To select 12: [≧10] ➜ [1] ➜ [2]

	DVD-V DVD-A **Showing disc menu**

This menu may be different depending on discs, and selectable items may differ as well. For more information on how to operate the menu on your discs, please read the operating instructions that came with the disc.

1 Press [TOP MENU].

2 Press [▲ ▼ ◀ ▶] to select the item and press [ENTER].

Different methods of play for recordable DVDs

`DVD-VR`
- ≥Titles appear only if they have been entered.
- ≥You cannot edit playlists and titles.

Playing the programs

1 **Press [DIRECT NAVIGATOR].**

No.	Date	On	Title	Contents
1	11/ 1(WED)	0:05 AM	Monday feature	▶
2	1/ 1 (MON)	1:05 PM	Auto action	▶
3	2/ 2 (TUE)	2:21 PM	Cinema	▶
4	3/ 3 (WED)	3:37 PM	Music	▶
5	4/10(THU)	11:05 AM	Baseball	▶

▲▼ to select   RETURN to exit
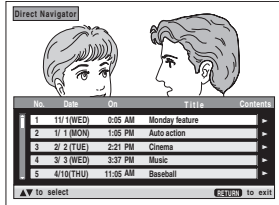
2 **Press [▲ ▼] or the numbered buttons to select the program.**

- ≥**To select a 2-digit number**
  e.g., 23: [≧10] ➜ [2] ➜ [3]
- ≥Press [▶] to show the contents of the program.

3 **Press [ENTER].**

Playing a playlist of DVD-VR
(Only when the disc contains a playlist)

1 **Press [PLAYLIST].**

No.	Date	Total Time	Title
1	11/1	0:00:01	City Penguin
2	1/1	0:01:20	Ashley at Prom
3	2/2	1:10:04	Formula one
4	3/3	0:10:20	Soccer
5	4/10	0:00:01	Baseball

▲▼ to select and press ENTER   RETURN to exit

2 **Press [▲ ▼] or the numbered buttons to select the play list.**

- ≥**To select a 2-digit number**
  e.g., 23: [≧10] ➜ [2] ➜ [3]

3 **Press [ENTER].**

Playing MP3 and JPEG files on a recordable DVD
See page 53, "Playing a recordable DVD or CD with WMA, MP3 or JPEG".

Playing a CD or VCD
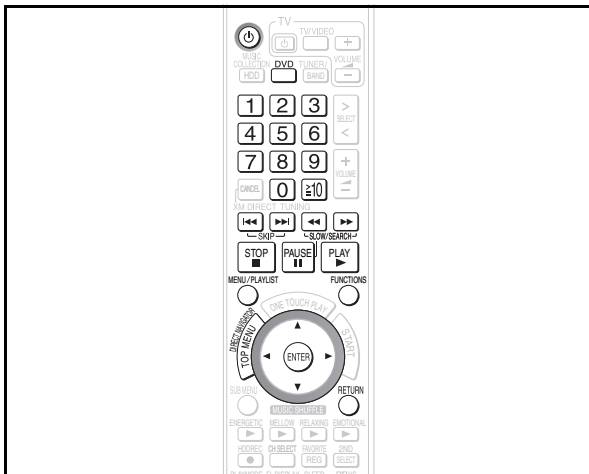
CD **VCD**

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".

4 Insert a disc (➜ page 29).

Basic playback

CD: **Press [▶] (PLAY).**

VCD: Play begins automatically after insertion of the disc.
≥When the disc is inserted, switching the selector to "DVD/CD" will also start play.

e.g., **CD**

Track 1	Time 0 : 12
▶	■
Symphony No.34	
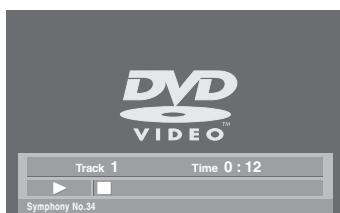
Selecting and playing tracks from a commercial music CD

Track names obtained from the Gracenote database are listed.

1 **Press [MENU].**

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

≥To return to the previous screen, press [RETURN].

◯ CD	📀 1/10	65:30
Disc Title : MOZART'S ALBUM		
Disc Artist : MOZART		
Track Title : Eine Kleine Nacht Musik		
Track Artist : MOZART		
1. ♪ **Eine Kleine Nacht Musik**		
2. ♪ Fantasia K.397		
3. ♪ Le nozze di Figaro, overture		
4. ♪ Symphony No.34		
5. ♪ Symphony No.35 "Haffner"		
6. ♪ Symphony No.40		
7. ♪ The Elopement from the Harem, overture		
8. ♪ Turkischer Marsch		
9. ♪ Six German Dances		
10. ♪ Symphony No.36		
▲▼ to select and press **ENTER**		**RETURN** to exit
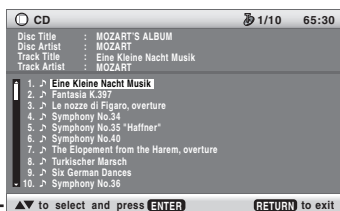
Press [FUNCTIONS] to switch between guide messages and the playback condition indicator.

Operations during playback

STOP ■	**Stop**
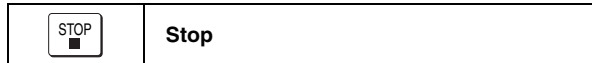
The position is memorized when "RESUME" appears on the unit's display.
●Press [▶] (PLAY) to resume. **(Resume play)**
●Press [■] to clear the position.
●Even after the unit is turned off or the selector is changed, the position is memorized (Normal playback only).

PAUSE ∥	**Pause**

●Press [▶] (PLAY) to restart play.

|◀◀ ▶▶|	**Skip**

◀◀ ▶▶	**Search** (during play) **VCD** **Slow-motion** (during pause)
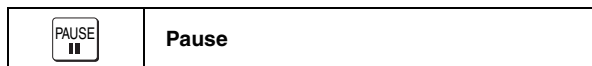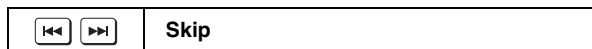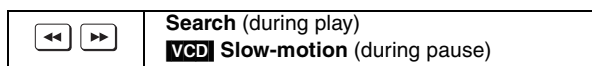
●Up to 5 steps.
●Press [▶] (PLAY) to restart play.
●**VCD** Slow-motion: forward direction only
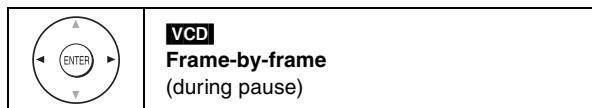
◀ (ENTER) ▶	**VCD** **Frame-by-frame** (during pause)
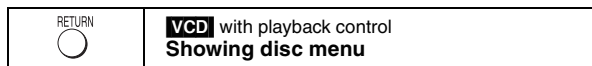
●Forward direction only

1 2 3 4 5 6 7 8 9 0 ≧10	**Select the track with the numbered buttons**

e.g., To select 12: [≧10] ➜ [1] ➜ [2]

RETURN ◯	**VCD** with playback control **Showing disc menu**

This menu may be different depending on discs, and selectable items may differ as well. For more information on how to operate the menu on your discs, please read the operating instructions that came with the disc.

1 **Press [RETURN] while playing.**

2 **Press the numbered buttons to select the item.**
e.g., To select 12: [≧10] ➜ [1] ➜ [2]

Playing MP3 and JPEG files on a recordable DVD
See page 53, "Playing a recordable DVD or CD with WMA, MP3 or JPEG".

Playing a recordable DVD or CD with WMA, MP3 or JPEG

`WMA` `MP3` `JPEG`

For information about which data formats can be played on this unit, refer to page 24, "Discs that can be played".

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".
4 Insert a recordable disc (➜ page 29).

≥Select "Play as Data Disc" (➜ page 61, Other Menu) in the following cases:
  – To play HighMAT discs without using the HighMAT function
  – To play `MP3` or `JPEG` on DVD-RAM that contain both `DVD-VR` and another format (e.g. `JPEG`)

Playing items in order (Playback Menu)

```
► Playback Menu

All                    Total 434     ── All contents
Audio                  Total 7       ── WMA/MP3
Picture                Total 427     ── JPEG

▲▼ to select and press ENTER
```

While the menu is displayed
Press [▲ ▼] to select "All", "Audio" or "Picture" and press [ENTER].
≥To display/exit the screen, press [TOP MENU].

Playing from the selected item (Navigation Menu)

1 **Press [MENU].**

2 **Press [▲ ▼ ◄ ►] to select the group and press [ENTER].**

3 ≥**To play content in the group in order**
    Press [ENTER].
   ≥**To start play from the selected content**
    Press [▲ ▼] to select and press [ENTER].

Group and content number currently playing

```
⊜ Navigation  Menu      📀 5  📀 1  JPEG   --- : --
002 My favorite2\005 Japanese\001 Lady Starfish
Perfume                          🖻 001 Lady Starfish ◄
├─001 My favorite1               🖻 002 Metal Glue
├─002 My favorite2               🖻 003 Life on Jupiter
├─001 Brazilian                  🎵 004 Starperson
├─002 Chinese
├─003 Czech
├─004 Hungarian
├─005 Japanese ◄
├─006 Mexican
├─007 Philippine
├─008 Swedish
├─009 Piano
└─010 Vocal
         Group 005/023           Content 0001/0005
FUNCTION to display the sub menu      RETURN to exit
```
🖻: JPEG
🎵: WMA/MP3

Number currently selected

Group   Content

≥**To listen to WMA/MP3 while showing a JPEG image on the screen**
 Select a JPEG first, and then select WMA/MP3.
 (The opposite order is not effective.)
≥To exit the screen, press [MENU].

■ *Using the submenu*

1 **Press [MENU].**

2 **Press [FUNCTIONS].**

3 **Press [▲ ▼] to select an item and press [ENTER].**

✓Multi	Groups and content
List	Content only
Tree	Groups only
Thumbnail	Thumbnail images `JPEG`
Next group	To the next group
Previous group	To the previous group
✓All	WMA/MP3 and JPEG
Audio	WMA/MP3 only
Picture	JPEG only
✓Help display	To switch between guide messages and
Find	the playback conditon indicator

To search by content or group title (➜ below)

■ *Searching by a content or group title*

1 **Press [MENU].**
   ≥Press [◄ ►] to highlight a group title to search a group, or a content title to search its content.

2 **Press [FUNCTIONS].**

3 **Press [▲ ▼] to select "Find" and press [ENTER].**

```
✳ A              Find
```

4 **Press [▲ ▼] to select a character and press [ENTER].**
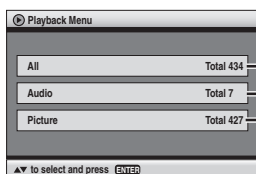   ≥Repeat to enter another character.
   ≥Lower case is also searched.
   ≥Press [◄◄ ►►] to skip between A, E, I, O and U.
   ≥Press [◄] to erase a character.
   ≥Erase the asterisk (✳) to search for the titles starting with that character.

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

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

Playing HighMAT™ discs

While the menu is displayed
Press [▲ ▼ ◄ ►] to select items then press [ENTER].

📁 Menu: Takes you to the next menu which shows playlists or another menu.	📄 Playlist: Play starts.

≥To return to the menu screen, press [TOP MENU] then press [RETURN] several times.
≥To change the menu background, press [FUNCTIONS].
 The background changes to the one recorded on the disc.
≥To display/exit the screen, press [TOP MENU].

Selecting from the list

1 Press [MENU].
2 Press [◄] then [▲ ▼] to switch among "Playlist", "Group" and "Content" lists.
3 Press [►] then [▲ ▼] to select an item and press [ENTER].
≥To exit the screen, press [MENU].

```
○ Playlist    *All By Artist    *Pink Island

          No.      Content title
Playlist   1  Few times in summer ◄
Group      2  Less and less
Content    3  And when I was born
           4  Quatre gymnopedies
           5  You've made me sad
           6  I can't quit him
           7  Evening glory
           8  Wheeling spin
           9  Velvet Cuppermine
          10  Ziggy starfish

▲▼◄► to select    ENTER to play    RETURN to exit
```

RQT8926
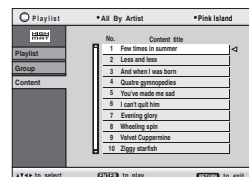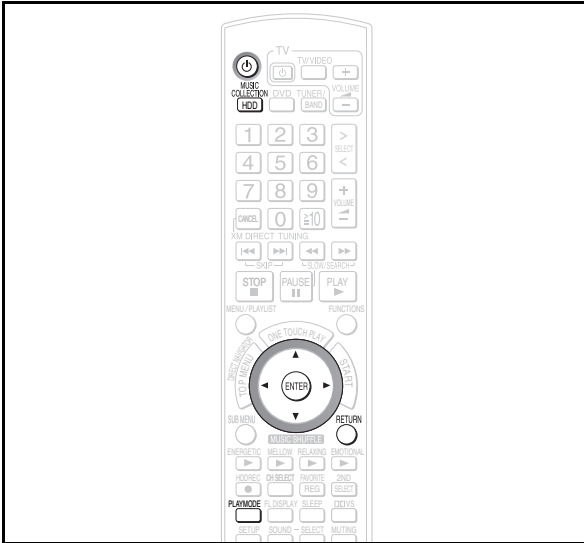
HDD

You can configure various playback methods of tracks recorded on the HDD, such as repeat playback, random playback or play range (setting that defines the end point of playback).

Preparation
1. To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2. Press [⏻].
3. Press [MUSIC COLLECTION] to switch the selector to "Music Collection".
●Play mode settings will be retained and be recalled each time "Music Collection" is selected.

Repeat playback

1 Press [PLAY MODE].
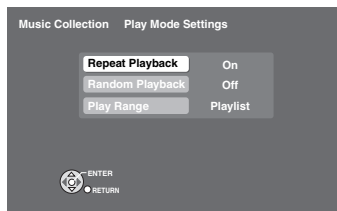
2 Press [▲ ▼] to select "Repeat Playback" and press [ENTER].

3 Press [▲ ▼] to select "On" or "Off" and press [ENTER].
●**On:** Repeat play within the play range (➔ page 55).
●**Off:** Turns repeat playback off.

To return to the previous screen
Press [RETURN].

Tips
To repeat one track
Set repeat play to "On", and set the play range (➔ page 55) to "One Track".

Random playback

1 Press [PLAY MODE].
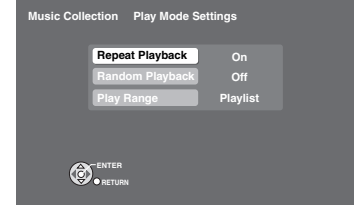
2 Press [▲ ▼] to select "Random Playback" and press [ENTER].
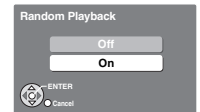
3 Press [▲ ▼] to select "On" or "Off" and press [ENTER].
●**On:** Random play within the play range (➔ page 55).
●**Off:** Turns random playback off.

To return to the previous screen
Press [RETURN].

Note
●When the track is played in random order, you cannot go back to tracks that have already been played.
●When Random Shuffle (➔ page 49) is performed, this item cannot be displayed.

Changing the play range settings

1 Press [PLAY MODE].

```
Music Collection    Play Mode Settings

        Repeat Playback        On
        Random Playback        Off
        Play Range             Playlist


              ENTER
              RETURN
```
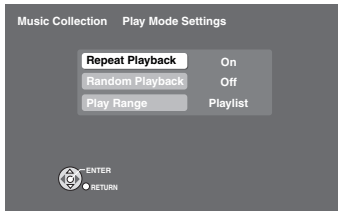
2 Press [▲ ▼] to select "Play Range" and press [ENTER].

```
Play Range Settings
        One Track
        Playlist
        Play All Playlists
     ENTER
     Cancel
```
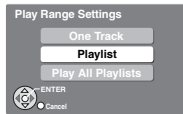
3 Press [▲ ▼] to select the play range and press [ENTER].
- **One Track:**
  Play just one track
- **Playlist:**
  Play the current playlist (factory default)
- **Play All Playlists:**
  Continuously play all playlists of the same kind (Album playlists, User Playlists, Analog Recorded or All Tracks of the Artist).
  This setting is invalid for Favorites, Music Shuffle, Recently Ripped or Most Often Played playlists.

To return to the previous screen
Press [RETURN].

Note
When Random Shuffle (➜ page 49) is performed, this item cannot be displayed.

Tips
To check the play range settings
During play or while stopped, you can check the play range settings on screen.

🎵 : One Track

🄿🄻 : Playlist

🄿🄻 : Play All Playlists

```
Music Collection 〉 Other Playlists
                              Favorites
   Mozart
   Life with Mozart
   Eine Kleine Nacht Musik
 ▶ 2:45                                    5:42
 LPCM                          Tracks        3 of 12
    Repeat                     Total Time    56:00
   REC
      Track List
```
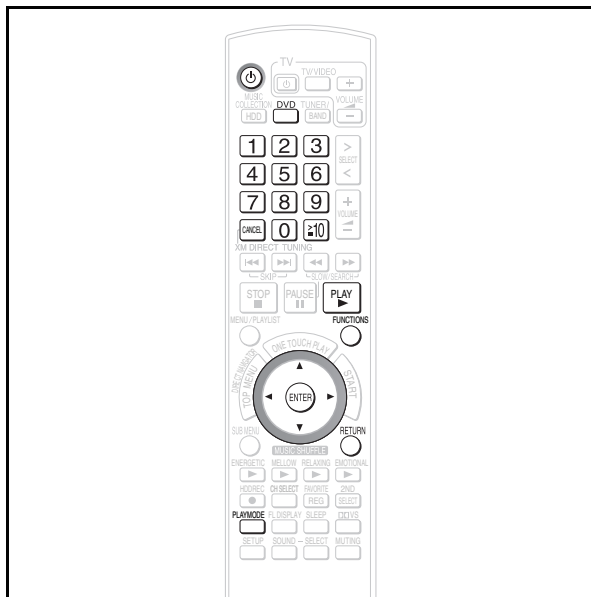
DVD-V DVD-VR DVD-A CD VCD
WMA (on recordable discs)
MP3 (on recordable discs) JPEG

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [DVD] to switch the selector to "DVD/CD".
4 Insert a disc (➔ page 29).

Features for adjusting the video

Adjusting the picture quality
Video and picture contents

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Other Settings"and press [▶].

3 Press [▲ ▼] to select "Picture Menu" and press [▶].

4 Press [▲ ▼] to select "Picture Mode" and press [▶].

5 Press [▲ ▼] to select the item and press [ENTER].

```
┌─ Functions ──────────────┐
│ Picture Mode    Normal │ ✓Nomal
│ Video Output Mode  480i │  Cinema1
│                         │  Cinema2
│                         │  Animation
│                         │  Dynamic
│                         │  User
```
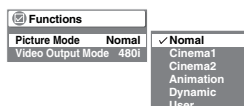
The items listed are:
Normal: Normal images
Cinema1: Mellows images and enhances detail in dark scenes.
Cinema2: Sharpens images and enhances detail in dark scenes.
Animation: Suitable for animation
Dynamic: Enhances the contrast for powerful images.
User (Press [ENTER] to select **"Picture Adjustment"**.)
    (➔ right)

If "Picture Adjustment" is selected, on-screen picture adjustments appear.
e.g., Contrast adjustment

```
Contrast        ◄ 0 ▮────── + ►
```

Select the adjuster you want to make change with [▲ ▼] and make adjustments by pressing [◄ ►].

Picture Adjustment items are:
Contrast: Increases the contrast between light and dark parts of the picture (-7 to $+7$).
Brightness: Brightens the picture (0 to $+15$).
Sharpness: Adjusts the sharpness of the edges of the horizontal lines (-7 to $+7$).
Color: Adjusts the shade of the picture's color (-7 to $+7$).
Gamma: Adjusts the brightness of dark parts (0 to $+5$).
Depth Enhancer: Reduces the rough noise in the background to give a greater feeling of depth (0 to $+4$).

Zoom
Video contents

This feature expands a letterbox picture to fit the screen.
1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Other Settings"and press [▶].

3 Press [▲ ▼] to select "Display Menu" and press [▶].

■ *Just Fit Zoom*
After step 3
1 Press [▲ ▼] to select "Just Fit Zoom" and press [▶].

```
┌─ Functions ──────────────┐
│ Subtitle Position    0 │  Auto
│ Subtitle Brightness  0 │ ✓4 : 3 Standard
│ Just Fit Zoom          │  European Vista
│ Manual Zoom     x1.00 │  16 : 9 Standard
│ Bit Rate Display   Off │  American Vista
│ GUI See-through    Off │  Cinemascope1
│ GUI Brightness      0 │  Cinemascope2
│ HDMI Status            │
```
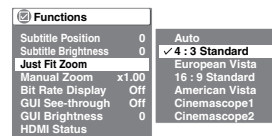
2 Press [▲ ▼] to select an item and press [ENTER].

**Auto, 4:3 Standard, European Vista,
16:9 Standard, American Vista,
Cinemascope1, Cinemascope2**

● Depending on the disc, the preset aspect ratio may not be displayed.

■ *Manual Zoom*
After step 3
1 Press [▲ ▼] to select "Manual Zoom" and press [▶].
2 Press [▲ ▼] to adjust the zoom size.
   − from ×1.00 to ×1.60 (in 0.01 units),
     from ×1.60 to ×2.00 (in 0.02 units)

Switching subtitles and soundtracks

Changing subtitles
DVD-V   DVD-VR
Discs with subtitles

While playing

1   Press [FUNCTIONS].

2   Press [▲ ▼] to select "Subtitle" and press [▶].

Functions		
Title	2 / 5	✓ On
Chapter	2 / 12	Off
Time	0:07:28	1 English
Audio	1 English	✓ 2 French
Subtitle	**2 French**	
Angle	1 / 1	
Other Settings		

3   Press [▲ ▼] to select the item and press [ENTER].

DVD-V: You can change subtitle on/off and subtitle language.
   ● On +R/+RW, a subtitle number may be shown for subtitles that are not displayed.

DVD-VR: You can change subtitle on/off when the disc has the subtitle information.
   ● Subtitle on/off information cannot be recorded using Panasonic DVD Recorders.
   ● Select "Off" when the subtitles overlap closed captions recorded on discs.

Changing soundtracks
DVD-V   DVD-VR   DVD-A   VCD

While playing

1   Press [FUNCTIONS].

2   Press [▲ ▼] to select "Audio" and press [▶].

Functions		
Title	2 / 5	✓ 1 English
Chapter	2 / 12	2 French
Time	0:08:18	
Audio	**1 English**	
Subtitle	2 French	
Angle	1 / 1	
Other Settings		

3   Press [▲ ▼] to select the soundtrack and press [ENTER].

DVD-VR: You can select "L", "R" or "LR".
VCD: You can select "L", "R", "LR" or "L+R".
DVD-V (Karaoke discs): You can select "On" or "Off" of vocals. Read the disc's instructions for details.

