KENWOOD

DNX7190HD
DNX7490BT
DNX6990HD
DNX6190HD
DNX6490BT
DNX5190
DNX5060EX

GPS NAVIGATION SYSTEM
INSTRUCTION MANUAL

JVC KENWOOD Corporation

Before reading this manual, click the button below to check the latest edition and the modified pages.

Take the time to read through this instruction manual.
Familiarity with installation and operation procedures will help you obtain the best performance from your new GPS Navigation System.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your Kenwood dealer for information or service on the product.

Model DNX7190HD/ DNX7490BT/ DNX6990HD/ DNX6190HD/ DNX6490BT/ DNX5190/ DNX5060EX Serial number _____

US Residence Only

Register Online

Register your Kenwood product at **www.Kenwoodusa.com**

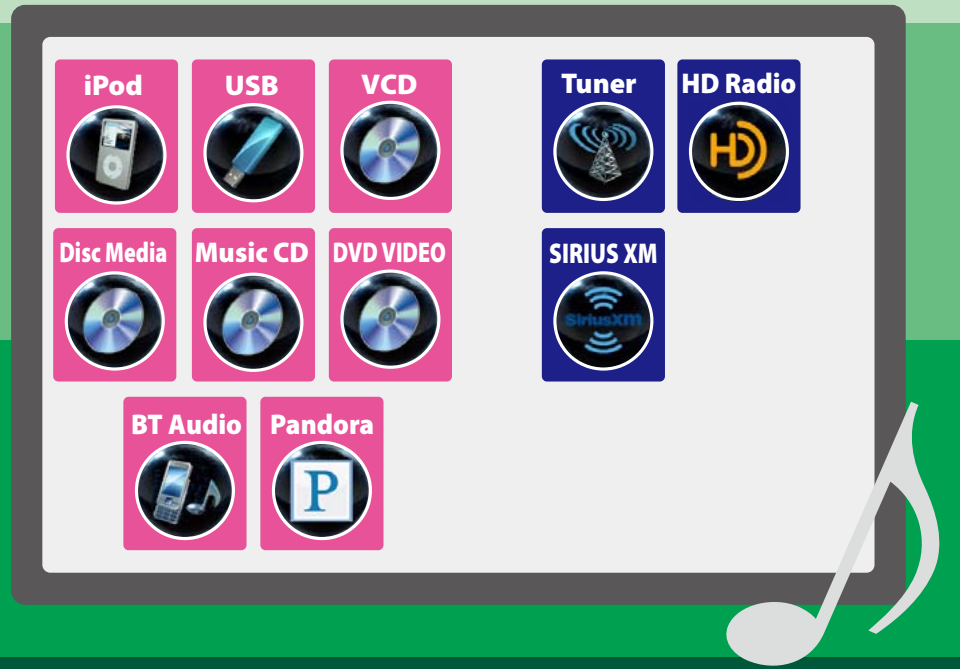
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12DNXMid_IM345_Ref_K_En_01 (K/K2/R)

What Do You Want To Do?

Thank you for purchasing the KENWOOD GPS NAVIGATION SYSTEM.
In this manual, you will learn various convenient functions of the system.

Click the icon of the media you want to play.
With one-click, you can jump to the section of each media!



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Before Use

⚠ WARNING

To prevent injury or fire, take the following precautions:

- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- Do not watch or fix your eyes on the unit's display when you are driving for any extended period.
- If you experience problems during installation, consult your Kenwood dealer.

Precautions on using this unit

- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- You can select language to display menus, audio file tags, etc. See *Language setup (P.80)*.
- The Radio Data System or Radio Broadcast Data System feature won't work where the service is not supported by any broadcasting station.

Protecting the monitor

To protect the monitor from damage, do not operate the monitor using a ball point pen or similar tool with the sharp tip.

Cleaning the unit

If the faceplate of this unit is stained, wipe it with a dry soft cloth such as a silicon cloth. If the faceplate is stained badly, wipe the stain off with a cloth moistened with neutral cleaner, then wipe it again with a clean soft dry cloth.

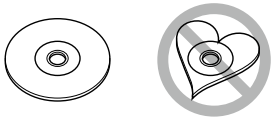
⚠
- Applying spray cleaner directly to the unit may affect its mechanical parts. Wiping the faceplate with a hard cloth or using a volatile liquid such as thinner or alcohol may scratch the surface or erase screened print.

Lens fogging

When you turn on the car heater in cold weather, dew or condensation may form on the lens in the disc player of the unit. Called lens fogging, this condensation on the lens may not allow discs to play. In such a situation, remove the disc and wait for the condensation to evaporate. If the unit still does not operate normally after a while, consult your Kenwood dealer.

Precautions on handling discs

- Do not touch the recording surface of the disc.
- Do not stick tape etc. on the disc, or use a disc with tape stuck on it.
- Do not use disc type accessories.
- Clean from the center of the disc and move outward.
- When removing discs from this unit, pull them out horizontally.
- If the disc center hole or outside rim has burrs, use the disc only after removing the burrs with a ballpoint pen etc.
- Discs that are not round cannot be used.



- 8-cm (3 inch) discs cannot be used.
- Discs with coloring on the recording surface or discs that are dirty cannot be used.
- This unit can only play the CDs with

This unit may not correctly play discs which do not have the mark.

- You cannot play a disc that has not been finalized. (For the finalization process see your writing software, and your recorder instruction manual.)

How To Read This Manual

Return to the Top page
CD, Disc, iPod, USB device

Search Operation

You can search the music, video, or picture file by some operations.

NOTE
- If you use a remote controller, you can jump directly to the desired track/file with entering the track/folder/file number, play time, etc. For details, see *"Direct search mode" (p.81)*.

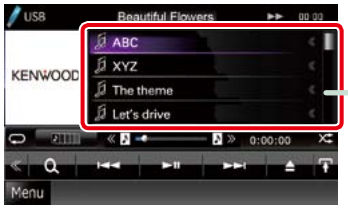
List search

You can search tracks, folders, and files according to hierarchy.
For USB devices and iPods, you can list and search files in the device by using playlist.

1 | Press the <MENU> button during playback.
Simple Control screen appears.

2 | Touch [ ].
List Control screen appears.

3 | Touch desired track/file.



Playback starts.

Other search

When you want to narrow the list down, there are other search ways.

1 | Press the <MENU> button during playback.
Simple Control screen appears.

2 | Touch [ ].
The search type screen appears.

27

Link header
You can refer each section or top page with one-click.

Operation title
Introduces the function.

NOTE
Introduces some tips, notes, etc.

Reference mark
Displayed in blue notes.
With one-click, you can jump to the article related to the current section.

Operation procedure
Explains necessary procedures to achieve the operation.
< >: Indicates the name of panel buttons.
[ ]: Indicates the name of touch keys.

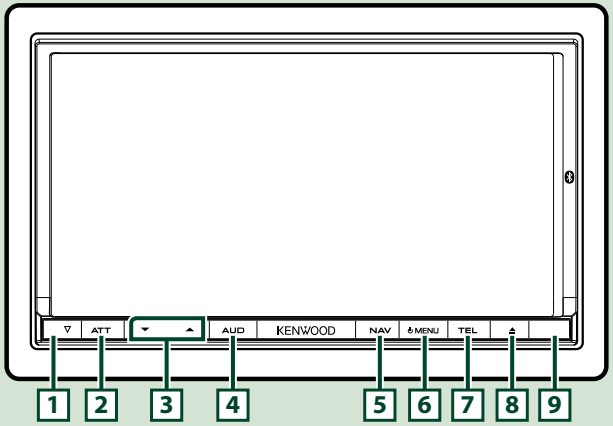
Screen shot
Shows some screen shots displayed during operation for reference.
The area or keys to touch are surrounded with a red frame.

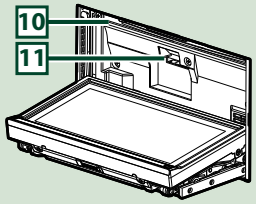
NOTE
- The screens and panels shown in this manual are examples used to provide clear explanations of the operations.
For this reason, they may be different from the actual screens or panels used, or some display patterns may be different.

Basic Operations

Functions Of The Buttons On The Front Panel

DNX7190HD/DNX7490BT





NOTE

- The panels shown in this guide are examples used to provide clear explanations of the operations. For this reason, they may be different from the actual panels.
- In this manual, each model name is abbreviated as follows.
  DNX7190HD and DNX7490BT: DNX7
  If above icon is showed, read the article applicable to the unit you use.

