# **DAEWOO**



- Region code of DVD/Video player for home is region "2" or ALL. In inserting a disc with other region code, it does not operate. Please only use a disc with region code 2 or ALL.
- S is a 'DO NOT' mark. If this mark is displayed in operating the product, please wait for a while, then use it. If "DO NOT" mark continues to be displayed in pressing a button after that, it means the button does not function in the currently played disc.
- Press a product button on the REMOTE then use the product.

• DVD operation : [DVD] button • Video operation : [VCR] button

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# **Important Safeguards**



#### **CAUTION**

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS

APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT,

FULLY INSERT.

#### IMPORTANT FOR LASER PRODUCTS

• LASER: This Digital Video Disc Player employs a Laser System. To ensure proper use of this product please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service location - see service procedure. Use of control adjustments or the performance of procedures other than those specified

may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not try to open the enclosure. Visible laser radiation when open and interlocks defeated.

DO NOT STARE INTO THE BEAM.

• DANGER: Visible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

• CAUTION: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

CLASS 1 LASER PRODUCT

CAUTION: Any changes or modification in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- Make sure the unit should be placed at least 8cm apart from the other home appliances or the obstacles to get sufficient ventilation.
- This unit shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on this unit.
- Switching it off does not disconnect it from the mains (stand-by). To disconnect it from the mains, you have to unplug it.

#### Important Safeguards

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.

#### 1 READ INSTRUCTIONS

All the safety and operating instructions should be read before the unit is operated.

#### 2 RETAIN INSTRUCTIONS

The safety and operating instructions should be retained for future reference.

#### 3 HEED WARNINGS

All warnings on the unit and in the operating instructions should be adhered to.

#### 4 FOLLOW INSTRUCTIONS

All operating and use instructions should be followed.

#### 5 CLEANING

Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

#### 6 ATTACHMENTS

Do not use attachments unless recommended by the unit's manufacturer as they may cause hazards.

### 7 WATER AND MOISTURE

Do not use this unit near water- for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool.

PORTABLE CART WARNING

(symbol provided by RETAC)

#### 8 ACCESSORIES

Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury to a child or adult as well as serious damage to the unit. Use this unit only with a cart, stand, tripod, bracket, or table recommended by the manufacturer.

8A

A unit and cart combination should be moved

with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

#### 9 VENTILATION

Slots and openings in the case are provided for ventilation to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. These openings must not be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat radiator. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

#### 10 POWER SOURCES

This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.

### 11 GROUNDING OR POLARIZATION

This unit is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way.

This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. To prevent electric shock, do not use this polarized plug with an extension cord, receptacle, or other outlet unless the blades can be fully inserted without blade exposure. If you need an extension cord, use a polarized cord.

### 12 POWER-CORD PROTECTION

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

#### Important Safeguards

#### 13 LIGHTNING

For added protection for this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit due to lightning and power line surges.

#### 14 DISC TRAY

Keep your fingers well clear of the disc as it is closing. It may cause serious personal injury.

#### 15 OVERLOADING

Do not overload wall outlets of extension cords as this can result in a risk of fire or electric shock.

#### 16 OBJECT AND LIQUID ENTRY

Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or "short-out" parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.

#### 17 BURDEN

Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product. 23 WALL OR CEILING MOUNTING

#### 18 DISC

Do not use a cracked, deformed or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.

#### 19 SERVICING

Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

### 20 DAMAGE REQUIRING SERVICE

Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions.

- A. When the power-supply cord or plug is damaged.
- B. If liquid has been spilled, or objects have fallen into the unit.
- C. If the unit has been exposed to rain or water.
- D. If the unit does not operate normally by following the operating instructions. Adjust

only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.

- E. If the unit has been dropped or the cabinet has been damaged.
- F. When the unit exhibits a distinct change in performance-this indicates a need for service.

#### 21 REPLACEMENT PARTS

When replacement parts are required, have the service technician verify that the replacements he uses have the same safety characteristics as the original parts. Use of replacements specified by the unit manufacturer can prevent fire, electric shock, or other hazards.

#### 22 SAFETY CHECK

Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks recommended by the manufacturer to determine that the unit is in safe operating condition.

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

#### **24 HEAT**

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce

# Advantages of This Product Are ....

- DVD, VCD, CD, CD-R(MP3), CD-RW, VHS
- · DVD one-touch record function
- · Watching DVD for recording broadcast
- Integrated remote control (VCR, DVD)
- · VISS function
- Multiplex sound playback/record (SD-9100 only)
- High Sound Quality of 6 head Hi-Fi (SD-9100 only)
- Simple record function
- MP3 file playback function (CD-R disc having records of MP3 files)
- GUI (Graphical User Interface) through OSD (On Screen Display)
   By using the [DISPLAY] button on the remote control, information on the DVD/VCD/CD player and disc, can be displayed on the TV screen.
- Screensaver function (DVD)
- 3D sound (3D sound effect using 2 speakers)
- High bit / High sampling with 27MHz / 10bit video encoder
- High bit / High sampling with 96MHz / 24bit Audio D/A Converter
- Coaxial, Optical digital Audio output (PCM, Dolby Digital, dts)
   You can enjoy high-level digital audio by connecting with amp embedded with Dolby Digital / dts decoder.
- Built-in Dolby Digital decoder (DVD)
- Analog audio 2-channels output for DOWNMIX (x1)
- Composite video output (x1)
- Slow Forward / Reverse playback (DVD)
- Fast Forward / Reverse playback
- Search of title, chapter, and time in DVD disc, and search of time and track time in VCD and CD

- Various TV aspect (DVD)
   4:3 for Pan and Scan, 4:3 for Letter Box, and 16:9
   for Wide
- Repeat playback (title, chapter, and part for DVD/ track, disc, and part for VCD/CD)
- Selective Play (DVD/VCD/CD)
   You can select and play the desired title / chapter of DVD and track of Video CD/CD in STOP mode.
- 7 languages OSD (On Screen Display) function (DVD)
   You can select and display OSD in 7 languages.
   (E/F/S/G/I/D/P)
- Parental Lock function (DVD)
   This function can prevent playback of software that may be unsuitable for children.
- Multi Audio function (DVD)
   The audio soundtrack can be heard in up to 12 languages. In the case of SVCD or VCD, it depends on the disc. (The number of audio languages depends on the software.)
- Multi Subtitle function (DVD)
   The subtitle can be seem in up to 12 languages.
   In the case of SVCD or VCD, it depends on the disc. (The number of audio languages depends on the software.)
- Multi Angle function (DVD)
   This function allows you to choose the viewing angle of scenes which were shot from a number of different angles. (The number of angles depends on the software.)
- Screen zoom function (DVD/VCD)

# **Read Carefully before Using**

Cautions in use of DVD-Video player are described below. Please read carefully before using a DVD-Video player.

### Installation place and handling

- When you place this player near other devices, they may affect poorly together.
- When you place DVD-Video player and TV in the upper and lower sides, it may cause flickering of pictures or failure (tape is not ejected).
- When you place this player near strong magnetic materials, it may affect image or voice poorly or damage recording.
- Do not spill volatile liquids like insect spray over the player. Do not leave rubber or plastic products in contact with the player for a long time. They will cause deterioration or paint peel-off.

#### ✓ Not in use

- When the unit is not in use, be sure to remove the disc or tape and turn off the power.
- If you do not use the unit for a long period, remove batteries in remote control to prevent leakage.
- In case you don't use the unit for a long time, the unit may not function properly in the future. Turn on and use the player occasionally.

#### ✓ Moving

- Repack the unit as it was originally packed at the factory. Alternatively, pack this product with towel not to be damaged.
- Eject any videotape.

#### ✓ Cleaning

- Dust off dirt in cabinet or control panel part smoothly with a soft cloth.
- For heavy dirt, soak the cloth in a weak detergent solution, wring it well and wipe. Use a dry cloth to wipe it out.
- Follow instructions in using chemical cleaners.
- Do not use any type of solvent such as gasoline or benzene, as they may cause deterioration or paint peel-off.

#### ✓ Checking

- Video is a high precision device. To obtain a clear screen, we recommend regular inspection and maintenance every 1,000 hours of use by technical engineers.
- For checking, contact your dealer or your nearest service center.

#### ✓ Checking and Replacement of Antenna

 Antenna is subject to change in its direction or damage by wind and rain. For clean screen, contact and consult your nearest service center about checking and replacement.

### ✓ In recording important screen

 Be sure to record the screen and check whether recording is performed properly. We beg you to understand compensation of recording if recording is not performed by badness of used tape or video.

#### ✓ Copyright

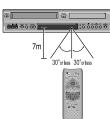
• Do not use your recordings without permission of a copyrighter except personal usage.

#### Tape and Disc Handling

- Do not use any tape and disc below. Damage of video head or cut/coiling of tape may cause failure.
- Tape with mold
- Tape or disc stained with juice or attachments
- Tape having breakage connection
- Disassembled tape
- Disc with severe scratch
- Moisture condensation may occur in tape. Moisture condensation damages the tape. Please use the tape after the moisture condensation is disappeared.
- After use, store tape vertically in a case to prevent loose.
- Do not store the following places.
- High temperature and humidity
- Subject generation of mold
- Subject to direct sunlight
- Much dirt or dust
- Near strong magnetic materials such as speaker

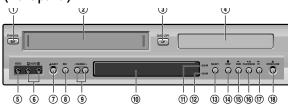
# ✓ Instructions in using REMOTE

- Operate remote control within 7m from the unit.
- Do not press 2(two) buttons at the same time.
- Do not light up sending and receiving part of remote control.
- Do not keep in the place with much dust and humidity.