Signal type/data

LPCM/PPCM/□□ Digital/DTS/MPEG: Signal type
kHz (Sampling frequency)/bit/ch (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

Changing the order and speed of play

Program play (up to 32 items)
Except DVD-VR

While stopped

1   Press [PLAY MODE] several times.

2   Press the numbered buttons to select the item.
Repeat this step to program other items.
e.g.,
To select 12: [≧10] ➜ [1] ➜ [2]

e.g., DVD-V

Choose a title and chapter.			
No.	Title Chapter	Time	Play
1			Clear
			Clear all

3   Press [▶] (PLAY).

Selecting all the items (on the disc or in the title or group)
Press [ENTER] and [▲ ▼] to select "ALL", then press [ENTER] again to register.

Changing or clearing the program
Press [▲ ▼] to select an item.
–To change an item, repeat step 2.
–To clear an item, press [CANCEL] (or select "Clear" and press [ENTER]).

Clearing the whole program
Select "Clear all" and press [ENTER]. The whole program is also cleared when the unit is turned off, the selector is changed or the disc tray is opened.

Random play
Except DVD-VR

While stopped

1   Press [PLAY MODE] several times.

2   DVD-A   DVD-V   WMA   MP3   JPEG
Press the numbered buttons to select a group or a title.
e.g., To select 12: [≧10] ➜ [1] ➜ [2]

e.g., DVD-V

> Random Playback
> Choose a title.
> Title 1
> ▲▼ to select   PLAY to start

3   Press [▶] (PLAY).

All group play
DVD-A

While stopped

1   Press [PLAY MODE] several times.

2   Press [▶] (PLAY).

> All Group Playback
> Press PLAY to start

To exit the program, random or all group mode
Press [PLAY MODE] several times while stopped.
Note
Disable HighMAT disc play to use program and random play.
Select "Play as Data Disc" in Other Menu (➜ page 61).

Basic Operations

Playing back

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Changing the order and speed of play

Repeat play
(Only when the elapsed play time can be displayed
JPEG : you can use even if there is no elapsed time
display.)

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Other Settings"and press [▶].

3 Press [▲ ▼] to select "Play Menu" and press [▶].

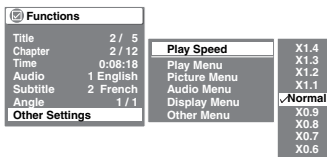**4 Press [▲ ▼] to select "Repeat" and press [▶].**

```
Functions
Repeat              Off       ✓ Off
A-B Repeat          **          Chapter
Advanced Disc Review            Title
```

**5 Press [▲ ▼] to select the item to be repeated and
press [ENTER].**
≥Depending on the disc, the items that can be selected
will differ.

Changing play speed
DVD-VR DVD-V

While playing

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Other Settings"and press [▶].

3 Press [▲ ▼] to select "Play Speed" and press [▶].

```
Functions
Title            2 / 5
Chapter          2 / 12     Play Speed      X1.4
Time          0:08:18       Play Menu       X1.3
Audio        1 English      Picture Menu    X1.2
Subtitle      2 French      Audio Menu      X1.1
Angle          1 / 1        Display Menu   ✓Normal
Other Settings              Other Menu      X0.9
                                            X0.8
                                            X0.7
                                            X0.6
```

**4 Press [▲ ▼] to select the play speed and press
[ENTER].**
≥From "×0.6" to "×1.4"

≥Press [▶] (PLAY) to return to the normal play.
≥After you change the speed
– Digital audio output switches to PCM-2 ch.
– 96 kHz sampling frequency is converted to 48 kHz.
≥This may not work depending on the disc's recording.

Starting play from a selected group
DVD-A WMA MP3 JPEG

A folder on WMA/MP3 and JPEG discs is treated as a "Group".

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Group" and press [▶].

**3 Press [▲ ▼] or the numbered buttons to select a
group and press [ENTER].**
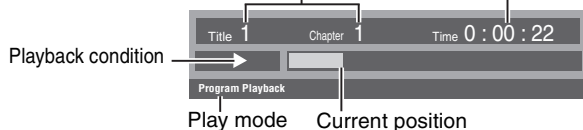≥ DVD-A To play all groups (➜ page 57, All group play)

Other convenient features

Displaying current playback condition (Quick OSD)
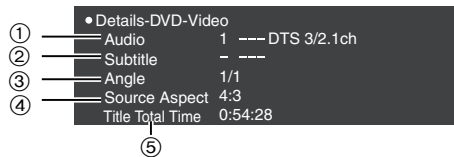
■ *Basics*
Press [FUNCTIONS] twice.

e.g., DVD-V   Current playback number Elapsed play time

```
Title 1        Chapter 1        Time 0 : 00 : 22
```
Playback condition ⟶
```
Program Playback
```
Play mode   Current position

■ *Details*
Press [FUNCTIONS] three times.

e.g., DVD-V

```
①——— Audio          1  --- DTS 3/2.1ch
②——— Subtitle       -  ---
③——— Angle          1/1
④——— Source Aspect  4:3
      Title Total Time  0:54:28
              ⑤
● Details-DVD-Video
```

① See page 57 for changing soundtracks
② See page 57 for changing subtitles
③ See below, Angle select for changing angles
④ Aspect of current playback title
⑤ Total play time of current playback title

Reviewing titles/programs to play
(Advanced Disc Review)
DVD-VR DVD-V (Except +R/+RW)
(Normal playback only)

While playing

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Other Settings"and press [▶].

3 Press [▲ ▼] to select "Play Menu"and press [▶].

**4 Press [▲ ▼] to select "Advanced Disc Review" and
press [ENTER].**
Reviews each title/program.

```
Title 1        Chapter 1        Time 0 : 00 : 22
```

**5 Press [▶] (PLAY) when you find a title/program to
play.**
≥You can also review each 10 minutes. Select "Interval
Mode" (➜ page 91, "Advanced Disc Review" in "Disc"
menu).
≥This may not work depending on the play position.
≥ DVD-VR This function does not work:
– with still picture part.
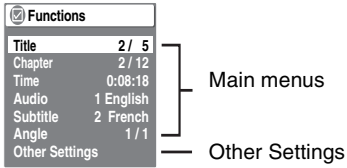– when playing a playlist.

Angle select
DVD-V *with multiple angles*

While playing

1 Press [FUNCTIONS].

2 Press [▲ ▼] to select "Angle" and press [▶].

3 Press [▲ ▼] to select the angle and press [ENTER].

Using on-screen menu

The on-screen menu, which appears when [FUNCTIONS] is pressed while the disc is playing or stopped, allows you to turn subtitles on or off, switch audio tracks, and change a variety of other settings.

```
Functions
Title           2 / 5
Chapter        2 / 12
Time          0:08:18    ─── Main menus
Audio       1 English
Subtitle    2 French
Angle          1 / 1
Other Settings           ─── Other Settings
```

1 **Press [FUNCTIONS] to show on-screen menu.**

2 **Press [▲ ▼] to select the menu and press [►].**

3 **Press [▲ ▼] to select the item and press [►].**

4 **Press [▲ ▼] to select the setting and press [ENTER].**
- Depending on the condition of the unit (playing, stopped, etc.) and disc contents, there may be some items that you cannot select or change.

To return to the previous screen
Press [RETURN].

Main menus

Program, Group, Title Chapter, Track Playlist, Content	**To start from a specific item** ● Press [▲ ▼] to select and press [ENTER]. ● Press and hold [▲ ▼] to alter faster.

Time	**To skip incrementally or decrementally**✱ **(Time Slip for play only)**
	1. Press [ENTER] twice to show Time Slip indicator.
	2. Press [▲ ▼] to select the time and press [ENTER].
	   ● Press and hold [▲ ▼] to alter faster.
	To change remaining/elapsed time display
	            ✱ Except +R/+RW

Audio	**(→ page 57, Changing soundtracks)**
	To display the current bitrate or sampling frequency
Still Picture	**To switch still picture**
Number Select	**VCD** with playback control ● Use this function if you want to select a number with the television's remote control when EZ Sync "HDAVI Control" is active. The numbered buttons on the television's remote control do not work when selecting numbers on a VCD. **To select a number** While the disc menu is displayed Press [►] ➜ Press [▲ ▼] ➜ Press [ENTER]
Thumbnail	**To show thumbnail images**
Subtitle	**(→ page 57, Changing subtitles)**
Marker (VR)	**To recall a marker recorded on DVD recorders**

Angle	**(→ page 58, Angle select)**
Rotate Picture	**To rotate a picture right or left** Press [▲ ▼] to select "Right" or "Left" and [ENTER].
Slideshow	**To turn on/off slideshow** **To change the slideshow timing** **(1 Fast ←→ 5 Slow)** ● When using Slideshow, Skip/Rotate picture may not work correctly depending on the play position.
Other Settings	**(→ below)**

Other Settings

Play Speed	**(→ page 58, Changing play speed)**

■ *Play Menu*
(Only when the elapsed play time can be displayed, **JPEG** The Repeat function can be used.)

Repeat	**(→ page 58, Repeat play)**
A-B Repeat	**To repeat a specified section** Press [ENTER] at the starting and ending points. Press [ENTER] again to cancel. ● **DVD-VR** (still picture part): Does not work.
Advanced Disc Review	**(→ page 58, Reviewing titles/programs to play)**

Basic Operations

Playing back

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∎ *Picture Menu*

Picture Mode	(➔ page 56, Adjusting the picture quality)
Video Output Mode	**With HDMI connection (When "Video Mode" is set to "On") (➔ page 93, "HDMI" menu)** Video recordings will be converted to, and output as, high definition video. The picture quality will vary depending on the connected equipment. Choose the picture quality to your preference. **480i (interlace) 480p (progressive) 720p (progressive) 1080i (interlace) 1080p (progressive)** ● "✳" will be displayed next to those video outputs possible with the connected equipment. Selecting an item without "✳" can result in the picture being distorted. Should the picture be distorted, press and hold [CANCEL] until the picture is displayed correctly. The setting will return to "480p". ● Output from the COMPONENT VIDEO OUT terminal will be "480i". **With Other connections (When "Video Mode" is set to "Off") (➔ page 93, "HDMI" menu)** **480i (interlace) 480p (progressive)** When you select "480p" and a confirmation screen appears, select "Yes" only if connecting to a progressive output compatible television.
Transfer Mode	If you have chosen "480p"**,** "720p", "1080i" or "1080p" (➔ above), select the method of conversion to suit the type of material. ● When the tray is opened, the setting will return to Auto1. **Auto1** (normal): Automatically detects the film and video content, and appropriately converts it. **Auto2**: In addition to Auto1, automatically detects film contents with different frame rates and appropriately converts it. **Video**: Select when using Auto1 and Auto2, and the content is distorted.
HD Picture Enhancer	**With HDMI connection (When "Video Mode" is set to "On") (➔ page 93, "HDMI" menu)** Makes the quality of HDMI video output (720p,1080i,1080p) sharp. **Off**, **1** (weakest) to **3** (strongest)

HDMI Color Space	**With HDMI connection (When "Video Mode" is set to "On")** **(➔ page 93, "HDMI" menu)** The picture quality will vary depending on the connected equipment. Choose the picture quality to your preference. Should one of the items below not be possible with the connected equipment it will not be displayed. **RGB YCbCr (4:4:4) YCbCr (4:2:2)** ● "RGB Range" (➔ page 93, "HDMI" menu) is available when "RGB" is selected.

∎ *Audio Menu*

Dialogue Enhancer	**To make the dialogue in movies easier to hear** **DVD-V** (Dolby Digital, DTS, 3-channel or over, with the dialogue recorded in the center channel) **On ⟷ Off**

∎ *Display Menu*

Information	On ⟷ Off
Subtitle Position	0 to −60 (in 2 units)
Subtitle Brightness	Auto, 0 to −7
4:3 Aspect	**To select how to show images made for 4:3 aspect screens on a 16:9 aspect television** **Normal**: Laterally stretches images. **Auto**: The standard setting is "Shrink". However, this automatically changes to "Zoom" with a letterbox picture. **Shrink**: Images appear in the center of the screen. **Zoom**: Expands to 4:3 aspect ratio.
Just Fit Zoom	(➔ page 56, Zoom)
Manual Zoom	(➔ page 56, Zoom)
Bit Rate Display	*Video contents* On ⟷ Off
GUI See-through	**Off, On, Auto (Switches on automatically when the images appear on the display.)**
GUI Brightness	**−3 to +3**
HDMI Status	Indicates various information when connected with HDMI AV OUT terminal (➔ page 61, Confirming HDMI information).

∎ *Other Menu*

| Setup	(➜ **page 91, Changing the settings**)
Play as DVD-Video or **Play as DVD-Audio**	Select "Play as DVD-Video" to play `DVD-V` on DVD-Audio.
Play as DVD-VR **Play as HighMAT** or **Play as Data Disc**	Select "Play as Data Disc" to play `MP3` `JPEG` on DVD-RAM that contain both `DVD-VR` and another format (e.g. `JPEG`) or to play HighMAT discs without using the HighMAT function.

∎ *Confirming HDMI information*

```
• HDMI Status—HDMI is connected. ─────────────── Connection status
                                                 (➜ page 57, Changing soundtracks)
    HDMI Information
      Audio Stream            PCM              Shows the maximum channel number of the connected
      Max Channel             2ch              equipment.
      Color Space             YCbCr(4:4:4)/YCbCr(4:2:2)/RGB    (➜ page 60, HDMI Color Space)
      Video Format            480i/480p
                              720p/1080i/1080p    (➜ page 60, Video Output Mode)
```

- All possible outputs are displayed.
- The current output for "Audio Stream", "Color Space" and "Video Format" will be underlined.
- When "Off" is selected in "Audio Output" (➜ page 93, "HDMI" menu) "– – –" will be displayed in "Audio Stream" and "Max Channel".
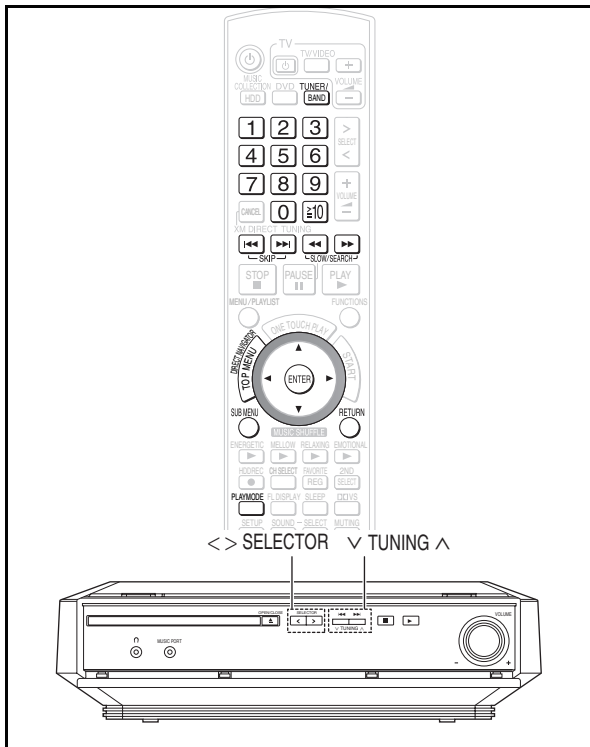
Basic Operations

Playing back

RQT8926

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Using the FM/AM radio

< > SELECTOR ∨ TUNING ∧

Radio operations are described mainly with the remote control. You can alternatively use the corresponding button on the main unit.

※1 [< > SELECTOR]   ※2 [∨ TUNING ∧]

Manual tuning

1 **Press [TUNER/BAND]**※1 **to select "FM" or "AM".**

2 **Press [◄◄ ►►] to select the frequency.**

When a stereo broadcast is being received, "ST" lights in the display.

● To start automatic tuning, press and hold [◄◄ ►►] until the frequency starts scrolling. Tuning stops when a station is found.

■ *If noise is excessive*

When "FM" is selected
Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
1 Press [SUB MENU].
2 Press [▲ ▼] to select "Audio Mode" and press [ENTER].
3 Press [▲ ▼] to select "Mono" and press [ENTER].
● "MONO" (monaural) lights up in the display.
● This should normally be set to "Auto(Stereo)".

When "AM" is selected
1 Press [PLAY MODE].
   Each time you press the button:
   BP1 ←→ BP2 (BP=Beat Proof)
2 Select "BP1" or "BP2" that receives good reception.

■ *FM frequency step*

The step is factory-set to 0.2-MHz (200-kHz), but you can change it to receive broadcasts allocated in 0.1-MHz (100-kHz) steps.

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND]※1 to select "FM".
2 Press [SUB MENU].
3 Press [▲ ▼] to select "Select Frequency Step" and press [ENTER].
4 Press [▲ ▼] to select the frequency step and press [ENTER].
5 Press [◄, ►] to select "Yes" and press [ENTER].

Note
After changing the setting, previously preset frequencies will be cleared and the timer setting of FM recording will be canceled. Preset them again.

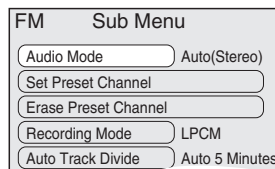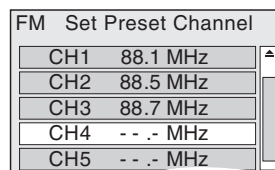**To return to the previous screen**
Press [RETURN].

Setting preset channels

Up to 30 stations can be set in each band, FM and AM.

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
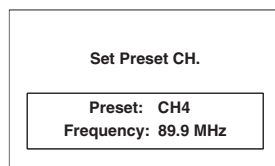
1 **Press [TUNER/BAND]**※1 **to select "FM" or "AM".**

2 **Press [◄◄ ►►] to select the frequency.**

3 **Press [SUB MENU].**

```
FM       Sub Menu

Audio Mode            Auto(Stereo)
Set Preset Channel
Erase Preset Channel
Recording Mode        LPCM
Auto Track Divide     Auto 5 Minutes
```

4 **Press [▲ ▼] to select "Set Preset Channel" and press [ENTER].**

```
FM   Set Preset Channel

CH1    88.1 MHz
CH2    88.5 MHz
CH3    88.7 MHz
CH4    - - .- MHz
CH5    - - .- MHz
```

5 **Press [▲ ▼] to select the channel and press [ENTER].**

```
Set Preset CH.

Preset:  CH4
Frequency: 89.9 MHz
```

Repeat steps 2–5 to set other channels.

To return to the previous screen
Press [RETURN].

Setting preset stations automatically

Up to 30 stations can be set in each band, FM and AM.

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND]※1 **to select "FM" or "AM".**

2 Press [◄◄ ►►] to select the lowest frequency (FM: 87.9 or 87.5, AM: 520).

3 Press [SUB MENU].

4 Press [▲ ▼] to select "Auto Memory" and press [ENTER].

> FM   Auto Memory
>
> Do you want to start Auto Memory?
> Start point : XX.X MHz?
>
> [Yes]   [No]
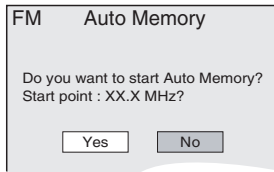
5 Press [◄ ►] to select "Yes" and press [ENTER].
The tuner presets all the stations it can receive into the channels in ascending order.
- "Auto Memory Completed." is displayed when the stations are set, and the radio tunes to the last preset station.
- "Memory setting failed." is displayed when automatic preset is unsuccessful. Preset the channels manually (→ page 62).

To return to the previous screen
Press [RETURN].

Selecting the preset channels

1 Press [TUNER/BAND]※1 **to select "FM" or "AM".**

2 Press the numbered buttons to select the channel.
- To select a 2-digit number
  e.g., "12": [≧10] → [1] → [2].

> [CH 12]
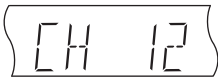
Alternatively, press [|◄◄ ►►|]※2 to select the channel.

■ *Making selections with the on-screen display*

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND]※1 to select "FM" or "AM".
2 Press [TOP MENU].
3 Press [▲ ▼] to select the preset channel and press [ENTER].

To erase unnecessary preset channels
Unnecessary preset channels that have been erased will not be displayed when selecting channels with [|◄◄ ►►|]※2.

Preparation
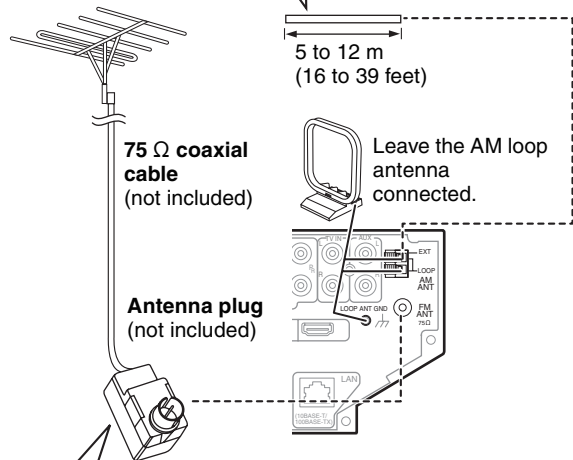To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
1 Press [TUNER/BAND]※1 to select "FM" or "AM".
2 Press [SUB MENU].
3 Press [▲ ▼] to select "Erase Preset Channel" and press [ENTER].
4 Press [▲ ▼] to select the unnecessary channel and press [ENTER].

Using FM/AM outdoor antenna (optional)

Use outdoor antennas if FM/AM radio reception is poor.
- Disconnect the antenna when the unit is not in use.
- Do not use the outdoor antenna during an electrical storm.

> **AM outdoor antenna**
> **[Using a vinyl wire (not included)]**
> Run a piece of vinyl wire horizontally across a window or other convenient location.

5 to 12 m
(16 to 39 feet)

75 Ω coaxial cable (not included)

Leave the AM loop antenna connected.

Antenna plug (not included)

> **FM outdoor antenna**
> **[Using a television antenna (not included)]**
> - Disconnect the FM indoor antenna.
> - The antenna should be installed by a competent technician.

Basic Operations

The radio

Using the XM® Satellite Radio

`< > SELECTOR  ∨ TUNING ∧`

Radio operations are described mainly with the remote control. You can alternatively use the corresponding button on the main unit.

※1 [< > SELECTOR]   ※2 [∨ TUNING ∧]

XM Satellite Radio
XM Satellite Radio is the provider of satellite radio. XM offers more than 170 digital radio channels with music, talk, news, sports, comedy, traffic and weather reports. To enjoy XM Satellite Radio, subscription is required.
For more information, visit XM on the Web at www.xmradio.com for U.S. customers, or www.xmradio.ca for Canada customers.

How to Subscribe
XM monthly service subscription sold separately. XM Connect & Play antenna, or XM Mini-Tuner and Home Dock (includes home antenna) required to receive XM service (sold separately). Channels with frequent explicit language are indicated with an XL. Channel blocking is available for XM radio receivers by calling 1-800-XMRADIO (U.S. residents) or 1-877-GET-XMSR (Canada residents). Subscriptions subject to Customer Agreement available at xmradio.com (U.S. residents) and xmradio.ca (Canada residents). Only available in the 48 contiguous United States and Canada. © 2006 XM Satellite Radio Inc. All rights reserved. All other trademarks are the property of their respective owners.
≥To subscribe in the U.S., visit XM on the Web at www.xmradio.com or call XM's Listener Care at 1-800-XMRADIO (1-800-967-2346).
To subscribe in Canada, visit XM on the Web at www.xmradio.ca or call XM's Listener Care at 1-877-GET-XMSR (1-877-438-9677).