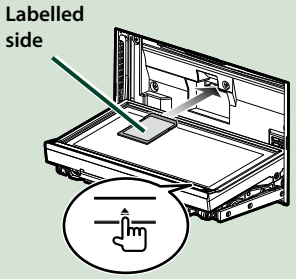
How To Insert An SD Card

1) Press 8 <⏏> button for 1 second.
   The panel fully opens.
2) Hold the SD card as the diagram in the right and insert it into the slot until it clicks.

● To eject the card:

Push the card until it clicks and then remove your finger from the card.

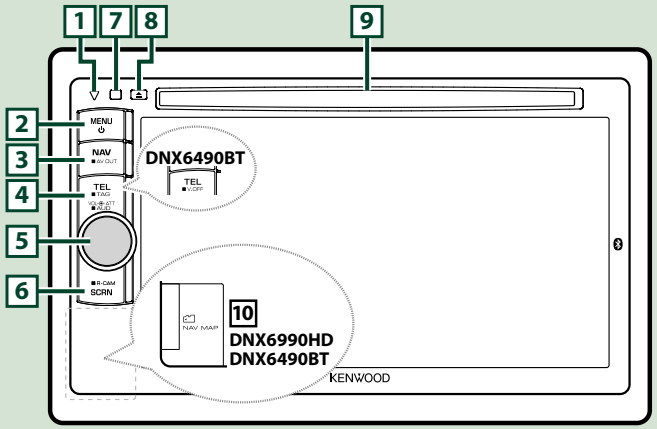
The card pops up so that you can pull it out with your fingers.



Number	Name	Motion
1	▽ (Reset)	• If the unit or the connected unit fails to operate properly, the unit returns to factory settings when this button is pressed *(P.107)*. • If the SI function is turned on, this indicator flashes when the vehicle ignition is off *(P.80)*.
2	ATT	• Switches attenuation of the volume on/off. • **North America Sales area:** Pressing for 1 second stores the tag data of the current music from HD Radio broadcast or SIRIUS XM *(P.56)*. • **Central and South America sales area**: Pressing for 1 second turns the screen off.
3	▼, ▲ (Vol)	Adjusts volume.
4	AUD	• Displays Graphic Equalizer screen *(P.95)*.* • Pressing for 1 second switches camera view display on/off.
5	NAV	• Displays the navigation screen. • Pressing for 1 second switches AV out sources.
6	MENU	• Displays the Top Menu screen *(P.14)*. • Pressing for 1 second turns the power off. • When the power off, turns the power on.
7	TEL	• Displays the Hands Free screen *(P.64)*. • Pressing for 1 second displays the Screen Control screen.
8	⏏ (Eject)	• Ejects the disc. • When the panel is opened, pressing closes the panel and pressing for 1 second ejects the disc forcibly. • When the panel is closed, pressing for 1 second fully opens the panel to the location of the SD card slot.
9	Remote Sensor	Receives the remote control signal. You can enable or disable this feature by Remote Sensor *(P.79)*.
10	Disc insert slot	A slot to insert a disc media.
11	SD card slot	An SD card slot for upgrading the map. For how to upgrade the map, refer to the instruction manual of the navigation system.

*** The display may not switch to the Graphic Equalizer screen in some conditions.**

DNX6990HD/DNX6190HD/DNX6490BT/DNX5190/DNX5060EX



NOTE

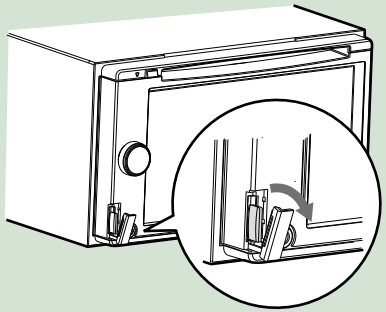
- The panels shown in this guide are examples used to provide clear explanations of the operations. For this reason, they may be different from the actual panels.
- In this manual, each model name is abbreviated as follows.
  DNX6990HD, DNX6190HD, and DNX6490BT: DNX6
  DNX5190 and DNX5060EX: DNX5
  If above icons are showed, read the article applicable to the unit you use.

How To Insert A MicroSD Card (DNX6990HD DNX6490BT)

1) Open the 10 microSD card slot cover as the diagram in the right.
2) Hold the microSD card with the label side facing left and the notched section up and insert it into the slot until it clicks.

● To eject the card:

Push the card until it clicks and then remove your finger from the card.
The card pops up so that you can pull it out with your fingers.



Number	Name	Motion
1	▽ (Reset)	• If the unit or the connected unit fails to operate properly, the unit returns to factory settings when this button is pressed *(P.107)*. • If the SI function is turned on, this indicator flashes when the vehicle ignition is off *(P.80)*.
2	MENU	• Displays the Top Menu screen *(P.14)*. • Pressing for 1 second turns the power off. • When the power off, turns the power on.
3	NAV	• Displays the navigation screen. • Pressing for 1 second switches AV out sources.
4	TEL	• Displays the Hands Free screen *(P.64)*. • **North America Sales area:** Pressing for 1 second stores the tag data of the current music from HD Radio broadcast *(P.56)*. • **Central and South America sales area**: Pressing for 1 second turns off the display.
5	Volume Knob	• Pressing switches attenuation of the volume on/off. • Turning adjusts volume up or down. • Pressing for 1 second displays Tone Control screen *(P.96)*.*
6	SCRN	• Displays the Screen Control screen. • Pressing for 1 second displays rear view camera display.
7	Remote Sensor	Receives the remote control signal. You can enable or disable this feature by Remote Sensor *(P.79)*.
8	▲ (Eject)	• Ejects the disc. • Pressing for 1 second ejects the disc forcibly.
9	Disc insert slot	A slot to insert a disc media.
10	MicroSD card slot	A microSD card slot for upgrading the map. For how to upgrade the map, refer to the instruction manual of the navigation system.

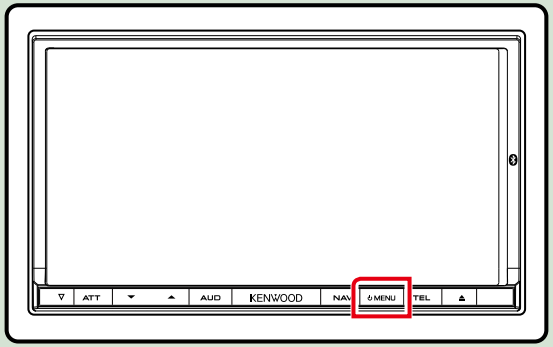
*** The display may not switch to the Tone Control screen in some conditions.**

Turning On The Unit

The method of turning on is different depending on the model.

DNX7

1 Press the <MENU> button.



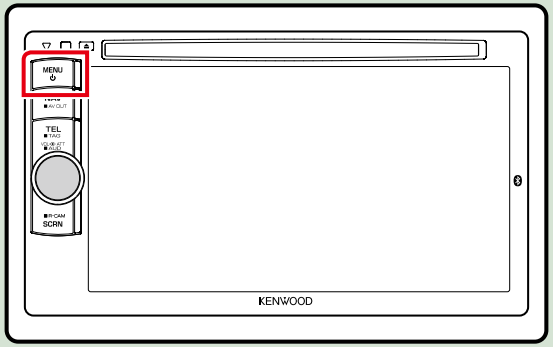
The unit is turned on.

● **To turn off the unit:**

Press the <MENU> button for 1 second.

DNX6 DNX5

1 Press the <MENU> button.



The unit is turned on.

● **To turn off the unit:**

Press the <MENU> button for 1 second.

If it is your first time turning the unit on after installation, it will be necessary to perform *Initial setup (P.11)*.

Initial setup

Perform this setup when you use this unit first time or when you reset the unit *(P.107)*.

1 Set each item as follows.





Language

Select the language used for the control screen and setting items. Default is "American English (en)".

①Touch [SET].

②Touch [◄] or [►] to select the desired language.

③Touch [Enter].

For detailed operation, see ***Language setup (P.80)***.

Angle DNX7

Adjust the position of the monitor. Default is "0".

①Touch [SET].

②Touch desired angle number and [⮌].

