

Panasonic®

Operating Instructions

DVD Stereo System

Model No. **SC-VKX60**



Dear Customer

Thank you for purchasing this system.

For optimum performance and safety, read these instructions fully before you connect, operate or adjust this system.

Keep this manual for future reference.

Your system and the illustrations can look differently.

Region code

This system plays DVD-Video that has the region code "2" or "ALL".

Example:

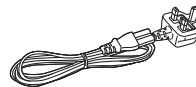


Supplied accessories

Check and identify the supplied accessories.

1 x AC mains lead

For Saudi Arabia and Kuwait

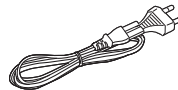


1 x Remote control



(N2QAYB000568)

For others



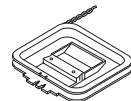
1 x FM indoor antenna



1 x Video cable



1 x AM loop antenna



2 x Remote control batteries



Panasonic Corporation
Web Site: <http://panasonic.net>



RQTX1215-G
L1010CH0

Do the procedures with the remote control. You can also use the buttons on the main unit if they are the same.

System	SC-VKX60
Main unit	SA-VKX60
Speakers	SB-AKX70



Back of product

CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 A2) Class 1M
WARNING	- KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKE INSTRUMENTER.
FORSIGTIG	- SYNLIG OG USYNLIG LASERSTRÅLING KLASS 1M. NÄR LÅGET ER ÅBENT, UNDGÅ AT SE UD PÅ MED OPTISKE INSTRUMENTER.
VARO!	- AVATTRESSA OLEET ALTIINNA LUOKAN 1M NÄKYVÄÄ JA NÄKYMÄTÖNTÄ LASERSTRÄLMIÄ. ÄLÄ KATSO OPTISILLIA LÄITTEELLÄ SUORIN SILMIESSEEN.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRÄHLUNG 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'AVEC D'INSTRUMENTS D'OPTIQUE.
注意	- ここを開くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたりしないでください。
注意	- 打开時有可能及不可见激光辐射。避免光束照射。 GB7241.1:2001GB 类 ROLXS0075

Inside of product

For Saudi Arabia and Kuwait

CAUTION!

Set the voltage selector to the AC voltage in your area (⇒ 7, "Making the connections"). If not, the system can be damaged or cannot operate correctly.

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.

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.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

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.

- 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.

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.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

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U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Note on AC mains lead

For Saudi Arabia and Kuwait

Before use

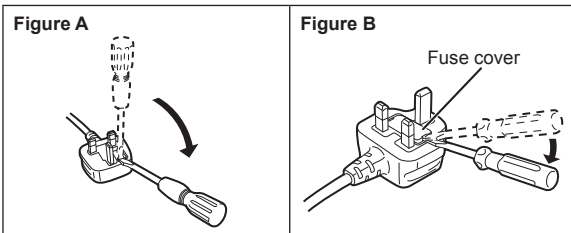
Remove the connector cover.

How to replace the fuse

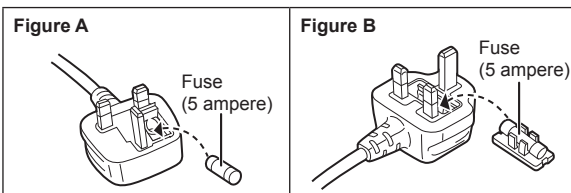
The location of the fuse differs according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



Safety precautions

Placement

Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Place it at least 15 cm away from wall surfaces to avoid distortion and unwanted acoustical effects.

Do not place heavy items on the unit.

Voltage

Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other places where DC is used.

AC mains lead protection

Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.

Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service

Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorised service centre. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

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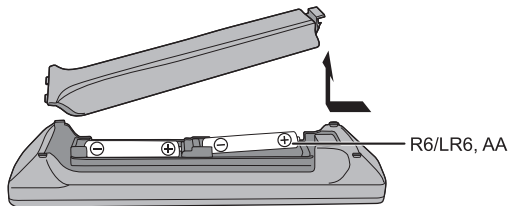
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Preparing the remote control

Use alkaline or manganese batteries.

Install the batteries so that the poles (+ and -) align with those in the remote control.



Point the remote control at the signal sensor of the remote control (➔ 9), away from obstacles, at a maximum range of 7 m directly in front of the main unit.

CAUTION!

- Do not mix used and new batteries.
- Do not use different types of batteries at the same time.
- Do not break open or short-circuit the batteries.
- Do not charge the alkaline or manganese batteries.
- Do not use the batteries if the cover has peeled off.
- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.
- Mishandling of batteries can cause electrolyte leakage, which can cause a fire.
- Remove the batteries if you do not use the remote control for a long period of time. Keep in a cool, dark area.

CAUTION!

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Placement of speakers



The right and left speakers are the same.

Use only the supplied speakers.

The combination of the main unit and speakers give the best sound. You can cause damage to the system and decrease the sound quality if you use other speakers.

Note:

- Keep your speakers more than 10 mm from the main unit for ventilation.
- Put the speakers on a flat safe surface.
- When you play at high levels for a long period, it can cause damage to the system and decrease the life of the system.
- Decrease the volume in these conditions to prevent damage:
 - When you play distorted sound.
 - When you adjust the sound quality.

Irregular colour on your TV

The setup condition of the speakers can cause unwanted effects to the picture of the TV.

If this occurs, switch off the TV for 30 minutes.

If the demagnetising of the TV does not correct the problem, increase the distance between the speakers and the TV.

CAUTION!

- Use the speakers only with the recommended system. If not, you can cause damage to the amplifier and speakers and can cause a fire. Consult an approved service personnel if damage occurs or if there is a sudden apparent change in performance.
- Do the procedures included in these instructions when you attach the speakers.



Making the connections

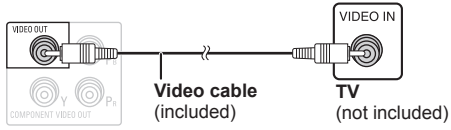
Connect the AC mains lead only after all the other connections have been made.

Conserving power

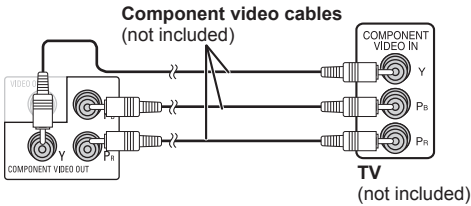
The system consumes approximately 0.3 W when it is in standby mode. Disconnect the power supply if you do not use the system. Some settings will be lost after you disconnect the system. You have to set them again.

Connect the TV

VIDEO OUT terminal



COMPONENT VIDEO OUT terminals



Use these terminals for interlace or progressive output.

To enjoy progressive video

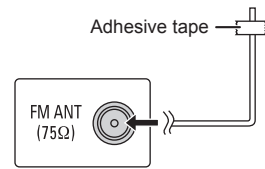
1. Connect to a progressive output compatible TV.
2. Set "VIDEO OUT (I/P)" to "PROGRESSIVE" (→ 20, "VIDEO" menu).

Do not make the video connections through the VCR

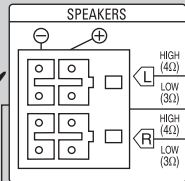
The video cannot show correctly because of copy-guard protection.

Connect the FM indoor antenna

Put the antenna where reception is best.

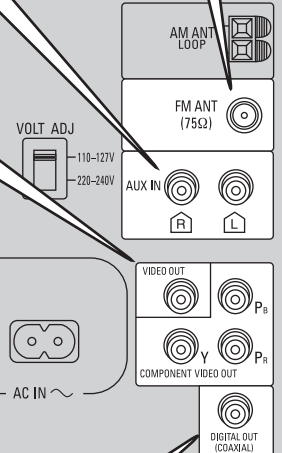
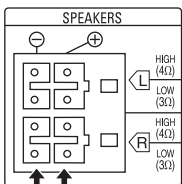


Refer to "Using the auxiliary input" (→ 19) for more information on AUX connection.



TO SB-AKX70

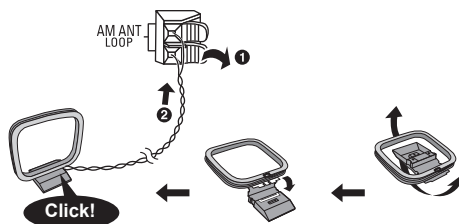
Connect the speakers



Refer to "Using the digital output" (→ 19) for more information on COAXIAL connection.



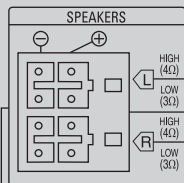
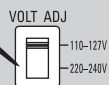
Connect the AM loop antenna



For Saudi Arabia and Kuwait

Set the voltage

Use a flat-head screwdriver to set the voltage selector to the AC voltage in your area.



TO SB-AKX70

AC mains lead

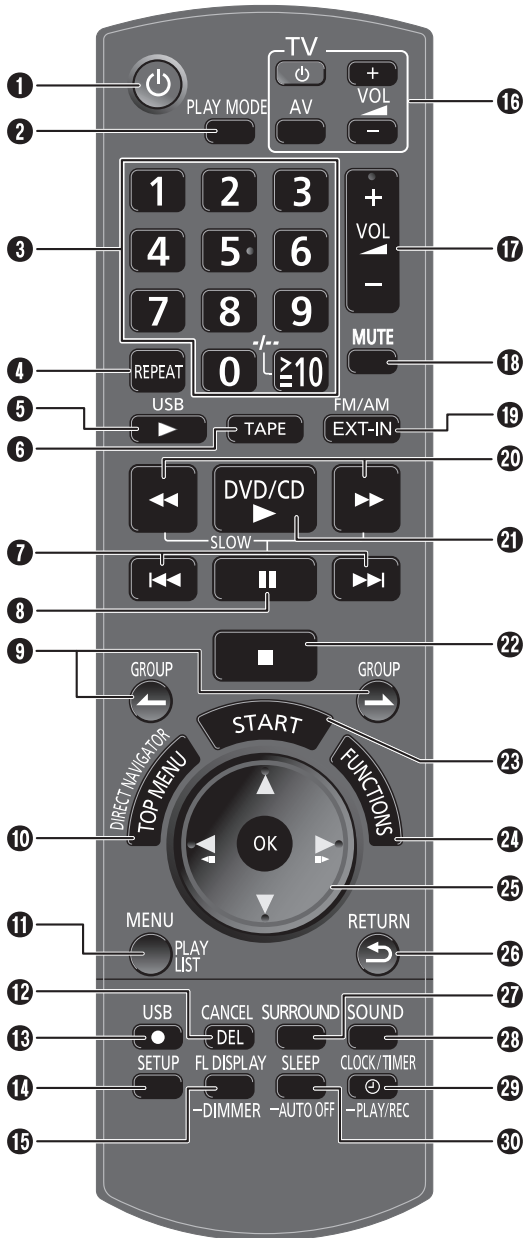
AC IN ~

To household mains socket

Connect the AC mains lead

Use the included AC mains lead with this system only. Do not use an AC mains lead from other equipment.