You should have your Radio ID ready (➜ right).

Preparation

∎ *The XM Satellite Radio ID*
Please confirm your XM Satellite Radio ID necessary for activating XM Satellite Radio as follows.

1 Press [TUNER/BAND]※1 **to select "XM".**
≥Ensure the antenna is connected (➜ page 19).

2 Press [XM DIRECT TUNING] and press [0] to select "XM 0" (XM channel 0).
"RADIO ID" is indicated in the display briefly, followed by an 8-digit alphanumeric ID.

3 Note your XM Satellite Radio ID.
≥To avoid ambiguity, the letters I, O, S and F are not used in the ID.

≥To exit, press [◄◄ ►►] to select another channel.

∎ *Optimizing the XM signal reception*
The main unit has a signal strength indicator function that allows you to optimize the XM signal reception.

1 Press [TUNER/BAND]※1 **to select "XM".**
≥Ensure the antenna is connected (➜ page 19).

2 Press and hold [FL DISPLAY] until the XM signal status is displayed.

Signal strength:
4 (strong)
3 (good)
2 (marginal)
1 (weak)
0 (no signal)

Satellite signal   Terrestrial signal

3 Position the antenna for the best possible satellite signal reception.
The display changes depending on the signal strength.
≥If the satellite signal is weak or not available, you can optimize for the terrestrial signal (where available).

4 Press [FL DISPLAY] to return to the previous display.

Tips for optimizing reception
≥To prevent interference with wireless equipment, place the antenna away from this unit, Panasonic wireless sound system SH-FX80/SH-FX85, Panasonic wireless system SH-FX50/SH-FX60/SH-FX65, and other equipment that emits radio waves (such as radio equipment and microwave ovens).
≥Place the antenna near a south-facing window with an unobstructed view of the sky for the best satellite signal reception.
≥Refer also to the operating instructions of your XM antenna.

Manual tuning

1 **Press [TUNER/BAND]***1 **to select "XM".**

2 **Press [◄◄ ►►] to select the channel.**

■ *Selecting XM channels by direct entry*

1 Press [TUNER/BAND]*1 to select "XM".
2 Press [XM DIRECT TUNING].
3 Press the numbered buttons to select the XM channel.
   To select a 2-digit or 3-digit number
   e.g., "12": [≧10] ➜ [1] ➜ [2]
        "125": [≧10] ➜ [≧10] ➜ [1] ➜ [2] ➜ [5].

$$\boxed{XM \qquad 125}$$

Selecting XM channels by category

XM channels are organized into categories such as Rock, Classical, Country and Dance to make browsing and selecting channels easier.

1 **Press [TUNER/BAND]***1 **to select "XM".**

2 **Press [▲ ▼] to enter category tune mode.**
   The category of the current XM channel flashes on the display.

3 While the category is flashing
   Press [▲ ▼] to select a category.
   Available categories vary according to broadcasting hours.
   ● Press and hold [▲ ▼] to scan through quickly.

4 While the selected category is flashing
   Press [◄ ►] to select a channel in the current category.
   The XM channel number is displayed.

5 **Press [ENTER] to exit category tune mode.**
   The XM channel information will be displayed.

■ *Making selections with the on-screen display*
Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND]*1 to select "XM".
2 Press [TOP MENU].
3 Press [▲ ▼] to select "Category Selection" and press [ENTER].
4 Press [▲ ▼] to select the category and press [ENTER].
5 Press [▲ ▼] to select the channel and press [ENTER].

Note
Some XM channels belong to two categories; a primary and secondary category, either of which can be used for XM channel selection. Although you may have selected an XM channel from its secondary category (e.g., DANCE), after exiting and then re-entering category tune mode, the primary category of the XM channel is displayed (e.g., DECADES).

Setting preset XM channels

Channel presets allow you to quickly and conveniently select your favorite XM channels. Up to 30 XM channels can be stored as channel presets.

Preparation
To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 **While listening to the XM radio broadcast**
   Press [SUB MENU].

2 **Press [▲ ▼] to select "Set Preset Channel" and press [ENTER].**

3 **Press [▲ ▼] to select the channel and press [ENTER].**
   ● An XM channel previously stored is overwritten when another XM channel is stored in the same channel preset.
   ● XM channel 0 (RADIO ID) cannot be stored as a channel preset.

To return to the previous screen
Press [RETURN].

Basic Operations

The radio

Selecting the preset channels

1 Press [TUNER/BAND][※1] **to select "XM".**

2 Press the numbered buttons to select the channel.
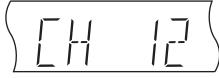
●To select a 2-digit number
e.g., "12": [≧10] ➜ [1] ➜ [2].

```
┌─────────────┐
│  [H  12     │
└─────────────┘
```

Alternatively, press [|◄◄ ►►|][※2] to select the channel.

■ *Making selections with the on-screen display*

Preparation

To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.

1 Press [TUNER/BAND][※1] to select "XM".
2 Press [TOP MENU].
3 Press [▲ ▼] to select "Preset Selection" and press [ENTER].
4 Press [▲ ▼] to select the preset channel and press [ENTER].

To erase unnecessary preset channels

Unnecessary preset channels that have been erased will not be displayed when selecting channels with [|◄◄ ►►|][※2].

Preparation

To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
1 Press [TUNER/BAND][※1] to select "XM".
2 Press [SUB MENU].
3 Press [▲ ▼] to select "Erase Preset Channel" and press [ENTER].
4 Press [▲ ▼] to select the unnecessary channel and press [ENTER].

Checking XM channel information

The display mode setting can be changed to display information about the broadcast content such as the category, track title or artist's name.

While listening to the XM radio broadcast
Press [FL DISPLAY].

Each time you press the button:

XM channel number────────→XM channel name
└─Name◄──Track title◄──Category◄──┘

Longer text information will not be fully displayed.

___

Note
●If there is no text information for the current XM broadcast, "— — — —" is displayed.
●The XM channel number and name are displayed briefly whenever the XM channel is changed.

Tips
You can also turn on the television to check the XM channel information.

```
XM
👤 Mozart
🎵 Eine Kleine Nacht Musik

CH3                    XM  228
CATEGORY  Classic      U-POP
          Satellite: 2   Terrestrial: 3
```

Editing playlists

HDD

You can create a user playlist with the tracks you like in the order you want them to play. You can also edit the order of tracks in playlists other than just the user playlists.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [Ⓞ].
3 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

Creating a user playlist/adding tracks

One playlist can contain up to 99 tracks.

While the playlist you want to add tracks from is stopped,

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Add Track(s) to the Playlist" and press [ENTER].

4 Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.
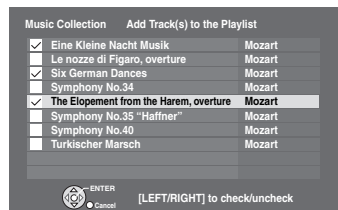
Repeat step 4 to select all tracks you want to add to the playlist.

5 Press [ENTER].

6 Press [▲ ▼] to select the playlist to add the track(s) to and press [ENTER].
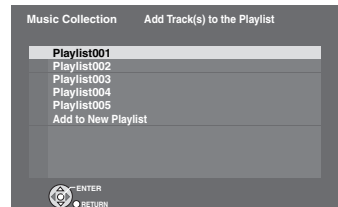
- If an existing playlist was selected, a message will be displayed and the unit will return to the previous menu.
- When "Add to New Playlist" was selected in step 6, proceed to step 7.

(If only "Add to New Playlist" was selected.)

7 Enter the characters (→ page 69).

8 Press [■] (Set).

To return to the previous screen
Press [RETURN].

Tips

- You can also perform the operations above from the Track List. Press [▲ ▼] to select "Add Track to the Playlist" and press [ENTER]. Then operate from step 6.

- **To add or remove check marks to a group of tracks**
  1 Press [SUB MENU].
  2 Press [▲ ▼] to select "Mark All" or "Unmark All".

The radio/Editing

Basic Operations

Advanced Operations
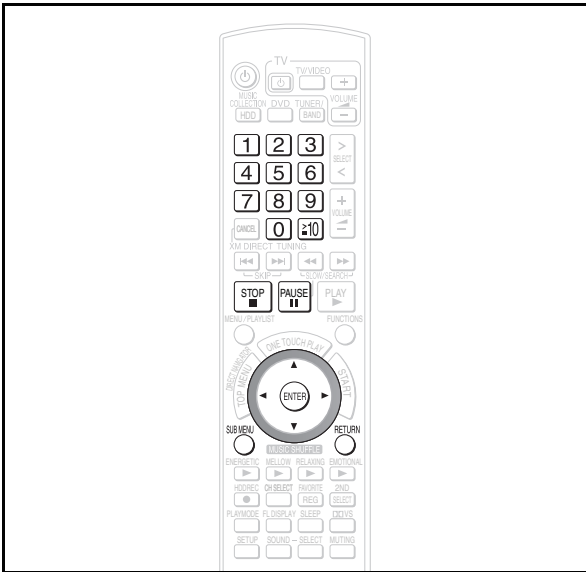
Removing tracks from a playlist

Tracks can be removed from the playlists while keeping the tracks on the HDD. This function can be used with playlists "User Playlists" and "Most Often Played".

While stopped,

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Remove Track(s) from the Playlist" and press [ENTER].

4 Select the playlist containing tracks that you want to remove from the playlist with [▲ ▼].

5 Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.

Music Collection	Remove Track(s) from the Playlist
✓ **Eine Kleine Nacht Musik**	**Mozart**
☐ **Le nozze di Figaro, overture**	**Mozart**
✓ **Six German Dances**	**Mozart**
☐ **Symphony No.34**	**Mozart**
✓ **The Elopement from the Harem, overture**	**Mozart**
☐ **Symphony No.35 "Haffner"**	**Mozart**
☐ **Symphony No.40**	**Mozart**
☐ **Turkischer Marsch**	**Mozart**

ENTER
● Cancel **[LEFT/RIGHT] to check/uncheck**
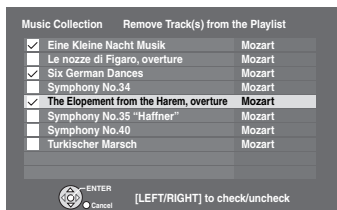
Repeat step 5 to select all the tracks you want to remove from the playlist.

6 Press [ENTER].

To return to the previous screen
Press [RETURN].

Tips

To add or remove check marks to a group of tracks
1 Press [SUB MENU].
2 Press [▲ ▼] to select "Mark All" or "Unmark All".

Changing the order of a playlist

You can change the order of playlists. This function can be used with playlists "User Playlists", "Favorites", "Artists" and "Albums".

While the playlist that you want to change the order of is stopped,

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Change Track Order in the Playlist" and press [ENTER].

4 Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.
Track with the check mark can now be moved.

Music Collection	Change Track Order in the Playlist
✓ **Eine Kleine Nacht Musik**	**Mozart**
Le nozze di Figaro, overture	**Mozart**
Six German Dances	**Mozart**
Symphony No.34	**Mozart**
The Elopement from the Harem, overture	**Mozart**
Symphony No.35 "Haffner"	**Mozart**
Symphony No.40	**Mozart**
Turkischer Marsch	**Mozart**

ENTER
● Cancel **[UP/DOWN] to move selected track(s)**

5 Press [▲ ▼] to select where you want to move the track to and press [ENTER].

Music Collection	Change Track Order in the Playlist
Le nozze di Figaro, overture	**Mozart**
Six German Dances	**Mozart**
Symphony No.34	**Mozart**
The Elopement from the Harem, overture	**Mozart**
✓ **Eine Kleine Nacht Musik**	**Mozart**
Symphony No.35 "Haffner"	**Mozart**
Symphony No.40	**Mozart**
Turkischer Marsch	**Mozart**

ENTER
● Cancel **[UP/DOWN] to move selected track(s)**

Repeat steps 4 and 5 to move other tracks.

6 Once the track has finished moving, press [ENTER].

To return to the previous screen
Press [RETURN].

Tips
●You can also perform the operations above from the Track List. Press [▲ ▼] to select "Change Track Order in the Playlist" and press [ENTER]. Then operate from step 4.

Changing the name of a playlist

You can change the names of playlists. This function can be used with playlists "User Playlists", "Analog Recorded", "Artists", and "Albums".

While the playlist that you want to change the name of is stopped,

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Edit Playlist Name" and press [ENTER].
Changing the name of artist and/or album playlists:
If you select an artist or album playlist and change the name of the playlist, the artist and/or album name will change (➔ page 72).
Confirmation messages such as "Do you want to change the artist name?" will appear on screen. Select "Yes" to continue with the operations.

4 Enter the characters (➔ right).

5 Press [■] (Set).

To return to the previous screen
Press [RETURN].

Note
≥When a playlist with the same name exists, the message "There is another playlist with the same name. Do you want to merge them?" will be displayed. You can combine the two playlists into one, or change the name and create a new playlist.

■ *Entering text*
You can give names to recorded tracks, etc.

The maximum number of characters:

	Characters
Track title	59
User playlist title	59
Artist title	39
Album title	59

Note
If a name is long, parts of it may not be shown in some screens.

1 The text entry screen is displayed.

Name field: shows the text you have entered

2 Press [▲ ▼ ◄ ►] to select a character and press [ENTER].
Repeat this step to enter other characters.

To erase a character
Press [▲ ▼ ◄ ►] to select the character in the name field and press [❚❚]. (The selected characters are erased.)

Using the numbered buttons to enter characters
e.g., entering the letter "F"
1 Press [3] to move to the 3rd row.
2 Press [3] twice to highlight "F".
3 Press [ENTER].
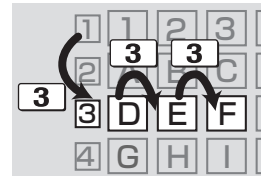
To enter a space
Press [≧10] and press [ENTER].

3 Press [■] (Set).

To end partway
Press [RETURN].
Text is not saved.

Editing

Advanced Operations

RQT8926

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Deleting a user playlist

This function will delete the user playlists, but the tracks will remain on the HDD.

1 While the user playlist that you want to delete is stopped, press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Delete the Playlist" and press [ENTER].

4 Press [◄ ►] to select "Yes" and press [ENTER].

To return to the previous screen
Press [RETURN].

Adding tracks to "Favorites"

You can easily add the tracks you like to "Favorites" (max. 99 tracks).

While the track you want to add is stopped, paused or playing **Press [FAVORITE/REG].**

A message is displayed, and the unit returns to the previous screen.
● The track will be added as the last track in "Favorites".

To perform operations from the Track List (playlist)
While the Track List (playlist) containing the track you want to add is displayed, press [▲ ▼] to select the track and then press [FAVORITE/REG].
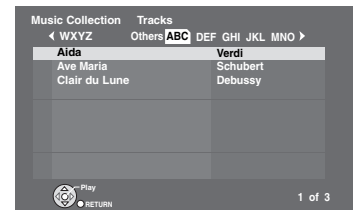
Removing a track from "Favorites"

1 While stopped, press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Remove Track(s) from Favorites playlist" and press [ENTER].

4 Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.
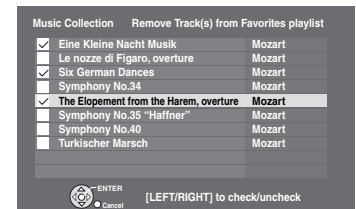
Repeat step 4 to select all the tracks you want to remove.

5 Press [ENTER].

To return to the previous screen
Press [RETURN].

Tips

To add or remove check marks to a group of tracks
1 Press [SUB MENU].
2 Press [▲ ▼] to select "Mark All" or "Unmark All".

Setting of Music Shuffle information

You can set if this unit will use Music Shuffle information included in the track when generating Music Shuffle lists.

From the Main Screen (→ page 30)

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Track Manager" and press [ENTER].

3 Press [▲ ▼] to select "Setting of Music Shuffle Info" and press [ENTER].

> **Setting of Music Shuffle Info**
>
> **Do you want to use Music Shuffle information of this track?**
>
> **Yes**   **No**
>
> ● ENTER
> ● RETURN
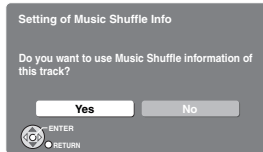
4 Press [◀ ▶] to select an item and press [ENTER].

Yes: This track can appear in Music Shuffle lists.
No: This track will not appear in Music Shuffle lists.

5 Press [ENTER].

To return to the previous screen
Press [RETURN].

Clearing the history for "Most Often Played" and/or "Recently Ripped" playlists

You can clear the history and create new "Most Often Played" or "Recently Ripped" playlists.

1 While stopped, press [SUB MENU].

2 Press [▲ ▼] to select "Edit Playlist" and press [ENTER].

3 Press [▲ ▼] to select "Clear History of Most Often Played playlist" or "Clear History of Recently Ripped playlist" and press [ENTER].
    e.g., When "Clear History of Recently Ripped playlist" is selected.

> **Clear History of Recently Ripped playlist**
>
> **The record of the Recently Ripped playlist will be erased.**
> **Do you want to continue?**
>
> **Yes**   **No**
>
> ● ENTER
> ● RETURN

4 Press [◀ ▶] to select "Yes" and press [ENTER].

To return to the previous screen
Press [RETURN].

Note regarding editing playlists
If you try to edit playlists that cannot be edited, the message "You cannot change the name of this playlist." etc. will be displayed. Switch to a playlist that can be edited and then make changes.

Deleting tracks

HDD

Unnecessary tracks can be deleted from the HDD. You can select and delete a single track, or several tracks at once from a playlist.

Tracks that are deleted cannot be recovered, therefore carefully check the tracks before deleting them.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

While the playlist containing the track that you want to delete is stopped,

1 Press [SUB MENU].

2 Press [▲ ▼] to select "Track Manager" and press [ENTER].

3 Press [▲ ▼] to select "Erase Selected Tracks" and press [ENTER].

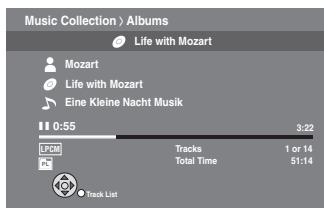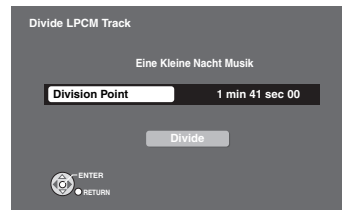**4 Press [▲ ▼] to select the track and press [◀ ▶] to add a check mark.**

> **Music Collection   Erase Selected Tracks**
>
> ☑ Eine Kleine Nacht Musik   Mozart
> ☐ Le nozze di Figaro, overture   Mozart
> ☑ Six German Dances   Mozart
> ☐ Symphony No.34   Mozart
> ✓ The Elopement from the Harem, overture **Mozart**
> ☐ Symphony No.35 "Haffner"   Mozart
> ☐ Symphony No.40   Mozart
> ☐ Turkischer Marsch   Mozart
>
> ● ENTER
> ● Cancel   [LEFT/RIGHT] to check/uncheck

Repeat step 4 to select all the tracks you want to delete.

5 Press [ENTER].

6 Press [◀ ▶] to select "Yes" and press [ENTER].

To return to the previous screen
Press [RETURN].

Note
● When a track is deleted, it will also be deleted from any playlists containing the track.

Tips
● You can also perform the operations above from the Track List. Press [▲ ▼] to select "Erase Selected Tracks" and press [ENTER]. Then operate from step 4.

● **To add or remove check marks to a group of tracks**
   1 Press [SUB MENU].
   2 Press [▲ ▼] to select "Mark All" or "Unmark All".

Editing

Advanced Operations

Changing titles
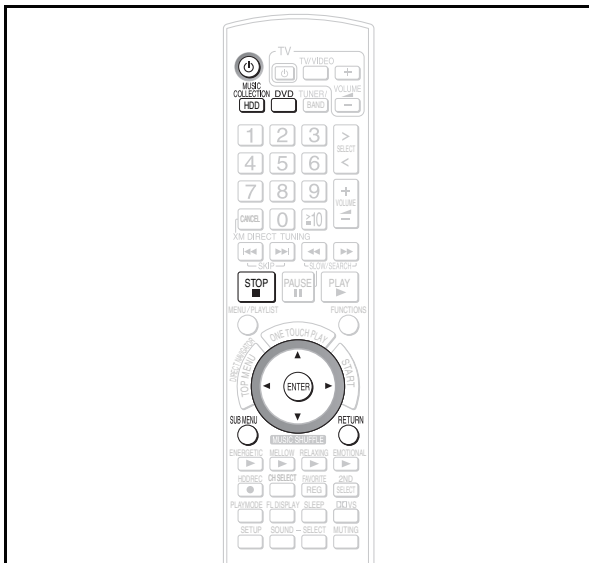
HDD CD

Artist and album names can be manually input, or the Gracenote database can be used to automatically obtain track information.

About obtaining track title information
- Each track contains unique characteristics which act as a "sound fingerprint". Gracenote database uses these unique characteristics to search and obtain information about music.
- To obtain track information for the newest titles, a network connection is necessary (→ page 20).

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Press [MUSIC COLLECTION] to select "Music Collection" or press [DVD] to select "DVD/CD".

Changing a track name manually

HDD

While the track you want to change the name of is stopped,

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Track Manager" and press [ENTER].**

3 **Press [▲ ▼] to select "Edit Track Name" and press [ENTER].**

4 **Enter the characters (→ page 69).**

5 **Press [■] (Set).**

To return to the previous screen
Press [RETURN].

Tips
- You can also perform the operations above from the Track List. Press [▲ ▼] to select "Edit Track Name" and press [ENTER]. Then operate from step 4.

Changing an artist name or album name manually

HDD

You can change the names of albums and artists for multiple tracks.

While the track you want to change the name of is stopped,

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Track Manager" and press [ENTER].**

3 **Press [▲ ▼] to select "Edit Artist Name" or "Edit Album Name" and press [ENTER].**

4 **Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.**
e.g., If changing the album name

Repeat step 4 to select all the tracks whose album or artist names you want to change.

When you add check marks to a group of tracks, the artist name and album name will be changed at the same time.

5 **Press [ENTER].**

6 **Enter the characters (→ page 69).**

7 **Press [■] (Set).**

To return to the previous screen
Press [RETURN].

Tips
- You can also perform the operations above from the Track List. Press [▲ ▼] to select "Edit Artist Name" or "Edit Album Name" and press [ENTER]. Then operate from step 4.

- **To add or remove check marks to a group of tracks**
  1 Press [SUB MENU].
  2 Press [▲ ▼] to select "Mark All" or "Unmark All".

Searching for track names, artist names and album names within the Gracenote database and entering them automatically

HDD

You can use the Gracenote database to search for and obtain title information for recordings made from sources other than CD-DA.