For detailed operation, see ***Monitor angle control (P.82)***.

iPod AV Interface Use

Set the terminal which your iPod is connected to. Default is "iPod".

①Touch [iPod] or [AV-IN2].

Color

Set the screen and button illumination color. You can select whether to allow color scan operation or select a fixed color for operation.

①Touch [SET].

②Touch [ON] or [OFF] of [Panel Color Scan].

③If you want to change color, touch [SET] of [Panel Color Coordinate].

④Touch your desired color and [⮌].

For detailed operation, see ***Panel color coordinate (P.83)***.

EXT SW DNX7

Control the external devices.

①Touch [SET].

②Set device name, output pattern, and pulse set for each device. Then, touch [⮌].

For detailed operation, see ***EXT SW setup (P.81)***.

Camera

Set the parameters for the camera.

①Touch [SET].

②Set each item and touch [⮌].

For detailed operation, see ***Camera Setup (P.86)***.

Continued

2 **Touch [Finish].**



NOTE

• These settings can be set from the SETUP menu. See *Setting Up (P.78)*.

How To Play Media

Music CD and disc media

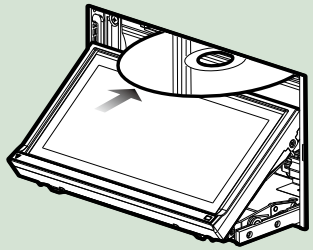
DNX7

1 **Press the <⏏> button.**



The panel opens.

2 **Insert the disc into the slot.**

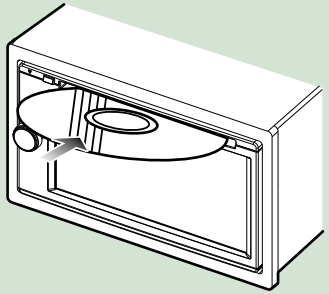


The panel closes automatically.
The unit loads the disc and playback starts.

● **To eject the disc:**
Press the <⏏> button.

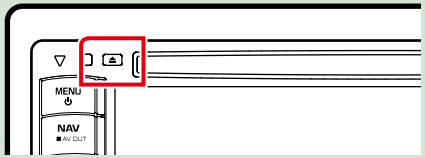
DNX6 **DNX5**

1 **Insert the disc into the slot.**



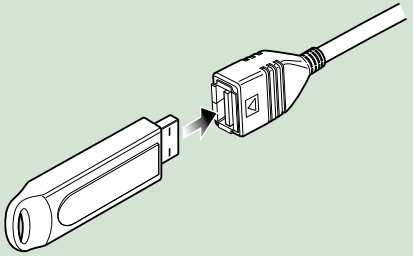
The unit loads the disc and playback starts.

● **To eject the disc:**
Press the <⏏> button.



USB device

1 **Connect the USB device with the USB cable.**

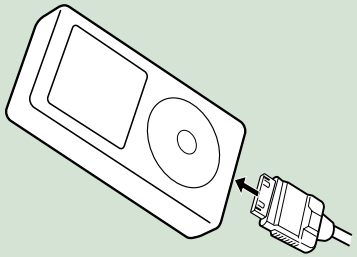


The unit reads the device and playback starts.

● **To disconnect the device:**
Touch [⏏] for 1 second on the screen and disconnect the device from the cable.

iPod

1 **Connect the iPod with the iPod cable.**



The unit reads the iPod and playback starts.

● **To disconnect the device:**
Touch [ ] on the screen and then touch [⏏] for 1 second. Disconnect the iPod from the cable.

Operating With The Top Menu Screen

Most functions can be performed from the Top Menu screen.

1 Touch [Menu] on any screen.



NOTE

- If [Menu] is not displayed during video/picture playback, press the <MENU> button. *(P.6, P.8)*

Top Menu screen appears.



NOTE

- You can select the hiding icon by scrolling the screen left or right.

From this screen, you can perform the following functions.

Function	Icon	Operation
Switch the audio source	 etc.	Touch the icon of the desired source.
Enter setup mode	 etc.	Touch the icon of the desired setup function.
Display navigation screen	 or 	Touch [NAV] or navigation information.
Turn off all audio function		Touch [STANDBY].

● **Customizing Top Menu screen**

Drag the icon you want to register to the upper line.

You can move up to three icons.



Common Operations

Introduces the common operations.

General

There are some functions which can be operated from most screens.



[Menu]

Returns to the Top Menu screen.

(RETURN)

Returns to previous screen.

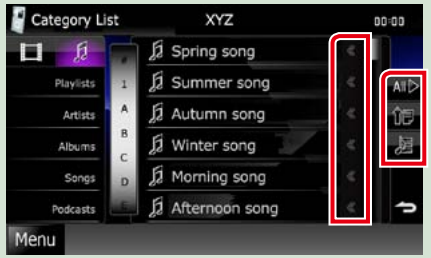
(common menu key)

Touch to display the common menu. The contents of the menu are as follows.

- : DNX7 Displays the EXT SW Control screen.
- : Displays the SETUP Menu screen.
- : Displays the Audio Control Menu screen.
- : Displays the control screen of current source. Icon feature differs depending on the source.
- : Closes the menu.

List screen

There are some common function keys in the list screens of most sources.



(Scroll)

Scrolls the displayed text.

etc.

Touch keys with various functions are displayed here.
Displayed keys differ depending on the current audio source, status, etc.
For examples of functions of each key, refer to the table below.

Key	Function
All	Lists all the music in the lower hierarchy.
	Moves to the upper hierarchy.
	Displays current category folder.
	Displays music/picture/movie file list.

Flick scrolling

You can scroll the list screen by flicking the screen up/down or right/left.



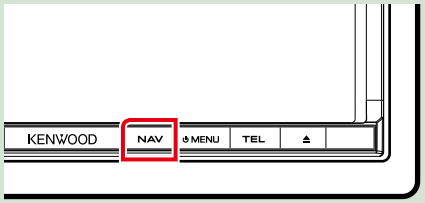


Navigation Operation

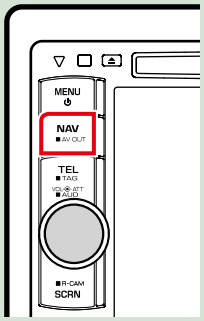
For details on the navigation function, please refer to the Navigation Instruction Manual.

Display the navigation screen

1 **Press the <NAV> button.**



DNX7



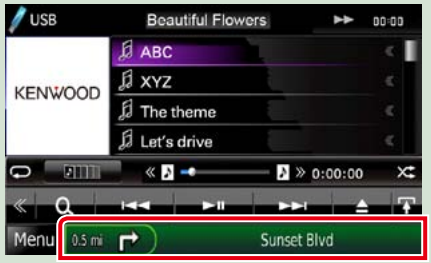
DNX6 DNX5

The navigation screen appears.

Control audio from the navigation screen

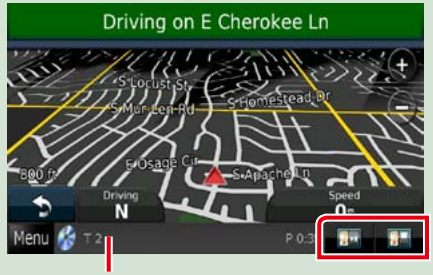
You can control audio sources while the navigation screen is displayed.
Also, you can view the navigation information while the source control screen is displayed.

1 **Touch the information bar.**



The navigation screen with audio information appears.

2 **Touch [ ] or [ ] in the navigation screen.**



Touching this area displays the audio screen.

: Displays the navigation and control keys of the current source.



: Displays the navigation and current video/picture playback display.



NOTE

- The screen switches between playback screen and camera view each time the viewing area is touched.
- Touching the source icon in the bottom of the screen displays the full audio screen.

● **To return to the full navigation screen:**
Touch [ ].

NOTE

- For details on control keys, refer to the instructions in each section.

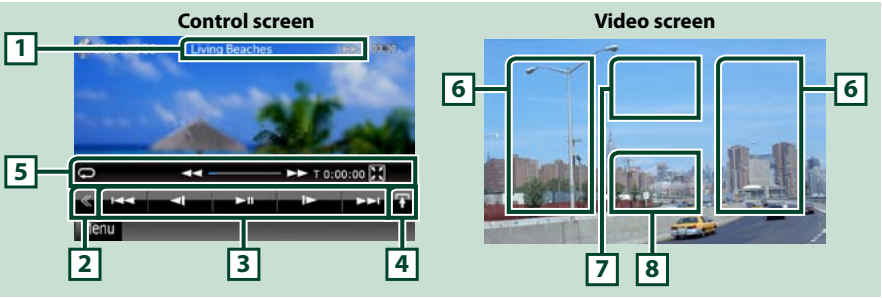
DVD/Video CD (VCD) Operation

DVD/VCD Basic Operation

Most functions can be controlled from the source control screen and playback screen.

