Panasonic®

Overhead 9″ Widescreen Color LCD Monitor with Built-in DVD/SD Player
Moniteur plafond couleur à ÉCL de 9 po (grand-écran) avec lecteur DVD/SD intégré
Monitor LCD de 9″ a color de pantalla ancha con reproductor incorporado de DVD/SD
para instalación aérea

CY-VHD9500U

Operating Instructions
Manuel d'instructions
Manual de instrucciones

DVD V I D E O ™ | **disc** COMPACT DIGITAL AUDIO TEXT | **SD**™ | **MP3** | **DD DOLBY** D I G I T A L | **dts** DIGITAL OUT

- Please read these instructions carefully before using this product and save this manual for future use.
- Prière de lire ces instructions attentivement avant d'utiliser le produit et garder ce manuel pour l'utilisation ultérieure.
- Lea con atención estas instrucciones antes de utilizar el producto y guarde este manual para poderlo consultar en el futuro.

Panasonic welcomes you to our ever growing family of electronic product owners. We know that this product will bring you many hours of enjoyment. Our reputation is built on precise electronic and mechanical engineering, manufactured with carefully selected components and assembled by people who take pride in their work. Once you discover the quality, reliability, and value we have built into this product, you too will be proud to be a member of our family.

To ensure proper operation, please carefully read through these instructions as well as the installation instructions provided separately.
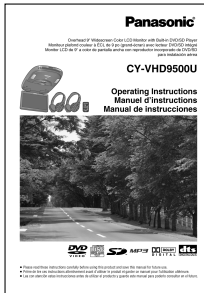
CY-VHD9500U
Operating Instrunctions

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Installation Instrunctions

Safety Information

The following provides an explanation of rules that should always be observed in order to prevent harm to the user and to others and to prevent damage to your property.

The level of damage and risk that may occur when a rule is ignored and the player is used improperly is divided into the following categories.

⚡ **Warning**	This mark indicates that, "There is a risk of serious injury or death".
⚡ **Caution**	This mark indicates that, "There is a risk of injury or physical damage".

The types of rules are divided into the following categories.
(The following is only a portion of the picture marks.)

🚫	This type of picture mark indicates something that you should not do, i.e. "Forbidden".
❗	This picture mark indicates something that you must do, i.e. "Compulsory".

⚡ Warnings   [At the time of operation]

The main unit must never be operated directly (for instance, inserting or ejecting discs or adjusting the monitor angle) while the vehicle is moving.

🚫 It may result in an accident and/or injury in a case where the brakes are suddenly applied or when the vehicle accelerates suddenly.
Forbidden

The driver must not operate this product, watch the monitor or use the IR wireless headphones while driving.

🚫 It may lead to distraction and cause an accident.
Forbidden

Do not use the product where it will get wet, or where there is a lot of moisture or dust.

🚫 This could cause the product to start smoking or ignite, or cause electrical shock or other malfunction in some cases.
Forbidden
In particular, take care that the product will not get wet when the car is washed or when it rains.

Do not place SD memory cards and batteries within the reach of children.

🚫 There is a risk that children could swallow the SD memory card/batteries. If a child does swallow the SD memory card/batteries,
Forbidden
contact your doctor immediately.

To avoid the risk of serious injury or possible violation of laws, not for use where visible to driver for any purpose other than use with rear view camera (or navigation).

🚫 It may lead to distraction and cause an accident.
Forbidden

Do not expose the product to excessive heat.

🚫 This could cause the product to start smoking or ignite, or cause electrical shock or other malfunction in some cases.
Forbidden

Do not leave the remote control unit lying around.

🚫 If, when the remote control unit has been left on the driver's seat side, it gets under your feet and slides under the brake pedal while you are driving, this could interfere with your driving and lead to a traffic accident.
Forbidden

Do not use the product when it is broken or there is some abnormality.

🚫 In the unlikely event that the product breaks (such as when no image is displayed or there is no sound) or there is some abnormality (such as when a foreign object is inside the product, water was spilled on it, smoke comes out or the product emits a strange smell), immediately stop using the product and be sure to contact the store from which you purchased your product or a nearby Panasonic Servicenter.
Forbidden
Continuing to use the product in that condition could cause accidents, fire or electrical shock.

Safety Information (continued)

⚠Warnings
[At the time of installation]

Do not, under any circumstances, install the product in a place where the driver's ability to drive the car or the driver's field of vision will be impaired.

🚫 Forbidden

Installing the product in a place where it will interfere with the driver's field of vision either in front or behind or in a place where it will interfere with the driver's ability to drive the car may lead to traffic accidents and/or injury.

Have a professional technician wire and install the product.

❗

Professional skill and experience is required to wire and install the product. Improper installation could result in failure of safety equipment resulting in accident and injury. For safety's sake, always ask the store from which you purchased the product to install and wire it for you.

Use in DC 12 V ⊖ grounded vehicles.

❗

This product is only for DC 12 V ⊖ grounded vehicles. It cannot be used in DC 24 V vehicles (such as large trucks, diesel vehicles designed for cold climates, etc.). Using this product in such vehicles could cause fire or other malfunction.

Be sure to disconnect the battery's ⊖ terminal while wiring and installing the product.

❗

Doing the wiring and installation with the battery's ⊖ terminal still connected could cause electrical shock and injury due to a short circuit accidents.

Install the product securely so that it will not shift out of place or drop down.

❗

Loose screws or insecure installation may cause the product to shift out of position or drop down, etc. while the car is moving, resulting in an accident and/or injury.

Do not disassemble, repair or modify the product.

🚫 Disassembly Forbidden

Do not disassemble, repair or modify the product, or cut the cord to connect it to the power supply for another device. This could cause fire, electrical shock or other malfunction.

Never use the car's safety equipment for installing or grounding the product.

🚫 Forbidden

Using the bolts, nuts and screws of the car's safety equipment (steering and brake systems, fuel tank, etc.) could cause accidents. Follow the instructions and only use the accessories provided with the product and the specified parts.

Do not install the product in a position where it will interfere with the operation of the air bag.

🚫 Forbidden

The air bag may fail to operate properly or the main unit or its parts could become dislodged and end up flying through the air by an air bag which has opened, causing an accident and/or injury.

⚠Warnings
[At the time of installation]

Be sure to use fuses with the prescribed capacity. Have a professional technician replace the fuses.

❗

Using fuses that exceed the prescribed capacity could cause the product to start smoking, ignite or otherwise malfunction. For replacement and repair of fuses, contact the store from which you purchased your product or a nearby Panasonic servicenter.

Contact your car dealer or manufacturer to determine the required procedure and strictly follow their instructions before attempting installation of this product if your car is equipped with air bag and/or anti-theft systems.

❗

Specific procedures may be required for connection and disconnection of the battery to install this product. Failure to follow the procedure may result in the unintended deployment of air bags or activation of the anti-theft system resulting in damage to the car and personal injury.

Install the product after checking the position of the car's pipes, tank and electrical wiring.

❗

When opening holes in the car body to install the product, be careful not to touch or interfere with the pipes, tank or electrical wiring. Doing so could cause fire or accidents.

Always use the accessories provided with the product and the specified parts.

❗

Using parts other than those specified could damage the inside of the product or cause the product to not be securely fastened and thus come loose, which could cause accidents, malfunction or fire.

Do not install the product in a location where it will be subject to heavy vibration or in an unstable location.

🚫 Forbidden

Installing the product in a sloping location or on a noticeably curved surface, etc. may cause the product to shift out of position or drop down, etc. while the car is moving, resulting in an accident and/or injury.

Follow the instructions to install and wire the product.

❗

Not following the instructions to properly install and wire the product could cause accidents or fire.

Run the cords so that they do not interfere with driving or with entering or exiting the car.

❗

Run the cords so that they do not wrap around the steering wheel, gearshift, brake pedal, etc. or around your legs, and secure all the cords together. Not doing so could cause accidents or injury.

Safety Information (continued)

⚡ Cautions   At the time of operation

Use the product at the proper volume setting.

Driving when you are unable to hear sounds around you or from outside the car can cause accidents.

When using IR wireless headphones, keep the volume level down, and avoid using IR wireless headphones for prolonged periods of time.

Otherwise, your sense of hearing may become impaired. If you experience a ringing in your ears, reduce volume or discontinue use.

Do not leave a disc/SD memory card which is not completely housed inside the product in place.

Otherwise, the disc may drop down, hitting your face, eye or other part of the body and causing injury.

Forbidden

Do not allow anybody's hands or fingers or any other objects to be sandwiched or wedged between the main unit and monitor.

Doing so may cause an accident, injury and/or malfunctioning.
Be particularly careful that children follow this rule.

Forbidden

Do not play discs in the wrong or damaged format.

For instance, if you add the ".mp3" extension to a file which is not formatted as an MP3 file, a loud noise will be heard through the speakers, possibly damaging them and hurting your eardrums.

Forbidden

Do not insert foreign objects into the SD memory card or disc slot.

Putting metal objects like coins or things that burn easily inside the product could cause short circuits or insulation failure, leading to fire, electrical shock or other malfunction. Be particularly careful that children follow this rule.

Forbidden

Do not put fingers inside moving parts or in the disc loading slot.

Inserting fingers could cause injury or malfunction.
Be particularly careful that children follow this rule.

Forbidden

Do not hit the product with your hands or objects. When getting into or out of the vehicle, do not bump your belongings or luggage against the product.

Doing so may cause an accident, injury and/or malfunctioning.

Forbidden

When the temperature inside the vehicle is high such as on a hot summer's day, cool off the inside of the vehicle sufficiently by, for instance, turning on the air conditioner before using this product.

If the temperature inside the vehicle is still high, the product itself may become hot enough to burn you if you touch it.

Do not swing from the product or pull it.

Doing so may cause an accident, injury and/or malfunctioning.
Be particularly careful that children follow this rule.

Forbidden

⚡ Cautions   At the time of operation

Avoid keeping the dome lights on for prolonged periods. And remember to turn the dome light switch to OFF or DOOR when you leave the car.

Otherwise, it will consume battery power and may prevent the engine from starting.

Do not expose the remote control unit and IR wireless headphones to direct sunlight.

Otherwise, it may cause battery leakage or malfunctioning.

Forbidden

Stop play immediately if you start to feel unwell in playing video games etc. on the unit's screen.

For health reasons, avoid playing video games etc. for prolonged periods of time.

Do not watch the monitor with the engine off for prolonged periods.

Otherwise, it will consume battery power and may prevent the engine from starting.

Forbidden

Proper Use of the Batteries
Remote control unit: Lithium battery (CR2025/1F)
IR wireless headphones: Manganese R03, AAA, UM-4 dry cells

Improper use of batteries may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the product.

Do not mix old and new batteries. (IR wireless headphones)
Do not use alkaline dry cells. (There is the danger of liquid leakage.)
Do not recharge, disassemble, deform or heat the batteries. Do not put them in fire or water. Do not place them in contact with metal objects.
Do not leave the battery or the remote control unit containing the battery in places where the temperature is extremely high (such as inside cars with all the windows closed, or inside the car trunk, places where the sun shines directly on it, or near the heater). Such misuse/abuse can cause the batteries to burst, rupture, leak or overheat causing fire and damage to property or injury.

Forbidden

Only use the specified batteries.
Insert the batteries with the ⊕ and ⊖ ends as shown on the battery case.
Immediately replace used up batteries.
When not using the remote control unit for a long period of time, remove the battery.
Insulate the batteries when disposing of or storing them. (Put them in a plastic bag or wrap them with tape or something.)
Obey local ordinances when disposing of the batteries.

What to do if a battery has leaked (R03, AAA, UM-4 dry cells)
Carefully wipe up all the electrolyte on the battery case, and then replace the leaking battery with a new one. If your body or clothing has made contact with the electrolyte, wash it off thoroughly with water. If some of the electrolyte should find its way into your eyes, do not rub them but immediately wash them with water, and consult a doctor.

Safety Information (continued)

⚠ Cautions   At the time of operation or installation

Caution for replacing the bulb of the dome light

Ask a qualified specialist to do this job.
While you are replacing a bulb, be absolutely sure to keep the dome light switch at OFF. Otherwise, you may burn yourself.
The bulb is very hot to the touch while it is lighted and immediately after it has gone off. Before attempting to replace it, turn the dome light switch off, wait several minutes and then check that it cooled off.
Use a bulb with the specified ratings (12 V/5 W). Do not use any other bulb.
Gripping the bulb with too much force may break it. Wear fingerstalls or use some other anti-slip method when replacing it.

If an RCA or similar cord is to be connected to the product, adjust its position and length so that it will not become entangled or come into contact with your body. After use, be absolutely sure to disconnect it from the product.

Failure to heed this caution may result in an accident and/or injury.

Before connecting the product with another device, consult the operating instructions of the device concerned to ensure that the product and device will be connected properly.

Incorrect connections may cause accidents and/or malfunctioning.

⚠ Cautions   At the time of installation

Do not damage the cords.

Forbidden

Wire breaks and short circuits can cause electrical shock or fire.
Run the cords so that they do not get tangled in the moving parts (such as the seat rails), screws or car body. Do not damage, pull too hard, fold, twist, or work on the cords. Do not place the cords near heating appliances or put heavy objects on the cords.

Take care not to injure your fingers with the power drill or other tool you are using. Also take care not to damage the wiring near the ceiling panel.

Failure to heed this caution may result in an accident, injury and/or malfunctioning.

Install the monitor in a position where it will not hit anybody's head when it opens and closes.

Failure to heed this caution may result in an accident and/or injury.

Do not poke your fingers between the ceiling and this product.

Failure to heed this caution may result in an injury and/or malfunctioning of the product.

Forbidden

⚠ Cautions   At the time of installation

Caution for electrical connections:

To prevent damage to the unit, be sure to follow the connection diagram.
Do not connect the power connector to the unit until the wiring is completed.
When connecting stripped wires, be sure to wrap them securely with electrical tape to prevent shorts.
Bundle all cables and keep cable terminals free from touching any metal parts.

Wear gloves for installation work to protect yourself from injuries.

Failure to heed this caution may result in an accident and/or injury.

Wear goggles or protective eyewear to shield your eyes from airborne metal particles during drilling.

Failure to heed this caution may result in an accident and/or injury.

Take care that the wiring is not pinched or caught by the base plate attached to the roof or any other parts.

Failure to heed this caution may result in an accident and/or injury.

As you cut the headliner, take care not to cut your fingers. Also take care not to damage any other areas of the headliner.

Failure to heed this caution may result in an accident and/or injury.

Before installing the unit, be absolutely sure to check that the screws do not make any contact with the ceiling panel.

If some space is required between the base plate and the unit, attach and adjust the under cover. For details on installing the under cover, consult your dealer.

NO WARRANTY
Panasonic shall have no liability for reduction in safety or any accident caused by installing this product. We shall not guarantee any auto parts damaged during installation.

Notes on Use

## When Listening with IR Wireless Headphones

- Even if your headphones are the open-air type designed to let you hear outside sounds, do not turn up the volume so high that you can not hear what is around you.
- Sound can be deceiving. Over time your hearing comfort level adapts to higher volumes of sound. So what sounds normal can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.
  To establish a safe level:
  • Start your volume control at a low setting.
  • Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.
- Once you have established a comfortable sound level, set the dial and leave it there.
- Do not attempt to adjust the size while wearing headphones. (You may find that your hair is pulled as it becomes entwined with the headphones.)
- There may be breaks in the sound or noise may be heard if the headphones are used at a distance from this unit (display) or if obstructions block the infrared rays. These problems are caused by characteristics which are inherent in infrared rays, and thus are not indicative of any malfunctioning.
- Make sure that the infrared sensor window is not covered by your hands or hair.
- Since these headphones use infrared rays for operation, avoid using them in direct sunlight.
- When playing DVD video recordings and listening to their sound through IR wireless headphones, the sound may be heard at a low level even after the volume of the IR wireless headphones has been turned up. In a case like this, stop playing the disc, and then change the DRC (Dynamic Range Compression) setting among the DVD video settings (page 82) to "Minimum" or "Standard". However, depending on a disc's format and content (music DVD, etc.), you may feel that the sound is not being reproduced properly. If this is the case, keep the DRC setting at OFF.
- When listening to sound through headphones, the volume level is a little lower compared with listening to sound which is delivered from speakers through an external device.

Liquid Crystal Panel

- Storage temperature range: −4 °F to 176 °F
  (−20 °C to 80 °C)
  When the liquid crystal panel reaches high temperatures or low temperatures, chemical changes occur within the liquid crystal panel which may cause malfunctions.
- Do not strongly impact the liquid crystal panel.
- When the temperature is very cold or very hot, the image may not appear clearly or may move slowly. Also, movement of the image may seem to be out of synchronization or the image quality may decline in such environments. Note that this is not a malfunction or problem.
  Usage temperature range: 32 °F to 104 °F
  (0 °C to 40 °C)
- There may be red spots, blue spots and green spots on the panel surface. This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology and has at least 99.99 % effective image pixels. Be aware that on 0.01 % of the panel there may be missing pixels or constantly light pixels.

Spots
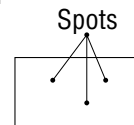
- In order to protect the liquid crystal panel, keep it out of direct sunlight while the unit is not in use.
- Sudden changes in the temperature inside the car such as those which occur immediately after the car's air conditioner or heater has been turned on may cause the inside of the liquid crystal panel to cloud over due to water vapor or it may cause condensation (droplets of water) to form and, as a result, the panel may not work properly. Do not use the unit while these symptoms are in evidence but leave the unit standing for about an hour, and then resume or start use.

Protect Disc and SD memory Card

- When you leave the car, be sure to eject the disc/SD memory card from this unit and bring it out.

When not Using the Product

- Lock the monitor in the fully closed position.
- If the display unit cannot be locked, be absolutely sure to consult your dealer and remedy the situation.

Dimmer Sensor

- This unit automatically adjusts the screen brightness in accordance with the brightness of its surroundings. However, the dimmer sensor may not function properly if it is exposed directly to sunlight or other strong sources of light.

Exemption from Liability

- The manufacturer will not be liable in any way for any incidental damages (such as loss of business income or changes or loss of memory data) which may result from the use of or failure to use this product.
- The terms and conditions of the warranty which accompanies the product do not apply when the product is operated in a vehicle which is used for business purposes (such as a bus, taxi cab or commercial vehicle).
- No guarantees can be made for the numerical values which have been set in the product when those values have been changed as a result of misuse of the product by the user or any third party or of the effects of static or electrical noise or of malfunctioning or repairs.
- The manufacturer will not be liable in any way for the loss, destruction or erasure of SD card data which is a result of improper handling.