While the playlist containing the tracks that you want to add a title to is stopped,

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Track Manager" and press [ENTER].**

3 **Press [▲ ▼] to select "Obtain Track Title" and press [ENTER].**

4 **Press [▲ ▼] to select the track and press [◄ ►] to add a check mark.**

Music Collection	Obtain Track Title	
☑	Eine Kleine Nacht Musik	Mozart
☐	Le nozze di Figaro, overture	Mozart
☑	Six German Dances	Mozart
☐	Symphony No.34	Mozart
✓	The Elopement from the Harem, overture	Mozart
☐	Symphony No.35 "Haffner"	Mozart
☐	Symphony No.40	Mozart
☐	Turkischer Marsch	Mozart

ENTER / Cancel   [LEFT/RIGHT] to check/uncheck

Repeat step 4 to select all the tracks whose album or artist names you want to change.

5 **Press [ENTER].**

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Track 1
Creating the database search data.
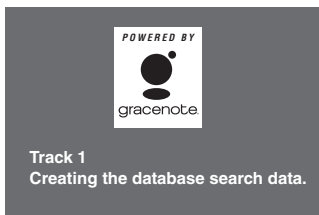
Search begins for the first track.

6 **If suggestions are displayed, press [◄ ►] to select the title and press [▲ ▼] to select "OK", then press [ENTER].**

Music Collection	Obtain Track Title	
◄	Suggestions 1 of 5	►
👤	Mozart	
💿	Life with Mozart	
♪	Eine Kleine Nacht Musik	
	OK	
	Not Applicable	1 of 13

ENTER / Cancel   [LEFT/RIGHT] to choose a suggestion   ► Play
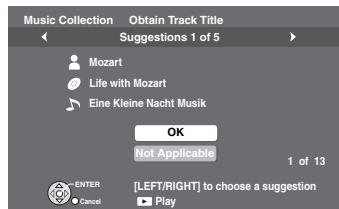
- ●If no applicable suggestions are found, then select "Not Applicable".
- ●Once the title has been entered, search for information for the next track begins.

7 **Repeat step 6 to search for other track titles.**

The unit returns to the previous screen once finished searching for all track titles.

To return to the previous screen
Press [RETURN].

Tips

- ●You can also perform the operations left from the Track List. Press [▲ ▼] to select "Obtain Track Title" and press [ENTER]. Then operate from step 4.

- ●**To add or remove check marks to a group of tracks**
  1 Press [SUB MENU].
  2 Press [▲ ▼] to select "Mark All" or "Unmark All".

Correcting title information obtained from the Gracenote database

CD

You can correct any mistakes that may appear in title information obtained from the Gracenote database.

While the CD-DA format from a commercial CD or recordable CD is stopped,

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Obtain CD/Track(s) Title" and press [ENTER].**

POWERED BY
gracenote.

Searching the database.

After the title search finishes, suggestions are displayed.

3 **Press [▲ ▼] to select the title and press [ENTER].**

To return to the previous screen
Press [RETURN].

Dividing and combining tracks on the HDD
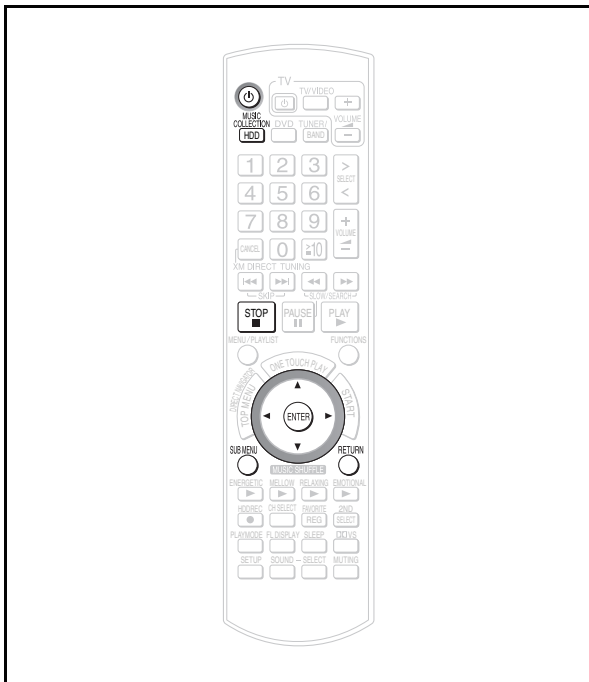
HDD

Tracks recorded as LPCM can be divided and combined.
1 track can be divided into 2 tracks. Alternately, 2 tracks can be combined into 1 track.

> **Tracks that can be divided and/or combined are limited to tracks recorded to the HDD as LPCM. Tracks recorded to the HDD in AAC, or WMA and MP3 tracks imported from a PC, cannot be divided or combined.**

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [(b)].
3 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

Dividing tracks

Only tracks recorded as LPCM can be divided. This function can be used with playlists "Albums" and "Analog Recorded".

1 Select the playlist containing the track that you want to divide from.

2 Pause the track where you want to divide it.
After pausing, press [SUB MENU].

```
Music Collection › Albums
                    Life with Mozart
   Mozart
   Life with Mozart
   Eine Kleine Nacht Musik
0:55                                          3:22
LPCM              Tracks                    1 or 14
                  Total Time                  51:14

      Track List
```

3 Press [▲ ▼] to select "Track Manager" and press [ENTER].

4 Press [▲ ▼] to select "Divide and Combine LPCM Track" and press [ENTER].

5 Press [▲ ▼] to select "Divide this Track" and press [ENTER].

```
Divide LPCM Track

             Eine Kleine Nacht Musik
 Division Point            1 min 41 sec 00

                    Divide

      ENTER
      RETURN
```

6 Press [▲ ▼] to select "Division Point" and press [ENTER].

```
Divide LPCM Track


             1 min 41 sec 00



      ENTER
      Cancel
```
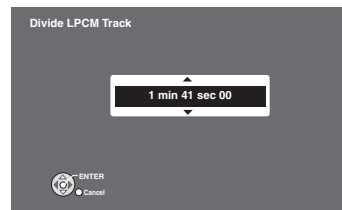
7 Press [▲ ▼] to make all fine adjustments to the point of division and press [ENTER].
To check that the tracks were divided correctly, the track repeats playback of the first few seconds after the division point.

8 Press [▲ ▼] to select "Divide" and press [ENTER].
● Tracks that have been divided before the division point are named with "_1", and tracks that are divided after the division point are named with "_2".

To stop partway through
Press [■].

To return to the previous screen
Press [RETURN].

Combining tracks

Only tracks recorded in LPCM format can be combined with other LPCM tracks. This function can be used with playlists "Albums" and "Analog Recorded".

When the track you want to designate as the first track is stopped,

1 **Press [SUB MENU].**

2 **Press [▲ ▼] to select "Track Manager" and press [ENTER].**

3 **Press [▲ ▼] to select "Divide and Combine LPCM Track" and press [ENTER].**

4 **Press [▲ ▼] to select "Combine with Another Track" and press [ENTER].**

> **Combine LPCM Track**
>
> Eine Kleine Nacht Musik
>
> +
>
> Le nozze di Figaro, overture
>
> Combine
>
> ⊙ ENTER
> ● RETURN
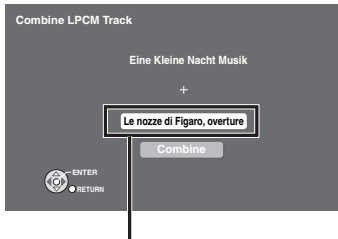
The track you want to combine at the end of the first track is displayed.

To change the track you want to add to the end of the first track

1 Press [▲ ▼] to select the second track and press [ENTER].

> **Music Collection   Choose Track to Combine**
>
> | Eine Kleine Nacht Musik | Mozart |
> | Le nozze di Figaro, overture | Mozart |
> | Six German Dances | Mozart |
> | Symphony No.34 | Mozart |
>
> ⊙ ENTER
> ● Cancel
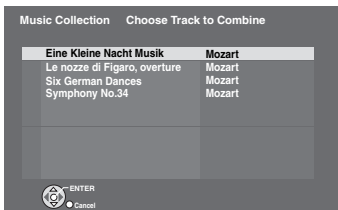
The playlist is displayed.

2 Press [▲ ▼] to select the track you want to combine as the second track, and press [ENTER].

5 **Press [▲ ▼] to select "Combine" and press [ENTER].**

> **Combine LPCM Track**
>
> 2nd combined track will be excluded from all playlists, and track information will be lost.
> Do you want to continue?
>
> | Yes | No |
>
> ⊙ ENTER
> ● RETURN
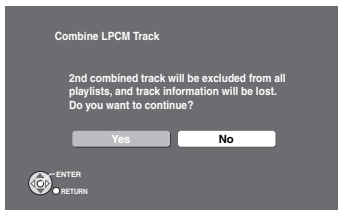
6 **Press [◄ ►] to select "Yes" and press [ENTER].**

To stop partway through
Press [■].

To return to the previous screen
Press [RETURN].

Note
- Combining or dividing long tracks will take more time.
- Two tracks cannot be combined if they exceed 202 minutes and 53 seconds.

Editing

Advanced Operations

Using the EZ Sync™ "HDAVI Control™"
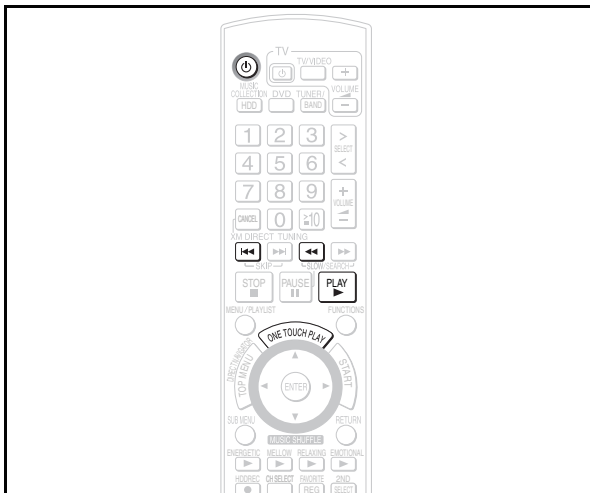
EZ Sync "HDAVI Control"

EZ Sync "HDAVI Control" is a convenient function that offers linked operation of this unit, and a Panasonic TV (VIERA) under "HDAVI Control".

You can use this function by connecting the equipment with the HDMI cable. See the operating instructions for connected equipment for operational details.

≥EZ Sync "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.

≥This unit supports "HDAVI Control 2" function. The TV with "HDAVI Control 2" function enables the following operation: EZ Sync Control only with TV's remote control (for "HDAVI Control 2") (➔ page 77).

"HDAVI Control 2" is the newest standard (current as of February, 2007) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.

EZ Sync "HDAVI Control" compatible television
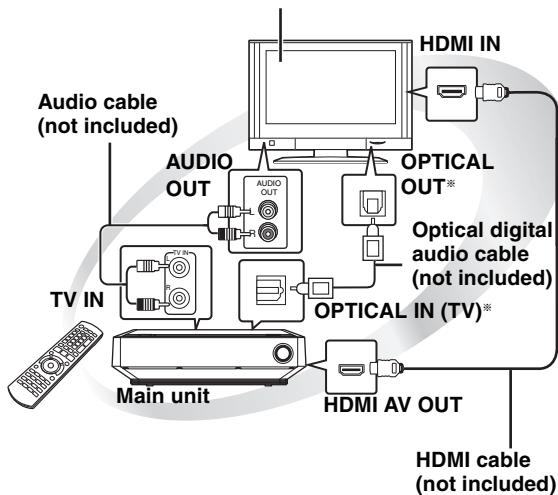
Preparation
1 Confirm that the HDMI connection (➔ page 17) has been made.
2 Set "EZ Sync" to "On" (➔ page 93, "HDMI" menu).
3 To complete and activate the connection correctly, turn on all EZ Sync "HDAVI Control" compatible equipment and set the television to the corresponding HDMI input mode for this unit.

Whenever the connection or settings are changed, reconfirm the points above.

≥**It is recommended that you use Panasonic's HDMI cable.**
Recommended part number:
RP-CDHG15 (1.5 m/4.9 ft.), RP-CDHG30 (3.0 m/9.8 ft.), RP-CDHG50 (5.0 m/16.4 ft.), etc.

≥**Non-HDMI-compliant cables cannot be utilized.**

Functions made possible with EZ Sync "HDAVI Control" are...

∎ *One-touch theater playback*
You can turn on this unit and television, and start playing the disc with a single press of a button.
≥This operation is for "DVD/CD" only.

Press [ONE TOUCH PLAY].
≥This function also works if you press [▶] (PLAY) on this unit's remote control when this unit is in standby mode.

Note
Playback may not be immediately displayed on the television. If you miss the beginning portion of playback, press [|◀◀] or [◀◀] to go back to where playback started.

∎ *Power on link*
The television automatically turns on and the corresponding display appears when the following operations are performed with the television in standby mode. Audio output is also automatically switched to this unit's speakers.
– When you start playback on this unit.
– When using the GUI (display screen) to perform an action. [e.g., Start menu screen (➔ page 30)]

∎ *Power off link*
When the television is turned off, this unit goes into standby mode automatically.
≥This function works only when "Music Collection", "DVD/CD" or "TV Audio" is selected as the source on this unit.
≥When the television is turned on, this unit does not turn on automatically.

Note
Only this unit turns off when you press [⏻] for shutting it down. Other connected equipment compatible with EZ Sync "HDAVI Control" stays on.

※ Connect this when you want to output TV audio from this unit's speakers as digital audio.

■ *Auto input switching*

≥When you switch the television input to TV tuner mode, this unit will automatically switch to "TV Audio※".

  ※ If you want to output digital audio, connect the optical cable (➜ page 76) and select "DIGITAL IN" in "TV Audio Input" menu (➜ page 94).

≥When you start playback on this unit, the television will automatically switch to the HDMI input mode for this unit.

≥Also from the Start menu, the input mode will be switched.

■ *Speaker control*

You can select whether audio is output from this unit or the television speakers by using the television menu settings. For details, refer to the operating instructions of your television.

Home theater

Theater speakers are active.

≥When this unit is in standby mode, changing the television speakers to theater speakers in the television menu will automatically turn this unit on and select "TV Audio※" as the source.

  ※ If you want to output digital audio, connect the optical cable (➜ page 76) and select "DIGITAL IN" in "TV Audio Input" menu (➜ page 94).

≥The television speakers are automatically muted.

≥You can control the volume setting using the volume or mute button on the TV's remote control. (The volume level is displayed on this unit's FL display.)

≥To cancel muting, you can also use this unit's remote control (➜ page 22).

≥If you turn off this unit, television speakers will be automatically activated.

TV

Television speakers are active.

≥The volume of this unit is set to "0".
  – This function works only when "DVD/CD" or "TV Audio" is selected as the source on this unit.

≥Audio output is 2-channel audio.

≥Audio from the CD is not output from the television speakers while recording to the HDD. However, if "Listening while Recording" is selected, audio will be output from this unit's speakers. In this case, operate the volume settings with this unit's remote control.

| Note |

Depending on the type of TV, the TV settings, or operations performed on the TV, Speaker Control may be automatically set to "Home theater".

■ *EZ Sync Control only with TV's remote control (for "HDAVI Control 2")*

You can control the disc menus of this unit with the TV's remote control when using the "Music Collection", "DVD/CD", "FM", "AM" and "XM" source. When operating the TV's remote control, refer to the illustration below for operation buttons.

1 Select the operation menu by using the television menu settings. (For details, refer to the operating instructions of your television.)

```
        ▲      ENTER/
    ◄   ●   ►  PLAY
        ▼
               ○ RETURN
```

2 Select the desired item on the Start menu (➜ page 30).

```
Start
  ♪  Listen
  ▷  Watch
  ∅  Import/Record
  ♫  Multiroom Listen
  ∮  Setup

  ○ ENTER
  ● Main Screen
```
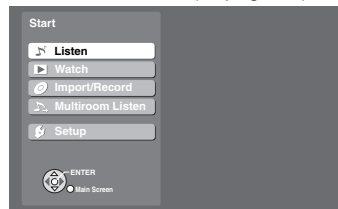
If you select "Disc" in "Listen" or "Watch" on the Start menu

"EZ Sync" menu is displayed. Select the desired item.

```
☑ EZ Sync
TOP MENU
MENU
Control Panel
```
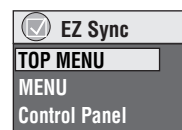
≥**"TOP MENU":** Shows a disc top menu (➜ page 50) or program list (➜ page 51).

≥**"MENU":** Shows a disc menu (➜ page 52) or playlist (➜ page 51).

≥**"Control Panel":** The basic operations for playback discs are available.

e.g., "DVD/CD"

```
        PAUSE
         ▲    PLAY
SKIP ◄   ●   ► SKIP
         ▼
        STOP  ○ RETURN
  ▷
```
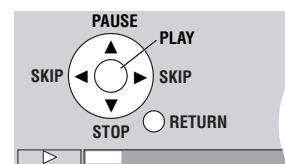
| Note |

≥Depending on the menu, some button operations cannot be performed from the TV's remote control.

≥"Control Panel" can be selected directly by using a button on the TV's remote control (e.g. [SUB MENU]).

≥Depending on the situation, not only the EZ Sync menu, but this unit's Start menu may be displayed as well. At this point, select "Disc" by pressing [▲ ▼] (TV's remote control) and selecting "Listen" or "Watch". After that, you can operate the EZ Sync menu by operating the TV remote control.

≥You cannot input numbers with the numbered buttons on the remote control ([0] to [10]). Use this unit's remote control to input the IP Address, etc.

EZ Sync "HDAVI Control"

Advanced Operations

Operating iPod with this unit

By inserting Universal Dock for iPod (SH-PD10, not included) into the OPTION port on the back of this unit, you can charge and play or record tracks from a connected iPod. Also make sure to read the operating instructions for SH-PD10.

- ≥You can enjoy higher audio quality when audio tracks from iPod are output through this unit's speakers.
- ≥You can perform basic functions on iPod with this unit's remote control.
- ≥You can record tracks from iPod to this unit's HDD.
- ≥You can recharge iPod.

∎ *Connecting the SH-PD10 (not included)*

Before connecting, turn off the power to iPod.

1 **Insert SH-PD10 into the OPTION port on the back of this unit.**

2 **Connect iPod to the SH-PD10.**

Once connected, recharging begins (➜ below). Refer to page 79 for information about recording and play.

Main unit

iPod
(not included)

SH-PD10
(not included)

Do not connect or disconnect SH-PD10 while the main unit is on.
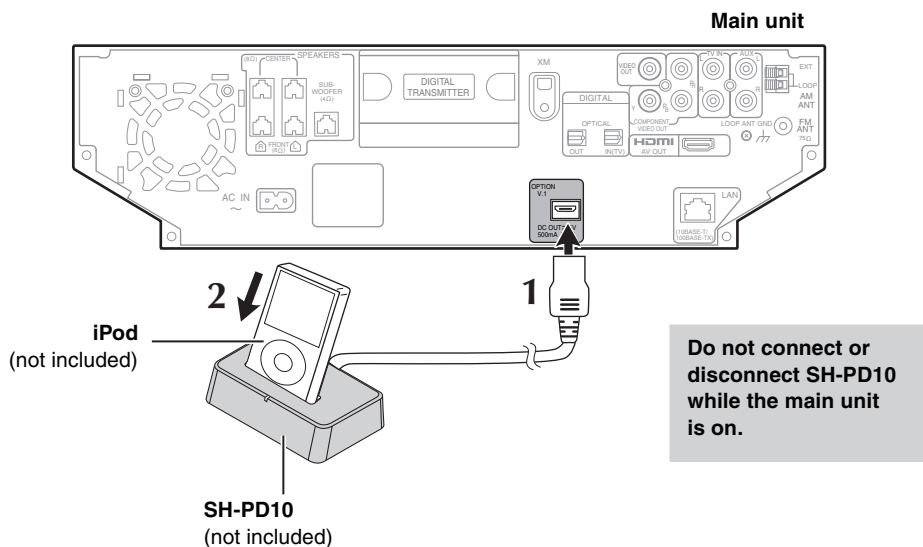
∎ *About recharging the battery*

By inserting SH-PD10 (not included) to the OPTION port on the back of this unit and connecting iPod, you can recharge iPod.

Once connected, the battery will begin to recharge automatically.
iPod will start recharging regardless of whether this unit is on or off.
Check iPod to see if the battery is fully recharged.

Note

- ≥Tracks from this unit cannot be transferred to iPod using SH-PD10.
- ≥If you are not using iPod for an extended period of time after recharging has completed, disconnect it from SH-PD10, as the battery will be depleted naturally. (Once fully recharged, additional recharging will not occur.)

For more information, refer to the operating instructions for iPod or SH-PD10.

By inserting SH-PD10 (not included) into the OPTION port and connecting iPod, you can play tracks (audio) through this unit's speakers. Additionally, you can use the remote control for this unit to perform operations such as play, stop, and record※ operations on iPod.

※ Only audio tracks can be recorded from iPod.

Preparation
1　Connect the SH-PD10 and iPod as shown on page 78.
2　Press [> SELECT <] to switch the selector to "OPTION".

Playing tracks of iPod with the remote control for this unit

By performing the following operations on the remote control, you can play tracks from iPod.

▶	PLAY
▐▐, ■	PAUSE
◄◄ ►►	SKIP
◄◄►►	SEARCH
[+ − VOLUME]	Volume adjust

●Play will continue from the last track you were listening to before connecting SH-PD10 and iPod.

Recording tracks from iPod to the HDD

You can record tracks from iPod to the HDD.

Press [● HDD REC].

Recording starts in the set recording mode (→ below) and playing of iPod also starts automatically.

To change the recording mode
1　Press [SUB MENU] while stopped.

OPTION	Sub Menu
Recording Mode	**LPCM**
Auto Track Divide	**Manual**
Auto Synchro Level	**Level0**

ENTER
RETURN
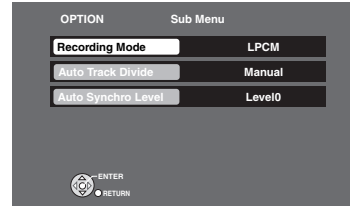
2　Press [▲ ▼] to select "Recording Mode" (→ page 33) and make changes.
　In addition to the recording mode, you can also change "Auto Track Divide" (→ page 38), or "Auto Synchro Level" (→ page 38).

To stop partway through
Press [■].

To return to the previous screen
Press [RETURN].

Note
●If "No compatible equipment is connected" is displayed, then no OPTION-compatible equipment is connected to the OPTION port.

Tips
To select a track you want to record
In "Playing tracks of iPod with the remote control for this unit" (→ left), operate the iPod, and press [● HDD REC] after pausing at the beginning of the track you want to record.

OPTION port/Multiroom

Advanced Operations

Multiroom

$(((\; \flat$ **Expand your listening options with a Multiroom wireless sound system.**
Optional Panasonic wireless accessory SH-FX85

You can enjoy a Multiroom wireless sound system when you use the optional Panasonic wireless accessory SH-FX85.
For details, please refer to the operating instructions for the optional Panasonic wireless accessory.