NOTE

- Set the remote controller mode switch to DVD mode before starting operation, see *Switching the operation mode (P.101)*.
- The screen shot below is for DVD. It may be different from the one for VCD.



1 Information display

Displays the following information.

- **Title #, Chap #**: DVD title and chapter number display
- **Track #/Scene #**: VCD track or scene number display
  *Scene # is displayed only when PBC is on.
- **►, ►►, ►►I, ■, etc.**: Current play mode display
  The meanings of each icon are as follows; ► (play), ►► (fast forward), ◄◄ (fast backward), ►►I (search up), I◄◄ (search down), ■ (stop), ■R (resume stop), ❚❚ (pause), ❚► (slow playback), ◄❚ (slow reverse playback).

Touch this area to display the disc lable name.

2 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.22)*.

3 Multi function menu

Various functions can be performed by using keys in this area. For details on the keys, see *Multi function menu (P.22)*.

4 Control switching key

Unavailable in DVD/VCD source.

Return to the Top page
DVD, VCD

5 Sub function menu

The following functions can be performed by using keys in this area.

- **Repeats the current content**: Touch [ ]. Each time you touch the key, repeat mode switches in the following sequence;
  DVD: "title repeat", "chapter repeat", "function off"
  VCD (PBC On): Does not repeat
  VCD (PBC Off): "track repeat", "function off"
- **Hides all keys**: Touch [ ].
- **Fast forward or fast backward**: Touch [◄◄] or [►►]. Each time you touch the key, the speed changes; standard, 2 times, 3 times.
- **Confirms play time**: See #:##:##.
  DVD: You can switch the time display between title play time, chapter play time, and title remaining time. Each time you touch, the display switches between "T #:##:##" (title play time display), "C #:##:##" (chapter play time display), and "R #:##:##" (title remaining time display).
  As well as the time display, the bar indicating current location appears.
  VCD (PBC off): You can also confirm disc remaining time by touching time display. Each time you touch, the display switches between "P ##:##" (play time display) and "R ##:##" (disc remaining time).
- **Confirms the current location**: See the bar in center (DVD only). The bar does not appear when the time display is remaining time display.

6 Searching area

Touch to search the next/previous content.
Scrolling from center of display to left or right performs fast backward or fast forward. Each time you touch each area, the speed changes; standard, 2 times, 3 times. To stop fast backward/forward, touch center of the display.

7 Menu display area

This area functions differently depending on the current status.

- **During DVD playback**: Displays the DVD menu. During the menu display, displays the highlight control screen.
- **During VCD playback**: Displays the Zoom Control screen *(P.24)*.

8 Key display area

Touch to display the last control screen.

NOTE

- If you use a remote controller, you can jump directly to the desired image with entering the chapter number, scene number, play time, etc *(P.101)*.

Multi function menu

DVD



VCD



The functions of each key are as follows.

[|◄◄] [►►|]

Searches the previous/next content.

[►II]

Plays or pauses.

[◄I] or [I►] (DVD only)

Plays in slow motion forward or backward.

[■]

Stops playback. When touched twice, the disc is played from the beginning when you play it the next time.

[PBC] (VCD only)

Turn PBC on or off.

[SETUP]

Touch to display the SETUP Menu screen. See *Setting Up (P.78)*.

[AUDIO]

Touch to display the Audio Control screen. See *Controlling Audio (P.90)*.

[EXT SW] DNX7

Touch to control the external device power supply. For details, see *External Device Control (P.88)*.

[REAR]

Touch to mute the rear speaker.

DVD Disc Menu Operation

You can set up some items in the DVD-VIDEO disc menu.

1 | Touch illustrated area during playback.



Menu Control screen appears.

2 | Perform desired operation as follows.



Displays the top menu

Touch [Top].*

Displays the menu

Touch [Menu].*

Displays the previous menu

Touch [Return].*

Enters selected item

Touch [Enter].

Enables direct operation

Touch [Highlight] to enter the highlight control mode *(P.23)*.

Moves the cursor

Touch [▲], [▼], [◄], [►].

*** These keys may not function depending on the disc.**

Highlight control

Highlight control lets you control the DVD menu by touching the menu key directly on the screen.

1 | Touch [Highlight] in the Menu Control screen.

2 | Touch desired item on the screen.



NOTE

- The highlight control is cleared automatically if you do not operate for a constant time.

DVD Play Mode Setting

You can select DVD play mode.

1 | Touch [Next] in the Menu Control screen.



Menu Control 2 screen appears.

Continued

2 | Touch the key which corresponds to desired setting item.



Switches the subtitle language

Touch [Subtitle]. Each time you touch this key, language is switched.

Switches the audio language

Touch [Audio]. Each time you touch this key, language is switched.

Controls zoom ratio

Touch [Zoom]. For details, see *step2 in Zoom Control For DVD And VCD (P.24)*.

Switches the picture angle

Touch [Angle]. Each time you touch this key, picture angle is switched.

Exits menu control

Touch [Exit].

Displays the Menu Control 1 screen

Touch [Previous].

Zoom Control For DVD And VCD

You can enlarge Playback screen for DVD and VCD.

1 | For VCD, touch illustrated area during playback.



Zoom Control screen appears.

NOTE

- For DVD, please refer to *DVD Play Mode Setting (P.23)* to display the Zoom Control screen.

2 | Perform desired operation as follows.



Switches zoom ratio

Touch [Zoom].

For DVD, changes the zoom ratio at 4 levels; Off, 2 times, 3 times, 4 times.

For VCD, changes the zoom ratio at 2 levels; Off, 2 times.

Scrolls the screen

Touch [▲], [▼], [◄], or [►] to scroll the screen in the direction you touch.

Exits menu control

Touch [Exit].

Displays the previous menu*

Touch [Return].

*** This function may not be performed depending on the disc.**

NOTE

- You cannot touch the menu keys directly on the screen when zooming.

DVD Setup

You can set up the DVD playback functions.

NOTE

- Each operation in this section can be started from the Top Menu screen. For details, see *Operating With The Top Menu Screen (P.14)*.

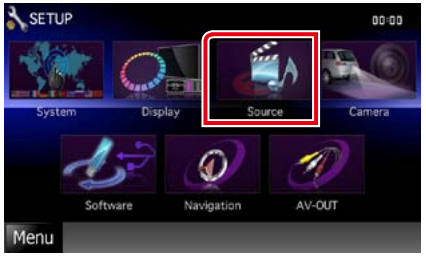
1 | Touch [ ] in the control screen.

Multi function menu appears.

2 | Touch [SETUP].

SETUP Menu screen appears.

3 | Touch [Source].

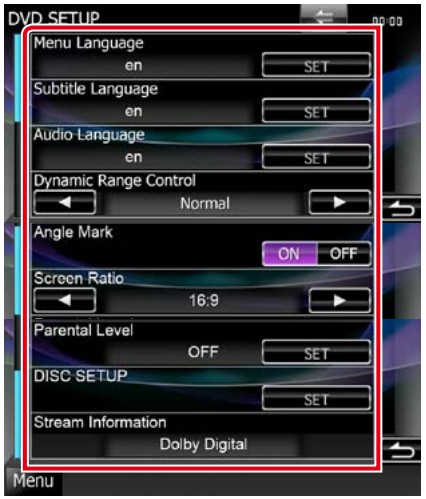


Source SETUP Menu screen appears.

4 | Touch [DVD SETUP] in the list.

DVD SETUP screen appears.

5 | Set each item as follows.



Menu/Subtitle/Audio Language*

See *Language setup (P.26)*.

Dynamic Range Control*

Sets the dynamic range.

Wide: The dynamic range is wide.

Normal: The dynamic range is normal.

Dialog (Default): Makes the total sound volume larger than other modes. This is effective only when you are using Dolby Digital software.

Angle Mark

Sets an angle mark display.

ON (Default): An angle mark appears.

OFF: An angle mark does not appear.

Screen Ratio*

Sets the screen display mode.