The following applies only in the U.S.A.

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

NOTICE:
This product has a fluorescent lamp that contains a small amount of mercury. It also contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations.
For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <http://www.eiae.org>

Find the model number and serial number on either the back or bottom of the unit. Please record them in the space below and retain this booklet as a permanent record of your purchase to help with identification in case of theft.
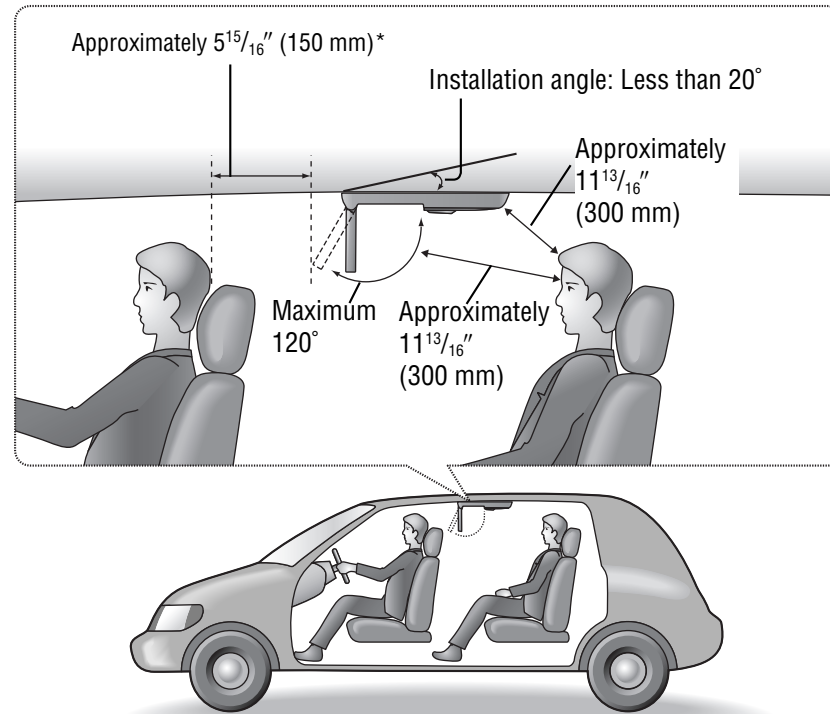
MODEL NUMBER	CY-VHD9500U
SERIAL NUMBER	
DATE PURCHASED	
FROM	

Installation Guide

For details on installation, refer to the installation instructions provided separately.

Safety Installation Diagram

● This unit opens and closes at the maximum dimensions given below.

Approximately 5$^{15}/_{16}$" (150 mm)*

Installation angle: Less than 20˚

Approximately 11$^{13}/_{16}$" (300 mm)

Maximum 120˚

Approximately 11$^{13}/_{16}$" (300 mm)

* Install the product in such a way as to maintain the distances shown even when the display unit is rotated by 30˚ toward the front seat headrest (page 50).

WARNING:
Have a professional technician wire and install the product.
Professional skill and experience is required to wire and install the product. Improper installation could result in failure of safety equipment resulting in accident and injury.
For safety's sake, always ask the store from which you purchased the product to install and wire it for you.

Features

9 inch Flip-down Overhead Monitor
In response to increasing demand for rear seat entertainment systems, we have developed the flip-down overhead monitor. This is a large 9 inch wide screen model.

Built-in DVD Video Player (page 56)
This player can play back DVD video discs, video CDs, music CDs and MP3 (CD-R/RW) discs.

Built-in SD Player (page 66)
This player can play back data recorded on SD memory card (hereafter referred as "SD card") as still pictures, moving pictures, music or voice for instance.

Built-in IR Transmitter for Wireless Headphones (page 52)
An infrared transmitter built into the overhead monitor beams the sound signal to listeners wearing wireless headphones (2 sets supplied) permitting front and rear passengers to enjoy separate program material. With wireless headphones (hereafter referred as "IR wireless headphones"), listeners are free to move about in their seats and groove to the beat without tangled cords.

Game Position (page 64)
The remote control unit features a GAME button to enable games to be enjoyed with the best image quality when a game player has been connected to the unit. When the button is pressed, the brightness and contrast are automatically switched to the dedicated game settings.

2 sets of VTR Input Terminals and 1 set each of VTR Output and Video Output Terminals
With these terminals on this unit you can enjoy many different kinds of images including ones from game players, camcorders and other video units. What's more, the images on the unit's screen can be output to the front seat monitor.

Digital Audio Output Terminal for Upgrading to Dolby Digital and dts Surround (page 14)
When the unit is connected with a digital surround processor and used in combination with a subwoofer and center speaker, you can enjoy Dolby Digital or dts 5.1 channel audio play.

Monitor Position and Angle Adjustment Functions (page 50)
The screen can be adjusted up to 120 ˚ toward the viewers or away from them and up to 30 ˚ to their left or right to position it exactly where they want it to be.
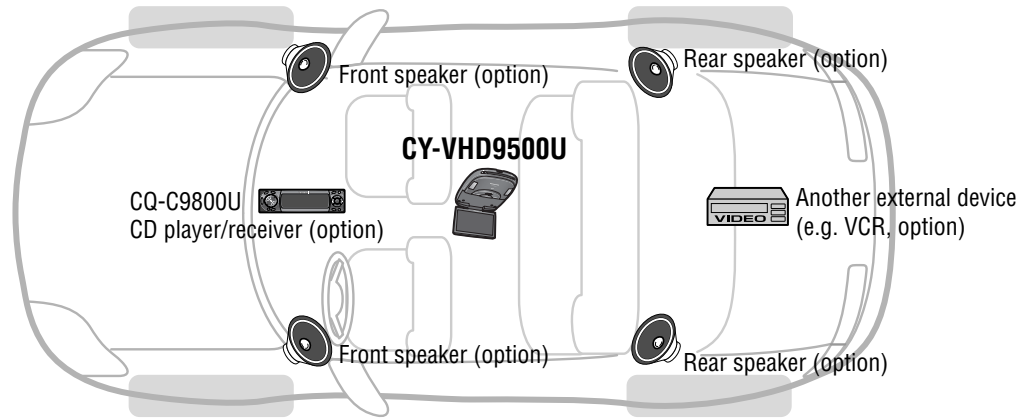
Blue ceiling reflected illumination (page 46)
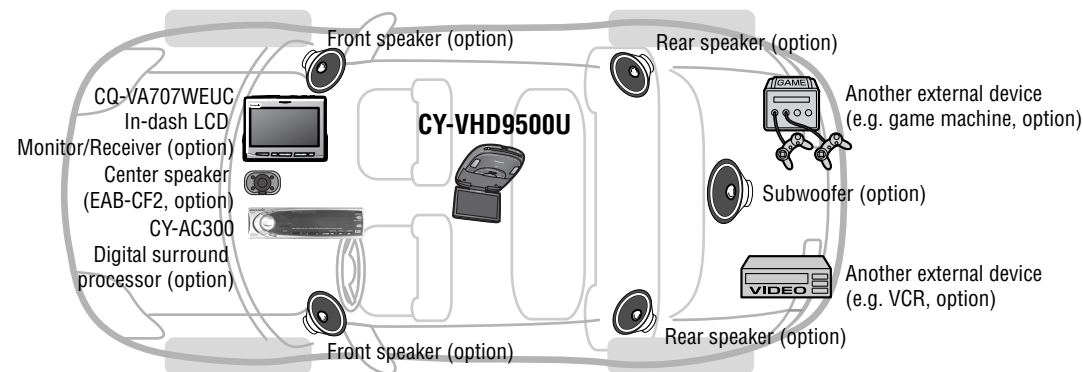The blue ceiling reflected illumination serves as indirect lighting to light up the unit.

System Upgrade

Recommended system
**(system which outputs the sound from the speakers through the front seat car audio unit)**

Rear speaker (option)
Front speaker (option)

CY-VHD9500U

CQ-C9800U
CD player/receiver (option)

Another external device
(e.g. VCR, option)

Front speaker (option)
Rear speaker (option)

Advanced system (Dolby Digital/dts 5.1ch output system)

Front speaker (option)
Rear speaker (option)

CQ-VA707WEUC
In-dash LCD
Monitor/Receiver (option)
Center speaker
(EAB-CF2, option)
CY-AC300
Digital surround
processor (option)

CY-VHD9500U

Another external device
(e.g. game machine, option)

Subwoofer (option)

Another external device
(e.g. VCR, option)

Front speaker (option)
Rear speaker (option)

Simple system
(independent rear seat system which uses the accessory IR Wireless Headphones)

CY-VHD9500U

IR Wireless
Headphones
(supplied)
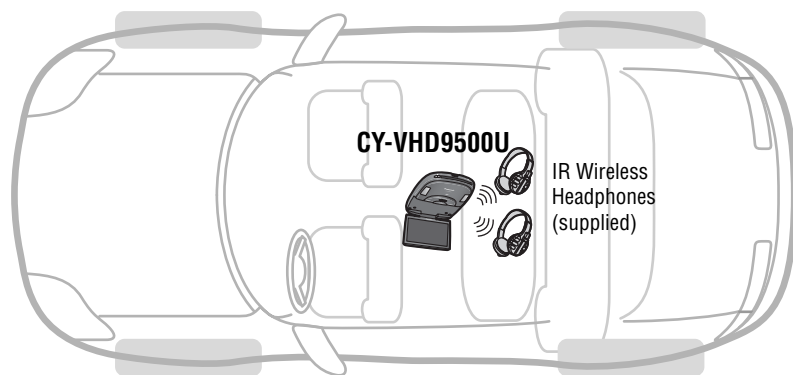
Discs/Cards that can be Played Back

Disc	Mark (logo)	Disc size	Video format	Audio format	Region No.
DVD video	DVD VIDEO / DVD VIDEO	5″ (12 cm)	NTSC	LPCM, MPEG1/MPEG2, Dolby Digital	1, ALL
Video CD	COMPACT disc DIGITAL VIDEO			LPCM (CD-DA*), MPEG1	
CD	COMPACT disc DIGITAL AUDIO / COMPACT disc DIGITAL AUDIO TEXT			LPCM (CD-DA*), MP3	

Card	Mark (logo)
SD card	SD

*CD-DA: A general music CD format

Note:
● About CD-Rs and CD-RWs, refer to "Notes on CD-Rs/RWs" (page 94).
● About SD cards, refer to "Notes on SD Cards" (page 66).

Region Management Information
This product is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. If the Region number described on the DVD disc does not correspond to the Region number of this product, this product cannot play the disc.

The Region number for this product is "1" and "ALL".

Example:

Symbols used on jackets (examples of such symbols include)

● Number of subtitle languages
● Number of audio tracks
● Number of angles
The numbers indicate the number of languages, tracks, angles, etc., recorded on the disc.

Screen size (H:V aspect ratio)
● 4:3 standard size
● Letterbox (page 97)
● 16:9 wide size

16:9 LB : Play back in letter box format on a standard screen (4:3).
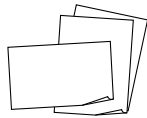16:9 PS : Play back in "Pan & Scan" (page 97) format on a standard screen (4:3).

Note:
● The size of the image that is displayed on the screen depends on the screen mode ("Aspect Ratio", page 84), and on the screen size for the content on the disc.

The following discs cannot be played back on this product.
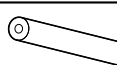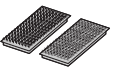
● **DVD-Audio**
● DVD-ROM   ● DVD-R   ● DVD-RAM   ● DVD+RW   ● DVD-RW   ● SVCD
● VSD   ● CVD   ● CD-G   ● CD-ROM (except MP3)
● CD-RW (except MP3 and CD-DA)   ● CD-R (except MP3 and CD-DA)   ● SACD   ● photo CD
● CDV   ● Divx Video Discs   ● CD-EXTRA (audio-only playback possible)
● Discs recorded in PAL format, others
● DVDs with a region number other than "1" or "ALL"
● **Playing back a photo CD disc with this unit could damage the data that is recorded on the disc.**

Accessories

Item	Diagram	Q'ty
Remote Control Unit (YEFX9995179)		1
IR Wireless Headphones (YEFX9992629)		2
Lithium Battery for Remote Control Unit <CR2025/1F>		1
Batteries for IR Wireless Headphones <R03, AAA, UM-4>		4
Instruction Kit		
● **Operating Instructions** (YEFM284227)		1
● **Installation Instructions** (YEFM293246)		1
● **Warranty Card, etc.**		1 set
Power Connector (Main unit side) (YAJ024C100ZA)		1
Power Connector (Vehicle side) (YAJ024C104ZA)		1

Item	Diagram	Q'ty
Paper Template (YEFM991521)		1
Under Cover (YEFX9995134)		1
Slide Plate (upper) (YEFG013018)		1
Slide Plate (lower) (YEFG013017)		1
Base Plate (YEFG013016)		1
Space Washer (A) (YEFL02806)		6
Space Washer (B) (YEFL02807)		6
Space Washer (C) (YEFL02808)		6
Space Washer (D) (YEFL02809)		6
Screw (YEJS03250)		12
Screw (YEJS05100)		6
Screw (YEFJ05101)		6
Nuts (YEJN01122)		12
Push Nuts (YEJN03100)		6
Spring Washer (XWA5BFZ)		6
Flat Washer (XWE5E10FZ)		6
Screw (for resin) (XTB3+10GFX)		6
Cord Clamp (SHR4C102)		2
Magic tape ("Velcro") (YFS014C089ZA) (YFS014C090ZA)		1 pair
Wiping Cloth (YEFX9991793)		1

Note:
- ● The number in parenthesis underneath each accessory part name is the part number for maintenance and service.
- ● Accessories and their parts numbers are subject to modification without prior notice due to improvements.

Contents

This indicates an operation which can be performed using the main unit only.

This indicates an operation which can be performed using the remote control unit only.

Name of Controls

Main Unit

▌▌/▶ (Except SD mode)
● Pause (page 57, 60).
● Playback (page 57, 60).

SD memory card slot

Disc slot

▲ (Eject)
Ejects the disc (page 56).
When a disc is in the main unit: blue

Concerning volume level adjustments
The main unit does not have a function for adjusting the volume level. To adjust the volume level, use the control provided on the accessory IR wireless headphones or external device connected.

SRC (Source) **(POWER)**
● Switches the power to on/off (page 54).
 When the main power is on: blue
● Changes the source (page 54).

Blue ceiling reflected illumination
● Blue ceiling reflected illumination can be set to OFF (page 78).

Dome light (page 85)

Dome light switch
DOOR: Dome light is on when door is opened.
OFF: Dome light is off.
ON: Dome light is on.

Infrared transmitter
Used to transmit audio to IR wireless headphones (page 52).

Remote control sensor

Display release button (PUSH OPEN)
(page 50)

Main Unit (rear)
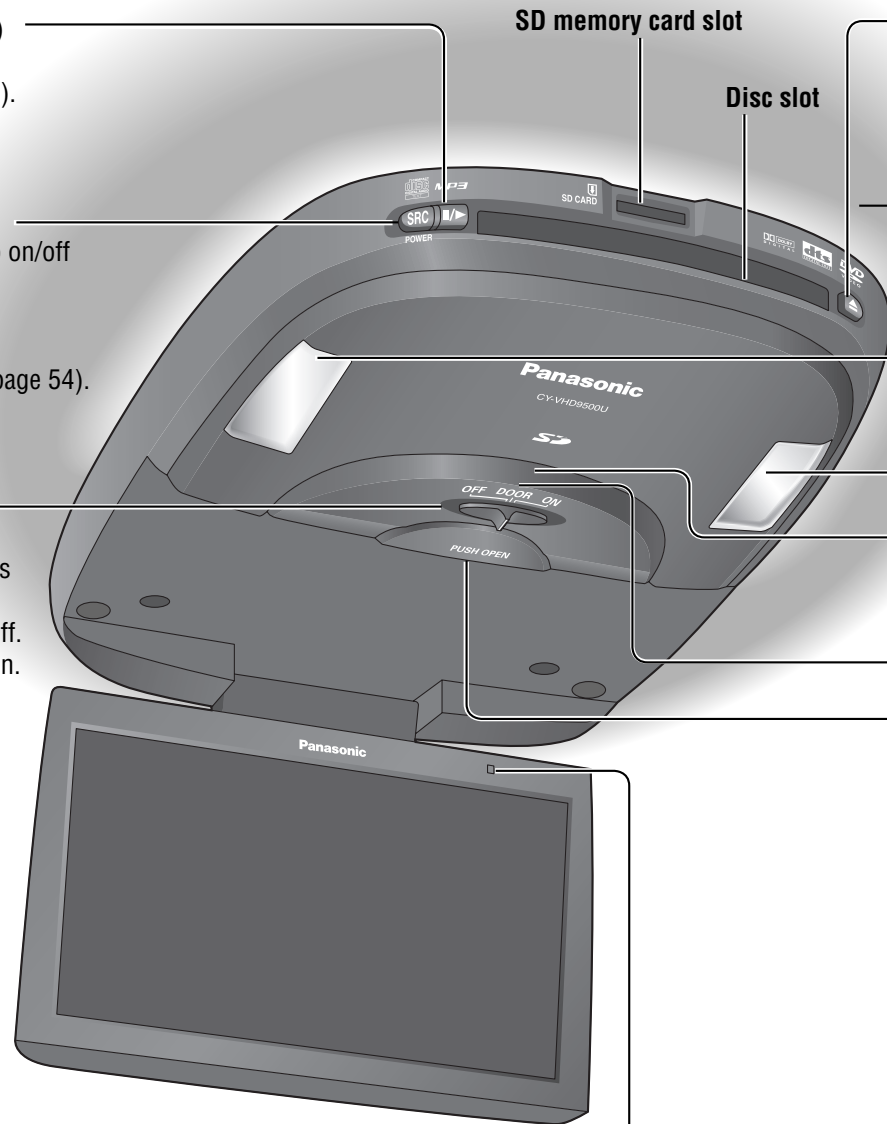
Dimmer sensor
Adjusts the screen brightness automatically.
(When "AUTO" is set for the dimmer setting, the screen brightness is automatically adjusted to suit the surrounding brightness.)
(page 76)
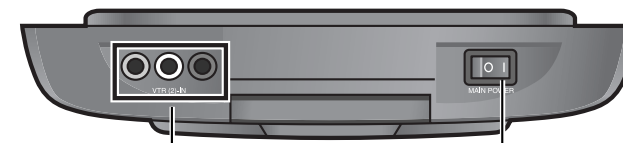
Audio/video input terminal 2 [VTR(2)-IN] (VTR2)
Used to connect a game player or other device.