SH-FX85

Digital transmitter
(included with SH-FX85)

About Multiroom
- You can enjoy the same track (audio) that is playing in the Main room (room where the main unit is placed).
- You can enjoy tracks (audio) from an audio source separate from the Main room.
- You can be in another room (a separate room) and perform basic controls such as play, stop, and skip, etc.

■ *Multiroom usage diagram*

Main room

Main unit

SH-FX85
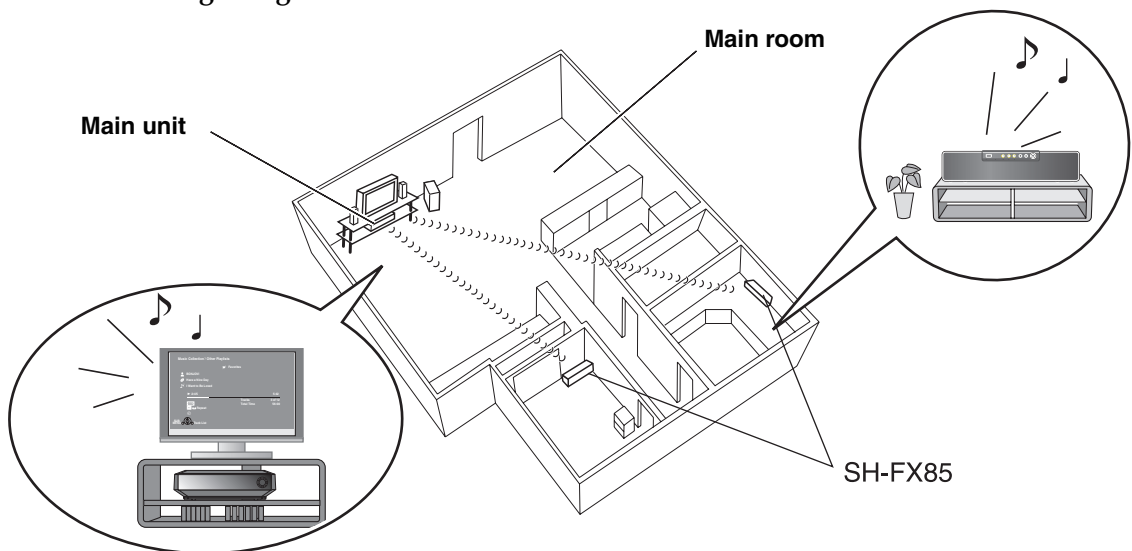
■ *Multiroom connection (How to insert the digital transmitter)*

Note
- Do not insert or remove the digital transmitter while the main unit is on.

1   **Press in on the tabs marked "PUSH" to remove the lid.**

2   **Insert the digital transmitter included with SH-FX85 into the card slot on the back of the unit.**

Digital transmitter (Insert fully until you hear a click.)

Main unit

Push!

Preparation

1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Create a Multiroom connection (➜ page 80).
3 Turn on the power for SH-FX85.
4 Press [⏻].

Selecting the source in another room

You can select the audio source in another room.

1 Press [2ND SELECT].

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

Main Room Source: The same source as in the main room is selected.
Music Collection※: Tracks recorded to the HDD
DVD/CD: CD tracks
FM: FM Radio
AM: AM Radio
XM: XM Radio

Audio from the chosen selector will be output through the speakers in another room.
※ If the selector for "ANOTHER ROOM" is set to "Music Collection", you need to select the playlist (➜ page 46).

To return to the previous screen
Press [RETURN].

Operating this unit from another room

By operating the SH-FX85, you can control this unit and enjoy tracks from another room. For more information, refer to the operating instructions for SH-FX85.

.

Source	Button on the SH-FX85	
HDD, DVD/CD	▶	Play
	■	Stop
	⏮ ⏭	Skip
FM, AM, XM	⏮ ⏭	Select a channel (Preset Tuning)

Note

● When "Main Room Source" is selected, if you operate (stop, play or skip) from another room, audio of the main unit will stop, play or skip as well.

● **Setting the IDs for a second (or third) SH-FX85**
If you want to add another SH-FX85, setting an ID with that SH-FX85 is also necessary. Operate following the steps below.

1 While pressing [⏭] (main unit), press [3] on this unit's remote control.
   "P" is displayed (for approximately 60 seconds).
2 While "P" is displayed, operate the ID setting with SH-FX85.

● **Depending on the settings of the selector for this unit and the unit in "ANOTHER ROOM", audio may not be heard.**

– If the selector for "ANOTHER ROOM" is set to "DVD/CD" when "TV Audio" is set to "DIGITAL IN", audio will not be output. Change the settings of Multiroom.

– When the selector for "ANOTHER ROOM" is set to "FM" or "AM", and if the selector for "MAIN ROOM" is set to "FM" or "AM", audio in "ANOTHER ROOM" will be muted automatically and operations can no longer be performed. Change the settings of Multiroom.

– When "High-speed Recording" starts, audio is not output in "ANOTHER ROOM". However, if the selector for "ANOTHER ROOM" is set to "Main Room Source", then you can listen to the radio station that is currently selected in "MAIN ROOM".

Changing audio quality/sound field

Note
- The following sound effects may not be available or have no effect with some sources, or when headphones are used (➜ page 86).
- You may experience a reduction in sound quality when these sound effects are used with some sources. If this occurs, turn the sound effects off.

Setting the sound effects

By changing the settings, you can enjoy various audio quality.

1 Press [SOUND].

Each time the button is pressed, it switches as shown below.

> **[EQ]** (factory preset)
> ↓
> **[H.BASS]**
> ↓
> **[SW.LEVEL]**
> ↓
> **[RMTR]** (using for "Music Collection" only)
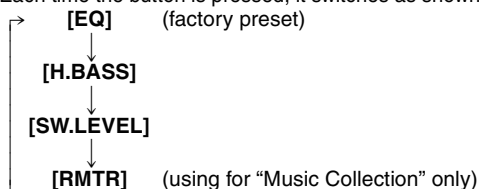
■ *To change the sound quality*

2 When "EQ" is selected, press [SELECT].

Each time the button is pressed, it switches as shown below.

> **[HEAVY]** — Good for rock music, etc. Gives the music a punchy, louder sound.
> ↓
> **[CLEAR]** — Good for Jazz, etc. Gives crisp treble.
> ↓
> **[SOFT]** — A good setting for background music
> ↓
> **[MANUAL]** — When manually setting the equalizer (➜ below)
> ↓
> **[FLAT]** — No effect (Off) (factory preset)
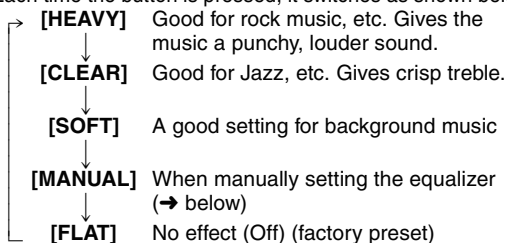
To manually set the equalizer

1 When "MANUAL" is selected, press [◄] or [►].
Press [◄] and "BASS" is displayed.

$$BASS\ 0$$
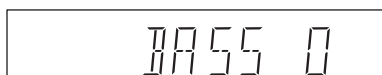
Press [►] and "TREBLE" is displayed.
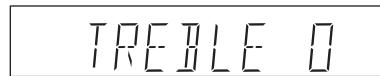
$$TREBLE\ 0$$

2 When "BASS" or "TREBLE" is displayed, press [▲ ▼] to adjust the level.

■ *To switch H.BASS between ON/OFF*

2 When "H.BASS" is selected, press [SELECT].

ON ⟷ OFF
(factory preset for **DVD-V** only) (factory preset)

■ *To switch the subwoofer level*

2 When "SW.LEVEL" is selected, press [SELECT].

Each time the button is pressed, it switches as shown below.

> **[SUB W 2]** (factory preset)
> ↓
> **[SUB W 3]**
> ↓
> **[SUB W 4]** (factory preset for **DVD-V** only)
> ↓
> **[SUB W 1]**
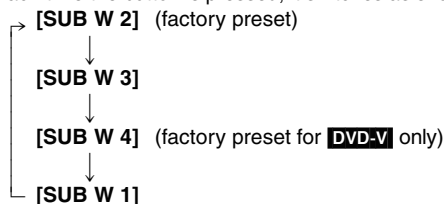
■ *To switch "RMTR※" between ON/OFF*

2 When "RMTR" is selected, press [SELECT].

ON ⟷ OFF
(factory preset)

- "RMTR" will only work with compressed tracks on the HDD (recorded AAC tracks or WMA/MP3 tracks imported from a PC).
- ※ RMTR (Digital Re-master)
  You can regenerate signal frequency lost during compression, restoring the sound to near pre-compression form.

Setting the volume balance

By changing these settings, you can make adjustments to the speaker volume.

1 Press [CH SELECT].

Each time the button is pressed, it switches as shown below.

[BALANCE FL/FR (L, R)] You can set the balance of the volume for the front speakers (L, R).
↕
[TRIM SW (SW ch)] You can adjust the trim level of the subwoofer.
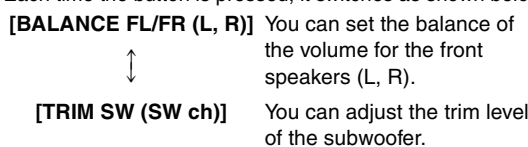
- At the time of purchase this is set to "0 dB".
- When the playback source is 2 ch, only the balance settings can be operated.

■ *To change the front speaker volume balance*

2 When [BALANCE FL/FR (L, R)] is selected, press [◄ ►].

Center Mark

```
  L     ▽     R
L  ||||| |||||| || R
```
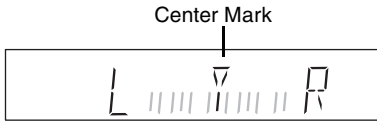
The settings for the volume balance of the front speakers (L , R) changes (0 to −12 dB).
●When headphones are connected (➜ page 86) the balance will return to 0 dB (center).

∎ *To change the subwoofer trim levels*
2 When [TRIM SW (SW ch)] is selected, press [▲ ▼].

```
5Wch -2dB
```
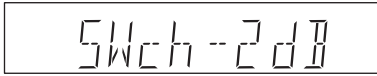
The settings for the trim level of the subwoofer changes (−6 to +6 dB).

Setting the Dolby Virtual Speaker

With only the included front/center speakers and the subwoofer, you can add a surround sound effect similar to 5.1 ch (Dolby Digital or DTS) to any audio source. You can also add a surround sound effect to stereo sources such as video tapes or CDs.

Press [DD VS].
Each time the button is pressed, it switches as shown below.
●Set the Dolby Virtual Speaker to "REFERENCE" or "WIDE", and if the play source is 2 ch, "DD PL II" will light up.

┌─→ **[REFERENCE]** Standard mode
│   (factory preset for **DVD-V** only)
│   ↓
│   **[WIDE]**   Wide mode
│   ●This mode widens the acoustic field of the front/center speakers. This has a good effect when there is little space between the speakers.
│   ↓
└── **[OFF]**   (factory preset)
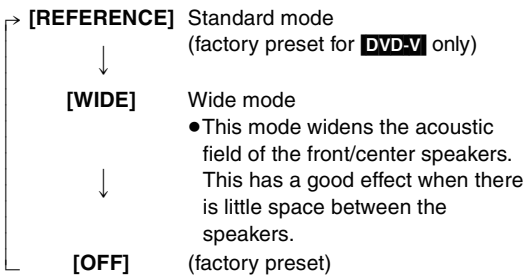
Note
When "ERROR" is displayed:
In the following cases, "ERROR" is displayed, and you cannot set the Dolby Virtual Speaker.
– During play, when the selector is set to "DVD/CD" and the audio source currently playing is in 3.1 ch, 3 ch, 1.1 ch, or 1 ch.
– When you are playing content that prohibits D.MIX (down-mixing)
– When headphones are connected.

Setting the sound effects for the cable box, digital broadcasts or satellite receiver

This unit can decode the surround signals received through cable box, digital broadcasting or satellite broadcasts. Refer to your equipment's operating instructions for details. Only Dolby Digital and PCM can be played with this connection.

Back of the main unit
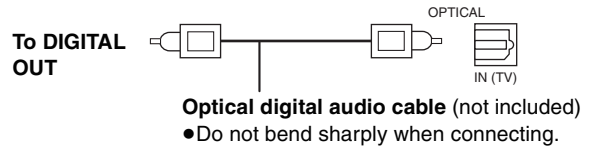
To DIGITAL OUT

OPTICAL

IN (TV)

Optical digital audio cable (not included)
●Do not bend sharply when connecting.

1 Press [SETUP].

2 Press [▲ ▼] to select "Other Setup" and press [ENTER].

3 Press [▲ ▼] to select "TV Audio Input" and press [▶].

4 Press [ENTER].

5 Press [▲ ▼] to select "DIGITAL IN" and press [ENTER].

6 Press [RETURN] to exit the screen.

7 Then press [> SELECT <] to switch the selector to "TV Audio" as the source.

∎ *Selecting to the sound effects*
When you select "DIGITAL IN" as the source, you can select the following sound effects. (These functions only work with Dolby Digital or PCM, excluding Audio Mode, which only works with Dolby Digital Dual Mono.)

1 Press [SUB MENU].

DIGITAL IN	Sub Menu
Audio Mode	L/R
PCM FIX	Off
DRC	Off
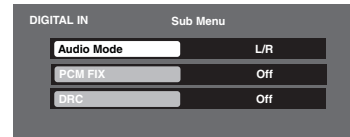
2 Press [▲ ▼] to select the effect that you want to switch and press [ENTER].

●**Audio Mode**
  L/R, L, R

●**PCM FIX**
  On: Select when receiving only PCM signals.
  Off: Select when receiving Dolby Digital and PCM signals.

●**DRC (Dynamic Range Compression)**
  On: Adjusts for clarity even when the volume is low by compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital)
  Off

3 Press [▲ ▼] to select the setting and press [ENTER].

To return to the previous screen
Press [RETURN].

Note
Audio that is input through the OPTICAL IN (TV) terminal cannot be output through the HDMI terminal.

Using the scheduled timer recording function
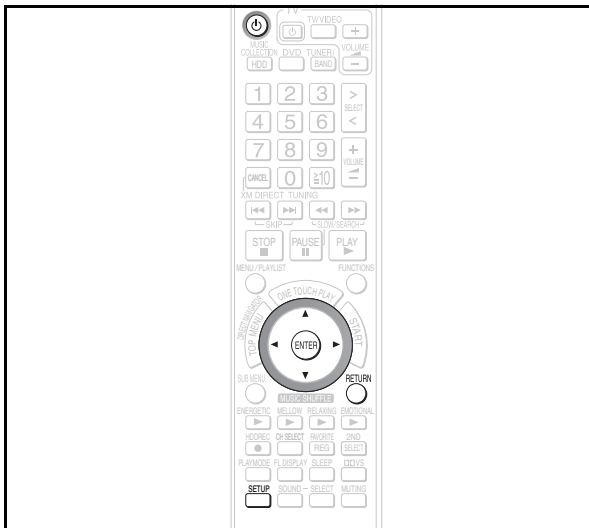
When the previously set time and day of the week is reached, the power will turn on and the unit will record from an external audio source or radio to the HDD, and when the recording time is finished, the unit will turn off automatically. You can also set the unit to make multiple recordings.

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].
3 Set the clock (➜ page 15).
4 When making a recording from the radio, add the radio station as a preset channel (➜ page 16).

Setting the details of the scheduled timer recording

You can set up to 7 different details for the scheduled timer recording.

1 Press [SETUP].

2 Press [▲ ▼] to select "Other Setup" and press [ENTER].

3 Press [▲ ▼] to select "Clock/Timer" and press [ENTER].

4 Press [▲ ▼] to select "Timer Setup" and press [ENTER].

```
                    REC Timer Setting

   REC1  -(Erase Setting)    REC5  -(Erase Setting)
   REC2  -(Erase Setting)    REC6  -(Erase Setting)
   REC3  -(Erase Setting)    REC7  -(Erase Setting)
   REC4  -(Erase Setting)

                    Not Yet Set.

         View Details
         RETURN
```
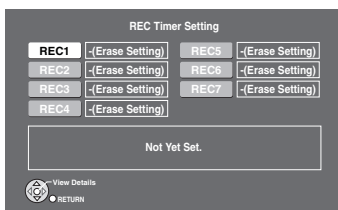
5 Press [▲ ▼ ◄ ►] to select the number you want to record and press [ENTER].

```
              REC Timer 1 Setting

   Timer Setup   -(Erase setting)
   Detail Setting
```
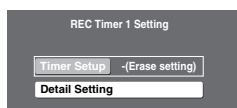
● You can select any number between "REC1" and "REC7".

6 Set the operation details.

1 Press [▲ ▼] to select "Detail Setting" and press [ENTER].

```
         REC Timer 1 Content Setting

   Day          Not Yet Set.
   Time         AM 12:00 - AM 12:00
   Source       Not Yet Set.
   Execute
```

2 Press [▲ ▼] to select "Day" and press [ENTER].

```
   ☐ SUN
   ☐ MON
   ☐ TUE
   ☐ WED
   ☐ THU
   ☐ FRI
   ☐ SAT
```

3 Press [▲ ▼] to select the day you want to set, press [◄ ►] to add a check mark, and then press [ENTER].

4 Press [▲ ▼] to select "Time" and press [ENTER].

```
         REC Timer 1 Time Setting

      Start Time        End Time

      AM 12:00    -    AM 12:00
```
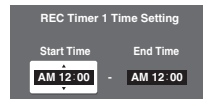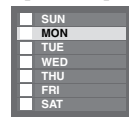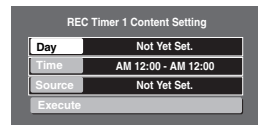
5 Press [◄ ►] to select the start/finish time and press [▲ ▼] to set the time.
   Then press [ENTER].

6 Press [▲ ▼] to select "Source" and press [ENTER].

```
              REC Timer 1 Source Setting

              Select Recording source.
                                    FM
                                    AM
                                    TV Audio
                                    AUX
```

"FM" or "AM" radio

External device is connected to "TV IN" or "AUX" terminal

7 Press [▲ ▼] to select the audio source and press [ENTER].

When recording from the radio
1 In step 7, select "FM" or "AM".
2 Press [▲ ▼] to select the preset channel that you want to record.

When recording from an external device
1 In step 7, select "TV Audio" or "AUX".
2 After switching the detailed settings to "On" (in the operations on page 85) set the day of the week and time for recording to match the settings also on the external device.
● You cannot record when "TV Audio Input" is set to "DIGITAL IN".

8 Press [▲ ▼] to select "Execute" and press [ENTER].
   The details for the scheduled timer recording are set.

To return to the previous screen
Press [RETURN].

When you want timer to operate immediately with the details that you set, go directly to step 6 on the next page.
● When you only want to set the details for a recording, press [RETURN] several times and the unit will return to the previous screen.

Selecting the settings for the scheduled timer recording you want to use

You can use only the scheduled timer recording that you want to use by switching only the desired scheduled timer recording to "On" from the list of scheduled timer recording settings.

After completing step 4 on the left column,

5 **Press [▲ ▼ ◄ ►] to select the scheduled timer recording that you want to use and press [ENTER].**

```
              REC Timer setting

  REC1   │  On       REC5  │ -(Erase Setting)
  REC2   │  Off      REC6  │ -(Erase Setting)
  REC3   │  Off      REC7  │ -(Erase Setting)
  REC4   │  On

         Day    :  SUN
         Time   :  AM 12:00 - AM 12:25
         Source :  FM 100.9 MHz

         View Details
         RETURN
```
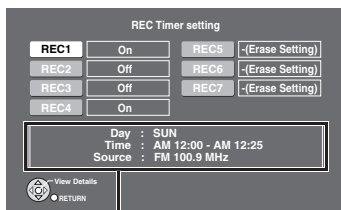
Selected scheduled timer recording day of the week and starting time.

6 **Select the operation you want to set.**

1 Press [▲ ▼] to select "Timer Setup" and press [ENTER].

```
      REC Timer 1 Status Setting

      Please select.

              On

              Off

           - (Erase setting)

         ENTER
         Cancel
```
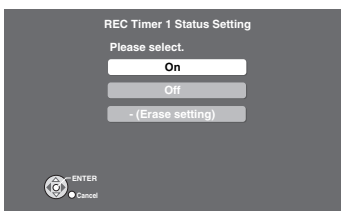
2 Press [▲ ▼] to select "On" and press [ENTER].
When you do not want to use the scheduled settings, select "Off".
On : Use this scheduled timer recording
Off : Do not use this scheduled timer recording (setting only)
Invalid (Overlap): This scheduled timer recording conflicts or overlaps with another scheduled timer recording and cannot be used.
─ (Erase setting): Scheduled timer recording not yet set.

7 **Press [RETURN].**

The unit returns to the screen shown in step 5. Repeat steps 5 to 7 and switch each scheduled timer recording to "On" (or "Off").

8 **Press [RETURN] several times.**

The unit returns to the previous screen.

9 **Press [⏻] to turn off the power.**

If the power is not turned off, the timer will not operate.

To return to the previous screen
Press [RETURN].

To change settings of a scheduled timer recording
Select the number of the scheduled timer recording in step 5 and set again.

Note

- Only radio and externally connected devices can be recorded with the scheduled timer recording function. You cannot record from a CD or "OPTION" either with this function.
- To avoid cutting off the beginning of the track that is recording, the recording will begin a few seconds before the set day of the week and time. (While recording, "⏰REC" and the number of the scheduled timer recording will flash on the television.)
- All scheduled timer recordings will operate on the specified day of the week and time, except for scheduled timer recordings indicated as "Off".
- If the starting time for the scheduled timer recording occurs at the same time as another scheduled timer recording finishes, the second recording may start late.

Tips

When a scheduled timer recording overlaps with another scheduled timer recording
You cannot record when a scheduled timer recording overlaps with another scheduled timer recording. When a timer is activated by selecting "On", other timers that overlap with this scheduled recording will then be set to "Invalid (Overlap)" and cannot be used. If you want to activate a scheduled timer recording that is currently set to "Invalid (Overlap)", follow the steps in the left column to switch the scheduled timer recording to "On".

To delete unnecessary scheduled timer recording settings
After step 4 on the previous page
1 Press [▲ ▼ ◄ ►] to select unnecessary scheduled timer recording settings and press [ENTER].
2 Press [▲ ▼] to select "Timer Setup" and press [ENTER].
3 Press [▲ ▼] to select "─ (Erase setting)" and press [ENTER].

To play after setting a timer
Even after setting a scheduled timer recording you can play the unit as usual. However, after you finish playing, be sure to set the unit to standby mode. Scheduled timer recording will not record if the unit is turned on.

- Changing the volume and audio source will have no effect on the details of the settings.

If a power failure, etc. caused timers to lose their setting
The clock is reset, and you cannot enter the timer recording screen.
Set the clock again (➔ page 15).