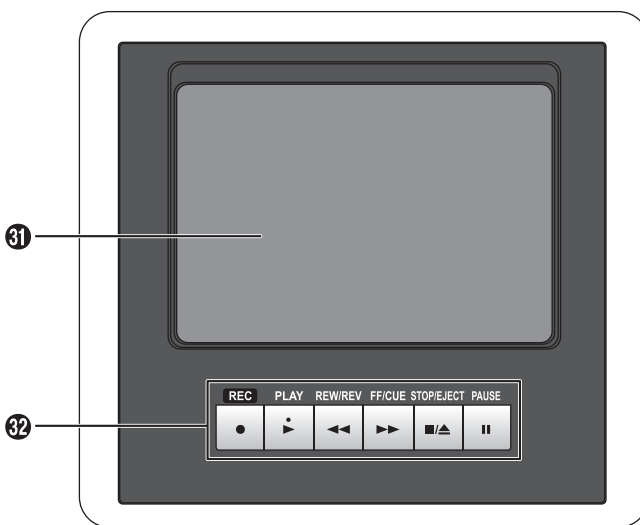
Overview of controls



- 1 Standby/on switch** [⏻], [⏻/⏻] (→ 10, 26)
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** Program playback, random playback (→ 11)
Select "MONO" for FM radio station (→ 16)
- 3** Numeric buttons
To set a 2-digit number
Example: 16: [≥10] → [1] → [6]
- 4** Repeat playback (→ 11)
- 5** Playback contents from a USB mass storage device (→ 14)
- 6** Select cassette tape source (→ 16)
- 7** Skip track or content (→ 11)
Select preset radio stations (→ 16)
- 8** Pause playback (→ 11)
- 9** Skip group or folder (→ 11)
- 10** Show the disc top menu (→ 12)
Show the program list (→ 12)
- 11** Show the menu (→ 12, 14)
Select frequency mode (→ 16)
Show the playlist (→ 12)
- 12** Cancel an item (→ 11)
Delete an item (→ 15)
- 13** Record contents to a USB mass storage device (→ 14)
- 14** Change the system settings (→ 10, 20)
Select track divide mode for USB recording (→ 15)
- 15** View the information shown on the display panel (→ 11)
Decrease the brightness of the display panel
Press and hold the button to use this function.
To cancel, press and hold the button again.
- 16 Operate a Panasonic TV** (applicable to some models only)
Point the remote control to a Panasonic TV:
[⏻]: Switch on or switch off the TV
[AV]: Change the video input mode of the TV
[+/-, VOL]: Adjust the volume of the TV
- 17** Adjust the volume of the system
- 18 Mute the sound of the system**
Press the button again to cancel. "MUTE" is also cancelled when you adjust the volume or when you switch off the system.
- 19** Select FM or AM radio station (→ 16)
Select music port or AUX source (→ 19)
- 20** Playback in slow motion, search track or content (→ 11)
Tune the radio station (→ 16)
- 21** Playback contents from a disc (→ 11)
- 22** Stop playback (→ 11, 14)
- 23** Show the START menu (→ 10)



- 24 Show the on-screen menu (➔ 12)
Select "BP 1" or "BP 2" for AM radio station (➔ 16)
- 25 View frame-by-frame (➔ 11)
Select or confirm item
- 26 Go back to the previous screen
- 27 Set the surround sound effect (➔ 17)
- 28 Select the sound mode (➔ 17)
- 29 Set the clock and timer (➔ 10, 17)
Start or cancel the play timer or record timer (➔ 17)
- 30 Set the sleep timer (➔ 17)
Set the auto off function (➔ 17)



- 31 Cassette tape deck
- 32 Operate cassette tape playback and recording (➔ 16)

- 33 Display panel
- 34 Set "D.Bass" function (➔ 18)

- 35 USB recording indicator
- 36 USB port (➔ 19)

- 37 Music port (➔ 19)

- 38 **Headphones jack** (🎧)
Connect headphones (not included) to the headphones jack.
Plug type: Ø 3.5 mm stereo
 - Avoid listening for prolonged periods of time to prevent hearing damage.
 - Excessive sound pressure from earphones and headphones can cause hearing loss.
 - Listening at full volume for long periods may damage the user's ears. Be sure to use the supplied or recommended headphones or earphones.

- 39 Signal sensor of remote control
- 40 Adjust "SUPER WOOFER" level (➔ 18)

- 41 Set "MANUAL EQ" function (➔ 18)

- 42 Skip track or content (➔ 11)
Search track or content (➔ 11)
Tune the radio station (➔ 16)

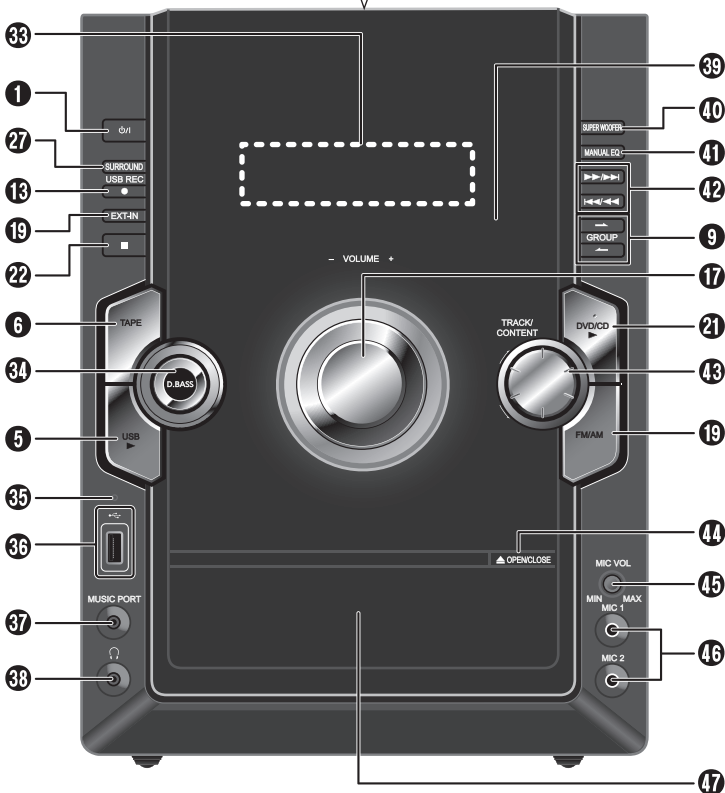
- 43 Skip and play CD-DA track or MP3 and WMA content (➔ 11)

- 44 Open or close the disc tray (➔ 11)

- 45 Adjust the volume of the microphone

- 46 Microphone jacks (➔ 18)

- 47 Disc tray



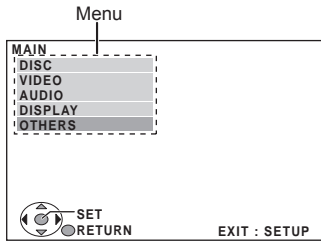
EASY SETUP

The EASY SETUP screen assists you in making basic settings.

Preparation

Switch on your TV and change its video input mode (example: change to "AV1" if you use "AV1" for the connection).

- 1 Press [⏻] to switch on the system.
If the EASY SETUP screen appears, skip steps 2 to 6.
- 2 Press [▶], DVD/CD].
- 3 Press [SETUP] to show the SETUP menu.
- 4 Press [▲/▼] to select "OTHERS" and press [OK].



- 5 Press [▲/▼] to select "EASY SETUP" and press [OK].
- 6 Press [OK] to select "SET".
- 7 Press [▲/▼] to select "YES" and press [OK].
- 8 Follow the messages and make the settings with [▲/▼/◀/▶] and press [OK].
(→ below, "EASY SETUP settings")
- 9 Press [OK] to finish EASY SETUP.
- 10 Press [SETUP] to close the screen.

EASY SETUP settings

Language	Select the language for the on-screen messages.
TV aspect	Select the aspect ratio that suits your TV.
PCM output	Select the maximum sampling frequency of PCM digital output.

Note:

Settings in the EASY SETUP can also be changed in the system settings (→ 20).

Setting the clock

This is a 24-hour clock.

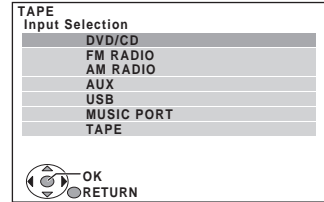
- 1 Press [CLOCK/TIMER] to select "CLOCK".
 - 2 Within 7 seconds, press [◀◀] or [▶▶] to set the time.
 - 3 Press [CLOCK/TIMER] to confirm.
- Press [CLOCK/TIMER] to show the clock for a few seconds.
 - Reset the clock regularly to maintain accuracy.

Smart control

You can select the source or access menus by using the START menu.

- 1 Press [START] to show the START menu.
- 2 Press [▲/▼] to select "Input Selection" and press [OK].
Press [START] to close the screen.

Example:

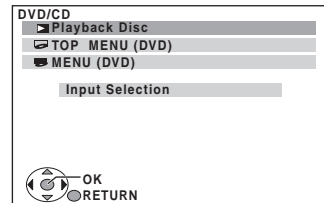


- 3 Press [▲/▼] to select the source and press [OK].

When "DVD/CD" or "USB" is the selected source

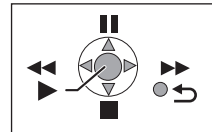
- 1 Press [START].

Example: **DVD-V**



- 2 Press [OK] to select "Playback Disc".
"Playback USB" for "USB" source.

The smart control panel shows on the screen. You can operate playback easily with these controls.



Playing discs

(→ 22, "Playable discs")

Basic playback

Preparation

To view the picture, switch on your TV and change its video input mode (example: change to "AV1" if you use "AV1" for the connection).