Main power switch [MAIN POWER]
Turn the power off when the main unit is not going to be used for a prolonged period.

ON

OFF

Name of Controls (continued)

Remote Control Unit

Aim the remote control at the remote control sensor of the main unit and operate it.

■ **(STOP)**
● Stops playback (page 57, 60).

SRC (Source) **(POWER)**
● Switches the power to on/off (page 54).
● Changes the source (page 54).

|◄◄ ►►| (TRACK/SEARCH)
● Goes to beginning (page 57, 60).
● Fast forward/fast reverse (page 57, 60).
● Slow playback **[►►|]** (page 57).

MENU
● Shows the menu screen (page 76, 78).

RET (RETURN)
● Returns to the previous display (page 58).
● Inputs the number again (page 58).
● Displays the video CD's menu (page 58).

SUBTITLE
● Switches the subtitle language (page 59).

AUDIO
● Switches the audio language (page 59).
● Switches between stereo or monaural sound (page 59).

ANGLE
● Switches the angle (page 59).

RANDOM
● Random playback (page 60).

SCAN
● Scan playback (page 61).

REPEAT
● Repeat playback (page 57, 60).

0 to 9
● Selects an item on the menu (page 58).
● Selects a title/chapter/track/folder/file (page 58, 61).

1 to 7
● Selects each setting menu (page 80).

0
● Finish the setting (page 81).

A (ASPECT)
● Selects the aspect ratio (page 84).

II (PAUSE)
● Pause (page 57, 60).

► (PLAY)
● Playback (page 57, 60).

[∧] [∨] [<] [>]
● Selects an operation or item (page 58, 69, 76, 78).
[∧] [∨]
● Folder selection (page 61).

ENTER
● Determines an operation or item (page 58, 61, 69, 76, 78).

TOP MENU
● Displays "MODE SELECT" screen (page 69).

DVD/SD MENU
(DVD video)
● Displays the DVD menu/Title menu (operations vary according to the disc) (page 58).

(SD memory card)
● Displays SETUP MENU (page 70).

OSD
● Displays information about each source on the screen (page 55).

TITLE (TRACK/TITLE/CHAPTER)
● Changes to the direct title/chapter/track/folder/file (page 58, 61).

GAME
● Changes to the game position (page 64).

Concerning volume level adjustments
The main unit does not have a function for adjusting the volume level. To adjust the volume level, use the control provided on the accessory IR wireless headphones or external device connected.

Panasonic
CAR AV

POWER SRC STOP PAUSE PLAY
TRACK / SEARCH
MENU RETURN RET
1 SUBTITLE 2 AUDIO 3 ANGLE TOP MENU
4 RANDOM 5 SCAN 6 REPEAT DVD / SD MENU
7 8 9 OSD
A ASPECT 0 GAME TRACK TITLE TITLE / CHAPTER

Monitor Position Adjustment

Open the Display Unit

(PUSH OPEN)

Maximum 120°
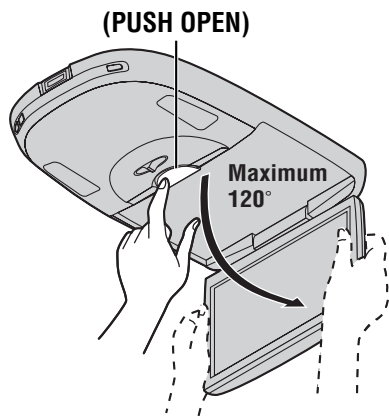
❶ **Push the display release button (PUSH OPEN) until the display is unlocked.**

(Press the button with one hand while holding the display with the other.)

❷ **Open the display unit by both hands until a comfortable viewing angle is reached.**

Close the Display Unit

Move the display unit by both hands until the display release button is locked.

Note:
● Always use both hands to open or close the display unit.
● Always check that the display release button is locked after closing the display unit.
● If the display unit cannot be locked, be sure to consult your dealer and remedy the situation.

Display Unit Lateral Angle Adjustment

30°   30°
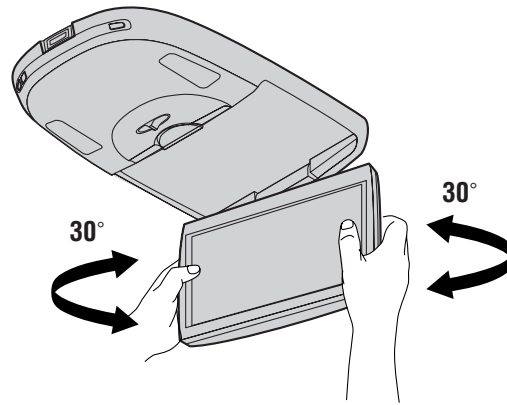
You can swivel it to the left and right, 30° each way.

Hold the display unit by the non-slip part in the upper half of it and adjust its lateral angle.

Remote Control Unit Preparation

Battery Installation

❶ **Remove the battery holder.**
With the remote control unit placed on a flat surface:
① Stick your thumbnail into the groove, and push the holder in the direction of the arrow, and at the same time
② Pull it out in the direction of the arrow using a tough pointed object.

Tough pointed object

Back side

①

②
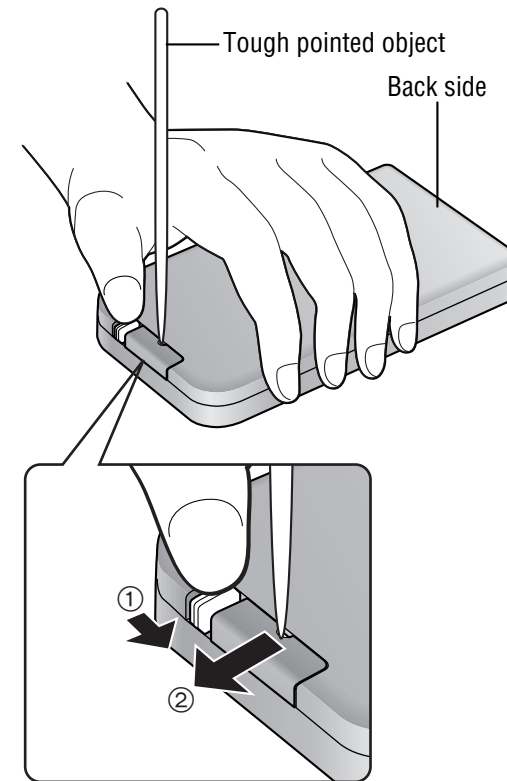
❷ **Install the battery on the battery holder.**
Set a new battery properly with its (+) side facing up as shown in the figure.

❸ **Insert the battery holder back into its original position.**

Lithium battery (supplied)

②

③

Battery holder
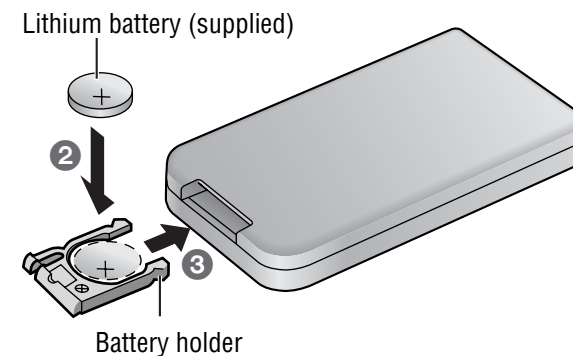
Battery Notes

● Battery type: Panasonic lithium battery (CR2025/1F) (supplied)
● Battery life: Approximately 6 months under normal use (at room temperature)

Caution:
● Improper use of the battery may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the product.
● Do not expose the remote control unit to direct sunlight.
● Do not recharge, disassemble, deform or heat the battery.
● Do not put the battery in fire or water.
● Immediately replace used up battery.
● Obey local ordinances when disposing of the battery.
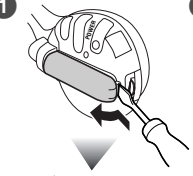
Note:
● To ensure that the remote control unit is not lost or misplaced, use the accessory magic tape ("Velcro") to secure it at a safe place.

magic tape ("Velcro") (supplied)
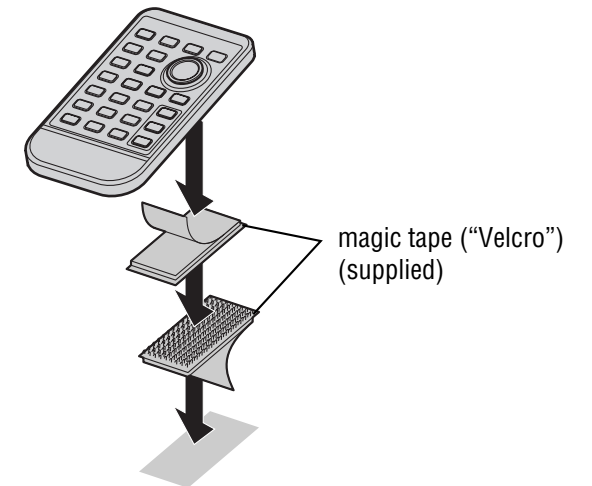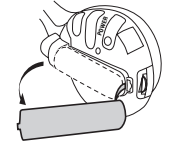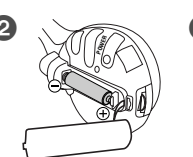
● Remove all oil, water, surfaces where the magic tapes are to be attached.

IR Wireless Headphones Preparation

Battery Installation (Inserting/Replacing the Batteries)

❶ Open the battery holder cover.
As shown in the figure, use the tool such as a slot-head screwdriver to disengage the bottom part of the battery holder cover, and then use your fingers to lift the top part free.

❷ Insert the battery.
Insert the battery in the correct direction, making sure that its positive and negative ends match the same symbols in the battery holder.

❸ Replace the cover.
The cover is fixed in place with a click.

Note:
● One battery is required for the left and another for the right side of each headphone.

Battery Notes

Battery information:
● Battery type: Manganese R03, AAA, UM-4 dry cells (supplied)
● Battery life: Approximately 18 hours of continuous operation under normal use (at room temperature)

Battery life	POWER indicator
When operation is possible	Lights up green.
When the battery needs to be replaced	Dims or fails to light.

To check the remaining battery strength:
The POWER indicator on the right hand earpiece (R) dims or fails to light when the batteries are weak. Noise and interference also increase.
Change the batteries if any of these occur.
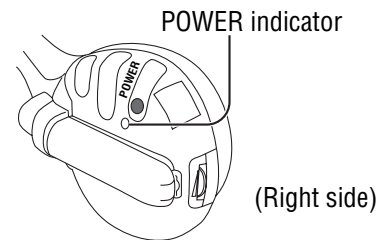
POWER indicator

(Right side)

Caution:
● Improper use of the battery may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the product.
● Do not expose the IR wireless headphones to direct sunlight.
● Do not mix old and new batteries.
● Do not use alkaline dry cells. (There is the danger of liquid leakage.)
● Do not recharge, disassemble, deform or heat the battery.
● Do not put the battery in fire or water.
● Immediately replace used up battery.
● Obey local ordinances when disposing of the battery.

How to Use the IR Wireless Headphones

Operations (Power and Volume)

POWER button

Volume up   Volume down
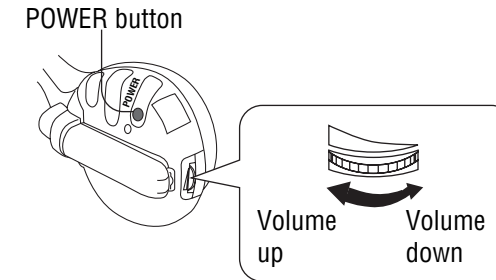
(Before wearing headphones)
❶ Turn the volume on the headphones all the way down.
❷ Press the POWER button.
 ● The POWER indicator lights up.
❸ Turn the volume up slowly until you can hear the sound comfortably and clearly, and without distortion.

After Use
 Press the POWER button to switch off.

Note:
● Refer to "When Listening with IR Wireless Headphones" (page 10).

The Use of Range

These headphones use infrared rays for operation. Use them within the range shown in the figure.

Plane view:

Approximately 2.5 m (Max)*

45°
45°

Approximately 5 m (Max)*

Approximately 2.5 m (Max)*

Vertical view:

30°

Approximately 2.5 m (Max)*
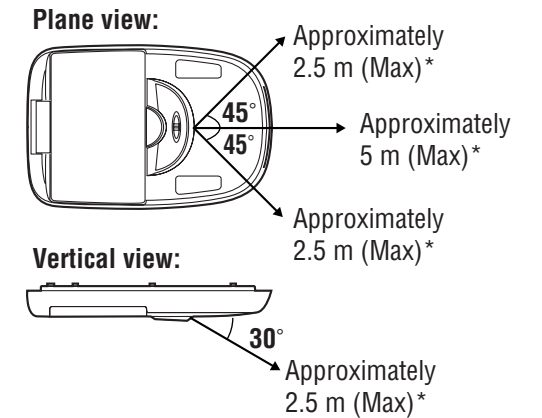
*Conditions: The batteries must be fully charged and in their normal status, room temperature must be the temperature, and there must be no obstructions between the main unit and IR wireless headphones.

Infrared receiving port
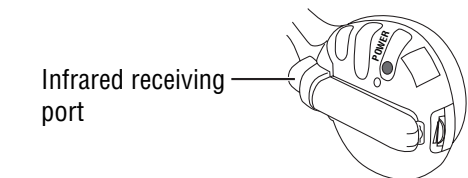
Note:
● Depending on the vehicle model and amount of charge remaining in headphone batteries, the actual range of use may be less than what is given in the figures above.
● If no infrared signals are received from the main unit for more than one minute after the headphones power has been turned on, the headphones power will be automatically turned off (auto power function).

General

[SRC] (Source) **(POWER)**

[MAIN POWER]

[SRC] (Source) **(POWER)**

[OSD]
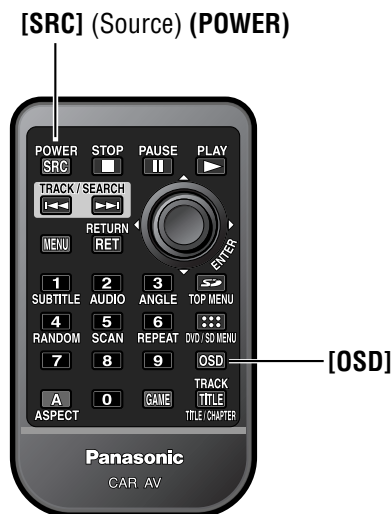
Power

Preparation

❶ Turn your car's ignition key to the ACC or ON position.

❷ Switch **[MAIN POWER]** to ON. (page 47)

ON: Press **[SRC]** (Source) **(POWER)**.

WARNING
TO AVOID RISK OF SERIOUS INJURY OR POSSIBLE VIOLATION OF LAWS, NOT FOR USE WHERE VISIBLE TO DRIVER FOR ANY PURPOSE OTHER THAN NAVIGATION OR USE WITH REAR VIEW CAMERA.
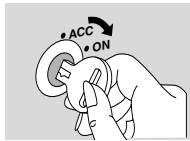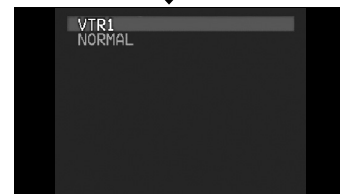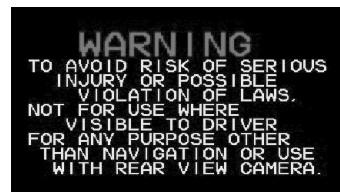
VTR1
NORMAL

default: VTR1

OFF: Press and hold **[SRC]** (Source) **(POWER)** for more than 2 seconds.

Perform the following adjustments to suit your personal preference.
• Monitor position adjustment (page 50)
• Dimmer (page 76)
• Contrast (page 76)
• Brightness (page 76)
• Color depth (page 76)
• Tint (page 76)

Note:

● Turn the MAIN POWER switch off when the unit is not going to be used for a prolonged period.

Source

Press **[SRC]** (Source) **(POWER)**.

→ **VTR 1** (page 64)
↓
VTR 2 (page 64)
↓
DVD video/Video CD/CD/MP3 (page 56, 60)
↓
SD (page 69)
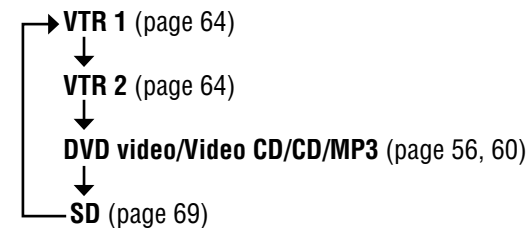
Source (continued)

Example:
DVD video mode (OSD on, see below)

Current operation mode
(Loading, Eject, Play, Pause, Stop, etc.)

Play

Title : 01   Chapter : 002   Time : 00 : 00 : 00
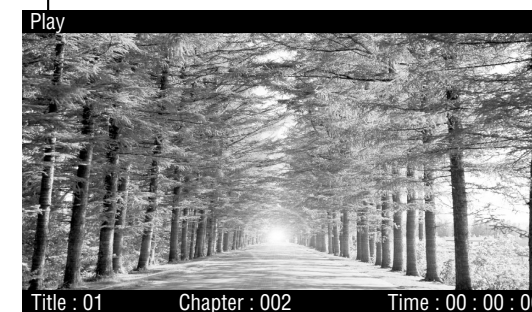
Title number   Chapter number   Playback time

When "⊘" is displayed:
The operation is prohibited by the unit or disc.

OSD (On-Screen Display)

	Example OSD ON		Example OSD OFF
DVD video/ Video CD	Play Title : 01 Chapter : 002 Time : 00 : 00 : 00	(During playback) Press **[OSD]**.	Play
CD	Play CD/MP3 PLAYER MODE Track : 001 Time : 00 : 00 : 01		Example Play Title : BEST SELECTION * Track 01 : LOVE * Artist : ABC * Track : 001 Time : 00 : 00 : 01
MP3	Example Play CD/MP3 PLAYER MODE Folder: 002 File: 002 Time : 00 : 00 : 05		Example Play Folder : BEST SELECTION File : LOVE ID3Tag Album : BEST SELLECTION * * Title : LOVE* * Artist : ABC * * Folder: 002 File: 002 Time : 00 : 00 : 05

*"No CD-Text" appears for discs without CD-TEXT.
* *"No Text" appears for discs without ID3.