16:9 (Default): Displays wide pictures.

4:3 LB: Displays wide pictures in the Letter Box format (having black stripes at the top and bottom of screen).

4:3 PS: Displays wide pictures in the Pan & Scan format (showing pictures cut at the right and left ends).

Parental Level*

See *Parental level (P.26)*.

DISC SETUP

See *Disc setup (P.27)*.

Stream Information

Displays the present source information.

The stream (Dolby Digital, dts, Linear PCM, MPEG, WMA or AAC) appears.

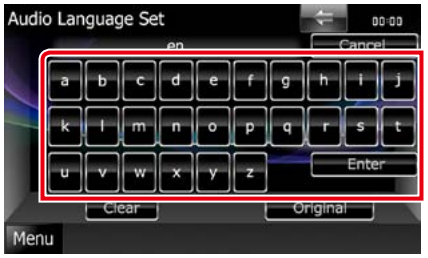
*** These items are disabled when a DVD is being played.**

Language setup

This setting is for the language used in the menu, subtitle, and voice. You cannot setup these items during DVD playback.

1 **Touch [SET] of the desired item; [Menu Language], [Subtitle Language], [Audio Language].**
Language Set screen appears.

2 **Enter the desired language code and touch [Enter].**



Sets the entered language and returns to the DVD SETUP screen.

NOTE
- To cancel the setup and return to the previous screen, touch [Cancel].
- To clear the entered code, touch [Clear].
- To set the DVD's original language for audio language, touch [Original].

Parental level

Sets a parental level. You cannot setup this item during DVD playback.

1 **Touch [SET] of [Parental Level].**
Parental Pass screen appears.

2 **Enter the parental code and touch [Enter].**
Parental Level screen appears.

NOTE
- To cancel the setup and return to the previous screen, touch [Cancel].
- To clear the entered code, touch [Clear].
- Current parental level appears as [Level#].

3 **Touch [◄] or [►] to select a parental level.**



NOTE
- If a disc has higher parental lock level, you need to enter the code number.
- The parental lock level varies depending on a loaded disc.
- If a disc has no parental lock, anybody can play it back even when you have set the parental lock.

Disc setup

Performs setup when using disc media.

1 **Touch [SET] of [DISC SETUP].**
DISC SETUP screen appears.

2 **Select an option as follows.**



CD Read

Sets the motion of this unit when a music CD is played.

1 (Default): Automatically recognizes and plays back an audio file disc, a DVD or a music CD.

2: Forcibly plays back a disc as a music CD. Select [2] if you wish to play a music CD having a special format or if you cannot play a disc in [1] position.

On Screen DVD

Sets an on-screen display.

Auto: When updated, information appears for 5 seconds.

OFF (Default): Information does not appear.

NOTE
- [CD Read] is not available when a disc is in the unit.
- You cannot play an audio file/VCD disc in the [2] position. Also, you may not play some music CDs in the [2] position.

CD/Audio And Visual Files/iPod Operation

Music/Video/Picture Basic Operation

Most functions can be controlled from the source control screen and playback screen.

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see *Switching the operation mode (P.101)*.
- To connect iPod to this unit, optional accessory KCA-iP202 is necessary.

See the following sections for each source operation.

- **Music CD** *(P.28)*
- **Disc media** *(P.28)*
- **USB device** *(P.30)*
- **iPod** *(P.30)*

Music CD and disc media

NOTE

- In this manual, "Music CD" will be referred to as the general CDs which include music tracks in. "Disc media" will be referred to as CD/DVD disc which includes audio, picture or video files.
- The screen shot below is for CD. It may be different from the one for disc media.

Simple Control screen **List Control screen**



1 Information display

Displays the following information.

- Track #: Each time you touch this area, display switches between current track number, text, etc.
- ►, ►►, ►►I, ■, etc.: Current play mode display
  The meanings of each icon are as follows; ► (play), ►► (fast forward), ◄◄ (fast backward), ►►I (search up), I◄◄ (search down), ■ (stop), ■R (resume stop), ▮▮ (pause).

2 Movie display area/Control switching area

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.32)*.

4 Multi function menu

Various functions can be performed by using keys in this area. For details on the menu, see *Multi function menu (P.32)*.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Track information

Displays the information of the current track.

For music CD and disc media, you can switch the current track information and the current folder list by touching the list switching key (8 in this table).

However, only "No Information" is displayed for music CD.

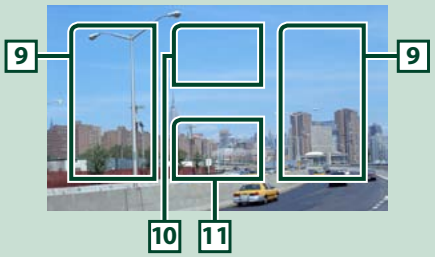
7 Sub function menu

Various functions can be performed by using keys in this area. For details on the keys, see *Sub function menu (P.33)*.

8 List switching key

Touch to switch between the track list and the CD-TEXT display (CD)/ID3 tag information (disc media only).

Video screen (disc media only)



9 Searching file area (disc media only)

Touch to search the next/previous file.

Scrolling from center of display to left or right performs fast backward or fast forward. Each time you touch each area, the speed changes; standard, 2 times, 3 times. To stop fast backward/forward, touch center of the display.

10 Menu display area (disc media only)

Touch to display the disc menu. For details, see *Movie Control (P.39)*.

11 Key display area (disc media only)

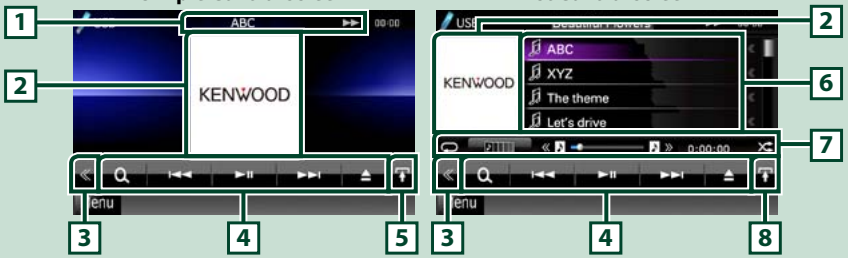
Touch to display the last control screen.

USB device and iPod

NOTE

- The screen shot below is for USB device. It may be different from the one for iPod.

Simple Control screen **List Control screen**



1 Information display

Displays the following information.

- Current file name: Each time you touch this area, display switches between file number/folder number and file name.
- ►, ►►, etc.: Current play mode display
  The meanings of each icon are as follows; ► (play, searching), ❚❚ (pause), ►► (forward manual search), ◄◄ (reverse manual search).

2 Artwork/Control switching area

The picture data is displayed if available from the current file. When the picture is not available, "No Photo" is displayed.

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.32)*.

4 Multi function menu

Various functions can be performed by using keys in this area. For details on the keys, see *Multi function menu (P.32)*.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Contents list

Displays the list and contents. The contents of the list differ depending on the playback status and source.

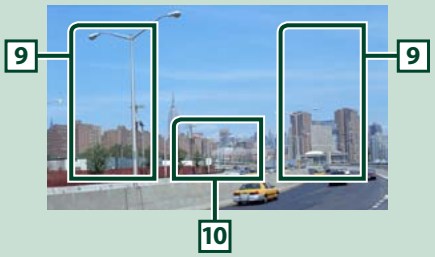
7 Sub function menu

Various functions can be performed by using keys in this area. For details on the keys, see *Sub function menu (P.33)*.

8 List switching key

Touch to switch between the file list and the current file information.

Picture/video screen



9 Searching file area (picture/video file only)

- Touch to search the next/previous file.
- During slide show in USB mode, touching each area searches the next/previous music file.
- Scrolling from center of display to left or right performs fast backward or fast forward. To stop fast backward/forward, touch center of the display. This function is not available when there is no music file in the current folder.

10 Key display area (picture/video file only)

Touch to display the last control screen.

Multi function menu

Music CD



Disc media



iPod



USB device



The following functions can be performed by using keys in this area.

[ ] (Disc media, iPod, USB device only)

Searches track/file. For details on search operation, see *Search Operation (P.34)*.

[|◄◄] [►►|]

Searches the previous/next track/file.

[►] [II] (iPod only) / [►II]

Plays or pauses.

[■] (music CD and disc media only)

Stops playback.