1 Press [▲, OPEN/CLOSE] on the main unit to open the disc tray.

Put in a disc with the label facing up.

Press [▲, OPEN/CLOSE] again to close the disc tray.

2 Press [▶, DVD/CD] to start playback.

Stop playback	Press [■] during playback. "RESUME STOP" shows on the screen. Press [▶, DVD/CD] to continue playback. Press [■] again to stop the disc fully.
Pause playback	Press [⏸] during playback. Press [▶, DVD/CD] to continue playback.
Skip group or folder	[WMA] [MP3] Press [◀, GROUP] or [▶, GROUP].
Skip track or content	Press [◀◀] or [▶▶] (main unit: [◀◀◀/◀◀] or [▶▶▶/▶▶]). [CD] [WMA] [MP3] Turn [TRACK/CONTENT] on the main unit.
Search (during playback) Slow-motion (during pause)	Press [◀◀] or [▶▶]. Or Press and hold [◀◀◀/◀◀] or [▶▶▶/▶▶] on the main unit. • Up to 5 speeds. • Press [▶, DVD/CD] to continue normal playback.
View frame-by-frame (during pause)	[DVD-V] Press [◀◀] or [▶▶] to go to previous or next frame. [DVD-VR] [VCD] Press [▶▶] to go to next frame.
View information	[DVD-VR] [DVD-V] [WMA] [MP3] [MPEG4] [DivX] [JPEG] Press [FL DISPLAY] to show available information on the display panel.

Note:

Depending on the type of disc, some operations are restricted.

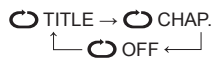
Repeat playback

This works only when the elapsed play time can be shown. It also works with all JPEG contents.

During playback

Press [REPEAT] to select the item to play again.

Example: [DVD-V]



To cancel, select "OFF".

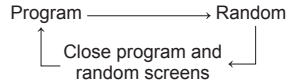
Note:

Depending on the type of disc and playback mode, the display shows different items.

Program and random playback

While stopped

Press [PLAY MODE] to select the playback mode.



Note:

- [DVD-VR] Select "DATA" in "DVD-VR/DATA" (→ 21, "OTHERS" menu) to play WMA, MP3, JPEG, MPEG4 or DivX contents.
- If "PLAYBACK MENU" screen appears, select "AUDIO/PICTURE" or "VIDEO" (→ 12, "Using playback menu").
- For a disc with WMA, MP3 and JPEG contents, select music or picture contents.
WMA, MP3: Select "MUSIC PROGRAM" or "MUSIC RANDOM".
JPEG: Select "PICTURE PROGRAM" or "PICTURE RANDOM".
- [DVD-V] Some items cannot be played even if you have programmed them.

Program playback (maximum 30 items)

1 Press [▲/▼] to select an item and press [OK].

Example: [DVD-V]

DVD-V PROGRAM		TITLE CHAPTER	
SELECT	TITLE		
1	TITLE 1	1	
2	TITLE 2	2	
3	TITLE 3	3	
4	TITLE 4	4	
5	TITLE 5	5	
6	TITLE	6	

- Do this step again to program other items.
- To go back to the previous menu, press [↩, RETURN].

2 Press [▶, DVD/CD] to start playback.

To select all the items

Press [▲/▼] to select "ALL" and press [OK].

To clear the selected program

1. Press [▶] and then press [▲/▼] to select the program.
2. Press [CANCEL].

To clear the whole program

Press [▶] to select "CLEAR ALL" and press [OK].

Note:

- The whole program is also cleared when:
- You open the disc tray.
 - You switch off the system.
 - You select another source.

Random playback

1 Press [▲/▼] to select a group or title.

2 Press [OK] to put "*" on your selection.

Example: [DVD-V]

DVD-V RANDOM	
SELECT	TITLE
* 1	TITLE 1
2	TITLE 2
3	TITLE 3
4	TITLE 4

To cancel a selection, press [OK] again.

3 Press [▶, DVD/CD] to start playback.

Using the navigation menus

Playing data discs

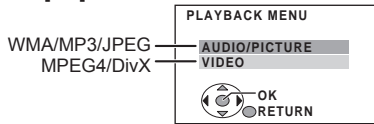
WMA MP3 JPEG MPEG4 DivX

DVD-VR Select "DATA" in "DVD-VR/DATA" (→ 21, "OTHERS" menu) to play WMA, MP3, JPEG, MPEG4 or DivX contents.

Using playback menu

"PLAYBACK MENU" shows when the disc contains video (MPEG4/DivX) and other formats (WMA/MP3/JPEG).

1 Press [▲/▼] to select "AUDIO/PICTURE" or "VIDEO" and press [OK].



2 Press [▶, DVD/CD] to start playback.

Playing from the selected item

While the "DATA-DISC" screen is shown

Group (Folder)

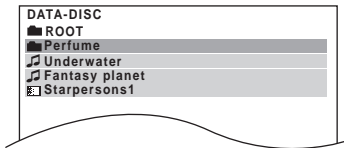


Content (File)

🎵 : WMA/MP3

🖼️ : JPEG

📺 : MPEG4/DivX



1 Press [▲/▼] to select an item.
Press [◀/▶] to skip page by page.

2 Press [OK] to start playback.
Playback starts from the item you select to the last item in the group.

• To close the screen, press [MENU].

JPEG

Selecting picture in thumbnail menu

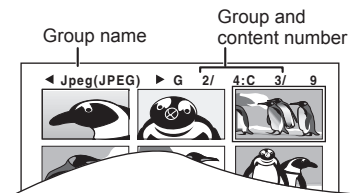
While the display shows a picture

1 Press [TOP MENU].

2 Press [▲/▼/◀/▶] to select a picture and press [OK].
Press [▶▶] or [◀◀] to skip page by page.

To select a picture in other groups

1. Press [▲] to select the group name.
2. Press [◀/▶] to select the group and press [OK].



• To close the screen, press [MENU].

Playing DVD-R/-RW (DVD-VR) discs

DVD-VR

- Display shows the title only if a title is given during recording.
- You cannot edit programs, playlists and disc titles.

Playing the programs

While stopped

1 Press [DIRECT NAVIGATOR].

2 Press [▲/▼] to select the program and press [OK].
Press [◀/▶] to skip page by page.

PG	DATE	LENGTH	TITLE
1	10/11 02:15	0:16:02	LIVE CONCERT
2	12/05 01:20	0:38:25	AUTO ACTION

• To close the screen, press [DIRECT NAVIGATOR].

Playing the playlist

This works only when the disc contains a playlist.

While stopped

1 Press [PLAYLIST].

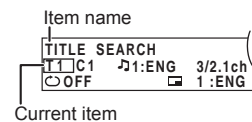
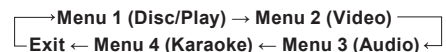
2 Press [▲/▼] to select the playlist and press [OK].
Press [◀/▶] to skip page by page.

PL	DATE	LENGTH	TITLE
1	11/11 00:01	0:00:10	CITY PENGUIN
2	12/01 01:20	0:01:20	FOOTBALL

• To close the screen, press [PLAYLIST].

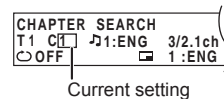
Using on-screen menus

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



2 Press [▲/▼/◀/▶] to select an item and press [OK].

Example: Menu 1 (Disc/Play) **DVD-V**



3 Press [▲/▼] to make the settings and press [OK].

• To close the screen, press [▶, RETURN].



The type of disc and the disc format can cause some items to not show or work.

Menu 1 (Disc/Play)

TRACK SEARCH, TITLE SEARCH, CONTENT SEARCH, CHAPTER SEARCH, PG SEARCH (program search), PL SEARCH (playlist search)

Start playback from a specified item

VCD This function does not work when you play a disc with the playback control (PBC) function.

Example: **DVD-V** : T2 C5

To select numbers for data disc

Example: 12: [≥10] → [1] → [2] → [OK]

AUDIO

DVD-V **DivX**

(with multiple soundtrack)

Select audio soundtrack

DVD-VR **VCD**

Select "L", "R", "L+R" or "L R"

Signal type/data

LPCM/PPCM/DDD/DTS/MP3/MPEG:

Signal type kHz (sampling frequency)/bit/ch (number of channels)

Example: 3/2 .1ch

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

DivX It can be a while before playback starts if you change the audio of a DivX disc.

PLAY SPEED

DVD-VR **DVD-V**

Change play speed

- from "x0.6" to "x1.4" (in 0.1-unit step)
- Press [▶], DVD/CD] to continue normal playback.
- After you change the speed:
 - Audio output will switch to 2-channel stereo.
 - Sampling frequency of 96 kHz is converted to 48 kHz.

REPEAT MODE

(⇒ 11, "Repeat playback")

A-B Repeat: Repeat a specified section

Except **JPEG** **MPEG4** **DivX** **DVD-VR** (still picture part) **VCD** (SVCD only)

Press [OK] at the start and end points.

- To cancel, select "OFF".

SUBTITLE

DVD-V **DivX** (with multiple subtitles) **VCD** (SVCD only)

Select subtitle language

- For +R/+RW disc, a number display will replace the subtitles that cannot be shown.

DVD-VR (with subtitle on or off information)

ON ↔ OFF

ANGLE

DVD-V (with multiple angles)

Select a video angle

JPG
DATE DATE DISPLAY

JPEG

Show the date of a picture

ON ↔ OFF

ROTATION

JPEG

Rotate a picture (during pause)

0 ↔ 90 ↔ 180 ↔ 270

Menu 2 (Video)

PICTURE MODE

NORMAL: Normal images.

CINEMA1: Mellows images and enhances details in dark scenes.

CINEMA2: Sharpens images and enhances details in dark scenes.

DYNAMIC: Enhances the contrast for powerful images.

ANIMATION: Suitable for animation.

ZOOM

Select zoom sizes

NORMAL, **AUTO** (**DVD-VR** **DVD-V** **VCD** **MPEG4** **DivX**), x2, x4

JPEG (during pause)

TRANSFER MODE

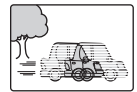
If you have set "VIDEO OUT (I/P)" to "PROGRESSIVE" (⇒ 20, "VIDEO" menu), set the method of conversion for progressive output accordingly:

When playing PAL discs

AUTO: Converts the film and video automatically.

VIDEO: Select when the content is distorted in the "AUTO" mode.