Volume

When listening to sound through the accessory IR wireless headphones
Adjust the volume on the IR wireless headphones (page 53).

When listening to sound from speakers through an external device
Adjust the volume using the control on the external device which is connected. For further details, refer to the instructions for the external device (page 14).

Playing Discs (Disc General/DVD video/Video CD)

DVD video Video CD Indicates the compatible types of disc.

Place the label side face up.

[SRC] (Source)

[▐▐/►]

[▲] (Eject)

Insert discs straight in and eject and remove them straight out.

Example

Play

Title : 01   Chapter : 002   Time : 00 : 00 : 01

[SRC] (Source)

[■] (STOP)

[▐▐] (PAUSE)

[|◄◄]
[►►|]

[►] (PLAY)

[6] (REPEAT)
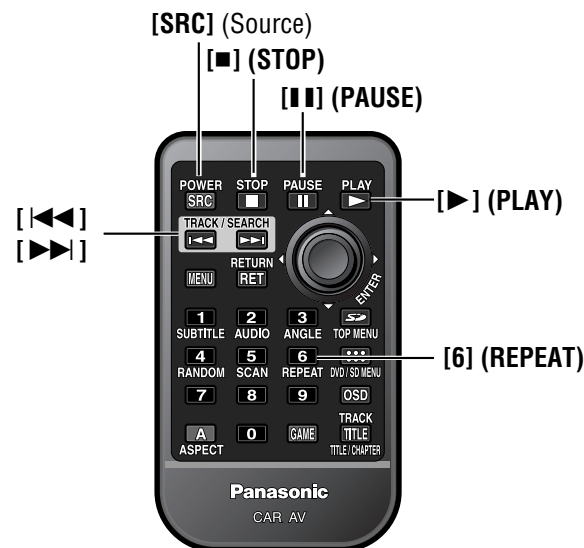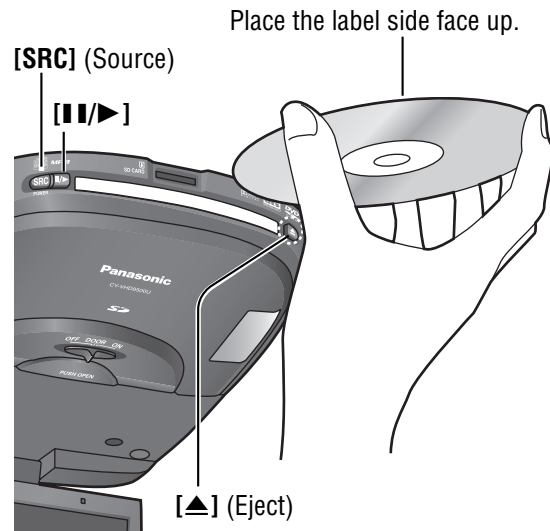
Note:
● Refer to page 15 about discs that can be played back.
● Refer to page 62 about "Notes on MP3".
● Refer to page 94 about "Notes on CD-Rs/RWs".
● Do not leave a disc inserted inside the unit when it is not used.

Disc Insert

Disc insert (see left)

↓

The disc format is automatically identified.

↓

Playback starts.
● When the menu screen is appears, see "DVD Menu/Video CD Menu" on page 58.

When a disc is in the player, press [SRC] (Source) to change to DVD/Video CD/CD/MP3 player mode and playback starts.

Note:
● **Do not insert a disc when [▲] lights because a disc is already loaded.**
● The power will be turned on automatically when a disc is loaded.
● You can play a disc even if the monitor is closed.
● The sound may be interrupted for a few moments while the audio format is being identified.
● The surfaces of new discs tend to be slippery. Therefore, when using such a disc for the first time, it may not load satisfactorily even when it has been inserted into the main unit. At a time like this, insert the disc into the main unit as far as it will go until it is loaded properly.

Disc Eject

Press [▲] to stop playback and eject the disc. (Press [▲] again to reload the disc.)

Note:
● If you leave a disc in the slot for more than 30 seconds after its ejection, the disc will be automatically reloaded after three loud beeps.
● Due to limitations of certain discs, some DVD video and Video CD discs may not operate as described in these operating instructions. Refer to the disc jacket for further details.
● This unit does not support DVD and Video CD karaoke functions.
● Even after the car's ignition key has been turned to the ACC OFF position while a disc is still housed inside the main unit, the disc can still be ejected but only once.

| **Playback** DVD video / Video CD | Press [►] (PLAY).   Press [▐▐/►]. |

| **Stop** DVD video / Video CD | Press [■] (STOP). Press [►] (PLAY) again, and play will resume from the point where [■] (STOP) was pressed (Continued playback function). To cancel continued playback, press [■] (STOP) again in the stop mode. |

| **Go to Beginning** DVD video / Video CD | [►►|]: next track (chapter) [|◄◄]: beginning of the current chapter (track)   Previous chapter (track) (Press twice.) **Note:** ● When playing a DVD video, there are cases where it is not possible to return to the start of a chapter that spans 2 titles. |

| **Fast Forward/ Fast Reverse** DVD video / Video CD | Press and hold [►►|]: fast forward [|◄◄]: fast reverse Release to resume playback. The speed changes as follows if the buttons are held down. Regular speed → 2 times → 10 times → 20 times |

| **Pause** DVD video / Video CD | **(During playback)** Press [▐▐] (PAUSE). To resume playback, press [►] (PLAY) or [▐▐] (PAUSE) again.   **(During playback)** Press [▐▐/►]. To resume playback, press [▐▐/►] again. |

| **Slow Playback** DVD video / Video CD | Press and hold [►►|] in the pause mode. Playback is at about $1/3$ normal speed. To resume normal playback, press [►] (PLAY). To pause, press [▐▐] (PAUSE) again. **Note:** ● Reverse slow playback is not possible. |

| **Repeat Play** DVD video / Video CD | Press and hold [6] (REPEAT) for more than 2 seconds. Press and hold [6] (REPEAT) for more than 2 seconds again to cancel. |

Playing Discs (DVD video/Video CD) (continued)

DVD Menu/ Video CD Menu

Use this menu during playback to select content, audio, subtitle, etc., from a menu (the DVD video/Video CD menu) that is unique to each disc.

[DVD video] [Video CD]

❶ Press **[DVD/SD MENU]** during playback.
For the Video CD menu, press **[RET] (RETURN)** during playback.

❷ Press **[∧]**, **[∨]**, **[<]** or **[>]** to select the preferred menu.
For the Video CD with playback control, press **[0]** to **[9]**.

❸ Press **[ENTER]**.
To return to the previous display, press **[DVD/SD MENU]** during playback.
For the Video CD, press **[RET] (RETURN)**.

Example

DVD MENU
■ 1 SUBTITLE
　 2 AUDIO
　 3 ANGLE
　 4 OTHERS
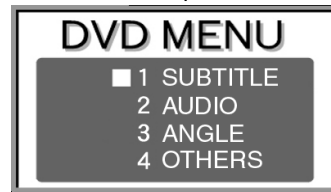
Title Menu

If the DVD has multiple titles recorded on it, it is possible to select the preferred title from the title menu to start playback.

[DVD video]

❶ Press and hold **[DVD/SD MENU]** for more than 2 seconds during playback.

❷ Press **[∧]**, **[∨]**, **[<]** or **[>]** to select the preferred title.

❸ Press **[ENTER]**.
To return to the previous display, press **[DVD/SD MENU]**.

Example

TITLE MENU
■ 1 Title 01
　 2 Title 02
　 3 Title 03
　 4 Next page

Direct Title/ Chapter/Track Selection

[DVD video] [Video CD]

[DVD video]
❶ **(During playback)**
Press **[TITLE] (TITLE/CHAPTER)** to select the input mode.
The mode changes as shown below every time **[TITLE] (TITLE/CHAPTER)** is pressed.

→ **Regular mode**
　　↓
　 Chapter mode
　　↓
　 Title mode
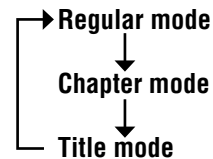
❷ Press **[0]** to **[9]** to input preferred title/chapter number.
To input the number again, press **[RET] (RETURN).**

❸ Press **[ENTER]**.
Playback will start automatically.

[Video CD]
(During playback)
Press **[0]** to **[9]** to input preferred track number.

Switching the Subtitle Language*

[DVD video]

Press and hold **[1] (SUBTITLE)** for more than 2 seconds during playback.

It is possible to change the subtitle language during play if the multiple languages are recorded on the disc.

● There may be a brief delay before the subtitles appear.

SP:01

Switching the Audio Language*

[DVD video]

Press and hold **[2] (AUDIO)** for more than 2 seconds during playback.

It is possible to change the audio language during play if the multiple languages are recorded on the disc.

Audio:01

Switching the Angle*

[DVD video]

Press and hold **[3] (ANGLE)** for more than 2 seconds during playback.

For DVDs which contain scenes which have been shot simultaneously from a number of different angles the same scene can be viewed from each of these different angles during play.

Angle:01

Switching between Stereo and Monaural*

[Video CD]

Press and hold **[2] (AUDIO)** for more than 2 seconds during playback.

It is possible to switch the audio between stereo sound and monaural sound (L or R).

STEREO: stereo sound
MONO L ch: the left channel audio is output on both the left and right speakers.
MONO R ch: the right channel audio is output on both the left and right speakers.

***If no operation is performed for 5 seconds, the display returns to the regular mode.

Note:
● Operations vary according to the disc. For details, refer to the guide provided with the disc.
● It may not be possible to switch the language unless the unit is at the DVD menu or is at DVD video settings (page 80).
● The number of languages depends on the disc. Some discs have only one language or have no language.
● Some discs do not support the angle function.

[RET] (RETURN)
[SUBTITLE]
[AUDIO]
[0] to [9]

[ENTER]
[∧] [∨]
[<] [>]
[ANGLE]
[DVD/ SD MENU]
[TITLE] (TITLE/ CHAPTER)

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Playing Discs (CD/MP3)

CD MP3 Indicates the compatible types of disc.

Playback
CD MP3

Press [▶] (PLAY). Press [❙❙/▶].

Go to Beginning
CD MP3

[▶▶❙]: next track/file
[❙◀◀]: beginning of the current track/file
Previous track/file (Press twice.)

Fast Forward/ Fast Reverse
CD MP3

Press and hold
[▶▶❙]: fast forward
[❙◀◀]: fast reverse
Release to resume playback.

Stop
CD MP3

Press [■] (STOP).
Press [▶] (PLAY) again, and play will resume from the point where [■] (STOP) was pressed. (Continued playback function).
To cancel continued playback, press [■] (STOP) again in the stop mode.

Pause
CD MP3

(During playback)
Press [❙❙] (PAUSE).
To resume playback, press [▶] (PLAY) or [❙❙] (PAUSE) again.

(During playback)
Press [❙❙/▶].
To resume playback, press [❙❙/▶] again.

Repeat Play
(track/file/ folder repeat)

CD

Press [6] (REPEAT).
Press [6] (REPEAT) again to cancel.

MP3

Current File	Press [6] (REPEAT). Press [6] (REPEAT) again to cancel.
Current Folder	Press and hold [6] (REPEAT) for more than 2 seconds. Press and hold [6] (REPEAT) again to cancel.

Random Play

CD

Press [4] (RANDOM).
Press [4] (RANDOM) again to cancel.

MP3

All Files	Press [4] (RANDOM). Press [4] (RANDOM) again to cancel.
All Files in the Current Folder	Press and hold [4] (RANDOM) for more than 2 seconds. Press and hold [4] (RANDOM) again to cancel.

Scan Play
CD

Press [5] (SCAN). The first 10 seconds of each track plays in sequence.
Press [5] (SCAN) again to cancel.

Folder Selection
MP3

[∧]: next folder
[∨]: previous folder

Direct Track/File/Folder Selection
CD MP3

❶ (During playback)
Press [TITLE] (TRACK) to select the input mode.

The mode changes as shown below every time [TITLE] (TRACK) is pressed. (MP3 Only)

File ⟷ Folder

❷ Press [0] to [9] to input preferred track/file/folder number.
To input the number again, press [RET] (RETURN).

❸ Press [ENTER].
Playback will start automatically.

Example: CD
Current operation mode

Play
Title   : BEST SELECTION
Track 01 : LOVE
Artist   : ABC
Track : 001   Time : 00 : 00 : 01

Track number   Playback time

Example: MP3
Current operation mode

Play
Folder   : BEST SELECTION
File   : LOVE
ID3Tag
Album   : BEST SELLECTION
Title   : LOVE
Artist   : ABC
Folder: 002   File: 002   Time : 00 : 00 : 05

Folder number   File number   Playback time

[■] (STOP)   [❙❙] (PAUSE)

[❙◀◀][▶▶❙]
[RET] (RETURN)
[4] (RANDOM)
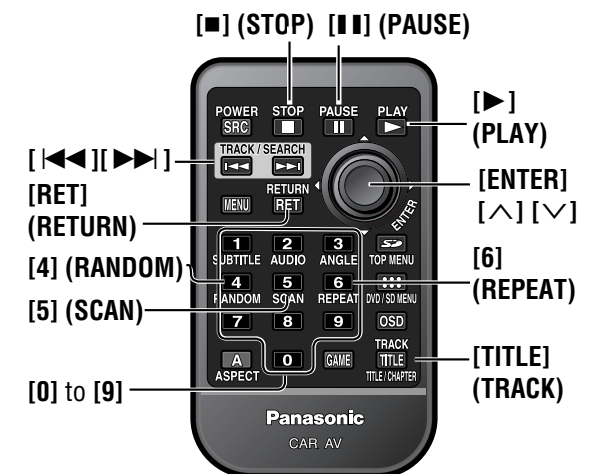[5] (SCAN)
[0] to [9]

[▶] (PLAY)
[ENTER]
[∧] [∨]
[6] (REPEAT)
[TITLE] (TRACK)

Playing Discs (CD/MP3) (continued)

Notes on MP3

This player allows you to play MP3 files recorded on CD-ROMs, CD-Rs (Recordable) and CD-RWs (Rewritable).

What is MP3?

MP3, short for MPEG-1 Audio Layer 3, MPEG-2 Audio Layer 3 LSF (Low Sampling Frequency), is a standard for compressing digital video data adopted for video CDs and similar media. It is one of the audio compression systems covered by MPEG's (Motion Picture Experts Group) digital audio compression standards. What it does is reduce the number of bytes in a song without detracting from the sound quality by eliminating big sound waves within the sound range that is imperceptible to the human ear. This compression allows you to reduce the contents of a conventional music CD by a factor of around 10. This means that you can record the contents of 10 music CDs on a single CD-R or CD-RW. (The figures refer to data recorded on a 650 MB CD-R or CD-RW at a fixed bit rate of 128 kbps and a sampling frequency of 44.1 kHz.)

Points to Remember When Recording an MP3 Disc

Converting (encoding) audio data to an MP3 file

- **It is recommended that you set the bit rate to "128 kbps or more" and "Fixed".**
- Bit rate 8 kbps of MPEG-2 and sampling frequency 16 kHz of MPEG-2 can not be reproduced.
- VBR (Variable Bit Rate) is not supported.
- The playback sound quality differs depending on the encoding software and the bit rate. For details refer to the user manual of your encoding software.

Recording MP3 files on a CD-R/RW

- **Do not record files other than MP3s or unnecessary folders on a disc.** If many folders or files other than MP3s are recorded on a disc, it may take some time before playback starts.
- **Use ISO 9660 file system (Extension of the ISO 9660 file systems are included.) (page 63). APPLE HFS file system is not supported.** If they do not conform to ISO 9660 file system, the file may not play normally, or the file or folder names may not be displayed correctly.
- **Make sure to add the ".mp3" extension to each MP3 file name.** A file with a different file name extension or none at all will not play.
- **Although Multi session recording is supported, the use of Disc-at-Once is recommended.** Make sure to close the session when you finished recording on a disc.
- **A disc recorded by the packet writing software are not supported.**
- **A playlist function is not supported.** Record files and folders in the order in which you want them to be played. Some writing software lets you specify the recording order by adding a prefix in the range of "01"–"99", etc. to the file name. For details refer to the user manual of your writing software.

> **Caution:**
> - **Do not assign the ".mp3" file name extension to a file that is not in the MP3 format. This may produce noise from the speakers and cause speaker damage and can damage your hearing.**

Note:
- You may encounter trouble in playing MP3s or displaying the information of MP3 files recorded with certain writing softwares or CD recorders (CD-R/RW drives).
- If a disc contains both MP3 and CD-DA, only CD-DA data is reproduced properly. (MP3 files are played but no sound is output.)

Folder selection order/MP3 file playback order (Example)

Root folder (root directory)
Tree 1   Tree 2   Tree 3 ....Tree 8 (Max.)
Folder selection In the order 1 to 6
File selection In the order 1 to 4
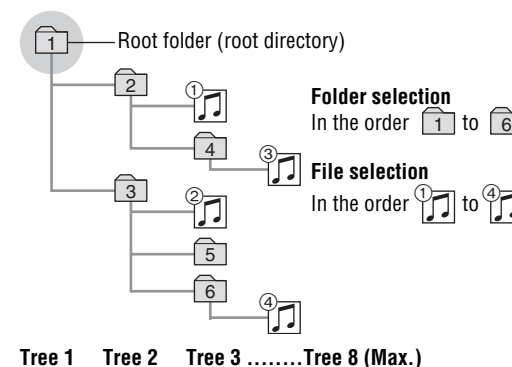
Note:
- This unit counts the number of folders irrespective of the presence or absence of MP3 file.
- If the selected folder does not contain any MP3 files, the nearest MP3 files in the order of playback will be played.
- Playback order may be different from other MP3 players even if the same disc is used.
- "ROOT" appears when displaying the root folder's folder name.

Maximum number of files/folders

- Maximum number of trees: 8
- Maximum number of folders: 254 (Root folder is not included.)
- Maximum number of files: 512

Note:
If the number of files and folders exceeds the number mentioned above, successful playback may not be performed.

Supported file systems and file names

Supported file system	Displayable folder names and file names
ISO 9660 Level 1/Level 2	**Name files and folders in accordance with the standard of each file system. Refer to the instructions of writing software for details.**
Joliet	
Romeo	- The unit recognizes only ASCII character set. Chinese characters, accented French characters and accented Spanish characters will be converted into an asterisk.
Apple Extension to ISO 9660	

Note:
MP3 encode software and writing software are not supplied to this model.

