IMPORTANT SAFETY PRECAUTIONS

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 equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number __________________________
Serial number __________________________

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

For U.S.A.

TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION
Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

CE Marking Information

a) Applicable electromagnetic environment: E4
b) Peak inrush current: 2.6 A

For the customers in Europe

WARNING
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Pour les utilisateurs en Europe

AVERTISSEMENT
Il s’agit d’un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l’utilisateur peut être amené à prendre des mesures appropriées.

Für Kunden in Europa

Warnung
Dies ist eine Einrichtung, welche die Funk-Entstö rung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen versursachen; in diesem Fall kann vom Betreiber verlang werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

For U.S.A.
IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
Safety Information

This product has been designed and manufactured according to FDA regulations “title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968”, and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown at ①.

Rack-mounting the Unit

If you are mounting the unit in a rack, leave 1U of space above it and 4 inch (10 cm) or more of space at the rear.

Use the rack-mounting kit to mount the unit in a standard 19-inch equipment rack, as shown in this section. Remove the feet of the unit before mounting.

Optical pickup:

Type : OPA-652PH
Manufacturer : Arima Devices Co, Ltd.
Laser output : Less than 0.5 mW on the objective lens
Wavelength : DVD/650 to 660 nm
CD/770 to 810 nm

CAUTION

• DO NOT REMOVE THE PROTECTIVE HOUSING USING A SCREWDRIVER.

• USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

• IF THIS PRODUCT DEVELOPS TROUBLE, CONTACT YOUR NEAREST QUALIFIED SERVICE PERSONNEL, AND DO NOT USE THE PRODUCT IN ITS DAMAGED STATE.
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Notes on handling

Important cautions

Installation of the unit
• Select a place which is level, dry and neither too hot nor too cold; between 5°C and 35°C (41°F and 95°F).
• Leave sufficient distance between the unit and the TV.
• Do not use the unit in a place subject to vibration.

Power cord
• Do not handle the power cord with wet hands.
• A small amount of power is always consumed while the power cord is connected to the wall outlet.
• When unplugging the power cord from the wall outlet, always pull on the plug, not the power cord.
• Do not use the power cord supplied with this unit on other devices.

To prevent malfunctions of the unit
• There are no user-serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
• Do not insert any metallic object into the unit.
• Do not use any non-standard shape disc (like a heart, flower or credit card, etc.) available on the market, because it may damage the unit.
• Do not use a disc with tape, stickers, or paste on it, because it may damage the unit.

Note about copyright laws
Check the copyright laws in your country before recording from the discs. Recording of copyrighted material may infringe copyright laws.

Note about copyguard system
The discs are protected by copyguard system. When you connect the unit to your VCR directly, the copyguard system activates and the picture may not be played back correctly.

Safety precautions

Avoid moisture, water and dust
Do not place the unit in moist or dusty places.

Avoid high temperatures
Do not expose the unit to direct sunlight and do not place it near a heating device.

When you are away
When away on travel or for other reasons for an extended period of time, disconnect the power cord plugs from the wall outlet.

Do not block the vents
Blocking the vents may damage the unit.

Care of the cabinet
When cleaning the unit, use a soft cloth and follow the relevant instructions on the use of chemically-coated cloths. Do not use benzene, thinner or other organic solvents including disinfectants. These may cause deformation or discoloring.

If water gets inside the unit
Turn the unit off and disconnect the power cord plug from the wall outlet, then call the store where you made your purchase. Using the unit in this condition may cause a fire or electrical shock.

Supplied accessories
In addition to this manual, the DV-D01U has been packed with the following:
• Remote control (1)
• Batteries (2)
• Audio/video cable (Yellow/White/Red) (1)
• Component video cable (Red/Green/Blue) (1)

Contact your TASCAM supplier if any of these items are missing.

NOTE
• The batteries are not supplied for Taiwan.
### Playable disc types

This unit has been designed to play back the following discs:

<table>
<thead>
<tr>
<th>Disc type</th>
<th>DVD VIDEO</th>
<th>DVD AUDIO (2-channel only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Video</td>
<td>DVD Video</td>
<td>DVD Audio</td>
</tr>
<tr>
<td>DVD VR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVD Audio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VCD</td>
<td></td>
<td>SVCD</td>
</tr>
<tr>
<td>Audio CD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The √ in the list below shows available disc types and recording formats.

<table>
<thead>
<tr>
<th>Disc type</th>
<th>CD-R/-RW(^1)</th>
<th>DVD-R(^2)</th>
<th>DVD-RW(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Video</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>DVD VR</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>DVD Audio</td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>VCD/SVCD</td>
<td></td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Audio CD</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>MP3</td>
<td>√</td>
<td>√(^2)</td>
<td>√(^2)</td>
</tr>
<tr>
<td>WMA</td>
<td>√</td>
<td>√(^2)</td>
<td>√(^2)</td>
</tr>
<tr>
<td>WAV</td>
<td>√</td>
<td>√(^2)</td>
<td>√(^2)</td>
</tr>
<tr>
<td>JPEG</td>
<td>√(^3)</td>
<td>√(^2)</td>
<td>√(^2)</td>
</tr>
<tr>
<td>ASF</td>
<td>√(^3)</td>
<td>√(^2)</td>
<td>√(^2)</td>
</tr>
<tr>
<td>MPEG-2</td>
<td>√(^3)</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>MPEG-1</td>
<td>√(^3)</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td>DivX</td>
<td>√(^3)</td>
<td>×</td>
<td>×</td>
</tr>
</tbody>
</table>

\(^1\) This unit can play finalized discs only.
\(^2\) Recorded with UDF Bridge format.
\(^3\) This unit may not be able to play back a file if the file size is too large.

- It is possible to play back finalized +R/+RW (DVD Video Format only) discs. “DVD” lights on the display window when a +R/+RW disc is loaded.
- Super Audio CDs (SACD) compatible with conventional CD players can be played.
- For U.S.A., Canada and Asia: This unit accommodates the NTSC system, and also can play discs recorded with PAL system. Note that PAL video signal on a disc is converted to the NTSC signal and output.
  - For Europe: This unit is compatible with PAL DVDs, and it can also play discs recorded with NTSC data. Note that the NTSC video signal on the disc is converted to a PAL signal for final output.
- The Non-DVD side of a “DualDisc” does not comply with the “Compact Disc Digital Audio” standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.
- On some DVD VIDEOS, VCDs or SVCDs, their actual operation may be different from what is explained in this manual. This is due to the disc programming and disc structure, not a malfunction of this unit.

**Notes on DVD-R and DVD-RW**
- This unit does not support “multi-border” disc.
- This unit does not support a disc recorded with DVD VR format.

**Notes on CD-R and CD-RW**
- This unit can play CD-Rs or CD-RWs recorded with ISO 9660 format.
- This unit supports “multi-session” discs (up to 12 sessions).
- This unit cannot play “packet write” discs.

**Region code of DVD VIDEO**

DVD VIDEO players and DVD VIDEO discs have their own Region Code numbers. This unit can play back DVD VIDEO discs whose Region Code numbers include the unit’s Region Code, which is indicated on the rear panel.

Example of playable DVD:

![Example of playable DVD](image)

If a DVD with an improper Region Code number is loaded, “REGION CODE ERROR!” appears on the TV screen and playback cannot start.

Some discs may not be played back because of their disc characteristics, recording conditions, or damage or stain on them.

**Unplayable discs**

- DVD-ROM, DVD-RAM, CD-I (CD-I Ready), Photo CD, etc. Playing back these discs will generate noise and damage the speakers.

---

DVD Logo is a trademark of DVD Format/Logo Licensing Corporation.
About discs

Playable file types

For all playable files
- The unit can only recognize and play files with one of the following extensions, which can be in any combination of upper and lower case;
  - MP3: ".MP3", ".mp3"
  - WMA: ".WMA", ".wma"
  - WAV: ".WAV", ".wav"
  - JPEG: ".JPG", ".JPEG", ".jpg", ".jpeg"
  - ASF: ".ASF", ".asf"
  - MPEG-2/MPEG-1: ".MPG", ".MPEG", ".mpg", ".mpeg"
- The unit recognizes up to 150 tracks (files) per group, 99 groups per disc/device, and the total number of the tracks (files) that the unit can play is 4000.
- Some files may not be played back normally because of their disc characteristics or recording conditions.
- MP3/WMA/WAV/JPEG/ASF/MPEG-2/MPEG-1/DivX files require a longer readout time. (It differs due to the complexity of the directory/file configuration.)
- If different kinds of files are mixed, set the FILE TYPE setting in the PICTURE menu to the appropriate setting for the data to be read ("AUDIO", "STILL PICTURE" or "VIDEO"). (See page 26.)

For MP3/WMA/WAV files
- The unit supports MP3/WMA/WAV files recorded with a bit rate of 32 – 320 kbps and a sampling frequency of 16 kHz, 22.05 kHz, 24 kHz*, 32 kHz, 44.1 kHz, or 48 kHz.
- If the track information (track title, artist, and album name, etc.) is recorded, it appears in the file control display on the TV screen. (See page 19.)
- We recommend to record each piece of material (song) at a sample rate of 44.1 kHz and at a data transfer rate of 128 (96*) kbps.
  * For WMA only

For JPEG files
- We recommend to record a file at 640 x 480 resolution. (If a file has been recorded at a resolution of more than 640 x 480, it will take a longer time to be displayed.)
- This unit can only play baseline JPEG files.

For ASF files
- The unit supports the types of the advanced simple profile as MPEG-4 files (MPEG-4 ASP).
- The unit supports MPEG-4 files with the following conditions:
  - File format: ASF
  - Visual profile: MPEG-4 SP (Simple Profile)
  - Audio CODEC: G.726
  - Max. picture size: 352 x 288 (CIF)
  - Max. bit rate: 384 kbps

For MPEG-2/MPEG-1 files
- The stream format should conform to MPEG unit/program stream.
  - 720 x 576 pixels (25 fps)/720 x 480 pixels (30 fps) is recommended for the highest resolution.
  - This unit also supports the resolutions of 352 x 576/480 x 576/352 x 288 pixels (25 fps) and 352 x 480/480 x 480/352 x 240 pixels (30 fps).
  - The file format should be MP@ML (Main Profile at Main Level)/SP@ML (Simple Profile at Main Level)/MP@LL (Main Profile at Low Level).
  - Audio streams should conform to MPEG1 Audio Layer-2 or MPEG2 Audio Layer-2.

For DivX files
- The unit supports DivX 6.x, 5.x, 4.x and 3.11.
- The unit supports DivX files whose resolution is 720 x 480 pixels or less (30 fps), and 720 x 576 pixels or less (25 fps).
- Audio stream should conform to Dolby Digital (including multi channel) or MPEG1 Audio Layer-3 (MP3).
- The unit does not support GMC (Global Motion Compression).
- The file encoded in the interlaced scanning mode may not be played back correctly.
- The unit has its own Registration Code for DivX playback.
- If necessary, you can confirm the Registration Code of your unit using the OTHERS menu. (See page 27.)
Description of parts and controls

Front panel

The numbers in the figures indicate the pages where the details of the parts are described.