FILM: Select when the edges of the film content are jagged or rough in the "AUTO" mode. But, if the video content is distorted (as illustrated on the right), then select "AUTO".



When playing NTSC discs

AUTO1: Converts the film and video automatically.

AUTO2: Select to automatically sense the differences in the frame rates of the film content and converts it accordingly.

VIDEO: Select when the video content is distorted in the "AUTO1" or "AUTO2" mode.

SOURCE SELECT

DivX

AUTO: Converts the DivX content automatically.

INTERLACE: Select if the DivX content was encoded in interlace format.

PROGRESSIVE: Select if the DivX content was encoded in progressive format.

Menu 3 (Audio)

DIALOGUE ENHANCER

Make the dialogue in films easier to hear

DVD-V (Dolby Digital, DTS, 3-channel or higher, with the dialogue recorded in the centre channel)

DivX (Dolby Digital, 3-channel or higher, with the dialogue recorded in the centre channel)

ON ↔ OFF

RE-MASTER

Select the sound quality

OFF → 1 → 2 → 3

Menu 4 (Karaoke)

KARAOKE MODE

(⇒ 18, "Enjoying Karaoke")

ON ↔ OFF

- "PLAY SPEED" (⇒ left) does not work in Karaoke mode.

USB – Play and record

You can connect and play contents from your USB mass storage device.

Preparation

Before you connect a USB mass storage device to the system, make sure you do a backup of the data.

Do not use a USB extension cable. The unit cannot recognise USB mass storage devices connected through a cable.

Basic playback

- 1 Decrease the volume and connect the USB mass storage device to the USB port.



USB mass storage device (not included)

- 2 Press [▶, USB] to start playback.
- 3 Press [MENU] to show the USB menu.
- 4 Press [▲/▼] to select an item and press [OK].

Refer to "Playing discs" (→ 11 to 13) for other operations.

Compatible devices

- USB mass storage devices that support bulk-only transfer.
- USB mass storage devices that support USB 2.0 full speed.

Supported format

	File format	File extension
Still pictures	JPEG ^{*1}	.JPG .jpg .JPEG .jpeg
Audio	MP3 WMA	.MP3 .mp3 .WMA .wma
Video	MPEG4 ^{*2}	.ASF .asf

^{*1} Some files cannot be played due to how the files were made.

^{*2} For Panasonic D-Snap/DIGA

Note:

Maximum number of groups (folders)	255
Maximum number of contents (files)	4000
Maximum characters in group or content name	28

- CBI (Control/Bulk/Interrupt) transfer is not supported.
- NTFS file system is not supported (only FAT 12/16/32 file system is supported).
- Depending on the sector size, some contents can fail to work.

Recording

Panasonic cannot be held responsible on the action of consumer to record copyrighted contents which can cause copyright infringement.

- 1 Select the source you want to record.

CD Disc:

1. Put in the disc.
2. Press [▶, DVD/CD] and then press [■] two times.
Record specified tracks (→ 11, "Program playback").

Tape:

1. Press [TAPE].
2. Put in the cassette tape.
3. Press [▶, PLAY] to start playback.

Radio:

Tune in to the radio station (→ 16).

Music port or AUX:

Connect and play the equipment (→ 19).

Microphone:

Connect the microphone (→ 18).

- 2 Press [●, USB] (main unit: [●, USB REC]) to start recording.

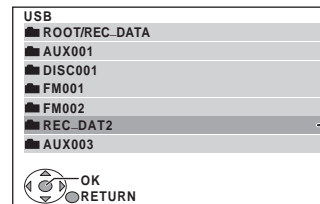
The USB recording indicator blinks.

The name of the group that keeps the recording is shown.

- 3 Press [■] to stop recording.

"WRITING" is shown.

The recorded audio contents are kept in a group named "REC_DATA" in the USB mass storage device.



Subgroup that keeps MP3 contents recording from data discs (→ 15)

Note:

- All recordings are in .mp3 format.
- A new group is added or made each time you do a recording.
- You cannot do recording or delete contents when you are in "RESUME STOP" mode.
- You cannot do recording when you are using random playback mode.
- Repeat playback mode is off during recording.
- Microphone input cannot be recorded during CD-DA to USB recording.
- Do not disconnect the USB mass storage device or the AC mains lead during recording.



Dividing a recording track

When recording from tape, radio, music port or AUX source, you can divide tracks with:

- **AUTO 5M:** A track is automatically divided at 5-minute intervals.
- **MANUAL:** Press [OK] during recording to add a track mark. If you do not add a track mark manually, a track mark is added automatically at 60-minute intervals.

1 Select the source you want to record.

2 Press [SETUP].
"TRDIVIDE" is shown.

3 Press [▲/▼] to select "AUTO 5M" or "MANUAL".

4 Press [OK] to add a track mark during recording.
Add a track mark at the end of each track during cassette tape recording.
Skip unwanted noise by making a new track.

Note:

When you press [OK] while you record in the AUTO 5M mode, the 5-minute count will be reset.

Recording MP3 contents

You can record MP3 contents from a data disc.

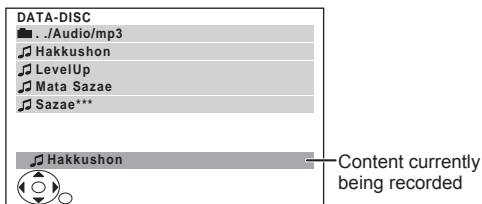
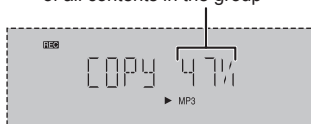
1 Put in the disc.

2 Press [▶, DVD/CD] and then press [■] two times.

3 Press [▲/▼] to select the group and press [OK].
Do this step again if there are subgroups.

4 Press [●, USB] to start recording.
Recording starts from the first content.

Recording progress in percentage
of all contents in the group



Stop recording	Press [■]. Recording stops at the last fully recorded content in the group. Example: If you stop recording during the fourth content, only the first three contents are recorded. "NO FILE RECORDED" is shown if no content is recorded.
Delete a recorded content	(⇒ right, "Deleting the contents")

Note:

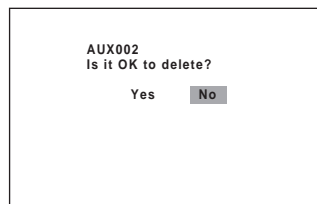
- Some contents can use a longer time to record.
- Some MP3 contents cannot be recorded because of the condition of the disc.

Deleting the contents

1 Press [▶, USB] and then press [■] two times.

2 Press [▲/▼] to select the group.
Press [OK] and then press [▲/▼] to select a content.

3 Press [DEL].



4 Press [◀/▶] to select "Yes" or "No" and press [OK].
Select "Yes" to delete a content. "DELETING" blinks on the display panel.

Note:

- "USB WRITE PROTECTED" is shown if the USB mass storage device is locked.
- You cannot delete groups that have subgroups or unsupported contents.

Cassette tape – Play and record

Preparation
Press [TAPE].

Note:

Use normal position cassette tapes. You can use high position and metal position cassette tapes, but the system cannot identify the properties of these cassette tapes to be played, recorded or erased accordingly.

Basic playback

1 Press [■/▲, STOP/EJECT] and put in the cassette tape. Put in with the side to be played facing up and the exposed tape facing you. Close the cassette tape deck manually.

2 Press [▶, PLAY] to start playback.

Stop playback	Press [■/▲, STOP/EJECT].
Pause playback	Press [⏏, PAUSE]. Press again to continue playback.
Fast-forward or rewind	Press [▶▶, FF/CUE] or [◀◀, REW/REV].

Note:

If you select other source during playback of the cassette tape, the playback will not stop.

Recording

Preparation

Wind the leader tape so recording can begin immediately.

1 Press [■/▲, STOP/EJECT] and put in the cassette tape.

2 Select the source you want to record.

Disc:

- Put in the disc.
- Press [▶, DVD/CD].
Record specified tracks (⇒ 11, "Program playback").

Radio:

Tune in to the radio station (⇒ right).

USB:

- Connect the USB mass storage device (⇒ 14).
- Press [▶, USB].

Music port or AUX:

Connect and play the equipment (⇒ 19).

Microphone:

Connect the microphone (⇒ 18).

3 Press [●, REC] to start recording.

Stop recording	Press [■/▲, STOP/EJECT].
Pause recording	Press [⏏, PAUSE]. Press again to continue recording.
Erase recording	1. Press [■/▲, STOP/EJECT] and put in the cassette tape. 2. Press [●, REC] to start recording.

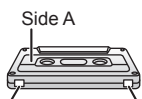
Note:

Changes to volume and sound quality have no effect on recording.

Erasure prevention

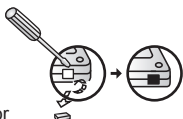
The illustration shows how to remove the tabs to prevent recording. To record on the cassette tape again, put adhesive tape across the hole as shown.

To prevent recording



Tab for Side B

Tab for Side A



To record again



FM/AM radio

Manual tuning

1 Press [FM/AM/EXT-IN] (main unit: [FM/AM]) to select "FM" or "AM".

2 Press [▶▶] or [◀◀] (main unit: [▶▶/▶▶] or [◀◀/◀◀]) to select the frequency of the required station.

To tune automatically, press and hold the button until the frequency starts changing quickly.

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

If there is too much noise

When "FM" is selected

Press [PLAY MODE] to select "MONO".

- To cancel, press [PLAY MODE] again.
- "MONO" is also cancelled when you change the frequency.

When "AM" is selected

Press [FUNCTIONS] to select "BP 1" or "BP 2".

Memory preset

30 FM and 15 AM stations can be preset.

Preparation

Press [FM/AM/EXT-IN] (main unit: [FM/AM]) to select "FM" or "AM".

Automatic presetting

1 Press [MENU] to select "LOWEST" or "CURRENT" frequency.

2 Press and hold [OK] to start presetting. Release the button when "FM AUTO" or "AM AUTO" is shown.

To cancel, press [OK].

Manual presetting

1 Press [▶▶] or [◀◀] (main unit: [▶▶/▶▶] or [◀◀/◀◀]) to tune in to the station and press [OK].

2 Press the numeric buttons to select a preset number. The new station replaces any station that occupies the same preset number.

3 Do steps 1 and 2 again to preset more stations.

Selecting a preset station

Press the numeric buttons, [◀◀] or [▶▶] to select the preset station.