Convenient functions

Advanced Operations

Using other convenient functions
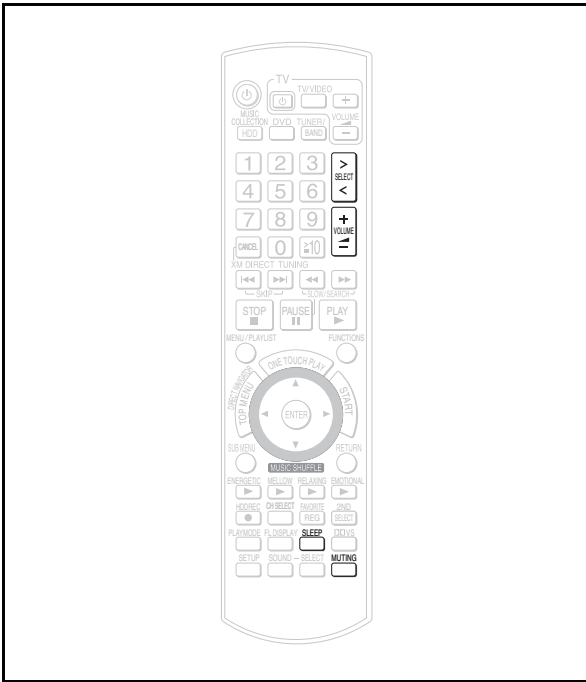
Setting the sleep timer

1 **Press [SLEEP].**

$$\boxed{SLEEP \;\; {}^{SLP}30}$$
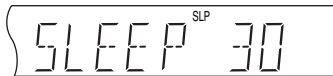
2 While the time is shown

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

SLEEP 30 ⟶ SLEEP 60 ⟶ SLEEP 90
↑⎯⎯ OFF ⟵⎯⎯ SLEEP 120 ⟵⎯⎯┘
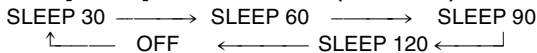
To cancel the timer
While the time is shown, press [SLEEP] to select "OFF".

To confirm the remaining time
Press [SLEEP] again.

To change the setting
Repeat the procedure from the beginning.

Muting the sound

Press [MUTING].

"MUTING" flashes on the unit's display.

$$\boxed{\geqslant MUTING \leqslant}$$

To cancel
● Press [MUTING] again or reduce the volume to minimum "VOL 0", and then raise it to the required level.
● Muting is canceled when you switch the unit to standby.

Using headphones

1 **Reduce the volume and connect the headphones (not included).**
Headphone plug type: ∅3.5 mm (¹/₈″) stereo mini plug
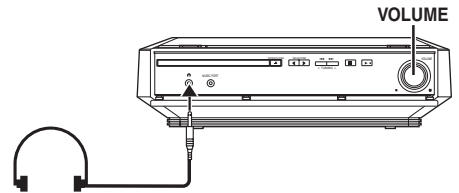
VOLUME

2 **Adjust headphone volume with [+ − VOLUME].**
● Audio is automatically switched to 2-channel stereo.

Note
To prevent hearing damage, avoid listening for prolonged periods of time.

Using the Music Port

The Music Port allows you to connect and enjoy music from an external device (e.g. MP3 player) through this unit.

Preparation
To avoid distorted sound, make sure that any equalizer function of your external device is turned off.

1 **Reduce the volume and connect the external device (not included).**
Plug type: ∅3.5 mm (¹/₈″) stereo mini plug
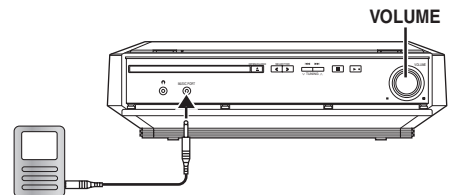
VOLUME

External device
Reduce the volume before connecting.

2 **Press [> SELECT <] to switch the selector to "MUSIC PORT".**

$$\boxed{MUSIC \;\; P_{i}}$$

3 **Adjust the external device volume to a normal listening level, and then adjust the volume of the main unit with [+ − VOLUME].**

To play audio from your television through this unit's speakers

You can enjoy TV broadcasts with this unit's speakers if you connect the TV to this unit's TV IN terminal.

Preparation
1 Set "TV Audio Input" (➜ page 94, "TV Audio Input" menu) to "TV".
2 Reduce the volume on the television to the minimum.

1 **Press [> SELECT <] to switch the selector to "TV Audio".**

2 **Adjust the volume on this unit.**

Backing up HDD data to a PC

We recommend backing up the tracks on the HDD regularly using a PC or NAS (Network Attached Storage). In the event that this unit requires service and the music data is damaged or lost, you can restore music from the last time you backed up.

The necessary equipment and recommended operating system for creating a backup:
- A PC operating with Windows XP SP2 installed
- A hard disk drive (HDD) with adequate available space, or a NAS device. Other media (DVD-R, etc.) cannot be used for creating a backup of your music library.
- When creating a backup, we recommend using a fast network connection such as 100BASE-T LAN.
- For further information about backups visit the following homepage.
  http://panasonic.jp/support/global/cs/audio

PC with Windows XP SP2 installed

Backup destination

PC

HDD(PC)

Internal PC HDD

HDD ⬤ ♪ **Music data**

NAS

Network Attached Storage

Convenient functions
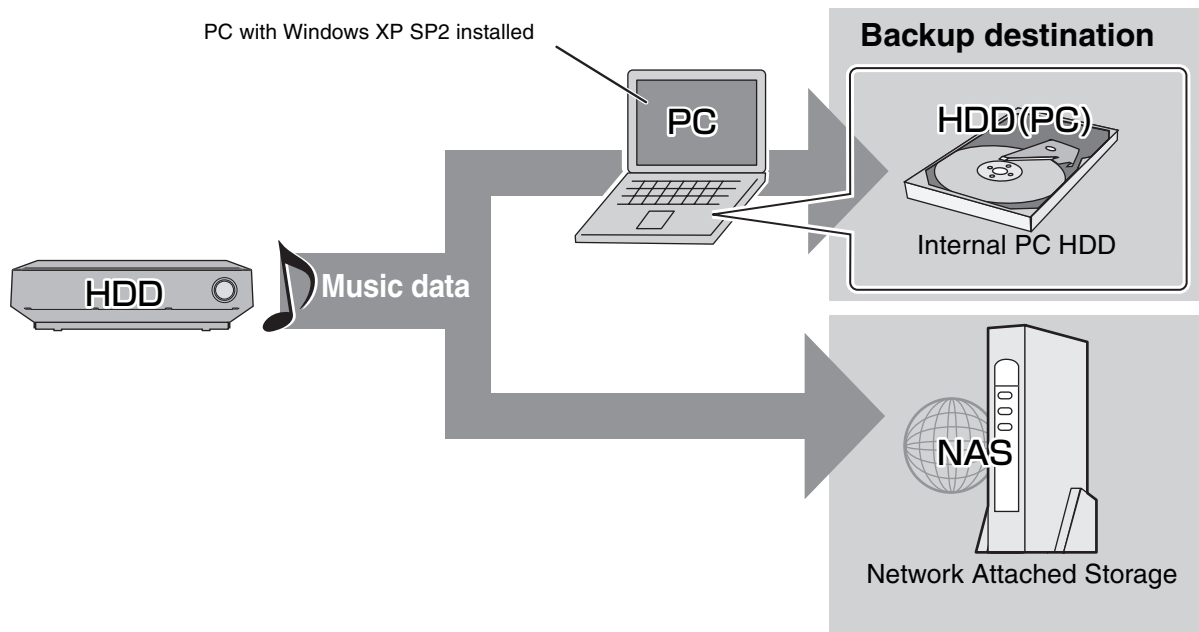
Preparation
1 Connect the unit to a PC network (➜ page 20), or directly connect it to a PC (➜ page 90).
2 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
3 Press [⏻].
4 Press [MUSIC COLLECTION] to switch the selector to "Music Collection".

Settings to check on the PC

1   Create a folder using the name below, and set the folder to "Shared". (This folder then becomes the save destination for the backup data.)

Folder name: ptxbckup

2   Check the PC name.

Note
About backup data
The backup data is created with encryption. Therefore, backup data cannot be played or copied to another device. Furthermore backups can only be restored on the unit from which it was created.

Tips
If you do not have the equipment required for creating a backup
- Make certain to keep the recording source (CD, files, etc.).

- For information about the shared folder settings, see "Importing WMA/MP3 from a PC" (➜ page 40).

Advanced Operations
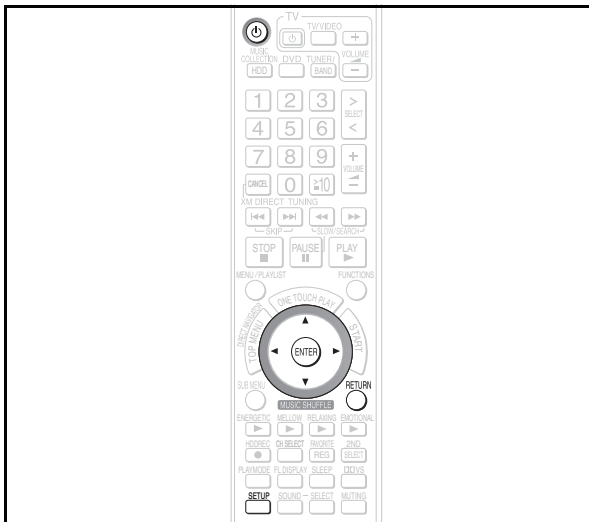
Backing up data recorded to the HDD

Cautions about backup data:
Be careful not to perform any of the following:
- Do not open backup data with applications or software, and do not change the contents.
- Do not compress the backup data.
- Do not change the backup data file name or change the saved location.

Perform "Preparation" and "Settings to check on the PC" as described on page 87.

1   Press [SETUP].

2   Press [▲ ▼] to select "Other Setup" and press [ENTER].

3   Press [▲ ▼] to select "Maintenance" and press [►].

4   Press [▲ ▼] to select "Backup/Restore" and press [ENTER].

5   Press [▲ ▼] to select "Backup" and press [ENTER].
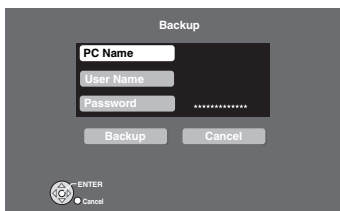
6   Press [▲ ▼] to select "PC Name" and press [ENTER].
When the PC name is displayed
The PC name and other information that was used when previous backups and imports (➔ page 40) were performed may be displayed. In this case, check the PC name again, and if necessary, follow the steps below to make changes.

7   Enter the characters (➔ page 69).
Input the "User Name" and "Password" in steps 6 and 7 in the same manner.

8   Press [▲ ▼ ◄ ►] to select "Backup" and press [ENTER].
Backup begins.
A message will be displayed, indicating that backup is complete. The unit will briefly stay this way, and then it will turn off automatically shortly after.

To return to the previous screen
Press [RETURN].

To cancel backup
1   Press and hold [⏻] during backup.
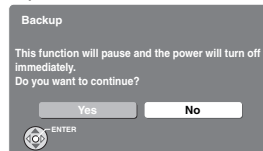
2   Press [◄ ►] to select "Yes" and press [ENTER].
- This unit turns off and backup canceled.

To continue a previously canceled backup
1   After backup is canceled, press [⏻] to turn the unit on again.
The following message is displayed.
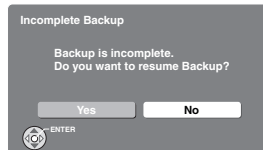
2   Press [◄ ►] and select "Yes", then press [ENTER].
Follow the steps given on screen, and start backup again.

Note
- When the backup is canceled partway through, the data becomes unusable. Finish the backup as soon as possible.
- The settings for the Power Off Mode for this unit will enter "Power-Save Mode" (➔ page 93) until the backup is complete.
- When performing a backup, all timer settings will be set to "Off". If you use a timer, you will need to set to "On" again (➔ page 85).

If the backup aborted due to critical errors or abnormal termination
After the message is displayed on the unit, this unit will automatically turn off.
In this situation, turn the power on again and continue the backup.

A note about the second (and subsequent) backups
Only newly added tracks and changes made since the previous backup was created will be backed up, therefore the backup will take less time to finish than the first time.

Restoring backed up data

This function will restore the backup data that was saved on your PC to this unit.
If the HDD requires service, please wait until the HDD has been repaired before restoring the backup to the HDD.

Restoring the backup data to the HDD will reset the HDD (no tracks on the HDD). If restoring fails, the content of the HDD will be lost. When restoring the backup data, therefore, please exercise the utmost caution.

Perform "Preparation" and "Settings to check on the PC" as described on page 87.

1 Press [SETUP].

2 Press [▲ ▼] to select "Other Setup" and press [ENTER].

3 Press [▲ ▼] to select "Maintenance" and press [▶].

4 Press [▲ ▼] to select "Backup/Restore" and press [ENTER].

5 Press [▲ ▼] to select "Restore" and press [ENTER].

```
                    Restore
       PC Name
       User Name
       Password                ●●●●●●●●●●●●

              Restore              Cancel

          ○ ENTER
          ● Cancel
```

6 Press [▲ ▼] to select "PC Name" and press [ENTER].
   When the PC name is displayed
   The PC name and other information that was used when previous backups and imports (➔ page 40) were performed may be displayed. In this case, check the PC name again, and if necessary, follow the steps below to make changes.

7 Enter the characters (➔ page 69).
   Input the "User Name" and "Password" in steps 6 and 7 in the same manner.

8 Press [▲ ▼ ◄ ►] to select "Restore" and press [ENTER].
   Restore begins.
   A message will be displayed, indicating that restore is complete. The unit will briefly stay this way, and then it will turn off automatically shortly after.

To return to the previous screen
Press [RETURN].

To cancel restore
1 Press and hold [⏻] during restoring.

```
       Restore
       This function will pause and the power will
       turn off immediately.
       Do you want to continue?

          Yes              No

          ○ ENTER
```
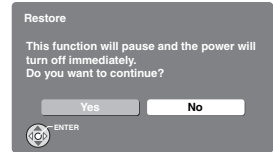
2 Press [◄ ►] to select "Yes" and press [ENTER].
   ≥This unit is turned off and the restore is canceled.
   ≥If restore is canceled before completion, all progress up to the point of cancelation will not be recorded and the HDD will be completely empty. Restore this unit again later.

Note
≥Restore may be canceled if your PC is turned off in an irregular manner or is forced to shut down due to errors. In this situation, restore again from the beginning. However, backups may not restore when the backup data contains abnormalities.

Convenient functions

Advanced Operations

For reference: connecting this unit directly to a PC

When importing WMA/MP3 data (➜ page 40), creating a backup (➜ page 88), or restoring backed up data (➜ page 89), you can connect this unit directly to your PC with a cross LAN cable. When using this connection method, changes to the settings on this unit and your PC are necessary.

Preparation
1 Connect this unit to the PC with a cross LAN cable (not included).
2 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
3 Press [⏻].

PC — Cross LAN cable (not included)

To LAN terminal (100BASE-T or greater)

To LAN terminal (10/100)
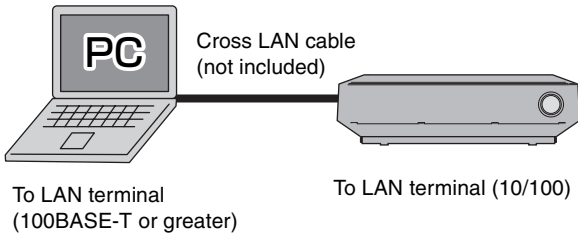
Settings on this unit

1 **Press [SETUP].**

2 **Press [▲ ▼] to select "Other Setup" and press [ENTER].**

3 **Press [▲ ▼] to select "Network" and press [▶].**

4 **Press [▲ ▼] to select "Network Settings" and press [ENTER].**

5 **Press [▲ ▼] to select "TCP/IP 1" and press [ENTER].**

6 **Press [▲ ▼] to select "IP Manual Setting" and press [ENTER].**
   Set "IP Address", "Subnet Mask", and "Gateway".

Settings on the PC

For further information, refer to the operating instructions for your PC. These instructions are the examples of operating a PC with Windows XP operating system.

1 **"Control Panel" → "Network Connections" → "Local Area Connections", then click on "Properties".**

2 **Click on "Properties" in "Internet Protocol (TCP/IP)".**

3 **Select "Use the following IP address" and set the IP address and subnet mask.**

Note
≥Connecting this unit to a PC in the manner described above may result in temporary loss of Internet connection. When using the Internet, change all the settings listed above back to the previous settings. You can also use the connection method described in "Network connection" (➜ page 20).

Tips
≥To make sure that you can reconnect to a network, we recommend taking note of the network setting values used (IP addresses, Gateway, etc.) before changing any network settings and/or values.

Changing the settings

Preparation
1 To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2 Press [⏻].

Common procedures

1 **Press [SETUP].**

```
Setup

 Setup for Video    DVD
                    VIDEO
                    HDMI
                    DISPLAY

 Other Setup        Remote Control
                    Clock / Timer
                    Power On/Off
                    TV Audio Input
                    Network
                    Maintenance

   ENTER
   ● Main screen
```
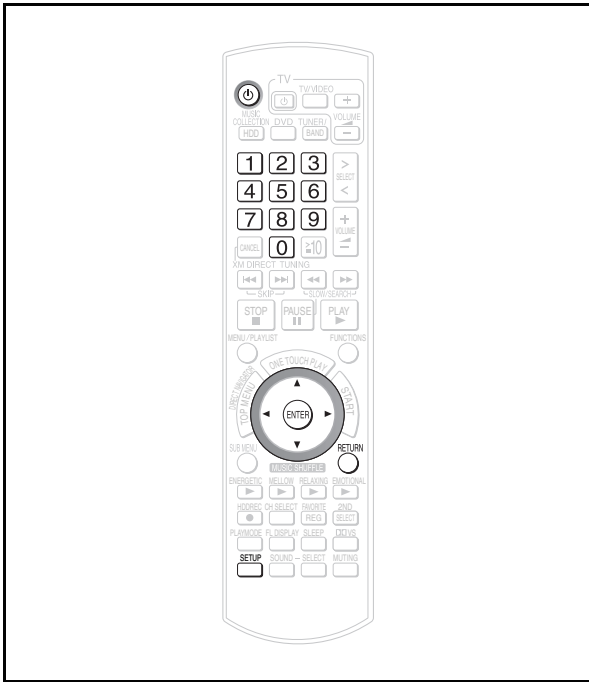
2 **Press [▲ ▼] to select "Setup for Video" or "Other Setup" and press [ENTER].**
   ≥If you have not performed QUICK SETUP (➜ page 14), and "Setup for Video" is selected, the QUICK SETUP screen appears.

3 **Press [▲ ▼] to select the menu and press [▶].**

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

5 **Press [▲ ▼ ◄ ►] or numbered buttons to make the settings and press [ENTER].**
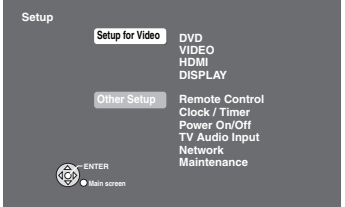
To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

Note
There may be differences in operation methods.
If this happens, follow the on-screen instructions for the operation.

QUICK SETUP enables successive settings of the items in the shaded area.

≥The settings remain intact even if you switch the unit to standby.
≥Underlined items are the factory settings in the following table.

Setup for Video

■ "*Disc*" menu

Audio Choose the audio language.	●<u>English</u>	●French	●Spanish	●Original※1	●Other✳✳✳✳※2
Subtitle Choose the subtitle language.	●<u>Automatic</u>※3	●English	●French	●Spanish	●Other✳✳✳✳※2
Menus Choose the language for disc menus. Changing the menu language in QUICK SETUP also changes this setting.	●<u>English</u>	●French	●Spanish	●Other✳✳✳✳※2	
Advanced Disc Review (➜ page 58)	●<u>Intro Mode</u>: Reviews each title/program. ●Interval Mode: Reviews not only each title/program but also each 10-minute interval within a title/program.				
Ratings Set a rating level to limit DVD-Video play.	Setting ratings (When level 8 is selected) ●<u>8 No Limit</u> ●1 to 7 ●0 Lock All: To prevent play of discs without rating levels.				
	When you select your ratings level, a password screen is shown. Follow the on-screen instructions. **Do not forget your password.** A message screen will be shown if a DVD-Video disc exceeding the rating level is inserted in the unit. Enter your password and then follow the on-screen instructions.				

※1 The original language designated on the disc is selected.
※2 Input the appropriate code from the language code list (➜ page 94).
※3 If the language selected for "Audio" is not available, subtitles appear in that language (if available on the disc).

Changing the settings

■ *"Video" menu*

TV Aspect Choose the setting to suit your television and preference.	●<u>4:3 Pan&Scan</u>: 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 picture is shown in the letterbox style.
	●16:9: Widescreen television (16:9)
TV Type Select to suit the type of television.	●<u>Standard (Direct View TV)</u> ●CRT Projector ●LCD TV/Projector ●Projection TV ●Plasma TV
Time Delay When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.	●<u>0ms</u> ●20ms ●40ms ●60ms ●80ms ●100ms
Still Mode Specify the type of picture shown when paused.	●<u>Automatic</u> ●Field: The picture is not blurred, but picture quality is lower. ●Frame: Overall quality is high, but the picture may appear blurred. –Refer to "Frame still and field still" (➜ page 108, Glossary).
Black Level Control Change the black level of the picture if you connected a television through the COMPONENT VIDEO OUT terminals.	●<u>Lighter</u>: When connected through the terminals other than COMPONENT VIDEO OUT (Y/P$_B$/P$_R$). ●Darker: When connected through COMPONENT VIDEO OUT (Y/P$_B$/P$_R$).

■ *"Audio" menu*

PCM Digital Output Check the digital input limitations of the equipment you connect using DIGITAL OPTICAL OUT terminal and select the maximum sampling frequency of PCM digital output.	●<u>Up to 48 kHz</u>: When connected to equipment compatible with 44.1 or 48 kHz ●Up to 96 kHz: When connected to equipment compatible with 88.2 or 96 kHz –Signals from copy-protected discs are converted to 48 or 44.1 kHz. –Some equipment cannot handle sampling frequencies of 88.2 kHz, even if they can handle 96 kHz. Read your equipment's operating instructions for details.	
Dolby Digital ※4	●<u>Bitstream</u> ●PCM	Select to suit the type of equipment you connected to the HDMI AV OUT or DIGITAL OPTICAL OUT terminal.
DTS Digital Surround※4	●<u>Bitstream</u> ●PCM	Select "Bitstream" when the equipment can decode the bitstream (digital form of 5.1-channel data). Otherwise, select "PCM" (audio output is 2-channel). (If the bitstream is output to the equipment without a decoder, high levels of noise can be output and may damage your speakers and hearing.)
Dynamic Range Compression	●<u>Off</u> ●On: Adjusts for clarity even when the volume is low by compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital.) –This function works only when the selector is set to "DVD/CD". When "TV Audio Input" is set to "DIGITAL IN" (➜ page 94, "TV Audio Input" menu) and the selector is set to "TV Audio", refer to "Setting the sound effects for the cable box, digital broadcasts or satellite receiver" on page 83.	