Copyright:
It is prohibited by copyright laws to copy, distribute and deliver copyrighted materials such as music without the approval of copyright holder except for personal use.

No warranty:
Above description complies with our investigations as of February 2004. It has no warranty for reproducibility and displayability of MP3.

VTR (Game etc.)

[SRC] (Source)

Example

VTR2 (GAME)
FULL

[SRC] (Source)

POWER SRC | STOP | PAUSE | PLAY
TRACK / SEARCH
MENU | RETURN RET | ENTER
1 SUBTITLE | 2 AUDIO | 3 ANGLE | TOP MENU
4 RANDOM | 5 SCAN | 6 REPEAT | DVD / SD MENU
7 | 8 | 9 | OSD
A ASPECT | 0 | GAME | TRACK TITLE / CHAPTER

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CAR AV

[GAME]
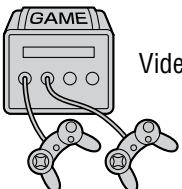
VTR1/VTR2 Mode

You can view the images and listen to the sounds from the connected external devices in the VTR1 mode and VTR2 mode respectively.

Press **[SRC]** (Source) to change to VTR1 or VTR2 mode.

Example
(Refer to the installation instructions for each external device connection on Electrical Connections.)

VTR1

VIDEO   OR

VCR   Camcorder

GAME

VTR2   Video game

Game position

When **[GAME]** is pressed, the unit automatically adjusts the screen optimally for video game play.

Connect the external device to VTR2. Check the OSD to verify that the external device has been connected to VTR2.

Every time the button is pressed:
VTR1 (GAME) ⟷ VTR2 (GAME)

Caution:
● Stop play immediately if you start to feel unwell in playing video games etc. on the unit's screen. For health reasons, avoid playing video games etc. for prolonged periods of time. After use, be absolutely sure to disconnect it from the product.

External Devices Connectable to VTR1/VTR2

VCR/Camcorder

Select the same mode (VTR1 or VTR2) as the terminal that is connected to a VCR or Camcorder [VTR(1)-IN or VTR(2)-IN].

Video Game

Select the same mode (VTR1 or VTR2) as the terminal that is connected to a video game [VTR(1)-IN or VTR(2)-IN].

Note:
● When **[GAME]** is pressed, the unit automatically adjusts the screen optimally for video game play.

Note:
● Depending on the features of the game software, the screen may not be adjusted optimally for the viewer even when this function is set to ON. In this case, adjust the screen manually (page 76).
● The unit comes with a forced power OFF switch **[MAIN POWER]**. By setting this switch to the OFF position, you can forcibly turn off the unit's power from the front seat at times when, for instance, children on the rear seat have nodded off to sleep while playing games.

● The settings for the screen adjustments established in the game mode are stored separately from the corresponding settings established in the normal mode.

Example where a video game is connected to VTR2

Main unit (rear)

[VTR(2)-IN] (VTR2)

Video (Yellow) —— R (red)

L (white)   RCA cord (option)

Video game (option)

GAME
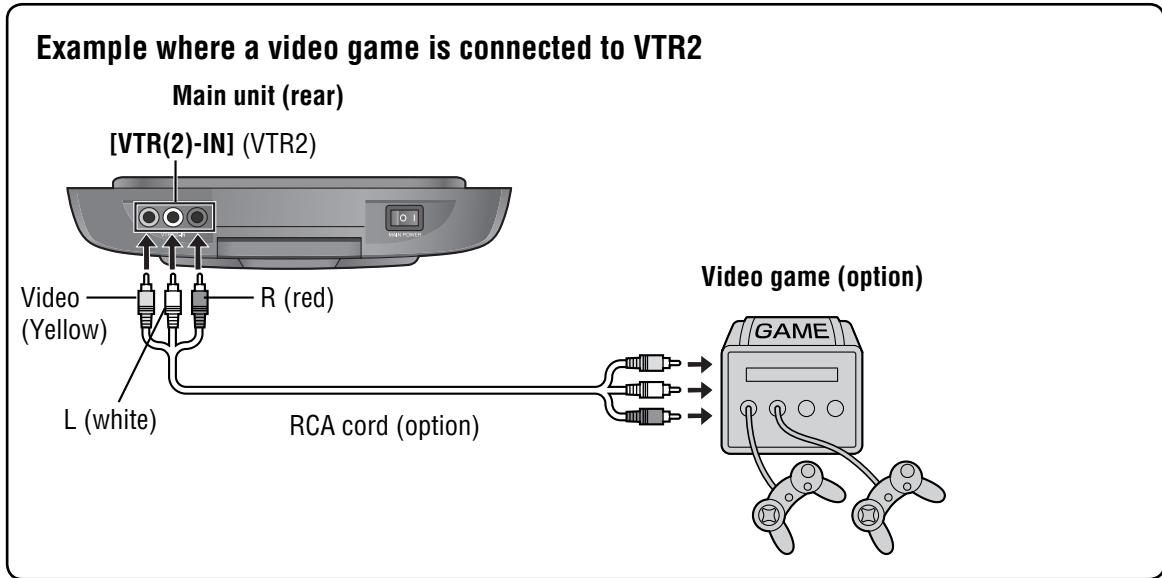
Playing SD Cards

Notes on SD Cards

IMPORTANT:
- **If you have saved still image and/or moving image data on SD cards yourself using a PC, you may not be able to play the images unless you have configured the folders correctly and named the folders and files correctly. For further details, refer to the next page.**
- **When playing music using an SD card, play the SD audio files which were written on the card using SD-Jukebox.**
- **If you have saved data on SD cards using "Panasonic SD Multi AV Device", for instance, the data can be played by the unit straight away.**

Use SD cards with a memory size of 512 MB or less.

You can play the following types of data recorded on an SD Card:

Still pictures

JPEG files taken on digital cameras conforming to DCF (Design rule for Camera File system)* standards.
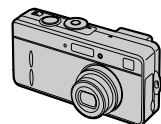
Panasonic digital camera

Moving pictures

MPEG4 files [ASF (Advanced Streaming Format)**] taken on a digital video camera or SD Multi AV Device.
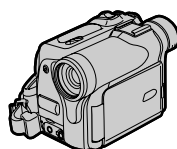
Panasonic digital video camera

Panasonic SD Multi AV Device

Music

SD audio recorded with "Panasonic Media Manager" or "SD-Jukebox", software included with Panasonic SD Multi AV Device and SD Audio Player.

Note:
- SD audio files written using a function other than SD-Jukebox may not be recognized.
- MP3 audio files cannot be played. **(However, this does not apply to MP3 files which were written using SD-Jukebox for use as SD audio files.)**
- This unit cannot record or erase tracks.
- The titles and names of the artists may not always appear on the display.
- If there is a multiple number of still pictures which are tied in with SD-Jukebox, only the first still picture is displayed.
- It may not be possible for the unit to play back some kinds of still pictures even when they are tied in with SD-Jukebox.

Voice

G.726*** files recorded on a digital video camera or SD Multi AV Device.
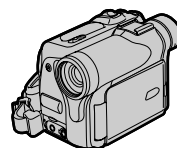
Panasonic digital video camera

Panasonic SD Multi AV Device

* DCF: A file system which is established as an integrated format for digital cameras

** ASF: A distributing and streaming (playing while receiving data) media format which integrates the moving picture, audio and other types of data via a network into a single integrated content.

*** G.726: A standard for a file system which digitizes analog voice data by compressing it.

Recording to an SD Card on a PC

You can copy still and moving pictures to your SD card by connecting it to a PC with a USB Reader/Writer or PC card adapter.
Create folders as shown below.

Root
- DCIM
  - 100CDPFP
    - JPEG files
- SD_VIDEO
  - PRL001
    - MPEG4 files
- SD_VOICE
  - SD_VC100
    - Voice files
- SD_AUDIO
  - Music files
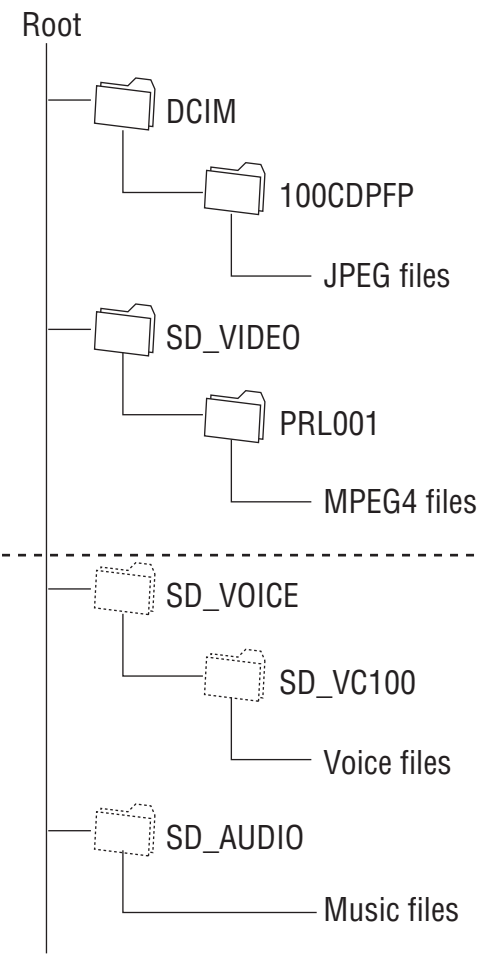
IMPORTANT:
Naming files

JPEG still pictures
Example:

IMGA 0001 .JPG

4 characters

4 numbers

MPEG4 moving pictures
Example:

MOL 001 .ASF

3 characters
(Numerals 0 to 9 and letters A to F: hexadecimal name)

Ensure that none of the files in a folder have the same last 4 (or 3) characters. Files so named cannot be played.

- "SD_VOICE" and "SD_AUDIO" are hidden folders created when you record voice or audio files, and play automatically on other equipment.
- This unit needs the folders on SD cards to play the files. Do not delete them on your PC.

- "DCIM", "SD_VIDEO", "SD_VOICE" and "SD_AUDIO" are necessary to play files but have no effect on operation.
- You may be unable to play some files due to the origin of the copy, or the naming of folders and files.

Playing SD Cards (continued)

Notes on SD Cards (continued)

Concerning the Data on the Cards

- When formatting the cards, use SD-Jukebox as the format.
- When data which is not supported by this unit has been recorded on a PC, it will not be recognized by the unit.
- Do not delete [DCIM], [SD_VIDEO], etc. since they are required in connection with the folder configuration.

Some files are not compatible with this unit and cannot be played back. For example:
· Moving picture files recorded using a digital still camera with moving picture function
· IC recorder voice files etc.

Beveled edge

Label side

Note:
- Do not insert any objects other than the SD cards into the SD card slot.
- Do not leave an SD card inserted inside the unit when it is not used.
- Do not insert the SD cards into the disc slot by mistake.

[SRC] (Source)
[■] (STOP)
[▮▮] (PAUSE)
[▶] (PLAY)

[|◀◀]
[▶▶|]

[ENTER]
[∧] [∨]
[<] [>]

[TOP MENU]
[DVD/SD MENU]
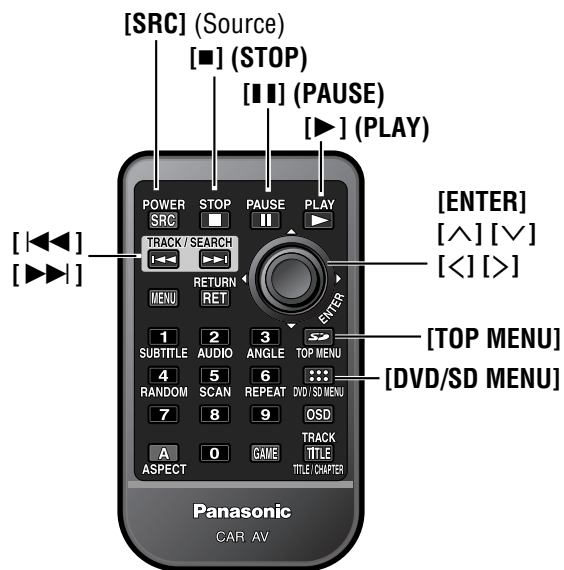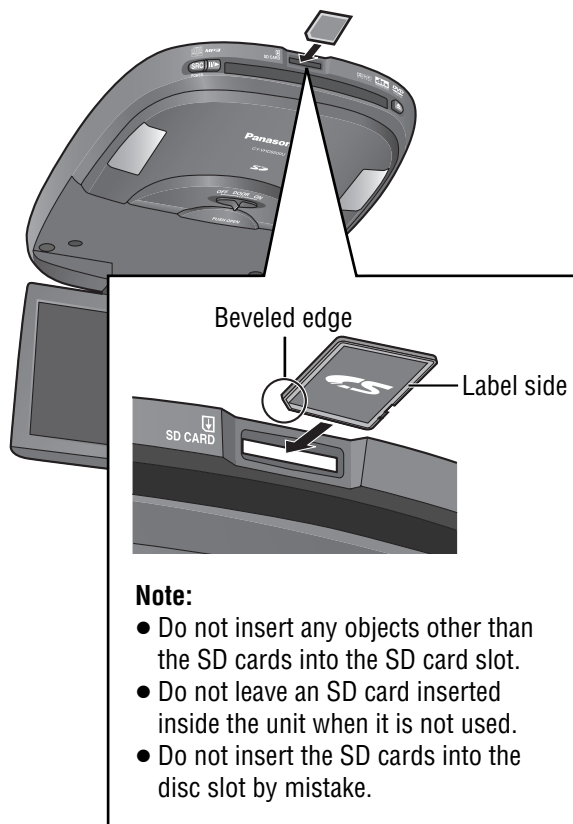
WARNING:
- Do not place SD memory cards within the reach of children. There is a risk that children could swallow the SD memory card. If a child does swallow the SD memory card, contact your doctor immediately.

SD Mode

Press **[SRC]** (Source) to select SD mode.
- "MODE SELECT" screen is displayed.

MODE SELECT screen

MODE SELECT
PICTURE
MPEG4
MUSIC
VOICE
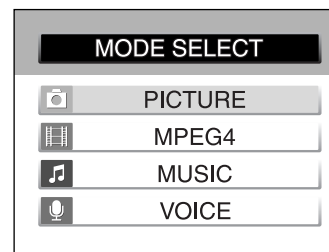
SD Card Insert

Insert and slide the SD card until it clicks into the SD card slot.

SD Card Eject

Press the SD card to eject it.

Note:
Bear in mind the following points when inserting or ejecting an SD card.
- The mode will not be switched automatically to SD by inserting an SD card into the unit. Therefore, to play SD cards, press **[SRC]** (Source) to switch to the SD mode regardless of whether the SD card is already inside the unit or not.
- Insert the SD cards properly so that they will not be inserted back to front or the wrong way around by mistake. (See figure at left.)

Mode Selection

1 Press **[∧]** or **[∨]** to select the mode.
2 Press **[ENTER]** or **[▶] (PLAY)**.

MODE SELECT screen

MODE SELECT
PICTURE
MPEG4
MUSIC
VOICE
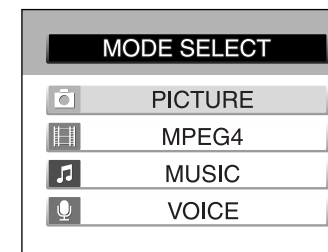
PICTURE: The still pictures recorded on SD cards are played back in this mode (page 74).
MPEG4: Moving pictures recorded on SD cards are played back in this mode (page 70).
MUSIC: Music recorded on SD cards is played back in this mode (page 72).
VOICE: Voice recordings made on SD cards are played back in this mode (page 75).

Note:
In the SD mode, when the following operations are performed and then the SD mode is restored, the "MODE SELECT" screen will appear without fail.
- Power off
- ACC off
- MAIN POWER off
- Mode change

Playing SD Cards (continued)

SD Mode Operation (MPEG4)

Playing Back Moving Pictures [MPEG4]

Moving picture list screen (Example)

MOL001
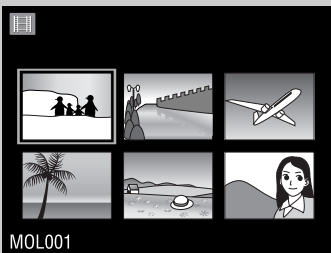
1　Select the moving pictures to be viewed by pressing **[∧]**, **[∨]**, **[<]** and **[>]**.
2　Press **[ENTER]** or **[▶] (PLAY)** to play back the selected moving pictures.

Elapsed playback time

0h00m04s

MOL002　　JAN 26 2004 9.14AM

File name　　　Creation date/time

[■] (STOP):
Press this to return to the moving picture list screen.
[❚❚] (PAUSE):
Press this to stop the playback temporarily.
[>]/[▶▶❙]:
Press this to cue to the start of the next moving picture (or hold it down to fast forward).
[<]/[❙◀◀]:
Press this to cue to the start of the moving picture now playing back (or hold it down to fast reverse).

Note:
● The display returns to the initial screen (SD operation display mode) when **[TOP MENU]** is pressed.
● If the file list screen contains 7 or more files, press **[∧]**, **[∨]**, **[<]** or **[>]** to scroll to the next (or previous) page.
● When MPEG4 moving pictures are played back, mosaic-like patterns may occur or frames may be missed during scenes with fast-moving subjects: this is normal and not a sign of trouble.

Setting the Screen Size for Moving Picture Playback (SETUP MENU)

*When "**MENU**" appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

(While the moving picture list screen is displayed)
1　Press **[DVD/SD MENU]**.

SETUP MENU

SCREEN　　◀　FULL　▶
REPEAT　　　OFF
DISPLAY　　　ON

MENU : EXIT
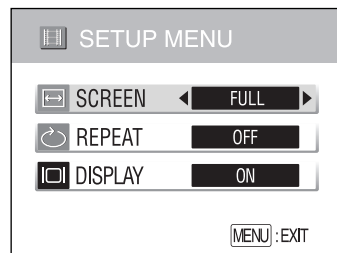
2　Select "**SCREEN**" by pressing **[∧]** or **[∨]**.
3　Select FULL or NORMAL by pressing **[<]** or **[>]**.
FULL :　　Enlarged screen (default)
NORMAL:　Normal screen

[DVD/SD MENU]*: Press this to return to the moving picture list screen.