AM allocation setting (by main unit only)

This system can receive AM broadcasts allocated in 10 kHz steps.

1 Press [FM/AM] to select "FM".

2 Press and hold [FM/AM].

After a few seconds, the display panel shows the current minimum radio frequency. Release the button when the minimum frequency changes.

- To go back to the initial setting, do the above steps again.
- After you change the setting, preset frequencies are erased.

Using the timer

Using the play timer or record timer

You can set the timer to come on at a certain time to:

- Wake you up (play timer).
- Record from the radio, music port or AUX (record timer).

The play timer and record timer cannot be used together.

Preparation

Switch on the system and set the clock (➔ 10).

Play timer	Prepare the music source you want to listen to (disc, USB mass storage device, radio, music port or AUX) and set the volume.
Record timer	Connect the USB mass storage device (➔ 14). Tune in to the radio station (➔ 16) or select the music source from music port or AUX (➔ 19).

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

CLOCK → PLAY → REC
 ↖ Original display ←

- PLAY : To set the play timer
- REC : To set the record timer

2 Within 7 seconds, press [▶▶] or [◀◀] to set the start time.

3 Press [CLOCK/TIMER] to confirm.

4 Do steps 2 and 3 again to set the end time.

To start the timer

5 Press and hold [, -PLAY/REC] to start the timer.

PLAY → REC
 ↖ No display (off) ←

6 Press [] to switch off the system.

The system must be switched off for the timer to operate.

Change the settings	Do steps 1 through 4 and 6 again (➔ above).
Change the source or volume	1. Press and hold [, -PLAY/REC] to remove the timer indicator on the display panel. 2. Change the source or volume. 3. Do steps 5 and 6.
Check the settings	Press [CLOCK/TIMER] to select "PLAY" or "REC".
Cancel	Press and hold [, -PLAY/REC] to remove the timer indicator on the display panel.

Note:

- The play timer starts at a low volume and increases gradually to the preset level.
- The record timer starts 30 seconds before the set time with the volume muted.
- The timer comes on at the set time every day if the timer is on.
- If you switch off the system and switch on again while a timer is in operation, the timer will not stop at the end time.

Using the sleep timer

The sleep timer switches off the system after the set time.

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

SLEEP 30 → SLEEP 60 → SLEEP 90
 ↖ SLEEPOFF ← SLEEP120 ←

To cancel the sleep timer

Select "SLEEPOFF".
"SLP" indicator goes off.

To show the remaining time

Press [SLEEP].

Note:

- The play timer and sleep timer or the record timer and sleep timer can be used together.
- The sleep timer always comes first. Be sure not to set an overlap of timers.

Using the auto off function

When you are in disc, USB or tape source, the auto off function switches off the system if you do not use the system for 10 minutes.

While in disc, USB or tape source

Press and hold [-AUTO OFF].

"A.OFF" indicator is shown.

To cancel the auto off function

Press and hold [-AUTO OFF] again.

"A.OFF" indicator goes off.

Using sound effects

- These sound effects are possibly not available or can have no effect to some sources.
- The sound quality can decrease when these sound effects are used with some sources. If this occurs, switch off the sound effects.

Surround sound effect

Press [SURROUND].

STANDARD → STEREO → A. SRND
 ↖ ←

Note:

- This function does not work or has less effect with some discs.
- Select "STEREO" if you experience sound distortion.
- Do not use in combination with surround effects of other equipment.

Changing the sound quality

Preset EQ

1 Press [SOUND] to select "EQ".

2 Press [◀▶].

HEAVY	Adds punch to rock.
CLEAR	Clarifies higher frequencies.
SOFT	For background music.
EQ-OFF	Cancels all sound effects.

Manual EQ

Create your own sound quality effects.

- 1 Press [SOUND] to select "M.EQ".
- 2 Press [◀/▶].

BASS	Adjust low-pitch sound.
MID	Adjust middle-pitch sound.
TREBLE	Adjust high-pitch sound.

- 3 Press [▶▶] or [◀◀] to adjust the level (-4 to +4).

By main unit only

- 1 Press [MANUAL EQ] to select "BASS", "MID" or "TREBLE".
- 2 Press [▶▶/▶▶] or [◀◀/◀◀] to adjust the level (-4 to +4).

D.Bass

You can enhance low-pitch sound so that heavy bass sound can be heard clearly, even if the acoustics of your room are not optimal. The system automatically selects the best setting according to the type of playback source.

- 1 Press [SOUND] to select "D.BASS".
- 2 Press [▶/▶] to select "D.BASS ON" or "D.BASS OFF".

By main unit only

Press [D.BASS] to select "D.BASS ON" or "D.BASS OFF".

Super woofer

- 1 Press [SOUND] to select "SW LVL".
- 2 Press [▶/▶] to select the level.

SW1 → SW2 → SW3

By main unit only

Press [SUPER WOOFER] to select the level.

Using microphones

Preparation

Decrease the volume of the system to its minimum before you connect or disconnect a microphone.

- 1 Connect a microphone (not included) to the microphone jack.
Plug type : Ø 6.3 mm monaural
- 2 Turn [MIC VOL, MIN/MAX] on the main unit to adjust the volume of the microphone.

If you want to use the microphone with background music.

- 3 Play the music source and adjust the volume of the system.

Note:

- If a strange noise (howling) is emitted, move the microphone away from the speakers, or decrease the volume of the microphone.
- When you do not use the microphone, disconnect it from the microphone jack, and decrease the volume of the microphone level to "MIN".
- Surround sound effect (➔ 17) is disabled when you connect a microphone.

Echo effect

- 1 Press [SOUND] to select "ECHO".
- 2 Press [▶/▶] to select the level.

ECHO 1 → ECHO 2 → ECHO 3 → ECHO 4

Note:

You can adjust echo effect only when a microphone is connected.

Enjoying Karaoke

- 1 Select the music source.
"DVD/CD" or "USB".
- 2 Press [FUNCTIONS] to show the Karaoke menu (➔ 12).
Set "KARAOKE MODE" to "ON".
- 3 Press [▲/▼/▶/▶] to select an item and press [OK].
- 4 Press [▲/▼] to make the setting and press [OK].

Karaoke mode switches off when you switch off this system, open the disc tray or select another source.

The type of disc and the disc format can cause some items to not show or work.



KEY CONTROL

Except [MPEG4] [DivX]

Change the key of a song

♭ 6 (lowest) to # 6 (highest)

OFF: Normal



VOCAL CANCEL

Except [MPEG4] [DivX]

Reduce the vocal level (when using stereo source not formatted for Karaoke)

ON: Reduces vocal level

OFF: Cancel

- This function can fail to work depending on the type of song.



AUDIO CHANGE

Change the audio mode (when using Karaoke formatted source)

[DVD-V]

Solo disc

OFF: Vocals off

ON: Vocals on

Duet disc

OFF: Vocals off

V1+V2: Vocal 1 and 2

V1: Vocal 1

V2: Vocal 2

[DVD-VR] [VCD]

L R: Left channel sound is heard from the left speaker and right channel sound is heard from the right speaker (accompaniment and vocals).

L: Only left channel sound (accompaniment only).

R: Only right channel sound (vocals only).

L+R: Left and right channel sounds are mixed and heard from both speakers.

"L" and "R" are reversed on some discs.

Using external equipment

Note:

Components and cables are sold separately.

Before connection

- Disconnect the AC mains lead.
- Switch off all equipment and read the appropriate operating instructions.

Using the music port

You can play music from a portable audio equipment.

Preparation

Switch off the equalizer (if any) of the portable audio equipment to prevent sound distortion. Decrease the volume of the system and the portable audio equipment before you connect or disconnect the portable equipment.



- 1 Connect the portable audio equipment.
Plug type: Ø 3.5 mm stereo

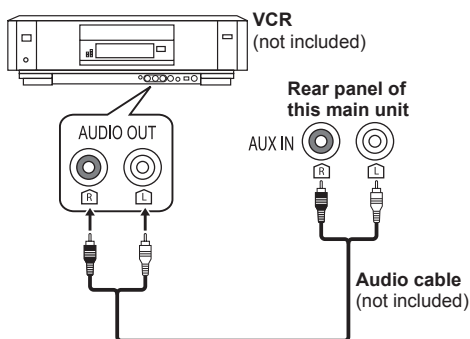
- 2 Press [FM/AM/EXT-IN] (main unit: [EXT-IN]) to select "MUSIC PORT".

FM → AM → MUSIC PORT → AUX

- 3 Play the portable audio equipment.

Using the auxiliary input

You can connect a VCR, DVD player etc. and listen to the audio through this system.



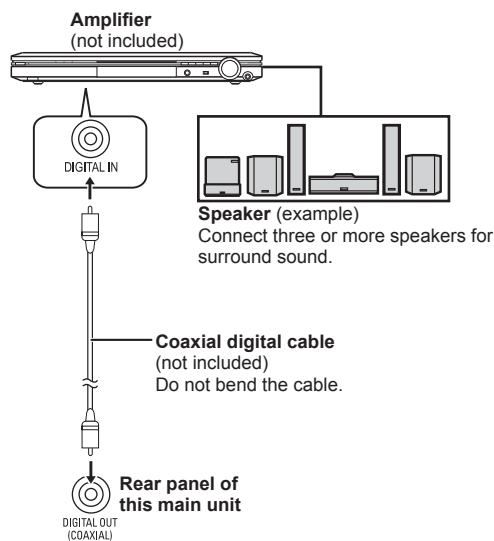
- 1 Press [FM/AM/EXT-IN] (main unit: [EXT-IN]) to select "AUX".
- 2 Play the external equipment.

Note:

- If you want to connect equipment other than those described above, refer to the audio dealer.
- Sound distortion can occur when you use an adaptor.

Using the digital output

Enjoy a powerful movie theatre and hall-like sound (available with multiple channel audio found on DVD-Video) when you connect to an amplifier and speakers.



Select the digital audio output setting (→ 21, "AUDIO" menu) according to the type of audio that the equipment can output.

Changing system settings

- 1 Press [▶, DVD/CD].
 - 2 Press [SETUP] to show the SETUP menu.
 - 3 Press [▲/▼] to select the menu and press [OK].
To go back to the previous menu, press [↵, RETURN].
 - 4 Press [▲/▼] to select an item and press [OK].
 - 5 Press [▲/▼] to make the setting and press [OK].
 - 6 Press [SETUP] to close the screen.
- The settings stay intact even if you put the system on standby mode.
 - Underlined items are the factory settings in the menu.