●When recording a CD, audio will not be output from HDMI AV OUT terminal or DIGITAL OPTICAL OUT terminal.

※4 When audio is output from HDMI AV OUT terminal, and the connected equipment does not support the item selected, the actual output will depend on the performance of this connected equipment.

■ *"HDMI" menu*

RGB Range When "HDMI Color Space" is set to "RGB" (➜ page 60, Picture Menu)	● <u>Standard</u> ● Enhanced: When the black and white images are not distinct.
Video Mode (This setting is irrelevant when connected through the VIDEO terminal.)	● <u>On</u>: Select this when connected through the HDMI terminal. Video is output from the HDMI terminal according to the setting of the "Video Output Mode" (➜ page 60, Picture Menu). Video is also output from the COMPONENT VIDEO OUT terminal, but only in 480i (interlace). ● Off: Select this when connected through the COMPONENT VIDEO OUT terminal. Video is output from the COMPONENT VIDEO OUT terminal according to the setting of the "Video Output Mode" (➜ page 60, Picture Menu). Video is also output from the HDMI terminal, but only in 480p (progressive).
Audio Output	● On: When audio output is from HDMI AV OUT terminal. (Depending on the capabilities of the connected equipment, audio output may differ from the audio settings.) ● <u>Off</u>: When audio output is not from HDMI AV OUT terminal. (The audio is output using the settings of this unit.)
EZ Sync	● <u>On</u>: The EZ Sync "HDAVI Control" function is available (➜ page 76). ● Off

■ *"Display" menu*

Menu Language	● <u>English</u> ● Français ● Español – When "Español" is selected, part of the on-screen displays relating to DVD and CD play will be displayed in Spanish. All other displays will be displayed in English.
On-Screen Messages	● <u>On</u> ● Off

■ *"Others" menu*

QUICK SETUP	● <u>Yes</u> ● No
Re-initialize Setting Return all values in "Setup for Video" to the default settings.	● Yes: The password screen is shown if "Ratings" (➜ page 91) is set. Please enter the same password. After "Initialized" is displayed on the television display, press [ENTER]. ● <u>No</u>

Other Setup

■ *"Remote Control" menu*

Remote Control (➜ page 22)	● <u>Mode 1</u> ● Mode 2

■ *"Clock/Timer" menu*

Setting the Day and Time (➜ page 15)	Day ● <u>SUN</u> ● MON ● TUE ● WED ● THU ● FRI ● SAT Adjusting Time
Timer Setup (➜ page 84)	Automatically turns the unit on and records specified audio at a specified time and date.

■ *"Power On/Off " menu*

Auto Power Off Mode	● <u>Off</u> ● On: When the selector is set to "DVD/CD" or "Music Collection", the unit switches to standby mode after about 10 minutes in the stop mode.
Power Off Mode	● Quick-Start Mode ● <u>Power-Save Mode</u>: When the unit is turned off, the amount of power consumed is reduced. – When this unit is in "Power-Save Mode", it may take more time to start operating the unit once the unit is turned on. If you want to operate the unit more quickly after turning the unit on, select "Quick-Start Mode". – When you turn the unit off before the unit has finished conversion and analysis (➜ page 32) of tracks, the unit will first enter standby in "Quick-Start Mode" for two minutes, and then conversion and analysis will begin. Once conversion and analysis is complete, the unit then enters "Power-Save Mode".
FL Dimmer Change the brightness of the unit's display.	● <u>Bright</u> ● Dimmer ● Auto: The display is dimmed, but brightens when you perform some operations.

■ *"TV Audio Input" menu*

TV Audio Input
TV audio can be switched between analog or digital input.
	●TV: Switches to analog input (TV IN)
	●DIGITAL IN: Switches to digital input [OPTICAL IN (TV)]
	  – You cannot record from an external device when "TV Audio Input" is set to "DIGITAL IN"
	     (➔ page 38).

■ *"Network" menu*

Network Settings (➔ page 95)	TCP/IP 1	●IP Auto Setting: In most cases, this should be selected. ●IP Manual Setting: If you are connecting this unit to a network and assigning a fixed IP address, perform the following settings: IP Address, Subnet Mask, Gateway.
	TCP/IP 2	●DNS Auto Setting: In most cases, this should be selected. ●DNS Manual Setting: When you have an assigned DNS server from your ISP, perform the following settings: Primary DNS Address, Secondary DNS Address. – If "TCP/IP 1" is set to "IP Manual Setting", the "DNS Auto Setting" will not be displayed.
	IP Address	Displays the IP address assigned to this unit, etc.
CD database Setting		●Yes ●No: Only this unit's internal CD database can be used. When using this function without connecting to a network, messages related to network connections will not be displayed. – After setting to "No", make sure to set to "Yes" before connecting to a network.

■ *"Maintenance" menu*

Backup/Restore	●Backup: Back up the HDD data to a PC (➔ page 88). ●Restore: Restore backed up data from a PC to this unit (➔ page 89).
Delete All Tracks in the Music Collection Deletes all music data on the unit, and the HDD returns to factory presets.	●Yes: When the caution message informing you that tracks deleted cannot be recovered has displayed, press [◀ ▶] to select "Yes" and press [ENTER]. Once all tracks have been deleted, a message will be displayed, indicating deletion is complete. ●No
System Software Information	Displays the software version, etc.
Software Program Update Updates and improves the system software.	●OK ●Cancel – Information about obtaining system update discs will be made available on the support page. For more information, check the following website. http://panasonic.jp/support/global/cs/audio

Language code list

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

Changing the network settings
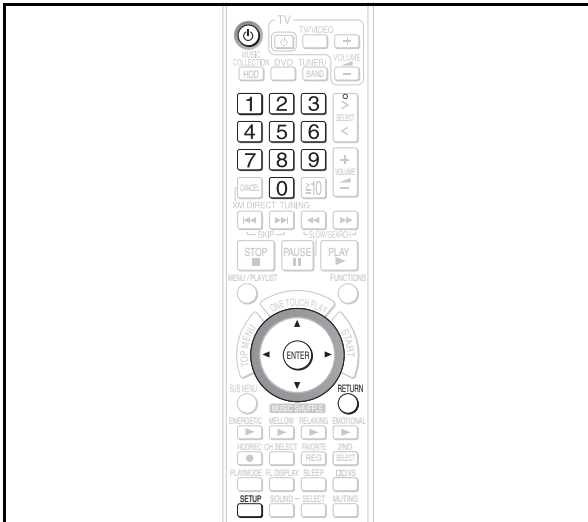
These settings are used if you will connect this unit to a network.

Preparation
1. To display the picture turn on the television and select the appropriate video input to suit the connections to this unit.
2. Press [⏻].

Common procedures

1 Press [SETUP].

2 Press [▲ ▼] to select "Other Setup" and press [ENTER].

3 Press [▲ ▼] to select "Network" and press [▶].

4 Press [▲ ▼] to select "Network Settings" and press [ENTER].

The network connection status is displayed.

> **Network Settings**
>
> TCP/IP 1   Auto Setting
> TCP/IP 2   Auto Setting
> IP Address
>
> Connected to network.
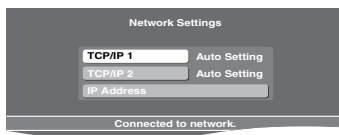
Manually setting the IP address

In most cases, default settings can normally be used without making any changes.
When connecting this unit to a network and assigning a fixed IP address, perform the following settings.

After performing steps 1–4 (→ above)

5 Press [▲ ▼] to select "TCP/IP 1" and press [ENTER].

6 Press [▲ ▼] to select "IP Manual Setting" and press [ENTER].

7 Press [▲ ▼] to select the item to be set and press [ENTER].

> **IP Manual Setting**
>
> IP Address   0. 0. 0. 0
> Subnet Mask   0. 0. 0. 0
> Gateway   0. 0. 0. 0
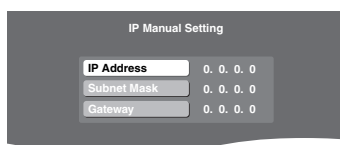
8 Enter numbers with the numbered buttons and press [ENTER].
- After checking the specifications for your broadband router, enter each number.
- The numeric input range is between 0 and 255.

Repeat steps 7–8, and enter numbers for other items.

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

If you made an input mistake
Move the cursor with [◄ ►] and make corrections with the numbered buttons.

To delete settings and use default settings
Select "IP Auto Setting" in step 6 and press [ENTER].

Manually setting the DNS server

In most cases, default settings can normally be used without making any changes.
When setting an assigned DNS server from your ISP, perform the following settings.

After performing steps 1–4 (→ left)

5 Press [▲ ▼] to select "TCP/IP 2" and press [ENTER].

6 Press [▲ ▼] to select "DNS Manual Setting" and press [ENTER].
- If "TCP/IP 1" is set to "IP Manual Setting", the "DNS Auto Setting" will not be displayed.

7 Press [▲ ▼] to select the item to be set and press [ENTER].

> **DNS Manual Setting**
>
> Primary DNS Address   0. 0. 0. 0
> Secondary DNS Address   0. 0. 0. 0
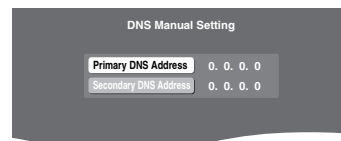
8 Enter numbers with the numbered buttons and press [ENTER].
- Follow the instructions given by your ISP and enter the numbers.
- The numeric input range is between 0 and 255.

Repeat steps 7–8, and enter numbers for other items.

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

If you made an input mistake
Move the cursor with [◄ ►] and make corrections with the numbered buttons.

To delete settings and use default settings
Select "DNS Auto Setting" in step 6 and press [ENTER].

To check the IP Address, etc.

After performing steps 1–4 (→ left)

5 Press [▲ ▼] to select "IP Address" and press [ENTER].
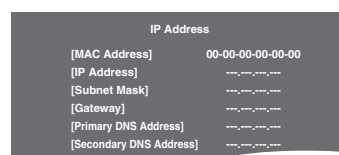
> **IP Address**
>
> [MAC Address]   00-00-00-00-00-00
> [IP Address]   ---.---.---.---
> [Subnet Mask]   ---.---.---.---
> [Gateway]   ---.---.---.---
> [Primary DNS Address]   ---.---.---.---
> [Secondary DNS Address]   ---.---.---.---

To return to the previous screen
Press [RETURN].

To exit the screen
Press [RETURN] several times.

Frequently asked questions

Connecting to other devices | | **Page**

I want to connect this unit to other speakers.	●<u>The speaker terminals on this unit cannot be used with speakers other than the included speakers.</u> By using the included speakers with this unit, you can obtain the appropriate audio. Using this unit with other speakers can result in damage, bass may not be correctly output, or this unit may not output appropriate audio.	—
I do not have an Internet connection, but can I still use the Gracenote database search function to search for titles?	●Yes, you can. This unit contains an abbreviated version of the Gracenote database internally stored in the HDD, therefore it is possible to obtain CD title information without an Internet connection. However, brand new releases or future releases may not have been added to the internal Gracenote database. Connect to the Internet when you want to search for title information for a newly released CD.	—

HDD

I want to make my recordings in the highest possible quality.	●Set the recording mode to LPCM.	33, 34
I want to make as many recordings as possible.	●Set the recording mode to AAC(LP).	33, 34
If I adjust the volume or audio quality during recording, what will happen?	●Changing the volume or audio quality will have no effect on the audio being recorded.	—
I want to find out how much space is remaining on the HDD.	●You can check total HDD usage and remaining space for recordings with "View Hard Disk Drive Information".	43
After making the recording, I want to compress the tracks to increase the amount of available space on the HDD.	●If recorded in LPCM mode, you can convert to AAC (XP/SP/LP).	43
I want to listen to tracks I like in the order I like.	●When creating a user playlist, you can add the tracks in the order you like.	67
What will happen if I try to record the same CD multiple times?	●A message will appear before recording. Follow the on-screen menu and select the appropriate operation.	35
What kind of characters can I use when entering a title?	●Alphabetical and numerical characters can be used. However, characters with accents (é, etc.) cannot be used.	—

Others

If I will not use this unit for an extended period of time, what should I do?	●To save power, turn the unit off and remove the plug from the outlet. However, the next time you use the unit you will need to set the time again.	—
I'm concerned with standby power consumption.	●By setting the unit to "Power-Save Mode" in "Power Off Mode", power consumption will be minimized when the unit is turned off.	93
I want to change the audio quality during play.	●Adjusting the equalizer settings is a simple way to change the audio quality.	82

Messages

Another playlist with the same name already exists, but you cannot combine them because the maximum number of tracks (99) has been reached.	≥Another playlist with the same name already exists and you are trying to create a combined playlist that will be in excess of 99 tracks. The maximum number of tracks that can be added to a single playlist is 99. Give the playlist a different name or cancel editing.	—
Backup is incomplete. Do you want to resume Backup?	≥Following the on-screen message, select to continue backup or to operate the unit without continuing backup.	88
Cannot add this track to the playlist. The maximum number of tracks (99) has been reached.	≥You are trying to add more than 99 tracks to a single playlist. The maximum number of tracks that can be added to a single playlist is 99. Delete unnecessary tracks from the playlist.	68
Cannot display group xx, content xx	≥You are trying to play incompatible group or content.	25
Cannot play group xx, content xx	≥You are trying to play incompatible group or content.	25
Cannot play this track because of copyright restrictions.	≥This track is a copyright-protected WMA track. Skip this track to continue play.	—
Cannot record. Random/Repeat play mode is selected.	≥You are trying to record by pressing [● HDD REC] on the remote control while CD playback is set to random or repeat. Recordings cannot be made during random or repeat playback.	57, 58
Check the disc	≥This disc may be dirty.	26
Due to copyright protection, audio cannot be output from HDMI	≥Should you connect equipment that does not support CPPM, the audio from the CPPM copy protected DVD-Audio cannot be output from HDMI AV OUT terminal. Use the included speakers.	108
Group xx, content xx is protected	≥You are trying to play protected group or content. You cannot play it.	—
No compatible equipment is connected.	≥There is no OPTION compatible equipment connected. Connect an OPTION compatible equipment to the OPTION port.	78
No Disc	≥There is no disc inserted, or the disc inserted cannot be played on this unit. Insert a disc, or insert a different disc.	24
No suggested titles were found.	≥The unit searched the Gracenote database, but the title could not be found. When the unit is connected to a network, insert the same CD again at a later date to search again.	—
Please insert an Audio CD.	≥This operation is only available when an audio CD is inserted. Insert an audio CD.	29
Please select Playlist.	≥You tried to display the sub menu when no tracks or playlists were selected. This operation is only possible when a track or playlist is selected.	—
Please set your remote control to Mode 1 (or 2).	≥The remote control mode is not synchronized with the main unit. Change the mode on the remote control.	22
Please wait.	≥Management and preparation for some functions can take a bit longer than others. Please wait until the unit finishes the operation.	—
Recording Canceled. There is not enough space on the Hard Disk Drive.	≥The recording stopped because there is insufficient space for the recording. You cannot make any further recordings.	—
Several suggestions for titles have been found. Please choose one.	≥Select the appropriate title from the list of title suggestions found.	34

Reference

Messages

Television displays (in general) **Page**

There are no tracks in the Music Collection.	●There are no tracks recorded to the HDD.	—
There are no tracks that can be converted or analyzed.	●All tracks (or playlists) in the HDD have completed conversion and analysis.	—
There is not enough space on the Hard Disk Drive. Available space: xx GB Please erase unnecessary tracks, and try again.	●Due to insufficient space on the HDD, a portion or all of the tracks cannot be recorded and/or edited. – Delete unnecessary tracks. – Available space may be increased by performing conversion/analysis.	71 42, 43
This disc may not be played in your region	●You can only play DVD-Video if their region number is "1", "ALL" or multiple region numbers including "1".	Cover
Canceled. Cannot record this track.	●You tried to record tracks from recordable discs that use data formats other than CD-DA, WMA or MP3, or you tried to record SCMS-protected tracks. Some or all tracks cannot be recorded.	35
You cannot do that during play.	●Perform the operation again after stopping the unit.	—
You cannot do that during play. Stop to continue?	●This operation cannot be performed during play. Select "Yes" to stop play and then proceed with the desired operation.	—
You cannot use this name. Please use another one.	●You are trying to add a name or character(s) that are used by this unit for file management purposes to the beginning of the name of this playlist. Give another name.	—
⊘	●The operation is prohibited by the unit or disc.	—

Television displays (when connected to a network)

Canceled by timeout.	●Make sure that the router, modem, etc. are all turned on. Also check the connection between the router and this unit, and check the network settings.	20, 95
Cannot connect to network.	●Check the LAN cable connection. Also make sure that both the router and modem are turned on.	20
Cannot obtain IP address.	●Check that this unit is connected to the router, and check the settings.	20, 21
The PC name that was input not found. Canceled.	●The cable may not be connected. Check the cable connection between the PC and this unit. ●Check that the PC connected to this unit is turned on. ●The PC name may have been input incorrectly. Input the PC name correctly.	— — 40
Unknown error has occurred.	●Turn this unit and the connected device(s) off and on again, and then repeat the operation again.	—

Unit displays (in general)

H☐☐ or F7☐☐ **(☐☐ stands for a number.)**	● Trouble may have occurred. The number following "H" and "F7" depends on the status of the unit. Turn the unit off and then back to ON. Alternatively, turn the unit off, 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.	—
NO DISC	● You haven't inserted a disc: Insert one.	—
	● You haven't inserted the disc correctly: Insert it correctly.	29
NO PLAY	● You inserted a disc the unit cannot play: Insert one it can.	24
	● You inserted a blank disc.	—
	● You inserted a disc that has not been finalized.	24
U11	● The disc may be dirty.	26
U59	● The temperature inside the unit has risen, and operation has stopped for safety purposes. Wait about 30 minutes until the message has disappeared before using the unit again. Place the unit in an area with good airflow and make sure that the ventilation openings are not blocked.	—
U70-☐ **(☐ stands for a number.)**	● The HDMI connection acts unusually. The actual number following "U70-" will depend on the state of this unit. – The connected equipment is not HDMI compatible. – The HDMI cable is too long. – The HDMI cable is damaged.	—
H19, F61 or F76	● Trouble may have occurred. Turn the unit off and on. When the message still appears, disconnect the AC power supply cord and consult your dealer.	—

Unit displays (XM Satellite Radio advisory messages)

"ANTENNA" is flashing.	● The XM antenna is not properly connected. Check the connection and make sure the antenna cable is not damaged.	19
"LOADING" is flashing.	● The XM antenna is receiving and decoding the broadcast information. Wait a few seconds for loading to complete.	—
"NO SIGNL" is flashing.	● The XM signal is too weak. Reorient the XM antenna for better reception.	64
"OFF AIR" is flashing.	● The selected XM channel is not currently broadcasting. Select a different channel.	65, 66
"UPDATING" is flashing.	● The XM antenna is being updated with the latest encryption code. Wait a few seconds for the update to complete.	—
	● You may have selected an XM channel that has been blocked, or is no longer available with your subscription package. For inquiry, call XM's Listener Care at 1-800-XMRADIO (U.S. residents) or 1-877-GET-XMSR (Canada residents).	—
XM – – –	● The selected XM channel is not available. Select a different channel.	65, 66
– – – –	● Supplemental text information, such as the song title or artist's name is not available for that particular broadcast. You can change the type of XM channel information that is displayed by pressing [FL DISPLAY].	66
F70	● An XM transmission error has occurred. Turn the unit off and on. When the message still appears, disconnect the AC power supply cord and consult your dealer.	—

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated in the chart do not solve the problem, refer to "Customer Services Directory" on page 110 if you reside in the U.S.A., or refer to "Product information" on page 109 if you reside in Canada.

General Issues	**Power**	**Page**
No power.	●Insert the AC power supply cord securely into the household AC outlet.	**13**
The unit is automatically switched to the standby mode.	●When "Auto Power Off Mode" is set to "On", the unit automatically switches to standby after approximately 10 minutes in the stop mode.	**93**
When the AC power supply cord is plugged in, "– – – –" flashes on the unit display.	●Last time you used the unit, was the cord removed from the power outlet immediately after the unit was turned off, or while "– – – –" was flashing on the unit display? Conversion and analysis was aborted while the unit was in standby mode. The unit is converting and analyzing the tracks again. While "– – – –" is flashing on the unit display, the unit can be turned on without any problems.	**29, 32**
The unit display does not turn off even when the unit is in "Power-Save Mode".	●If there are recorded tracks that have not been converted or analyzed yet, the unit will enter standby in "Quick-Start Mode" when the unit is turned off. Once conversion and analysis is complete, the unit will switch to "Power-Save Mode".	**32, 93**
The unit starts up slower than it used to when set to "Power-Save Mode".	●When the number of tracks recorded to the HDD increases, it will take more time for the unit to start up.	**—**
I set the unit to "Quick-Start Mode", but it starts up slow.	●In some cases, the unit manages the system for stable operation for several tens of seconds while the unit is turned off. During this period, if the unit is turned on, it can take time to start up ("Starting now. Please wait" is displayed). Furthermore, during system management, the standby indicator (red) will turn off briefly and a "click" sound may be heard.	**—**

General Issues	**Operation**	
The main unit is hot.	●When this unit is used for an extended period of time, the main unit can become hot. However, this does not cause any harm to the unit.	**—**
The display is dim.	●Change "FL Dimmer" in "Power On/Off" menu.	**93**
No response when any buttons pressed.	●This unit cannot play discs other than the ones listed in these operating instructions. ●The unit may not be operating properly due to lightning, static electricity, or other external factors. Turn the unit off and on again. Alternatively, turn the unit off, disconnect the AC power supply cord, and then reconnect it. ●Condensation has formed: Wait 1 to 2 hours for it to evaporate. ●Have you created a backup or restored the HDD? Backup and restore can take some time to complete. ●Press and hold [⏻/I] on the main unit for approximately 10 seconds to force the unit to restart.	**24** **—** **—** **—** **—**
No response when remote control buttons pressed.	●Check that the batteries are installed correctly. ●The batteries are depleted: Replace them with new ones. ●Point the remote control at the remote control signal sensor and operate.	**8** **8** **8**
When using the remote control, the message "Please set your remote control to Mode 1 (or 2)." is displayed.	●The remote control settings are not correctly set with this unit's settings. Change the mode on the remote control.	**22**
Using remote controls for other devices causes accidental operation on this unit.	●Are you using other Panasonic products at the same time? The remote control signals may be similar, so change the remote control mode.	**22**
No on-screen display.	●Select "On" in "On-Screen Messages" in "Display" menu.	**93**
No picture or sound.	●Check the video or audio connection. ●Check the power or input setting of the connected equipment. ●Check that the disc has something recorded on it.	**12, 13, 17, 18** **—** **—**
Audio does not sound correct. The left and right channels are reversed.	●Are the left and right cords connecting the speakers or the external device reversed? Check the cord for the speakers and the external device and connect them correctly. ●Are the left and right speakers properly installed? Look on the bottom of the speakers to identify the left and right speakers.	**12, 17, 18** **10**

During play, a "humming" sound can be heard.	●Are there power cords or fluorescent lights near any connected cords? Keep this unit as far away as possible from other electrical devices.	—
I can't connect to the network.	●Has the LAN cable come unplugged? Check that the LAN cable is properly connected.	**20**
	●Have you plugged in a modular cable for use with a telephone into the LAN terminal on this unit? Connect with a straight LAN cable.	**20**
	●Is the power for the modem or broadband router turned on? Turn the power on for each device.	—
	●Have you set the unit to use only the internal CD database? Set "CD database Setting" to "Yes" in "Network" menu.	**94**
	●Is there a mistake in the network settings? Follow any instructions you may have received from your ISP (Internet Service Provider) and make changes to the settings accordingly.	—
	●Are the broadband router settings correct? Read the operating instructions for the broadband router.	—
	●Is the broadband router and/or modem correctly connected? Check the operating instructions for each device and connect accordingly.	—
While using my PC, I cannot connect to the network.	●Does your Internet Service Provider (ISP) or service contract prevent multiple terminals connecting at the same time? Check the content and regulations of your contract.	—
You have forgotten your ratings password. Reset all the settings in "Setup for Video" to Factory Preset.	●Switch the selector to "DVD/CD", and when the unit is stopped, simultaneously press [■] on the main unit and [≧10] on the remote control until "Initialized" is displayed. All settings in "Setup for Video" will return to the default values.	—
The SUB MENU button doesn't work.	●Is the unit performing the recording? Perform operations after recording finishes.	—

General Issues　　**EZ Sync**

EZ Sync "HDAVI Control" does not work.	●Check the connection of the HDMI cable.	**17**
	●Is "EZ Sync" set to "On" in the "HDMI" menu?	**93**
	●Check the EZ Sync settings on the connected device.	—
	●If the HDMI device connection was changed, there has been a power failure, or the plug was removed and then reinserted to the power outlet, EZ Sync may stop working. In any of these cases, perform the steps listed below.	—
	1 Turn on the power to all devices connected with an HDMI cable, and then turn the TV (VIERA) off and on again.	
	2 Turn the EZ Sync settings on the TV(VIERA) to "Off" and then "On" again. (For more information, refer to the VIERA operating instructions.)	
	3 Switch the VIERA input to the HDMI connection with this unit, and after this unit's screen is displayed, check the EZ Sync operations.	