Setting Repeat during Moving Picture Playback (SETUP MENU)

*When "**MENU**" appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

SETUP MENU

SCREEN　　　FULL
REPEAT　　◀　OFF　▶
DISPLAY　　　ON

MENU : EXIT
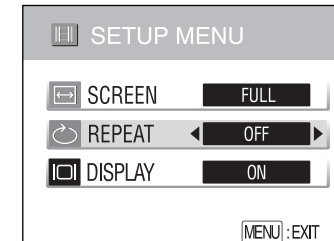
(While the moving picture list screen is displayed)
1　Press **[DVD/SD MENU]**.
2　Select "**REPEAT**" by pressing **[∧]** or **[∨]**.
3　Select OFF, 1FILE or ALL by pressing **[<]** or **[>]**.
OFF:　　Normal playback (no repeat playback) (default)
1FILE:　Only one file is played back repeatedly.
ALL:　　All the files are played back repeatedly.

[DVD/SD MENU]*: Press this to return to the moving picture list screen.

Setting DISPLAY during Moving Picture Playback (SETUP MENU)

*When "**MENU**" appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

SETUP MENU

SCREEN　　　FULL
REPEAT　　　OFF
DISPLAY　　◀　ON　▶

MENU : EXIT

(While the moving picture list screen is displayed)
1　Press **[DVD/SD MENU]**.
2　Select "**DISPLAY**" by pressing **[∧]** or **[∨]**.
3　Select ON or OFF by pressing **[<]** or **[>]**.
ON:　　The SD information display is set to ON. (default)
OFF:　　The SD information display is set to OFF.

[DVD/SD MENU]*: Press this to return to the moving picture list screen.

Playing SD Cards (continued)

SD Mode Operation (MUSIC)

Playing Back Music (Recorded on SD Cards) [MUSIC]

Music file list screen (Example)

♫

ABC/XYZ
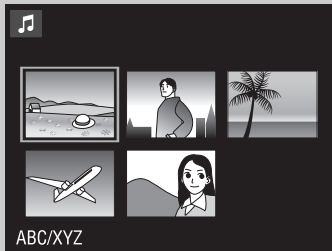
1 Select the music file to be heard by pressing **[∧]**, **[∨]**, **[<]** and **[>]**.
2 Press **[ENTER]** or **[▶] (PLAY)** to play the selected music file.

Elapsed playback time

♫   0h00m04s

▶

ABC/XYZ

File name

[■] (STOP):
Press this to return to the music file list screen.
[❚❚] (PAUSE):
Press this to stop the playback temporarily.
[>]/[▶▶❙]:
Press this to jump to the start of the next file (or hold it down to fast forward).
[<]/[❙◀◀]:
Press this to return to the start of the file now playing back (or hold it down to fast reverse).

Note:
● If still pictures tied in with music as well are recorded, they will be played back at the same time as the music. Use the SD-Jukebox (option) to tie still pictures in with music.
● The display returns to the initial screen (SD operation display mode) when **[TOP MENU]** is pressed.
● MP3 audio files cannot be played. (However, this does not apply to MP3 files which were written using SD-Jukebox for use as SD audio files.)

Selecting the Playlist for Music Playback (SETUP MENU)

*When **"MENU"** appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

(While the music file list screen is displayed)
1 Press **[DVD/SD MENU]**.

♫ SETUP MENU

▣ SELECT PLAYLIST
◯ REPEAT   OFF
▢ DISPLAY   ON

MENU : EXIT

2 Select **"SELECT PLAYLIST"** by pressing **[∧]** or **[∨]**, and then press **[ENTER]** or **[▶] (PLAY)**.
3 Select the playlist to be played back by pressing **[∧]** or **[∨]**.

Default Playlist   : All the music files recorded are played back.
PLAYLIST**   : The selected playlist is played.

[DVD/SD MENU]* : Press this to return to the music file list screen.

** The titles that are displayed differ depending on the settings performed when the playlists were created. For further details, refer to the operating instructions for the SD-Jukebox.

Setting Repeat during Music Playback (SETUP MENU)

*When **"MENU"** appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

(While the music file list screen is displayed)
1 Press **[DVD/SD MENU]**.

♫ SETUP MENU

▣ SELECT PLAYLIST
◯ REPEAT   ◀   OFF   ▶
▢ DISPLAY   ON

MENU : EXIT

2 Select **"REPEAT"** by pressing **[∧]** or **[∨]**, and then press **[ENTER]** or **[▶] (PLAY)**.
3 Select the setting by pressing **[<]** or **[>]**.
OFF: No repeat playback (default)
1MUSIC: Only one file is played back repeatedly.
ALL: All the files are played back repeatedly.

[DVD/SD MENU]* : Press this to return to the music file list screen.

Setting DISPLAY for Music Playback (SETUP MENU)

*When **"MENU"** appears on the screen, it always refers to the **[DVD/SD MENU]** button on the remote control unit which is to be pressed.

(While the music file list screen is displayed)
1 Press **[DVD/SD MENU]**.

♫ SETUP MENU

▣ SELECT PLAYLIST
◯ REPEAT   OFF
▢ DISPLAY   ◀   ON   ▶

MENU : EXIT
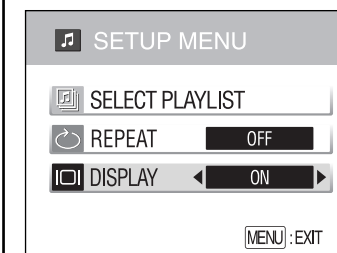
2 Select **"DISPLAY"** by pressing **[∧]** or **[∨]**.
3 Select ON or OFF by pressing **[<]** or **[>]**.
ON: The SD information display is set to ON. (default)
OFF: The SD information display is set to OFF.

[DVD/SD MENU]* : Press this to return to the music file list screen.

Playing SD Cards (continued)

SD Mode Operation (PICTURE)

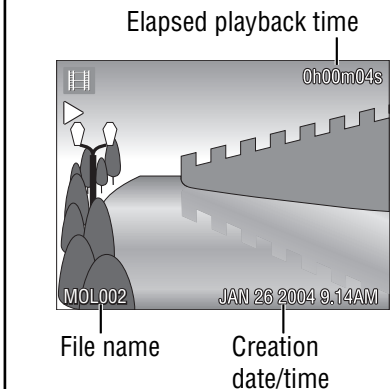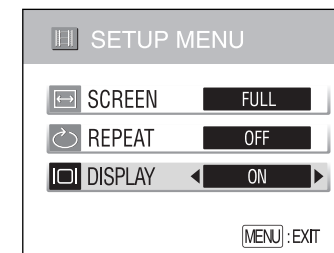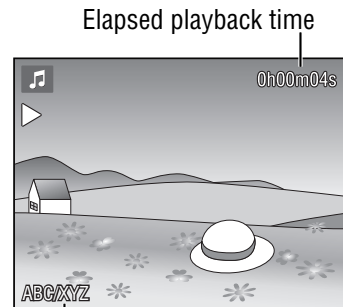### Playing Back Still Pictures [PICTURE]

Still picture list screen (Example)

100-0001

1 Select the still pictures to be viewed by pressing [∧], [∨], [<] and [>].
2 Press [ENTER] or [▶] (PLAY) to play back the selected still pictures.
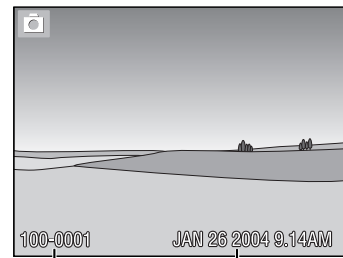
[>]/[▶▶|]:
Press this to display the next still picture.

[<]/[|◀◀]:
Press this to display the previous still picture.

100-0001   JAN 26 2004 9.14AM

File name   Creation date/time

To play back a series of still pictures in succession (slide-show): (While the still picture playback screen is displayed) Press [▶] (PLAY). The still pictures will be played back for 5 seconds each.
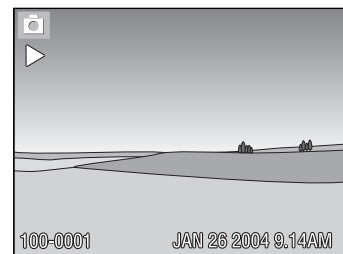
100-0001   JAN 26 2004 9.14AM

[■] (STOP):
Press this to return to the still picture list screen.
[▮▮] (PAUSE):
Press this to stop the playback temporarily.

Note:
● The display returns to the initial screen (SD operation display mode) when [TOP MENU] is pressed.

Setting DISPLAY for Still Picture Playback (SETUP MENU)

*When "MENU" appears on the screen, it always refers to the [DVD/SD MENU] button on the remote control unit which is to be pressed.

(While the still picture list screen is displayed) Press [DVD/SD MENU].
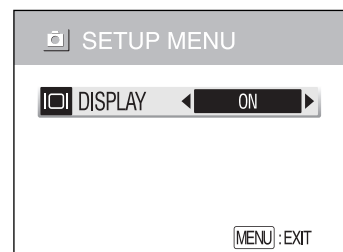
SETUP MENU
DISPLAY   ◀ ON ▶
MENU : EXIT

[>]/[▶▶|] or [<]/[|◀◀]:
Press these to switch between ON and OFF.
[DVD/SD MENU]*:
Press this to return to the still picture list screen.

ON: The SD information display is set to ON. (default)
OFF: The SD information display is set to OFF.

SD Mode Operation (VOICE)

Playing Voice Recordings (Recorded on SD Cards) [VOICE]

Voice file list screen (Example)

VOICE
[100] TRACK001
[100] TRACK002
[100] TRACK003
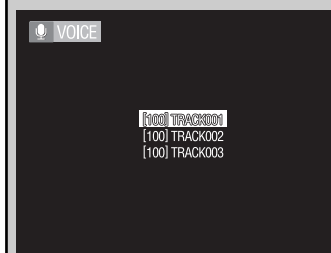
1 Select the voice file to be heard by pressing [∧] and [∨].
2 Press [ENTER] or [▶] (PLAY) to play the selected voice file.

Elapsed playback time

0h00m07s

[100] TRACK001   JAN 1 2004 12:14PM

File name   Creation date/time

[■] (STOP):
Press this to return to the voice file list screen.
[▮▮] (PAUSE):
Press this to stop the playback temporarily.
[>]/[▶▶|]:
Press this to jump to the start of the next voice recording (or hold it down to fast forward).
[<]/[|◀◀]:
Press this to return to the start of the voice recording now playing back (or hold it down to fast reverse).

Note:
● The display returns to the initial screen (SD operation display mode) when [TOP MENU] is pressed.
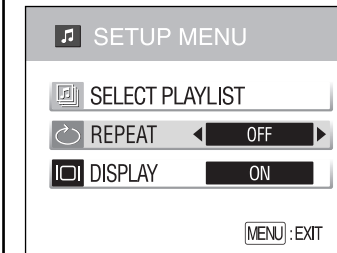
Setting DISPLAY for Voice Playback (SETUP MENU)

*When "MENU" appears on the screen, it always refers to the [DVD/SD MENU] button on the remote control unit which is to be pressed.

(While the voice file list screen is displayed) Press [DVD/SD MENU].
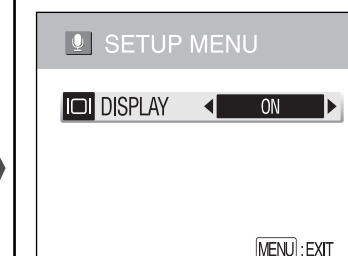
SETUP MENU
DISPLAY   ◀ ON ▶
MENU : EXIT

[>]/[▶▶|] or [<]/[|◀◀]:
Press these to switch between ON and OFF.
[DVD/SD MENU]* :
Press this to return to the voice file list screen.

ON: The SD information display is set to ON. (default)
OFF: The SD information display is set to OFF.

Note:
● On some settings, the screen may turn black.

Display (SCREEN) Settings 📱

```
SCREEN  USER
DIMMER
CONTRAST
BRIGHT
COLOR
TINT


∧∨<>: SELECT   ENTER:SEL
SOURCE : END
```

```
SCREEN  USER



DIMMER
▷AUTO   1    2    3    4
<>: SELECT   ENTER: SET
```

❶ Menu
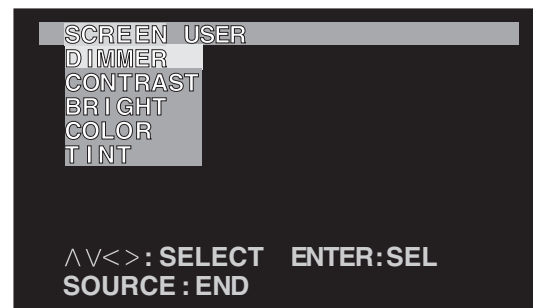
① Press **[MENU]**
   to display the menu.
② Press **[<]** or **[>]**
   to select "SCREEN".

❷ Submenu

① Press **[∧]** or **[∨]**
   to select the item.
② Press **[ENTER]**.

❸ Setting

① Press **[<]** or **[>]** to adjust.
② Press **[ENTER]** to set (Dimmer setting only).
③ Press **[SRC]** (Source) **to exit the menu**.

Note:
● If no operation takes place for more than
   10 seconds, the display exits the menu.

Dimmer

Default: AUTO
Setting range: AUTO, 1 to 4

Select
SCREEN

Select
DIMMER

AUTO	: automatically adjusted according to ambient light intensity.

1	**2**	**3**	**4**

Darker ←————————→ Brighter

Adjust the Image Contrast

Default: ±0
Setting range: −15 to +15

Select
CONTRAST
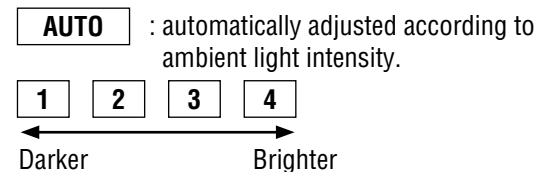
[>]: Increase the contrast between
       black and white.

[<]: Decrease the contrast between
       black and white.

Adjust the Image Brightness

Default: ±0
Setting range: −15 to +15

Select
BRIGHT

[>]: Lighten

[<]: Darken

Adjust the Image Color Depth

Default: ±0
Setting range: −15 to +15

Select
COLOR

[>]: Deepen the depth of color on the
       display

[<]: Lighten the depth of color on the
       display

Adjust the Image Tone or Tint

Default: ±0
Setting range: −15 to +15

Select
TINT

[>]: Emphasize green in the color image

[<]: Emphasize red in the color image

[SRC] (Source)

[MENU]

[ENTER]
[∧] [∨]
[<] [>]

Other (USER) Settings 📱

```
SCREEN  USER
        VIDEO-CONT
        BEEP
        LIGHT
        OUTPUT LEVEL
        MEMORY CLEAR?

∧∨<>: SELECT   ENTER:SEL
SOURCE : END
```
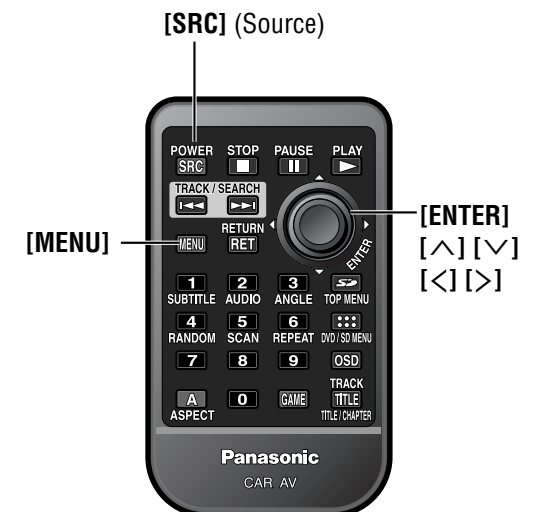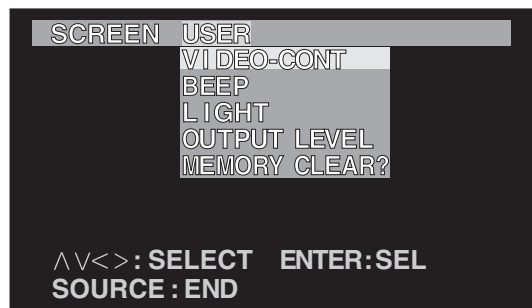
1 **Menu**

① Press **[MENU]** to display the menu.
② Press **[<]** or **[>]** to select "USER".

2 **Submenu**

① Press **[∧]** or **[∨]** to select the item.
② Press **[ENTER]**.

```
SCREEN  USER




VIDEO-CONT
  ▶ VTR1      VTR2
    <>: SELECT   ENTER: SET
```

3 **Setting**

① Press **[<]** or **[>]** to adjust.
② Press **[ENTER]** to set.
③ Press **[SRC]** (Source) **to exit the menu**.

Note:
● If no operation takes place for more than 10 seconds, the display exits the menu.

Video Control Setting

This "Video Control Setting" is required when you connect a Panasonic car navigation system with a built-in DVD player (available in future).

Default: VTR1
Setting range: VTR1, VTR2

Select
USER

Select
VIDEO-CONT

VTR1: Connected to the VTR1-IN
VTR2: Connected to the VTR2-IN

Note:
● Select a terminal connected to the DVD output terminal of a Panasonic car navigation system with a built-in DVD player (available in future) through an RCA cord.
● When you coonect a Panasonic car navigation system with a buit-in DVD player, connect a video control lead as well.

Button Operation Sound

Default: ON
Setting range: ON/OFF

Select
BEEP

ON: Operation sound (Beep) ON

OFF: Operation sound (Beep) OFF

Blue Ceiling Reflected Illumination Setting

Default: ON
Setting range: ON/OFF

Select
LIGHT

ON: Blue ceiling reflected illumination lights.

OFF: Blue ceiling reflected illumination lights off.

Audio Output Level

Default: 3
Setting range: 1/2/3

Select
OUTPUT LEVEL

1: Minimum level

2: Middle level

3: Maximum level

Note:
● The sound may be distorted depending on the input sensitivity of the external device connected. Proceed with an adjustment only if this is the case. Normally, keep at the default setting.

[SRC] (Source)

[MENU]

[ENTER]
[∧] [∨]
[<] [>]

Memory Clear

Default: NO
Setting range: YES/NO

Select
MEMORY CLEAR?