EASY SETUP allows successive settings of the items in the shaded area.

"DISC" menu					
CURRENT SETTINGS	Show the current setting of the items in this menu.				
AUDIO Change the audio language.	<u>ENGLISH</u> HUNGARIAN	<u>FRENCH</u> CZECH	<u>SPANISH</u> POLISH	<u>GERMAN</u> ORIGINAL ^{x1}	<u>RUSSIAN</u> OTHER ---- ^{x2}
SUBTITLE Change the subtitle language.	<u>AUTO</u> ^{x3} RUSSIAN	<u>ENGLISH</u> HUNGARIAN	<u>FRENCH</u> CZECH	<u>SPANISH</u> POLISH	<u>GERMAN</u> OTHER ---- ^{x2}
MENUS Change the language for disc menus.	<u>ENGLISH</u> HUNGARIAN	<u>FRENCH</u> CZECH	<u>SPANISH</u> POLISH	<u>GERMAN</u> OTHER ---- ^{x2}	<u>RUSSIAN</u>
RATINGS Set a ratings level to limit DVD-Video playback.	Setting ratings 0 LOCK ALL: To prevent playback of discs without ratings levels. 1 to 7: To prevent playback of DVD-Video with the same ratings recorded on them. 8 NO LIMIT When you set the ratings level, a password screen is shown. Follow the on-screen instructions. Do not forget your password. A message screen is shown if a DVD-Video with higher ratings level is played. Follow the on-screen instructions.				
PASSWORD Change the password for "RATINGS" (→ above).	1. Select "CHANGE" and press [OK]. 2. Input the current password with the numeric buttons, then press [OK]. 3. Input the new password with the numeric buttons, then press [OK]. If "VERIFY" is shown, make sure that the new password is correct and input it again.				

^{x1} The original language designated on the disc is selected.

^{x2} Input the applicable code from the "Language code list" (→ 23).

^{x3} If the language selection for "AUDIO" is not available for the disc played, the subtitles in that language will be shown (if available on the disc).

"VIDEO" menu			
CURRENT SETTINGS	Show the current setting of the items in this menu.		
TV ASPECT Change the setting to suit your TV and preference.	16:9: Widescreen TV (16:9)		
	4:3PAN&SCAN: Regular aspect TV (4:3) The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc). 		
	4:3LETTERBOX: Regular aspect TV (4:3) Widescreen picture is shown in the letterbox style. 		
TIME DELAY When connected with an AV amplifier and Plasma TV, adjust if the audio is out of sync with the video.	<u>0 ms</u> 60 ms	<u>20 ms</u> 80 ms	<u>40 ms</u> 100 ms
NTSC DISC OUT Change PAL60 or NTSC output when you play NTSC discs.	NTSC: Output signals from NTSC discs remains as NTSC. PAL60: NTSC discs can be viewed on PAL TV.		
STILL MODE Specify the type of picture shown when in pause mode.	AUTO FIELD: The picture is not blurred, but the picture quality is lowered. FRAME: Overall quality is high, but the picture is blurred.		
VIDEO OUT (I/P) Select "PROGRESSIVE" only if connecting to a progressive output compatible TV.	INTERLACE PROGRESSIVE When you select "PROGRESSIVE", a message screen will appear. For progressive output, press [▲] and then press [OK]. To cancel, press [↵, RETURN].		

"AUDIO" menu				
CURRENT SETTINGS	Show the current setting of the items in this menu.			
PCM OUTPUT Do a check on the digital input limitations of the equipment you connect using COAXIAL terminal and select the maximum sampling frequency of PCM digital output.	UP TO 48kHz: When you connect to an equipment compatible with 44.1 kHz or 48 kHz. UP TO 96kHz: When you connect to an equipment compatible with 88.2 kHz or 96 kHz. <ul style="list-style-type: none"> • Signals from copy-protected discs are converted to 48 kHz or 44.1 kHz. • Some equipment cannot support sampling frequencies of 88.2 kHz, even if they can support 96 kHz. Read the operating instructions of your equipment for details.			
DOLBY DIGITAL With COAXIAL connection (➔ 19)	<table border="1"> <tr> <td>BITSTREAM</td> <td rowspan="3">Select "BITSTREAM" when the equipment can decode the bitstream (digital form of multi-channel data). If not, select "PCM". (If the bitstream output to the equipment without a decoder, there can be high levels of noise output that can do damage to your speakers and hearing.)</td> </tr> <tr> <td>PCM</td> </tr> </table>	BITSTREAM	Select "BITSTREAM" when the equipment can decode the bitstream (digital form of multi-channel data). If not, select "PCM". (If the bitstream output to the equipment without a decoder, there can be high levels of noise output that can do damage to your speakers and hearing.)	PCM
BITSTREAM	Select "BITSTREAM" when the equipment can decode the bitstream (digital form of multi-channel data). If not, select "PCM". (If the bitstream output to the equipment without a decoder, there can be high levels of noise output that can do damage to your speakers and hearing.)			
PCM				
DTS With COAXIAL connection (➔ 19)		BITSTREAM		
MPEG With COAXIAL connection (➔ 19)	PCM			
DYNAMIC RANGE	ON: Adjust for clarity even when the volume is low. The range between the lowest and the highest sound levels is compressed. Convenient for late night viewing. (Only works with Dolby Digital.) OFF			

"DISPLAY" menu				
CURRENT SETTINGS	Show the current setting of the items in this menu.			
LANGUAGE Select the language for the on-screen messages.	ENGLISH РУССКИЙ	FRANÇAIS MAGYAR	ESPAÑOL ČESKY	DEUTSCH POLSKI

"OTHERS" menu				
CURRENT SETTINGS	Show the current setting of the items in this menu.			
DivX REGISTRATION Show the registration code of the system.	SHOW CODE: You must have this registration code to purchase and play DivX Video-on-Demand (VOD) content (➔ 23, "About DivX"). This item is only shown until you play a DivX VOD content or after you deregister this system.			
DivX DEREGISTRATION Show the deregistration code of the system.	SET: You must have this deregistration code to cancel the registration of this system (➔ 23, "About DivX"). This item is only shown after you play a DivX VOD content for the first time.			
JPEG SLIDE SHOW TIME	To change the slideshow time <table border="1"> <tr> <td>1 SEC to 15 SEC (in 1-unit)</td> <td>15 SEC to 60 SEC (in 5-unit)</td> <td>60 SEC to 180 SEC (in 30-unit)</td> </tr> </table> <ul style="list-style-type: none"> • "3 SEC" is the factory preset. 	1 SEC to 15 SEC (in 1-unit)	15 SEC to 60 SEC (in 5-unit)	60 SEC to 180 SEC (in 30-unit)
1 SEC to 15 SEC (in 1-unit)	15 SEC to 60 SEC (in 5-unit)	60 SEC to 180 SEC (in 30-unit)		
EASY SETUP	SET: Shows the EASY SETUP settings.			
DVD-VR/DATA Select to play only DVD-VR or DATA format.	DVD-VR: To play video on DVD-R/RW. DATA: To play data files on DVD-R/RW.			
SCREEN DIMMER This is to prevent burnt mark on the TV screen.	OFF WAIT 5 MIN: If there is no operation for 5 minutes, the picture becomes grey. The TV screen will go back to the normal position when you do some operations. (This does not apply during video playback.)			
DEFAULTS This returns all values in the SETUP menus to the default settings.	RESET The password screen is shown if "RATINGS" (➔ 20) is set. Input the same password and press [OK], then switch off the system and switch on again.			

Changing the main unit and remote control mode

You can change the remote control and main unit mode if the remote control operates other Panasonic equipment.
Make sure that the main unit and remote control have the same mode.

To set the mode to "REMOTE 2"

- 1 Press and hold [EXT-IN] on the main unit and [2] on the remote control until "REMOTE 2" is shown.
- 2 Press and hold [OK] and press [2] for a minimum of 2 seconds.

To set the mode to "REMOTE 1"








- 1 Press and hold [EXT-IN] on the main unit and [1] on the remote control until "REMOTE 1" is shown.
- 2 Press and hold [OK] and press [1] for a minimum of 2 seconds.

Note:



















After you set the mode, you can continue to use the TV operation buttons on the remote control to operate a Panasonic TV (➔ 8).

Playable discs

Commercial discs

Type	Icon	Details
DVD-Video 		<ul style="list-style-type: none"> High quality video and audio discs
Video CD  		<ul style="list-style-type: none"> Video discs Including SVCD (conforms to IEC62107)
CD 		<ul style="list-style-type: none"> Audio discs

Recorded discs

Type	Icon	Details
DVD-R/RW  	     	<ul style="list-style-type: none"> DVD-Video Format Version 1.1 of the DVD Video Recording Format MP3 format JPEG format MPEG4 format DivX® format
DVD-R DL 	  	<ul style="list-style-type: none"> DVD-Video Format Version 1.2 of the DVD Video Recording Format DivX® format
+R/+RW/+R DL		<ul style="list-style-type: none"> +VR (+R/+RW Video Recording) Format
CD-R/RW	    	<ul style="list-style-type: none"> WMA format MP3 format JPEG format MPEG4 format DivX® format

- Before playback, finalise the disc on the equipment it was recorded on.
- It is not possible to play all the above-mentioned discs in some conditions because of:
 - The type of disc.
 - The condition of the recording.
 - The recording procedure.
 - How the files were made (⇒ right, "Tips for making data discs").

Note on using a DualDisc

A DualDisc could possibly not playback if the side of the digital audio content does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format.

Discs that cannot be played

Blu-ray, HD DVD, AVCHD discs, DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM, and "Chaoji VCD" (including CVD, DVCD and SVCD) that do not conform to IEC62107.

Video systems

- This system can play discs with PAL and NTSC, but your TV must complement with the system used on the disc.
- Videos from PAL discs cannot be correctly shown on an NTSC TV.
- This system can convert NTSC signals to PAL60 to show video on a PAL TV (⇒ 20, "NTSC DISC OUT" in "VIDEO" menu).

Tips for making data discs

WMA (Extension: ".WMA", ".wma")

Disc: **CD-R/RW**

- Compatible compression rate: between 48 kbps and 320 kbps.
- You cannot play WMA files that are copy-protected.
- This system does not support Multiple Bit Rate (MBR).