[⏏] (iPod and USB device only)

Touch for 1 second to disconnect the device. For details, see *How To Play Media (P.13)*.

[ ] (iPod only)

Touch to switch among the App mode and Normal mode cyclically.

App mode: Allows this unit to output the sounds and images produced by the application running on your iPod touch or iPhone.

In the App mode, you can control only the "Pause and play" and "Selecting a song" functions from this unit.

[ ] [ ] (disc media and USB device only)

Searches previous/next folder.

[ ] (picture files in USB device only)

During picture playback, switches to picture display.

[SETUP]

Touch to display the SETUP Menu screen. See *Setting Up (P.78)*.

[AUDIO]

Touch to display the Audio Control screen. See *Controlling Audio (P.90)*.

[EXT SW] DNX7

Touch to control the external device power supply. For details, see *External Device Control (P.88)*.

[REAR]

Touch to mute the rear speaker.

Sub function menu

Music CD



Disc media



iPod



USB device



The following functions can be performed by using keys in this area.

[ ]

Repeats the current track/folder. Each time you touch the key, repeat mode switches in the following sequence;

CD, iPod: "track repeat" , "repeat off"

Disc media, USB device: "file repeat" , "folder repeat" , "repeat off"

[ ] (USB device and iPod only)

Searches track from the album artwork list. For details on search operation, see *Search from album artwork (P.37)*.

[ ] (During video file playback only)

Hides all keys.

[◄◄] [►►] (Music CD and disc media only)

Fast forward or fast backward.

[ ] [ ] (USB device and iPod only)

Plays the previous or next album in *Favorite list (P.38)*.

#:##:## or ##:##

Confirms play time.

During music CD playback, you can also confirm disc remaining time by touching time display.
Each time you touch, the display switches between "P ##:##" (track play time display) and "R ##:##" (disc remaining time).

[ ]

Randomly plays all tracks in current folder/disc or in current playlist in the connected iPod.

Each time you touch the key, random mode switches in the following sequence;

CD: "track random" , "random off"

Disc media, USB device: "file random" , "random off"

iPod: "track random" , "album random" , "random off"

Status bar in center (USB device and iPod only)

Confirms the current location.
During USB device and iPod playback, you can drag the circle left or right to change the playing position.

Search Operation

You can search music, video or picture files by the following operations.

NOTE

- If you use a remote controller, you can jump directly to the desired track/file with entering the track/folder/file number, play time, etc. For details, see *Direct search mode (P.101)*.

List search

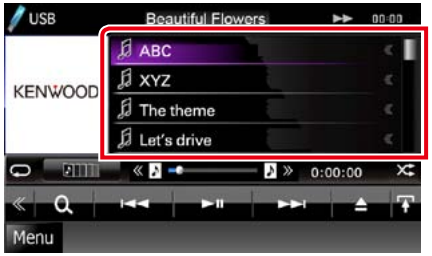
You can search tracks, folders, and files according to hierarchy.

1 | Touch illustrated area.



List Control screen appears.

2 | Touch desired track/file.



Playback starts.

NOTE

- For disc media, you can switch the file list and folder list by touching [ ].
- For disc media, you cannot display the list during random play and stop.

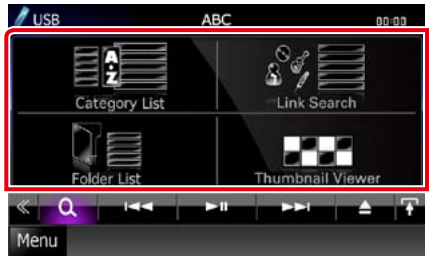
Other search

When you want to narrow the list down, there are other search ways.
This function is not available when music CD is the current source.

1 | Touch [ ] in the control screen.
The search type screen appears.

2 | Touch desired search way.

USB device



iPod



The list sorted in the way you selected appears.
See the following sections for each operation.

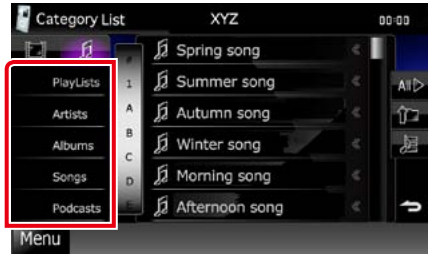
- **[Category List]: You can search a file by selecting category *(P.35)*.**
- **[Link Search]: You can search a file of same artist/album/genre/composer as the current track *(P.35)*.**
- **[Folder List]: You can search a file according to hierarchy *(P.36)*.**
- **[Thumbnail Viewer]: You can search a picture file *(P.36)*.**

NOTE

- For disc media, you can display the folder list directly by touching [ ].

Category search (USB device and iPod only)

1 | Touch the desired category from the left part of the screen.



2 | The list is sorted by selected category.

3 | Touch desired item.
Playback starts.

NOTE

- To narrow the search you can select a letter from the alphabet list in the center of the display.
- For operations in the list screen, see *Common Operations (P.16)*.

Link search (USB device and iPod only)

1 | Touch the desired item from the left part of the screen. You can select from artist, album, genre and composer.



The list corresponding to your selection appears.

NOTE

- The list is sorted by the way you selected.
  - **artist**: Displays the album list of the artist.
  - **album**: Displays all tunes of the current album.
  - **genre**: Displays the artists list in which artists belong to the same genre.
  - **composer**: Displays the album list of the composer of the current file.

2 | Touch to select desired item in the list. Repeat this step until you find the desired file.

NOTE

- To narrow the search you can select a letter from the alphabet list in the center of the display.
- For operations in the list screen, see *Common Operations (P.16)*.

Folder search (USB device and disc media only)

1 | Touch the desired folder.



Contents of the folder are displayed in the right area of the screen.

2 | Touch desired item from the content list.

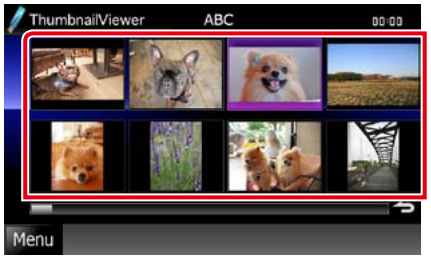
Playback starts.

NOTE

- For operations in the list screen, see *Common Operations (P.16)*.

Picture search (USB device only)

1 | Touch the desired picture.



The selected picture appears in full screen.

See number 9-10 in *USB device and iPod (P.30)* for operation of picture screen.

Search from album artwork (USB device and iPod only)

You can search music files by selecting the album artwork.

1 | Touch [ ].

Sub function menu appears.

2 | Touch [ ].



Favorite screen appears.

3 | Touch desired artwork in the lower line.



NOTE

- The key in the upper side of the screen functions differently depending on the status.

  When [Load Albums] appears:
  You have not yet loaded any artworks. Touch the key to start loading.

  When [Load More Albums] appears:
  Some artworks are not loaded. Touch the key to load all artworks. If you touch the key, the track being played may stop and another track may start playback.

  When the key does not available:
  All artworks are already loaded.

4 | Touch [►] on the selected artwork.

The first song in the album is played.

In addition, you can create your original playlist from this screen. For details, see *Favorite list (P.38)*.

NOTE

- After all tracks in the album are played, the same album is played again from the first track.
- The albums with no photo are not displayed.

Favorite list

You can create an original playlist of your favorite 10 albums by selecting album artworks.

1 | Touch and drag the desired album artwork in the lower line to the upper line.



Selected album is registered to the favorite list.

NOTE

- The added album is placed on the extreme right.
- You cannot register the same album already registered to the favorite list.
- Up to 10 albums can be registered to the list.

2 | Touch the desired artwork in the favorite list.



Selected album is played and the control screen appears.

NOTE

- The favorite list is played to the right starting with the selected album.
- To delete the album from the favorite list, touch and drag it to the lower line.
- You can change the playing order of the favorite list by dragging the artwork in the list.
- The favorite list mode is canceled in the following situations.
  - Playing another album from other list (folder list, category list, etc.)
  - Playing another album by touching the artwork in the lower line in the artwork list screen.
- The favorite list mode resumes after disconnecting/connecting the device or turning on/off. File being played, playing time code, favorite list contents, favorite list order, etc. resumes if file configuration of the device is not changed.

Return to the Top page
CD, Disc, iPod, USB device

Movie Control

You can adjust the movie playback from a disc media.