YES: Default settings

NO: No memory clear
The display returns to the previous one.
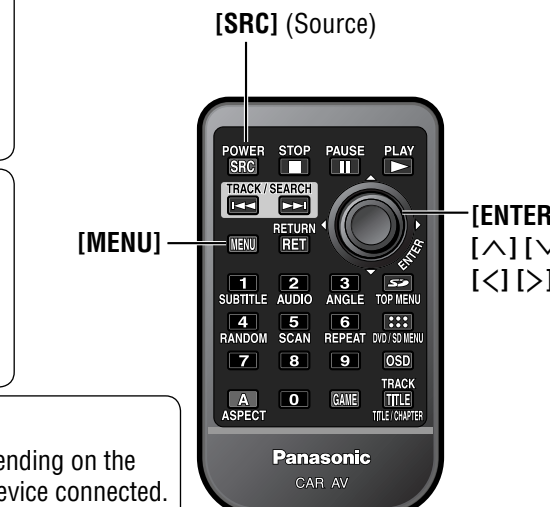
Note:
● In the SD mode, SETUP MENU settings are not returned to the default settings even when YES is selected as this setting.
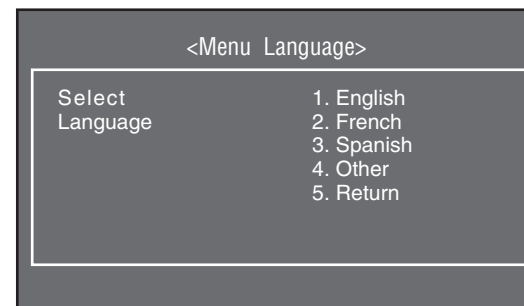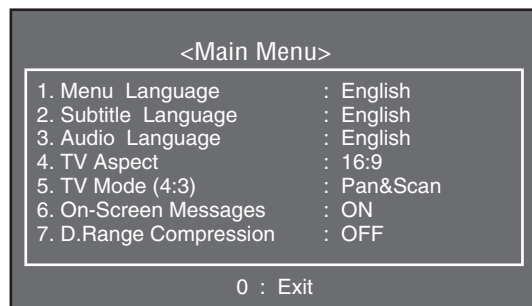
DVD video Settings

<Main Menu>

1. Menu Language   : English
2. Subtitle Language   : English
3. Audio Language   : English
4. TV Aspect   : 16:9
5. TV Mode (4:3)   : Pan&Scan
6. On-Screen Messages   : ON
7. D.Range Compression : OFF

0 : Exit

<Menu Language>

Select   1. English
Language   2. French
                     3. Spanish
                     4. Other
                     5. Return

Note:
● After the DVD settings have been changed and entered, the player returns to the start of the disc and begins playback.
● When the disc has predetermined language or other settings, the user settings are not reflected.

❶ Display Main Menu.

(While disc stopped)
Press **[DVD/SD MENU]**.

❷ Select each setting menu.

Press one of the numeric buttons (**[1]**—**[7]**).

❸ Select each item.

Press one of the numeric buttons (**[1]**—**[6]**).

❹ Finish the setting.

Press **[0]**.
● The setting is completed.

DVD Menu Language setting

Default: English

Subtitle Language Setting

Default: English

Audio Language Setting

Default: English

Display Aspect Setting

Default: 16:9

(While disc stopped)
Press **[DVD/SD MENU]**.

Press **[1]**.

1.Menu Language

Press **[2]**.

2.Subtitle Language

Press **[3]**.

3.Audio Language

Press **[4]**.

4.TV Aspect

---

1. **English**
2. **French**
3. **Spanish**
4. **Other:**   (page 96)
5. **Return:**   The display returns to "Main Menu".

1. **English**
2. **French**
3. **Spanish**
4. **Other:**   (page 96)
5. **Dispoff:**   Subtitle language is not displayed.
6. **Return:**   The display returns to "Main Menu".

Note:
● A disc supporting closed caption and subtitles may overlap each other on the screen. In this case, turn the subtitle off.
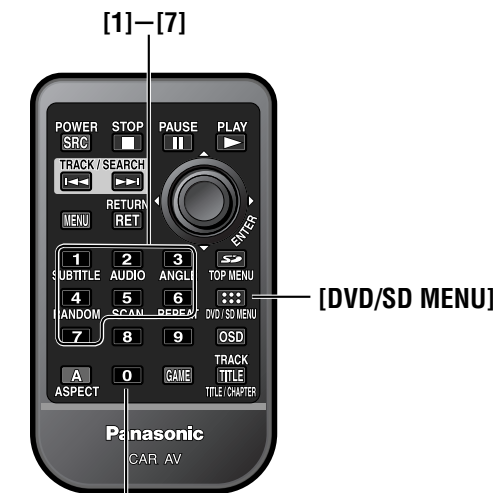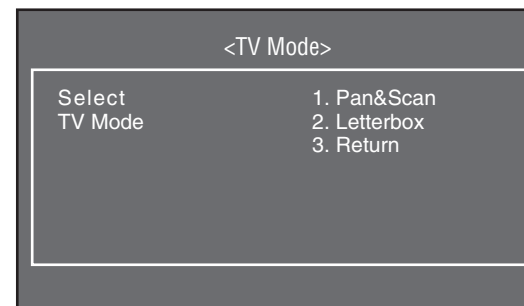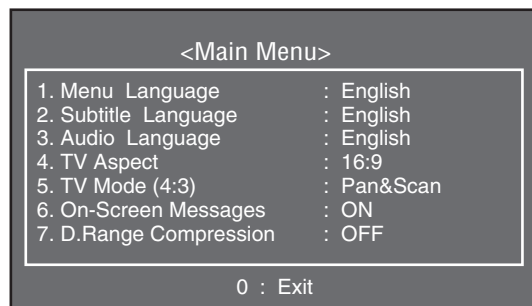
1. **English**
2. **French**
3. **Spanish**
4. **Other:**   (page 96)
5. **Return:**   The display returns to "Main Menu".

1. **4:3:**   Plays a video in 4:3 screen.
2. **16:9:**   Plays a video in wide screen (16:9).
3. **Return:**   The display returns to "Main Menu".

[1]—[7]

[DVD/SD MENU]

[0] (Finish the setting.)

POWER STOP PAUSE PLAY
SRC
TRACK / SEARCH
MENU RETURN RET
ENTER

1 SUBTITLE 2 AUDIO 3 ANGLE TOP MENU
4 RANDOM 5 SCAN 6 REPEAT DVD / SD MENU
7 8 9 OSD
TRACK
A ASPECT 0 GAME TITLE TITLE / CHAPTER

Panasonic
CAR AV

DVD video Settings (continued)

```
<Main Menu>

1. Menu  Language          : English
2. Subtitle  Language       : English
3. Audio  Language          : English
4. TV Aspect               : 16:9
5. TV Mode (4:3)           : Pan&Scan
6. On-Screen Messages      : ON
7. D.Range Compression     : OFF

            0 :  Exit
```

```
<TV Mode>

Select          1. Pan&Scan
TV Mode         2. Letterbox
                3. Return
```

Note:
● After the DVD settings have been changed and entered, the player returns to the start of the disc and begins playback.
● When the disc has predetermined language or other settings, the user settings are not reflected.

❶ Display Main Menu.

(While disc stopped)
Press **[DVD/SD MENU]**.

❷ Select each setting menu.

Press one of the numeric buttons (**[1]**–**[7]**).

❸ Select each item.

Press one of the numeric buttons (**[1]**–**[6]**).

❹ Finish the setting.

Press **[0]**.
● The setting is completed.

DVD Software mode

Set this when playing wide-screen video on a conventional-size (4:3) TV.
Default: Pan&Scan

Press **[5]**.

5.TV Mode (4:3)

1. Pan&Scan: Plays in Pan&Scan mode.
2. Letterbox: Plays in Letterbox mode.
3. Return: The display returns to "Main Menu".

Note:
● If "Pan & Scan" or "Letterbox" is already set in the software, this setting is ignored.

On-Screen Messages Setting

This is to set On-Screen Display messages which will be displayed when OSD is turned off by pressing **[OSD]** (page 55).

Default: ON

(While disc stopped)
Press **[DVD/SD MENU]**.

Press **[6]**.

6.On-Screen Messages

1. ON: When power is turned on, On-Screen Display messages such as "Play" and "Pause" will always be displayed on the screen for 5 seconds.
2. OFF: When power is turned on, On-Screen Display messages such as "Play" and "Pause" will not be displayed on the screen.
3. Return: The display returns to "Main Menu".

Dynamic Range Compression Setting

By the compressing the range of the playback level (the dynamic range), it is possible to maintain the impact of audio even at low volumes.
This function only works with Dolby Digital encoded material.

Default: OFF

Press **[7]**.

7.D.Range Compression

1. Minimum: Mode with the greatest compression, roughly equivalent to a TV broadcast.
2. Standard: Mode recommended by the software manufacturer for listening at low volume.
3. OFF: Movie theater mode with no compression.
4. Return: The display returns to "Main Menu".

Note:
● When it is difficult to hear comparatively quiet sounds (such as movie dialogue), setting "Minimum" will make those sounds easier to hear.
● The item can be switched also by holding down **[0]** for 2 seconds at a time during playback.

[1]–**[7]**

[DVD/SD MENU]

[0] (Finish the setting.)

Aspect Ratio 📱

Press **[A] (ASPECT)** to change the aspect ratio as follows.
Default: NORMAL
Mode: 4 types

NORMAL
● The conventional display image has a 4 to 3 ratio of horizontal to vertical.
● In this case, a blank area remains on the right and left sides of the display.

FULL
● The screen is extended horizontally as a whole to the aspect of 16 to 9.
● The extension ratio is the same at any point of the screen.

ZOOM
● The screen is fully extended at the normal aspect ratio of 4 to 3.
● The top and bottom of the screen are slightly cut.

JUST
● The screen is extended horizontally to the aspect ratio of 16 to 9.
● The extension ratio increases toward the right and left ends of the screen.

[A] (ASPECT)

Note:
● In some cases, the picture looks different from the original one due to your selection of aspect.
● This is to remind you that compression or extension of the screen using the aspect ratio changing function of this product for commercial purpose of profit making or viewing/listening by the public could infringe on the rights of the author protected by the copyright law.
● If you expand normal picture (4 to 3) by using "JUST", "ZOOM" or "FULL" aspect to the full of the screen, you might not see the periphery of the picture, or you might see a distorted picture. Therefore, use the "NORMAL" mode to see the original pictures as the author intended it.

Replacing the Bulb of the Dome Light
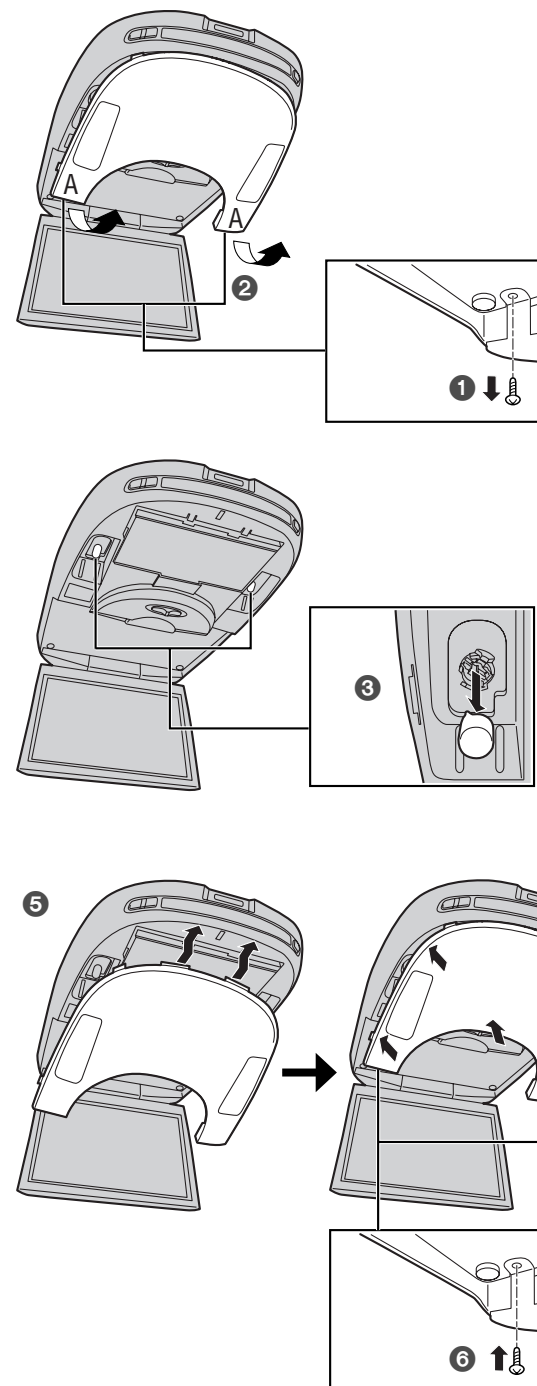
Preparation:
● Turn the dome light switch off (page 46).
● Open the display unit (page 50).

❶ Remove the 2 screws.

❷ Place your fingers at A (in 2 places) on the panel, and slowly pull down the panel.

❸ Pull out the bulb to be replaced.
　● Do not turn the bulb but pull it straight out.

❹ Push the new bulb into place.

❺ Insert the end of the panel, and push it back into place as shown in the figure.

❻ Secure the screws.

Caution:
● **Ask a qualified specialist to do this job.**
● **While you are replacing a bulb, be absolutely sure to keep the dome light switch at OFF. Otherwise, you may burn yourself.**
● **The bulb is very hot to the touch while it is lighted and immediately after it has gone off. Before attempting to replace it, turn the domelight switch off, wait several minutes and then check that it cooled off.**
● **Use a bulb with the specified ratings (12 V/5 W). Do not use any other bulb.**
● **Gripping the bulb with too much force may break it. Wear fingerstalls or use some other anti-slip method when replacing it.**

Note:
● Be careful not to scratch the surface of the front cover when attaching it.

Troubleshooting

WARNING:
- **Do not use the product when it is broken or there is some abnormality.**
  In the unlikely event that the product breaks (such as when no image is displayed or there is no sound) or there is some abnormality (such as when a foreign object is inside the product, water was spilled on it, smoke comes out or the product makes a strange smell), immediately stop using the product and be sure to contact the store from which you purchased your product or a nearby Panasonic Servicenter. Continuing to use the product in that condition could cause accidents, fire or electrical shock.

Preliminary Steps

Check and take steps as described in the tables below.

If You Suspect Something Wrong

Immediately switch the power off.
Disconnect the power connector and check that there is neither smoke nor heat from the unit before asking for repairs. Never try to repair the unit by yourself because it is dangerous to do so.

Troubleshooting Tips

Common

Problem	Possible cause	Possible solution
No power to the unit.	MAIN POWER switch is set to OFF.	**Switch MAIN POWER to ON.**
	The power cord (battery, ACC and ground) is connected in the wrong way.	**Check the wiring.**
	Fuse blow out.	**Eliminate the cause of fuse blow out and replace the fuse with new one. Consult your dealer.**
Sound is not generated.	The volume on the headphones is adjusted to zero.	**Raise the volume on the headphones.**
	Cables are not correctly connected.	**Connect cables correctly.**
	The power of headphones is set to OFF.	**Switch the power of headphones to ON.**
	The batteries of the IR wireless headphones have run down.	**Replace the batteries.**

Common (continued)

Problem	Possible cause	Possible solution
Noise	There is an electromagnetic-wave generator such as a cellular phone near the unit or its electrical lines.	**Keep an electromagnetic-wave generator such as a cellular phone away from the unit and the wiring of the unit. In case the noise cannot be eliminated due to the wiring harness of the car, consult your dealer.**
	The contact of the ground lead is poor.	**Make sure that the ground lead is securely connected to an unpainted part of the chassis.**
	The headphones are too far from this unit.	**Use the headphones within a distance of 2.5 m from the unit.**
	The path between the unit and headphones is obstructed by something.	**When using the headphones, remove any obstacles that obstruct the path between the headphones and unit.**
	The batteries of the IR wireless headphones have run down.	**Replace the batteries.**
Noise is made in step with engine revolutions.	Alternator noise comes from the car.	**Change the wiring position of the ground lead.**
		Mount a noise filter on the power supply.

Monitor

Problem	Possible cause	Possible solution
The tilt angle or the lateral angle of the display is not adjustable.	There is an obstacle.	**Install the unit where the unit moves freely.**

Dome light

Problem	Possible cause	Possible solution
Dome lights do not come on.	The wires are not connected properly.	**For the wiring connections of the dome lights, consult a specialized contractor or your dealer where you purchased the unit.**
	The dome light switch is at the OFF position.	**Set it to the ON position.**

CY-VHD9500U

CY-VHD9500U

Troubleshooting (continued)

DVD video/Video CD/CD/MP3

Problem	Possible cause	Possible solution
No playback	The disc is inserted upside down.	Insert a disc correctly.
	There is a flaw or foreign objects on the disc.	Remove the foreign objects, or use a flawless disc.
	The disc has unplayable formatted data.	Refer to "Notes on MP3" (page 62).
	The unit plays back the ROM track of a mix mode CD.	Skip the ROM track.
	A disc that cannot be played back on this unit is inserted.	This unit can only play the following types of discs: DVD video, Video CD, CD, CD-DA data recorded CD-R or CD-RW, and MP3 data recorded CD media (CD-ROM, CD-R, CD-RW).
The CD-R/RWs that are playable on other devices are not playable on this unit.	The playability of some CD-R/RWs may depend on the combination of media, recording software and recorder to be used even if these CD-R/RWs are playable on other devices such as a personal computer.	Make CD-R/RWs in different combination of media, recording software and recorder after referring to the description about MP3.
Sound skipping or noise	There is a flaw or foreign objects on the disc.	Remove the foreign objects, or use a flawless disc. For MP3, refer to "Notes on MP3" (page 62).
Sound skipping due to vibration	The unit is not sufficiently secured.	Mount the unit securely with the mounting parts, referring to the installation instructions.
Disc unejectable	Something such as a peeled label prevents the disc from coming out.	Press [⏏] (eject). If failure persists, press the reset switch (page 92). If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Servicenter.
	The microcontroller in the unit operates abnormally due to noise or other factors.	Unplug the power cord and plug it again. In case the unit is still out of order, consult the dealer.
The buttons do not work.	Some operations are not permitted with certain discs.	Refer to the guide provided with your disc.

DVD video

Problem	Possible cause	Possible solution
Cannot switch the audio language/subtitle language/angle.	It is not possible to switch if the disc does not have multiple audio languages/subtitle languages/angles recorded on it.	Refer to the guide provided with your disc.
	Some discs permit switching through a menu screen.	
	Sometimes, switching angles is possible only with certain scenes.	
The picture does not appear on the monitor.	Cables are not correctly connected.	Connect cables correctly.
It is difficult to hear quiet sound (Dolby digital DVD software only)	D.Range Compression is set to "OFF" or "Standard".	Set "D.Range Compression" to "Minimum".