Display window

Rear panel
Description of parts and controls

Remote Control

Putting batteries in the remote control

If the range or effectiveness of the remote control decreases, replace both batteries.

**CAUTION**
- Do not expose batteries to heat or flame.

**NOTE**
- The batteries are not supplied for Taiwan.

Operating the unit from the remote control

Aim the remote control directly to the front panel of the unit.
- Do not block the remote sensor.
Connections

Do not connect the power cord until all other connections have been made.

Connecting a TV

- Distortion of picture may occur when connecting to the TV via a VCR, or to a TV with a built-in VCR.
- You need to set “MONITOR TYPE” in the PICTURE menu correctly according to the aspect ratio of your TV. (See page 26.)

To connect a conventional TV

The unit

Audio/video cable (supplied)

TV

To connect a TV equipped with the HDMI terminal

HDMI connection allows you to enjoy high quality picture on your HDMI equipped TV with high-definition digital video signals.

You can select the type of video signal from 480p (NTSC), 576p (PAL), 1080i or 720p. (See page 10.)

The unit

HDMI cable (not supplied)

TV

To HDMI input

NOTE

- This unit outputs the audio signal of 48 kHz, 44.1 kHz, or 32 kHz Linear PCM from HDMI terminal. Set “DIGITAL AUDIO OUTPUT” in the AUDIO menu to “PCM ONLY”. (See page 26.)
- HDMI indicator lights on the display window when the unit and the TV recognize each other and are ready to send and receive signals.
- When you enjoy HDCP contents, sound and picture may not be transmitted to the speakers and TV for a few seconds in the beginning for confirmation.

To connect a TV equipped with the component video input jacks

With analog video connection, you can get better picture quality in the order: Component video > S-video > Composite video.

If your TV supports progressive video input, you can enjoy a high quality picture by setting the progressive scan mode to active. (See page 10.)

To connect a TV equipped with an S-video jack

The unit

Audio cable (not supplied)

TV

S-video cable (not supplied)

To audio input

To S-video input

NOTE

- While playing back DivX/ASF files, this unit outputs only progressive signals from the component video jacks. When your TV does not support progressive video input, connect the TV through S-video or composite video jack.
- If the component video input jacks of your TV are of the BNC type, use a plug adapter (not supplied) to convert the pin plugs to BNC plugs.

About DVD AUDIO

- This unit outputs DVD AUDIO through either analog AUDIO OUT or HDMI.
- Down-mixed tracks output through AUDIO OUT (L/R).
- If HDMI input on the device connected to this unit does not support DVD AUDIO, the signal output through the HDMI on this unit will be muted.

What is HDMI?

The HDMI (High Definition Multimedia Interface) is the standard interface for the next-generation TV. By connecting this unit and a TV with the HDMI cable, digital video signals and audio signals are transmitted through the cable. You can enjoy digital video and sound without AD/DA conversion with easy connection.

In addition, this unit is compatible with HDCP (High-Bandwidth Digital Content Protection), and HDCP contents can be viewed if you connect a HDCP compatible TV to this unit.
Connections

Do not connect the power cord until all other connections have been made.

Connecting to a stereo amplifier/receiver

You can enjoy high-quality audio by connecting the unit’s audio output to an amplifier or receiver.

The unit

Amplifier or receiver

Audio cable (not supplied)

To audio input

NOTE

- When using the unit with a stereo amplifier or receiver, set “DOWN MIX” in the AUDIO menu to “STEREO”. (See page 27.)

Connecting to a digital component

You can enhance the sound quality by connecting the unit’s DIGITAL OUT (OPTICAL) to the digital input of an amplifier by using an optional digital cable. If you connect the unit to a Dolby Digital, DTS or MPEG multichannel decoder or an amplifier with built-in decoder by using an optional digital cable, you can enjoy high-quality surround sound.

With digital connection, depending on the disc type, there may be no audio output from the digital output. It is advisable to also make an analog connection.

NOTE

- When you connect the unit’s DIGITAL OUT (OPTICAL) to a digital audio device, before using, set “DIGITAL AUDIO OUTPUT” in the AUDIO menu correctly according to the connected audio device. If “DIGITAL AUDIO OUTPUT” is not set correctly, loud noise may be generated from speakers, causing damage to them. See “DIGITAL AUDIO OUTPUT” on page 26.

- When connecting this unit to a TV via HDMI and to an amplifier using DIGITAL OUT (OPTICAL), set “DIGITAL AUDIO OUTPUT” in the AUDIO menu to “PCM ONLY” to enjoy sound from the TV. To enjoy sound from the amplifier, set “DIGITAL AUDIO OUTPUT” to “STREAM/PCM”. (See page 26.)

- When you connect the unit’s DIGITAL OUT (OPTICAL) to a Dolby Digital or DTS decoder (or amplifier with a built-in decoder) to enjoy surround sound, the unit’s “D. RANGE COMPRESSION” setting in the “AUDIO” menu is invalid. Make appropriate surround audio settings on the decoder.

Connecting the power cord

Make sure that all other connections have been completed.

The unit

Power cable (Supplied)

Plug into AC outlet

CAUTION

- Disconnect the power cord before cleaning or moving the unit.
- Do not pull on the power cord to unplug the cord. When unplugging the cord, always grasp and pull the plug so as not to damage the cord.

RS-232C connector

Connect a suitable external device to control the unit using RS-232C protocol. (See page 28.)
Basic operations

The buttons on the remote control are used to explain most of the operations in this manual. You can use the buttons on the unit same as on the remote control for operations unless otherwise noted.

The buttons described below are used on pages 9 and 10.

Turning the unit on/off

Press STAND-BY/ON.
The following messages will appear on the TV screen.

- “OPEN”/“CLOSE”:
  Appears when opening or closing the disc tray.
- “NOW READING”:
  Appears when the system is reading the disc/file information.
- “REGION CODE ERROR!”:
  Appears when the Region Code of the DVD VIDEO does not match the code the system supports. The disc cannot be played back.
- “NO DISC”:
  Appears when no disc is loaded.
- “CANNOT PLAY THIS DISC”:
  Appears when unplayable disc is loaded.

NOTE

- A small amount of power is consumed even when the power is turned off. This is called standby mode. Unplug the power cord from the AC outlet to turn the power off completely.
- You can also turn on the unit by pressing the following buttons;
  - The ▲ button on the unit or OPEN/CLOSE on the remote control
  - The ▶ (play button) on the unit or remote control
- When connecting your TV through HDMI terminal, turn on the TV before turning on the unit; otherwise, the following phenomena may happen depending on the TV.
  - The scan mode setting (see page 10) is changed.
  - The sound comes out from the speakers on TV even though “HDMI AUDIO OUT” in the AUDIO menu (see page 27) is set to “OFF”.
If the above phenomena happen, turn off the unit and turn it back on, then set the scan mode again.

Adjusting the brightness of the indications [DIMMER]

Press DIMMER.
Each time you press the button, you can change the brightness level in 3 steps.
## Changing the scan mode

The unit can be accommodated to your TV’s scan mode.

**NOTE**
- To use the unit in the progressive mode, it is required that the unit is connected to the TV by using an HDMI cable or a component video cable (supplied). (See page 7.)
- While DVD stopped

1. **Press and hold PROGRESSIVE SCAN for 2 seconds.**
   Currently selected scan mode appears on the display window.

2. **Press Cursor ▶/ ◄ to select the desired mode.**
   Each time you press the button, the scan mode changes as follows:
   - **When connecting the TV with the component video cable:**
     - For U.S.A./Canada
       - 480i* ↔ 480p*
     - For Europe
       - 576i* ↔ 576p*
     - For Asia
       - NT480i* ↔ NT480p* ↔ PAL576i ↔ PAL576p
   - **When connecting the TV with the HDMI cable**
     - For U.S.A./Canada
       - AUTO ↔ 480p* ↔ 720p* ↔ 1080i* ↔ (back to the beginning)
     - For Europe:
       - AUTO ↔ 576p* ↔ 720p* ↔ 1080i* ↔ (back to the beginning)
     - For Asia:
       - AUTO ↔ NT480p* ↔ NT720p* ↔ NT1080i* ↔ PAL576p* ↔ PAL720p* ↔ PAL1080i* ↔ (back to the beginning)

   - When selecting "AUTO", the unit outputs the video signal to get the best picture quality on your TV according to the High-Definition video signal compatibility of the TV.
   - When selecting "AUTO", “1080i”, or “720p”, the unit up-convert the SD signal to 1080i or 720p.
   - When “1080i” or “720p” is selected, the HD indicator lights on the display window.
   - When “1080i” or “720p” are selected, the following signals are out through the each output jack:
     - Component video jacks: NTSC 480p, PAL576p
     - S-video/composite video jacks: NTSC 480i, PAL 576i

- 480i, 480p, 576i, 576p, 1080i, and 720p indicate the number of scanning lines and scanning format of a video signal.
- 480i/576i/1080i indicates 480/1080 scanning lines with interlaced format.

- 480p/576p/720p indicates 480/720 scanning lines with progressive format.
- Generally, you can get better picture quality by selecting the larger the number of scanning lines.
- You can get better picture quality in the progressive mode than in the interlace mode.

3. **Press ENTER while the selected mode is displayed.**

   When the progressive mode is selected, the PROGRESSIVE indicator lights on the display window.

**NOTE**
- When selecting “1080i”, the picture shrinks vertically.
- Changing the scan mode does not take effect when connecting the TV with the S-video or video cable.
- Although the picture may be distorted when you press ENTER, this is not a malfunction of the unit.

- There are some progressive TVs and High-Definition TVs that are not fully compatible with this unit, resulting in an unnatural picture when playing back a DVD VIDEO in the progressive scan mode. In such a case, change the scan mode to the interlace mode.

See page 9 for button locations.
**Basic playback**

**To play a disc**

1. Press ▲ on the unit or OPEN/ CLOSE on the remote control.
   - The unit turns on and the disc tray comes out.
2. Place a disc.
   - With the label side up
   - When placing an 8 cm disc
3. Press ► (play button) on the unit or remote control.
   - When playing the following files...
     - For MP3/WMA/WAV files
       - The file control display (see page 19) appears on the TV screen.
     - For JPEG files
       - Each file (still pictures) is shown on the TV screen for about 3 seconds (slide-show). When stopping playback, the file control display (see page 19) appears on the TV screen.
     - For ASF/MPEG-2/MPEG-1 files
       - When stopping playback, the file control display (see page 19) appears on the TV screen.
   - For DivX files
     - During the readout time, “Reading Index...” may appear on the TV screen. When stopping playback, the file control display (see page 19) appears on the TV screen.