Playback Issues　　**Operation**

Recorded tracks are not displayed, and cannot be found.	●If it is difficult to find the playlist that a track was added to, search by the name of the track. All tracks in the Music Collection will be displayed by track name.	**47**
Tracks have not been added to "Music Shuffle".	●Are you playing the track immediately after recording it? Adding the track to Music Shuffle takes place when the unit is in standby mode.	—
	●Does this abnormality only occur with specific tracks? Depending on the track, it may not be added to any genre.	**49**
The display does not change even after inserting a disc. Play does not begin even after pressing [▶] (PLAY).	●Does the inserted disc conform to disc standards and specifications? Replace it with a disc that conforms to disc standards.	**24**
	●Condensation has formed: Wait 1 to 2 hours for it to evaporate.	—

Reference

Reference

RQT8926

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Playback Issues	Operation	Page
Play doesn't start.	● This unit may not play WMA that contains still picture data.	—
	● If a disc contains CD-DA and other formats, proper playback may not be possible.	—
It takes time before play starts.	● Play may take time to begin when an MP3 track has still picture data. Even after the track starts, the correct play time will not be displayed; however, this is normal.	—
Specific locations will not play correctly.	● Is the disc dirty or scratched? Wipe off the disc with a soft cloth, etc. and try again.	**26**
WMA/MP3 discs are not read correctly.	● If you have created a multi-session disc, did you close the session? Use WMA/MP3 discs that have closed sessions.	—
	● Is there one session with very little data on it? Create sessions with approximately 5 MB (approximately two three-minute tracks) or larger.	—
Menu doesn't appear. **VCD** with playback control	● Press [■] twice and then press [▶] (PLAY).	—
The program and random play functions do not work.	● These functions do not work with some DVD-Videos.	—
Play restarts from the beginning of the track when soundtrack is changed.	● This is normal on DVD-Audio.	—
Subtitle position is wrong.	● Adjust the position. ("Subtitle Position" in Display Menu)	**60**
No subtitles.	● Display the subtitles.	**57**
The subtitles overlap closed captions recorded on discs.	● Clear the subtitles.	**57**
In A-B Repeat, point B is automatically set.	● The end of an item becomes point B when it is reached.	**59**
Repeat play is automatically canceled.	● Repeat play may be canceled when you perform "Advanced Disc Review".	—

Playback Issues	Sound	
No sound.	● There may be a pause in sound when you change the play speed.	—
	● Audio may not be heard when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.	—
Sound distorted.	● Noise may occur when playing WMA files.	—
	● The DVD-Audio disc may have restrictions on the method of audio output. With some multi-channel DVD-Audio discs, unless the number of connected speakers is the same as the disc's channel specification, audio will not be output properly. Refer to the DVD-Audio disc's jacket for more information.	—
	● With HDMI AV OUT connections, audio may not be output from other terminals in the way that was set.	—
The track sounds different now than it did before.	● Did you make the recording to the HDD while the recording mode was set to AAC? Tracks are recorded to the HDD in LPCM and then converted to AAC. Playing a track directly after recording it will cause the audio to sound different from the converted AAC track.	**32**
The audio sounds broken up between tracks.	● Was the track recorded in AAC (LP)? In rare cases, the audio may sound broken up between tracks recorded in AAC (LP).	—
Effects do not work.	● Are you trying to use various audio qualities and effects for sound fields at the same time? Depending on how the audio quality and sound fields are grouped together, you may not be able to obtain enough of an effect.	—
	● None of the audio effects work when the unit is outputting bitstream signals from the DIGITAL OPTICAL OUT terminal.	**18**
	● Some audio effects do not work or have less effect with some discs.	—
The on-screen menu shows "2" as a soundtrack option, but the audio does not change.	● This is normal on DVD-Audio. Even if a second soundtrack isn't recorded, two numbers will be shown.	—

Playback Issues	Picture	Page

Picture distorted.	●Ensure that the unit is not connected through a video cassette recorder.	18
	●Have you selected an item in "Video Output Mode" that is incompatible with the connected equipment? Depending on the current connection status, perform corresponding steps.	60
	–When connecting to a television that is incompatible with progressive output using the COMPONENT VIDEO OUT terminal: Press and hold [CANCEL] until the picture displays correctly. The settings will return to "480i".	
	–When connecting to a television with an HDMI cable: Press and hold [CANCEL] until the picture displays correctly. The settings will return to "480p".	
Picture size doesn't fit the screen.	●Change "TV Aspect" in "Video" menu.	92
	●Use the television to change the aspect. If your television does not have that function, change "4:3 Aspect" in Display Menu.	60
	●Change the Zoom setting.	56
The television may display incorrectly or colors appear faded.	●PAL discs cannot be played. (You can play DVD-Audio; however, still pictures may be displayed enlarged.)	—
	●Connect to a progressive output compatible television to enjoy progressive video.	—
	●Picture may not be seen when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices.	—
Menu not displayed correctly.	●Restore the zoom ratio to ×1.00.	56
	●Set "Subtitle Position" in Display Menu to "0".	60
	●Set "4:3 Aspect" in Display Menu to "Normal".	60
Auto zoom function does not work well.	●Turn off TV's zoom function.	—
	●Use the other preset aspect ratios or manual adjustment.	56
	●Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc.	—

Playback Issues	HDMI and progressive	

Video is not output from HDMI AV OUT.	●Please use HDMI cables that have the HDMI logo (as shown on the cover).	—
	●Change the HDMI video output settings by using the procedure below.	93
	–Connect the television using VIDEO OUT terminal, then set "Video Mode" to "On" in the "HDMI" menu.	
While "HDMI Status" displayed, any items are not underlined.	●If you select an item without an "✳" in the "Video Output Mode" in Picture Menu, it will not be underlined.	60
Picture distorted.	●Please use HDMI cables that have the HDMI logo (as shown on the cover).	—
	●Have you selected an item in "Video Output Mode" that is incompatible with the connected equipment? Depending on the current connection status, perform corresponding steps.	60
	–When connecting to a television that is incompatible with progressive output using the COMPONENT VIDEO OUT terminal: Press and hold [CANCEL] until the picture displays correctly. The settings will return to "480i".	
	–When connecting to a television with an HDMI cable: Press and hold [CANCEL] until the picture displays correctly. The settings will return to "480p".	
There is ghosting when HDMI or progressive output is on.	●This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlaced output.	60
	– When using the COMPONENT VIDEO OUT terminal, set "Video Output Mode" in Picture Menu to "480i". (Alternatively, press and hold [CANCEL] to switch to "480i".)	
	– When using the HDMI AV OUT terminal, set "Video Output Mode" in Picture Menu to "480i" output marked with an "✳". Else, disable the HDMI AV OUT connection and use other video connections. Make the settings in the following order:	
	1 Set "Video Mode" in the "HDMI" menu to "Off".	93
	2 Set "Video Output Mode" in Picture Menu to "480i". (Alternatively, press and hold [CANCEL] to switch to "480i".)	60
Pictures not in progressive output.	●If the unit is connected to the television through VIDEO OUT, output will be interlace.	—
Closed captions not displayed.	●When progressive output or HDMI output is on, closed captions will not be displayed.	—

Troubleshooting guide

Recording Issues
Page

Cannot record.	●Is the selector set to "TV Audio" (when "TV Audio Input" is set to "DIGITAL IN") or "XM"? You cannot record tracks from these sources to the HDD.	—
	●Is the CD set to random or repeat play mode? Turn random/repeat play off.	**57, 58**
Cannot perform high-speed recording.	●Did you try to record WMA/MP3 tracks from a recordable disc? WMA/MP3 tracks cannot be recorded in high-speed recording mode.	—
Tried to record tracks to the HDD, but they were not recorded.	●If the track you are trying to record is an SCMS recording, it will be skipped.	**35**
During recording, the audio is jumpy or there is noise in the recording.	●Does the readable surface of the disc have any scratches or fingerprints? Replace the disc if there are scratches, and wipe the disc off with a soft cloth if there are fingerprints.	**26**
	●Depending on how the disc was recorded, you cannot record tracks correctly from some recordable discs.	—

Radio

Noise is heard. **Sound is distorted.** **"ST" is flashing or doesn't light during FM broadcasts.**	●This is being caused by weak signal reception. When listening to FM radio, try the following operations. – Adjust the position of the FM antenna. – Use an FM outdoor antenna. – Change "Audio Mode" to "Mono". When listening to AM radio, try the following operations. – Adjust the position of the AM antenna. – Use an AM outdoor antenna. – Try switching "BP" (Beat Proof Function).	 — **63** **62** — **63** **62**
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.	—
You can receive only promotional XM channels	●Your XM Satellite service has not been activated, or your subscription has expired. To activate your XM Satellite service, or to renew your subscription: – For U.S. residents, visit XM on the Web at www.xmradio.com or call XM's Listener Care at 1-800-XMRADIO (1-800-967-2346). – For Canada residents, visit XM on the Web at www.xmradio.ca or call XM's Listener Care at 1-877-GET-XMSR (1-877-438-9677). You should have your Radio ID ready.	**64**

Gracenote database

The title information obtained from the Gracenote database or WMA/MP3 titles display incorrectly. The title does not display all characters.	●The title may contain characters that are not supported by this unit. Letters of the alphabet can be displayed. Letters with accent mark (such as "é", etc.) will be displayed blank or not displayed correctly.	—
	●Does the track have a long name? This unit can display titles up to 59 characters in length (artist names only, up to 39 characters).	**69**
Newly released CD title information cannot be obtained.	●Is the unit connected to a network? Newly released CD title information may not have been added to the internal Gracenote database. Connect to a network to search for the newest titles.	**20**

MEMO

Specifications

AMPLIFIER SECTION

RMS TTL Power Output   300W
  Front Ch   50 W per channel (8 Ω), 1 kHz, 10 % THD
  Center Ch   50 W per channel (8 Ω), 1 kHz, 10 % THD
  Subwoofer Ch   100 W (4 Ω), 100 Hz, 10 % THD
FTC TTL Power Output   240W
  Front Ch
            40 W per channel (8 Ω), 120 Hz–20 kHz, 1 % THD
  Center Ch
            40 W per channel (8 Ω), 120 Hz–20 kHz, 1 % THD
  Subwoofer Ch   80 W (4 Ω), 45 Hz–120 Hz, 1 % THD

FM TUNER SECTION

Frequency range   87.9–107.9 MHz (200 kHz step)
                           87.5–108.0 MHz (100 kHz step)
Antenna terminals   75 Ω (unbalanced)

AM TUNER SECTION

AM Frequency range   520–1710 kHz (10 kHz step)

HDD SECTION

Internal HDD capacity   80 GB
Recording format   AAC/Linear PCM
                                          MP3/WMA (LAN–PC)
Bit rate (AAC)   128 kbps (XP) /96 kbps (SP) /64 kbps (LP)
Channel   2 channels (stereo)
Recording time
  AAC   Approx. 2460 hours (LP mode)
  Linear PCM   Approx. 104 hours

DISC SECTION

Playable discs [8 cm (3″) or 12 cm (5″)]
  (1) DVD (DVD-Video, DVD-Audio)
  (2) DVD-RAM (DVD-VR, MP3[2, 5], JPEG[4, 5])
  (3) DVD-R (DVD-VR, DVD-Video, MP3[2, 5], JPEG[4, 5])
  (4) DVD-R DL (DVD-VR[6], DVD-Video)
  (5) DVD-RW (DVD-VR, DVD-Video, MP3[2, 5], JPEG[4, 5])
  (6) +R/+RW (Video)
  (7) +R DL (Video)
  (8) CD, CD-R/RW [CD-DA, Video CD, SVCD[1], MP3[2, 5], WMA[3, 5], JPEG[4, 5], HighMAT Level 2 (Audio and Image)]
  [1] Conforming to IEC62107
  [2] MPEG-1 Layer 3, MPEG-2 Layer 3
  [3] Windows Media Audio Ver.9.0 L3
     Not compatible with Multiple Bit Rate (MBR)
  [4] Exif Ver 2.1 JPEG Baseline files
     Picture resolution: between 160×120 and 6144×4096 pixels (Sub sampling is 4:2:2 or 4:2:0). Extremely long and slender pictures may not be displayed.
  [5] The total combined maximum number of recognizable audio and picture contents and groups: 4000 audio and picture contents and 400 groups.
  [6] Discs recorded on DVD recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).
Pick up
  Wave length (DVD/CD)   662 nm/785 nm
  Laser power (DVD/CD)   For U.S.A. CLASS II/CLASS I
                          For Canada CLASS 1/CLASS 1M

VIDEO SECTION

Video system   NTSC
Video output
  Output level   1 Vp-p (75 Ω)
  Output connector   Pin jack (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)
  Output connector
            Pin jack (Y: green, P_B: blue, P_R: red) (1 system)
HDMI AV output   HDMI 19 pin type A connector
                          This unit supports "HDAVI Control 2" function.

SPEAKER SECTION

Front & center channel SB-FCX7

■ **Front speaker section**

Type	Mechanical 2 way, 1 speaker system (Bass reflex)
Full range	6.5 cm (2$1/2$″) Cone type
Impedance/Input power (IEC)	8 Ω/50 W[*7] (Max)
Output sound pressure	82 dB/W (1.0 m)
Frequency range	85 Hz−25 kHz (−16 dB)
	100 Hz−22 kHz (−10 dB)

■ **Center speaker section**

Type	1 way, 1 speaker system (Closed)
Full range	6.5 cm (2$1/2$″) Cone type
Impedance/Input power (IEC)	8 Ω/50 W[*7] (Max)
Output sound pressure	83 dB/W (1.0 m)
Frequency range	105 Hz−25 kHz (−16 dB)
	160 Hz−22 kHz (−10 dB)
Dimensions (W×H×D)	106 mm×228 mm×131 mm
	(4$3/16$″×9″×5$3/16$″)
Mass	Approx. 1.4 kg (3.1 lbs)

Subwoofer SB-HWX7

Type	1 way, 1 speaker system (Bass reflex)
Woofer	17 cm (6$3/4$″) Cone type
Impedance/Input power (IEC)	4 Ω/100 W[*7] (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	32 Hz−190 Hz (−16 dB)
	39 Hz−160 Hz (−10 dB)
Dimensions (W×H×D)	137 mm×403 mm×437 mm
	(5$13/32$″×15$7/8$″×17$7/32$″)
Mass	Approx. 5.3 kg (11.7 lbs)

DIGITAL AUDIO OUTPUT

Optical digital output	Optical terminal (up to 96 kHz)

DIGITAL AUDIO INPUT

Optical digital input	Optical terminal (up to 48 kHz)

GENERAL

Power supply	AC 120 V, 60 Hz
Power consumption	90 W
Dimensions (W×H×D)	360 mm×105.5 mm×334 mm
	(14$3/16$″×4$3/16$″×13$5/32$″)
Mass	Approx. 4.7 kg (10.5 lbs)

(Dimensions and Mass do not include the speakers.)

Operating temperature range	
	+5 °C to +40 °C (+41 °F to +104 °F)
Operating humidity range	
	10 % to 80 % RH (no condensation)

Power consumption in standby mode
Power-Save Mode (Shipping condition) **Approx. 0.5 W**

[*7]Rating with the low-cut filter equipped amplifier

Note

1. Specifications are subject to change without notice.
2. Total harmonic distortion is measured by a digital spectrum analyzer.

Glossary

AAC (Advanced Audio Coding)
An audio compression method that compresses audio to approximately 1/12 of its size with CD-level quality.

CPPM (Content Protection for Pre-recorded Media)
A copy protection system used for DVD-Audio files. This unit supports CPPM.

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

DHCP (Dynamic Host Configuration Protocol)
Provides a mechanism for automatically assigning network information such as the IP address or Subnet mask sent by the router and so on to this unit.

DNS Server
A server which acts like a telephone directory and translates Internet domain names into IP addresses.

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.

Down-mixing
This is a process of remixing the multi-channel audio (surround sound) on some discs into two channels. When you want to listen to the audio on a DVD with a 5.1 channel digital surround track through your television speakers, the down-mixed audio will be output.
Some DVD-Audio prevent down-mixing of all or part of their contents. When playing such discs, or such parts of the disc, unless the number of connected speakers is the same as the disc's channel specification, audio will not be output properly.

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. This unit can determine which type has been used, then uses the most suitable method of progressive output.

Film: Recorded at 24 frames per second. (Recorded at 30 frames per second as well). Generally appropriate for motion picture films.
Video: Recorded at 30 frames/60 fields per second. Generally appropriate for TV drama programs or animation.

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.

Gateway
IP address of the electronic device providing Internet access. Usually called a router IP address. (e.g., 192.168.0.1)

HDD (Hard disk drive)
This is a mass data storage device used in PC, etc. A disk with a surface that has been treated with magnetic fluid is spun and a magnetic head is brought in close proximity to facilitate the reading and writing of large amounts of data at high speed.

HDMI (High-Definition Multimedia Interface)
HDMI is a next-generation digital interface for consumer electronic products. Unlike conventional connections, it transmits uncompressed digital video and audio signals on a single cable. This unit supports high-definition video output (720p,1080i,1080p) from the HDMI AV OUT terminal. To enjoy high-definition video, a high-definition compatible television is required.

Hub
Used for connecting more than one device to the network.

IP address
A set of numbers which distinguish each PC on the network when, for example, connected to the Internet. When using a PC in a LAN (➜ below) to access a PC or device that is not included in the LAN, the IP address is called the local IP address. (e.g., 192.168.0.10)

JPEG (Joint Photographic Experts Group)
This is a system used for compressing/decoding color still pictures. If you select JPEG as the storage system on digital cameras, etc., the data will be compressed to 1/10–1/100 of its original size. The benefit of JPEG is less deterioration in picture quality considering the degree of compression.

LAN (Local Area Network)
A group of linked devices in a company, school or home. Indicates the boundaries of a particular network.

LPCM (Linear PCM)
These are uncompressed digital signals, similar to those found on CDs.

MAC (Media Access Control) address
Address assigned to each device connected to the network to allow it to be recognized.

MP3 (MPEG Audio Layer 3)
An audio compression method that compresses audio to approximately 1/10 of its size without any considerable loss of audio quality.

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

Progressive/Interlace
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.
Using progressive output, you can enjoy the high-resolution video recorded on media such as DVD-Video.
Your television must be compatible to enjoy progressive video.

Router
Distinguishes the IP address assigned to each device, such as the PC, and relays the flow of data within the network.

Sampling frequency
Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding). Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

Subnet mask
Enables efficient network use. A set of numbers which identify which part of the IP address allocated to every device connected to the router is the network portion.

TCP/IP (Transmission Control Protocol/Internet Protocol)
These are the standard protocols for sending and receiving data.

WMA (Windows Media™ Audio)
WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

1080i (1125i)
In one high definition image, 1080 (1125) alternating scan lines pass every 1/60th of a second to create an interlace image. Because 1080i (1125i) more than doubles current television broadcasts of 480i, the detail is much clearer and creates a more realistic and rich image.

1080p (1125p)
In one high definition image, 1080 (1125) scan lines pass at the same time every 1/60th of a second to create a progressive image. Since progressive video does not alternate scan lines like interlace, there is a minimal amount of screen flicker.

720p (750p)
In one high definition image, 720 (750) scan lines pass at the same time every 1/60th of a second to create a progressive image. Since progressive video does not alternate scan lines like interlace, there is a minimal amount of screen flicker.

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 110.
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.

Limited Warranty (ONLY FOR U.S.A.)

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.pstc.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 Service and Technology 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

Panasonic Puerto Rico, Inc.
Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985
Phone (787)750-4300, Fax (787)768-2910

Limited Warranty (ONLY FOR CANADA)

Panasonic Canada Inc.

PANASONIC PRODUCT—LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

Technics Audio Product	One (1) year, parts and labour
Panasonic Portable/Clock Radio (without Tape, CD, MD)	One (1) year, parts and labour
Panasonic Audio/SD Audio Product	One (1) year, parts and labour
Panasonic DVD Product	One (1) year, parts and labour
Panasonic Combination DVD Player/VCR	One (1) year, parts and labour
Panasonic Combination DVD Recorder/VCR	One (1) year, parts and labour
Accessories including rechargeable batteries	Ninety (90) days

LIMITATIONS AND EXCLUSIONS

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE

FOR PRODUCT OPERATION ASSISTANCE, please contact:

Our Customer Care Centre:	Telephone #:	(905) 624-5505
	1-800 #:	1-800-561-5505
	Fax #:	(905) 238-2360
	Email link:	"Customer support" on www.panasonic.ca

FOR PRODUCT REPAIRS, please locate your nearest Authorized Servicentre at www.panasonic.ca :

Link : "Servicentres™ locator" under "Customer support"

IF YOU SHIP THE PRODUCT TO A SERVICENTRE
Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

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