CD

Problem	Possible cause	Possible solution
CD-text is not displayed normally.	Disc is dirty, or has scratches.	Clean the disc, referring to the section on "Notes on Discs/Cards" (page 94).

SD card

Problem	Possible cause	Possible solution
The file recorded on SD is not displayed.	Some files are not compatible with this unit and cannot be played back.	Check the recorded file.
Picture distorted.	Picture quality may worsen or some frames may be skipped when viewing MPEG4, but this is normal.	This is not a problem.
Distorted sound.	There may be some noise output when playing MPEG4 and VOICE files, but this is normal.	This is not a problem.
The display does not appear.	DISPLAY setting on the VOICE mode screen is set to OFF.	Set DISPLAY setting to ON (page 75).

Troubleshooting (continued)

VCR, Camcorder, etc.

Problem	Possible cause	Possible solution
The picture from a VCR or a camcorder is not displayed.	A VCR or Camcorder is not connected correctly.	**Connect a VCR or Camcorder correctly.**

Display settings

Problem	Possible cause	Possible solution
The picture is dark. The picture is whitish. Something is wrong with the picture. The picture is light in color.	The screen is not adjusted properly.	**Make every adjustment of the screen.**
Red, blue, or green spots appears.	This is a characteristic of liquid crystal panels.	**This is not a problem (page 10).**

Remote Control Unit

Problem	Possible cause	Possible solution
No response to pressing buttons	The battery is inserted in the wrong direction. A wrong battery is inserted.	**Insert a correct battery in the correct direction.**
	The lithium battery is weak.	**Replace the battery with new one.**
	The aiming direction of the remote control unit is wrong.	**Aim the remote control unit at the sensor of the unit and press buttons.**
	The sensor is exposed to direct sunlight. (The remote control unit may not be operable when the sensor is exposed to direct sunlight. In such a case, the system is not faulty.)	**Block off sunlight to the sensor.**

Error Display Messages

DVD video/Video CD/CD/MP3

Display	Possible cause	Possible solution
Playback Error Please eject.	Disc is dirty, scratched or upside down.	**Check the disc.**
	A CD that has data other than CD-DA or MP3 type is loaded.	**Check the disc.**
	An attempt was made to play a PAL disc.	**Eject the disc.**
This type of disc cannot be played. Please eject.	Disc is dirty, scratched or upside down.	**Check the disc.**
	A CD that has data other than CD-DA or MP3 type is loaded.	**Check the disc.**
	An attempt was made to play a PAL disc.	**Eject the disc.**
	The unit for some reason cannot read the file you are trying to play. (File recorded in an unsupported file system, compression scheme, data format, file name extension, damaged data, etc.)	**Select a file that the unit can read. Confirm the type of data recorded on the disc. Create a new disc if necessary.**
Mechanical Error Please eject.	The unit will not operate for some reason.	**Eject the disc. If the disc does not eject when you press [▲], then press the reset switch (page 92). If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Servicenter.**
This disc may not be played in your region. Please eject.	An attempt was made to play a disc with a region number that was not "1" or "ALL".	**Eject the disc.**

Troubleshooting (continued)

Error Display Messages (continued)

SD card

Display	Possible cause	Possible solution
NO CARD	No card is in the main unit.	**Insert the SD CARD into the SD card slot.**
NO FILE	Data the unit can play is not recorded on the card.	**Check the SD card. For details, refer to "Notes on SD Cards" (page 66). Be absolutely sure to use SD-Jukebox to create music files.**
NO FILE	The wrong mode has been selected (example: the MPEG4 mode has been selected even though Still pictures are to be played).	**Check whether the proper mode to be played has been selected.**
X	You are trying to play incompatible or corrupted data. This data cannot be played.	**Check the SD card.**
CHECK CARD	An SD card whose data cannot be played by this unit has been inserted in.	**Check the SD card.**
CHECK CARD	SD card data loading failed.	Remove the SD card, and then insert it in again.

What to do if the product does not operate no matter which button you press
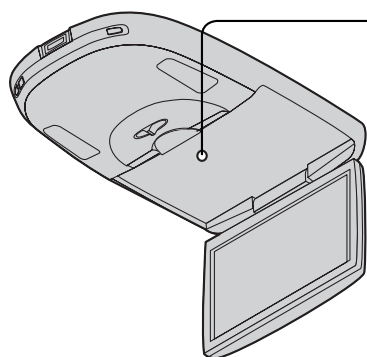
Reset switch
Press this switch with a tough pointed object.

IMPORTANT
Press this switch when any operation buttons do not work. If the product does not become restrored even after pressing the switch, call the nearest Panasonic Servicenter and ask for repairs.

Maintenance

Your product is designed and manufactured to ensure a minimum of maintenance. Use a dry and soft cloth for routine exterior cleaning. Never use benzine, thinner or other solvents.

Product Servicing

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicenter. The product should be serviced only by a qualified technician.

Fuse

Use fuses of the same specified rating (3 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.
If the replacement fuse fails, contact your nearest Panasonic Servicenter for service.

Notes on Discs/Cards

Notes on CD-Rs/RWs

- You may have trouble playing back some CD-R/RW discs recorded on CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints, scratches, etc. on the disc surface.
- CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a car for extended periods may damage them and make playback impossible.
- Some CD-R/RWs cannot be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs.
- This player cannot play the CD-R/RW discs if the session is not closed.
- This player cannot play the CD-R/RW discs which contain data other than CD-DA or MP3 data.
- Be sure to observe the instructions of CD-R/RW disc for handling it.

Maintenance

How to hold the disc or card
- Do not touch the play surface or the terminal surface.
- Do not scratch the disc or card.
- Do not bend the disc or card.
- When not in use, keep the disc or card in the case.

Label side

Do not use discs that fit any of the descriptions given below. Using these discs may damage the discs or cause the unit to malfunction.

Special discs in a shape which is not round

Discs with adhered labels, etc. on them

Disc with adhered stickers or tape

Labels created by a printer

Protective films or sheets

Disc accessories (stabilizers, etc.)

Damaged or deformed discs

Shoddily made discs

Discs with cracks, scratches or parts missing

Discs with burrs

Do not leave discs or cards on the following places:
- Direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- Seats and dashboards

Disc cleaning
Use a dry, soft cloth to wipe from the center outward.

<Correct>   <Wrong>
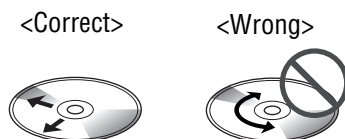
Do not attach any seals or labels to your discs.

Do not detach the label and do not attach other labels to the card.

Do not write anything on the disc label with a pointed pen or hard-point pen.

When inserting a disc into or ejecting and removing it from the unit, insert it straight in or eject and remove it straight out in parallel with the unit. Otherwise, the disc may be scratched or marked in the process.

SD card precautions
- Do not leave the SD cards where they will become hot or exposed to direct sunlight or where electromagnetic waves or static occurs readily. Failure to heed this precaution may cause the cards to be damaged or their data to be lost.
- Keep the terminal area on the back of the cards free from dirt, water and foreign matter. Do not touch this area with your hands or any other objects.
- Static or malfunctioning of the unit or the cards may cause the cards to be damaged or their data to be lost. It is recommended that valuable data be stored on the PC as well.

Language Code List

Definition of Terms

In "Other" cases (Menu Language, Subtitle Language, Audio Langage) (page 80)

❶ **Input the four digit language code by pressing the buttons [0] to [9] on the remote control unit.**

❷ **Press [ENTER] to set.**
- Setting is finished and the display returns to "Main Menu".

The display returns to the previous one when **[RET] (RETURN)** is pressed. (The setting is not reflected.)

Code	Language Name
6565	Afar
6566	Abkhazian
6570	Afrikaans
6577	Ameharic
6582	Arabic
6583	Assamese
6588	Aymara
6590	Azerbaijani
6665	Bashkir
6669	Byelorussian
6671	Bulgarian
6672	Bihari
6678	Bengali; Bangla
6679	Tibetan
6682	Breton
6765	Catalan
6779	Corsican
6783	Czech
6789	Welsh
6865	Danish
6869	German
6890	Bhutani
6976	Greek
6978	English
6979	Esperanto
6983	Spanish
6984	Estonian
6985	Basque
7065	Persian
7073	Finnish
7074	Fiji
7079	Faroese
7082	French
7089	Frisian
7165	Irish
7168	Scots Gaelic
7176	Galician
7178	Guarani
7185	Gujarati
7265	Hausa
7273	Hindi
7282	Croatian

Code	Language Name
7285	Hungarian
7289	Armenian
7365	Interlingua
7378	Indonesian
7383	Icelandic
7384	Italian
7387	Hebrew
7465	Japanese
7473	Yiddish
7487	Javanese
7565	Georgian
7575	Kazakh
7576	Greenlandic
7577	Cambodian
7578	Kannada
7579	Korean
7583	Kashmiri
7585	Kurdish
7589	Kirghiz
7665	Latin
7678	Lingala
7679	Laotian
7684	Lithuanian
7686	Latvian, Lettish
7771	Malagasy
7773	Maori
7775	Macedonian
7776	Malayalam
7778	Mongolian
7779	Moldavian
7782	Marathi
7783	Malay
7784	Maltese
7789	Burmese
7865	Nauru
7869	Nepali
7876	Dutch
7879	Norwegian
7982	Oriya
8065	Punjabi
8076	Polish
8083	Pashto, Pushto

Code	Language Name
8084	Portuguese
8185	Quechua
8277	Rhaeto-Romance
8279	Romanian
8285	Russian
8365	Sanskrit
8368	Sindhi
8372	Serbo-Croatian
8373	Singhalese
8375	Slovak
8376	Slovenian
8377	Samoan
8378	Shona
8379	Somali
8381	Albanian
8382	Serbian
8385	Sundanese
8386	Swedish
8387	Swahili
8465	Tamil
8469	Telugu
8471	Tajik
8472	Thai
8473	Tigrinya
8475	Turkmen
8476	Tagalog
8479	Tonga
8482	Turkish
8484	Tatar
8487	Twi
8575	Ukrainian
8582	Urdu
8590	Uzbek
8673	Vietnamese
8679	Volapük
8779	Wolof
8872	Xhosa
8979	Yoruba
9072	Chinese
9085	Zulu

Digital audio output connector (Optical)
The digital audio output connector (optical) converts electrical signals into optical signals and transfers them to the amplifier. Consequently, it has a number of features including its immunity from electrical interference from external sources and its ability to prevent the generation of noise and its minimal effect on the external environment.

Dolby Digital
Dolby Digital is a technology developed by Dolby Laboratories.
Soundtracks encoded in Dolby Digital can reproduce from one to 5.1 discrete channels of excellent quality audio.

Interactive DVD
An interactive DVD is DVD software which includes multiple angles, multiple plot endings, etc.

Letterbox screen
This refers to a screen on which the playback picture of wide-screen DVDs or Video CDs appears with black bands running along the top and bottom.

Linear PCM audio (LPCM)
This refers to a signal recording format used in CDs. While CDs are recorded in 44.1 kHz/16 bit, DVDs are recorded in 48 kHz/16 bit up to 96 kHz/24 bit, thus achieving higher quality audio than that of CDs.

MPEG (Moving Picture Experts Group)
MPEG, which stands for Moving Picture Experts Group, is the name of family of standards used for coding audio-visual information (e.g., movies, video, music) in a digital compressed format. MPEG 1 is applied to Video CDs, MPEG 2 to DVD video and MPEG 4 targets telecommunications, such as mobile phones and the internet, and is capable of transferring video images at high speed and with a lower volume of data.

Pan & Scan screen
This refers to a screen on which the playback picture of wide-screen DVDs or Video CDs is cut off at the left and right sides.
.

Playback control (Video CD)
If the Video CD has "With Playback Control" or others written on the disc surface or on the jacket, the scenes or information to be viewed (or listened to) can be selected interactively with the screen by looking at the menu shown on the screen.
In these instructions, playback using the menu screen is referred to as the "menu play" for video CDs. This player supports Video CDs with playback control.

SD memory card
The SD is a compact memory card that can hold many kinds of data including video, music and photos. More than 520 companies worldwide support the SD standard. It is becoming popular as a bridge medium that lets different types of devices share data.

Title, Chapter (DVD)
DVDs are divided into some large sections (titles) or some small sections (chapters). Each section is numbered; these numbers are called "Title number" or "Chapter number".

Title 1			Title 2	
Chapter 1	Chapter 2	....	Chapter 1	....

Track (Video CD/CD)
Video CDs or CDs are divided into some sections (tracks). Each section is numbered; these numbers are called "Track number".

Track 1	Track 2	Track 3	....

After-sales Service for Products

(U.S.A)

Customer Services Directory

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact: 1-800-211-PANA (7262), Monday-Friday 9 am-9 pm; Saturaday-Sunday 9 am-7 pm, EST. or send e-mail: consumerproducts@panasonic.com For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Web Site: http://www.panasonic.com You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Accessory Purchases:

1-800-332-5368 (Customer Orders Only) For hearing or speech impaired TTY users, TTY : 1-866-605-1277 Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032 (6 am to 5 pm Monday - Friday; 6 am to 10:30 am Saturday; PST) (Visa, MasterCard, Discover Card, American Express, Check)

Service in Puerto Rico Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/ Factory Servicenter: Ave. 65 de infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985 Phone (787)750-4300   Fax (787)768-2910

(CANADA)

WARRANTY SERVICE

For product operation and information assistance, please contact your Dealer or our Customer Care Centre at:
Telephone #: (905) 624-5505   Fax#: (905) 238-2360   Web: www.panasonic.ca

For product repairs, please contact one of the following:
* Your Dealer who will inform you of an authorized Servicentre nearest you.
* Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca
* A Panasonic Factory Servicentre listed below:

Richmond British Columbia	Calgary, Alberta	Mississauga, Ontario	Lachine, Quebec
Panasonic Canada Inc.	Panasonic Canada Inc.	Panasonic Canada Inc.	Panasonic Canada Inc.
12111 Riverside Way	6835-8th St. N. E.	5770 Ambler Dr.	3075, rue Louis A. Amos
Richmond, BC V6W 1K8	Calgary, AB T2E 7H7	Mississauga, ON L4W 2T3	Lachine, QC H8T 1C4
Tel: (604) 278-4211	Tel: (403) 295-3955	Tel: (905) 624-8447	Tel: (514) 633-8684
Fax: (604) 278-5627	Fax: (403) 274-5493	Fax: (905) 238-2418	Fax: (514) 633-8020

Specifications

Overall System

General

Power supply:	DC 12 V (11 V–16 V), test voltage 14.4 V, negative ground
Current consumption:	Less than 2.0 A (without dome light)
Usage temperature range:	32 ˚F to 104 ˚F (0 ˚C to 40 ˚C)
Storage temperature range:	–4 ˚F to 176 ˚F (–20 ˚C to 80 ˚C)
Bulbs for dome light:	DC 12 V, 5 W 2 pieces
Video input signal:	Composite Video Signal 1.0 Vp-p (75 Ω)
Video output signal:	Composite Video Signal 1.0 Vp-p (75 Ω)

Video section

Signal format:	NTSC (Standard signal format in U.S. and Japan)
Video output:	75 Ω, 1 Vp-p
Region number:	1 and ALL

Laser products
Wave length: 650 nm
Laser power: No hazardous radiation is emitted with safety protection.

Digital audio output:

Disc	Sound recording format	Optical digital audio output from connector
DVD video	Dolby Digital	Dolby Digital bitstream (1–5.1 ch)
	DTS*	DTS bitstream (1–5.1 ch) (The analog portion is not output.)
	Linear PCM (48 kHz 16/20/24 bit)	Linear PCM (2 ch) (48 kHz sampling/16 bit only)
Video CD	MPEG 1	MPEG 1 bitstream
	Linear PCM	Linear PCM (2 ch) (44.1 kHz sampling/16 bit)
CD	Linear PCM	Linear PCM (2 ch) (44.1 kHz sampling/16 bit)
	DTS*	DTS bitstream (1–5.1 ch) (The analog portion is not output.)
MP3	MP3	Linear PCM (2 ch) (32 kHz/44.1 kHz/48 kHz sampling/16 bit)

*DTS only works with optical outputs.

Disc played:

(1) DVD video disc	5″ (12 cm) single-sided, single-layer/double layer 5″ (12 cm) double-sided, single-layer/double-layer
(2) Compact disc (CD-DA, Video CD, CD-R, CD-RW)	5″ (12 cm) disc

Audio section

Audio input sensitivity:	2.0 Vrms (VTR1, VTR2)
Pre-amp output voltage:	1.8 Vrms
Pre-amp output impedance:	600 Ω
Output voltage/ impedance:	1.8 Vrms/600 Ω

Audio signal output characteristics:

(1) Frequency response:	20 Hz–20 kHz (CD) 20 Hz–22 kHz (DVD video 48 kHz sampling) 20 Hz–44 kHz (DVD video 96 kHz sampling)
(2) S/N ratio:	95 dB (IHF, A)
(3) Wow and flutter:	Below measurable limits

SD played:

Media:	SD Memory Card
Image:	JPEG
Video:	MPEG
Voice:	G.726
Audio:	MPEG2-AAC, MP3 (Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz)

Display Unit

Liquid crystal panel:	9″

Screen dimensions:

Width:	$7^{13}/_{16}$″(198 mm)
Height:	$4^{7}/_{16}$″ (112 mm)
Diagonal:	$8^{15}/_{16}$″ (227 mm)
Number of pixels:	336 960 pixels (234 vertical× 480 horizontal×3)
Display method:	RGB vertical stripe
Drive method:	a-SiTFT active matrix format
Light source:	3-wavelength straight cold-cathode tube/edge light
Dimensions (W×H×D):	$14^{13}/_{16}$″×$9^{7}/_{8}$″×$2^{1}/_{4}$″ (375×250×56 mm)
Weight:	6 lbs. 10 oz (3.0 kg)

IR Wireless Headphones

Type:	Open-air dynamic stereo headphones
Unit:	$1^{5}/_{8}$″ (40 mm) diameter
Power supply:	DC 3 V (Two R03, AAA, UM-4 batteries)
Dimensions (W×H×D):	(When the unit is extended maximally) $7^{1}/_{8}$″×$8^{3}/_{4}$″×$3^{3}/_{16}$″ (180×205×80 mm)
Weight:	7 oz. (210 g) (including batteries)

Above specifications comply with EIA standards.

Note:
● Specifications and design are subject to modification without notice due to improvements.

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