MP3 (Extension: ".MP3", ".mp3")

Disc: **DVD-R/RW, CD-R/RW**

- This system does not support ID3 tags.
- Sampling frequency and compression rate:
 - DVD-R/RW: 11.02, 12, 22.05, 24 kHz (8 to 160 kbps), 44.1 and 48 kHz (32 to 320 kbps)
 - CD-R/RW: 8, 11.02, 12, 16, 22.05, 24 kHz (8 to 160 kbps), 32, 44.1 and 48 kHz (32 to 320 kbps)

JPEG (Extension: ".JPG", ".jpg", ".JPEG", ".jpeg")

Disc: **DVD-R/RW, CD-R/RW**

- JPEG files taken on a digital camera that conforms to DCF Standard (Design rule for Camera File system) Version 1.0 are shown.
 - Files that have been changed, edited or saved with a computer picture editing software are possibly not shown.
- This system cannot show moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (example: TIFF), or play pictures with attached audio.

MPEG4 (Extension: ".ASF", ".asf")

Disc: **DVD-R/RW, CD-R/RW**

- The recording date can be different from that of the actual date.

DivX (Extension: ".DIVX", ".divx", ".AVI", ".avi")

Disc: **DVD-R/R DL/RW, CD-R/RW**

- DivX files that are more than 2 GB or have no index can fail to play correctly on this system.
- This system supports all resolutions until a maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- You can select a maximum of eight types of audio and subtitles on this system.

- There can be differences in the display sequence on the menu screen and computer screen.
- This system cannot play files recorded using packet write.

DVD-R/RW

- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This system does not support multi-session. Only the default session is played.

CD-R/RW

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This system supports multi-session but if there are many sessions, it uses more time for playback to start. Keep the number of sessions to a minimum to prevent this.

About DivX

ABOUT DIVX VIDEO:

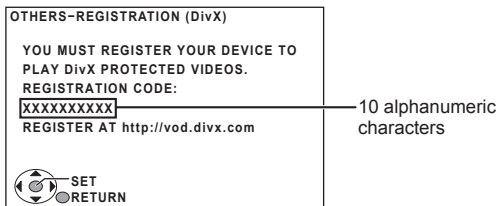
DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified® device that plays DivX video. Visit divx.com for more information and software tools to convert your files into DivX video.

ABOUT DIVX VIDEO-ON-DEMAND:

This DivX Certified® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

Show the registration code of this system

(⇒ 21, "REGISTRATION" in "OTHERS" menu)



- After playing DivX VOD content for the first time, the registration code is not shown.
- If you purchase DivX VOD content using a registration code different from the code on this system you cannot play this content.

Cancel the registration code of this system

Select "SET" in "DEREGISTRATION" (⇒ 21, "OTHERS" menu) and follow the on screen instruction.

Use the deregistration code to cancel the registration in <http://vod.divx.com>.

DivX content that can only be played a set number of times

Some DivX VOD contents can only be played a set number of times. When you play this content, the number of times already played and initially playable number of times is shown.

- The remaining number of plays decreases each time a content is played.
- "RESUME STOP" function (⇒ 11, "Stop playback") does not work.

Language code list

Abkhazian:	6566	Lingala:	7678
Afar:	6565	Lithuanian:	7684
Afrikaans:	6570	Macedonian:	7775
Albanian:	8381	Malagasy:	7771
Amharic:	6577	Malay:	7783
Arabic:	6582	Malayalam:	7776
Armenian:	7289	Maltese:	7784
Assamese:	6583	Māori:	7773
Aymara:	6589	Marathi:	7782
Azerbaijani:	6590	Moldavian:	7779
Bashkir:	6665	Mongolian:	7778
Basque:	6985	Nauru:	7865
Bengali, Bangla:	6678	Nepali:	7869
Bhutani:	6890	Norwegian:	7879
Bihari:	6672	Oriya:	7982
Breton:	6682	Pashto, Pushto:	8083
Bulgarian:	6671	Persian:	7065
Burmese:	7789	Polish:	8076
Byelorussian:	6669	Portuguese:	8084
Cambodian:	7577	Punjabi:	8065
Catalan:	6765	Quechua:	8185
Chinese:	9072	Rhaeto-Romance:	8277
Corsican:	6779	Romanian:	8279
Croatian:	7282	Russian:	8285
Czech:	6783	Samoan:	8377
Danish:	6865	Sanskrit:	8365
Dutch:	7876	Scots Gaelic:	7168
English:	6978	Serbian:	8382
Esperanto:	6979	Serbo-Croatian:	8372
Estonian:	6984	Shona:	8378
Faroese:	7079	Sindhi:	8368
Fiji:	7074	Singhalese:	8373
Finnish:	7073	Slovak:	8375
French:	7082	Slovenian:	8376
Frisian:	7089	Somali:	8379
Galician:	7176	Spanish:	6983
Georgian:	7565	Sundanese:	8385
German:	6869	Swahili:	8387
Greek:	6976	Swedish:	8386
Greenlandic:	7576	Tagalog:	8476
Guarani:	7178	Tajik:	8471
Gujarati:	7185	Tamil:	8465
Hausa:	7265	Tatar:	8484
Hebrew:	7387	Telugu:	8469
Hindi:	7273	Thai:	8472
Hungarian:	7285	Tibetan:	6679
Icelandic:	7383	Tigrinya:	8473
Indonesian:	7378	Tonga:	8479
Interlingua:	7365	Turkish:	8482
Irish:	7165	Turkmen:	8475
Italian:	7384	Twi:	8487
Japanese:	7465	Ukrainian:	8575
Javanese:	7487	Urdu:	8582
Kannada:	7578	Uzbek:	8590
Kashmiri:	7583	Vietnamese:	8673
Kazakh:	7575	Volapük:	8679
Kirghiz:	7589	Welsh:	8789
Korean:	7579	Wolof:	8779
Kurdish:	7585	Xhosa:	8872
Laotian:	7679	Yiddish:	7473
Latin:	7665	Yoruba:	8979
Latvian, Lettish:	7686	Zulu:	9085

Troubleshooting guide

Before requesting service, make the checks below. If you are not sure about some of the check points, or if the solutions below were not a solution to the problem, consult your dealer for instructions.

Power		Page
No power.	• Connect the AC mains lead correctly.	7
The system automatically switches off.	• The system is switched off by the sleep timer or the auto off function.	17

Main unit displays		Page
The display panel is dark.	• Press and hold [–DIMMER] to increase the brightness of the display panel.	8
“NO PLAY”	• You put in a disc that the system cannot play. Change to a playable disc. • You put in a blank disc. • You put in a disc that has not been finalised.	22 – –
“NO DISC”	• You have not put in a disc. • You have not put in the disc correctly. Put it in correctly.	11 –
“NO DEVICE”	• USB mass storage device is removed during recording.	14
“OVER CURRENT ERROR”	• The USB mass storage device is using too much power. Change to “DVD/CD” mode, remove the USB mass storage device and switch off the system.	–
“DEVICE FULL”	• The USB mass storage device is full. • Change to a USB mass storage device which has a larger storage capacity and do the recording again.	14 –
“FOLDER FULL”	• The number of USB groups is more than 255.	14
“FILE FULL”	• The number of USB contents is more than 4000.	14
“NO MP3”	• Select an MP3 content before recording can start.	15
“F61”	• Examine and correct the speaker cable connections.	6
“F76”	• There is a power supply problem. Consult the dealer.	–
“DVD U11”	• Disc is dirty. Clean the disc.	–
“ERROR”	• An incorrect operation was done. Read the instructions and try again. • An invalid operation was done during recording. • You cannot open or close the disc tray when recording from AM source.	– – –
“DVD H □ □”, “DVD F □ □” □ is a number.	• Disconnect the AC mains lead, and then connect it again. If the service numbers fail to clear, note the service number and contact a qualified service person.	–
“REMOTE 1” or “REMOTE 2”	• The remote control and main unit are in different modes. Change the remote control mode to make it the same as the main unit mode.	21

TV displays		Page
“THIS DISC CANNOT BE PLAYED IN YOUR REGION”	• You can only play DVD-Video if the region code is compatible with this system. You can check the compatible region code at the rear of the main unit.	Cover
“∅”	• The operation is prevented by the system or disc.	–
“AUTHORIZATION ERROR”	• DivX You are trying to play a DivX VOD content that was purchased with a different registration code. You cannot play the content on this system.	23
“RENTED MOVIE EXPIRED” or “RENTAL EXPIRED”	• DivX The DivX VOD content has zero remaining plays. You cannot play it.	23

General operation		Page
The display panel lights up and changes continuously in standby mode.	• Press and hold [■] on the main unit to select “DEMO OFF”.	–
The system does not respond.	• The system cannot operate correctly because of lightning, static electricity or some other external causes. Disconnect the AC mains lead, and then connect it again. • There is condensation. Let the system dry for 1 to 2 hours.	7 –
No operations can be done with the remote control.	• Point the remote control at the signal sensor on the main unit to operate. • Examine that the batteries are installed correctly. • The batteries are weak. Replace them with new ones.	9 5 –

General operation		Page
You have forgotten your ratings password.	<ul style="list-style-type: none"> Reset all the settings to factory preset. <ol style="list-style-type: none"> Press [▶], DVD/CD] and then press [■]. Press [■] on the main unit and [≥10] on the remote control at the same time. "INIT" shows on the display panel. 	–
Other equipment operates with the supplied remote control.	<ul style="list-style-type: none"> Change the remote control mode. 	21