# **Identification of Controls**

## Main body (front panel)



- 1 POWER (STANDBY/ON) button
  - Use to power the device on/off if AC power supply is connected.
- ② Place to insert videotape
- **3** COPY button Use to copy contents of disc into a videotape.
- 4 Disc tray
- **5** VIDEO INPUT jack
- **6** AUDIO INPUT jack
- 7 EJECT button
- **8 RECORD button**
- **10 Operation Display Window** Display operation of device. For more information, see "Operation Display Window" as belows.
- (1) DVD operation display lamp

- 12 VCR operation display lamp
- **(3)** SELECT button Use to change DVD mode to VCR mode, and vice versa
- **(4)** STOP button Use to stop playing.
- (5) REWIND button Use to rewind currently being played videotape or disc; or to playback back rapidly.
- 16 Playback/PAUSE button Playback videotape or disc. Press this button to pause a screen.
- **17** FAST FORWARD button Use to wind currently being played videotape or disc; or to playback rapidly.
- **® OPEN/CLOSE Tray button**

# Operation Display Window



VCR Operation VCR

**REC and TIMER REC display** 

Recording, I TIMER Recording, To be Timer-recorded,

To be Timer-recorded state ERROR 崇 (No Tape or Tape without tab)

Copying

Use to copy contents of disc into videotape.

dts Disc Indicator

Title This is displayed in VCD and CD disc.

Chapter This is displayed in DVD disc.

Time, Counter and Current Operation

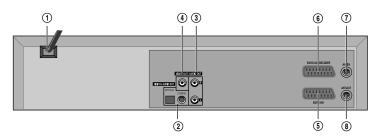
OPEN Tray is opened C L O S E L O R D Tray is closed Disc is loaded NODISC EPDISC There is no disc in tray Disc has some error MENU Menu screen is displayed SETÜP Setup menu is displayed 0 N Power is ON 0 F FPower is OFF

DVD

3D Sound Indicator **DVD Disc Operation** 

### **Identification of Controls**

# ■ Main body (Rear Panel)



- ① POWER CORD

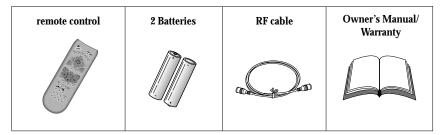
  It is a jack for supplying power to the unit.

  Connect to outlet in a wall.
- ② DIGITAL OUTPUT (COAXIAL, OPTICAL) Jack

  To enjoy sound quality of theater level in home, connect this jack with amp or unit embedded with digital audio decoder.
- 3 AUDIO OUTPUT Jack
- 4 VIDEO OUTPUT Jack
- **⑤** EURO AV1 Jack

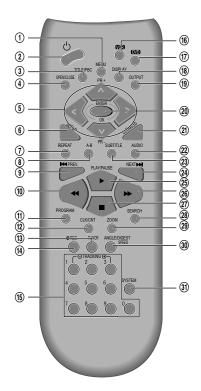
- **6** EURO AV2/DECODER Jack
- **⑦** Connection to ANTENNA Cable
- **8** Connection to TV

### Accessories



• To purchase accessories or not supplied parts additionally, contact your nearest dealer or service center. But, owner's manual and warranty are not sold additionally.

# **Remote Control**



# Child Lock!!!

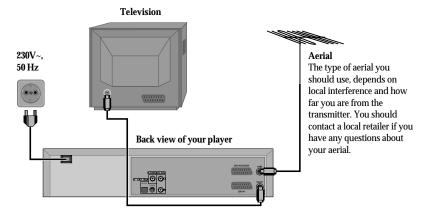
Press the power [ $\bigcirc$ ] button of the remote for about 5 seconds. No buttons of front panel and remote can be operated now and Lock indicator (" $^{\bot}$  $^{\bigcirc}$  $^{\Box}$  $^{\Box}$ ") will be displayed on window display. To release child lock, press the power [ $\bigcirc$ ] button of the remote control for about 5 seconds.

- 1 [DVD] MENU button
- ② POWER button
- 3 [DVD] TITLE /PBC button
- $\textcircled{4}\ ^{[DVD]}$  OPEN/CLOSE button,  $^{[VCR]}$  EJECT button
- (5) [DVD, VCR] MOVE/SELECT in OSD, [VCR] Channel Up/Down button
- **6** SETUP button
- 7 [DVD] REPEAT Playback button
- (8) [DVD] REPEAT a defined period from A to B button
- (9) [DVD] PREVIOUS button (move into a previous chapter or track)
- **10 REVERSE SEARCH button**
- (1) [VCR] PROGRAM button (SD-9100 only)
- (2) [DVD, VCR] CLOCK/COUNTER button
- (3) [DVD, VCR] TV/VCR button
- (4) [VCR] Record button
- (5) [DVD, VCR] NUMBER button, [VCR] TRACKING -/+
  button
- **(6)** VCR SELECT button
- ① DVD SELECT button
- ® [DVD, VCR] OSD DISPLAY button
- **(9) OUTPUT Selection button**
- **20 ENTER/OK button**
- 21 CLEAR/3D button
- (2) [DVD] AUDIO LANGUAGE Select, [VCR] AUDIO Select button (SD-9100 only)
- 23 [DVD] SUBTITLE Select button
- ② [DVD] NEXT button (Move into a next chapter or track) , [VCR] Frame Advance button in pause mode
- 25 PLAY/PAUSE button
- **26 FORWARD SEARCH button**
- **②** STOP button
- ②8 [DVD] Chapter/Title/Time SEARCH button
- (29) [DVD] ZOOM button
- $\ \mathfrak{D}^{[DVD]}$  ANGLE,  $^{[VCD]}$  DIGEST,  $^{[VCR]}$  Record SPEED button
- ③ SYSTEM button (This button is not available for this set)

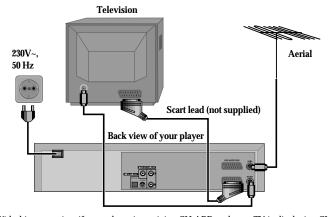
# Setting up your player

■ Before you start, unplug all the equipment from the mains supply.

# (Option 1) - Connecting your player through RF lead



# ■ (Option 2) - Connecting your player through a scart lead



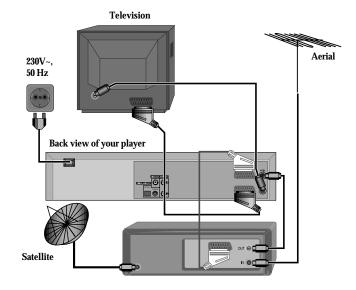
With this connection, if your player is receiving CH ARD and your TV is displaying CH3, when you press the [TV/VCR] button on the remote control, your TV will automatically display the CH ARD. "VCR" will be displayed.

In this mode, to change the viewing channels the [PR-] and [PR+] buttons on the player remote need to be used. To switch off this mode press [TV/VCR] on the remote control, TV remote can now be used as normal. You will get better pictures and sound quality if you connect your player with a scart lead.

# Connecting your player through extra equipment (satellite system)

■ Before you start, unplug all the equipment from the mains supply.

# ■ (Option 1) - Connecting your player through RF lead

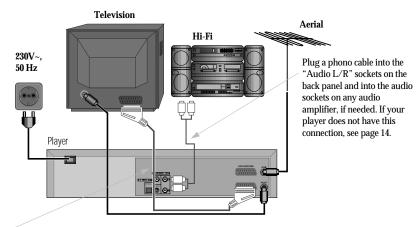


You can use this connection if your player has two scart sockets. This will improve sound and picture quality when you are recording from satellite.

# Connecting your player to the Hi-Fi system

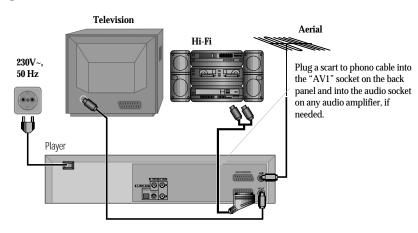
■ Before you start, unplug all the equipment from the mains supply.

# ■ Option 1



You can also use a scart lead to improve picture and sound quality from your player.

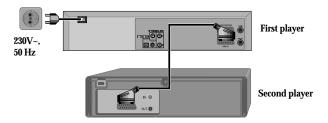
# Option 2



# How to connect your player to another player

■ Before you start, unplug all the equipment from the mains supply.

### How to connect



- 1) Insert the tape you wish to record on into the first player and press [OUTPUT] until "AV1" appears on the
- 2) Insert the tape you wish to copy from into the second player. Press the [PLAY] button on the second player.
- 3) Press the [RECORD] button on the first player.

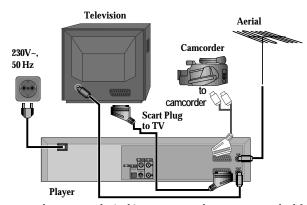
The player will start recording.

If your player has two scart sockets, you can use the other socket "AV2" to connect other equipment. To use this function, see page 15.

# How to connect your player to a camcorder

■ Before you start, unplug all the equipment from the mains supply.

### ■ How to connect



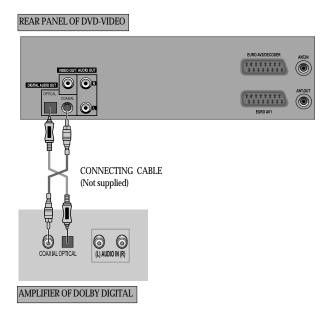
If you have connected your camcorder in this way, you can also connect a scart lead from "AV2" on the back panel of the player to the television. To use this function, see page 15.

You can also connect the camcorder by using a phono cable if your player has front input sockets. Check the front of your player for this connection, see page 15.



# Connecting Dolby Digital Amp with Digital Audio Out Jack

### ■ How to connect



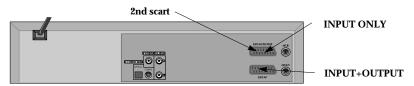
- 1 Select either COAXIAL or OPTICAL to connect to amp of Dolby Digital.
  - \*\* If you want to know about "Dolby Digital", please refer to [About DVD] in 43-44p.

Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

# 2nd scart socket

### ■ 2nd scart socket

If your video has the AV2 output, shown in the diagram below, you can connect other equipment as seen on pages 11-13.

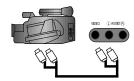


When connecting other equipment please refer to their manuals for further information. This video manual recommends the set up as shown on page 11. When connected by this method if the equipment is turned off the video behaves as normal, but if the equipment is turned on the video will automatically switch over to AV2 mode and displays the channel of the other equipment, channel selection can only be performed by the other equipment, the video PR+PR- buttons have no effect.

To return to normal video use the other equipment must be turned off.

#### **Recording from other Equipment.**

Simple recording can be performed, ensure the equipment is turned on and is displaying the correct channel. Timer recording, set the video to perform a timed recording ensuring AV1 is selected as the channel to be recorded. Some equipment may have a timer which allows it to be powered on to the correct channel, if this feature is not available the other equipment should be left powered on.



#### Front AV

If the video has front input sockets, it is possible to connect devices such as a camcorder to the video. To watch a camcorder tape the video must be in AVF mode. Recordings of this input are the same as described on pages 10-13

# **Initial Installation**

- Switch the TV on.
- You can also start "AUTO SET" in the SETUP "PR PRESET" → "AUTO SET".
- To tune in new stations (manual tuning) and to enter station names see page 23-24.

# Setting up the player

1

You should see this picture the first time you switch on the TV and player.

Choose your language.

2

Then choose your country.

For selecting the country, refer to the followings.

B: Belgium I: Italy SF: Finland
D: Germany LUX: Luxembourg SW: Switzerland
DK: Denmark N: Norway TR: Turkey
E: Spain NL: Netherlands
GR: Greece S: Sweden

3

#### OK for "AUTO SET!".

"AUTO SET" tunes in all the stations you can receive in your country and sorts them in an order common for your country. Clock is automatically set.



If other stations are positioned on near the current RF OUTPUT CH, the guide message appears automatically.

The player recommends the optimal RF OUTPUT CH number automatically.

5

Press the [OK] button to confirm the recommended PR.

Should you wish the stations to have the same numbers as those used on the TV, follow the instructions in "Sorting programme locations" on page 24.

Else ..

exit the basic installation function and enjoy your player.

- If you don't see this picture, because you don't use a SCART cable, search this picture now (CH 52) with the station tuning functions of your TV set (see its user manual).
- In case of interference problems on CH 52, type in an other transmission channel between 21 and 69 using the number buttons.







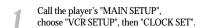




# **Setting time and date / Auto clock**

# Setting time and date

 Press [VCR] button on the remote control to change into VCR Mode and follow the procedure below





2

Move to the position you want to change and type in the new values.

Wait a few seconds after typing a one-digit number.

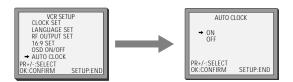
Store with [OK] button and exit with [SETUP] button.



# ■ Setting Auto clock

■ Auto Clock is only available for models with the VPS/PDC function (see page 25).

Some broadcasting stations may send the time and date along with the VPS/PDC data. The video will automatically use this time and date during the initial setting up procedure during normal use, and every time you switch the video off at the mains. If you find that this time and date is incorrect you can remove this feature by following the steps below changing it to OFF mode, you will then have to manually set the time and date, see above.



# **OSD ON & OFF**

# OSD (On Screen Display) ON & OFF

This player is set to "OSD (On Screen Display) ON" mode before shipping and you can change it to OFF mode.

1

Call the player's "MAIN SETUP".

Choose "VCR SETUP". And press the [OK] button.

2

Choose "VCR SETUP". And press the [OK] button.

3

Select "OSD ON/OFF"

If you want OSD OFF mode, select it and press [OK] button to confirm.

Then OSD characters are not displayed in the normal picture.

SETUP

TIMER PROGRAM
PR PRESET
VCR SETUP
TAPE CONTROL

PR+/-:SELECT
OK:CONFIRM SETUP:END

VCR SETUP
CLOCK SET
LANGUAGE SET
RF OUTPUT SET
16:9 SET
OSD ON/OFF
AUTO CLOCK
PR-/-:SELECT
OK:CONFIRM SETUP:END



# **Output Select**

# To Select DVD

#### Press [DVD] button.

If DVD mode is correctly selected, DVD on the operation display window is lit. Then, REMOTE button works as DVD function. Press the [DVD] button, then the mode of DVD-Video Player becomes to the OPERATION mode.



### ■ To Select VCR

#### Press [VCR] button.

If VCR mode is correctly selected, VCR on the operation display window is lit and DVD goes out. Then, REMOTE button works as VCR function. Press the [VCR] button, then it becomes to the VCR OPERATION mode.



# To Select Watch Modes or External Input

#### Press [OUTPUT] button.

Whenever you press [OUTPUT] button, DVD, VCR PLAYBACK, BROADCASTING RECEPTION and EXTERNAL INPUT is selected in order and the DISPLAY of DVD and VCR will be changed accordingly.

# **DVD Playback**



Press [  $\circlearrowleft$  ] button to power on.

Press [DVD] button of REMOTE to change into DVD mode.

Press [OPEN/CLOSE] button to open the disc tray.

Place a disc firmly on the disc tray, making its label look upward.

Insert the disc and press [OPEN/CLOSE] button to close the tray.

The disc tray is closed and after checking the disc's condition, Playback or Stop function starts to operate.

To playback it, press [PLAY/PAUSE] button.

 In the case of DVD, DVD menus and titles are displayed on TV screen.

- In the case of S-VCD and VCD2.0
  the menus are displayed on TV screen and it is converted into PBC(Playback Back Control) mode.
- In the case of CD, VCD1.1 and MP3, the disc plays in order of its track numbers.

For pause, press [PLAY/PAUSE] button in playback mode. If you press this button once more, it starts playback again.

Press [OPEN/CLOSE] button to remove the disc.

#### Various Playback Methods

- If you want fast forward (or reverse) playback, press [►►] or [◀ ]button in Playback mode. You can watch fast playing (reverse) screen.
  - \* This reverse playback can be unavailable for certain DVD. Unavailable for MP3.
- If you want slow (or reverse) playback, press [▶▶] or [◀] button in Pause mode. You can watch the desired screen in the slow forward (reverse) playback.
  - \* For the case of Video CD, this reverse slow playback function is unavailable. The  $\,\,\otimes$  mark will appear.
- If you want still picture, press [PAUSE] button in Playback mode. You can watch the desired screen in Pause status.

# VCR Playback



Press  $[ \circlearrowleft ]$  button to power on.

Press [VCR] button of remote control to change into VCR mode.

Insert the desired tape.

If you want to playback it, press [PLAY/PAUSE] button.

When the operational status is flickering or poor, adjust it with [TRACKING +/-] button.

To stop it, press [ ] button. For pause, press [PLAY/PAUSE] button in playback mode. If you press this button once more, it starts playback again.

Press [EJECT] button in the front part or [OPEN/CLOSE] button on remote control to remove the tape.

#### Various Playback Methods

- If you want fast forward (or reverse) playback, press [►►] or [◄◄] button in Playback mode. You can watch fast playing (rewinding) screen.
- If you want Still picture, press [PLAY/PAUSE] in Playback mode. You can watch the desired screen in pause status.
- $\blacksquare$  If you want slow-motion playback, press [  $\stackrel{\blacktriangleright\blacktriangleright}{}$  ] button in Pause mode. You can watch the desired screen in the slow forward playback.
- \* NOTE: VCR doesn't have Slow Reverse Playback function.
- If you want to watch a series of screens one by one, (FRAME ADVANCE) press [NEXT ▶ ] button in Pause mode. Each time you press this button, the picture advances one frame.

#### To Adjust Display

This product includes automatic Tracking function and enables users to enjoy clear picture without an additional operation. Provided that the following problems can be solved by the manual adjustment, which improves display quality. (During automatic display adjustment, "Adjusting Display" are displayed on TV screen.)

- If the screen is poor in Playback mode,
- If noises occur in the upper or lower part of screen in slow playback mode,
- If paused picture vibrates up and down.

Use [TRACKING +/-] buttons of remote control to adjust the display suitable for watching.



\* In case of the notice on screen, please rub the heads with a headcleaner followed by

If the product, which has a auto-detector, detects a contaminated head(s), it shows the

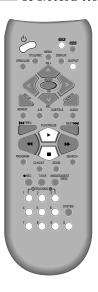
conditions to notice the

contamination on

"How to use a headcleaner".

# Recording

### ■ To Record With VCR



■ Press [ ♥] button to power on.

• Press [VCR] button of remote control to change into VCR mode.

Insert a recordable tape.
Insert a tape with recording tab.

With [CHANNEL], [NUMBER] and [OUTPUT] buttons, select the desired broadcasting channel or external input unit to record.

Select the desired speed (SP or LP) with [SPEED] button.

Press [REC] button.
Then, it starts recording.

If you want to pause recording, press [PAUSE] button.

After pressing [PAUSE] button, if the pause status continues for five minutes, the recording is released automatically.

To exit recording, press [STOP] button.

# ■ To Enjoy Another TV Channel or DVD during recording

- If you want to watch another TV channel during recording with video, press [TV/VCR] button.
  - It is available of changing into and watching another TV channel.
- 2 If you want to playback DVD during recording with video, insert a DVD disc.

  Place the desired DVD disc on DVD tray, press [DVD] button to convert OUTPUT into DVD mode and press [PLAY] button. Then, you can watch DVD.

#### Recording

playing DVD, press [VCR] button and then [REC] button.

# ■ To Copy From DVD To Videotape

VI I To copy just 2 P with buttons of remote control, after 2

Insert the desired DVD disc.
When it is a DVD disc with copy protect function, you can't copy it.
Insert a recordable tape.

- 2 Press [QUICK COPY] button on the front panel. DVD plays and VCR starts recording.
- **3** To exit copy, press [VCR] button and then [■] button. If not, DVD plays again and video continues to copy.

This product incorporates copyright protection technology that is protected by method claims of certain U.S patents and other intellectual property rights owned by Macrovision Corporation and other rights owners.

Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

# One Touch timer Recording (OTR)

When your urgent business happens suddenly in watching TV or you want to record the current TV program for the desired time, follow the procedures below.

1 First, follow the steps 1 to 4 in "Recording With VCR".

Press [REC] button as much as you want. See the "Recording Times Table" below.

Once continuous recording until you press STOP button Twice recording for 30 mins from current time

3 (times) recording for 1 hour

recording for 4 hours

10 returning to the status of Once Press

3 To stop Recording mode, press [STOP] button more than 5 seconds.



# **Tuning in New Stations**

- The TV and player are switched on.
- To see the picture from your player, press the station button on the TV reserved for player input or the AV (Audio / Video) button.
- "AV1/2" should not be selected with the AV button on the player.

# ■ Tuning

1

To complete the set-up of your video recorder when the auto set has not stored all of the channels or when you wish to store a new channel.

Call the video's "MAIN SETUP", choose "PR PRESET".

PR PRESET
AUTO SET

→ MANUAL SET
PR ERASE
PR ALIGN

PR+/-:SELECT
OK:CONFIRM SETUP:END

2

Select "MANUAL SET".



PR 04
RECEPTION AERIAL
AUTOSEARCH
FINE TUNING DECODER ON

2

Choose any unused location number "----" or "P-xx" ...

It's simplest to use the same location number on both the TV and video.

... and confirm.



Set the station you want:

- · the programme location number;
- the broadcast system you want (Aerial(CH) or Cable(CC)),
- You can directly enter the real channel number with the [0 to 9] buttons, or search by pressing [< / >],
- The fine tuning you can adjust,
- When the program is encoded (and you have a decoder connected to socket EURO AV2), press the [< or >] to select ON or OFF.
- Change or create the station name.

Once you see the station you want, store it.

Tune in further stations (from step 3 onwards) or exit tuning mode.



### **Tuning in New Stations**

### ■ Station names

If your player is showing no station name or is showing a station name incorrectly, you can correct this.

1

Call this menu (just see the previous page), if it isn't displayed.

Select NAME position.

Press the [0] button to change the given name.

Or press the [1] button to create the station name.

2

Either select the name from the stored list or you create the station name and enter a 4-digit name. Change the letters with the [PR +/-] buttons, move to the next letter with the [</>] buttons.

3

Store and exit.







# Sorting programme locations

If the location numbers used for programmes stored in your TV and player are different, you can change them on the player. To do this, move the stations to the right numbers, until they are arranged the way you want.

- 1 Call the player's "MAIN SETUP", choose "PR PRESET" then "PR ALIGN".
- 2 Select the programme to swap.
  Confirm by pressing OK button.
  Move the station to the desired location number.
  Confirm by pressing OK button.

PR ALIGN

→ PRO1ARD PROB P-08

PRO2 ZOF PROB P-09

PRO3 P-03 PROT PRO P-10

PRO4 P-04 PR11 P-11

PRO5 MTV PR12 ---
PR05 PG PR13 ---
PR07 P-07 PR14 ---
PP V-RW

OK-CONFIRM SETUP-END

# Clearing programme locations

- 1 Call the player's "MAIN SETUP", choose "PR PRESET" then "PR ERASE".
- 2 Select the station (location number) you want to clear.Review the picture by pressing [>] button.

Clear by pressing OK button.



SHOWVIEW 83077----

9:SHOWVIEW NUMBER :CORRECT

OK:CONFIRM SETUP:END

HOW OFTEN DO YOU WANT TO RECORD THIS PROGRAM?

WEEKLY(ONCE A WEEK)
DAILY(MON-FRI)
DAILY(MON-SAT)
DAILY(MON-SUN)

PDC ON :SELECT (AV1/AV2) SETUP (PR)

22:20 14/10(SAT)

# **Timer Recording**

- For timer recordings, clock, date, and stations must be set correctly.
- Load a cassette with its safety tab in place and with sufficient free space for the recording.

### ■ Timer recording using ShowView (SD-9100 only)

1

Call the ShowView menu.

From your TV magazine, type in the number next to the programme you want to record  $\dots$ 

... and confirm.

Decide if you want to record "ONCE", "WEEKLY" or "DAILY"...

2

... and confirm.

If you wish to make changes:

Move to the position you want to change using the [</>] buttons.

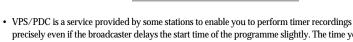
Change the setting using the [</>] or [number] buttons. If all setting are ok, press [ok], till you see "OK: CONFIRM" in the bottom line.

Confirm.

Switch your player off.

₩ '

20:00



- precisely even if the broadcaster delays the start time of the programme slightly. The time you enter is the VPS/PDC time so must be correct. Not all stations offer VPS/PDC, in which case the player will start at the time you enter and not the actual start time of the programme. If you wish to start recording at a specific time without it being adjusted by the VPS/PDC system in the event of a delay, switch VPS/PDC off otherwise the player will not record.
- · If you don't have the ShowView numbers see next page for the normal timer.
- If you have made a mistake, move back to the relevant position with the [<] button and change
  the setting.</li>
- If there is no programme location displayed under "PR" in the change menu, the player doesn't
  yet know the location number for the programme you want. Type it in and this will be stored
  for last recordings.
- If you wish to record from a satellite receiver, select under "PR" the satellite programme
  location or AV (1/2) (depending on the connection with the antenna cable or the SCART-cable).
  Leave the satellite tuner switched on and to the programme you want.
- Should programming overlap, you get a warning.
- ShowView is a trademark applied for by Gemstar Development Corp.. The ShowView system is manufactured under license from Gemstar Development Corporation.

#### **Timer Recording**

- For timer recordings, clock, date, and stations must be set correctly.
- Load a cassette with its safety tab in place and with sufficient free space for the recording.

### Normal timer recording



Call the player's "MAIN SETUP", choose "TIMER PROGRAM". Decide if you want to record "ONCE", "WEEKLY" or "DAILY"...

... and confirm.

HOW OFTEN DO YOU WANT TO RECORD THIS PROGRAM? • ONCE WEEKLY(ONCE A WEEK) DAILYMON-SAT) DAILYMON-SAT) DAILYMON-SAT) PR-1-:SELECT OK:CONFIRM SETUP:END

2

Type in one after the other:

- · The programme location number;
- · the time the broadcast starts,
- · the time the broadcast ends,
- the day of the broadcast, if it is not today.
- Select LP if you wish to make a very long recording.
- · Switch off VPS/PDC here if you need to .





If you wish to make changes:

Move to the position you want to change using the [< / >] buttons. Change the setting using the [PR+/-] or [number] buttons.

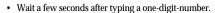
If all setting are ok, press [< or >], till you see "OK : CONFIRM" in the bottom line. Confirm.



Switch your player off.



20:00



- If you have made a mistake, move to the position you want to change using the [</>] buttons and change the setting.
- If programme timings overlap, the machine will give a warning message. If you don't adjust
  the times, the machine will record the first programme completely then continue with the
  second one.
- If there is no sufficient free space for the recording on the cassette the video switches automatically to "LP" for double recording capacity.
- · The recorder will eject cassettes which have the safety tab removed.

# ■ Timer Review - changing and erasing

Call the player's "MAIN SETUP", choose "TIMER PROGRAM".



If you want to erase this programming press button [0], confirm with OK. If you wish to make changes: Move to the position you want to change using the [<,>] buttons. Change the settings using the [PR +/-] or [number] buttons. If all settings are ok, press [< or >], until you see "OK: CONFIRM" in the bottom line.

Confirm changes with [OK]. Exit the menus.

Select the programming to change or erase.

TIMER PROGRAM (ONCE)
PR 03
START TIME 21:20
END TIME 22:20
START DATE 14/10(SAT
TAPE SPEED SP
VPS/PDC ON 0
0:ERASE
</>:CORRECT SETUP:END 03 21:20 22:20 14/10(SAT) SP ON

# **More Functions**

- The counter counts in real time from the point you load the cassette. This does not have to be its beginning! The counter does not count unrecorded parts of the tape.
- If you rewind beyond the zero position, the counter counts in negative values (e.g. 0:01:15).

# Clock / counter display

Each time you press [DISPLAY] button,

1x: Time and date+current status → Time and date

2x: Counter+current status  $\rightarrow$  counter

3x: disappear.

But if you press [CLK/CNT] button, clock and counter on display window will change each other.

- If didn't wind tape (PLAY, FF, REW,...), it doesn't appear the tape remain time.
- In case that the timer recording information is inputted in the received broadcasting signal, press the button
  to display the VPS/PDC icon.

# ■ Remaining time and cassette length



 Remaining time display is only possible when the cassette is loaded.

STOP SP

PR01 ARD STEREO ON

14:00 14/10 V E180 00:48

When you want the player to show the time remaining from the current player tape position (to find out if there is sufficient space for a recording, for example).

To ensure the remaining time shown is accurate, select the length of cassette currently loaded by selecting this function until you reach the correct length.

# Accessing counter zero position

The player will wind to the position 0:00:00 and stop.

# ■ Resetting the counter to zero



Reset the counter.



and ...

**Dimmer**: Your player dims its display when switched to stand-by mode.

**Auto power off**: Your player switches to stand-by when no tape is played and no station is received for more than 5 minutes.

# ■16:9 Wide Screen Format Playing back / Recording

You can play and record the program of 16:9 Wide-Screen format with this player .  $\bullet$  16:9 Set

-Auto : This video automatically detects the program format (16:9 or 4:3) and records or plays this program in the same format.

 -ON: The video will play or record all broadcasts in 16:9 format. 4:3 broadcasts will be converted to 16:9 format.

-OFF: The video will play or record all broadcasts in 4:3 format only.

 If you watch a program which is recorded by 16:9 wide screen format with this player, your TV must have 16:9 wide screen function and you have to connect TV and player with the A/V scart.





### **AUTO REPEAT**

If you press the [PLAY] button for 5secs during stop or still mode, it goes Auto repeat mode. This player plays repeatedly the tape from the beginning to end parts.

To release this mode, press the [O] button or mode operation button. (PLAY, FF, REW or STOP)

# ■ SETUP languages

Call the player's "MAIN SETUP", choose "VCR SETUP", then "LANGUAGE SET".

Select your language. Confirm.



### ■ Child lock

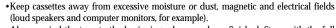
Press the [  $\circlearrowleft$  ] button for about 5 seconds.

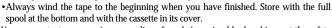
No buttons of front panel can be operated now and LOCK INDICATOR ("LOCK") will be displayed on window display. Keep your remote control in a safe place. To release child lock, press any button of the remote control.

### ■ Cassettes



Use only good quality tape cassettes with the VHS logo.





You can protect your precious recordings from being wiped by breaking out the safety tab on the side of the cassette (some cassettes have a slide). Should you wish to re-use the tape after removing the tab, cover the hole with adhesive tape.

VCR Operation

#### **More Functions**

- The player machine records the complete sound signal transmitted by the TV station.
- On the mono VCR, you will hear the normal mono sound.

### ■ The Hi-Fi system (SD-9100 only)

In addition to the normal mono sound track of VHS video recorders, your player machine is equipped with a high-quality Hi-Fi sound system.

This means you can enjoy

- · films with excellent stereo sound
- films of full-length concerts in high quality stereo
- films with impressive Surround Sound using additional Surround equipment
- $\bullet \ films \ with \ two \ dialogue \ modes \ (dual, bilingual), \ usually \ the \ original \ sound \ track \ and \ dubbed \ sound \ track$
- VHS cassettes with Hi-Fi stereo sound and VHS cassette with normal sound

### ■ What you can listen to (SD-9100 only)

During Stop, the player displays what the current station is broadcasting. When you switch to another station or the current station changes the sound mode, your player displays the programme and sound mode on screen (if not, press AUDIO).

• "STEREO" = stereo
"BIL I / BIL II "=bilingual
nothing= monaural sound



During Playback, the player displays what is recorded on the cassette (if not, press AUDIO).  $\label{eq:playback}$ 

 "Hi-Fi" = stereo/bilingual nothing = monaural sound



# ■ Choice of sound output (SD-9100 only)

During a stereo performance (playback-"Hi-Fi"/ broadcast - "STEREO"):

Hi-Fi stereo  $\Rightarrow$  left audio channel only  $\Rightarrow$  right channel only  $\Rightarrow$  the normal mono sound track of a Hi-Fi cassette



- During broadcasting a bilingual performance: Main language (original sound track) → sub-language (dubbed) → both main language and sub-language → OFF.
- For mono performances , there is no choice available.



# **Connections and Copying**

- If you are using a SCART cable, select the AV input on the TV to see the picture from the player.
- If you are not using a SCART cable, select the button number on the TV reserved for video input to see the picture from the player.

# ■ To the TV via antenna cable (if you are not using a SCART cable)

If you are not using a SCART cable, your player can transmit pictures and sound to the TV via the coax aerial cable. Just tune the TV to the player's transmitting channel (factory set to UHF CH 52). Tune the TV carefully to ensure the best pictures and sound.



Once you have carried out the steps in "Connecting up the player", switch

Press the [OK] button of the player's remote control longer than 5 seconds to call the player's test picture.

Tune the TV to the test picture using the channel pre-set functions of your TV as described in its manual.

When you have found the test picture, store it under the button number on your TV for player input.

Press the [OK] button of the player's remote control again longer than 5

seconds to release the test picture.

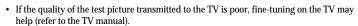


• If the quality of the test picture transmitted to the TV is poor due to interference caused by a station transmitting on channel 52, you can tune the player to a different transmitting channel. Find a free channel between 21 and 69 on your TV.

Call the player's "MAIN SETUP" choose "VCR SETUP" then "RF OUTPUT SET".

Type in the free channel.

Store and exit.



• Without a scart cable, you will not get stereo sound from a TV capable of stereo sound.

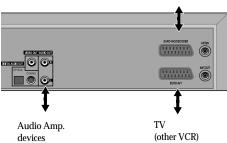


#### **Connections and Copying**

■ Switch off all components when connecting or disconnecting cables.

# ■ Copying

Other VCR Decoder for Pay-TV Camcorder Video Player Satellite Receiver



To copy to your player from another video machine, connect the two machines with a cable between their EURO AV (SCART) sockets and select as programme "AV 1/AV 2" or "F. AV" (front sockets) using the [AV], [PR+/-] or [  $\, \dot{\Phi} \,$  ] button

Set the other video machine to playback and your machine to record.

• To connect a mono audio source, use the front Audio In socket marked L.

To copy to another video machine from your player, connect the two machines by means of their EURO AV (SCART) sockets.

On the other video, select its AV input and set t

On the other video, select its AV input and set the machine to record.

Switch your player to play back at the position you want copying to start.

# Assembling

Should you wish to assemble your own film, from camcorder footage for example, use the assembly technique for smooth edit points:

- Move the tape to the position at which the new scene is to be added using the play functions.
- Wind back slightly before the edit point and put the machine into pause using the [PAUSE] button (do not press STOP!).
- · Now go directly into record.

For the best results, the source cassette from which you are recording should already be playing back when you start recording.







# Playing a desired scene

# ■ To skip scenes in a disc

DVD

To move to next chapter (or track), press [►► NEXT] button.

VCD

The current chapter (or track) moves to the next chapter (or track).

VCD2.0

Press [ ► PREV] button.

CD

The current scene moves to the previous chapter (or track) or first scene of current chapter (or track).

MP3

# Directly moving to a desired title (DVD)

■ Some movie discs may contain multiple titles. If the disc has a movie title menu recorded on it, the [TITLE] button can be used to select the movie title. Details of operation may differ depending on the disc used.

\* Selecting a title may not be available on certain DVD discs.

DVD



#### Press the [TITLE] button.

A list of the titles on the disc is displayed. Pressing the [TITLE] button again to resume play from the scene when the [TITLE] button was first pressed.





Press the [ENTER] button or [PLAY] button after pressing the [ < > ^ V ] button to select the desired title.

The selected title now starts playing.





# Playing a programmed order

DVD

VCD

CD

Available only in STOP.

# While STOP, press [PROGRAM] button.

While the right figure is appearing, please input desired Title(T) and Chapter(C) number with NUMBER buttons.

\* In case of VCD and CD, please input TRACK Number.



After completing setting, press [PLAY]

Then, titles and chapters (track) are played in the above-programmed order.

 $^{*}$  To exit from Program mode, press the STOP button.

$\Diamond$	♦ Program Menu			Select:ENTER		
	Title	Chapter		Title	Chap	oter
1			6			
2			7			
3			8			
4			9			
5			1	0		
			N	JEXT	ŧ	
PL	ΑY: <b>Σ</b>	l		Ex	cit :SE	ΓUΡ

$\Diamond$		ram Menu e Chapter	Select:ENTER Title Chapter
			Title Chapter
1	01	02	6
2	01	05	7
3			8
4			9
5			10
PL	AY:	1	NEXT ↓ Exit :SETUP

#### Playing a desired scene

# Repeating a defined period

DVD

Each time you press [REPEAT] button in playback mode, repeat playback starts as below.

VCD

• DVD : Rep. Chapter --> Rep. Title --> Rep. Off

• VCD : Rep. One --> Rep. Disc --> Rep. Off

CD MP3

• MP3 : Rep. One -> Rep. Dir -> Rep. Disc -> Rep. Random -> Rep. Off

• Rep. Chapter: Current chapter will be repeatedly playback.

- Rep. Title : Current title will be repeatedly playback.
- Rep. One: Current track will be repeatedly playback.
- Rep. Disc : Current disc will be repeatedly playback.
- Rep. Random : Tracks in the disc will be playback in random order.
- Rep. Dir : Current directory in MP3 disc will be repeatedly playback.
- $\bullet$  Rep. Off : Repeat playback will be cancelled.

# Repeating a defined period from A to B (DVD, VCD, CD)

■ You may repeat a defined period from A to B.

DVD

VCD

CD

A MP3 disc may not be repeated from A to B.

At the point where you want to start the repeat playback, press [A-B] button.

The right figure appears and repeat playback start position (A) is set.

At the point where you want to end the repeat playback, press [A-B] button again.

Rep. A-B

Rep. A-

The repeat playback end position (B) is set and a defined period from A to B is playback repeatedly.

To exit from repeat playback mode, press

It enters into Normal Playback mode.

Rep. Off

# ■ Searching DVD with a title number, a chapter number or a time

DVD

If you want to search with a title number, press [SEARCH] button one time.

It shows total title numbers , chapter numbers and times

Please enter the new title number to be searched using the [NUMBER] buttons.



2

If you want to search with a chapter number, press [SEARCH] button twice.

Please enter the new chapter number to be searched using the [NUMBER] buttons.



3

If you want to search with a time, press [SEARCH] button three times.

Please enter the new time to be searched using the [NUMBER] buttons.

In completing entering, please press [ENTER] button. PLAY starts from the selected position.



# ■ Searching VCD and CD with a time or track time

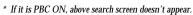


1

If you want to search with a time, press [SEARCH] button one time.

In case of PBC OFF, the screen like the right figure appears.  $\,$ 

Please enter the new time to be searched using the [NUMBER] button.





2

If you want to search with a track time, press [SEARCH] button twice.

In case of PBC OFF, the screen like the right figure appears.  $\,$ 

It shows current track's time and the whole disc's hours.

Please enter the new track time to be searched using the [NUMBER] button.

\* If it is PBC OFF, only the track's time appears.



3

In completing entering, please press [ENTER].

PLAY starts from the selected position.

# Confirming the current PLAY mode on screen

## Confirming the current DVD disc mode

DVD

While in playing, press [DISPLAY] button.
It shows the disc type, current title, current chapter and time elapsed.



2

Press [DISPLAY] button again.

It shows the DVD disc logo, subtitle selected, audio selected, dolby digital logo, repeat playback mode and current angle.

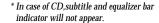
To exit from Display mode, press [DISPLAY] button again.

### Confirming the current VCD, CD disc mode

VCD CD

While in playing, press [DISPLAY] button.

It shows the disc logo, current track, subtitle selected, audio selected, repeat playback mode, time elapsed and equalizer bar.



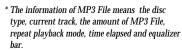


To exit from Display mode, press [DISPLAY] button again.

### Confirming the current MP3 disc mode

MP3

While in playing, press [DISPLAY] button. It shows the MP3 File information in disc, the directory, MP3 File name and directory list. With [ < > ∧ ∨ ] buttons, you can move the cursor to directory or number of MP3 Music File. To go to desired directory or to playback MP3 File, press [ENTER] button.







At the desired directory position, press [ENTER] button.

It shows the track list.



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# Selecting an AUDIO language, SUBTITLE language and 3D AUDIO

### ■ Selecting an audio language

■ The user may select an audio language and subtitle language if a disc includes Multi-language.

DVD



Keep pressing [AUDIO] button till the user's preferred language appears.

If DVD disc includes audio information, every time the user presses [AUDIO] button, English (ENG), French (FRE), Spanish (SPA) and others appear one by



## Selecting a subtitle language

DVD

Keep pressing [SUBTITLE] button till the user's preferred language appears.

If a DVD disc includes subtitle information, every time the user presses [SUBTITLE] button, English (ENG), French (FRE), Spanish (SPA) and others appear one by one.



### ■ Selecting 3D Audio

DVD

VCD

CD

This 3D function is operational only when the Audio Output is set to the Analog or SPDIF/PCM.

■ Sound Fields and Graphics Equalizer can be set.

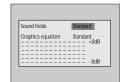
#### Please press [3D] button.

If the right figure appears, move the cursor with  $[<> \land \lor]$  buttons.

The user may select a "Sound fields" among Standard, Theater, Amphitheater, Live, Concert, Church, Wide, Hall or Stadium.

Also, select a "Graphics equalizer" among Standard, Classic, Rock, Jazz, Pop or User.

 $^{\ast}$  When setting graphics equalizer, sound fields changes to "Standard" automatically.



# **Selecting ZOOM and Multi Angle**

### ■ Using a zoom function

■ The user can enlarge the current screen about 1.3 or 2 times.

DVD

VCD

Keep pressing [ZOOM] button till the preferred zoom appears.

Every time the user presses [ZOOM] button, a zoom

For the case of VCD, only 2 times Zoom is available.

Every time the user presses [ZOOM] button, a zoom magnification changes 1.3 times (X1.3)  $\rightarrow$  2 times (X2)  $\rightarrow$  OFF  $\rightarrow$  1.3 times (X1.3)  $\rightarrow$  ... one by one. A base point to be enlarged is centre and the point can be changed with the operation of [< >  $\land$   $\lor$  ] button.





### ■ Different Angle

If a disc includes multi angle information, the user can watch a screen in multi angles. The function is limited to a DVD disc supporting multi angle information.

DVD

Keep pressing [ANGLE] button till the preferred angle appears.

Every time the user presses [ANGLE] button, an angle degrees changes in a consecutive order.



# **About MP3 discs**

## Playing a disc containing MP3 files

This unit will play MP3 files recorded on CD-R and CD-RW discs.



- $\mathbf{1}$  Turn on your television and select the channel assigned to this DVD player.
- Press the DVD open [OPEN/CLOSE] button, the disc tray opens.
- Put a disc containing MP3 files on the disc tray with the label side up.
- Press the DVD open [OPEN/CLOSE] button, the disc tray closes.
- $oldsymbol{5}$  The unit will take a short while to load the disc and display the directory structure.
- Press the [ < >  $\land$   $\lor$  ] navigation buttons of the remote control to select the folder, then press the [ENTER] button to confirm.
- Press the  $[<>\land\lor]$  navigation buttons of the remote control to select the file you want to listen to, then press the [ENTER] button and this selected file is located and played back.
- After starting playback, the track list is on-screen. You can move the highlight onto the folder name above the track list and change folder with the [PREV] button. Press the [SEARCH] button twice in stop mode to get back to folder tree view.

#### Play and Pause

Press the [PLAY/PAUSE] button to switch between play and pause.

#### Search for a track

The [SEARCH] button works on MP3 discs as well as CD audio. Please see page 35.

#### To stop playback

Press the [STOP ] button.

#### To skip to the next or previous file

- Press the [ NEXT] button of the remote control briefly while playing, to skip ahead to the beginning of the next file. Each time you press the button consecutively, the beginning of the next file is located and played back.
- Press the [ ► PREV (Previous)] button of the remote control briefly while playing, to skip back to the beginning of the previous file. Each time you press the button consecutively, the beginning of the previous file is located and played back.



The ability of this unit to read MP3 discs is dependent on the followings:

- The Bit Rate must be within 64-256 kbps.
  - · The total number of files on the disc should not exceed 200.
  - · The maximum number of directories should not exceed 32.
  - The maximum depth level of directories should not exceed 4.
  - File names should be named using 8 or fewer letters and/or numbers, and must incorporate the "MP3" file extension. EXAMPLE: \*\*\*\*\*\*\*. MP3 where each \* is a letter or number.
  - Use only letters and/ or numbers in file names. If you use special characters, the file and/ or folder names may not be displayed correctly on the on-screen display.
  - When recording on CD-R discs, use 74-minute (650M) discs. Do NOT use 80 -minute (700M)
  - The CD-R or CD-RW discs should be written using the 'disc at once' method.

# Displaying menus in a disc

## ■ To display menus in a disc

■ If a disc includes menus, the user may use them.





#### Press [MENU] button.

- In case of a DVD disc, it shows menus in the disc. Also they are different according to discs.
- If it is a VCD2.0, select PBC ON mode by pressing [TITLE/PBC] button.
   \*CD and VCD1.1 do not support the function.

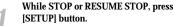


If it is a DVD disc, move a cursor to a relative item with arrow buttons of  $[<> \land \lor]$  button and select one with [ENTER] button or [PLAY] button.

If it is a VCD 2.0 disc, it shows menus in the disc by pressing [ENTER] button.

# Language Setup

■ A user can set OSD language, Audio, Subtitle and Disc Menu.



DVD screen.









## Selecting Audio language.

Selecting a OSD language.

Please select a language to be displayed on

Set it as the preferred audio language. In case the audio language is set and recorded in the DISC, it is automatically played in the set language in every playing. For example, English is set and recorded as audio language in the DISC, it is played in English.



#### Selecting Subtitle language.

Please set it as the preferred language. In case the subtitle language is set and recorded in the DISC, it is automatically played in the set language in every playing. For example, English is set and recorded as subtitle language in the DISC, it is played in English.





#### Selecting Disc Menu language.

Please set it as the preferred DISC MENU language. In case the DISC MENU language is set and recorded in the DISC, it is automatically played in the set language in every playing. For example, English is set and recorded as a DISC MENU language in the DISC, it is played in English.

# Video Setup

■ A user can set up a connected TV condition and screen.



While STOP or RESUME STOP, press [SETUP] button.



#### Selecting TV Aspect.

If a user selects "4:3 PS", the user can watch only a center of the original scene of "16:9". If a user selects "4:3 LB", the user can watch the original scene of "16:9", but the top and bottom of the screen look black color.



If a disc size is originally recorded in 4.3, a user cannot watch it in a wide screen though a user sets a size as "16.9 Wide".

# **Audio Setup**

■ A user may select audio menu according to a user's speaker set.



While STOP or Resume STOP, press [SETUP] button.



#### Select a Digital Output.

You can set following 2 values of digital output;

- Bitstream: The same signal as audio signal recorded in disc goes to digital audio output terminal.
- LPCM: Decoded audio signal goes to digital output terminal.



# **Others Setup**

1

# While STOP or RESUME STOP, press [SETUP] button.



2

### Select character display window.

Select "On" to make OSD(On Screen Display) language displayed in screen.

#### Select screensaver.

If bright scenes continue to be displayed in screen, TV can be damaged. Set the screensaver to "On", the screensaver functions automatically and DVD logo moves continuously if the resume stop, stop, open status is maintained for about 5 minutes.



#### Select defaults.

If you select defaults, every function set returns to FACTORY Defaults except Parental.

5

#### Entering a password.

Input password display appears. Enter a user's password by pressing 4 [Digit] buttons.



"Parental Lock" activates only if you set a password and the unit goes into Lock status. When the disc has no parental function even if the disc for adult only, Parental Lock doesn't activate.

The initial password is 3308. In case you forget newly-input password, you can use

3308 as a password.



## Press [ENTER] button to set the selected item

It consists of 8 levels of parental control, violence, sexual scene, strong sexual scene and others to protect children from watching those scenes.

Language	Video	Audio	Others
OSD Screensaver Defaults	On On Res	et	
Parental Change Password	2	Cids G	
<b>+:</b> ∢►▲▼	6 4	PG-13 PG-R	⇒÷: SETU ↓

7

#### Changing a password.

For the change of a user's password, please move to "Change Password" and enter new password.

Language	Video	Audio	Others
OSD Screensaver Defaults Parental Change Password		nlock	
<b>+:</b> ∢►▲▼	<b>7</b>	NTER	□→: SETUP

42

# **About DVD**

## ■ Playable Disc

• DVD, Video CD(Version 1.1, 2.0), S-VCD and Audio CD

Disc type	Playable	Restriction
DVD	Possible	Region number 2 or Region number All
Video CD	Possible	Version 1.0/1.1/2.0, SVCD/CVD
CD	Possible	PCM or dts
CD-G	Possible	Only Audio playback
CD-ROM	Possible	MP3 File
CD-R	Possible	Video-CD/CD/CD-ROM (MP3 File)
CD-RW	Possible	Video-CD/CD/CD-ROM (MP3 File)
DVD-R	Possible	DVD Video
DVD-ROM	Impossible	
DVD-RAM	Impossible	
DVD+RW	Impossible	
Photo CD	Impossible	

#### REGION MANAGEMENT INFORMATION

This unit is designed and manufactured to respond to the Region Management information that is recorded on a DVD disc. The region number of this player is "2". If the region number described on the DVD discs does not correspond to the Region number of this player, the player will not play this disc. This player will play DVD discs made for "ALL" regions. Therefore, this player will play DVD discs marked with labels containing the region number "2" or "ALL".





(Region 2)

PBC

(Region ALL)

#### Terms related with DVD

ND A DVD (abbreviation of Digital Versatile Disc or Digital Video Disc) can include 135 minutes of video information. And for audio, it can hold up to 8 kinds of languages and 32 kinds of subtitle languages. By using MPEG-2 video compression and digital 3D surround sound, DVD realizes high-defined screen and quality sound like a movie theater.

CDDA A CDDA (abbreviation of Compact disc digital audio) is a music disc that is currently used.

MP3 Audio compression format that enables audio files to be stored and transferred on a computer with a relatively small file size. It enables you to enjoy CD quality music. (Short for MPEG-1 Layer 3)

This is recorded on a Video CD 2.0, Video CD 3.0, SVCD and CVD. The scenes or information to be viewed (or listened to) can be selected interactively with the TV monitor by looking at the menu shown on the TV monitor. It stands for PlayBack Control.

#### About DVD

CHAPTER It means the information recorded in a DVD. A title in a DVD is divided into many tracks, of

which a track is called as a chapter. A certain scene of a screen can be quickly searched with the

chapter number.

TITLE It means the information recorded in a DVD. A DVD can be divided into may titles.

TRACK It means the information recorded in a video CD and audio CD. A disc consists of many a track,

for which a user can search a certain position.

dts Digital Theatre System is a 5.1 -channel surround sound system, which is widely used in movie

theatres around the world. It enables the bit rate to be increased to provide good sound quality. "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.

Multi Angle Some DVD discs contain the various scenes that have been simultaneously shot from a number of

**PCM** Linear PCM is a signal-recording format used in a CD, while CD is recorded in 44.1kHz/16bit, a

DVD is recorded in 48KHz/16bit up to 96KHz/24bit.

Dolby Digital Dolby Digital enables the delivery of mono through 5.1-channel audio at data rates from 32 kbps

to 640 kbps, thus offering flexibility and economical performance as well as uncompromised

sound quality.

**Bitstream** Digital audio data that is decoded into an analog signal for subsequent output to speakers.

Lt/Rt It indicates L/R of Dolby Digital 2CH Downmix output.

**Downmix** DOWNMIX is reproducing the proper audio when audio format recorded on a disc differs from

the output audio channel configuration. For example, with just one stereo speaker system you can

hear full 5.1 channel audio.

RGB This stands for red, green and blue. It means the video signal separated into its three primary

colour components ready to drive the picture tube almost directly. Two signalling connections are needed to make the television accept the synchronisation and RGB signals. All this is in the

SCART connector. Not all televisions have RGB inputs.

**SCART** An acronym (Syndicat des Constructeurs d'Appareils Radiorécepteurs et Téléviseurs) for a

connector used with many kinds of audio-visual equipment. It is also called Peritel and Euro-

### ■ Handling Disc

- To keep a disc clean condition, please do not touch a side containing play information.
- Do not attach a bit of paper or sticky tape on it.
- Do not expose a disc to a direct sunlight or electric heating systems.
- After using it, please keep a disc in a case.

### Cleaning Disc

- Before using it, please rub it from center toward outside with clean clothes.
- Do not use any type of solvent such as thinner, benzol (benzene), commercial cleaning goods or antistatic sprays.





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# **Basic information about VCR and Videotape**

#### ■ Terms related with VCR

AFT Automatic fine tuning, a circuit that automatically adjusts TV reception to optimum condition.

CABLE Cable television.

EP Extended play, the slowest recording speed. Designed to store the maximum amount of program

material on a single video cassette. There is some degradation in picture/audio quality.

Index Search A feature of this VCR that automatically records an index each time recording begins. It helps you

locate a particular segment of the tape quickly and easily.

LP Long Play, an intermediate tape recording speed that combines most of the picture/audio quality

obtainable at the standard recording speed with some of the tape economy of Extended Play (EP).

OSD On-screen display of information pertinent to the features of the VCR.

OTR One-touch recording, a feature that allows you to record the program you're watching by

pressing the REC key. Each press of the key increases the recording time by 30 minutes, up to four

RF Radio frequency, the composite audio/video signal supplied to a TV receiver (or other video

component) by an antenna or cable system.

The plastic tab at the back of a video tape cassette which, when removed, prevents accidental Safety tab

SP Standard play, the recording speed to use when the best picture quality is of prime importance

(and when total recording time is not).

### ■ What is dew condensation symptom?

· If a VCR is moved from a cool place to a warm and damp place or a place facing a direct cool wind from airconditioner...and others, temperature varies sharply, which makes dew on head drums of VCR.

#### If dew condensation occurs

- First, turn it on for one or two hours before using it.
- Do not use it because it may develop troubles of a VCR or videotape.

#### ■ How to use a head cleaner

- In case of a old or contaminated videotape, screen may not be clean from the contamination of VCR heads. Please remove contaminants using a head-cleaner like below order.
- Insert a head-cleaner into VCR
- Press "PLAY" for 5 seconds, and then press "FF" for about 10 seconds.





FF (10secs)

- Eject a head-cleaner from VCR
  - If the screen is not clean yet, please repeat the above 2 or 3 times more.
  - A head-cleaner is not for sale. Please ask it for the nearest agent.
  - In case a user ask the removal of contaminants of us, the user should pay extra charges.

# Before doubting about troubles (VCR)

Symptom	Checks		
. "DO-" J-	No. de de de de de constant de la co		
"Power On" does not work.	<ul> <li>Please check whether a power plug is inserted in an electric outlet.</li> </ul>		
It does not work even in "Power On".	Please check whether a videotape is inserted in.     Try to insert a plug again.		
A videotape is not inputted in.	<ul> <li>Please check whether a power plug is inserted in an electric outlet.</li> <li>Please check whether a videotape is in.</li> <li>Please check whether a videotape is inserted in a right direction (a side of transparent window should be on the upside)</li> <li>Have you inputted a videotape again just after the tape was ejected? Please try it again after fully ejecting it.</li> <li>When a videotape forces to be ejected, the tape may not be inputted. In the case, please pull out an outlet, and then push the tape smoothly.</li> </ul>		
On inputting a videotape, the tape is re-ejected.	➤ That's why a safe mode to protect a videotape is operated automatically. Please pull out the tape and input it again.		
A videotape is not ejected.	➤ In case the product is used for a long time, a videotape may not be ejected for a film inside may be stretched. In the case, please pull out a power plug for about 10mins and then press "EJECT" button.		
A channel on video and a play screen does not appear.	<ul> <li>Please check your antenna's connection.</li> <li>TV channel should be fixed on video channel (3 or 4).</li> <li>Please check your antenna's signal whether it may be weak. In case of its weakness, please use a frequency amplifier connected with the device.</li> <li>Press "TV/VCR" and then let "VCR" is displayed on the display panel.</li> </ul>		
Noise (screen noise) appears on screen.	<ul> <li>While in no use of VCR, was it turned on?</li> <li>While in recording a program, do you watch another channel?</li> <li>Select TV by pressing [TV/VCR] button on remote control.</li> </ul>		
Noise appears on screen after recording.	➤ While in playing a videotape, there may happen some noise or blot in the part of the beginning of a videotape or resuming "PAUSE", which are not breakdown.		
While in playing, noise appears.	➤ Please press "TRACKING" for better screen. Videotape may be poor. Try to change it to another one.		
Sound and screen are irregular.     Sound comes out but screen does not appear.     Screen is irregular and stripes appears.     "Screen Error" message is displayed in a screen.	➤ Please use a head-cleaner to clean VCR heads. VCR heads may be contaminated.		
While recording and playing, the top of screen extremely waves.	<ul> <li>Since VCR Play signals are not stable like a TV signals, screen may be unstable or curved while in playing. To fix the problem, please horizontal adjustment.</li> </ul>		
A screen is not clear.	<ul> <li>In case videotape is the one recorded by other products or old one, stripe may appear on the screen.</li> <li>Try to adjust the screen by [TRACKING+/-] button</li> <li>Try to use a head-cleaner.</li> </ul>		
A screen at pause is trembling or slow screen is not clear.	<ul> <li>Try to use a head-cleaner.</li> <li>Try to adjust the screen by [TRACKING+/-] button.</li> </ul>		

Symptom	Checks		
Recording a TV program is impossible.	<ul> <li>For recording, you should use videotape with a tab.</li> <li>Please check whether a channel is fixed on video. If not, you have to turn it into "TV" by pressing "OUTPUT" button.</li> <li>Please check whether the timer recording info is right.</li> <li>Are RF cables inputted antenna connection terminal correctly?</li> <li>Does a CH number selected in display section appear?</li> <li>Please check a tab on a tape whether it is broken or not. (If it was broken, please scotch-tape it)</li> </ul>		
Recording a TV program is impossible.	<ul> <li>Check whether a tape attached with a recording tap is inserted.</li> <li>Check whether the screen is displayed in VCR Only Channel. Press [OUTPUT] button in this remote controller to adjust in "General Broadcast" condition.</li> <li>Is the rounded line (RF cable) connected in "ANT.IN" terminal?</li> <li>Is the selected channel number shown in Display?</li> <li>Is a tab of cassette tape broken? (Please cover a tab hole with cellophane adhesive tape (Scotch tape).)</li> </ul>		
Once pressing "REC", a videotape is ejected automatically.	<ul> <li>Please check whether the clock is right.</li> <li>Does the display on your video show " \( \) " (Ready to timer recording!)? Please make it out.</li> <li>Please check whether the timer recording info is right.</li> <li>Please check a tab on a tape whether it is broke or not. (If it was broken, please scotch-tape it)</li> </ul>		
Timer recording of Cable TV does not work.	<ul> <li>Was a cable data output code connected correctly?</li> <li>Were a converter manufacturer setup and output channel right?</li> <li>Did you enter a password? (Please cancel it.)</li> <li>Did you turn off your player? (Please turn it on.)</li> </ul>		
In spite of pressing "CHANNEL", a channel can not be set.	<ul> <li>You may not memorize channels.</li> <li>Please check your channel setting or press a number button.</li> </ul>		
While duplicating, screen is not clean and distorted.	<ul> <li>Some tapes or discs distributed in the market for lending is set to prevent copy in manufacturing. These tapes cannot be duplicated in a good condition.</li> </ul>		
remote control does not work.	Battery may be weak or exhausted.     A receiver of remote control may be different with a sender.		
Buttons on remote control do not work.	<ul> <li>In case a videotape is positioned in the beginning, "VISS REW" and "REW" do not work.</li> <li>In case a videotape is positioned in the end, "FF", "VISS FF", "PLAY" and "REC" do not work.</li> <li>Please check whether another button is pressed.</li> </ul>		
VISS index search does not work.	<ul> <li>Are you playing a tape that is not recorded in this recorder? (Try to record it with the recorder.)</li> <li>You may start recording it in "REC-PAUSE". Please start recording it from stop condition.</li> </ul>		
Cable broadcasting can not be selected.	➤ Please select "CABLE" not "NETWORK" from the "CHANNEL SETTING".		

# Before doubting about troubles (DVD)

Symptom	Checks		
The recorder does not play.	<ul> <li>If a DVD is from overseas, it may not be played. Please check a DVD's region code whether it has the relative region code 2 or All.</li> <li>Please check whether a DVD is inserted in a right direction.</li> <li>If it is a CD-ROM for PC or DVD-ROM, it does not work.</li> </ul>		
No sound comes through.	<ul> <li>Play mode may be "SLOW" or "PAUSE" (In abnormal speed play, no sound comes through)</li> <li>Did you connect the parts in right way?</li> <li>Please check the operative condition of TV or amplifier.</li> <li>From SETUP, please check "AUDIO" items.</li> </ul>		
A disc is playing but screen does not appear or poor screen appears.	<ul> <li>Did you turn on your TV sets?</li> <li>Did you connect the parts in right way?</li> <li>The play may be in "PAUSE".</li> <li>A disc may have some contaminants or be damaged.</li> <li>A disc may be bad one.</li> </ul>		
Sound is irregular	<ul> <li>Please check the connection with Dolby Digital amplifier.</li> <li>Please check the plugs are connected with one another tightly.</li> <li>Some contaminants may be remained in connection terminal.</li> </ul>		
REMOTE does not work.	<ul> <li>Please check the degree of remote control, distance or any interruption.</li> <li>Battery may be weak or exhausted.</li> <li>When you operate DVD, use it by pressing [DVD] button.</li> </ul>		
Dolby Digital sound does not work	<ul> <li>Dolby Digital sound can be worked in the Dolby Digital amplifier only.</li> <li>Please check "Dolby Digital" mark on your DVD.</li> <li>In case of playing it through digital output, while pressing "STOP", please check whether "Digital Output" is "Bitstream" by pressing "SETUP".</li> <li>Please check the connection is correct.</li> </ul>		
"AUDIO" or "SUBTITLE" button does not work.	➤ If a DVD does not include language information, it does not support the function.		
"ANGLE" button does not work while a DVD is playing.	➤ "ANGLE" is supported only in a DVD contains multi angle scenes. Also a user can confirm the support with the "ANGLE" mark on screen.		
"MENU" does not appear while a DVD is playing.	<ul> <li>Please check the degree of remote control, distance or any interruption.</li> <li>Please check a battery in remote control whether it is exhausted or not.</li> <li>A DVD may not contain menu information.</li> </ul>		
The file name of MP3 (CD-R) appears with strange letters.	<ul> <li>The file name of MP3 recognize only the Alphabet (A-Z, a-z), numbers (0-9) and a special symbol on keyboard (-, !, @, #, \$) and 10 letters can be displayed in maximum.</li> <li>The letters except above case will be displayed like "".</li> </ul>		
Any MP3 (CD-R) file isn't displayed.	➤ If the surface of disk is injured, the file display and playback can be impossible.		

Power		230V~, 50Hz	
Consumed electricity		Hi-Fi : 24W, Mono : 23W	
Weight		5.7kg	
Dimension (W x H x	: D)	430mmx91mmx355.5mm	
Operative temperatu	re	+5°C~40°C	
Installation condition	1	Horizontal / Relative humidity under 80%	
Signal type		PAL COLOR	
Antenna Input/outp	ut	U/V-mixed: 75Ω unbalanced	
VIDEO input		1.0Vp-p (unbalanced, RCA JACK)	
AUDIO input		-8.8dBm, RCA JACK	
VIDEO output (comr	mon use of DVD and VCR)	VIDEO output terminal, 1.0 Vp-p unbalanced, RCA JACK, SCART JACK	
VIDEO output (DVD	only)	RGB output (75 $\Omega$ In load R: 0.7Vp-p, G:0.7Vp-p, B:0.7Vp-p)	
AUDIO output (common use of DVD and VCR)		Audio output terminal (2 kinds): -8.8dBm(VCR), 2Vrms(DVD), RCA JACK	
AUDIO output (DVD only)		Analogue AUDIO output : 2.0Vrms	
		Digital audio output (OPTICAL, COAXIAL)	
Playable tape		Very high dense tapes with VHS marks	
Playable disc		DVD, VIDEO-CD, CD (12mm), CD (8mm), MP3, CD-R, CD-RW	
Tape speed		SP: 23.39mm/s, LP: 11.70mm/s	
Playtime		SP: 3hrs, LP: 6hrs (use of E180tape)	
Clock display		24 hrs	
Time Recording		8 programs a year	
Persistence in power	failure	1min	
VIDEO S/N (VCR)		Over 43dB(Standard recording)	
Resolution VCR Over 240 lin		Over 240 lines (Standard recording)	
	DVD	Over 500 lines (Playback DVD)	
AUDIO (VCR)		Over 65dB(Hi-Fi), Over 40dB(Mono)	
AUDIO (DVD)		90dB	
AUDIO dynamic range		90dB	

# **DVD** Audio output standards

Output	Disc type		
Output	DVD	VIDEO-CD	CD
Analogue Audio output	48/96KHz sampling	44.1KHz sampling	44.1KHz sampling
Digital Audio output	48KHz sampling	44.1KHz sampling	44.1KHz sampling
Optical digital audio output	48KHz sampling	44.1KHz sampling	44.1KHz sampling