**NOTE**

- When several types of files are recorded on a disc, select appropriate file type on the setup menu. (See page 26.)
- (For JPEG) The unit cannot accept operations even though you press any buttons before the entire picture appears on the TV screen.

**To pause**

Press ■.

To continue playback, press ► (play button).

**To stop**

Press ■.

**On-screen guide icons**

During DVD VIDEO playback, the following guide icons may appear for a while on the TV screen;
- ◆: appears at the beginning of a scene containing multi-subtitle languages.
- ◆: appears at the beginning of a scene containing multi-audio languages.
- ◆: appears at the beginning of a scene containing multi-angle views.
- ■ (Play), ■ (Ready), ■ / ■ (Fast forward/fast-reverse), ■ / ■ (Slow-motion forward/reverse): appears when you perform each operation.
- ◆: the disc cannot accept an operation you have tried to do.

**NOTE**

- If you do not want the on-screen guide icons to appear, see page 27.
Playback

**Playback information on the display window**

**DVD VIDEO**
Example: When a DVD VIDEO encoded with Dolby Digital 5.1 ch is played.

![Display example](image)

Pressing **DISPLAY**
Title number  Chapter number

**DVD VR disc**
Example: During playback on the Original program.

![Display example](image)

Pressing **DISPLAY**
Title number  Chapter number

**DVD AUDIO**
Example: When a DVD AUDIO is played back.

![Display example](image)

Pressing **DISPLAY**
Group number  Track number

**VCD/SVCD/CD**
Example: When a CD is played back.

![Display example](image)

**NOTE**
- When a VCD or SVCD with PBC function is played, the elapsed playing time does not appear, but “PBC” appears.

**MP3/WMA/WAV file**
Example: When an MP3 file is played back.

![Display example](image)

Pressing **DISPLAY**
Group number

* WMA indicator lights for WMA file.
* There is no WAV indicator for WAV file.

**JPEG file**
Example: When slide-show is played back.

![Display example](image)

Pressing **DISPLAY**
Group number  File number

---

* You can press **TOP MENU/PG** or **MENU/PL** to change the play mode. (See page 15).
ASF/MPEG-2/MPEG-1/DivX file
Example: When an ASF file is played.

<table>
<thead>
<tr>
<th>Track number</th>
<th>1 2 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elapsed playing time (hour:minute:second) (during playback only)</td>
<td>0:1 0:3 1</td>
</tr>
</tbody>
</table>

Pressing DISPLAY

| Group number | T 1 2 3 |

NOTE
- You can change the time information mode (except for MP3/WMA/WAV/ASF/MPEG-2/MPEG-1/DivX). (See page 16.)
- You can also check the playback information on the TV screen. (See page 16.)

Screen saver
An image may burn in on a TV screen if a static picture is displayed for a long time. To prevent this, the unit automatically dims the screen if a static picture is displayed for over 5 minutes while playing back a DVD, SVCD, or VCD (the screen saver function).
- Pressing any button will cancel the screen saver function.
- This function does not work when this unit outputs the video signal from HDMI terminal.
- If you do not want to use the screen saver function, see page 26.

Power on play
This unit is equipped with the power on play function which powers on the unit automatically when an AC input is detected. The unit will begin playback if a disc was loaded.
You can activate this function simply by setting the POWER ON switch located on the rear panel to ON.

NOTE
- The top menu (if any) in the disc will not be displayed when this function is activated.
- While in power on play mode, operations other than STANDBY/ON and OPEN/CLOSE are ignored.
- After pressing the Eject button to cycle the power and put the machine back into power on play mode.

One Touch Replay
You can move back the playback position by 10 seconds from the current position.

During playback

Press INSTANT REPLAY.

NOTE
- This function works in the same title.
- This feature may not work for some discs.

Fast-forward/fast-reverse search

During playback

On the remote control:
Press << or >>.
Each time you press the button, the search speed changes.
To return to normal speed playback
Press ► (play button).

NOTE
- When a DVD VIDEO, DVD VR, VCD, SVCD, or ASF/MPEG-2/MPEG-1/DivX is played back, no sound comes out during fast-forward/reverse search.
- When a CD or MP3/WMA/WAV is played back, sound is intermittent during fast-forward/reverse search.
- This function may not work for some discs/files.
- For MP3/WMA/WAV:
  - The fast-forward/reverse search speed is not shown.
  - The fast-forward/reverse search works within a same track.
Skip to the beginning of a desired selection

- **Using ➪/◄ buttons**
  - For DVD VIDEO/DVD VR (chapter): During playback
  - For VCD/SVCD (track): During playback without PBC function
  - For DVD AUDIO/CD/MP3/WMA/WAV/JPEG/ASF/MPEG-2/MPEG-1/DivX (track/file): During playback or while stopped

Press ➪ or ◄ repeatedly.

**NOTE**
- When playing back an MP3/WMA/WAV/JPEG/ASF/MPEG-2/MPEG-1/DivX file, you can make operations using the file control display. (See page 19.)
- This feature may not work for some discs/files.

- **Using number buttons on the remote control**
  - For DVD VIDEO/DVD VR (title, chapter): While stopped, the title number is selected. During playback, the chapter number is selected.
  - For DVD AUDIO (group, track): While stopped, the group number is selected. To call up a group number, press the TITLE/GROUP button then press the number buttons. During playback, the track number is selected.
  - For VCD/SVCD (track): During playback or while stopped without PBC function.
  - For CD/MP3/WMA/WAV/JPEG/ASF/MPEG-2/MPEG-1/DivX (track/file): During playback or while stopped

Press number buttons (0-10, ≥10) to select the desired number.
- For details on using the number buttons, see “How to use the number buttons” below.

Locating a desired title/group using number buttons

1. During playback or while stopped
   - Press TITLE/GROUP.
   - “- -” is shown in the title/group display area in the display window.

   Example: During DVD VIDEO playback

2. While the display window shows “- -”, use number buttons (0-10, ≥10) to enter the desired title or group number.

   The unit starts playback from the first chapter/track/file of the selected title/group.
   - For details on using the number buttons, see “How to use the number buttons” on the left column.

**NOTE**
- When locating a title of a DVD VR disc, PG or PL indicator may light on the display window.
- This feature may not work for some discs/files.

Skipping at about 5-minute intervals

You can skip within the file at about 5-minute intervals. This is useful especially when you want to skip within a long file.

- **During playback**
  - Press Cursor ➪/◄.

Each time you press the button, the playback position skips to the beginning of the previous or next interval. Each interval is about 5 minutes.

**NOTE**
- Intervals are automatically assigned from the beginning of a file.
- This feature is available only within the same file.
- This feature may not work for some discs/files.
Selecting the desired title/playlist from the control display

- During playback or while stopped.

1. Press TOPMENU/PG or MENU/PL.

The control display is shown on the TV screen, and the unit starts playback of the first title/playlist.

- The PLAY LIST is shown only when the playlist is on the DVD VR disc.

**TOP MENU/PG**: shows the ORIGINAL PROGRAM.

Example:

<table>
<thead>
<tr>
<th>Original Program</th>
<th>Date</th>
<th>Time</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/02/2006</td>
<td>16:15</td>
<td></td>
<td>News</td>
</tr>
<tr>
<td>12/02/2006</td>
<td>17:00</td>
<td></td>
<td>Music Video</td>
</tr>
<tr>
<td>12/03/2006</td>
<td>18:00</td>
<td></td>
<td>Documentary</td>
</tr>
</tbody>
</table>

- **TOP MENU/PG**: indicates the ORIGINAL PROGRAM.
- **TOP MENU/PG**: shows the ORIGINAL PROGRAM.

**MENU/PL**: shows the PLAY LIST.

Example:

<table>
<thead>
<tr>
<th>PLAY LIST</th>
<th>Date</th>
<th>Length</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/01/2006</td>
<td>02:30</td>
<td></td>
<td>Sports</td>
</tr>
<tr>
<td>01/02/2006</td>
<td>01:15</td>
<td></td>
<td>Concert</td>
</tr>
<tr>
<td>01/03/2006</td>
<td>03:45</td>
<td></td>
<td>Interview</td>
</tr>
</tbody>
</table>

- **MENU/PL**: indicates the PLAY LIST.
- **MENU/PL**: shows the PLAY LIST.

2. Press Cursor ▲/▼ to select the desired title/playlist.

The unit starts playback of the selected title/playlist.

To clear the control display
Press ENTER.

---

About the play mode on a DVD VR disc

- **Original program (ORIGINAL PROGRAM)**:
The unit can play back the original picture in the recorded order.
- **Playlist (PLAY LIST)**:
The unit can play back the playlist edited by the recording equipment.
The icon such as shows the disc formats or file types the operation is available for.

The buttons described below are used on pages 15 to 24.

Using the on-screen bar

You can check disc information and you can use some functions using the on-screen bar.

Showing the on-screen bar

Whenever a disc is loaded

Press ON SCREEN.

Each time you press the button, the on-screen bar changes as follows on the TV screen.

Example: During DVD VIDEO playback

DVD VIDEO

DVD VR disc

DVD AUDIO

VCD

SVCD

CD

ASF/MPEG-2/MPEG-1/DivX
Advanced operation

1. Shows disc type.
2. Shows audio information.
3. For DVD VIDEO: Shows current title number.
   For DVD VR: Shows current play mode (PG: for Original program, PL: for Playlist) and title number.
   For DVD AUDIO: Shows current group number.
4. For DVD VIDEO and DVD VR: Shows current chapter number.
   For other type of discs: Shows current track number.
5. Shows time information. See “Changing the time information” below.
   ●: appears during playback.
   ●/●: appears during fast forward/reverse.
   ●/●: appears during playback in forward slow-motion/reverse slow-motion.
   ▲: appears when paused.
   ◀: appears when stopped.
7. Select this to change time information (§). See “Changing the time information” below.
8. Select this for Repeat Playback. (See page 22.)
9. Select this for chapter or track search function. (See page 18.)
10. Select this to change audio language or channel. (See page 20.)
11. Select this to change subtitle language and subpicture. (See page 20.)
12. Select this to change view angle. (See page 19.)
13. Shows Playback mode status.
14. Shows Repeat mode status. (See page 22.)
15. Select this to change page (still picture). (See page 24.)

Changing the time information

You can change the time information in the on-screen bar on the TV screen and the display window of the unit.

During playback

1. Press ON SCREEN twice.
   The on-screen bar appears on the TV screen.
2. Press Cursor ▲/◀ to highlight TIME.
3. Press ENTER repeatedly to select the desired information.
   Example: When elapsed playing time of disc is selected.
   TOTAL 1:25:33
   DVD VIDEO/DVD VR
   ● Time: Elapsed playing time of current chapter
   ● REM: Remaining time of current chapter
   ● TOTAL: Elapsed time of title
   ● T. REM: Remaining time of title
   DVD AUDIO/VCD/SVCD/CD
   ● Time: Elapsed playing time of current track
   ● REM: Remaining time of current track
   ● TOTAL: Elapsed time of disc
   ● T. REM: Remaining time of disc
4. Press ON SCREEN.
   The on-screen bar disappears.