Disc operation		Page
Playback starts slowly.	<ul style="list-style-type: none"> Playback starts slowly when an MP3 content has still picture data. Even after the content starts, the correct play time will not be shown. DivX This is usual on DivX video. 	–
Playback does not start.	<ul style="list-style-type: none"> Playback of MPEG4 that contains still picture data is not possible. If a disc contains CD-DA and other formats, correct playback is not possible. DivX If playing DivX VOD content, refer to the website where you purchased it. (Example: www.divx.com/vod) 	– – 23
Groups deeper than the eighth layer on a data disc are not shown correctly.	WMA MP3 MPEG4 DivX JPEG <ul style="list-style-type: none"> Groups deeper than the eighth layer are shown as the eighth layer. 	22
A menu screen shows during skip or search.	<ul style="list-style-type: none"> This is usual for Video CDs. 	–
Playback control menu does not show.	VCD with playback control (PBC). <ul style="list-style-type: none"> Press [■] two times and then press [▶], DVD/CD]. 	–
The program and random playback functions do not work.	DVD-V <ul style="list-style-type: none"> These functions do not work with some DVD-Videos. 	–
Programmed items are not played.	DVD-V <ul style="list-style-type: none"> Some items cannot be played even if you have programmed them. 	–
No subtitles.	<ul style="list-style-type: none"> Show the subtitles ("SUBTITLE" in Menu 1). It is possible that the subtitles are not shown because of the disc. 	13 –
Cannot select alternative languages.	<ul style="list-style-type: none"> Select from the menu of the disc if one is available. 	–
Point B is automatically set.	<ul style="list-style-type: none"> The end of an item becomes point B when it is at the end. 	13
The SETUP menu cannot be accessed.	<ul style="list-style-type: none"> Select "DVD/CD" as the source. Cancel the program and random playback. 	10 11

Sound		Page
No sound.	<ul style="list-style-type: none"> Examine the connections. Increase the volume. There is possibly a pause in the sound when you change the play speed. DivX Audio is possibly not output because of how the contents are made. 	6 8 13 –
Sound is distorted.	<ul style="list-style-type: none"> Noise can occur when playing WMA. 	–
Humming heard during playback.	<ul style="list-style-type: none"> An AC mains lead or a fluorescent light is near the cables. Keep other appliances and cords away from the cables of this system. 	–


Picture		Page
Picture is distorted.	<ul style="list-style-type: none"> It is common to experience some distortion during "SEARCH". Make sure that the system is connected directly to the TV, and is not connected through a VCR. DivX Change the "SOURCE SELECT" in Menu 2. 	11 6 13
No picture.	<ul style="list-style-type: none"> Examine the connection. Make sure that the video input mode of the TV is correct. 	6 –
A defective TV display or faded colours.	<ul style="list-style-type: none"> The system and TV are using different video systems. <ul style="list-style-type: none"> Use the multi-system or NTSC TV. The system used on the disc does not complement your TV. <ul style="list-style-type: none"> Videos on PAL discs cannot be correctly shown on an NTSC TV. This system can convert NTSC signals to PAL 60 to be shown on a PAL TV ("NTSC DISC OUT" in "VIDEO" menu). 	– 20
Picture stops.	DivX <ul style="list-style-type: none"> Picture can stop if the DivX contents are more than 2 GB. 	–
Menus not shown correctly.	<ul style="list-style-type: none"> Change the zoom ratio to "NORMAL" in "ZOOM" in Menu 2. Change the "TV ASPECT" in "VIDEO" menu. 	13 20

Picture		Page
Auto zoom function does not operate correctly.	<ul style="list-style-type: none"> Switch off the zoom function of the TV. Use the other preset aspect ratios or manual adjustment. Zoom function does not work well especially in dark scenes or does not work at all due to the type of disc. 	– 20 –
When playing PAL disc, picture is distorted.	<ul style="list-style-type: none"> Set "TRANSFER MODE" in Menu 2 to "AUTO". 	13

Progressive video		Page
There is a ghosting effect when the progressive output is on.	<ul style="list-style-type: none"> Set "VIDEO OUT (I/P)" in "VIDEO" menu to "INTERLACE". 	20
Picture not in progressive output.	<ul style="list-style-type: none"> Set "VIDEO OUT (I/P)" in "VIDEO" menu to "PROGRESSIVE". If you connect the system to the TV through the VIDEO OUT terminal, output will be interlace, even if "PRG" is shown. 	20 –

Radio		Page
Distorted sound or noise is heard. "ST" flickers or does not show.	<ul style="list-style-type: none"> Adjust the position of the FM or AM antenna. Press [PLAY MODE] to select "MONO". 	6, 7 16
A beat sound is heard.	<ul style="list-style-type: none"> Switch off the TV or move it away from the system. 	–
A low hum is heard during AM broadcasts.	<ul style="list-style-type: none"> Move the antenna away from other cables and cords. Set to "BP 1" or "BP 2". 	– 16

USB		Page
The USB mass storage device or the contents in it cannot be read.	<ul style="list-style-type: none"> The format of the USB mass storage device or the contents in it is/are not compatible with the system. USB mass storage devices with storage capacity of more than 32 GB cannot work in some conditions. 	14 –
Slow operation of the USB mass storage device.	<ul style="list-style-type: none"> Large content size or large memory USB mass storage device takes longer time to read and show on the TV. 	–
USB recording stops suddenly "REC ERROR".	<ul style="list-style-type: none"> Error occurred during USB recording. Disconnect the USB mass storage device and then connect again. 	14



Cassette tape		Page
Unsatisfactory sound quality.	<ul style="list-style-type: none"> Clean the heads. 	Below
Recording is not possible.	<ul style="list-style-type: none"> If the erasure prevention tabs have been removed, put adhesive tape across the holes. 	16
The tape is stuck. Cannot eject the cassette tape.	<ul style="list-style-type: none"> Close the cassette tape deck. Switch off the system and then switch it on again. Press  [STOP/EJECT] again. 	16

Memory reset (Initialisation)

When these situations occur, refer to the instructions below to reset the memory:

- There is no response when buttons are pressed.
- You want to clear and reset the memory contents.

To reset memory

- Disconnect the AC mains lead. (Wait 3 minutes before you continue with step 2.)
 - While you press and hold  on the main unit, connect the AC mains lead again. "-----" shows on the display panel.
 - Release .
- All the settings are set back to the factory preset. It is necessary to set the memory items again.

Maintenance

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

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

For a good quality sound (cassette tape deck)

Clean the heads regularly to make sure that you get good quality playback and recording. Use a cleaning tape (not included).

Specifications

AMPLIFIER SECTION

RMS output power stereo mode

Front High (both ch driven)	140 W per channel (4 Ω), 1 kHz, 10% THD
Front Low (both ch driven)	160 W per channel (3 Ω), 1 kHz, 10% THD
Total RMS stereo mode power	600 W

PMPO output power 6600 W

FM/AM TUNER SECTION

Preset station FM 30 stations
AM 15 stations

Frequency modulation (FM)

Frequency range	87.50 MHz to 108.00 MHz (50 kHz step)
Antenna terminals	75 Ω (unbalanced)

Amplitude modulation (AM)

Frequency range	522 kHz to 1629 kHz (9 kHz step)
	520 kHz to 1630 kHz (10 kHz step)

TERMINALS SECTION

Digital audio output

Coaxial digital output Pin jack

Phone jack

Terminal Stereo, 3.5 mm jack

Mic jack

Terminal Mono, 6.3 mm jack (2 system)

Sensitivity 0.7 mV, 1.2 kΩ

AUX

Terminal RCA jack

Music port (Front)

Sensitivity (Normal) 700 mV, 6.8 kΩ

(High) 250 mV, 6.8 kΩ

USB SECTION

USB port

USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3), WMA (*.wma), JPEG (*.jpg, *.jpeg), DivX (*.divx, *.avi), MPEG4 (*.asf)
USB device file system	FAT12, FAT16, FAT32
USB port power	500 mA (Max)
Bit rate	Up to 4 Mbps (DivX)

USB recording

Bit rate 128 kbps

USB recording speed 1x

Recording file format MP3 (*.mp3)

CASSETTE DECK SECTION

Type 1-way

Track system Stereo

Recording system AC bias 84 kHz

Tape speed 4.8 cm/sec

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

Normal 50 Hz to 12 kHz

Wow and flutter 0.18% (WRMS)

Fast forward and rewind time

Approx. 120 seconds with C-60 cassette tape

VIDEO SECTION

Video system PAL625/50, PAL525/60, NTSC

Composite video output

Output level 1 Vp-p (75 Ω)

Terminal Pin jack (1 system)

Component video output

Y output level 1 Vp-p (75 Ω)

P_B output level 0.7 Vp-p (75 Ω)

P_R output level 0.7 Vp-p (75 Ω)

Terminal Pin jack (Y: green, P_B: blue, P_R: red) (1 system)

DISC SECTION

Disc played (8 cm or 12 cm)

- (1) DVD (DVD-Video, DivX^{®6,7})
- (2) DVD-R (DVD-Video, DVD-VR, JPEG^{×4,7}, MP3^{×2,7}, MPEG4^{×5,7}, DivX^{×6,7})
- (3) DVD-R DL (DVD-Video, DVD-VR, DivX^{×6,7})
- (4) DVD-RW (DVD-Video, DVD-VR, JPEG^{×4,7}, MP3^{×2,7}, MPEG4^{×5,7}, DivX^{×6,7})
- (5) +R/+RW (Video)
- (6) +R DL (Video)
- (7) CD, CD-R/RW (CD-DA, Video CD, SVCD^{×1}, MP3^{×2,7}, WMA^{×3,7}, JPEG^{×4,7}, MPEG4^{×5,7}, DivX^{×6,7})

^{×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 x 120 and 6144 x 4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and narrow pictures may not be displayed.

^{×5} MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders

Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system

^{×6} Plays DivX[®] video.

^{×7} The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 255 groups (Excluding Root folder).

Pick up

Wavelength	
CD	790 nm
DVD	655 nm
Laser power	CLASS 1M

Audio output (Disc)

Number of channels 2 ch (FL, FR)

FL = Front left

FR = Front right

SPEAKER SECTION

Type 3 way, 3 speaker system (Bass reflex)

Speaker unit(s) Impedance High 4 Ω/Low 3 Ω

Super Woofer 20 cm cone type

Woofer 10 cm cone type

Tweeter 6 cm cone type

Output sound pressure 88 dB/W (1 m)

Frequency range 48 Hz to 26 kHz (-16 dB)

66 Hz to 20 kHz (-10 dB)

Dimensions (W x H x D) 250 mm x 414 mm x 301 mm

Mass 5.6 kg

GENERAL

Power supply

For Saudi Arabia and Kuwait AC 110 to 127 V/220 to 240 V, 50/60 Hz

For others AC 220 to 240 V, 50/60 Hz

Power consumption 122 W

Dimensions (W x H x D) 250 mm x 334 mm x 247 mm

Mass 3.9 kg

Operating temperature range 0°C to +40°C

Operating humidity range 35% to 80% RH (no condensation)

Power consumption in standby mode

0.3 W (approximate)

Note:

1. Specifications are subject to change without notice. Mass and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyser.