

Operation Manual

DVD AV Receiver

AVH-P4900DVD

SUPER  **TUNER III** **D**

English

Thank you for buying this Pioneer product.

Please read through these operating instructions so you will know how to operate your model properly. *After you have finished reading the instructions, keep this manual in a safe place for future reference.*



Be sure to read this

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Precautions

IMPORTANT SAFEGUARDS

Please read all of these instructions regarding your display and retain them for future reference.

- 1 **Read this manual fully and carefully before operating your display.**
- 2 **Keep this manual handy as a reference for operating procedures and safety information.**
- 3 **Pay close attention to all warnings in this manual and follow the instructions carefully.**
- 4 **Do not allow other persons to use this system until they have read and understood the operating instructions.**
- 5 **Do not install the display where it may (i) obstruct the driver's vision, (ii) impair the performance of any of the vehicle's operating systems or safety features, including air bags, hazard lamp buttons or (iii) impair the driver's ability to safely operate the vehicle.**
- 6 **Do not operate this display if doing so in any way will divert your attention from the safe operation of your vehicle. Always observe safe driving rules and follow all existing traffic regulations. If you experience difficulty in operating the system or reading the display, park your vehicle in a safe location and make necessary adjustments.**
- 7 **Please remember to wear your seat belt at all times while operating your vehicle. If you are ever in an accident, your injuries can be considerably more severe if your seat belt is not properly buckled.**
- 8 **Never use headphones while driving.**
- 9 **To promote safety, certain functions are disabled unless the parking brake is on, and the vehicle is not in motion.**
- 10 **Never set the volume of your display so high that you cannot hear outside traffic and emergency vehicles.**

WARNING

- **Do not attempt to install or service your display by yourself. Installation or servicing of the display by persons without training and experience in electronic equipment and automotive accessories may be dangerous and could expose you to the risk of electric shock or other hazards.** 

To ensure safe driving


WARNING

- **LIGHT GREEN LEAD AT POWER CONNECTOR IS DESIGNED TO DETECT PARKED STATUS AND MUST BE CONNECTED TO THE POWER SUPPLY SIDE OF THE PARKING BRAKE SWITCH. IMPROPER CONNECTION OR USE OF THIS LEAD MAY VIOLATE APPLICABLE LAW AND MAY RESULT IN SERIOUS INJURY OR DAMAGE.**
- To avoid the risk of damage and injury and the potential violation of applicable laws, this unit is not for use with a video screen that is visible to the driver.
- To avoid the risk of accident and the potential violation of applicable laws, the front DVD or TV (sold separately) feature should never be used while the vehicle is being driven. Also, rear displays should not be in a location where it is a visible distraction to the driver.
- In some countries or states the viewing of images on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed and this unit's DVD features should not be used.

When you attempt to watch a DVD, Video CD or TV while driving, the warning **VIDEO VIEWING IS NOT AVAILABLE WHILE DRIVING** will appear on the front display.

To watch a DVD, Video CD or TV on the front display, park your vehicle in a safe place and apply the parking brake.

Parking brake interlock

Certain functions (DVD/TV viewing and certain touch panel keys) offered by this unit could be dangerous and/or unlawful if used while driving. To prevent such functions from being used while the vehicle is in motion, there is an interlock system that senses when the parking brake is set. If you attempt to use the functions described above while driving, they will be come disabled until you stop the vehicle in a safe place, and (1) apply the parking brake, (2) release the parking brake, and then (3) apply the parking brake again. Please keep the brake pedal pushed down before releasing the parking brake. 


To avoid battery exhaustion

Be sure to run the vehicle engine while using this unit. Using this unit without running the engine can result in battery drainage.

- When no power is supplied to this unit because of a replacement of the vehicle battery or for some similar reason, the microcomputer of this unit is returned to its initial condition except audio settings. Although audio adjustment information is stored in this unit for several hours, we recommend that you transcribe the data.



WARNING

Do not use with vehicles that do not feature an ACC position. 

Before You Start

Information to User

Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.



For Canadian model

This Class B digital apparatus complies with Canadian ICES 003.



About this unit

The tuner frequencies on this unit are allocated for use in North America. Use in other areas may result in poor reception.

WARNING

Handling the cord on this product or cords associated with accessories sold with the product may expose you to chemicals listed on proposition 65 known to the State of California and other governmental entities to cause cancer and birth defects or other reproductive harm. ***Wash hands after handling.***

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

CAUTION:
USE OF CONTROL OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION:
THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

CAUTION

- Do not allow this unit to come into contact with liquids. Electrical shock could result. Also, this unit damage, smoke, and overheat could result from contact with liquids.
- Keep this manual handy as a reference for operating procedures and precautions.
- Always keep the volume low enough so that you can hear sounds from outside the vehicle.
- Protect this unit from moisture.
- If the battery is disconnected or discharged, the preset memory will be erased and must be reprogrammed.

Important (Serial number)

The serial number is located on the bottom of this unit. For your own security and convenience, be sure to record this number on the enclosed warranty card.

Playable discs

DVD, Video CD and CD discs that display the logos shown below can be played back on this player.

DVD video**Video CD****CD**
 **Notes**


- **DVD** is a trademark of DVD Format/Logo Licensing Corporation.
- This player can only play back discs bearing the marks shown above.

DVD video disc region numbers

DVD video discs that have incompatible region numbers cannot be played on this player. The region number of the player can be found on the bottom of this unit.

The illustration below shows the regions and corresponding region numbers.

**About this manual**

This unit features a number of sophisticated functions ensuring superior reception and operation. All the functions have been designed for the easiest possible use, but many are not self explanatory. This operation manual will help you benefit fully from this unit's potential and to maximize your listening enjoyment. We recommend that you familiarize yourself with the functions and their operation by reading through the manual before you begin using this unit. It is especially important that you read and observe **WARNINGs** and **CAUTIONs** in this manual. 

After-sales service for Pioneer products

Please contact the dealer or distributor from where you purchased this unit for after sales service (including warranty conditions) or any other information. In case the necessary information is not available, please contact the companies listed below:

Please do not ship your unit to the companies at the addresses listed below for repair without advance contact.


Before You Start

U.S.A.

Pioneer Electronics (USA) Inc.
CUSTOMER SUPPORT DIVISION
P.O. Box 1760
Long Beach, CA 90801 1760
800 421 1404

CANADA


Pioneer Electronics of Canada, Inc.
CUSTOMER SATISFACTION DEPARTMENT
300 Allstate Parkway
Markham, Ontario L3R 0P2
1 877 283 5901

For warranty information please see the Limited Warranty sheet included with this unit. 

Visit our website

Visit us at the following site:


<http://www.pioneerelectronics.com>

- 1 Register your product. We will keep the details of your purchase on file to help you refer to this information in the event of an insurance claim such as loss or theft.
- 2 Receive updates on the latest products and technologies.
- 3 Download owner's manuals, order product catalogues, research new products, and much more. 

Features

Touch panel key operation

It is possible to operate this unit by using touch panel key.

DVD video playback

It is possible to play back DVD video and DVD R/RW (video mode).

Remember that use of this system for commercial or public viewing purposes may constitute an infringement on the author's rights protected by the Copyright Law.

Video CDs featuring PBC compatibility

It is possible to play back Video CDs featuring PBC (playback control).

CD playback

Music CD/CD R/RW playback is possible.

MP3 file playback

You can play back MP3 files recorded on CD ROM/CD R/CD RW (ISO9660 Level 1/Level 2 standard recordings).

- Supply of this product only conveys a license for private, non commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue generating) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via internet, intranets and/or other networks or in other electronic content distribution systems, such as pay audio or audio on demand applications. An independent license for such use is required. For details, please visit <http://www.mp3licensing.com>.

WMA file playback

You can play back WMA files recorded on CD ROM/CD R/CD RW (ISO9660 Level 1/Level 2 standard recordings).

NTSC compatibility

This unit is NTSC system compatible. When connecting other components to this unit, be sure components are compatible with the same video system otherwise images will not be correctly reproduced.

Dolby Digital/DTS compatibility

When using this unit with a Pioneer multi channel processor, you can enjoy the atmosphere and excitement provided by DVD movie and music software featuring 5.1 channel recordings.

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



- "DTS" and "DTS Digital Out" are registered trademarks of DTS, Inc.



iPod® compatibility

When you use this unit with a Pioneer iPod adapter (CD IB100II) (sold separately), you can control an iPod with Dock Connector.

- iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

Multi-aspect

Switching between wide screen, letterbox and panscan display is possible.

Multi-audio

You can switch between multiple audio systems recorded on a DVD as desired.

Multi-subtitle

You can switch between multiple subtitle languages recorded on a DVD as desired.

Multi-angle

You can switch between multiple viewing angles of a scene recorded on a DVD as desired.



Note

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

About WMA



The Windows Media™ logo printed on the box indicates that this unit can play back WMA data.


WMA is short for Windows Media Audio and refers to an audio compression technology that is developed by Microsoft Corporation. WMA data can be encoded by using Windows Media Player version 7 or later. Windows Media and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.



Notes

- This unit may not operate correctly depending on the application used to encode WMA files.

Before You Start


- Depending on the version of Windows Media Player used to encode WMA files, album names and other text information may not be correctly displayed. 

About the SAT RADIO READY mark



The SAT RADIO READY mark printed on the front panel indicates that the Satellite Radio Tuner for Pioneer (i.e., XM tuner and Sirius satellite tuner which are sold separately) can be controlled by this unit. Please inquire to your dealer or nearest authorized Pioneer service station regarding the satellite radio tuner that can be connected to this unit. For satellite radio tuner operation, please refer to the satellite radio tuner owner's manual.


Notes

- The system will use direct satellite to receiver broadcasting technology to provide listeners in their cars and at home with crystal clear sound seamlessly from coast to coast. Satellite radio will create and package over 100 channels of digital quality music, news, sports, talk and children's programming.
- "SAT Radio", the SAT Radio logo and all related marks are trademarks of Sirius Satellite Radio inc., and XM Satellite Radio Inc. 


To protect the LCD screen

- Do not allow direct sunlight to fall on the display when this unit is not being used. Extended exposure to direct sunlight can

result in LCD screen malfunction due to the resulting high temperatures.






- When using a cellular phone, keep the antenna of the cellular phone away from the display to prevent disruption of the video by the appearance of spots, colored stripes, etc. 

For viewing LCD comfortably

Due to its construction, the view angle of the LCD screen is limited. The viewing angle (vertical and horizontal) can be increased, however, by using **BRIGHT** to adjust the black density of the video. When using for the first time, adjust the black density in accordance with the viewing angle (vertical and horizontal) to adjust for clear viewing. **DIMMER** can also be used to adjust the brightness of the LCD screen itself to suit your personal preference. 


What the marks on DVDs indicate



The marks below may be found on DVD disc labels and packages. They indicate the type of images and audio recorded on the disc, and the functions you can use.

Mark	Meaning
	Indicates the number of audio systems.
	Indicates the number of subtitle languages.
	Indicates the number of viewing angles.
	Indicates the picture size (aspect ratio: screen width to height ratio) type.
	Indicates the number of the region where playback is possible.

When an operation is prohibited

When you are watching a DVD and attempt to perform an operation, it may not be performed because of the programming on the disc.

When this happens, the icon  appears on the screen.

- The icon  may not appear with certain discs. 

Protecting your unit from theft

The front panel can be detached to deter theft.

- If the front panel is not detached from the head unit within five seconds of turning off the ignition, a warning tone will sound.
- You can turn off the warning tone. See *Switching the warning tone* on page 39.

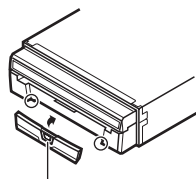
Important

- Handle gently when removing or attaching the front panel.
- Avoid subjecting the front panel to excessive shocks.
- Keep the front panel out of direct sunlight and high temperatures.
- If removed, replace the front panel on the unit before starting up your vehicle.

Removing the front panel


- **Push the release button downward and release the front panel.**

Take care not to grip it too tightly or to drop the front panel and protect it from contact with water or other fluids to prevent permanent damage.



Release button

Attaching the front panel

- **Replace the front panel by holding it upright to the unit and clipping it securely into the mounting hook.** 

Resetting the microprocessor

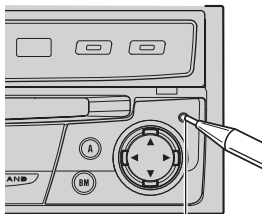
Pressing **RESET** lets you reset the microprocessor to its initial settings.

The microprocessor must be reset under the following conditions:

- Prior to using this unit for the first time after installation
- If the unit fails to operate properly
- When strange or incorrect messages appear on the display

1 Turn the ignition switch OFF.

2 Press **RESET** with a pen tip or other pointed instrument.




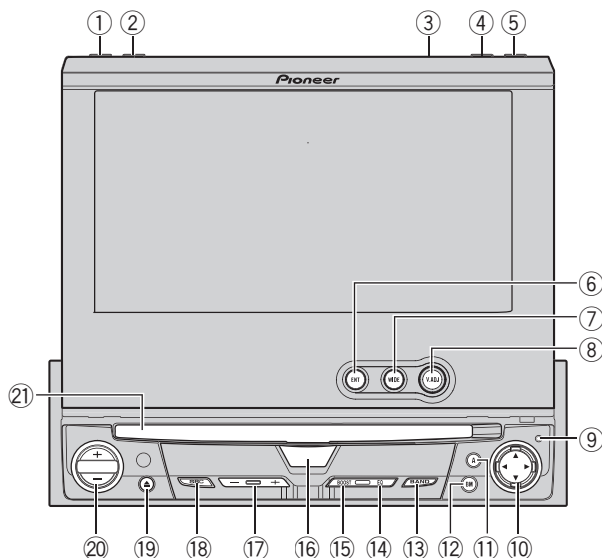
RESET button

Before You Start



Note

After completing connections or when you want to erase all memorized settings or return the unit to its initial (factory) settings, switch your engine ON or set the ignition switch to ACC ON before pressing **RESET**. 



What's What Head unit

- ① **INFO button**
Press to turn the information bar on/off.
- ② **PGM button**
Press to operate the preprogrammed functions for each source. (Refer to *Using the PGM button* on page 44.)
- ③ **Ambient light sensor**
Senses ambient light. This system automatically adjusts the brightness of the display to compensate for ambient light.
- ④ **FLIP DOWN button**
Press to turn the LCD panel horizontal temporarily from upright position.
- ⑤ **OPEN/CLOSE button**
Press to open or close the LCD panel.
- ⑥ **ENTERTAINMENT (ENT) button**
Press to switch between the background displays.
- ⑦ **WIDE button**
Press to select a desired mode for enlarging a 4:3 picture to a 16:9 one.
- ⑧ **V.ADJ button**
Press and hold to display the picture adjustment menu.
- ⑨ **RESET button**
Press to return to the factory settings (initial settings).
- ⑩ **▲/▼/◀/▶ buttons**
Press to do manual seek tuning, fast forward, reverse and track search controls.
- ⑪ **A.MENU button**
Press to display **MENU**.

Operating this unit

⑫ **BOOKMARK (BM) button**

Press to bookmark a scene that you want to resume playback.

⑬ **BAND/ESC button**

Press to select among three FM bands and one AM band and to cancel the control mode of functions.

⑭ **EQ button**

Press to select various equalizer curves.

⑮ **BOOST button**

Press to boost the subwoofer level. When the separately sold multi channel processor is connected to this unit and the subwoofer is set to ON, press to display the speaker level menu. When it is OFF, press to display the speaker setting menu.

⑯ **Release button**

Press downward to detach the front panel.

⑰ **ANGLE (+/-) button**

Press to change the LCD panel angle.

⑱ **SOURCE button**

This unit is turned on by selecting a source. Press to cycle through all the available sources.

⑲ **EJECT button**

Press to eject a disc from this unit.


⑳ **VOLUME**

Press to increase or decrease the volume.

㉑ **Disc loading slot**

Insert a disc to play.

Optional remote control

The remote control CD R55 is sold separately. For details concerning operations, see the remote control manual. 

Basic Operations

Power ON/OFF

Turning the unit on

- Press **SOURCE** to turn the unit on.

Turning the unit off

- Press **SOURCE** and hold until the unit turns off.
 - When using the touch panel keys, touch the source icon and then touch **OFF**. When the source icon is not displayed, you can display it by touching the screen.

Selecting a source

You can select a source you want to listen to. To switch to the DVD player, load a disc in the unit to switch to **DVD**.

- When using the touch panel keys, touch the source icon and then touch the desired source name.

The source names are displayed and selectable ones are highlighted.

- **DVD** Built in DVD player
- **S-DVD** DVD player/multi DVD player
- **M-CD** Multi CD player
- **TUNER** Tuner
- **TV** Television
- **iPod** iPod
- **EXT-1** External unit 1
- **EXT-2** External unit 2
- **AUX** AUX
- **AV** AV input
- **XM** XM tuner
- **SIRIUS** SIRIUS tuner
- **OFF** Turn the unit off
 - When the source icon is not displayed, you can display it by touching the screen.
 - To return to the playback display, touch **ESC**.

Operating this unit

- When using the buttons, press **SOURCE** to select a source.

Press **SOURCE** repeatedly to switch between the following sources:

XM (XM tuner) **SIRIUS** (SIRIUS tuner)
TUNER (tuner) **TV** (television) **AV** (AV)
DVD (built in DVD player) **S-DVD** (DVD player/multi DVD player) **M-CD** (multi CD player) **iPod** (iPod) **EXT-1** (external unit 1)
EXT-2 (external unit 2) **AUX** (AUX)

Notes

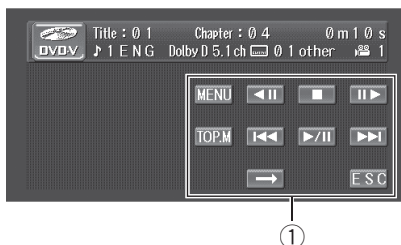
- In the following cases, the sound source will not change:
 - When there is no unit corresponding to the selected source connected to this unit.
 - When there is no disc or magazine in the player.
 - When the AUX (auxiliary input) is set to off (refer to page 39).
 - When the AV (AV input) is not set to **VIDEO** (refer to page 41).
- External unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this unit. Two external units can be controlled by this unit. When two external units are connected, the allocation of them to external unit 1 or external unit 2 is automatically set by this unit.
- When this unit's blue/white lead is connected to the vehicle's auto antenna relay control terminal, the vehicle's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off.

Adjusting the volume

- **Use VOLUME to adjust the sound level.**
 Press **VOLUME** up/+ or down/ to increase or decrease the source volume.

Touch panel key basic operation

Activating the touch panel keys



- ① Touch panel keys
 Touch to do various operations.

1 Touch the screen to activate the touch panel keys corresponding to each source.

The touch panel keys appear on the display.

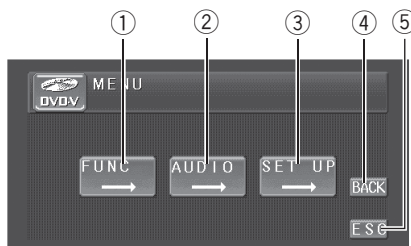
- To go to the next group of touch panel keys, touch →.

2 Touch ESC to hide the touch panel keys.

Note

If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.

Operating the menu



- ① **FUNCTION** key
 Touch to select functions for each source.
- ② **AUDIO** key
 Touch to select various sound quality controls.
- ③ **SETUP** key

Operating this unit

Touch to select various setup functions.

- ④ **BACK** key
Touch to return to the previous display.
- ⑤ **ESC** key
Touch to cancel the control mode of functions.

1 Press A.MENU button to display MENU.
MENU appears on the display.

2 Touch the desired key to display the function names you want to operate.

- To go to the next group of function names, touch **NEXT**.
- To return to the previous group of function names, touch **PREV**.

3 Touch ESC to return to the display of each source.

Note

If you do not operate the function within about 30 seconds, the display is automatically returned to the playback display.

Opening and closing the LCD panel

The LCD panel will be opened or closed automatically with the turning of the ignition switch on or off. You can turn off the automatic close/open function. (Refer to page 42.)

- Do not close the LCD panel with hands by force. That cause malfunction.
- The automatic close/open function will operate the display as follows.

When the ignition switch is turned OFF while the LCD panel is opened, the LCD panel will close after six seconds.

When the ignition switch is turned ON again (or turned to ACC), the LCD panel will be opened automatically.

Removing or attaching the front panel will automatically close or open the LCD panel. (Refer to page 10.)

- When the ignition switch is turned OFF after the LCD panel has been closed, turning the ignition switch ON again (or turning it to ACC) will not open the LCD panel. In this case, press **OPEN/CLOSE** to open the LCD panel.
- When closing the LCD panel, check to make sure that it has closed completely. If the LCD panel has stopped halfway, leaving it like this could result in damage.

CAUTION

Keep hands and fingers clear of the unit when opening, closing, or adjusting the LCD panel. Be especially cautious of children's hands and fingers.

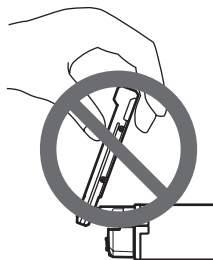
- **Press OPEN/CLOSE to open the LCD panel.**

- To close the LCD panel, press **OPEN/CLOSE** again.

Adjusting the LCD panel angle

Important

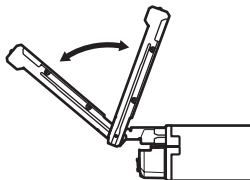
- If you can hear the LCD panel knocking against your vehicle's console or dashboard, press **ANGLE (-)** to move the LCD panel a little forward.
- When adjusting the LCD panel angle, be sure to press **ANGLE (+/-)**. Forcibly adjusting the LCD panel by hand may damage it.



Operating this unit

- **Press ANGLE (+/-) to adjust the LCD panel to an easily viewable angle.**

The LCD panel angle continues changing as long as you press **ANGLE (+/-)** and hold.



- The adjusted LCD panel angle will be memorized and automatically returned to the next time the LCD panel is opened.

Turning the LCD panel horizontal

When the LCD panel is upright and it hinders the operation of the air conditioner, the panel can be turned horizontal temporarily.

- **Press FLIP DOWN to turn the LCD panel horizontal.**

- To return to original position, press **FLIP DOWN** again.
- The LCD panel returns to the original position automatically with beeping sound 10 seconds after operation.

Changing the wide screen mode

You can select a desired mode for enlarging a 4:3 picture to a 16:9 one.

- **Press WIDE to select the desired setting.**

Press **WIDE** repeatedly to switch between the following settings:

FULL (full) **JUST** (just) **CINEMA** (cinema)
ZOOM (zoom) **NORMAL** (normal)

FULL (full)

A 4:3 picture is enlarged in the horizontal direction only, giving you a 4:3 TV picture (normal picture) without any omissions.

JUST (just)

The picture is enlarged slightly at the center and the amount of enlargement increases horizontally to the ends, enabling you to enjoy a 4:3 picture without sensing any disparity even on a wide screen.

CINEMA (cinema)

The picture is enlarged by the same proportion as **FULL** or **ZOOM** in the horizontal direction and by an intermediate proportion between **FULL** and **ZOOM** in the vertical direction; ideal for a cinema sized picture (wide screen picture) where captions lie outside.

ZOOM (zoom)

A 4:3 picture is enlarged in the same proportion both vertically and horizontally; ideal for a cinema sized picture (wide screen picture).

NORMAL (normal)

A 4:3 picture is displayed as it is, giving you no sense of disparity since its proportions are the same as that of the normal picture.



Notes

- Different settings can be memorized for each video source.
- When video is viewed in a wide screen mode that does not match its original aspect ratio, it may appear different.
- Remember that using the wide mode feature of this system for commercial or public viewing purposes may constitute an infringement on the author's rights protected by the Copyright Law.
- Video will appear grainy when viewed in **CINEMA** or **ZOOM** mode.

Operating this unit

Changing the picture adjustment

You can adjust **BRIGHT** (brightness), **CONTRAST** (contrast), **COLOR** (color) and **HUE** (hue) for each source and rear view camera.

- The adjustments of **BRIGHT** and **CONTRAST** are stored separately for light ambient (daytime) and dark ambient (night time). A sun ☀ or moon 🌙 is displayed to the left of **BRIGHT** and **CONTRAST**, respectively, as the ambient light sensor determines brightness or darkness.
- You cannot adjust **COLOR** or **HUE** for the audio source.

1 Press V.ADJ and hold to display PICTURE ADJUST.

Press **V.ADJ** until **PICTURE ADJUST** appears in the display.

2 Touch any of the following touch panel keys to select the function to be adjusted.

The adjustment function names are displayed and adjustable ones are highlighted.

- **BRIGHT** Adjust the black intensity
- **CONTRAST** Adjust the contrast
- **COLOR** Adjust the color saturation
- **HUE** Adjust the tone of color (red is emphasized or green is emphasized)
- **DIMMER** Adjust the brightness of display
- **BACK-CAMERA** Switch to the picture adjustment display for the rear view camera
 - You can adjust the picture adjustment for rear view camera only when **B-CAM** is turned on. (Refer to *Setting for rear view camera (back up camera)* on page 41.)
 - With some rear view cameras, picture adjustment may not be possible.

3 Touch ◀ or ▶ to adjust the selected item.

Each time you touch ◀ or ▶ it increases or decreases the level of selected item. +24 to -24

is displayed as the level is increased or decreased.

4 Touch ESC to hide the touch panel keys.

Adjusting the dimmer

The adjustment of **DIMMER** is stored separately for each ambient light; daytime, evening and nighttime. The brightness of LCD screen will be adjusted to optimum level automatically in accordance with the ambient light based on the setting values.

1 Press V.ADJ and hold to display PICTURE ADJUST.

Press **V.ADJ** until **PICTURE ADJUST** appears in the display.

2 Touch DIMMER.

The ambient light level used as the standard for adjusting **DIMMER** appears above the level bar.

- Red sun ☀ Adjust the brightness for bright ambient light (daytime)
- White sun ☼ Adjust the brightness for intermediate brightness (evening)
- Blue moon 🌙 Adjust the brightness for dark ambient light (nighttime)

3 Touch ◀ or ▶ to adjust the brightness.

Each time you touch ◀ or ▶ moves the key towards the left or the right.

The level indicates the brightness of the screen being adjusted. The farther the key moves to the right, the brighter the screen.

4 Touch ESC to hide the touch panel keys.

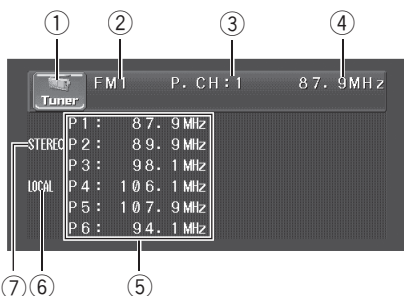


Note

The icons indicating the current ambient brightness used for adjusting **BRIGHT** and **CONTRAST** may differ from **DIMMER** slightly. □

Tuner

Basic Operations



- ① Source icon
- ② Band indicator
- ③ Preset number indicator
- ④ Frequency indicator
- ⑤ Preset list display
- ⑥ **LOCAL** indicator
Shows when local seek tuning is on.
- ⑦ **STEREO** indicator
Shows when the selected frequency is being broadcast in stereo.

1 Touch the source icon and then touch TUNER to select the tuner.

2 Touch the screen to display the touch panel keys.

3 Touch BAND to select a band.

Touch **BAND** until the desired band (**FM1**, **FM2**, **FM3** for FM or **AM**) is displayed.

4 To select a preset channel, touch a preset channel on the list.

The preset channel you selected is tuned in.

- When the list of channels is not displayed, touch **LIST**.

5 To perform manual tuning, briefly touch ◀ or ▶.

The frequencies move up or down step by step.

- You can also perform manual tuning by pressing ◀ or ▶ button.

6 To perform seek tuning, keep touching ◀ or ▶ for about one second and release.

The tuner will scan the frequencies until a broadcast strong enough for good reception is found.

- You can cancel seek tuning by briefly touching either ◀ or ▶.
- If you keep touching ◀ or ▶ you can skip stations. Seek tuning starts as soon as you release the key.
- You can also perform seek tuning by pressing and holding ◀ or ▶ button.



Note

If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.

Storing and recalling broadcast frequencies

You can easily store up to six broadcast frequencies for later recall.

- Up to 18 FM stations, six for each of the three FM bands, and six AM stations can be stored in memory.

● **When you find a frequency that you want to store in memory keep touching one of preset tuning keys P1 to P6 until the preset number stops flashing.**

The number you have touched will flash in the preset number indicator and then remain lit.

The selected radio station frequency has been stored in memory.

Operating this unit

The next time you touch the same preset tuning key the radio station frequency is recalled from memory.

- When the touch panel keys are not displayed, you can display them by touching the screen.
- When **P1** to **P6** are not displayed, you can display them by touching **LIST**.
- You can also use ▲ and ▼ buttons to recall radio station frequencies assigned to preset tuning keys **P1** to **P6**.

You can also use ▲ and ▼ buttons to recall radio station frequencies assigned to preset tuning keys **P1** to **P6**.

Introduction of advanced tuner operation

1 Press A.MENU button to display MENU.
MENU appears on the display.

2 Touch FUNCTION to display the function names.

The function names are displayed and operable ones are highlighted.

- To return to the previous display, touch **BACK**.
- To return to the frequency display, touch **ESC**.
- If you do not operate the function within about 30 seconds, the display is automatically returned to the frequency display.

Storing the strongest broadcast frequencies

BSM (best stations memory) lets you automatically store the six strongest broadcast frequencies under preset tuning keys **P1** to **P6** and once stored there you can tune in to those frequencies with the touch of a key.

- Storing broadcast frequencies with BSM may replace broadcast frequencies you have saved using **P1** to **P6**.

● **Touch BSM on the function menu to turn BSM on.**

BSM begins to flash. While **BSM** is flashing the six strongest broadcast frequencies will be stored under preset tuning keys **P1** to **P6** in order of their signal strength. When finished, **BSM** stops flashing.

- To cancel the storage process, touch **BSM** again.

Tuning in strong signals

Local seek tuning lets you tune in only those radio stations with sufficiently strong signals for good reception.

1 Touch LOCAL on the function menu.

2 Touch ▲ to turn local seek tuning on.

- To turn local seek tuning off, touch ▼.

3 Touch ◀ or ▶ to set the sensitivity.

There are four levels of sensitivity for FM and two levels for AM:

FM: **1 2 3 4**

AM: **1 2**

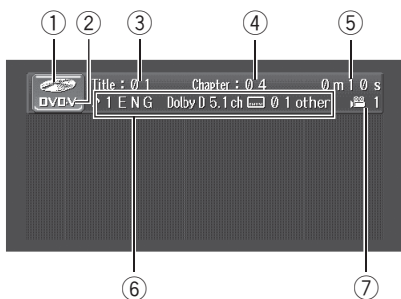
The **4** setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations. □

Built-in DVD player

Basic Operations

The built in DVD player can play back DVD video, Video CD, audio CD (CD DA) and compressed audio (WMA/MP3) recorded on CD ROM. (Refer to page 75 for files that can be played back.)

Read the precautions with discs and player on *Handling guideline of discs and player* on page 74.



- ① Source icon
- ② Media indicator
Shows the type of disc currently playing.
- ③ Title/Folder number indicator
DVD video: shows the title currently playing.
Compressed audio: shows the folder currently playing.
- ④ Chapter/track number indicator
DVD video: shows the chapter currently playing.
Video CD, CD and Compressed audio: shows the track currently playing.
- ⑤ Play time indicator
- ⑥ Variable message area
DVD video: shows the subtitle language and audio language.
CD and compressed audio: shows the text information of currently playing disc.
- ⑦ Viewing angle indicator
Shows which viewing angle has been selected.

1 Insert a disc into the disc loading slot.

Playback will automatically start.

- When the automatic playback function is on, this unit will cancel the DVD menu and automatically start playback from the first chapter of the first title. Refer to *Automatic playback of DVDs* on page 25.
 - **Be sure to turn up the label side of a disc.**
 - With some DVD discs, a menu may be displayed. (Refer to *Operating the DVD menu* on the next page.)
 - With a Video CD featuring the PBC (playback control) function, a menu is displayed.
 - After a disc has been inserted, use touch panel keys to select the DVD player.
 - To eject a disc, press **EJECT**.

2 Touch the screen to display the touch panel keys.

3 When playing Video CD, touch 10key and then touch 0 to 9 to select the desired menu item.

Playback starts from the selected menu item.

- Depending on the discs, the menu may be two or more pages long. In such case, touch **◀◀** or **▶▶** to display the next or previous menu.
- You can display the menu by pressing **RETURN** during PBC playback. For details, refer to the instructions provided with the disc.

4 When playing compressed audio, touch a track title on the list to select a track.

The selected track will begin to play.

- When the list of titles is not displayed, touch **LIST**.
 - To go to the next group of list titles, touch **↵**.
 - To return to the previous group of list titles, touch **⏪**.
 - To select a folder, touch **📁** to show the folder one level higher and touch a folder name on the list.

Operating this unit

- To return to folder **001** (ROOT), press and hold **BAND/ESC**. However, if folder **001** (ROOT) contains no files, playback commences with folder **002**.
- You can also select a folder by pressing ▲ or ▼ button.

5 To skip back or forward to another chapter/track, briefly touch ◀◀ or ▶▶.

6 To perform fast forward or reverse, keep touching ◀◀ or ▶▶.

When DVD video or Video CD is playing, if you keep touching ◀◀ or ▶▶ for five seconds, the icon ◀◀ or ▶▶ is highlighted. When this happens, fast reverse/fast forward continues even if you release ◀◀ or ▶▶. To resume playback at a desired point, touch ▶/II.

- When playing DVD video or Video CD, fast forward/fast reverse may not be possible at certain locations on some discs. If this happens, normal playback automatically resumes.
- When playing compressed audio, there is no sound on fast forward or reverse.

Notes

- If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.
- The DVD player plays one, standard, 12 cm or 8 cm (single) disc at a time. Do not use an adapter when playing 8 cm discs.
- Do not insert anything other than a disc into the disc loading slot. Discs which can be played back are listed on *Playable discs* on page 5.
- If you cannot insert a disc completely or if after you insert a disc the disc does not play, check that the label side of the disc is up. Press **EJECT** to eject the disc, and check the disc for damage before inserting it again.
- If an error message such as **ERROR-02** is displayed, refer to *Error messages* on page 72.
- If bookmark function is on, DVD playback resumes from the selected point. For more de-

tails, refer to *Resume playback (Bookmark)* on page 28.

- When playing discs with compressed audio and audio data (CD DA) such as CD EXTRA and MIXED MODE CDs, both types can be played only by switching mode between compressed audio and CD DA by touching **MEDIA** or pressing **BAND/ESC**. This function can be operated only when the disc is playing.
- If you have switched between compressed audio and CD DA, playback starts at the first track on the disc.
- There is sometimes a delay between starting up disc playback and the sound being issued. When being read, **FORMAT READ** is displayed.
- When playing back files recorded as VBR (variable bit rate) files, the play time will not be correctly displayed if fast forward or reverse operations are used.
- When playing a compressed audio disc containing more than 192 tracks, **READY** appears on the information bar for the track titles of 193rd and later.

Operating the DVD menu

Some DVDs allow you to select from the disc contents using a menu.

- This function is available for DVD.
- You can display the menu by touching **MENU** or **TOP.M** while a disc is playing. Touching either of these keys again lets you start playback from the location selected from the menu. For details, refer to the instructions provided with the disc.

1 Touch ◀↔▶ to display touch panel keys to operate the DVD menu.

- When the touch panel keys are not displayed, you can display them by touching the screen.

2 Touch ▲, ▼, ◀ or ▶ to select the desired menu item.

3 Touch ENTER.

Playback starts from the selected menu item.

- You cannot operate the DVD menu from ▲/▼/◀/▶ buttons on the head unit.
- The way to display the menu differs depending on the disc.

Operating the DVD menu with 10 key

Some DVDs allow you to select from the disc contents using **10key**.

1 Touch → until 10key appears in the display.

2 Touch 10key.

3 Touch 0 to 9 corresponding to a menu number and then touch ENTER to start playback.

- To select 3, touch **3**.
- To select 10, touch **1** and **0** in that order.
- To select 23, touch **2** and **3** in that order.

Skipping back or forward to another title

- This function is available for DVD.

● **To skip back or forward to another title, touch ▲ or ▼.**

Touching ▲ skips to the start of the next title.

Touching ▼ skips to the start of the previous title.

Title numbers are displayed for eight seconds.

Searching for a desired scene, starting playback from a specified time

You can use the search function to search for a desired scene by specifying a title, chapter, track and the time search function to specify the time on a disc at which playback starts.

- This function is available for DVD and Video CD.
- Chapter search and time search are not possible when disc playback has been stopped.
- During playback of Video CDs featuring PBC (playback control), this function can not be operated.

1 Touch SEARCH.

2 Touch TITLE (title), CHAP. (chapter), TRACK (track) or TIME (time).

3 Touch 0 to 9 to input the desired number.

For titles, chapters and tracks

- To select 3, touch **3**.
- To select 10, touch **1** and **0** in that order.
- To select 23, touch **2** and **3** in that order.


For time (time search)

- To select 21 minutes 43 seconds, touch **2**, **1**, **4** and **3** in that order.
- To select 1 hour 11 minutes, convert the time into 71 minutes 00 seconds and touch **7**, **1**, **0** and **0** in that order.
- To cancel the inputted numbers, touch **C**.

4 While the inputted number is displayed, touch ENTER.

This starts playback from the selected scene.

Notes

- With DVD discs featuring a menu, you can also touch **MENU** or **TOP/M** and then make selections from the displayed menu.
- With some discs, the icon  may be displayed, indicating that titles, chapters and time cannot be specified.

Specifying title

You can use the direct search function to search for a desired scene by specifying a title.

Operating this unit

1 Touch → until 10key appears in the display.

2 Touch 10key.

3 Touch 0 to 9 corresponding to a desired title number when the disc is stopped.

Title number is displayed for eight seconds and playback starts from the selected title.

- To select 3, touch **3**.
- To select 10, touch **1** and **0** in that order.
- To select 23, touch **2** and **3** in that order.

Changing audio language during playback (Multi-audio)

DVDs can provide audio playback with different languages and different systems (Dolby Digital, DTS etc.). With DVDs featuring multi audio recordings, you can switch between languages/audio systems during playback.

- This function is available for DVD.


1 Touch → until AUDIO appears in the display.

2 Touch AUDIO during playback.

Each time you touch **AUDIO** it switches between audio systems.



Notes

- The number in the  mark on a DVD's package indicates the number of recorded languages/audio systems.
- With some DVDs, switching between languages/audio systems may only be possible using a menu display.
- You can also switch between languages/audio systems using **DVD SETUP**. For details, refer to *Setting the audio language* on page 35.
- Only digital output of DTS audio is possible. If this unit's optical digital outputs are not con-

nected, DTS audio will not be output, so select an audio setting other than DTS.

- Display indications such as **Dolby D** and **5.1ch** indicate the audio system recorded on the DVD. Depending on the setting, playback may not be with the same audio system as that indicated.
- Touching **AUDIO** during fast forward/fast reverse, pause or slow motion playback returns you to normal playback.

Changing the subtitle language during playback (Multi-subtitle)

With DVDs featuring multi subtitle recordings, you can switch between subtitle languages during playback.

- This function is available for DVD.


1 Touch → until SUB.T appears in the display.

2 Touch SUB.T during playback.

Each time you touch **SUB.T** it switches between subtitle languages.




Notes

- The number in the  mark on a DVD's package indicates the number of recorded subtitle languages.
- With some DVDs, switching between subtitle languages may only be possible using a menu display.
- You can also switch between subtitle languages using **DVD SETUP**. For details, refer to *Setting the subtitle language* on page 35.
- Touching **SUB.T** during fast forward/fast reverse, pause or slow motion playback returns you to normal playback.

Changing the viewing angle during playback (Multi-angle)

With DVDs featuring multi angle (scenes shot from multiple angles) recordings, you can switch among viewing angles during playback.



- This function is available for DVD.
- During playback of a scene shot from multiple angles, the angle icon  is displayed. Turn angle icon display on or off using **DVD SETUP**. For details, refer to *Setting the angle icon display* on page 36.

1 Touch → until ANGLE appears in the display.

2 Touch ANGLE during playback of a scene shot from multiple angles.

Each time you touch **ANGLE** it switches between angles.

Notes

- The  mark on a DVD's package indicates it features multi angle scenes. The number in the  mark indicates the number of angles from which scenes were shot.
- Touching **ANGLE** during fast forward/fast reverse, pause or slow motion playback returns you to normal playback.

Stopping playback

- **Touch ■.**
 - When you stop disc playback by touching **■**, that location on the disc is memorized, enabling playback from that point when you play the disc again.
 - To play back the disc again, touch **▶/II**.

Pausing disc playback


Pause lets you temporarily stop disc playback.

- **Touch ▶/II during playback.**

The icon **II** is displayed and playback is paused, letting you view a still image.

- To resume playback at the same point that you turned pause on, touch **▶/II** again.

Note

Depending on the disc and the playback location on the disc, the icon  may be displayed, indicating that still playback is not possible.

Frame-by-frame playback

This lets you move ahead one frame at a time during playback.


- This function is available for DVD and Video CD.

- **Touch II▶ during playback.**

Each time you touch **II▶**, you move ahead one frame.

- To return to normal playback, touch **▶/II**.

Notes

- Depending on the disc and the playback location on the disc, the icon  may be displayed, indicating that frame by frame playback is not possible.
- With some discs, images may be unclear during frame by frame playback.

Operating this unit

Slow motion playback

This lets you slow down playback speed.

- This function is available for DVD and Video CD.

1 Keep touching **II▶** until **IIII▶** is displayed during playback.

The icon **IIII▶** is displayed, forward slow motion playback begins.


- To return to normal playback, touch **▶/II**.

2 Touch **◀II** or **II▶** to adjust playback speed during slow motion playback.

Each time you touch **◀II** or **II▶** it changes the speed in four steps in the following order:

1/16 1/8 1/4 1/2

Notes

- There is no sound during slow motion playback.
- Depending on the disc and the playback location on the disc, the icon  may be displayed, indicating that slow motion playback is not possible.
- With some discs, images may be unclear during slow motion playback.
- Reverse slow motion playback is not possible.

Return to the specified scene

You can return to the specified scene where the DVD you are currently playing has been preprogrammed to return.

- This function is available for DVD.

1 Touch **→** until **RETURN** appears in the display.

2 Touch **RETURN** to return to the specified scene.

Note

If a specified scene has not been preprogrammed in DVD disc, this function is not possible.

Automatic playback of DVDs

When a DVD disc with DVD menu is inserted, this unit will cancel the DVD menu automatically and start playback from the first chapter of the first title.

- This function is available for DVD.
- Some DVDs may not operate properly. If this function is not fully operated, turn this function off and start playback.

1 Touch **→** until **A.PLAY** appears in the display.

2 Touch **A.PLAY** to turn automatic playback on.

- To turn automatic playback off, touch **A.PLAY** again.
- When the automatic playback is on, you can not operate repeating play of DVD disc (refer to *Repeating play* on page 27).

PBC playback

During playback of Video CDs featuring PBC (Playback Control), **PBC ON** is displayed. You can operate PBC menu with **10key**.

- This function is available for Video CD.

1 Touch **→** until **10key** appears in the display and then touch **10key**.

2 Touch **0** to **9** corresponding to a menu number and then touch **ENTER** to start playback.

- To select 3, touch **3**.
- To select 10, touch **1** and **0** in that order.
- To select 23, touch **2** and **3** in that order.

Operating this unit

- Depending on the discs, the menu may be two or more pages long. In such case, touch **◀◀** or **▶▶** to display the next or previous menu.
 - You can display the menu by touching **RETURN** during PBC playback. For details, refer to the instructions provided with the disc.



Notes

- PBC playback of Video CD cannot be cancelled.
- During playback of Video CDs featuring PBC (Playback Control), **PBC ON**, search and time search functions cannot be used nor can you select the range for repeat play.

Text information

Text information recorded on CD TEXT and compressed audio disc can be displayed. Text information is displayed on variable message area.

Displaying text information

● Touch **DISP**.

Touch **DISP** repeatedly to switch between the following settings:

For CD TEXT discs

D.Title (disc title) **D.Artist** (disc artist name)

T.Title (track title) **T.Artist** (track artist name)

For compressed audio discs

Folder (folder name) **File** (file name)

T.Title (track title) **Artist** (artist name)

Album (album title) **Comment** (comment)

Bit Rate (bit rate)



Notes

- Some discs have certain information encoded on the disc during manufacture. These discs may contain such information as the CD title, track title, artist's name and playback time and are called CD TEXT discs.

- If specific information has not been recorded on a CD TEXT disc, **NO XXXX** will be displayed (e.g., **NO T.ARTIST NAME**).
- When playing back WMA files, album title and comment are not displayed.
- When a list of folders/files is displayed by the touch of **LIST**, **Current** (currently playing folder) is displayed instead of **Folder**.
- When playing back MP3 files recorded as VBR (variable bit rate) files, the bit rate value is not displayed even after switching to bit rate. (**VBR** will be displayed.)
- If specific information has not been recorded on a compressed audio disc, **NO XXXX** will be displayed (e.g., **NO ARTIST NAME**).

Scrolling text information in the display

This unit can display the first 19 letters. When the recorded information is longer than 19 letters, you can scroll the text to the left so that the rest of the title can be seen.

● Keep touching **DISP** until the title begins to scroll to the left.

The rest of the title will appear in the display.

Displaying information on compressed audio

Information recorded on a compressed audio disc can be displayed.

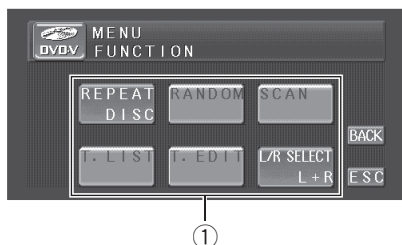
● Touch to display information on the compressed audio file you are currently playing.

- **ALBUM** (album title)
- **TRACK** (track title)
- **FOLDER** (folder name)
- **FILE** (file name)
- **ARTIST** (artist name)
- **GENRE** (genre)
- **YEAR** (year)
- When playing back WMA files, lists of album title, genre and year appear in blank.

Operating this unit

- If specific information has not been recorded on a compressed audio file, the list appears in blank.
- Depending on the version of ID3 tag or Windows Media Player, the information may not be displayed correctly.

Introduction of advanced operations



- ① Function display
Shows the function names.

1 Press A.MENU button to display MENU.
MENU appears on the display.

2 Touch FUNCTION to display the function names.

The function names are displayed and operable ones are highlighted.

- To return to the previous display, touch **BACK**.
- To return to the playback display, touch **ESC**.

Note

If you do not operate the function within about 30 seconds, the display is automatically returned to the playback display.

Repeating play

Repeat play plays the same play range repeatedly. Play range varies depending on the media.

For DVD, play range can be selected from **TITLE** (title repeat) and **CHPTR** (chapter repeat).

For Video CD and CD, play range can be selected from **DISC** (disc repeat) and **TRACK** (track repeat).

For compressed audio, play range can be selected from **DISC** (disc repeat), **FOLDER** (folder repeat) and **TRACK** (track repeat).

● **Touch REPEAT on the function menu to select the repeat range.**

- **TITLE** Repeat just the current title
- **CHPTR** Repeat just the current chapter
- **TRACK** Repeat just the current track
- **FOLDER** Repeat the current folder
- **DISC** Play through the current disc

Notes

- If you perform chapter search or fast forward/reverse, the repeat play range changes to **DISC**.
- If you select another folder during repeat play, the repeat play range changes to **DISC**.
- During compressed audio playback, if you perform track search or fast forward/reverse during **TRACK**, the repeat play range changes to **FOLDER**.
- When **FOLDER** is selected, it is not possible to play back a subfolder of that folder.
- When playing discs with compressed audio and audio data (CD DA), repeat play performs within the currently playing data type even if **DISC** is selected.

Playing tracks in random order

Random play plays tracks in a random order within the selected repeat range.

- This function is available for CD and compressed audio disc.

Operating this unit

1 Select the repeat range.

Refer to *Repeating play* on the previous page.

2 Touch **RANDOM** on the function menu to turn random play on.

Tracks will play in a random order within the previously selected repeat range.

- To turn random play off, touch **RANDOM** again.

Scanning tracks of a CD

Scan play lets you hear the first 10 seconds of each track on the CD.

When playing the compressed audio disc, the first 10 seconds of each track of the current folder (or the first track of each folder) is played.

- This function is available for CD and compressed audio disc.

1 Select the repeat range.

Refer to *Repeating play* on the previous page.

2 Touch **SCAN** on the function menu to turn scan play on.

The first 10 seconds of each track is played.

3 When you find the desired track (or folder) touch **SCAN** again.



Note

After track or folder scanning is finished, normal playback of the tracks will begin again.

Selecting audio output

You can switch between stereo and monaural audio output.

- This function is available for DVD and Video CD.
- This function is not possible when disc playback has been stopped.

1 Press **A.MENU** button to display **MENU**.

2 Touch **FUNCTION** to display the function names.

3 Touch **L/R SELECT** to select the audio output.

- **L+R** left and right
- **LEFT** left
- **RIGHT** right



Note

Depending on the disc and the playback location on the disc, the function may not be selectable, indicating that operating this function is not possible.

Resume playback (Bookmark)

The Bookmark function lets you resume playback from a selected scene the next time the disc is loaded.

- This function is available for DVD.

● During playback, press **BOOKMARK (BM)** button at the point you want to resume playback next time.

The selected scene will be bookmarked so that playback resumes from that point next time. You can bookmark up to five discs. After that, the oldest bookmark is replaced by the new one.

- To clear the bookmark on a disc, press and hold **BOOKMARK (BM)** button during playback.
- You can also bookmark a disc by pressing and holding **EJECT** at the point you want to bookmark. Next time you load the disc, playback will resume from the bookmarked point. Note that you can only bookmark one disc using this method. To clear the bookmark on a disc, press **EJECT**.

Operating this unit

Entering disc titles

You can input CD titles and display the title. The next time you insert a CD for which you have entered a title, the title of that CD will be displayed.

Use the disc title input feature to store up to 48 CD titles in the unit. Each title can be up to 10 characters long.

- This function is available for CD.
- When playing a CD TEXT disc, you cannot switch to **T. EDIT**. The disc title will have already been recorded on a CD TEXT disc.
- If no title has been entered for the currently playing disc, **NO DISC TITLE** is displayed.

1 Play the CD that you want to enter a title for.

2 Touch T. EDIT on the function menu.

3 Touch ABC to select the desired character type.

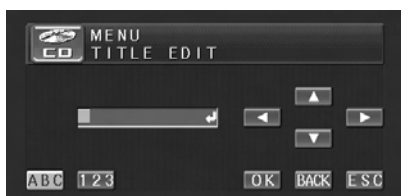
Touch **ABC** repeatedly to switch between the following character types:

Alphabet (upper case) numbers and symbols
 alphabet (lower case) European letters,
 such as those with accents (e.g., á, à, ä, ç)

- You can select to input numbers and symbols by touching **123**.

4 Touch ▲ or ▼ to select a letter of the alphabet.

Each time you touch **▲** it will display alphabet, numbers or symbols in ascending order (**A B C ...**). Each time you touch **▼** it will display a letter in descending order.



5 Touch ► to move the cursor to the next character position.

When the desired letter is displayed, touch **►** to move the cursor to the next position and then select the next letter. Touch **◀** to move backwards in the display.

6 Touch OK to store the entered title in memory.

7 Touch ESC to return to the playback display.



Notes

- Titles remain in memory, even after the disc has been removed from the unit, and are recalled when the disc is reinserted.
- After data for 48 discs has been stored in memory, data for a new disc will overwrite the oldest one.

Selecting tracks from the track title list

Track title list lets you see the list of track titles on a CD TEXT disc and select one of them to play back.

- This function is available for CD.

1 Touch T.LIST on the function menu.

2 Touch ⤴ or ⤵ to switch between the lists of titles.

3 Touch your favorite track title.

That selection will begin to play.

Audio Adjustments

Introduction of audio adjustments



- ① Audio display
Shows the audio adjustment status.

Important

If the multi channel processor (DEQ P8000) is connected to this unit, the audio function will be changed to the multi channel processor's audio menu. For details, refer to *Introduction of DSP adjustments* on page 58.

1 Press A.MENU button to display MENU.
MENU appears on the display.

2 Touch AUDIO to display the audio function names.

The audio function names are displayed and operable ones are highlighted.

- To go to the next group of function names, touch **NEXT**.
- To return to the previous group of function names, touch **PREV**.
- If EQ EX function has been selected and only when EQ EX is turned on and **CUSTOM** is selected as the equalizer curve, you can switch to **BASS** and **TREBLE**.
 - Only when the subwoofer controller setting is **FULL, NON FADING** will be displayed instead of **SUB WOOFER**. (Refer to *Setting the rear output and subwoofer controller* on page 39.)
 - When selecting the FM tuner as the source, you cannot switch to **SLA**.

- To return to the previous display, touch **BACK**.
- To return to the display of each source, touch **ESC**.

Note

If you do not operate the audio function within about 30 seconds, the display is automatically returned to the source display.

Using balance adjustment

You can change the fader/balance setting so that it can provide you an ideal listening environment in all occupied seats.

1 Touch FAD/BAL on the audio function menu.

- When the rear output setting is **SUB. W, BAL** will be displayed instead of **FAD/BAL**. Refer to *Setting the rear output and subwoofer controller* on page 39.

2 Touch ▲ or ▼ to adjust front/rear speaker balance.

Each time you touch ▲ or ▼ it moves the front/rear speaker balance towards the front or the rear.

FRONT:15 to REAR:15 is displayed as the front/rear speaker balance moves from front to rear.

- **FR:00** is the proper setting when only two speakers are used.
- When the rear output setting is **SUB. W**, you cannot adjust front/rear speaker balance. Refer to *Setting the rear output and subwoofer controller* on page 39.

3 Touch ◀ or ▶ to adjust left/right speaker balance.

Each time you touch ◀ or ▶ it moves the left/right speaker balance towards the left or the right.

LEFT:09 to RIGHT:09 is displayed as the left/right speaker balance moves from left to right.

Operating this unit

Using the equalizer

The equalizer lets you adjust the equalization to match car interior acoustic characteristics as desired.

Recalling equalizer curves

There are six stored equalizer curves which you can easily recall at any time. Here is a list of the equalizer curves:

Display	Equalizer curve
POWERFUL	Powerful
NATURAL	Natural
VOCAL	Vocal
CUSTOM	Custom
FLAT	Flat
SUPER BASS	Super bass

- **CUSTOM** is an adjusted equalizer curve that you create.
 - A separate **CUSTOM** curve can be created for each source. If you make adjustments, the equalizer curve settings will be memorized in **CUSTOM**.
 - When **FLAT** is selected no supplement or correction is made to the sound. This is useful to check the effect of the equalizer curves by switching alternatively between **FLAT** and a set equalizer curve.
- **Press EQ to select the equalizer.**

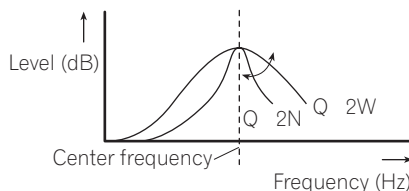
Press **EQ** repeatedly to switch between the following equalizers:

POWERFUL NATURAL VOCAL CUSTOM
FLAT SUPER BASS

Adjusting equalizer curves

You can adjust the currently selected equalizer curve setting as desired. Adjusted equalizer curve settings are memorized in **CUSTOM**.

- You can adjust the center frequency and the Q factor (curve characteristics) of each currently selected curve band (**LOW/MID/HIGH**).



1 Touch EQ MENU on the audio function menu.

2 Touch ▲ or ▼ to select the desired item.

Each time you touch ▲ or ▼ selects the item in the following order:

BAND (bands) **LEVEL** (equalizer level)
FREQUENCY (center frequency) **Q. FACTOR** (Q factor)

3 Touch ◀ or ▶ to select the equalizer band to adjust.

Each time you touch ◀ or ▶ selects equalizer bands in the following order:

LOW (low) **MID** (mid) **HIGH** (high)

4 Touch ▼ and then touch ◀ or ▶ to adjust the level of the equalizer band.

Each time you touch ◀ or ▶ increases or decreases the level of the equalization band.

+6 to -6 is displayed as the level is increased or decreased.

5 Touch ▼ and then touch ◀ or ▶ to select the desired frequency.

Touch ◀ or ▶ until the desired frequency appears in the display.

Low: **40Hz 80Hz 100Hz 160Hz**

Mid: **200Hz 500Hz 1kHz 2kHz**

High: **3.15kHz 8kHz 10kHz 12.5kHz**

Operating this unit

6 Touch ▼ and then touch ◀ or ▶ to select the desired Q factor.

Touch ◀ or ▶ until the desired Q factor appears in the display.

2W 1W 1N 2N



Note

If you make adjustments, **CUSTOM** curve is updated.

Adjusting bass and treble

You can adjust bass and treble settings.

- If EQ EX function has been selected and only when EQ EX is turned on and **CUSTOM** is selected as the equalizer curve, you can adjust bass and treble settings. (Refer to *Compensating for equalizer curves (EQ EX)* on page 34.)

Adjusting bass

You can adjust the cut off frequency and the bass level.

1 Touch BASS on the audio function menu.

2 Touch ▲ or ▼ to adjust the bass level.

Each time you touch ▲ or ▼ increases or decreases the bass level. **+6** to **-6** is displayed as the level is increased or decreased.

3 Touch ◀ or ▶ to select the desired frequency.

Touch ◀ or ▶ until the desired frequency appears in the display.

40Hz 63Hz 100Hz 160Hz

Adjusting treble

You can adjust the cut off frequency and the treble level.

1 Touch TREBLE on the audio function menu.

2 Touch ▲ or ▼ to adjust the treble level.

Each time you touch ▲ or ▼ increases or decreases the treble level. **+6** to **-6** is displayed as the level is increased or decreased.

3 Touch ◀ or ▶ to select the desired frequency.

Touch ◀ or ▶ until the desired frequency appears in the display.

2.5kHz 4kHz 6.3kHz 10kHz

Adjusting loudness

Loudness compensates for deficiencies in the low and high sound ranges at low volume.

1 Touch LOUDNESS (LOUD) on the audio function menu.

2 Touch ▲ to turn loudness on.

- To turn loudness off, touch ▼.

3 Touch ◀ or ▶ to select a desired level.

Each time you touch ◀ or ▶ selects level in the following order:

LOW (low) **MID** (mid) **HIGH** (high)

Using subwoofer output

This unit is equipped with a subwoofer output which can be turned on or off.

- When the subwoofer output is on, you can adjust the cut off frequency and the output level of the subwoofer.

1 Touch SUB WOOFER on the audio function menu.

- When the subwoofer controller setting is **FULL**, you cannot select **SUB WOOFER**.

Operating this unit

2 Touch ◀ to turn subwoofer output on.

- To turn subwoofer output off, touch ▶.

3 Touch ▼ and then touch ◀ or ▶ to select the phase of subwoofer output.

Touch ▶ to select normal phase and **NORMAL** appears in the display. Touch ◀ to select reverse phase and **REVERSE** appears in the display.

4 Touch ▼ and then touch ◀ or ▶ to adjust the output level of the subwoofer.

Each time you touch ◀ or ▶ increases or decreases the level of the subwoofer. **+6** to **-6** is displayed as the level is increased or decreased.

5 Touch ▼ and then touch ◀ or ▶ to select cut-off frequency.

Each time you touch ◀ or ▶ selects cut off frequencies in the following order:

50Hz 80Hz 125Hz

Only frequencies lower than those in the selected range are outputted from the subwoofer.

Boosting the subwoofer level

You can easily boost the subwoofer bass level by repeatedly pressing **BOOST** button. If the subwoofer is set to OFF, pressing **BOOST** button automatically sets the subwoofer to ON.

● Press **BOOST** button to increase the subwoofer level.

The subwoofer level **0** to **+6** is shown in the display.

- To decrease the level, press **BOOST** button and hold. The subwoofer level is reset to **0** and then you can start again.



Note

You can also select the subwoofer level in the audio menu. Refer to *Using subwoofer output* on the previous page.

Using nonfading output

When the nonfading output setting is on, the audio signal does not pass through this unit's low pass filter (for the subwoofer), but is outputted through the RCA output.

1 Touch **NON FADING** on the audio function menu.

- When the subwoofer controller setting is only **FULL**, you can select **NON FADING**. (Refer to page 39.)

2 Touch ▲ to turn non fading output on.

- To turn non fading output off, touch ▼.

3 Touch ◀ or ▶ to adjust the output level of the non fading.

Each time you touch ◀ or ▶ increases or decreases the level of the non fading. **+6** to **-6** is displayed as the level is increased or decreased.

Using the high pass filter

When you do not want low sounds from the subwoofer output frequency range to play from the front or rear speakers, turn on the HPF (high pass filter). Only frequencies higher than those in the selected range are outputted from the front or rear speakers.

1 Touch **NEXT** on the audio function menu.

2 Touch **HPF**.

Operating this unit

3 Touch ▲ to turn high pass filter on.

- To turn high pass filter off, touch ▼.

4 Touch ◀ or ▶ to select cut-off frequency.

Each time you touch ◀ or ▶ selects cut off frequencies in the following order:

50Hz 80Hz 125Hz

Adjusting source levels

SLA (source level adjustment) lets you adjust the volume level of each source to prevent radical changes in volume when switching between sources.

- Settings are based on the FM tuner volume level, which remains unchanged.

1 Compare the FM tuner volume level with the level of the source you wish to adjust.

2 Touch NEXT on the audio function menu.

3 Touch SLA.

4 Press ▲ or ▼ to adjust the source volume.

Each time you press ▲ or ▼ it increases or decreases the source volume.

+4 to **-4** is displayed as the source volume is increased or decreased.



Notes

- The AM tuner volume level can also be adjusted with source level adjustments.
- Video CD, CD and compressed audio are set to the same source level adjustment volume automatically.
- DVD and the optional DVD player are set to the same source level adjustment volume automatically.

- External unit 1 and external unit 2 are set to the same source level adjustment volume automatically.
- AUX (auxiliary input) and AV (AV input) are set to the same source level adjustment volume automatically.

Compensating for equalizer curves (EQ-EX)

The EQ EX function accentuates the effects of each equalizer curve. Furthermore, you can adjust bass and treble for each source when **CUSTOM** curve is selected.

1 Touch NEXT on the audio function menu.

2 Touch EQ-EX.

3 Touch ▲ to turn EQ-EX on.

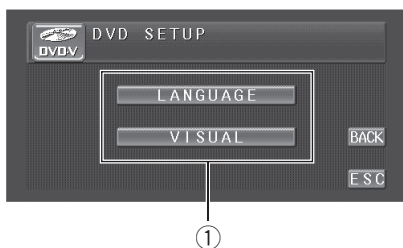
- To turn EQ EX off, touch ▼. 

Operating this unit

Setting up the DVD player

Introduction of DVD setup adjustments

You can use this menu to change audio, subtitle, parental lock and other DVD settings.



- ① DVD setup menu display
Shows the DVD setup menu names.

1 Touch ■.

SETUP will be displayed instead of **MENU**.

2 Touch **SETUP** when the disc is stopped.

The DVD setup menu is displayed.

3 Touch any of **LANGUAGE** or **VISUAL** to display the DVD setup function names.

The DVD setup function names in selected menu are displayed.

- To return to the previous display, touch **BACK**.
- To return to the playback display, touch **ESC**.



Note

If you do not operate the DVD setup function within about 30 seconds, the display is automatically returned to the playback display.

Setting the subtitle language

You can set a desired subtitle language. If the selected subtitle language is recorded on the DVD, subtitles are displayed in that language.

1 Touch **SETUP** and **LANGUAGE** and then touch **SUB. T LANG.**

Subtitle language menu is displayed and the currently selected language is highlighted.

- To switch to the second language select menu, touch **NEXT**.
- To return to the first language select menu, touch **PREV**.

2 Touch the desired language.

A subtitle language is set.

- If you have selected **OTHERS**, refer to *When you select OTHERS* on this page.



Notes

- If the selected language is not recorded on the disc, the language specified on the disc is displayed.
- You can also switch the subtitle language by touching **SUB.T** during playback. (Refer to *Changing the subtitle language during playback (Multi subtitle)* on page 23.)
- Even if you use **SUB.T** during playback to switch the subtitle language, this does not affect the settings here.

When you select **OTHERS**

When you select **OTHERS**, a language code input display is shown. Refer to *Language code chart for DVD* on page 78 to input the four digit code of the desired language.

1 Touch **0** to **9** to input the language code.

- To cancel the inputted numbers, touch **C**.

2 While the inputted number is displayed, touch **ENTER**.

Setting the audio language

You can set the preferred audio language.

1 Touch **SETUP** and **LANGUAGE** and then touch **AUDIO LANG.**

Audio language menu is displayed and the currently selected language is highlighted.

- To switch to the second language select menu, touch **NEXT**.
- To return to the first language select menu, touch **PREV**.

2 Touch the desired language.

The audio language is set.

- If you have selected **OTHERS**, refer to *When you select OTHERS* on the previous page.



Notes

- If the selected language is not recorded on the disc, the language specified on the disc is outputted.
- You can also switch the audio language by touching **AUDIO** during playback. (Refer to *Changing audio language during playback (Multi audio)* on page 23.)
- Even if you use **AUDIO** during playback to switch the audio language, this does not affect the settings here.

Setting the menu language

You can set the preferred language for displays of menus recorded on a disc.

1 Touch **SETUP** and **LANGUAGE** and then touch **MENU LANG.**

A menu language menu is displayed and the currently set language is highlighted.

- To switch to the second language select menu, touch **NEXT**.
- To return to the first language select menu, touch **PREV**.

2 Touch the desired language.

The menu language is set.

- If you have selected **OTHERS**, refer to *When you select OTHERS* on the previous page.



Note

If the selected language is not recorded on the disc, the language specified on the disc is displayed.

Switching the assist subtitle on or off

If assist subtitles are recorded on a DVD disc, you can display them by turning the assist subtitle function on.

You can turn assist subtitles on or off as desired.

1 Touch **SETUP** and **LANGUAGE** and then touch **NEXT**.

2 Touch **A SUB TITL** to turn assist subtitles on.

- To turn the assist subtitle off, touch **A SUB TITL** again.

Setting the angle icon display

You can set it up so that the angle icon appears on scenes where the angle can be switched.

1 Touch **SETUP** and **VISUAL** to display the **DVD visual set up menu**.

2 Touch **M. ANGLE** to turn angle icon display on.

- To turn the angle icon display off, touch **M. ANGLE** again.

Setting the aspect ratio

There are two kinds of display. A wide screen display has a width to height ratio (TV aspect) of 16:9, while a regular display has a TV aspect of 4:3. Be sure to select the correct TV aspect for the display connected to **VIDEO OUTPUT**.

Operating this unit


- When using a regular display, select either **LETTER BOX** or **PANSCAN**. Selecting **16 : 9** may result in an unnatural picture.
- If you select the TV aspect, the unit's display changes to the same setting.

1 Touch **SETUP** and **VISUAL** and then touch **TV ASPECT**.

2 Touch any of the following touch panel keys to select the TV aspect.

- **16 : 9** Wide screen picture (16:9) is displayed as it is (initial setting)
- **LETTER BOX** The picture is the shape of a letterbox with black bands at the top and bottom of the screen
- **PANSCAN** The picture is cut short at the right and left of the screen

Notes

- When playing discs that do not specify **PANSCAN**, playback is with **LETTER BOX** even if you select **PANSCAN** setting. Confirm whether the disc package bears the  mark. (See page 9.)
- Some discs do not enable changing of the TV aspect. For details, refer to the disc's instructions.

Setting the parental lock

Some DVD video discs let you use parental lock to restrict children from viewing violent and adult oriented scenes. You can set the parental lock to your desired level.

- When you set a parental lock level and then play a disc featuring parental lock, code number input indications may be displayed. In this case, playback will begin when the correct code number is input.

Setting the code number and level

You need to have registered a code number for playing back discs with parental lock.

1 Touch **SETUP** and **VISUAL** and then touch **PARENTAL**.

2 Touch **0** to **9** to input a four digit code number.

3 While the inputted number is displayed, touch **ENTER**.

The code number is set, and you can now set the level.

4 Touch any of **1** to **8** to select the desired level.

The parental lock level is set.

- **LEVEL 8** Playback of the entire disc is possible (initial setting)
- **LEVEL 7** to **LEVEL 2** Playback of discs for children and non adult oriented discs is possible
- **LEVEL 1** Playback of discs for children only is possible

Notes

- We recommend to keep a record of your code number in case you forget it.
- The parental lock level is recorded on the disc. Look for the level indication written at the disc package, included literature or on the disc itself. Parental lock of this unit is not possible if a parental lock level is not recorded in the disc.
- With some discs, the parental lock may be active only on the scenes with certain levels. The playback of those scenes will be skipped. For details, refer to the instruction manual that came with the discs.

Changing the level


You can change the set parental lock level.

1 Touch SETUP and VISUAL and then touch PARENTAL.

2 Touch 0 to 9 to input the registered code number.

3 Touch ENTER.


This enters the code number, and you can now change the level.

- If you input an incorrect code number, the icon  is displayed. Touch **C** and input the correct code number.
- If you forget your code number, refer to *If you forget your code number* on this page.

4 Touch any of 1 to 8 to select the desired level.

The new parental lock level is set.

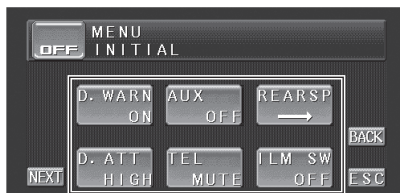
If you forget your code number

Refer to *Changing the level* on the previous page, and touch **C** 10 times. The registered code number is canceled, letting you register a new one. 

Initial Settings

Adjusting initial settings

Using the initial settings, you can customize various system settings to achieve optimal performance from this unit.



- ① Function display
Shows the function names.

1 Touch the source icon and then touch OFF to turn this unit off.

- When the source icon is not displayed, you can display it by touching the screen.

2 Press A.MENU button and touch INIT to display the initial function names.

The function names are displayed and operable ones are highlighted.

- To go to the next group of function names, touch **NEXT**.
- To return to the previous group of function names, touch **PREV**.
- When the multi channel processor (e.g., DEQ P8000) is connected to this unit, you can operate **D. ATT** and **RESET** instead of **REARSP**.
- To return to the previous display, touch **BACK**.
- To return to the display of each source, touch **ESC**.

Operating this unit

Switching the warning tone

If the front panel is not detached from the head unit within five seconds of turning off the ignition, a warning tone will sound. You can turn off the warning tone.

- **Touch D. WARN on the initial menu to turn warning tone on.**

- To turn warning tone off, touch **D. WARN** again.

Switching the auxiliary setting

It is possible to use auxiliary equipment with this unit. Activate the auxiliary setting when using auxiliary equipment connected to this unit.

- **Touch AUX on the initial menu to turn auxiliary setting on.**

- To turn auxiliary setting off, touch **AUX** again.

Setting the rear output and subwoofer controller

This unit's rear output (rear speaker leads output and RCA rear output) can be used for full range speaker (**FULL**) or subwoofer (**SUB. W**) connection. If you switch the rear output setting to **SUB. W**, you can connect a rear speaker lead directly to a subwoofer without using an auxiliary amp.

Initially, the unit is set for rear full range speaker connection (**FULL**). When rear output is connected to full range speakers (when **FULL** is selected), you can connect the RCA subwoofer output to a subwoofer. In this case, you can select whether to use the subwoofer controller's (low pass filter, phase) built in **SUB.W** or the auxiliary **FULL**.

- When the multi channel processor (e.g., DEQ P8000) is connected to this unit, you cannot operate this function.

- 1 **Touch NEXT on the initial menu.**

- 2 **Touch REARSP.**

- 3 **Touch ▲ or ▼ to switch the rear output setting.**

Touch ▲ to select full range speaker and **FULL** appears in the display. Touch ▼ to select subwoofer and **SUB. W** appears in the display.

- When no subwoofer is connected to the rear output, select **FULL**.
- When a subwoofer is connected to the rear output, set for subwoofer **SUB. W**.
- When the rear output setting is **SUB. W**, you cannot change the subwoofer controller.

- 4 **Touch ◀ or ▶ to switch the subwoofer output or non fading output.**

Touch ◀ to select subwoofer output and **SUB.W** appears in the display. Touch ▶ to select non fading output and **FULL** appears in the display.



Notes

- Even if you change this setting, there is no output unless you turn the nonfading output (refer to *Using nonfading output* on page 33) or subwoofer output (refer to *Using subwoofer output* on page 32) in the audio menu on.
- If you change the subwoofer controller, subwoofer output and nonfading output in the audio menu return to the factory settings.

Correcting distorted sound

You can minimize distortion that may be caused by the equalizer curve settings. Setting an equalizer level high can cause distortion. If high sound is crippled or distorted, try switching to **LOW**. Normally, leave the setting at **HIGH** to ensure quality sound.

- Only when the multi channel processor (e.g., DEQ P8000) is connected to this unit, you can operate this function.

- 1 Touch **NEXT** on the initial menu.
- 2 Touch **D. ATT** to switch the digital attenuator setting.
Touching **D. ATT** switches the digital attenuator settings in the following order:
HIGH LOW

Switching the sound muting/attenuation

Sound from this system is muted or attenuated automatically when the signal from the equipment with mute function is received.

- 1 Touch **NEXT** on the initial menu.
- 2 Touch **TEL** to select any of the muting, attenuation, mixing or off.
Touch **TEL** until the desired setting appears in the display.
 - **MUTE** Muting
 - **ATT 20** Attenuation (**ATT 20** has a stronger effect than **ATT 10**)
 - **ATT 10** Attenuation
 - **OFF** Turn the sound muting/attenuation off

Notes

- The sound is muted or attenuated, **MUTE** or **ATT** are displayed and no audio adjustment is possible.
- Operation returns to normal when the phone connection or the voice guidance is ended.

Resetting the audio functions

You can reset all audio functions except volume.

- Only when the multi channel processor (e.g., DEQ P8000) is connected to this unit, you can operate this function.


- 1 Touch **NEXT** on the initial menu.
- 2 Touch **RESET**.
- 3 Touch **RESET**.
- 4 Touch **RESET** again to reset audio functions.
 - To cancel resetting the audio functions, touch **CANCEL**.

Setting the illumination switch

You can choose whether to have the illumination of this unit switch on/off when the ignition key is turned to the ACC position or the power off position.

- Touch **ILM SW** on the initial menu to turn the illumination switch on.
Set the illumination switch **ON** to have the illumination of this unit remain on when the ignition key is turned to the ACC position. Set to **OFF** to have the illumination off when the ignition key is turned to the ACC position.
 - To turn the illumination switch off, touch **ILM SW** again.

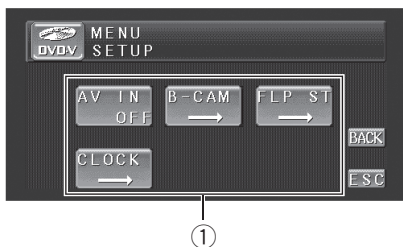
Note

Never set the illumination switch on if the vehicle does not have the ACC position. It may cause battery leakage. 

Operating this unit

Other Functions

Introduction of setup adjustments



- ① Setup menu display
Shows the setup function names.

● **Press A.MENU button and touch SETUP to display the setup function names.**

The setup function names are displayed and operable ones are highlighted.

- To return to the previous display, touch **BACK**.
- To return to the display of each source, touch **ESC**.

 **Note**

If you do not operate the setup function within about 30 seconds, the display is automatically returned to the source display.

Setting the AV input

You can switch the setting according to the connected component.

- Select **VIDEO** to watch video of a connected component as **AV** source.
- Select **M-DVD** to watch video of a connected DVD player as **S-DVD** source.
- Select **EXT-V** to watch video of a connected video unit as **EXT** source.

● **Touch AV IN on the setup menu to select the AV input setting.**

Touch **AV IN** until the desired setting is selected.

- **OFF** No video component is connected
- **VIDEO** External video component (such as portable video player)
- **M-DVD** Multi DVD player connected with RCA cable
- **EXT-V** External video unit (such as Pioneer products available in the future)
 - When a multi DVD player is connected with an AV BUS cable, do not select **M-DVD** otherwise no picture will be displayed even if you select **S-DVD**.

Setting for rear view camera (back up camera)

 **CAUTION**

Pioneer recommends the use of a camera which outputs mirror reversed images, otherwise screen image may appear reversed.

This unit features a function that automatically switches to the rear view camera video (**REAR VIEW CAMERA IN** jack) when a rear view camera is installed on your vehicle. When the gear shift is in **REVERSE (R)** position, the video automatically switches to a rear view camera video. (For more details, consult your dealer.)

- After you set up the rear view camera setting, move the gear shift in **REVERSE (R)** and confirm if a rear view camera video can be shown on the display.
- If the display should be switched to a rear view camera video by error while you are driving forward, change the rear view camera setting.
- To end watching a rear view camera video and return to the source display, press **V.ADJ**.

1 Touch B-CAM on the setup menu.

Operating this unit

2 Touch ◀ to turn rear view camera setting on.

- To turn rear view camera setting off, touch ▶.

3 Touch ▼ and then touch ◀ or ▶ to select an appropriate setting for polarity.

Each time you touch ◀ or ▶ it switches between the following polarity:

- **BATTERY** When the polarity of the connected lead is positive while the gear shift is in **REVERSE (R)** position
- **GND** When the polarity of the connected lead is negative while the gear shift is in **REVERSE (R)** position

Setting the automatic open function

To prevent the display from hitting the shift lever of an automatic vehicle when it is in **P** (park) position, or when you do not wish the display to open/close automatically, you can set the automatic open function in the manual mode.

Furthermore, to adjust the LCD panel slide position, you can turn the set back on or off.

1 Touch FLP ST on the setup menu.

2 Touch ▲ to turn the set back on and the LCD panel slides to the back.

- Touch ▼ to turn the set back off and the LCD panel slides to the front.

3 Touch ◀ or ▶ to select the display to open/close automatically or manually.

Touch ◀ to select **MANUAL**, and you have to press **OPEN/CLOSE** to open/close the display. Touch ▶ to select **AUTO**, and the display automatically opens/closes when power to this unit is turned on.

Setting the clock

Use these instructions to set the clock.

1 Touch CLOCK ADJUST on the setup menu.

2 Touch OFF to turn the clock display on.

ON will appear in the display instead of **OFF**. Clock display is now on.

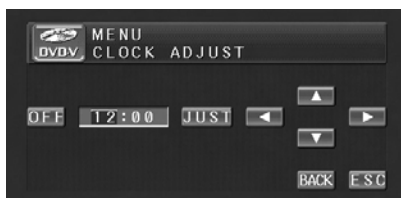
- To turn the clock display off, touch **ON**.

3 Touch ◀ or ▶ to select the segment of the clock display you wish to set.

Each time you touch ◀ or ▶ it will select one segment of the clock display:

Hour Minute

As you select segments of the clock display the segment selected will be highlighted.



4 Touch ▲ or ▼ to set the clock.

Each time you touch ▲ it increases the selected hour or minute. Each time you touch ▼ it decreases the selected hour or minute.



Notes

- You can match the clock to a time signal by touching **JUST**.
If the minute is **00** to **29**, the minutes are rounded down. (e.g., **10:18** becomes **10:00**.)
If the minute is **30** to **59**, the minutes are rounded up. (e.g., **10:36** becomes **11:00**.)
- Even when the sources are off, the clock display appears on the display.

Operating this unit

Using the AUX source

An IP BUS RCA Interconnector such as the CD RB20/CD RB10 (sold separately) lets you connect this unit to auxiliary equipment featuring RCA output. For more details, refer to the IP BUS RCA Interconnector owner's manual.

Selecting AUX as the source

● Touch the source icon and then touch AUX to select AUX as the source.

- When the source icon is not displayed, you can display it by touching the screen.
- If the auxiliary setting is not turned on, **AUX** cannot be selected. For more details, see *Switching the auxiliary setting* on page 39.

Setting the AUX title

The title displayed for the **AUX** source can be changed.

1 After you have selected AUX as the source, press A.MENU button and touch FUNCTION and then touch NAME EDIT.

2 Touch ABC to select the desired character type.

Touch **ABC** repeatedly to switch between the following character types:

Alphabet (upper case), numbers and symbols
 alphabet (lower case) European letters, such as those with accents (e.g., á, à, ã, ç)

- You can select to input numbers and symbols by touching **123**.

3 Touch ▲ or ▼ to select a letter of the alphabet.

Each time you touch ▲ it will display alphabet, numbers or symbols in ascending order (**A B C ...**). Each time you touch ▼ it will display a letter in descending order.



4 Touch ► to move the cursor to the next character position.

When the desired letter is displayed, touch ► to move the cursor to the next position and then select the next letter. Touch ◀ to move backwards in the display.

5 Touch OK to store the entered title in memory.

6 Touch ESC to return to the playback display.

Selecting the background display

You can switch background displays while listening to each source.

● Press ENTERTAINMENT (ENT).

Each time you press **ENTERTAINMENT (ENT)** the display changes in the following order:

Audio source

Background still picture **BGV** (background visual) **AV** (AV input)

Video source

Video of currently selected source background still picture **BGV** (background visual) **AV** (AV input)



Note

In the following cases, the background display will not change:

- When a list is displayed.
- When the AV (AV input) is not set to **VIDEO** (refer to page 41).

Using the PGM button

You can operate the preprogrammed functions for each source by using **PGM**.

- **Press PGM to turn pause on when selecting the following sources:**

- **DVD** Built in DVD player
 - **S-DVD** DVD player/multi DVD player
 - **M-CD** Multi CD player
 - **iPod** iPod
- To turn pause off, press **PGM** again.

- **Press PGM and hold to turn BSM on when selecting TUNER as the source.**

Press **PGM** and hold until the BSM turns on.

- To cancel the storage process, press **PGM** again.

- **Press PGM and hold to turn BSSM on when selecting TV as the source.**

Press **PGM** and hold until the BSSM turns on.

- To cancel the storage process, press **PGM** again.

- **Press PGM to select the desired channel select setting when selecting XM or SIRIUS as the source.**

Press **PGM** repeatedly to switch between the following channel select settings:

CH NUMBER (channel number select setting)

CATEGORY (channel category select setting)

Available accessories

XM tuner

Basic Operations

You can use this unit to control an XM satellite digital tuner (GEX P920XM), which is sold separately.

For details concerning operation, refer to the XM tuner's operation manuals. This section provides information on XM operations with this unit which differs from that described in the XM tuner's operation manual.

- This unit does not have the text scroll function.
- With this unit, you can operate one additional function: XM channel direct selection.



- ① Source icon
- ② XM band indicator
- ③ XM channel name
- ④ XM preset number indicator
- ⑤ XM channel number indicator
- ⑥ XM channel select setting indicator
Shows what channel select setting has been selected. **CH-Number** is displayed when **CH NUMBER** is selected, and **Category** is displayed when **CATEGORY** is selected.
- ⑦ Preset list display

1 Touch the source icon and then touch XM to select the XM.

2 Touch the screen to display the touch panel keys.

3 Touch BAND to select an XM band.

Touch **BAND** repeatedly until the desired XM band is displayed, **XM1**, **XM2** or **XM3**.

4 Touch ◀ or ▶ to select a desired channel.

The channels move up or down step by step. Channels that cannot currently be selected are skipped, and the next channel is selected.

- If you touch and hold ◀ or ▶, you can increase or decrease the channel number continuously.
- You can also perform tuning from a desired channel category. (Refer to *Selecting a channel in the channel category* on the next page.)



Notes

- If you do not use the touch panel keys for eight seconds, they will be hidden automatically.
- You can go to the next group of touch panel keys by touching →.

Switching the XM display

- **Touch DISP to switch the XM display.**

Channel name Artist name/feature Song/
program title Channel category

Storing and recalling broadcast stations

You can easily store up to six broadcast stations for later recall.

- Up to 18 stations, six for each of three XM bands can be stored in memory.
- **When you find a station that you want to store in memory touch and hold a preset tuning key P1 to P6 until the XM preset number stops flashing.**
The number you have touched will flash in the XM preset number indicator and then remain lit. The selected station has been stored in memory.

The next time you touch the same preset tuning key **P1** to **P6** the station is recalled from memory.

- You can also use ▲ and ▼ to recall stations assigned to preset tuning keys **P1** to **P6**.
- When the touch panel keys are not displayed, you can display them by touching the screen.
- When **P1** to **P6** are not displayed, you can display them by touching →.

Switching the XM channel select mode

You have two methods for selecting a channel: by number and by category. When selecting by number, channels in any category can be selected. Select by category to narrow your search down to only channels in a particular category.

- **Touch MODE to select the desired channel select mode.**

Touch **MODE** repeatedly to switch between the following channel select modes:

CH NUMBER (channel number select setting)

CATEGORY (channel category select setting)

Selecting a channel in the channel category

- 1 **Touch MODE to select the channel category select mode.**

Touch **MODE** repeatedly to switch between the following channel select modes:

CH NUMBER (channel number select setting)

CATEGORY (channel category select setting)

- 2 **Touch ▲ or ▼ to select the desired channel category.**

- 3 **Touch ◀ or ▶ to select the desired channel in the selected channel category.**

Selecting an XM channel directly

You can select an XM channel directly by entering the desired channel number.

- 1 **Touch DIRECT.**
CHANNEL INPUT appears in the display.
- 2 **Touch 0 to 9 to input the desired channel number.**
 - To cancel the input numbers, touch **C**.
- 3 **While the input number is displayed, touch ENTER.**

The XM channel of entered number is selected.

Displaying the Radio ID

Channel number select setting

If you select **CH : 000**, the ID code is displayed.

- **Touch ◀ or ▶ to select CH : 000.**

Channel category select setting

RADIO ID is provided as a channel category for displaying the ID code.

- **Touch ▲ or ▼ to select RADIO ID from channel category.**
 - If you select another channel, display of the ID code is canceled.
 - Display of the ID code repeats displaying **RADIO ID** and the ID code one after the other. ◻

Available accessories

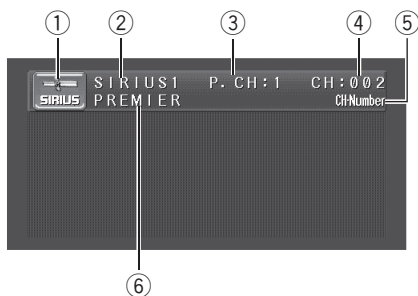
SIRIUS Satellite Radio tuner

Basic Operations

You can use this unit to control a SIRIUS Satellite Radio tuner, which is sold separately.

When the SIRIUS tuner is used together with this unit, some operations differ slightly from those described in the SIRIUS operation manual. This manual provides information on these points. For all other information on using the SIRIUS tuner, please refer to the SIRIUS operation manual.

- This unit does not have the text scroll function.
- With this unit, you can operate one additional function: SIRIUS channel direct selection. Refer to *Selecting a SIRIUS channel directly* on the next page.



- ① Source icon
- ② SIRIUS band indicator
- ③ SIRIUS preset number indicator
- ④ SIRIUS channel number indicator
- ⑤ SIRIUS channel select setting indicator
Shows what channel select setting has been selected. **CH-Number** is displayed when **CH-Number** is selected, and **Category** is displayed when **Category** is selected.
- ⑥ SIRIUS channel name

1 Touch the source icon and then touch SIRIUS to select SIRIUS.

2 Touch the screen to display the touch panel keys.

3 Touch BAND to select a band.

Touch **BAND** repeatedly until the desired SIRIUS band is displayed, **SIRIUS1**, **SIRIUS2** or **SIRIUS3**.

4 Touch ◀ or ▶ to select a desired channel.

The channels move up or down step by step. Channels that cannot currently be selected are skipped, and the next channel is selected.

- If you touch and hold ◀ or ▶, you can increase or decrease the channel number continuously.
- You can also select a channel by pressing ◀ or ▶ button.
- You can also perform tuning from a desired channel category. (Refer to *Selecting a channel in the channel category* on the next page.)



Notes

- If you do not use the touch panel keys for eight seconds, they will be hidden automatically.
- It may take a few seconds before you can hear anything while this unit acquires and processes the satellite signal when you change the source to SIRIUS tuner or select a channel.
- Display changes as follows every time the channels are switched. In the selected display, text automatically scrolls.
Channel name Selected display
For details, refer to *Switching the SIRIUS display* on this page.

Switching the SIRIUS display

● **Touch DISP to switch the SIRIUS display.**

Channel number Channel name Channel Category Artist name/feature Song/program title Composer

- When you change the display, text automatically scrolls.

Storing and recalling broadcast stations

You can easily store up to six broadcast stations for later recall.

- Up to 18 stations, six for each of three SIRIUS bands can be stored in memory.

- **When you find a station that you want to store in memory keep touching a preset tuning key P1 to P6 until PCH SET is displayed.**

The selected station has been stored in memory.

The next time you touch the same preset tuning key **P1** to **P6** the station is recalled from memory.

- When the touch panel keys are not displayed, you can display them by touching the screen.
- When **P1** to **P6** are not displayed, you can display them by touching **LIST**.

Selecting the SIRIUS channel select mode

You have two methods for selecting a channel: by number and by category. When selecting by number, channels in any category can be selected. Select by category to narrow your search down to only channels in a particular category.

- **Touch MODE to select the desired channel select mode.**

Touch **MODE** repeatedly to switch between the following channel select modes:

- CH-Number** (channel number select setting)
- Category** (channel category select setting)

Selecting a channel in the channel category

Channels are organized into various program categories, e.g. Rock, Classic, Jazz. You can specify channels by selecting the desired category.

- 1 **Touch MODE to select the channel category select mode.**

Touch **MODE** repeatedly to switch between the following channel select modes:

- CH-Number** (channel number select setting)
- Category** (channel category select setting)

- 2 **Touch ▲ or ▼ to select the desired channel category.**

- 3 **Touch ◀ or ▶ to select the desired channel in the selected channel category.**

Selecting a SIRIUS channel directly

You can select a SIRIUS channel directly by entering the desired channel number.

- 1 **Touch DIRECT.**

CHANNEL INPUT appears in the display.

- 2 **Touch 0 to 9 to input the desired channel number.**

- To cancel the input numbers, touch **C**.


- 3 **While the input number is displayed, touch ENTER.**

The SIRIUS channel of entered number is selected.

Displaying the Radio ID

If you select **CH:000**, the ID code is displayed.

- **Touch ◀ or ▶ to select CH : 000.**

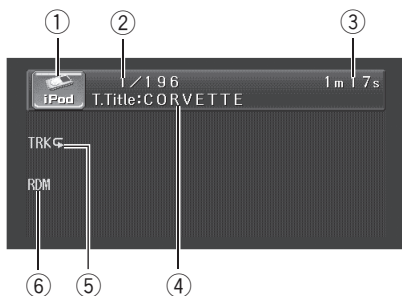
- To select **CH:000**, set the channel select setting to **CH-Number**. About the channel select setting, refer to *Selecting the SIRIUS channel select mode* on this page .

Available accessories

Playing songs on iPod

Listening to songs on your iPod

You can use this unit to control an iPod adapter, which is sold separately.



- ① Source icon
- ② Song number indicator
- ③ Play time indicator
- ④ Song title indicator
- ⑤ Repeat indicator
Shows when repeat range is selected to current track.
- ⑥ **RDM** indicator
Shows when random play is set to **TRACK** or **ALBUM**.

1 Touch the source icon and then touch iPod to select the iPod.

- You can also select the iPod source by pressing **SOURCE** repeatedly.
- When the iPod is not connected to this unit, you cannot select the iPod as a source.

2 Touch the screen to display the touch panel keys.

3 To skip back or forward to another song, touch ◀◀ or ▶▶.

Touching ▶▶ skips to the start of the next song. Touching ◀◀ once skips to the start of the current song. Touching it again will skip to the previous song.

4 To perform fast forward or reverse, keep touching ◀◀ or ▶▶.



Note

If the playback is stopped for any reason, touch **TOP** and refine your search for a song.

Browsing for a song

The operation of this unit to control an iPod is designed to be as close to the operation of the iPod as possible for easy operation and song search.

1 Touch TOP to display the top menu.

2 Touch one of the categories in which you want to search for a song.

- **PLAYLISTS** (playlists)
- **GENRES** (genres)
- **ARTISTS** (artists)
- **ALBUMS** (albums)
- **SONGS** (songs)

3 Touch a list title that you want to play.

Repeat this operation until you find the desired song.

- You can start a playback of all the songs in the selected list (**GENRES**, **ARTISTS** or **ALBUMS**). To do this, keep touching the list title.
- To go to the next group of list titles, touch ⇨.
- To return to the previous group of list titles, touch ⇦.
- To return to the previous menu, touch ⏪.
- To go to the top menu of the list search, touch **TOP**.

Pausing a song

● Touch ▶/|| during playback.

- To resume playback at the same point that you turned pause on, touch ▶/|| again.

Displaying text information on iPod

● Touch DISP.

Touch **DISP** repeatedly to switch between the following settings:

T. Title (song title) **Artist** (artist name)

Album (album title)

- If the characters recorded on the iPod are not compatible with a head unit, those characters will not be displayed.



Note

You can scroll the title to the left by keeping touching **DISP**.

Repeating play

For playback of the songs on the iPod, there are two repeat play ranges: **TRACK** (repeat one song) and **ALL** (repeat all songs in the list).

- While **REPEAT** is set to **TRACK**, you cannot select the other songs.

1 Press A.MENU button and then touch FUNCTION to display the function names.

2 Touch REPEAT to select the repeat range.

Touch **REPEAT** repeatedly until the desired repeat range appears in the display.

- **TRACK** Repeat just the current song
- **ALL** Repeat all songs in the selected list

Playing songs in a random order (shuffle)

For playback of the songs on the iPod, there are two random play methods: **TRACK** (play back songs in a random order) and **ALBUM** (play back albums in a random order).

1 Press A.MENU button and then touch FUNCTION to display the function names.

2 Touch RANDOM to select the random play method.

Touch **RANDOM** repeatedly until the desired random play method appears in the display.

- **TRACK** Play back songs in a random order within the selected list
- **ALBUM** Select an album randomly, and then play back all the songs in it in order
- **OFF** Cancel the random play

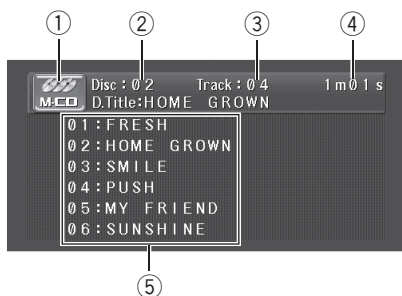
Available accessories

Multi-CD Player

Basic Operations

You can use this unit to control a multi CD player, which is sold separately.

- Only those functions described in this manual are supported by 50 disc multi CD players.
- This unit is not designed to operate disc title list functions with a 50 disc multi CD player.



- ① Source icon
- ② Disc number indicator
- ③ Track number indicator
- ④ Play time indicator
- ⑤ Disc list display
Shows the disc title list.

1 Touch the source icon and then touch M-CD to select the multi-CD player.

2 Touch the screen to display the touch panel keys.

3 Touch a disc title on the list to play back.

Operable disc titles are highlighted. If you want to select a disc located at 7 to 12, touch **▲** or **▼** to display **07** to **12**.

- When the disc titles of 01 06 or 07 12 are not displayed, you can display them by touching **LIST**.

- You can also sequentially select a disc by pressing **▲/▼** button.

4 To skip back or forward to another track, touch ◀ or ▶.

Touching **▶** skips to the start of the next track. Touching **◀** once skips to the start of the current track. Touching again will skip to the previous track.

5 To perform fast forward or reverse, keep touching ◀ or ▶.



Notes

- When the multi CD player performs the preparatory operations, **READY** is displayed.
- If an error message such as **ERROR-02** is displayed, refer to the multi CD player owner's manual.
- If there are no discs in the multi CD player magazine, **NO DISC** is displayed.
- If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.

Introduction of advanced operations

You can use these functions only with a multi CD player that supports them.

1 Press A.MENU button to display MENU. MENU appears on the display.

2 Touch FUNCTION to display the function names.

The function names are displayed and operable ones are highlighted.

- To go to the next group of function names, touch **NEXT**.
- To return to the previous group of function names, touch **PREV**.
- To return to the previous display, touch **BACK**.
- To return to the playback display, touch **ESC**.

Function and operation

REPEAT, RANDOM, SCAN, PAUSE,

Compression and **T. EDIT** operations are basically the same as that of the built in DVD player.

Function name	Operation
REPEAT	Refer to <i>Repeating play</i> on page 27. But the repeat play ranges you can select are different from that of the built in DVD player. The repeat play ranges of the multi CD player are as below: <ul style="list-style-type: none"> • M-CD Repeat all discs in the multi CD player • TRACK Repeat just the current track • DISC Repeat the current disc
RANDOM	Refer to <i>Playing tracks in random order</i> on page 27.
SCAN	Refer to <i>Scanning tracks of a CD</i> on page 28.
PAUSE	Refer to <i>Pausing disc playback</i> on page 24.
Compression	Refer to <i>Using compression and bass emphasis</i> on page 54.
ITS PLAY	Refer to <i>Using ITS playlists</i> on this page.
ITS MEMO	Refer to <i>Using ITS playlists</i> on this page.
T. EDIT	Refer to <i>Entering disc titles</i> on the next page.

Notes

- If you do not operate the function within about 30 seconds, the display is automatically returned to the playback display.
- If you select other discs during repeat play, the repeat play range changes to **M-CD**.
- If you perform track search or fast forward/reverse during **TRACK**, the repeat play range changes to **DISC**.
- After track or disc scanning is finished, normal playback of the tracks will begin again.

- When playing a CD TEXT disc on a CD TEXT compatible multi CD player, you cannot switch to **T. EDIT**. The disc title has already been recorded on a CD TEXT disc.

Using ITS playlists

ITS (instant track selection) lets you make a playlist of favorite tracks from those in the multi CD player magazine. After you have added your favorite tracks to the playlist you can turn on ITS play and play just those selections.

Creating a playlist with ITS programming

You can use ITS to enter and play back up to 99 tracks per disc from up to 100 discs (with the disc titles). (With multi CD players sold before the CDX P1250 and CDX P650, up to 24 tracks can be stored in the playlist.)

1 Play a CD that you want to program.

Touch ▲ or ▼ to select the CD.

2 Touch NEXT on the function menu.

3 Touch ITS MEMO.

4 Touch ◀ or ▶ to select the desired track.

5 Touch MEMORY▲ to store the currently playing track in the playlist.

MEMORY is displayed and the currently playing selection is added to your playlist. The display then shows track number again.

Note

After data for 100 discs has been stored in memory, data for a new disc will overwrite the oldest one.

Available accessories

Playback from your ITS playlist

ITS play lets you listen to the tracks that you have entered into your ITS playlist. When you turn on ITS play, tracks from your ITS playlist in the multi CD player will begin to play.

1 Select the repeat range.

Refer to *Playing tracks in random order* on page 27.

2 Touch NEXT on the function menu.

3 Touch ITS PLAY to turn ITS play on.

Playback begins of those tracks from your playlist within the previously selected **M-CD** or **DISC** ranges.

- If no tracks in the current range are programmed for ITS play, then **ITS EMPTY** is displayed.
- To turn ITS play off, touch **ITS PLAY** again.

Erasing a track from your ITS playlist

You can delete a track from your ITS playlist if ITS play is on.
If ITS play is already on, skip to step 2.

1 Play the CD with the track you want to delete from your ITS playlist, and turn ITS play on.

Refer to *Playback from your ITS playlist* on this page.

2 Touch NEXT on the function menu.

3 Touch ITS MEMO.

4 Touch ◀ or ▶ to select the desired track.

5 Touch CLEAR▼ to erase the track from your ITS playlist.

The currently playing selection is erased from your ITS playlist and playback of the next track from your ITS playlist begins.

- If there are no tracks from your playlist in the current range, **ITS EMPTY** is displayed and normal play resumes.

Erasing a CD from your ITS playlist

You can delete all tracks of a CD from your ITS playlist if ITS play is off.

1 Play the CD that you want to delete.

Touch ▲ or ▼ to select the CD.

2 Touch NEXT on the function menu.

3 Touch ITS MEMO.

4 Touch CLEAR▼ to erase all tracks on the currently playing CD from your ITS playlist.

ITS CLEAR is displayed and all tracks on the currently playing CD are erased from your playlist.

Entering disc titles

Use the disc title input feature to store up to 100 CD titles (with ITS playlist) into the multi CD player. Each title can be up to 10 characters long.

The operation is the same as that of the built in DVD player.

Refer to *Entering disc titles* on page 29.

- When playing a CD TEXT disc on a CD TEXT compatible multi CD player, you cannot switch to **T. EDIT**. The disc title has already been recorded on a CD TEXT disc.



Notes

- Titles remain in memory, even after the disc has been removed from the magazine, and are recalled when the disc is reinserted.
- After data for 100 discs has been stored in memory, data for a new disc will overwrite the oldest one.

Displaying disc titles

● Touch DISP.

Touch **DISP** repeatedly to switch between the following settings:

DISC LIST (disc list) **D.Title** (disc title)

When you select **D.Title**, the title of the currently playing disc is shown in the display.

- If no title has been entered for the currently playing disc, **NO DISC TITLE** is displayed.

Using CD TEXT functions

You can use these functions only with a CD TEXT compatible multi CD player.

The operation is the same as that of the built in DVD player.

Refer to *Text information* on page 26.

Selecting tracks from the track title list

You can use these functions only with a CD TEXT compatible multi CD player.

The operation is the same as that of the built in DVD player.

Refer to *Selecting tracks from the track title list* on page 29.

Using compression and bass emphasis

Using **COMP** (compression) and **DBE** (dynamic bass emphasis) functions lets you adjust the sound playback quality of the multi CD player.

● Touch **COMP** on the function menu to select your favorite setting.

COMP OFF COMP 1 COMP 2

COMP OFF DBE 1 DBE 2

- If the multi CD player does not support COMP/DBE, **NOCOMP** is displayed when you attempt to select it.

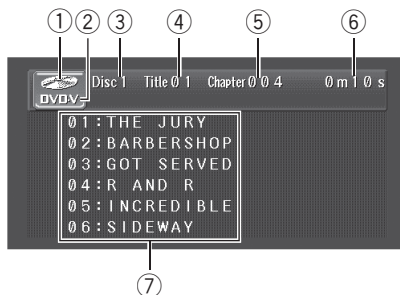
DVD Player

Basic Operations

You can use this unit to control a DVD player or multi DVD player, which is sold separately.

For details concerning operation, refer to the DVD player's or multi DVD player's operation manual. This section provides information on DVD operations with this unit which differs from that described in the DVD player's or multi DVD player's operation manual.

- Multi DVD player that has ITS functions and disc title functions can also be connected to this unit. In this case, **ITSPLAY**, **ITS MEMO** and disc title input can be controlled.



- ① Source icon
- ② Media indicator
- ③ Disc number indicator
Shows the disc number currently playing when using a multi DVD player.
- ④ Title/Folder number indicator
- ⑤ Chapter/track number indicator
- ⑥ Play time indicator
- ⑦ Disc list display
Shows the disc title list.

1 Touch the source icon and then touch **S-DVD** to select the DVD player.

- When the source icon is not displayed, you can display it by touching the screen.

Available accessories

2 Touch the screen to display the touch panel keys.

3 To skip back or forward to another chapter/track, briefly touch ◀ or ▶.

4 To perform fast forward or reverse, keep touching ◀ or ▶.



Note

If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.

Selecting a disc

- You can operate this function only when a multi DVD player is connected to this unit.

● Touch a disc title on the list to play back.

Operable disc titles are highlighted.

- You can also select a disc by touching ▲ or ▼.
- You can also select a disc by pressing and holding ▲ or ▼ button.
- When the list of titles is not displayed, touch LIST.

Selecting a folder

- You can operate this function only when a DVD player which is corresponding to compressed audio playback is connected to this unit.

● Touch ▲ or ▼ to select a folder.

Introduction of advanced operations

1 Press A.MENU button to display MENU. MENU appears on the display.

2 Touch FUNCTION to display the function names.

The function names are displayed and operable ones are highlighted.

- To return to the previous display, touch BACK.
- To return to the playback display, touch ESC.

Function and operation

Play mode, Random mode, Scan mode,

Pause and T. EDIT operations are basically the same as that of the built in DVD player.

Also, ITSPLAY and ITS MEMO operations are basically the same as that the multi CD player.

Function name	Operation
Play mode	Refer to <i>Repeating play</i> on page 27. But the repeat play range that you can select is vary depending on the type of disc or system. The repeat play ranges of the DVD player/multi DVD player are as below: During PBC playback of Video CDs, this function cannot be operated. <ul style="list-style-type: none"> DISC Repeat the current disc FOLDER Repeat the current folder TITLE Repeat just the current title CHAPTER Repeat just the current chapter TRACK Repeat just the current track
Random mode	Refer to <i>Playing tracks in random order</i> on page 27.
Scan mode	Refer to <i>Scanning tracks of a CD</i> on page 28.
Pause	Refer to <i>Pausing disc playback</i> on page 24.
ITSPLAY	Refer to <i>Using ITS playlists</i> on page 52.
ITS MEMO	Refer to <i>Using ITS playlists</i> on page 52.
T. EDIT	Refer to <i>Entering disc titles</i> on page 53.



Notes

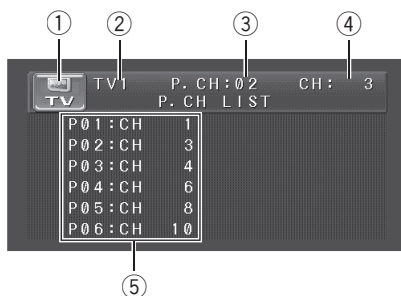
- If you select other discs during repeat play, the repeat play range changes to **DISC**.
- During video CD or CD playback, if you perform track search or fast forward/reverse during **TRACK**, the repeat play range changes to **DISC**.
- During compressed audio playback, if you select another folder during repeat play, the repeat play range changes to **DISC**.
- During compressed audio playback, if you perform track search or fast forward/reverse during **TRACK**, the repeat play range changes to **FOLDER**.
- The ITS function of a DVD player differs slightly from ITS playback with a multi CD player. With multi DVD player, ITS playback applies only to the CD playing. For details, refer to *Using ITS playlists* on page 52. ■

TV tuner

Basic Operations

You can use this unit to control a TV tuner (e.g. GEX P5700TV), which is sold separately.

For details concerning operation, refer to the TV tuner's operation manual. This section provides information on TV operations with this unit which differs from that described in the TV tuner's operation manual.



- ① Source icon
- ② Band indicator
- ③ Preset number indicator
- ④ Channel indicator
- ⑤ Preset list display
Shows the preset list.

1 Touch the source icon and then touch TV to select the TV.

- When the source icon is not displayed, you can display it by touching the screen.

2 Touch the screen to display the touch panel keys.

3 Touch BAND to select a band.

Touch **BAND** repeatedly until the desired band is displayed, **TV1** or **TV2**.

4 To select a preset channel, touch a preset channel on the list.

The preset channel you selected is tuned in.

Available accessories

- When the list of channels is not displayed, touch **LIST**.

5 To perform manual tuning, briefly touch ◀ or ▶.

The channels move up or down step by step.

6 To perform seek tuning, keep touching ◀ or ▶ for about one second and release.

The tuner will scan the channels until a broadcast strong enough for good reception is found.

- You can cancel seek tuning by briefly touching either ◀ or ▶.
- If you keep touching ◀ or ▶ you can skip broadcasting channels. Seek tuning starts as soon as you release the keys.

Note

If you do not use the touch panel keys within 30 seconds, they will be hidden automatically.



Storing and recalling broadcast stations

If you touch any of the preset tuning keys **P01** to **P12** you can easily store up to 12 broadcast stations for later recall with the touch of a key.

● When you find a station that you want to store in memory, keep touching one of preset tuning keys P01 to P12 until the preset number stops flashing.

The number you have touched will flash in the preset number indicator and then remain lit. The selected station has been stored in memory.

The next time you touch the same preset tuning key the station is recalled from memory.

- To switch between **P01** to **P06** and **P07** to **P12**, touch  or .
- When the touch panel keys are not displayed, you can display them by touching the screen.

- When **P01** to **P06** and **P07** to **P12** are not displayed, you can display them by touching **LIST**.

Notes

- Up to 24 stations, 12 for each of two TV bands, can be stored in memory.
- You can also use ▲ and ▼ to recall stations assigned to preset tuning keys **P01** to **P12**.

Introduction of advanced operations

1 Press A.MENU button to display MENU. MENU appears on the display.

2 Touch FUNCTION to display the function names.

The function names are displayed and operable ones are highlighted.

- To return to the previous display, touch **BACK**.
- To return to the TV picture, touch **ESC**.

Note

If you do not operate the function within about 30 seconds, the display is automatically returned to the TV picture.

Storing the strongest broadcast stations sequentially

● Touch BSSM on the function menu to turn BSSM on.

BSSM begins to flash. While **BSSM** is flashing the 12 strongest broadcast stations will be stored in order from the lowest channel up. When finished, **BSSM** disappears.

- To cancel the storage process, touch **BSSM** again.

**Note**

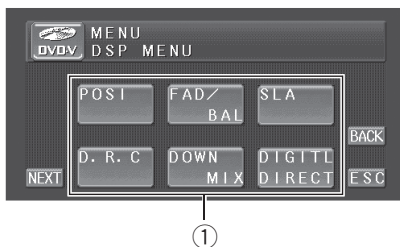
Storing broadcast stations with BSSM may replace broadcast stations you have saved using **P01** to **P12**.

Digital Signal Processor

Introduction of DSP adjustments

You can use this unit to control multi channel processor (e.g. DEQ P8000), which is sold separately.

- Some functions may differ depending on the multi channel processor connected to this unit.

**① DSP display**

Shows the DSP function names.

By carrying out the following settings/adjustments in the order shown, you can create a finely tuned sound field effortlessly.

- Setting the speaker setting
- Using the position selector
- Auto TA and EQ (auto time alignment and auto equalizing)
- Adjusting the time alignment
- Adjusting the speaker output levels using a test tone
- Selecting a cross over frequency
- Adjusting the speaker output levels
- Adjusting 3 band parametric equalizer

1 Press A.MENU button to display MENU.
MENU appears on the display.

2 Touch DSP to display the DSP function names.

The DSP function names are displayed and operable ones are highlighted.

- To go to the next group of function names, touch **NEXT**.

Available accessories

- To return to the previous group of function names, touch **PREV.**
- When playing discs recorded with more than 96 kHz sampling frequency, you cannot use audio functions. Also, equalizer curve setting, **POSITION**, **AUTO EQ** and **AUTOTA** will be cancelled.
- When playing discs recorded with more than 96 kHz sampling frequency, audio is outputted from front speakers only.
- When selecting the FM tuner as the source, you cannot switch to **SLA.**
- When playing other than the DVD disc, you cannot switch to **D.R.C.**
- When neither **FRONT-L** nor **FRONT-R** is selected in **POSITION**, you cannot switch to **TIME ALIGN.**
- When both the center speaker and the rear speaker are set to OFF in the speaker setting, you cannot switch to **DOLBY PL II.**
- To return to the previous display, touch **BACK.**
- To return to the display of each source, touch **ESC.**

Note

If you do not operate the DSP function within about 30 seconds, the display is automatically returned to the source display.

Using the sound field control

The SFC function creates the sensation of a live performance.

- The acoustics of different performance environments are not the same and depend on the extent and contour of space through which sound waves move and on how sounds bounce off the stage, walls, floors and ceilings. At a live performance you hear music in three stages: direct sound, early reflections, and late reflections, or reverberations. Those factors are programmed into the SFC circuitry to recreate the acoustics of various performance settings.

1 Press EQ button and hold to switch to SFC function.

Press **EQ** and hold until **SFC** appears in the display.

- To switch to equalizer function, press **EQ** and hold again.

2 Press EQ to select the desired SFC mode.

Press **EQ** repeatedly to switch between the following mode:

MUSICAL (musical) **DRAMA** (drama)
ACTION (action) **JAZZ** (jazz) **HALL** (hall)
CLUB (club) **OFF** (off)

Note

If the source is a 2 channel LPCM audio or a 2 channel Dolby Digital audio and you select SFC effects that are most applicable for 5.1 channel audio (i.e., **MUSICAL**, **DRAMA** or **ACTION**), we recommend turning Dolby Pro Logic II on. On the other hand, when selecting SFC effects that are intended for use with 2 channel audio (i.e., **JAZZ**, **HALL** or **CLUB**), we recommend turning Dolby Pro Logic II off.

Using the position selector

One way to assure a more natural sound is to accurately position the stereo image, putting you right in the center of the sound field. The position selector function lets you automatically adjust the speaker output levels and inserts a delay time to match the number and position of occupied seats. When used in conjunction with the SFC, the feature will make the sound image more natural and offer a panoramic sound that envelops you.

1 Touch POSITION on the DSP function menu.

Available accessories

2 Touch ◀/▶/▲/▼ to select a listening position.

Touch one of these, ◀/▶/▲/▼, to select a listening position as listed in the table.

Key	Display	Position
◀	FRONT-L	Front seat left
▶	FRONT-R	Front seat right
▲	FRONT	Front seats
▼	ALL	All seats

- To cancel the selected listening position, touch the same key again.



Note

When you make adjustments to the listening position, the speaker outputs are automatically set for appropriate levels. You can tailor the levels more precisely referring to *Adjusting the speaker output levels using a test tone* or *Adjusting the speaker output levels*.

Using balance adjustment

You can change the fader/balance setting so that it can provide you an ideal listening environment in all occupied seats.

1 Touch FAD/BAL on the DSP function menu.

2 Touch ▲ or ▼ to adjust front/rear speaker balance.

Each time you touch ▲ or ▼ it moves the front/rear speaker balance towards the front or the rear.

FRONT:25 to **REAR:25** is displayed as the front/rear speaker balance moves from front to rear.

- **FR:00** is the proper setting when only two speakers are used.

3 Touch ◀ or ▶ to adjust left/right speaker balance.

Each time you touch ◀ or ▶ it moves the left/right speaker balance towards the left or the right.

LEFT:25 to **RIGHT:25** is displayed as the left/right speaker balance moves from left to right.

Adjusting source levels

SLA (source level adjustment) lets you adjust the volume level of each source to prevent radical changes in volume when switching between sources.

- Settings are based on the FM tuner volume level, which remains unchanged.

1 Compare the FM tuner volume level with the level of the source you wish to adjust.

2 Touch SLA on the DSP function menu.

3 Press ▲ or ▼ to adjust the source volume.

Each time you press ▲ or ▼ it increases or decreases the source volume.

+4 to **-4** is displayed as the source volume is increased or decreased.



Notes

- The AM tuner volume level can also be adjusted with source level adjustments.
- Video CD, CD and compressed audio are set to the same source level adjustment volume automatically.
- DVD and the optional DVD player are set to the same source level adjustment volume automatically.
- External unit 1 and external unit 2 are set to the same source level adjustment volume automatically.

Available accessories

- AUX (auxiliary input) and AV (AV input) are set to the same source level adjustment volume automatically.

Using the dynamic range control

The dynamic range refers to the difference between the largest and softest sounds. The dynamic range control compresses this difference so that you can clearly hear sounds even at low volume levels.

- The dynamic range control is effective only on Dolby Digital sounds.
- When playing other than the DVD disc, you cannot switch to **D.R.C.**

1 Touch **D.R.C** on the **DSP** function menu.

- When playing other than the DVD disc, you cannot switch this mode.

2 Touch **▲** to turn the dynamic range control on.

- To turn dynamic range control off, touch **▼**.

Using the down-mix function

The down mix function allows you to play back multi channel audio in 2 channels.

1 Touch **DOWN MIX** on the **DSP** function menu.

2 Touch **◀** or **▶** to select the desired level.

Touch **◀** to select **Lo/Ro**. Touch **▶** to select **Lt/Rt**.

- **Lo/Ro** Stereo mix the original audio that do not contain channel modes such as surround components.
- **Lt/Rt** Down mix so that the surround components can be restored (decoded).

Using the direct control

You can override audio settings to check for effectiveness of your audio settings.

- All audio functions are locked out when the direct control is on except **VOLUME**.

1 Touch **DIGITL DIRECT** on the **DSP** function menu.

2 Touch **▲** to turn the direct control on.

- To turn direct control off, touch **▼**.

Using the Dolby Pro Logic II

Dolby Pro Logic II creates five full bandwidth output channels from two channel sources to achieve high purity matrix surround.

- Dolby Pro Logic II supports up to 48kHz sampling rate stereo source and has no effect on other types of source.

1 Touch **NEXT** on the **DSP** function menu.

2 Touch **DOLBY PL II**.

3 Touch any of the following touch panel keys to select the desired mode.

- **MOVIE** The Movie mode suitable for movie playback
- **MUSIC** The Music mode suitable for music playback
- **MATRIX** The Matrix mode for when FM radio reception is weak
- **OFF** Turn Dolby Pro Logic II off
- **ADJUST** Adjust the Music mode
 - You can operate **ADJUST** only when **MUSIC** has been selected.

Adjusting the Music mode

You can adjust the Music mode with the following three controls.

Available accessories

- Panorama (**PANORAMA**) extends the front stereo image to include the surround speakers for an exciting “wraparound” effect.
- Dimension (**DIMENSION**) allows you to gradually adjust the sound field either towards the front or the rear.
- Center Width Control (**CENTER WDT**) allows center channel sounds to be positioned between the center speaker and the left/right speakers. It improves the left center right stage presentation for both the driver and the front passenger.

1 Touch NEXT on the DSP function menu.

2 Touch DOLBY PL II.

3 Touch MUSIC and then touch ADJUST.

- You can operate **ADJUST** only when **MUSIC** has been selected.

4 Touch ▲ or ▼ to select PANORAMA (panorama).

Each time you touch ▲ or ▼ selects the item in the following order:

PANORAMA (panorama) **DIMENSION** (dimension) **CENTER WDT** (center width)

5 Touch ◀ to turn the panorama control on.

- To turn the panorama control off, touch ▶.

6 Touch ▼ to select DIMENSION and then touch ◀ or ▶ to adjust front/surround speaker balance.

Each time you touch ◀ or ▶ it moves the sound towards the front or the surrounds. **+3 to -3** is displayed as the front/surround speaker balance moves from front to surrounds.

7 Touch ▼ to select CENTER WDT and then touch ◀ or ▶ to adjust the center image.

Each time you touch ◀ or ▶ it gradually spreads the center channel sound into the front left and right speakers over a range **0** to **7**.

3 is the default and it's recommended for most recordings. **0** places all center sound in the center speaker. **7** places all center sound equally in the left/right speakers.

Setting the speaker setting

You need to make with/without (or yes/no) and size (bass reproducing capacity) selection/adjustments depending on the installed speakers. The size needs to be set to **LARGE** (large) if the speaker is capable of reproducing sounds of about 100 Hz or below. Otherwise select **SMALL** (small).

- Low frequency range is not output if the subwoofer is set to **OFF** and the front and rear speakers set to **SMALL** or **OFF**.
- It is imperative that non installed speakers be set to **OFF**.
- Set the front or rear speaker to **LARGE** if the speaker is capable of reproducing bass content, or if no subwoofer is installed.

1 Touch NEXT on the DSP function menu.

2 Touch SP SET.

3 Touch ▲ or ▼ to select the speaker to be adjusted.

Each time you touch ▲ or ▼ selects the speaker in the following order:

FRONT (front speakers) **CENTER** (center speaker) **REAR** (rear speakers) **SUB WOOFER** (subwoofer) **PHASE** (subwoofer setting)

- You can switch to **PHASE** only when the subwoofer has been set to **ON**.

Available accessories

4 Touch ◀ or ▶ to select the correct size for the selected speaker.

Each time you touch ◀ or ▶ selects the size in the following order:

OFF (off) **SMALL** (small) **LARGE** (large)

- You cannot select **OFF**, when **FRONT** (front speakers) have been selected.
- You can select **ON** or **OFF**, when

SUB WOOFER (subwoofer) has been selected.

- You can switch **REVERSE** (reverse phase) or **NORMAL** (normal phase), when **PHASE** (subwoofer setting) has been selected.

Correcting the subwoofer's phase

If trying to boost the bass output of the subwoofer doesn't do much or rather makes you feel that the bass gets more murky, this may indicate that the subwoofer's output and bass content you hear over other speakers cancel each other out. To remove this problem, try changing the phase setting for the subwoofer.

1 Touch NEXT on the DSP function menu.

2 Touch SP SET.

3 Touch ▲ or ▼ to select SUB WOOFER (subwoofer).

Each time you touch ▲ or ▼ selects the speaker in the following order:

FRONT (front speakers) **CENTER** (center speaker) **REAR** (rear speakers)

SUB WOOFER (subwoofer) **PHASE** (subwoofer setting)

4 Touch ◀ to turn subwoofer output on.

- To turn subwoofer output off, touch ▶.

5 Touch ▼ and then touch ◀ or ▶ to select the phase of subwoofer output.

Touch ▶ to select normal phase and

NORMAL appears in the display. Touch ◀ to select reverse phase and **REVERSE** appears in the display.



Note

When playing a 2 channel mono source with Pro Logic turned on, there may be occasions when the following will occur:

- No audio is outputted if the center speaker setting is **SMALL** or **LARGE** and no center speaker is installed.
- Audio is heard only over the center speaker if installed and the center speaker setting is **SMALL** or **LARGE**.

Selecting a cross-over frequency

You can select a frequency, under which sounds are reproduced through the subwoofer. If the installed speakers include one whose size has been set to **SMALL**, you can select a frequency, under which sounds are reproduced through a **LARGE** speaker or subwoofer.

1 Touch NEXT on the DSP function menu.

2 Touch CROSS OVER.

3 Touch ▲ or ▼ to select the speaker to be adjusted.

Each time you touch ▲ or ▼ selects the speaker in the following order:

FRONT (front speakers) **CENTER** (center speaker) **REAR** (rear speakers)

SUB WOOFER (subwoofer)

4 Touch ◀ or ▶ to select cross-over frequency.

Each time you touch ◀ or ▶ selects cross over frequencies in the following order:

63 80 100 125 160 200 (Hz)

**Note**

Selecting a cross over frequency is to set a cross over frequency of the subwoofer's L.P.F. (low pass filter) and that of the **SMALL** speaker H.P.F. (high pass filter). The cross over frequency setting has no effect if the subwoofer is set to **OFF** and other speakers are set to **LARGE** or **OFF**.

Adjusting the speaker output levels

You can readjust the speaker output levels using a test tone while listening to music.

1 Touch NEXT on the DSP function menu.

2 Touch SP LEVEL.

3 Touch ▲ or ▼ to select the speaker to be adjusted.

Each time you touch ▲ or ▼ selects the speaker in the following order:

FRONT-L (front speaker left) **CENTER** (center speaker) **FRONT-R** (front speaker right)

REAR-R (rear speaker right) **REAR-L** (rear speaker left) **SUB WOOFER** (subwoofer)

- You cannot select speakers whose size is set at **OFF**.

4 Touch ◀ or ▶ to adjust the speaker output level.

Each time you touch ◀ or ▶ increases or decreases the speaker output level. **+10** to **-10** is displayed as the level is increased or decreased.

**Notes**

- You can also display the speaker setting menu by pressing **BOOST** button.
- To adjust the speaker output levels in this mode is the same as making the speaker output levels at **TEST TONE**. Both provide the same results.

Adjusting the speaker output levels using a test tone

This function allows you to easily get the over all balance right among the speakers.

1 Touch NEXT on the DSP function menu.

2 Touch TEST TONE.

3 Touch START to start the test tone output.

The test tone is outputted. It rotates from speaker to speaker in the following sequence at intervals of about two seconds. The current settings for the speaker over which you hear the test tone are shown in the display.

FRONT-L (front speaker left) **CENTER** (center speaker) **FRONT-R** (front speaker right)

REAR-R (rear speaker right) **REAR-L** (rear speaker left) **SUB WOOFER** (subwoofer)

Check each speaker output level. If no adjustments are needed, perform step 5 to stop the test tone.

- The settings do not appear for speakers whose size is set **OFF**.

4 Touch ◀ or ▶ to adjust the speaker output level.

Each time you touch ◀ or ▶ increases or decreases the speaker output level. **+10** to **-10** is displayed as the level is increased or decreased.

- The test tone rotates to the next speaker after about two seconds from the last operation.

5 Touch STOP to stop the test tone output.

**Notes**

- You can also display the speaker output level menu by pressing **BOOST** button.

Available accessories

- If needed, select speakers and adjust their 'absolute' output levels. (Refer to *Adjusting the speaker output levels* on the previous page.)
- To adjust the speaker output levels in this mode is the same as making the speaker output levels at **SP LEVEL**. Both provide the same results.

Using the time alignment

The time alignment lets you adjust the distance between each speaker and the listening position.

1 Touch NEXT on the DSP function menu.

2 Touch TIME ALIGN.

3 Touch any of the following touch panel keys to select the time alignment.

- **INIT** Initial time alignment (factory setting)
- **AUTOTA** Time alignment created by auto TA and EQ. (Refer to *Auto TA and EQ (auto time alignment and auto equalizing)* on page 67.)
- **CUSTOM** Adjusted time alignment that you can create for yourself
- **OFF** Turn the time alignment off
- **ADJUST** Adjust the time alignment as desired
 - You cannot select **AUTOTA** if auto TA and EQ has not been carried out.
 - You cannot select **ADJUST** when neither **FRONT-L** nor **FRONT-R** is selected in **POSITION**.

Adjusting the time alignment

You can adjust the distance between each speaker and the selected position.

- An adjusted time alignment is memorized in **CUSTOM**.

1 Touch NEXT on the DSP function menu.

2 Touch TIME ALIGN and then touch ADJUST.

- You cannot select **ADJUST** when neither **FRONT-L** nor **FRONT-R** is selected in **POSITION**.

3 Touch ▲ or ▼ to select the speaker to be adjusted.

Each time you touch ▲ or ▼ selects the speaker in the following order:

FRONT-L (front speaker left) **CENTER** (center speaker) **FRONT-R** (front speaker right) **REAR-R** (rear speaker right) **REAR-L** (rear speaker left) **SUB WOOFER** (subwoofer)

- You cannot select speakers whose size is set at **OFF**.

4 Touch ◀ or ▶ to adjust the distance between the selected speaker and the listening position.

Each time you touch ◀ or ▶ increases or decreases the distance. **0.0** to **200.0in.** is displayed as the distance is increased or decreased.

5 Touch ESC to return to the playback display.

Using the equalizer

The equalizer lets you adjust the equalization to match car interior acoustic characteristics as desired.

Recalling equalizer curves

There are seven stored equalizer curves which you can easily recall at any time. Here is a list of the equalizer curves:

Display	Equalizer curve
POWERFUL	Powerful
NATURAL	Natural
VOCAL	Vocal
FLAT	Flat

Available accessories

Display	Equalizer curve
CUSTOM1	Custom 1
CUSTOM2	Custom 2
SUPER BASS	Super bass

- **CUSTOM1** and **CUSTOM2** are adjusted equalizer curves.
- When **FLAT** is selected no supplement or correction is made to the sound. This is useful to check the effect of the equalizer curves by switching alternatively between **FLAT** and a set equalizer curve.

1 Press EQ and hold to switch to equalizer function.

Press **EQ** and hold until an equalizer curve name appears in the display.

- To switch to SFC function, press **EQ** and hold again.

2 Press EQ to select the equalizer.

Press **EQ** repeatedly to switch between the following equalizers:

POWERFUL NATURAL VOCAL FLAT
CUSTOM1 CUSTOM2 SUPER BASS

Adjusting 3-band parametric equalizer

For **CUSTOM1** and **CUSTOM2** equalizer curves, you can adjust the front, rear and center equalizer curves separately by selecting a center frequency, an equalizer level and a Q factor for each band.

- A separate **CUSTOM1** curve can be created for each source.
- A **CUSTOM2** curve can be created common to all sources.
- The center speaker largely determines the sound image and getting the balance right isn't easy. We recommend reproducing a 2 ch. audio (a CD for example) and getting the balance right among the speakers except for the center, and then reproducing a 5.1 ch. audio (Dolby Digital or DTS) and ad

justing the center speaker output to the balance you have already got among the other speakers.

1 Touch NEXT twice on the DSP function menu.

2 Touch PARA EQ.

3 Touch ▲ or ▼ to select the desired item.

Each time you touch ▲ or ▼ selects the item in the following order:

SP-SEL (speakers) **BAND** (bands)
FREQUENCY (center frequency) **LEVEL**
 (equalizer level) **Q FACTOR** (Q factor)

4 Touch ◀ or ▶ to select the speaker to be adjusted.

Touch ◀ or ▶ until the desired speaker appears in the display.

REAR (rear speakers) **CENTER** (center speaker) **FRONT** (front speakers)

- You cannot select speakers whose size is set at **OFF**.

5 Touch ▼ and then touch ◀ or ▶ to select the equalizer band to be adjusted.

Each time you touch ◀ or ▶ selects equalizer bands in the following order:

LOW (low) **MID** (mid) **HIGH** (high)

6 Touch ▼ and then touch ◀ or ▶ to select the center frequency of selected band.

Touch ◀ or ▶ until the desired frequency appears in the display.

40Hz 50Hz 63Hz 80Hz 100Hz 125Hz
160Hz 200Hz 250Hz 315Hz 400Hz
500Hz 630Hz 800Hz 1kHz 1.25kHz
1.6kHz 2kHz 2.5kHz 3.15kHz 4kHz
5kHz 6.3kHz 8kHz 10kHz 12.5kHz

Available accessories

7 Touch ▼ and then touch ◀ or ▶ to adjust the equalizer level.

Each time you touch ◀ or ▶ increases or decreases the equalizer level. +06 to -06 is displayed as the level is increased or decreased.

8 Touch ▼ and then touch ◀ or ▶ to select the desired Q factor.

Each time you touch ◀ or ▶ switches between the following Q factor:

NARROW (narrow) **WIDE** (wide)

- You can adjust parameters for each band of the other speakers in the same way.



Note

You can select a center frequency for each band. You can change the center frequency in 1/3 octave steps, but you cannot select frequencies that have intervals shorter than 1 octave among the center frequencies of the three bands.

Using the auto-equalizer

The auto equalizer is the equalizer curve created by auto TA and EQ (refer to *Auto TA and EQ (auto time alignment and auto equalizing)* on this page).

You can turn the auto equalizer on or off.

1 Touch NEXT twice on the DSP function menu.

2 Touch AUTO EQ.

- You cannot use this function if auto TA and EQ has not been carried out.

3 Touch ▲ to turn the auto-equalizer on.

- To turn auto equalizer off, touch ▼.

Auto TA and EQ (auto-time alignment and auto-equalizing)

The auto time alignment is automatically adjusted for the distance between each speaker and the listening position.

The auto equalizer automatically measures the car interior acoustic characteristics, and then creates the auto equalizer curve based on that information.



WARNING

To prevent accidents, never carry out auto TA and EQ while driving. When this function measures the car interior acoustic characteristics to create an auto equalizer curve, a loud measurement tone (noise) may be outputted from the speakers.



CAUTION

- Carrying out auto TA and EQ under the following conditions may damage the speakers. Be sure to check the conditions thoroughly before carrying out auto TA and EQ.
 - When speakers are incorrectly connected. (e.g., When a rear speaker is connected to a subwoofer output.)
 - When a speaker is connected to a power amp delivering output higher than the speaker's maximum input power capability.
- If the microphone is placed in an unsuitable position the measurement tone may become loud and measurement may take a long time, resulting in a drain on battery power. Be sure to place the microphone in the specified location.

Before operating the auto TA and EQ function

- Carry out auto TA and EQ in as quiet a place as possible, with the car engine and air conditioning switched off. Also cut power to car phones or portable telephones in the car, or remove them from the car before carrying out auto TA and EQ. Sounds other than the measurement tone (surrounding sounds, engine sound, telephones ringing etc.) may prevent correct measurement of the car interior acoustic characteristics.
- Be sure to carry out auto TA and EQ using the supplied microphone. Using another microphone may prevent measurement, or result in incorrect measurement of the car interior acoustic characteristics.
- When front speaker is not connected, auto TA and EQ cannot be carried out.
- When this unit is connected to a power amp with input level control, auto TA and EQ may not be possible if you lower power amp input level. Set the power amp's input level to the standard position.
- When this unit is connected to a power amp with an LPF, turn off the LPF on the power amp before carrying out auto TA and EQ. In addition, the cut off frequency for built in LPF of an active subwoofer should be set to the highest frequency.
- The time alignment value calculated by auto TA and EQ may differ from the actual distance in the following circumstances. However, the distance has been calculated by computer to be the optimum delay to give accurate results for the circumstances, so please continue to use this value.

When the reflected sound within a vehicle is strong and delays occur.

When delays occur for low sounds due to the influence of the LPF on active subwoofers or external amps.

- Auto TA and EQ changes the audio settings as below:

The fader/balance settings return to the center position. (Refer to page 60.)

The equalizer curve switches to **FLAT**.

(Refer to page 65.)

It will be adjusted automatically to high pass filter setting for front, center and rear speaker.

- If you carry out auto TA and EQ when a previous setting of this already exists, the setting will be replaced.

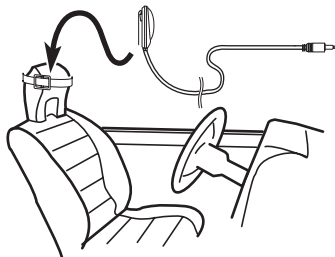
Carrying out auto TA and EQ

1 Stop the car in a place that is as quiet as possible, close all doors, windows and the sun roof, and then turn the engine off.

If the engine is left running, engine noise may prevent correct auto TA and EQ.

2 Fix the supplied microphone in the center of the headrest of the driver's seat, facing forward, using the belt (sold separately).

The auto TA and EQ may differ depending on where you place the microphone. If desired, place the microphone on the front passenger seat to carry out auto TA and EQ.



3 Turn the ignition switch to ON or ACC.

If the car's air conditioner or heater is turned on, turn it off. Noise from the fan in the air conditioner or heater may prevent correct auto TA and EQ.

Available accessories

- Press **SOURCE** to turn the source on if this unit is turned off.

4 Select the position for the seat on which the microphone is placed.

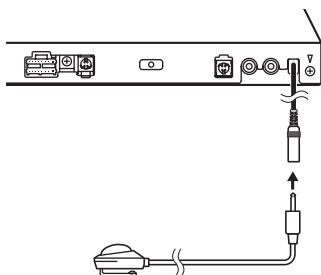
Refer to *Using the position selector* on page 59.

- If no position is selected before you start auto TA and EQ, **FRONT-L** is selected automatically.

5 Press **SOURCE** and hold until the unit turns off.

6 Press and hold **EQ** to enter the auto TA and EQ measurement mode.

7 Plug the microphone into the microphone input jack on the multi-channel processor.



For details concerning operation, refer to the multi channel processor's operation manual.

8 Touch **START** to start the auto TA and EQ.

9 Get out of the car and close the door within 10 seconds when the 10-second count-down starts.

The measurement tone (noise) is outputted from the speakers, and auto TA and EQ begins.

- When all speakers are connected, auto TA and EQ is completed in about nine minutes.


- To stop auto TA and EQ, touch **STOP**.
- To cancel auto TA and EQ part way through, touch **BACK** or **ESC**.

10 When auto TA and EQ is completed, **Complete** is displayed.

When correct measurement of car interior acoustic characteristics is not possible, an error message is displayed. (Refer to *Under standing auto TA and EQ error messages* on page 72.)

11 Touch **ESC** to cancel the auto TA and EQ mode.


12 Store the microphone carefully in the glove compartment.

Store the microphone carefully in the glove compartment or any other safe place. If the microphone is subjected to direct sunlight for an extended period, high temperatures may cause distortion, color change or malfunction. 

Additional Information

Troubleshooting

Common

Symptom	Cause	Action (See)
Power doesn't turn on. The unit doesn't operate.	Leads and connectors are incorrectly connected.	Confirm once more that all connections are correct.
	The fuse is blown.	Rectify the reason for the fuse blowing, then replace the fuse. Be very sure to install the correct fuse with the same rating.
	Noise and other factors are causing the built in microprocessor to operate incorrectly.	Press RESET . (Page 10)
Playback is not possible.	The disc is dirty.	Clean disc. (Page 74)
	The loaded disc is a type this unit cannot play.	Check what type the disc is.
	Non compatible video system disc is loaded.	Change to a disc compatible to your video system.
No sounds are heard. The volume level will not rise.	Cables are not connected correctly.	Connect the cables correctly.
	The unit is performing still, slow motion or frame by frame playback.	There is no sound during still, slow motion or frame by frame playback.
There is no picture.	The parking brake cord is not connected.	Connect a parking brake cord, and apply the parking brake.
	The parking brake is not applied.	Connect a parking brake cord, and apply the parking brake.
The icon  is displayed, and operation is not possible.	The operation is prohibited for the disc.	This operation is not possible.
	The operation is not compatible with the disc's organization.	This operation is not possible.
The picture stops (pauses) and the unit cannot be operated.	Reading of data has become impossible during playback.	After pressing ■ once, start playback once more.
There is no sound. Volume level is low.	The volume level is low.	Adjust the volume level.
	The attenuator is on.	Turn the attenuator off.
There is audio and video skipping.	The unit is not firmly secured.	Secure the unit firmly.
The picture is stretched, the aspect is incorrect.	The aspect setting is incorrect for the display.	Select the appropriate setting for your display. (Page 36)
When the ignition switch is turned ON (or turned to ACC), the motor sounds.	The unit is confirming whether a disc is loaded or not.	This is a normal operation.
Nothing is displayed. The touch panel keys cannot be used.	The rear view camera is not connected. B-CAM is at incorrect setting.	Connect a rear view camera. Press V.ADJ to return to the source display and then select the correct setting for B-CAM . (Page 41)

Additional Information

Problems during DVD playback

Symptom	Cause	Action (See)
Playback is not possible.	The loaded disc has a different region number from this unit.	Replace the disc with one featuring the same region number as this unit. (Page 6, Page 81)
A parental lock message is displayed and playback is not possible.	Parental lock is on.	Turn parental lock off or change the level. (Page 37)
Parental lock cannot be canceled.	The code number is incorrect.	Input the correct code number. (Page 37)
	You have forgotten your code number.	Press CLEAR 10 times to cancel the code number. (Page 38)
Dialog language (and subtitle language) cannot be switched.	The DVD playing does not feature multiple language recordings.	You cannot switch among multiple languages if they are not recorded on the disc.
	You can only switch between items indicated in the disc menu.	Switch using the disc menu.
No subtitles are displayed.	The DVD playing does not feature subtitles.	Subtitles are not displayed if they are not recorded on the disc.
	You can only switch between items indicated in the disc menu.	Switch using the disc menu.
Playback is not with the audio language and subtitle language settings selected in DVD SETUP .	The DVD playing does not feature dialog or subtitles in the language selected in DVD SETUP .	Switching to a selected language is not possible if the language selected in DVD SETUP is not recorded on the disc.
Switching the viewing angle is not possible.	The DVD playing does not feature scenes shot from multiple angles.	You cannot switch between multiple angles if the DVD does not feature scenes recorded from multiple angles.
	You are trying to switch to multiple angle viewing of a scene that is not recorded from multiple angles.	Switch between multiple angles when watching scenes recorded from multiple angles.
The picture is extremely unclear/distorted and dark during playback.	The disc features a signal to prohibit copying. (Some discs may have this.)	Since this unit is compatible with the copy guard analog copy protect system, when playing a disc that has a signal prohibiting copying, the picture may suffer from horizontal stripes or other imperfections when viewed on some displays. This does not mean this unit is malfunctioning.

Problems during Video CD playback

Symptom	Cause	Action (See)
The PBC (playback control) menu display cannot be called up.	The Video CD playing does not feature PBC.	This operation is not possible with Video CDs not featuring PBC.
Repeat play and track/time search are not possible.	The Video CD playing features PBC.	This operation is not possible with Video CDs featuring PBC.



Additional Information

Error messages

When you contact your dealer or your nearest Pioneer Service Center, be sure to record the error message.

Message	Cause	Action (See)
ERROR-02	Dirty disc	Clean disc.
	Scratched disc	Replace disc.
ERROR-05	Electrical or mechanical	Press RESET .
DIFFERENT REGION DISC (REGION ERR)	The disc does not have the same region number as this unit	Replace the DVD video with one bearing the correct region number.
NON PLAYABLE DISC (NON-PLAY)	This type of disc cannot be played by this unit	Replace the disc with one this unit can play.
	The disc is loaded upside down	Check that the disc is loaded correctly.
THERMAL PROTECTION IN MOTION (TEMP)	The temperature of this unit is outside the normal operating range	Wait until the unit's temperature returns to within normal operating limits.
PROTECT	All the files on the inserted disc are secured by digital rights management (DRM)	Replace disc.
TRK SKIPPED	The inserted disc contains WMA files that are protected by digital rights management (DRM)	Replace disc.



Understanding auto TA and EQ error messages

When correct measurement of car interior acoustic characteristics is not possible using the auto TA and EQ, an error message may appear on the display. If an error message appears, refer to the table below to see what the problem is and the suggested method of correcting the problem. After checking, try again.

Message	Cause	Action
Error check MIC	Microphone is not connected.	Plug the supplied microphone securely into the jack.
Error check front SP. Error check FL SP. Error check FR SP. Error check center SP. Error check RL SP. Error check RR SP. Error check subwoofer	The microphone cannot pick up the measuring tone of a speaker.	<ul style="list-style-type: none"> • Confirm that the speakers are connected correctly. • Correct the input level setting of the power amp connected to the speakers. • Set the microphone correctly.
Error check noise	The surrounding noise level is too high.	<ul style="list-style-type: none"> • Stop your car in a place that is as quiet as possible, and switch off the engine, air conditioner or heater. • Set the microphone correctly.



Additional Information

Understanding messages

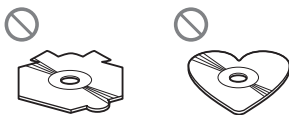
Messages	Translation
VIDEO VIEWING IS NOT AVAILABLE WHILE DRIVING	Video viewing is not available when driving.
YOU CANNOT USE THIS FUNCTION WHILE DRIVING	You cannot use this function while driving.
Please source unit off Hold EQ button 2 sec, Set Auto EQ&TA	Please source unit off. Hold EQ button two seconds. Set Auto EQ&TA.
Can't adjust Time Alignment. Set Position FL or FR	Can't adjust Time Alignment. Set Position FL or FR.
Press track list to play and title will appear	Press track list to play and title will appear.



Additional Information

Handling guideline of discs and player

- Use only conventional, fully circular discs. Do not use shaped discs.



- Do not use cracked, chipped, warped, or otherwise damaged discs as they may damage the player.
- Do not touch the recorded surface of the discs.
- Store discs in their cases when not in use.
- Avoid leaving discs in excessively hot environments including under direct sunlight.
- Do not attach labels, write on or apply chemicals to the surface of the discs.
- To clean a disc, wipe the disc with a soft cloth outward from the center.
- Condensation may temporarily impair the player's performance. Leave it to adjust to the warmer temperature for about one hour. Also, wipe any dump discs with a soft cloth.
- Road shocks may interrupt disc playback.
- Read the precautions with discs before using them.

DVD discs

- With some DVD video discs, it may not be possible to use certain functions.
- It may not be possible to play back some DVD video discs.
- When DVD R/DVD RW discs are used, playback is possible only for discs which have been finalized.
- When DVD R/DVD RW discs are used, playback is possible only for discs which have been recorded with the Video format


(video mode). It is not possible to play back DVD RW discs which have been recorded with the Video Recording format (VR mode).

- It may not be possible to play back DVD R/DVD RW discs which have been recorded with the Video format (video mode), because of disc characteristics, scratches or dirt on the disc, or dirt, condensation, etc. on the lens of this unit.
- It is not possible to play back DVD ROM/DVD RAM discs.
- Playback of discs may not be possible because of disc characteristics, disc format, recorded application, playback environment, storage conditions and so on.


CD-R/CD-RW discs

- When CD R/CD RW discs are used, playback is possible only for discs which have been finalized.
- It may not be possible to play back CD R/CD RW discs recorded on a music CD recorder or a personal computer because of disc characteristics, scratches or dirt on the disc, or dirt, condensation, etc., on the lens of this unit.
- Playback of discs recorded on a personal computer may not be possible, depending on the application settings and the environment. Please record with the correct format. (For details, contact the manufacturer of the application.)
- Playback of CD R/CD RW discs may become impossible in case of direct exposure to sunlight, high temperatures, or the storage conditions in the vehicle.
- Titles and other text information recorded on a CD R/CD RW disc may not be displayed by this unit (in the case of audio data (CD DA)).

Additional Information

- This unit conforms to the track skip function of the CD R/CD RW disc. The tracks containing the track skip information are skipped automatically (in case of audio data (CD DA)).
- If you insert a CD RW disc into this unit, time to playback will be longer than when you insert a conventional CD or CD R disc.
- Read the precautions with CD R/CD RW discs before using them. 
- There may be a slight delay when starting playback of audio files encoded with image data.
- ISO 9660 Level 1 and 2 compliant. Romeo and Joliet file systems are both compatible with this player.
- Multi session playback is possible.
- Compressed audio files are not compatible with packet write data transfer.
- Only 64 characters from the beginning can be displayed as a file name (including the extension such as .wma or .mp3) or a folder name.
- Folder selection sequence or other operation may be altered depending on the encoding or writing software.
- Regardless of the length of blank section between the songs of original recording, compressed audio discs will play with a short pause between songs.
- File extensions such as .wma or .mp3 must be used properly.

Dual Discs

- Dual Discs are two sided discs that have a recordable CD for audio on one side and a recordable DVD for video on the other.
- Playback of the DVD side is possible with this unit. However, since the CD side of Dual Discs is not physically compatible with the general CD standard, it may not be possible to play the CD side with this unit.
- Frequent loading and ejecting of a Dual Disc may result in scratches on the disc. Serious scratches can lead to playback problems on this unit. In some cases, a Dual Disc may become stuck in the disc loading slot and will not eject. To prevent this, we recommend you refrain from using Dual Disc with this unit.
- Please refer to the information from the disc manufacturer for more detailed information about Dual Discs. 

Compressed audio files on the disc

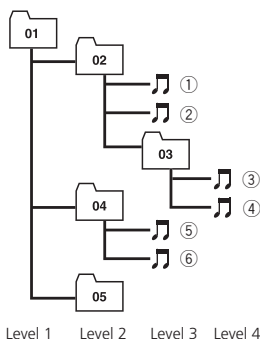
- Depending on the version of Windows Media Player used to encode WMA files, album names and other text information may not be correctly displayed.

Additional Information

Example of a hierarchy

Folder

Compressed audio file



- This unit assigns folder numbers. The user cannot assign folder numbers.
- Folder hierarchy is allowed up to eight tiers. However, practical hierarchy of folder is less than two tiers.
- It is possible to play back up to 253 items from folders on one disc.

Compressed audio compatibility

WMA

- Compatible format: WMA encoded by Windows Media Player Ver. 7, 7.1, 8, 9 or 10
- Bit rate: 48 kbps to 320 kbps (CBR)
- VBR: No
- Sampling frequency: 32 kHz to 48 kHz
- Windows Media Audio 9 Professional, Loss less, Voice: No

MP3

- Bit rate: 8 kbps to 320 kbps
- Sampling frequency: 16 kHz to 48 kHz (32, 44.1, 48 kHz for emphasis)
- Compatible ID3 tag version: 1.0, 1.1, 2.2, 2.3, 2.4 (ID3 tag Version 2.x is given priority than Version 1.x.)
- M3u playlist: No
- MP3i (MP3 interactive), mp3 PRO: No

Using the display correctly

CAUTION

- If liquid or foreign matter should get inside this unit, turn off the power immediately and consult your dealer or the nearest authorized PIONEER Service Station. Do not use the unit in this condition because doing so may result in a fire, electric shock, or other failure.
- If you notice smoke, a strange noise or smell, or any other abnormal signs from the display, turn off the power immediately and consult your dealer or the nearest authorized PIONEER Service Station. Using this unit in this condition may result in permanent damage to the system.
- Do not disassemble or modify this unit, as there are high voltage components inside which may cause an electric shock. Be sure to consult your dealer or the nearest authorized PIONEER Service Station for internal inspection, adjustments or repairs.

Handling the display

- When the display is subjected to direct sunlight for a long period of time, it will become very hot resulting in possible damage to the LCD screen. When not using this unit, close the display and avoid exposing it to direct sunlight.
- The display should be used within the temperature ranges shown below. Storage temperature range: 4 °F to 176 °F. At temperatures higher or lower than the operating temperature range the display may not operate normally.
- The LCD screen of this unit is exposed in order to increase its visibility within the vehicle. Please do not press strongly on it as this may damage it.

Additional Information

- Do not place anything on the display when it is opened. Also, do not attempt to carry out angle adjustment, or open/close the display by hand. Applying strong force to the display may damage it.
- Do not push the LCD screen with much force as this may scratch it.
- Be careful not to place anything between the display and the main body when the display is opening or closing. If an object gets between the display and main body, the display may stop working.
- Be careful of fingers, long hair, and loose articles of clothing which could possibly get caught between the display and the main body and cause serious injury.

Liquid crystal display (LCD) screen


- If the display is near the vent of an air conditioner when it is opened, make sure that air from the air conditioner is not blowing on it. Heat from the heater may damage the LCD screen, and cool air from the cooler may cause moisture to form inside the display resulting in possible damage. Also, if the display is cooled down by the cooler, the screen may become dark, or the life span of the small fluorescent tube used inside the display may be shortened.
- Small black dots or white dots (bright dots) may appear on the LCD screen. These are due to the characteristics of the LCD screen and do not indicate a problem with the display.
- At low temperatures, the LCD screen may be dark for a while after the power is turned on.
- The LCD screen will be difficult to see if it is exposed to direct sunlight.
- When using a portable phone, keep the antenna of the portable phone away from the display to prevent disruption of the video by

the appearance of spots, colored stripes, etc.

Keeping the display in good condition

- When wiping the screen, take care not to scratch the surface. Do not use harsh or abrasive chemical cleaners.

Small fluorescent tube

- A small fluorescent tube is used inside the display to illuminate the LCD screen. The fluorescent tube should last for approximately 10 000 hours, depending on operating conditions. (Using the display at low temperatures reduces the service life of the fluorescent tube.) When the fluorescent tube reaches the end of its useful life, the screen will be dark and the image will no longer be projected. If this happens, consult your dealer or the nearest authorized PIONEER Service Station. 

Additional Information

Language code chart for DVD

Language (code), input code	Language (code), input code	Language (code), input code
Japanese (ja), 1001	Guarani (gn), 0714	Pashto, Pushto (ps), 1619
English (en), 0514	Gujarati (gu), 0721	Quechua (qu), 1721
French (fr), 0618	Hausa (ha), 0801	Rhaeto Romance (rm), 1813
Spanish (es), 0519	Hindi (hi), 0809	Kirundi (rn), 1814
German (de), 0405	Croatian (hr), 0818	Romanian (ro), 1815
Italian (it), 0920	Hungarian (hu), 0821	Kinyarwanda (rw), 1823
Chinese (zh), 2608	Armenian (hy), 0825	Sanskrit (sa), 1901
Dutch (nl), 1412	Interlingua (ia), 0901	Sindhi (sd), 1904
Portuguese (pt), 1620	Interlingue (ie), 0905	Sangho (sg), 1907
Swedish (sv), 1922	Inupiak (ik), 0911	Serbo Croatian (sh), 1908
Russian (ru), 1821	Indonesian (in), 0914	Sinhalese (si), 1909
Korean (ko), 1115	Icelandic (is), 0919	Slovak (sk), 1911
Greek (el), 0512	Hebrew (iw), 0923	Slovenian (sl), 1912
Afar (aa), 0101	Yiddish (ji), 1009	Samoan (sm), 1913
Abkhazian (ab), 0102	Javanese (jw), 1023	Shona (sn), 1914
Afrikaans (af), 0106	Georgian (ka), 1101	Somali (so), 1915
Amharic (am), 0113	Kazakh (kk), 1111	Albanian (sq), 1917
Arabic (ar), 0118	Greenlandic (kl), 1112	Serbian (sr), 1918
Assamese (as), 0119	Cambodian (km), 1113	Siswati (ss), 1919
Aymara (ay), 0125	Kannada (kn), 1114	Sesotho (st), 1920
Azerbaijani (az), 0126	Kashmiri (ks), 1119	Sundanese (su), 1921
Bashkir (ba), 0201	Kurdish (ku), 1121	Swahili (sw), 1923
Byelorussian (be), 0205	Kirghiz (ky), 1125	Tamil (ta), 2001
Bulgarian (bg), 0207	Latin (la), 1201	Telugu (te), 2005
Bihari (bh), 0208	Lingala (ln), 1214	Tajik (tg), 2007
Bislama (bi), 0209	Laothian (lo), 1215	Thai (th), 2008
Bengali (bn), 0214	Lithuanian (lt), 1220	Tigrinya (ti), 2009
Tibetan (bo), 0215	Latvian (lv), 1222	Turkmen (tk), 2011
Breton (br), 0218	Malagasy (mg), 1307	Tagalog (tl), 2012
Catalan (ca), 0301	Maori (mi), 1309	Setswana (tn), 2014
Corsican (co), 0315	Macedonian (mk), 1311	Tonga (to), 2015
Czech (cs), 0319	Malayalam (ml), 1312	Turkish (tr), 2018
Welsh (cy), 0325	Mongolian (mn), 1314	Urdog (ur), 2118
Danish (da), 0401	Moldavian (mo), 1315	Tatar (tt), 2020
Bhutani (dz), 0426	Marathi (mr), 1318	Twi (tw), 2023
Esperanto (eo), 0515	Malay (ms), 1319	Ukrainian (uk), 2111
Estonian (et), 0520	Maltese (mt), 1320	Urdu (ur), 2118
Basque (eu), 0521	Burmese (my), 1325	Uzbek (uz), 2126
Persian (fa), 0601	Nauru (na), 1401	Vietnamese (vi), 2209
Finnish (fi), 0609	Nepali (ne), 1405	Volapük (vo), 2215
Fiji (fj), 0610	Norwegian (no), 1415	Wolof (wo), 2315
Faroese (fo), 0615	Occitan (oc), 1503	Xhosa (xh), 2408
Frisian (fy), 0625	Oromo (om), 1513	Yoruba (yo), 2515
Irish (ga), 0701	Oriya (or), 1518	Zulu (zu), 2621
Scots Gaelic (gd), 0704	Panjabi (pa), 1601	
Galician (gl), 0712	Polish (pl), 1612	



Additional Information

Terms

Aspect ratio

This is the width to height ratio of a TV screen. A regular display has an aspect ratio of 4:3. Wide screen displays have an aspect ratio of 16:9, providing a bigger picture for exceptional presence and atmosphere.

Bit rate

This expresses data volume per second, or bps (bits per second) units. The higher the rate, the more information is available to reproduce the sound. Using the same encoding method (such as MP3), the higher the rate, the better the sound.

Chapter

DVD titles are in turn divided into chapters which are numbered in the same way as the chapters of a book. With DVD video discs featuring chapters, you can quickly find a desired scene with chapter search.

Dolby Digital

Dolby Digital provides multi channel audio from up to 5.1 independent channels. This is the same as the Dolby Digital surround sound system used in theaters.



Dolby Pro Logic II

Dolby Pro Logic II can create five full band width output channels from two channel sources. This new technology enables a discrete 5 channel playback with 2 front channels, 1 center channel, and 2 rear channels. A music mode is also available for 2 channel sources in addition to the movie mode.

DTS

This stands for Digital Theater Systems. DTS is a surround system delivering multi channel audio from up to 6 independent channels.



ID3 tag

This is a method of embedding track related information in an MP3 file. This embedded information can include the track title, the artist's name, the album title, the music genre, the year of production, comments and other data. The contents can be freely edited using software with ID3 Tag editing functions. Although the tags are restricted as to the number of characters, the information can be viewed when the track is played back.

ISO9660 format

This is the international standard for the format logic of CD ROM folders and files. For the ISO9660 format, there are regulations for the following two levels.

Level 1:

The file name is in 8.3 format (the name consists of up to 8 characters, half byte English capital letters and half byte numerals and the " " sign, with a file extension of three characters).

Level 2:

The file name can have up to 31 characters (including the separation mark "." and a file extension). Each folder contains less than 8 hierarchies.

Extended formats

Joliet:

File names can have up to 64 characters.

Romeo:

File names can have up to 128 characters.

Additional Information

Linear PCM (LPCM)/Pulse code modulation

This stands for linear pulse code modulation, which is the signal recording system used for music CDs and DVDs. Generally, DVDs are recorded with higher sampling frequency and bit rate than CDs. Therefore, DVDs can provide higher sound quality.

m3u

Playlists created using the "WINAMP" software have a playlist file extension (.m3u).

MP3

MP3 is short for MPEG Audio Layer 3. It is an audio compression standard set by a working group (MPEG) of the ISO (International Standards Organization). MP3 is able to compress audio data to about 1/10th the level of a conventional disc.

MPEG

This stands for Moving Pictures Experts Group, and is an international video image compression standard. Some DVDs feature digital audio compressed and recorded using this system.

Multi-angle

With regular TV programs, although multiple cameras are used to simultaneously shoot scenes, only images from one camera at a time are transmitted to your TV. Some DVDs feature scenes shot from multiple angles, letting you choose your viewing angle as desired.

Multi-audio (Multilingual dialog)

Some DVDs feature dialog recorded in multiple languages. Dialog in up to 8 languages can be recorded on a single disc, letting you choose as desired.

Multi-session

Multi session is a recording method that allows additional data to be recorded later.

When recording data on a CD ROM, CD R or CD RW, etc., all data from beginning to end is treated as a single unit or session. Multi session is a method of recording more than 2 sessions on one disc.

Multi-subtitle

Subtitles in up to 32 languages can be recorded on a single DVD, letting you choose as desired.

Optical digital output/input

By transmitting and receiving audio signals in a digital signal format, the chance of sonic quality deteriorating in the course of transmission is minimized. An optical digital output/input is designed to transmit and receive digital signals optically.

Packet write

This is a general term for a method of writing on CD R, etc., at the time required for a file, just as is done with files on floppy or hard discs.

Parental lock

Some DVD video discs with violent or adult oriented scenes feature parental lock which prevents children from viewing such scenes. With this kind of disc, if you set the unit's parental lock level, playback of scenes inappropriate for children will be disabled, or these scenes will be skipped.

Playback control (PBC)

This is a playback control signal recorded on Video CDs (Version 2.0). Using menu displays provided by Video CDs with PBC lets you enjoy playback of simple interactive software and software with search functions. You can also enjoy viewing high and standard resolution still images.

Additional Information

Region number

DVD players and DVD discs feature region numbers indicating the area in which they were purchased. Playback of a DVD is not possible unless it features the same region number as the DVD player. This unit's region number is displayed on the bottom of the unit.

Title

DVD video discs have high data capacity, enabling recording of multiple movies on a single disc. If, for example, one disc contains three separate movies, they are divided into title 1, title 2 and title 3. This lets you enjoy the convenience of title search and other functions.

VBR

VBR is short for variable bit rate. Generally speaking CBR (constant bit rate) is more widely used. But by flexibly adjusting the bit rate according to the needs of audio compression, it is possible to achieve compression priority sound quality.

WMA

WMA is short for Windows Media™ Audio and refers to an audio compression technology that is developed by Microsoft Corporation. WMA data can be encoded by using Windows Media Player version 7 or later.

Windows Media and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. □

Additional Information

Specifications

General

Power source	14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	10.0 A
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 160 mm (7 × 2 × 6 1/4 in.)
Nose	188 × 58 × 30 mm (7 3/8 × 2 1/4 × 1 1/8 in.)
D	
Chassis	178 × 50 × 165 mm (7 × 2 × 6 1/2 in.)
Nose	170 × 46 × 25 mm (6 3/4 × 1 3/4 × 1 in.)
Weight	2.3 kg (5.1 lbs)

Display

Screen size/aspect ratio	6.5 inch wide/16:9 (effective display area: 144 × 77 mm)
Pixels	336 960 (1 440 × 234)
Type	TFT active matrix, transmissive type
Color system	NTSC compatible
Storage temperature range	4 °F to 176 °F
Angle adjustment	50° to 110° (initial settings: 110°)

Audio

Maximum power output	50 W × 4 50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Continuous power output	22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)
Load impedance	4 Ω to 8 Ω × 4 4 Ω to 8 Ω × 2 + 2 Ω × 1
Preout max output level/output impedance	2.2 V/1kΩ
Equalizer (3 Band Parametric Equalizer):	
Low	
Frequency	40/80/100/160 Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	± 12 dB

Mid

Frequency	200/500/1k/2k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	± 12 dB

High

Frequency	3.15k/8k/10k/12.5k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	± 12 dB

Loudness contour:

Low	+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid	+10 dB (100 Hz), +6.5 dB (10 kHz)
High	+11 dB (100 Hz), +11 dB (10 kHz) (volume: 30 dB)

Tone controls:

Bass	
Frequency	40/63/100/160 Hz
Gain	± 12 dB
Treble	
Frequency	2.5k/4k/6.3k/10k Hz
Gain	± 12 dB

HPF:

Frequency	50/80/125 Hz
Slope	12 dB/oct

Subwoofer:

Frequency	50/80/125 Hz
Slope	18 dB/oct
Gain	± 12 dB
Phase	Normal/Reverse

DVD Player

System	DVD video, Video CD, Compact disc audio system
Usable discs	DVD video, Video CD, CD, CD ROM (WMA, MP3)
Region number	1
Signal format:	
Sampling frequency	44.1/48/96 kHz
Number of quantization bits	16/20/24; linear
Frequency response	5 Hz to 44 000 Hz (with DVD, at sampling frequency 96 kHz)
Signal to noise ratio	97 dB (1 kHz) (IHF A network) 96 dB (1 kHz) (IHF A network)

Additional Information

Dynamic range	95 dB (1 kHz)
	(CD: 94 dB (1 kHz))
Distortion	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp p/75 Ω (± 0.2 V)
Audio	1.0 V (1 kHz, 0 dB)
Number of channels	2 (stereo)
MP3 decoding format	MPEG 1 & 2 Audio Layer 3
WMA decoding format	Ver. 7 & 8

FM tuner

Frequency range	87.9 MHz to 107.9 MHz
Usable sensitivity	8 dBf (0.7 μ V/75 Ω mono, S/N: 30 dB)
Signal to noise ratio	75 dB (IHF A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo)
	0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 Hz to 15 000 Hz (± 3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range	530 kHz to 1 710 kHz (10 kHz)
Usable sensitivity	18 μ V (S/N: 20 dB)
Signal to noise ratio	65 dB (IHF A network)



Note

Specifications and the design are subject to possible modifications without notice due to improvements.

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