NOTE
- When playing back DVD VR, “TIME” and “REM” cannot be shown.

Playing from a specified position on a disc

You can start playing a title, chapter or track you specify. You can also play a disc from specified time.

Locating a desired scene from the DVD menu

DVDs generally have their own menus which show disc contents and you can display them on the TV screen. You can locate a desired scene by using these menus.

- Whenever a DVD is loaded

1. Press TOP MENU/PG or MENU/PL.
   The menu appears on the TV screen.
   Normally, a DVD which contains more than one title will have a “top” menu which lists the titles. Similarly, a DVD AUDIO which contains more than one group will have a “top menu” which lists the groups. Press TOP MENU/PG to show the menu.
   Some discs may also have a different menu which is shown by pressing MENU/PL.
   See the instructions for each discs regarding its particular menu.
2. Use Cursor ▲/◀/▲/▼ to select a desired item.
3. Press ENTER.
   With some discs, you can also select items by entering the corresponding number using number buttons.

NOTE
- This feature may not work for some discs.

Locating a desired scene using a VCD/SVCD menu with PBC

A VCD or SVCD recorded with PBC has its own menus such as a list of contained songs. You can locate a specific scene by using these menus.

- During playback with PBC function

1. Press RETURN repeatedly until the menu appears on the TV screen.
2. Press number buttons (0-10, ±10) to select the number of the desired item.
   - For details on using the number buttons, see “How to use the number buttons”. (See page 14.)

To return to the menu
   Press RETURN repeatedly until the menu screen appears.
   When "NEXT" or "PREVIOUS" is shown on the TV screen:
   - To go to the next page, press NEXT (▶),
   - To return to the previous page, press PREV (◀).
Locating a desired chapter or track using the on-screen bar

1. **During playback**
   - Press **TOP MENU/PG** or **MENU/PL**.
   - Press ■ twice to stop playback, then press ▶ (play button).

2. Press **TOP MENU/PG** or **MENU/PL**.

3. Press **TOP MENU/PG** or **MENU/PL**.

4. **Press number buttons (0-9) to enter the desired chapter number.**
   - Example:
     - To select 8 : Press 8.
     - To select 10 : Press 1, then 0.
     - To select 20 : Press 2, then 0.
     - To select 37 : Press 3, then 7.
   - To correct a misentry
     - Repeat step 4.

5. **Press ENTER.**

6. **Press ON SCREEN.**
   - The on-screen bar disappears.

**NOTE**
- You can select up to the 99th chapter.
- This function cannot be used with a DVD AUDIO that does not contain any picture.

Locating a desired position by specifying the time

- **For DVD VIDEO/DVD VR/DVD AUDIO:**
  - During playback
  - For VCD/SVCD: While stopped or during playback without PBC function
  - For CD: During playback or while stopped

1. **Press ON SCREEN twice.**
   - The on-screen bar appears on the TV screen.

2. Press **Cursor ▶/◀** to highlight **CHAPTER** or **TRACK**.

3. **Press ENTER.**

4. Use **number buttons (0-9) to enter the time.**
   - You can specify the elapsed playing time from the beginning of the disc (while stopped) or from the beginning of the current title/track (during playback).
   - Example: To play back from a point 2 (hours): 34 (minutes): 08 (seconds) elapsed
     - Press 2
     - Press 3
     - Press 4
     - Press 0
     - Press 8
   - To correct a misentry
     - Press **Cursor ▶** repeatedly.

5. **Press ENTER.**

6. **Press ON SCREEN.**
   - The on-screen bar disappears.
# Using the File Control Display

You can search and play desired groups and tracks/files using the file control display on the TV screen.

**Example:** When the source is DVD.

<table>
<thead>
<tr>
<th>Current group/total group number</th>
<th>Playback mode*1 (PROGRAM, RANDOM, REPEAT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track information (for MP3/WMA/WAV only)</td>
<td>Elapsed playing time of current track (except for JPEG)</td>
</tr>
</tbody>
</table>

**FILE**

<table>
<thead>
<tr>
<th>Group: 3 / 3</th>
<th>Track: 10 / 30 (Total: 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>1. Cloudy.mp3</td>
</tr>
<tr>
<td>Red</td>
<td>2. Fair.mp3</td>
</tr>
<tr>
<td>Green</td>
<td>3. Fog.mp3</td>
</tr>
<tr>
<td></td>
<td>4. Hill.mp3</td>
</tr>
<tr>
<td></td>
<td>5. Indian summer.mp3</td>
</tr>
<tr>
<td>White</td>
<td>6. Rain.mp3</td>
</tr>
<tr>
<td></td>
<td>7. Shower.mp3</td>
</tr>
<tr>
<td></td>
<td>8. Snow.mp3</td>
</tr>
<tr>
<td>Black</td>
<td>9. Thunder.mp3</td>
</tr>
<tr>
<td></td>
<td>10. Typhoon.mp3</td>
</tr>
<tr>
<td>Blue</td>
<td>11. Wind.mp3</td>
</tr>
<tr>
<td>Blue</td>
<td>12. Winter sky.mp3</td>
</tr>
<tr>
<td>Blue</td>
<td>13. Wood.mp3</td>
</tr>
</tbody>
</table>

**Current group**  
**Current track (file) / total track (file) number on disc**  
**Playback status**

*1 (For JPEG/ASF/MPEG-2/MPEG-1/DivX) The Program and Random mode are not available.

The file control display appears automatically during playback (MP3/WMA/WAV) or while stopped.

- For MP3/WMA/WAV: During playback or while stopped
- For JPEG/ASF/MPEG-2/MPEG-1/DivX: While stopped

1. **Press Cursor ▶/◀/▶/◀ to select the desired group/track/file.**
   - For MP3/WMA/WAV, playback starts from the selected track.
   - For JPEG, proceed to perform the following operation.

2. **Press ▶ (play button) or ENTER.**
   - Track playback/slide-show starts from the selected track/file.
   - When you press ENTER for JPEG, only the selected file is played back.

**NOTE**

- (For MP3/WMA/WAV) During playback, you can locate the desired track/file by pressing ▶/◀/◀/◀/ or Cursor ▶/◀.
- You can also check playback information on the display window. (See page 17)
- Some group, track and file names may not be displayed correctly depending on recording conditions.
- The order of groups, tracks, and files may be displayed differently from the order displayed on your personal computer.
- The extension of the file may not be displayed if the file name is too long.
Selecting the subtitle
During playback of a disc/file containing subtitles in several languages
When using the SUBTITLE button:

1. Press SUBTITLE.
   Example (DVD VIDEO): “ENGLISH” is selected out of 3
   subtitle languages recorded.

2. Press SUBTITLE repeatedly, or press 
   Cursor ▲/▼ to select the desired subtitle.
   - For DVD VR
     • Pressing SUBTITLE activates the subtitles (sub pictures)
       regardless of whether the subtitles are recorded or not.
       (Sub pictures will not change if no sub picture is recorded.)
   - For SVCD
     • An SVCD can contain up to four subtitles. Pressing
       SUBTITLE changes the subtitles regardless of whether
       the subtitles are recorded or not. (Subtitles will not change
       if no subtitle is recorded.)

To clear the subtitle
Select “OFF” in step 2.
When using the on-screen bar:

1. Press ON SCREEN twice.
   The on-screen bar appears on the TV screen.

2. Press Cursor ▲/▼ to highlight 1/3.

3. Press ENTER.

4. Press Cursor ▲/▼ repeatedly to select
   the desired subtitle.

5. Press ENTER.

6. Press ON SCREEN.
   The on-screen bar disappears.

NOTE
- Some subtitle or audio languages are abbreviated in the pop-up
  window. For DivX, you cannot operate this procedure using the
  on-screen bar.

Selecting the audio
During playback of a disc/file containing audio in several languages
When using the AUDIO button:

1. Press AUDIO.
   Example (DVD VIDEO): “ENGLISH” is selected out of 3
   audio languages recorded.

2. Press AUDIO repeatedly or press 
   Cursor ▲/▼ to select the desired audio.
When using the on-screen bar:

1. Press ON SCREEN twice.
   The on-screen bar appears on the TV screen.

2. Press Cursor ▲/▼ to highlight 1/3.

3. Press ENTER.

4. Press Cursor ▲/▼ to select the desired audio.

5. Press ENTER.

6. Press ON SCREEN.
   The on-screen bar disappears.

NOTE
- Some subtitle or audio languages are abbreviated in the pop-up
  window. For DivX, you cannot operate this procedure using the
  on-screen bar.
- “ST”, “L”, or “R” is displayed when playing a VCD
  respectively representing “stereo”, “left sound” and “right
  sound”.
- When playing a SVCD, “ST1”, “ST2”, “L1”, “R1”, “L2”, or
  “R2” is displayed.
- For DivX, you cannot operate this procedure using the
  on-screen bar.
Special picture playback

Frame-by-frame playback

- During playback

Press \( \square \) repeatedly.

Each time you press the button, the still picture advances by one frame.

To return to normal playback
Press \( \triangleright \) (play button).

Playing back in slow-motion

- During playback

1. Press \( \square \) at the point where you want to start playback in slow-motion from.

The unit pauses playback.

2. Press SLOW +.

Playback in forward slow-motion starts.

For DVD VIDEO only:
- To play back in reverse slow-motion, press SLOW -.

Each time you press the button, the playback speed becomes faster.

Example: On the TV

To return to normal playback
Press \( \triangleright \) (play button).

NOTE
- Sound cannot be heard during slow-motion playback.

Zooming in

- During playback or while paused

1. Press ZOOM.

Each time you press ZOOM, scene magnification changes.

2. While zoomed in, press Cursor \( \uparrow/\downarrow/\leftarrow/\rightarrow \) to move zoom-in area.

To return to normal playback
Press ZOOM repeatedly to select ZOOM OFF.

NOTE
- The number of the magnification steps varies depending on the disc type.
- During slide-show playback of JPEG, zooming in is not available. In such a case, press \( \square \) to pause slide-show playback, then zoom in.
- During playback, there may be a case where Cursor \( \uparrow/\downarrow/\leftarrow/\rightarrow \) does not work in step 2 above.

Changing the VFP setting

The VFP (Video Fine Processor) function enables you to adjust the picture character according to the type of programming, picture tone or personal preference (except when connecting the TV through HDMI terminal).

- For DVD VIDEO/DVD VR/VCD/SVCD: During playback
- For DVD AUDIO: During playback while picture is shown

1. Press FVPP.

The current VFP settings appear on the TV screen.

Example:

<table>
<thead>
<tr>
<th>Normal</th>
<th>Gamma</th>
<th>Brightness</th>
<th>Contrast</th>
<th>Saturation</th>
<th>Sharpness</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORMAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Press Cursor \( \uparrow/\downarrow \) repeatedly to select the VFP mode.

- NORMAL: Normally select this.
- CINEMA: Suitable for movies.
- When you select “NORMAL” or “CINEMA”, press VFP to complete the setting.
- USER 1 and USER 2: You can adjust parameters that affect picture appearance.

Only when selecting “USER 1” or “USER 2” in step 2, proceed to perform the following operation;

3. Press Cursor \( \uparrow/\downarrow \) repeatedly to select a parameter you want to adjust.

Adjust gradually and confirm picture appearance results are as preferred.
- GAMMA: Controls brightness of neutral tints while maintaining brightness of dark and bright portions (-3 to +3).
- BRIGHTNESS: Controls screen brightness (-8 to +8).
- CONTRAST: Controls screen contrast (-7 to +7).
- SATURATION: Controls screen color depth (-7 to +7).
- TINT: Controls screen tint (-7 to +7).
- SHARPNESS: Controls screen sharpness (-8 to +8).

4. Press ENTER.

Example:

5. Press Cursor \( \uparrow/\downarrow \) to change the setting.

6. Press ENTER.

The current VFP settings appear again.

7. Repeat steps 3 to 6 to adjust other parameters.

8. Press FVPP.

NOTE
- Although the setting display disappears in the middle of the procedure, the setting at that time will be stored.
- The VFP function is not available when connecting the TV through HDMI terminal.
- “TINT” setting is not effective when connecting the TV through COMPONENT VIDEO OUT jacks.
Program Playback

1. While stopped
   Press PLAY MODE repeatedly until program window appears on the TV screen.

   Press PLAY MODE repeatedly until program window appears on the TV screen.

   PRG indicator lights on the display window.

2. Follow the instructions that appear on the TV screen to program the desired tracks.
   • For details on using the number buttons, see “How to use the number buttons”. (See page 14.)
   • The content’s numbers that you have to specify for programming varies depending on the disc type:
     – DVD VIDEO: Titles and chapters
     – DVD AUDIO: Groups and tracks
     – VCD, SVCD, CD: Tracks
     – MP3/WMA/WAV: Groups and tracks
   • You can specify the tracks whose number is up to 99.
   • There may be a case that the group or title number can be entered even for discs that contain no groups or titles. In such a case, press ENTER to proceed to the Track/Chapter column.
   • When you press ENTER instead of the number buttons in the Track/Chapter column, “ALL” appears and all the tracks on the selected disc are programmed as a step.

   To clear the programs one by one from the last entered number
   Press CANCEL repeatedly.

   To clear all programs
   Press and hold CANCEL.
   You can also clear the program by turning off the unit.

3. Press ► (play button).
   If all of the programmed tracks have been played back, playback stops and the program window appears again. Note that program setting remains.

Random Playback

1. While stopped
   Press PLAY MODE repeatedly until RANDOM appears on the TV screen.

   RND indicator lights on the display window.

2. Press ► (play button).
   • After playing all titles/tracks on the disc, the unit stops playback.
   • The same title/track will not be played back more than once.

To quit Random mode
While stopped, press PLAY MODE repeatedly until both program window and RANDOM disappear from the TV screen. You can also clear the Random mode by turning off the unit.

Repeat Playback

Repeating the current selection or all tracks

For DVD VIDEO/DVD VR: During playback
For VCD/SVCD: During playback without PBC function or while stopped
For DVD AUDIO/CD/MP3/WMA/WAV/ JPEG/ASF/ MPEG-2/MPEG-1/DivX: During playback or while stopped

When using the REPEAT button:

Press REPEAT.

Each time you press REPEAT, the Repeat mode changes.

NOTE

• When programming a track in the bonus group of a DVD AUDIO, the unit will prompt you to enter the password for the bonus group. (See page 24.)
• The Resume function cannot be used with Program Playback.
• Program Playback may not work for some discs.
Display window | TV screen | Meanings
--- | --- | ---
| | | Repeats the current group for DVD AUDIO/MP3/WMA/WAV/JPEG/ASF/MPEG-2/MPEG-1/DivX.
| & | REPEAT GROUP | Repeats the current title for DVD VIDEO.
| | & | REPEAT TITLE | Repeats the current title for Original program for DVD VR.
| | | Repeats the current playlist for Playlist for DVD VR.
| | | Repeats all the available discs/files.
| | REPEAT TRACK | Repeats the current chapter for DVD VIDEO/DVD VR.
| | | Repeat mode is off. The unit plays back the disc/file normally.

For DVD VIDEO, REPEAT ALL may not be available depending on the disc.


1. Press ON SCREEN twice. The on-screen bar appears on the TV screen.
2. Press Cursor ▼ to highlight “OFF”.
3. Press ENTER.

4. Press Cursor ▲/▼ repeatedly to select “A-B”.
5. Press ENTER at the beginning of the part you want to repeat (point A).

The repeat mode indicator “A–B” appears on the display window.

6. Press ENTER at the end of the part you want to repeat (point B).

The repeat mode indicator on the display window changes to “A–B” and A-B Repeat Playback starts.

7. Press ON SCREEN. The on-screen bar disappears.

To cancel
Select “OFF” in step 4, then press ENTER.

NOTE
- When playing back a DVD VIDEO, A-B Repeat Playback is possible only within the same title.
- When playing back a DVD AUDIO, VCD, SVCD, or CD, A-B Repeat Playback is possible only within the same track.
- “A-B” cannot be selected during Program and Random Playback.
- “A-B” cannot be selected during playback with PBC function.

Repeating a desired part [A-B Repeat]

You can repeat playback of a desired part by specifying the beginning (point A) and ending (point B).

During playback

1. Press ON SCREEN twice. The on-screen bar appears on the TV screen.
2. Press Cursor ▼ to highlight “OFF”.
3. Press ENTER.

4. Press Cursor ▲/▼ repeatedly to select “A–B”.
5. Press ENTER at the beginning of the part you want to repeat (point A).

The repeat mode indicator “A–B” appears on the display window.

6. Press ENTER at the end of the part you want to repeat (point B).

The repeat mode indicator on the display window changes to “A–B” and A-B Repeat Playback starts.

7. Press ON SCREEN. The on-screen bar disappears.

To cancel
Select “OFF” in step 4, then press ENTER.

NOTE
- When playing back a DVD VIDEO, A-B Repeat Playback is possible only within the same title.
- When playing back a DVD AUDIO, VCD, SVCD, or CD, A-B Repeat Playback is possible only within the same track.
- “A–B” cannot be selected during Program and Random Playback.
- “A–B” cannot be selected during playback with PBC function.
Tray lock

You can lock the tray and prohibit unwanted disc ejection.

On the unit ONLY:
While the unit is turned off

- Press and hold "LOCKED" appears on the display window.
- If you try to eject the disc, "LOCKED" appears to indicate that the tray is locked.

To cancel
Carry out the same operation again.
- "UNLOCKED" appears on the display window.

Selecting a still picture on a DVD AUDIO disc

Most DVD AUDIO discs include still pictures, which usually appear in turn automatically during playback according to the playback sequence. However, when “B.S.P.” lights in the display window during playback, there are other page(s) of the current still picture and you can change the picture (turn the page) manually.

NOTE
At the beginning of a part where there are selectable pictures, “PAGE” (or a corresponding word of the current display language) appears on the TV screen.

When using the PAGE button:

1. Press PAGE.
   The page selection bar appears on the TV screen.

2. Press Cursor ▲▼ to select the desired page.
   - You can also press PAGE to advance to the next page.

When using the on-screen bar:

1. Press ON SCREEN twice.
   The on-screen bar appears on the TV screen.

2. Press Cursor ▼ to highlight PAGE1/3.

3. Press ENTER.

4. Press Cursor ▲▼ to select the desired page.

5. Press ENTER.

6. Press ON SCREEN.
   The on-screen bar disappears.

Playing back a bonus group of a DVD AUDIO disc

Some DVD AUDIO discs contain a special group called “bonus group” whose contents are not opened to the public. When loading a disc with a bonus group, “BONUS” indicator lights in the display window. The bonus group is always assigned to the last group of a disc (for example, if a disc contains four groups including a bonus group, “group 4” is the bonus group).

To playback a bonus group, you have to enter the specific password for the bonus group. The way of getting the password depends on discs.

After getting the password, you can playback the bonus group by the following procedure.

- While a disc containing a bonus group is stopped

1. Press the number buttons (0-9) to select the bonus group number (the last group).
   The unit will prompt you to enter the password.

2. Press the number buttons (0-9) to enter the password.
   - If you enter the password correctly, the unit starts playback of the bonus group.
   - If the password is wrong, the display remains as shown above.

NOTE
- If you specify a track in the bonus group when programming tracks for the program playback, the above display for inquiring the password will also appear.
- In the random playback mode, tracks in the bonus group are not played back.
- To clear the password entry display, do any of the following.
  - Press ▼.
  - Open the disc tray.
  - Turn off the unit.
Setting DVD preferences

Using the setup menus

• You can change the language used in the setup menus. See “Menu description” below.

Basic operation on the setup menus

While stopped

1. Press SET UP.

2. Follow the instructions that appear on the TV screen.

Menu description

A: Language menu (LANGUAGE)

■ MENU LANGUAGE
Some DVDs have their own menus in multiple languages.
• Select the initial language*.

■ AUDIO LANGUAGE
Some DVDs have multiple audio languages.
• Select the initial audio language*.

■ SUBTITLE
Some DVDs have multiple subtitle languages.
• Select the initial subtitle language*.

■ ON SCREEN LANGUAGE
• Select the language shown on the TV screen when operating this unit.
* When the language you have selected is not recorded to a disc, the original language is automatically used as the initial language.

NOTE
• See the following “The language codes list” for the code of each language, such as “AA”, etc.

The language codes list

<table>
<thead>
<tr>
<th>Code</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Afar</td>
</tr>
<tr>
<td>IK</td>
<td>Inupiak</td>
</tr>
<tr>
<td>RN</td>
<td>Kirundi</td>
</tr>
<tr>
<td>AB</td>
<td>Abkhazian</td>
</tr>
<tr>
<td>IN</td>
<td>Indonesian</td>
</tr>
<tr>
<td>RO</td>
<td>Rumanian</td>
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<tr>
<td>AF</td>
<td>Afrikaans</td>
</tr>
<tr>
<td>IS</td>
<td>Icelandic</td>
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<tr>
<td>RW</td>
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<td>Rhaeto-Romance</td>
</tr>
</tbody>
</table>

TASCAM DV-D01UT/C 29
Setting DVD preferences

**Picture menu (PICTURE)**

**MONITOR TYPE**
You can select the monitor type to match your TV when you play DVDs recorded in the picture’s height/width ratio of 16:9.

- **4:3 PS (Pan Scan conversion)**
  Select this when the aspect ratio of your TV is 4:3 (conventional TV). While viewing a wide screen picture, the black bars do not appear, however, the left and right edges of the pictures will not be shown on the screen.

- **4:3 LB (Letter Box conversion)**
  Select this when the aspect ratio of your TV is 4:3 (conventional TV). While viewing a wide screen picture, the black bars appear on the top and the bottom of the screen.

- **16:9 AUTO (Wide television conversion)**
  Select this when the aspect ratio of your TV is 16:9 (wide TV).

- **16:9 NORMAL (Wide television conversion)**
  Select this when the aspect ratio of your TV is fixed on 16:9 (wide TV).

When you play DVDs recorded in the picture’s height/width ratio of 4:3, the unit adjust the ratio of output signal automatically.

- E.g.: 4:3 PS
- E.g.: 4:3 LB
- E.g.: 16:9

**NOTE**
- Even if “4:3 PS” is selected, the screen size may become “4:3 LB” with some DVDs. This depends on how DVDs are recorded.
- When the scan mode is set to “1080i” or “720p” (see page 10), “16:9 AUTO” is automatically selected.

**PICTURE SOURCE**
When you set the scan mode to “480p” (NTSC), “576p” (PAL) or “720p” (see page 10), you can obtain optimal picture quality by selecting whether the content on the disc/file is processed by frame (film source) or by field (video source).

Normally set to “AUTO”.

- **AUTO**
  Used to play a disc/file containing both video and film source materials.
  This unit recognizes the source type (video or film) of the current disc/file according to the disc/file information.
  If the playback picture is unclear or noisy, or the oblique lines of the picture are rough, try to change to other modes.

- **FILM**
  Suitable for playing back a film source disc/file.

- **VIDEO**
  Suitable for playing back a video source disc/file.

**SCREEN SAVER (See page 13.)**
You can activate or deactivate screen saver function.

**FILE TYPE**
When several types of files are recorded on a disc, you can select which files to play.

- **AUDIO**
  Select this to play MP3/WMA/WAV files.

- **STILL PICTURE**
  Select this to play JPEG files.

- **VIDEO**
  Select this to play ASF/MPEG-2/MPEG-1/DivX files.

**HDMI DVI COLOR**
When connecting the TV by using HDMI cable, you can adjust the picture appearance, such as image quality, color intensity, and black fading.

- **STANDARD**
  Select this when you need no picture adjustment.

- **ENHANCE**
  This unit automatically makes picture adjustment suitable for the picture.

**HDMI OUT**
When connecting the TV by using HDMI cable, you can select the type of video signal output from HDMI terminal. Normally set to “AUTO”.

- **AUTO**
  This unit automatically select the video signal type and outputs according to the type of TV connected with HDMI cable.

- **RGB**
  Select this when no picture appears on the TV with “AUTO” setting. The video signal output is fixed to RGB.

**Audio menu (AUDIO)**

**DIGITAL AUDIO OUTPUT**
To connect the unit’s digital output to an external device equipped with a digital input, this item must be set correctly. See the table below for details on the relation between the setting and output signals.

- **PCM ONLY**
  Select this when you connect the DIGITAL OUT (OPTICAL) jack of the unit to the linear PCM digital input of other audio equipment. (See page 7.)

- **DOLBY DIGITAL/PCM**
  Select this when you connect the digital input of a Dolby Digital decoder or an amplifier with a built-in Dolby Digital decoder.

- **STREAM/PCM**
  Select this when you connect to the digital output of an amplifier with a built-in DTS, Dolby Digital or MPEG Multichannel decoder. (See page 8.)

<table>
<thead>
<tr>
<th>Digital output signal table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playback discs</td>
</tr>
<tr>
<td>DVD with 48/44.1 kHz, 16/20/24 bit linear PCM</td>
</tr>
<tr>
<td>DVD with 96/88.2 kHz, 16/22/24 bit linear PCM</td>
</tr>
<tr>
<td>DVD with DTS</td>
</tr>
<tr>
<td>DVD with Dolby Digital/DVD AUDIO</td>
</tr>
<tr>
<td>DVD with MPEG Multichannel</td>
</tr>
<tr>
<td>Audio CD/Video CD/SVCD</td>
</tr>
<tr>
<td>Audio CD with DTS</td>
</tr>
<tr>
<td>CD-R/RW with MP3</td>
</tr>
</tbody>
</table>
Setting DVD preferences

■ DOWN MIX
To playback a DVD VIDEO recorded with surround multichannel audio correctly, this item must be properly set according to your audio system.
  • DOLBY SURROUND
    Select this when you enjoy multichannel surround audio by connecting the unit’s analog AUDIO OUT to a surround decoder.
  • STEREO
    Select this when you enjoy 2-channel stereo audio by connecting the unit’s analog AUDIO OUT to a stereo amplifier/receiver or television set, or when you record the audio of a DVD VIDEO recorded with surround audio to your MD, cassette, etc.

■ D. RANGE COMPRESSION
When enjoying a DVD VIDEO recorded with the Dolby Digital format at low or middle volume, setting this item to “ON” enables you to hear sound comfortably.
  • AUTO
    Audio is played back with the dynamic range compressed except when playing a disc recorded with Dolby Digital 1- or 2-channel format.
  • ON
    Audio is played back with the dynamic range compressed.

■ HDMI AUDIO OUT
You can select whether the unit outputs the audio signal with the video signal from HDMI terminal or not.

\[ Other setting menu (OTHERS) \]

■ RESUME
You can activate or deactivate Resume Playback function. (See page 19.)

■ ON SCREEN GUIDE
You can activate or deactivate the on-screen guide icons. (See page 11.)

■ DivX registration menu (DivX REGISTRATION)
The unit has its own Registration Code for DivX playback. You can confirm the code of your unit.
  • Once you play back a disc created by using the Registration Code, the unit’s code is overwritten by a totally different new one for copyright protection purpose.
This unit is equipped with an RS-232C port, capable of receiving commands and sending status information. The commands cover all transport functions, menu functions and power on/standby. Return status includes timer readouts, type of disc, and transport status. Additional commands are available to enable/disable the unit’s front panel or IR controls.

**RS-232C Specifications**

- 9-pin D-Sub (Male)

  - **Mode**: Asynchronous
  - **Data rate**: 9600 bps
  - **Command spacing**: >25 ms
  - **Character length**: 8 bits
  - **Parity bit**: None
  - **Stop bit**: 1 bit
  - **Transfer bit**: LSBit First

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
<th>Description</th>
<th>Signal flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>RxD</td>
<td>Receive data</td>
<td>DVD player ➔ External device</td>
</tr>
<tr>
<td>3</td>
<td>TxD</td>
<td>Transmit data</td>
<td>DVD player ➔ External device</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>Signal grounding</td>
<td></td>
</tr>
</tbody>
</table>

**Command structure**

Example: PLAY command

<table>
<thead>
<tr>
<th>Byte</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>7th</th>
<th>8th</th>
<th>9th</th>
<th>10th</th>
<th>11th</th>
<th>12th</th>
</tr>
</thead>
<tbody>
<tr>
<td>02h</td>
<td>3Eh</td>
<td>50h</td>
<td>4Ch</td>
<td>59h</td>
<td>63h</td>
<td>46h</td>
<td>57h</td>
<td>44h</td>
<td>20h</td>
<td>20h</td>
<td>20h</td>
<td>20h</td>
</tr>
</tbody>
</table>

Preamble

All command strings for this unit begin with the start byte “02h” and header byte “3Eh”.

Operation Code

Each command has a 3-byte operation code, which are listed in the following pages. The operation code for play is simply PLY (upper-case letters).

Command/Status Byte

This section determines whether the command is telling the unit to do something, or asking for its status. A lowercase “c” (63h) indicates a command while a lowercase “s” (73h) indicates status response.

Parameter Codes

8 bytes are reserved for parameters on the command/status response. When the status information does not fill up all 8 bytes (most don’t), the extra slots are filled with spaces (20h). In the above example, FWD indicates playing forward at normal (1x) speed.

Check Sum

The check sum is calculated from the “>” in the Preamble to the end of the Parameter Codes. The last two digits of the hexadecimal addition are shown as ASCII in the Check Sum area. In this example, the Check Sum is derived as follows:

\[3E + 50 + 4C + 59 + 63 + 46 + 57 + 44 + 20 + 20 + 20 + 20 + 20 = 317\]

The last two digits, “17” are displayed as ASCII in the Check Sum.

End Byte

This marks the end of the string with “03h”.

Preamble strings for this unit begin with the start byte “02h” and header byte “3Eh”.

Operation Code

Each command has a 3-byte operation code, which are listed in the following pages. The operation code for play is simply PLY (upper-case letters).

Command/Status Byte

This section determines whether the command is telling the unit to do something, or asking for its status. A lowercase “c” (63h) indicates a command while a lowercase “s” (73h) indicates status response.

Parameter Codes

8 bytes are reserved for parameters on the command/status response. When the status information does not fill up all 8 bytes (most don’t), the extra slots are filled with spaces (20h). In the above example, FWD indicates playing forward at normal (1x) speed.

Check Sum

The check sum is calculated from the “>” in the Preamble to the end of the Parameter Codes. The last two digits of the hexadecimal addition are shown as ASCII in the Check Sum area. In this example, the Check Sum is derived as follows:

\[3E + 50 + 4C + 59 + 63 + 46 + 57 + 44 + 20 + 20 + 20 + 20 + 20 = 317\]

The last two digits, “17” are displayed as ASCII in the Check Sum.

End Byte

This marks the end of the string with “03h”. 
### Command overview

**Transport functions (See page 30.)**

<table>
<thead>
<tr>
<th>Operation Code (first 3 bytes)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P L Y</td>
<td>Play/Pause/Slow/Scan command</td>
</tr>
<tr>
<td>S T P</td>
<td>Disc stop command</td>
</tr>
<tr>
<td>S K P</td>
<td>Chapter/Track skip command</td>
</tr>
<tr>
<td>M E D</td>
<td>Open/Close tray command</td>
</tr>
<tr>
<td>P O W</td>
<td>Power On/Off command</td>
</tr>
</tbody>
</table>

**Menu navigation (See page 31.)**

<table>
<thead>
<tr>
<th>Operation Code (first 3 bytes)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M N U</td>
<td>Menu call command</td>
</tr>
<tr>
<td>N A V</td>
<td>Menu navigation (Cursors, ENTER, etc.) command</td>
</tr>
<tr>
<td>R C U</td>
<td>Remote controlling</td>
</tr>
</tbody>
</table>

**Status information (See page 33.)**

<table>
<thead>
<tr>
<th>Operation Code (first 3 bytes)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M O D</td>
<td>For acquiring DVD player status</td>
</tr>
<tr>
<td>D S C</td>
<td>For acquiring disc type information</td>
</tr>
<tr>
<td>S P D</td>
<td>For acquiring playback speed (video discs)</td>
</tr>
<tr>
<td>I N F</td>
<td>For acquiring counter information (elapsed time, etc.)</td>
</tr>
</tbody>
</table>

**Advanced functions (See page 36.)**

<table>
<thead>
<tr>
<th>Operation Code (first 3 bytes)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P S W</td>
<td>Front panel control enable/disable</td>
</tr>
<tr>
<td>I R D</td>
<td>Infrared control enable/disable</td>
</tr>
<tr>
<td>S E T</td>
<td>Establish default settings</td>
</tr>
<tr>
<td>I N I</td>
<td>Initialize the DVD player</td>
</tr>
</tbody>
</table>
RS-232C interface

Transport commands

These commands are pretty straightforward, they function in the same way as the remote control supplied.

**NOTE**

- If pause is sent when the unit is paused, the unit will advance one video frame. If several pause commands are issued in quick succession, the unit will engage slow motion playback. (This double function only applies to video discs.)

### Play

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Stop

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Fast Forward

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Fast Backward

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Return to Beginning of Current Track/Chapter

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Return to First Chapter of Current Title (DVDs)

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Return to First Track (Audio and Video CDs)

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Next Track/Chapter

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Previous Track/Chapter

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Slow Motion

<table>
<thead>
<tr>
<th>Command</th>
<th>TRACK/CHAPTER</th>
<th>CHECK SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go To Track/Chapter</td>
<td>S K P</td>
<td>02h 3eh 53h 48b 50h 63h 42h 47h 03h</td>
</tr>
</tbody>
</table>

---

### Go to specific track/chapter number

This command uses a capital “G” (47h) in the parameter codes before the track/chapter number.

### Go to specific title number

For DVDs that contain multiple titles, you can access each title directly using this command. This command is similar in structure to the command for locating a specific track or chapter except for the lowercase “g” (67h) used in the parameter code.
RS-232C interface

- **Open/close disc tray**
  This command opens and closes the disc tray. If you wish to know whether the tray is open or closed before issuing this command, use the “MOD” status request.

```
| Open/Close Disc Tray | 02h > 3Eh | M | E | D | c | J | c | J | E | SP | SP | SP | SP | SP | SP | SP | SP | E | 9 | 03h |
| Open Disc Tray       | 02h > 3Eh | M | E | D | c | O | P | N | SP | SP | SP | SP | SP | SP | SP | SP | SP | 0 | 4 | 03h |
| Close Disc Tray      | 02h > 3Eh | M | E | D | c | C | L | S | SP | SP | SP | SP | SP | F | 9 | 03h |
```

- **Power on/standby**
  There are separate commands for power on and standby mode. The unit will respond to the “MOD” when it is off.

```
<table>
<thead>
<tr>
<th>Power On</th>
<th>02h &gt; 3Eh</th>
<th>P</th>
<th>O</th>
<th>W</th>
<th>c</th>
<th>O</th>
<th>N</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>E</th>
<th>C</th>
<th>03h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Standby</td>
<td>02h &gt; 3Eh</td>
<td>P</td>
<td>O</td>
<td>W</td>
<td>c</td>
<td>O</td>
<td>F</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>E</td>
<td>C</td>
<td>03h</td>
</tr>
</tbody>
</table>
```

- **Menu navigation commands**

  - **Menu call**
    The MNU command can recall either the “title” or “root” menus on a DVD. However, this command may not work on some DVDs.

```
<table>
<thead>
<tr>
<th>Title Menu</th>
<th>02h &gt; 3Eh</th>
<th>M</th>
<th>N</th>
<th>U</th>
<th>c</th>
<th>T</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>C</th>
<th>5</th>
<th>03h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Menu</td>
<td>02h &gt; 3Eh</td>
<td>M</td>
<td>N</td>
<td>U</td>
<td>c</td>
<td>R</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>O</td>
<td>3</td>
<td>03h</td>
</tr>
</tbody>
</table>
```

- **Menu navigation keys**
  These are the standard navigation keys, and they function just like those on the remote control.

```
<table>
<thead>
<tr>
<th>Cursor Left</th>
<th>02h &gt; 3Eh</th>
<th>N</th>
<th>A</th>
<th>V</th>
<th>c</th>
<th>L</th>
<th>F</th>
<th>T</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>SP</th>
<th>O</th>
<th>C</th>
<th>03h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cursor Right</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>R</td>
<td>I</td>
<td>T</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>I</td>
<td>1</td>
<td>03h</td>
</tr>
<tr>
<td>Cursor Up</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>U</td>
<td>P</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>E</td>
<td>B</td>
<td>03h</td>
<td></td>
</tr>
<tr>
<td>Cursor Down</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>D</td>
<td>W</td>
<td>N</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>O</td>
<td>F</td>
<td>03h</td>
<td></td>
</tr>
<tr>
<td>Enter/Select</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>E</td>
<td>N</td>
<td>T</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>O</td>
<td>D</td>
<td>03h</td>
<td></td>
</tr>
<tr>
<td>Return</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>R</td>
<td>T</td>
<td>N</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>I</td>
<td>A</td>
<td>03h</td>
<td></td>
</tr>
<tr>
<td>Previous</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>P</td>
<td>R</td>
<td>E</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>O</td>
<td>D</td>
<td>03h</td>
<td></td>
</tr>
<tr>
<td>Next</td>
<td>02h &gt; 3Eh</td>
<td>N</td>
<td>A</td>
<td>V</td>
<td>c</td>
<td>N</td>
<td>X</td>
<td>T</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>SP</td>
<td>2</td>
<td>0</td>
<td>03h</td>
<td></td>
</tr>
</tbody>
</table>
```
RS-232C interface

### Remote control keys

These remote control keys functions just like those on the remote control.

<table>
<thead>
<tr>
<th>Title/Group</th>
<th>02h</th>
<th>03h</th>
<th>02h</th>
<th>03h</th>
<th>02h</th>
<th>03h</th>
<th>02h</th>
<th>03h</th>
<th>02h</th>
<th>03h</th>
<th>02h</th>
<th>03h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repeat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtitle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio/Fs Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FVPP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoom</td>
<td></td>
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<tr>
<td>Instant Replay</td>
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<td>Cancel</td>
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<tr>
<td>Play Mode</td>
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<td>On-screen</td>
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<tr>
<td>Set Up</td>
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<tr>
<td>Progressive Scan</td>
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<tr>
<td>Number Keys</td>
<td>02h</td>
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<td>02h</td>
<td>03h</td>
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<td>03h</td>
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<td>03h</td>
<td>02h</td>
<td>03h</td>
<td>02h</td>
<td>03h</td>
</tr>
</tbody>
</table>

For the Number Keys command, the number that can be send ranges from “0” to “010”. Simply set the 9th and 10th byte to the desired number you want to send with the 8th byte set to “0”. Then calculate and set the check sum.
RS-232C interface

Status information acquisition commands

■ “MOD” status request
This command is for acquiring information such as unit status (on/off), tray condition and disc type.

MOD Status Request

| MOD Status Request | 02h 3Eh 4Dh 4Fh 63h 20h 20h 20h 20h 20h 20h 38h 31h 03h |

■ Response to “MOD” request
The reply to the MOD status request will contain two main parameter bytes, offering both transport status and disc format. Refer to the tables below for the available codes.

<table>
<thead>
<tr>
<th>TRANSPORT STATUS</th>
<th>DISC FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video DVD in Play</td>
<td>(Reply to “mod”)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASCII</th>
<th>Hex</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>20h</td>
<td>Power off</td>
</tr>
<tr>
<td>1</td>
<td>31h</td>
<td>No disc in tray</td>
</tr>
<tr>
<td>2</td>
<td>32h</td>
<td>Tray open</td>
</tr>
<tr>
<td>3</td>
<td>33h</td>
<td>Tray opening</td>
</tr>
<tr>
<td>4</td>
<td>34h</td>
<td>Tray closing</td>
</tr>
<tr>
<td>5</td>
<td>35h</td>
<td>Reading disc</td>
</tr>
<tr>
<td>6</td>
<td>36h</td>
<td>DVD menus</td>
</tr>
<tr>
<td>7</td>
<td>37h</td>
<td>Stop</td>
</tr>
<tr>
<td>9</td>
<td>39h</td>
<td>Search</td>
</tr>
<tr>
<td>;</td>
<td>3Ah</td>
<td>Play</td>
</tr>
<tr>
<td>:</td>
<td>3Bh</td>
<td>Pause</td>
</tr>
<tr>
<td>&lt;</td>
<td>3Ch</td>
<td>Still playback</td>
</tr>
<tr>
<td>=</td>
<td>3Dh</td>
<td>Scan</td>
</tr>
<tr>
<td>&gt;</td>
<td>3Eh</td>
<td>Slow motion playback</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASCII</th>
<th>Hex</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>30h</td>
<td>No disc</td>
</tr>
<tr>
<td>1</td>
<td>31h</td>
<td>Unknown format</td>
</tr>
<tr>
<td>3</td>
<td>33h</td>
<td>DVD Audio</td>
</tr>
<tr>
<td>4</td>
<td>34h</td>
<td>DVD Video</td>
</tr>
<tr>
<td>5</td>
<td>35h</td>
<td>Super Video CD</td>
</tr>
<tr>
<td>6</td>
<td>36h</td>
<td>Video CD</td>
</tr>
<tr>
<td>7</td>
<td>37h</td>
<td>Audio CD</td>
</tr>
<tr>
<td>9</td>
<td>39h</td>
<td>MP3/JPEG disc</td>
</tr>
<tr>
<td>A</td>
<td>41h</td>
<td>DVD VR disc</td>
</tr>
</tbody>
</table>
RS-232C interface

■ “DSC” status request
The DSC request will simply return the type of disc in the unit. The same information can also be obtained in the MOD request.

<table>
<thead>
<tr>
<th>DSC Status Request</th>
<th>02h 3 Eh</th>
<th>44h 53h 43h</th>
<th>63h</th>
<th>20h 20h 20h 20h 20h 20h 7 B 37h 42h 03h</th>
</tr>
</thead>
</table>

■ Response to “DSC” request

<table>
<thead>
<tr>
<th>Video DVD (Reply to DSC Request)</th>
<th>02h 3 Eh</th>
<th>44h 53h 43h</th>
<th>73h</th>
<th>56h 69h 64h 20h 20h 20h 20h 20h 20h 4 E 34h 45h 03h</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio DVD (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>41h 75h 64h 20h 20h 20h 20h 20h 20h 4 5 35h 03h</td>
</tr>
<tr>
<td>Video CD (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>56h 43h 44h 20h 20h 20h 20h 20h 20h 0 8 30h 38h 03h</td>
</tr>
<tr>
<td>Audio CD (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>43h 44h 41h 20h 20h 20h 20h 20h 20h F 3 46h 33h 03h</td>
</tr>
<tr>
<td>Super Video CD (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>53h 56h 43h 20h 20h 20h 20h 20h 20h 1 7 31 37h 03h</td>
</tr>
<tr>
<td>MP3/JPEG (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>46h 49h 40h 20h 20h 20h 20h 20h 20h 0 6 30 36h 03h</td>
</tr>
<tr>
<td>None (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>55h 4E 40h 20h 20h 20h 20h 20h 20h 1 9 31 39h 03h</td>
</tr>
<tr>
<td>Unknown (Reply to DSC Request)</td>
<td>02h 3 Eh</td>
<td>44h 53h 43h</td>
<td>73h</td>
<td>4E 4F 4E 20h 20h 20h 20h 20h 20h 1 6 31 36 36h 03h</td>
</tr>
</tbody>
</table>

■ “SPD” status request
The SPD status request will return the playback speed of the unit. The SPD will also provide information on the unit status (pause, play or stop).

| SPD Status Request | 02h 3 Eh | 53h 50h 44h 63h | 20h 20h 20h 20h 20h 20h 20h 20h 20h 8 8 38 38h 03h |
|--------------------|----------|----------------|----------------|-------------------------------------------|

■ Response to “SPD” request

| Stop Status (Reply to “spd”) | 02h 3 Eh | 53h 50h 44h 44h 73h | 53h 50h 20h 20h 20h 20h 20h 20h 43h 42h 03h |
|-------------------------------|----------|-----------------|----------------|-------------------------------------------|
| Pause Status                  | 02h 3 Eh | 53h 50h 44h 44h 73h | 50h 20h 20h 20h 20h 20h 20h 20h 43h 38h 03h |
| Play (Normal 1x) Status       | 02h 3 Eh | 53h 50h 44h 44h 73h | 4Eh 20h 20h 20h 20h 20h 20h 20h 43h 36h 03h |
| Forward Status                | 02h 3 Eh | 53h 50h 44h 44h 73h | 46h 20h 20h 20h 20h 20h 20h 20h 42h 45h 03h |
| Backward Status               | 02h 3 Eh | 53h 50h 44h 44h 73h | 42h 20h 20h 20h 20h 20h 20h 20h 42h 41h 03h |

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RS-232C interface

“INF” status requests and responses
The INF commands offer requests for different types of information on the disc. CDs and DVDs work differently, so the commands and replies are different.

Structure for Audio and Video CDs
Note that the first parameter byte (following the “c” or “s” command/status byte) is lowercase on the CD status information.

<table>
<thead>
<tr>
<th>Command Request</th>
<th>ASCII</th>
<th>Response</th>
<th>ASCII</th>
</tr>
</thead>
<tbody>
<tr>
<td>First and Last Track Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows tracks 01 and 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First and Last Track Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 2 Titles)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Playing Time of Disc Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 72min, 48sec, 13fr)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Playing Time Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows track 23, index 01)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Track and Index Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows Title 1, Chapter 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Track and Index Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 03min, 12sec, 13fr)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elapsed Time, Current Track Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows tracks 01 and 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elapsed Time, Current Track Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 03min, 12sec, 13fr)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Structure for Video DVDs
Note that the first parameter byte (following the “c” or “s” command/status byte) is uppercase on the DVD status information.

<table>
<thead>
<tr>
<th>Command Request</th>
<th>ASCII</th>
<th>Response</th>
<th>ASCII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Titles Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 2 Titles)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of Titles Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows 1hr, 15min, 23sec)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elapsed Time, Current Title Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows Title 1, Chapter 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elapsed Time, Current Title Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows Title 1, Chapter 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Title &amp; Chapter Request</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows Title 1, Chapter 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current Title &amp; Chapter Response</td>
<td>02h</td>
<td>02h</td>
<td>3Eh</td>
</tr>
<tr>
<td>(Shows Title 1, Chapter 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RS-232C interface

Advanced commands

### Front panel and IR permissions

The unit uses the PSW and IRD commands to disable the front panel or IR controls for automated installations. These settings will remain in tact until either the power is disconnected from the unit, or until these commands are used to turn the control back on. The INI command can also be used to reset the controls to its default (on).

<table>
<thead>
<tr>
<th>Command</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Front Panel Control</td>
<td>02h 3Eh P 50h S 53h W 57h c 63h D 44h SP 20h SP 20h SP 20h SP 20h SP 20h B 42h F 46h</td>
</tr>
<tr>
<td>Enable Front Panel Control</td>
<td>02h 3Eh P 50h S 53h W 57h c A 41h SP 20h SP 20h SP 20h SP 20h SP 20h SP 20h B C</td>
</tr>
<tr>
<td>Disable IR Remote Control</td>
<td>02h 3Eh I 49h R 52h D 44h c D 44h SP 20h SP 20h SP 20h SP 20h SP 20h SP 20h SP 20h A 4</td>
</tr>
<tr>
<td>Enable IR Remote Control</td>
<td>02h 3Eh I 49h R 52h D 44h c A 41h SP 20h SP 20h SP 20h SP 20h SP 20h SP 20h 41h 34h</td>
</tr>
</tbody>
</table>

### Initializing the unit

The initial settings of the unit can be set and recalled using the SET and INI commands. The SET command should only be used directly after the unit is turned on. The INI command will initialize the unit, and return the unit to the settings last built by the SET command. No other commands should be sent for at least 500 ms while the RS-232 routine is initializing. As for the SET and INI commands, DV-D01U does not send back response.

<table>
<thead>
<tr>
<th>Command</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture Default Settings</td>
<td>02h 3Eh S 53h E 45h T 54h c 63h 0 30h 0 30h 0 38h 0 38h 0 38h 33h 32h 03h</td>
</tr>
<tr>
<td>Initialize RS-232 Control</td>
<td>02h 3Eh I N I c SP SP SP SP SP SP SP SP SP SP SP 8 1 03h</td>
</tr>
</tbody>
</table>
**Maintenance**

**Handling Discs**
- Remove the disc from its case by holding it at the edge while pressing the center hole lightly.
- Do not touch the shiny surface of the disc or bend the disc.
- Put the disc back in its case after use to prevent warping.
- Be careful not to scratch the surface of the disc when placing it back in its case.
- Avoid exposure to direct sunlight, extreme temperature and moisture.

**Cleaning the unit**
- Stains on the unit should be wiped off with a soft cloth. If the unit is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.
- Since the unit may deteriorate in quality, become damaged or get its paint peeled off, be careful about the following.
  - DO NOT wipe it with a hard cloth.
  - DO NOT wipe it forcefully.
  - DO NOT wipe it with thinner or benzine.
  - DO NOT apply any volatile substance such as insecticides to it.
  - DO NOT allow any rubber or plastic to remain in contact with it for a long time.

**Troubleshooting**

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power does not come on.</td>
<td>The power cord is not connected.</td>
<td>Connect the power cord correctly. (See page 8.)</td>
</tr>
<tr>
<td>The remote control does not work.</td>
<td>The batteries are exhausted.</td>
<td>Replace the batteries. (See page 6.)</td>
</tr>
<tr>
<td>Sunlight is shining directly on the remote sensor.</td>
<td>Hide the remote sensor from direct sunlight.</td>
<td></td>
</tr>
<tr>
<td>The disc reading time is too long.</td>
<td>The disc is dirty.</td>
<td>Clean the disc by referring to “Maintenance” above.</td>
</tr>
<tr>
<td>No sound</td>
<td>The audio cable is not connected.</td>
<td>Check the connection.</td>
</tr>
<tr>
<td>No sound is produced when playing back a DVD recorded with high sampling (88.2 kHz or more) linear PCM audio using the DIGITAL OUT (OPTICAL) jack.</td>
<td>The audio signal is not derived from the unit’s DIGITAL OUT (OPTICAL) jack.</td>
<td>Use analog AUDIO OUT when playing back such discs.</td>
</tr>
<tr>
<td>No picture is displayed on the TV screen. The video cable is not connected correctly.</td>
<td>Connect the cable correctly. (See page 7.)</td>
<td></td>
</tr>
<tr>
<td>No picture is displayed on the TV screen. The disc or file is not playable.</td>
<td>Use a playable disc or file. (See pages 3 and 4.)</td>
<td></td>
</tr>
<tr>
<td>No picture is displayed on the TV screen. The scan mode is set to “480p” (NTSC) or “576p” (PAL) though the unit is connected to the TV which does not support the progressive video input such as a conventional TV.</td>
<td>Change the scan mode to “480i” (NTSC) or “576i” (PAL) though. (See page 10.)</td>
<td></td>
</tr>
<tr>
<td>Video and audio are distorted. A VCR is connected between the unit and the TV.</td>
<td>Replace or clean the disc.</td>
<td></td>
</tr>
<tr>
<td>The picture does not fit the TV screen. The monitor type is not set correctly.</td>
<td>Set “MONITOR TYPE” properly. (See page 26.)</td>
<td></td>
</tr>
<tr>
<td>No picture is displayed on the TV or no sound comes out through HDMI connection. A video or audio format not compatible with this unit and/or TV is played. A HDCP-compatible TV is not connected. The unit failed to recognize the TV connected with the HDMI cable. A HDMI cable longer than 5 m (15 ft) is used.</td>
<td>Connect the TV through component video, S-video, or composite video jacks (see page 7), then set the scan mode to “480p” (see page 10).</td>
<td></td>
</tr>
<tr>
<td>The picture is distorted when the TV is connected through HDMI terminal. Proportion of the picture may not be shown correctly depending on a disc/file when the TV is connected through HDMI terminal.</td>
<td>Connect the TV through component video, S-video, or composite video jacks (see page 7), then set the scan mode to “480p” (see page 10).</td>
<td></td>
</tr>
</tbody>
</table>

If there are any other cases than the noted above or if this unit does not seem to work properly, turn off the unit and turn it back on.
Specifications

General
Power Requirements: U.S.A./Canada 120 VAC, 60 Hz  
U.K./Europe 230 VAC, 50 Hz  
Australia 240 VAC, 50 Hz  
Asia 100-240 VAC, 50-60Hz

Power Consumption: at operation 11 W  
in standby mode  
U.S.A./Canada/Asia 0.2 W  
U.K./Europe 0.6W

Dimensions (W x H x D): 482 mm x 51 mm x 269 mm  
(19 inches x 2 inches x 10.6 inches)

Mass: 2.6 kg (5.8 lbs)

Audio section
Analog output:  
AUDIO OUT: –8 dB/1 kΩ

Digital output*:  
DIGITAL OUT (OPTICAL): –21 dBm to –15 dBm  
(660 nm ±30 nm)

* Corresponding to Linear PCM, Dolby Digital, and DTS Digital Surround (with sampling frequency — 32 kHz, 44.1 kHz, 48 kHz)

Video section
Video System: NTSC
Horizontal Resolution: 500 lines
Signal-to-Noise Ratio: 64 dB

Video output level
Composite: 1.0 V(p-p)/75 Ω
S-video-Y: 1.0 V(p-p)/75 Ω
S-video-C: 0.286 V(p-p)/75 Ω

Dimensions (unit: mm)

HDMI
HDMI Output (Ver. 1.0): HDMI

RS-232C
Serial command: 9-Pin D-SUB

References

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- HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- HDCP is the abbreviation of “High-Bandwidth Digital Content Protection,” and is the high-reliable copy control technology licensed by Digital Content Protection, LLC.