1 | In the playback screen, touch illustrated area.



Movie Control screen appears.

2 | Perform desired operation as follows.



Changes subtitle language

Touch [Subtitle].

Changes audio language

Touch [Audio].

Exits the menu

Touch [Exit].

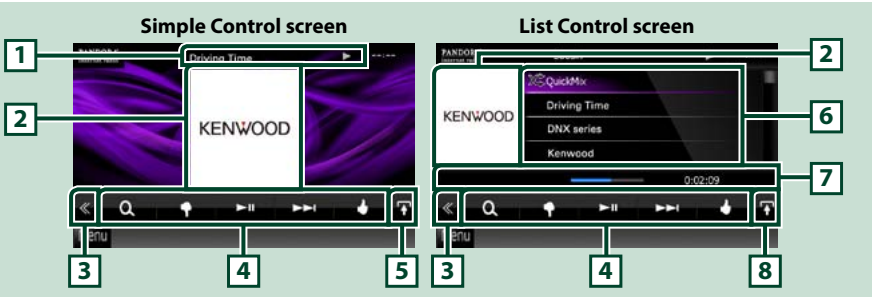
PANDORA® internet radio Operation

You can listen to the PANDORA® internet radio on this unit by controlling the application installed in the iPhone or Bluetooth device.

To enter PANDORA mode, touch [Pandora] icon in the Top Menu screen.

NOTE

- Install the latest version of the PANDORA® application on your iPhone. (Search for "PANDORA" in the Apple iTunes App Store to find and install the most current version.)
- For how to register the Bluetooth device, see *Registering the Bluetooth Unit (P.65)*.



1 Information display

Displays text information of current contents that is being played.

2 Artwork/Control switching area

The picture data is displayed if available from current content. When the picture is not available, "No Photo" is displayed.

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.41)*.

4 Multi function menu

Various functions can be performed by using the keys in this area. For details on the keys, see *Multi function menu (P.41)*.

5 Play time display key

Touch to display the play time (7 in this table).

6 Content information

Displays the information of the current content being played.

7 Play time

Displays the elapsed time since when you select the station and status bar which shows current location.

8 List switching key

Touch to switch between the content list and the current content information.

Multi function menu



The following functions can be performed by using keys in this area.

[ ]

Searches the station. For details on searching, see *Station list screen (P.42)*.

[ ] (Thumbs down)

Thumbs down to the current song and skip to the next song.

[►II]

Displays or pauses the content of the current station/channel.

[►►I]

Skips the current song.

(Note this function is disabled when the PANDORA skip limitation is exceeded.)

[ ] (Thumbs up)

Registers the current contents as favorite content.

[ ] (Bookmark Artist)

Bookmark an artist in the current contents.

[ ] (Bookmark Song)

Bookmark a song in the current contents.

[ ]

Displays a Device select screen that allows you to select the device to be used for PANDORA Internet radio reception. See *Device select (P.41)*

NOTE

- [SETUP], [AUDIO], and [EXT SW] functions same as iPod.

Device select

You can display a Device select screen for device selection.

1 Touch [ ] in the control screen.

The Device select screen appears.



Device selection

Bluetooth: Uses the device connected via Bluetooth for PANDORA Internet radio reception.

Wired: Uses the iPhone connected via the KCA-iP202 (optional accessory) for PANDORA Internet radio reception.

NOTE

- If you touch [ ] when no device has been connected, a popup screen that allows device selection only appears.



Station list screen

You can perform the following functions from this screen.



Selects the station

Touch the station name in the list.

Sort the list in alphabetical order

You can select the desired letter from the list which corresponds to the station name to help narrow the search.

Sort the list by registered date

Touch [ByDate]. The list is sorted to begin with the last registered station.

NOTE

- You can operate PANDORA by using the remote controller. However, only playing, pausing, and skipping are available.
- You cannot select iPod as rear source when you select PANDORA as main source in dual zone function.

USB/iPod/DivX Setup

You can perform setup when using USB/ iPod/ DivX (DNX7490BT/ DNX6490BT).

NOTE

- Each operation in this section can be started from the Top Menu screen. For details, see *Operating With The Top Menu Screen (P.14)*.

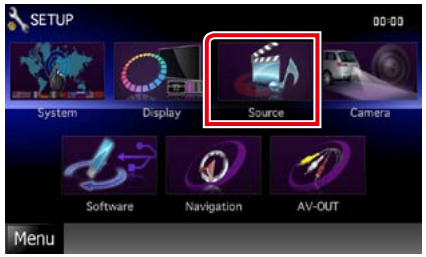
1 | Touch [ ] in the control screen.

Multi function menu appears.

2 | Touch [SETUP].

SETUP Menu screen appears.

3 | Touch [Source].



Source SETUP Menu screen appears.

4 | Touch [USB], [iPod] or [DivX] in the list.

Each setup screen appears.

See the following section for each setting.

- *USB setup (P.43)*
- *iPod setup (P.43)*
- *DivX setup (P.44)*

USB setup

1 | Set each item as follows.



Picture Display Time

Selects length of time to display JPEG picture file in the screen. Select from [Short], [Middle], and [Long] (default).

On Screen USB

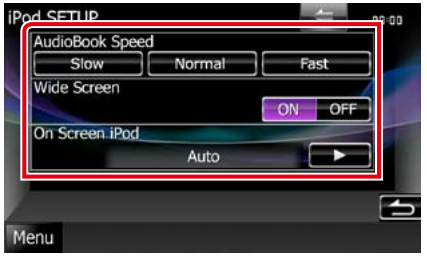
Sets how to display the information of the USB device.

Auto (Default): Information appears for 5 seconds when updated.

OFF: Does not display any information.

iPod setup

1 | Set each item as follows.



AudioBook Speed

Sets the audio book playback speed. Select from [Slow], [Normal] (default), and [Fast].

Wide Screen*

Sets Wide Screen. Set [ON] or [OFF] (default).

On Screen iPod

Sets how to display the information of the iPod.

Auto (Default): Information appears for 5 seconds when updated.

OFF: Does not display any information.

*** This setting is not available when an iPod is connected.**

DivX setup (DNX7490BT/ DNX6490BT)

This feature is available only for Central and South America sales area.

1 | Set each item as follows.



DivX(R) Registration Code

Checks the registration code. This code is needed when making a disc which has DRM (Digital Rights Management).

DivX(R) Deactivation

Deregisters the unit which is already registered. After you touch the key, a confirmation message appears. Follow the message and complete the operation.

NOTE

- [DivX(R) Registration Code] is disabled when a DVD is being played.
- When downloading a DivX VOD file controlled by DRM, register the code appeared on the screen. Otherwise the file may not be able to play with this unit. Remaining number of viewing is displayed when playing a DivX VOD file with the viewing restriction. When the remaining number of viewing reached 0, a warning message appears and the file cannot be played.

Return to the Top page
CD, Disc, iPod, USB device

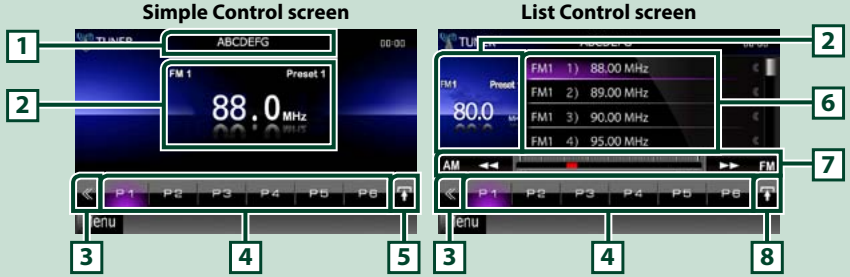
Radio, HD Radio™ tuner and SIRIUS XM Radio Operation

Radio/HD Radio tuner Basic Operation

Most functions can be controlled from the source control screen.

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see *Switching the operation mode (P.101)*.
- HD Radio broadcasting can be received only by the DNX7190HD, DNX6990HD, and DNX6190HD.
- HD Radio broadcasting is for North American sales area only.
- The screen shot below is for tuner. It may be different from the one for HD Radio broadcasting.



1 PS/Station name display

Displays the PS name or station name.

2 Information display/Control switching area

Displays the following information.

- **Picture:** The picture data or station Logo data is displayed if available from current content.
- **[FM1] etc.**: Band display
- **MHz/kHz**: Frequency display
- **Preset #**: Preset number
- **HD# (HD Radio tuner only)**: Channel display

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.47)*.

4 Preset key/Multi function menu

Recalls the memorized station or channel. When touched for 2 seconds, stores the current receiving station or channel in memory.

When switched, various functions can be performed by using keys in this area.

For details on the menu, see *Multi function menu (P.47)*.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Preset list

Displays the list of preset stations or channels and the information.

7 Sub function menu

The following functions can be performed by using keys in this area.

- **Switches the band**: Touch [AM] or [FM].
- **Tunes in a station**: Touch [◄◄] [►►]. The method of frequency switching can be changed. See *Multi function menu (P.47)*.
- **Selects a channel (HD Radio tuner only)**: Touch [CH▼] or [CH▲].
- **Tunes in by entering direct number (HD Radio tuner only)**: Touch [ ] and enter the desired number. For details, see *Direct search (P.53)*.

The bar in center (tuner only) shows the current frequency location.

8 List switching key

Touch to switch between the preset list and the information list.

In tuner mode, radio text plus will be displayed.

In HD Radio tuner mode, tuned program information will be displayed.

Multi function menu

Tuner



HD Radio tuner



The functions of each key are as follows.

[P1] - [P6]

Selects the preset station. Touch for 2 seconds to store the current station into the preset memory.

[ ]

Displays the list of preset stations or channels.

[TI] (FM Tuner and HD Radio tuner only)

Sets the traffic information mode on. For details, see *Traffic Information (P.54)*.

[SEEK]

Switches the seek mode in the following sequence; [AUTO1], [AUTO2], [MANUAL].

- **AUTO1**: Tunes in a station with good reception automatically.
- **AUTO2**: Tunes in stations in memory one after another.
- **MANUAL**: Switches to the next frequency manually.

[AME]

Selects the auto memory mode. For details, see *Auto memory (P.52)*.

[PTY] (FM Tuner and HD Radio tuner only)

Searches a program by setting program type. For details, see *Search by program type (P.53)*.

[CRSC] (FM Tuner only)

Switches to monaural to decrease noise when reception is poor.

[RCV] (HD Radio tuner only)

Switches the receive mode in the following sequence; [AUTO], [DIGITAL], [ANALOG]. For details, see *Receive Mode (P.55)*.

[SETUP]

Touch to display the SETUP Menu screen. See *Setting Up (P.78)*.

Continued

[AUDIO]

Touch to display the Audio Control screen. See *Controlling Audio (P.90)*.

[EXT SW] DNX7

Touch to control the external device power supply. For details, see *External Device Control (P.88)*.

[REAR]

Touch to mute the rear speaker.

HD Radio®

This HD Radio receiver enables:

- PSD
- HD2/HD3
- Digital Sound
- iTunes® Tagging
- Artist Experience

PSD

- Program Service Data: Contributes to the superior user experience of HD Radio Technology. Presents song name, artist, station IDs, HD2/HD3 Channel Guide, and other relevant data streams.

HD2/HD3

- Adjacent to traditional main stations are extra local FM channels. These HD2/HD3 Channels provide new, original music as well as deep cuts into traditional genre.

Digital Sound

- Digital, CD-quality sound. HD Radio Technology enables local radio stations to broadcast a clean digital signal. AM sounds like today's FM and FM sounds like a CD.

iTunes® Tagging

- iTunes® Tagging provides you the opportunity to discover a wide range of content and the means to "tag" that content for later review and purchase from the iTunes® Store.

Artist Experience

- Visual information related to content being played on your HD Radio receiver, such as Album Art, historical photographs, still art from live broadcasts, among other related content.

SIRIUS XM Basic Operation

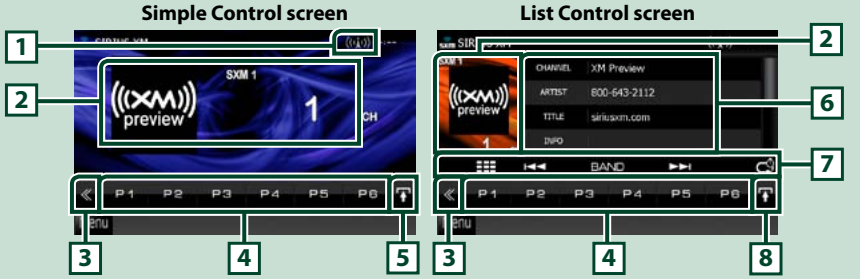
Most functions can be controlled from the source control screen.

Before use

- SiriusXM Satellite Radio operation requires the connection of the optional SiriusXM-Connect Vehicle Tuner (sold separately) and service. To activate the SiriusXM Vehicle Connect tuner, you will need the Radio ID.
- **Make a note of your Radio ID:** For each SiriusXM Vehicle Connect tuner, peculiar Radio ID is assigned. To confirm your Radio ID, tune to channel 0. The letters I, O, S and F are not used in any Radio ID.
- **How to activate your SiriusXM Service:** Go to www.siriusxm.com/activatenow or call 1-866-635-2349 to activate your SiriusXM Vehicle Connect Tuner..

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see *Switching the operation mode (P.101)*.
- To use SIRIUS XM radio, the optional accessory is necessary.
- SIRIUS XM are for North American sales area only.



1 Signal Strength indication

Displays the received signal strength of the SiriusXM tuner.

2 Information display/Control switching area

Displays the following information.

- [SXM1], etc.: Band display
- Preset #: Preset number
- #CH: Channel display
- Logo: Channel logo display

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.50)*.

4 Preset key/Multi function menu

Recalls the memorized channel. When touched for 2 seconds, store the current receiving channel in memory.

When switched, various functions can be performed by using keys in this area.

For details on the menu, see *Multi function menu (P.50)*.

Continued

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Music information

Displays the information of the current music: Channel Name, Artist Name, Song Title, Content Info, Category Name, Channel Description, Similar Channels

7 Sub function menu

The following functions can be performed by using keys in this area.

- **Switches the band**: Touch [BAND].
- **Tunes in a station**: Touch [|◄◄] [►►|].
- **Tunes in by entering direct number**: Touch [ ] and enter the desired number. For details, see *Direct search (P.53)*.
- **Starts instant replay**: Touch [ ]. Replay 30 minutes of the current channel. Touching this key again plays the on-air song. For details, see *Instant Replay (P.58)*.

8 List switching key

Touch to switch between the preset list and the information list.

Multi function menu



The functions of each key are as follows.

[P1] - [P6]

Selects the preset channel. Touch for 2 seconds to store the current station into the preset memory.

[ ]

Selects the method of searching from preset channel selecting or category/channel searching. For details on search operation, see *Selecting Operation (P.52)*.

[SEEK]

Switches the seek mode in the following sequence; [SEEK1], [SEEK2].

- **SEEK1**: Tunes channels one after the other.
- **SEEK2**: Selects channels in memory one after the other.

[ ]/[ ]

Touch for 2 seconds to register content as Alert content.

- [ ]: Registers the artist of the song you are listening to now as an alert content.
- [ ]: Registers the song you are listening to now as an alert content.

For details, see *Content alert (P.57)*.

[ ]

Turns the City alert function on or off.

For details, see *Content alert (P.57)*.

[SETUP]

Touch to display the SETUP Menu screen. See *Setting Up (P.78)*.

[AUDIO]

Touch to display the Audio Control screen. See *Controlling Audio (P.90)*.

[EXT SW] DNX7

Touch to control the external device power supply. For details, see *External Device Control (P.88)*.

[REAR]

Touch to mute the rear speaker.

Memory Operation

Auto memory

You can store stations with good reception in memory automatically.

This function is for Radio and HD Radio tuner only.

NOTE

- Auto memory terminates when 6 stations are stored or when all stations are tuned in.
- The operation ends automatically if you do not operate within 10 seconds.

1 | Touch [ ].

Sub function menu appears.

2 | Touch desired band key.



3 | Touch [ ] in the control screen.

The multi function menu appears.

4 | Touch [AME] in the multi function menu.

5 | Touch [◄◄] or [►►] in the sub function menu.

Auto memory starts.

Manual memory

You can store the current receiving station or channel in memory.

1 | Select a station or channel you wish to store in memory.

2 | Touch [P#] (#:1-6) in which you want to store the station or channel for 2 seconds until a beep sounds.

Selecting Operation

Preset select

You can list and select memorized station or channel.

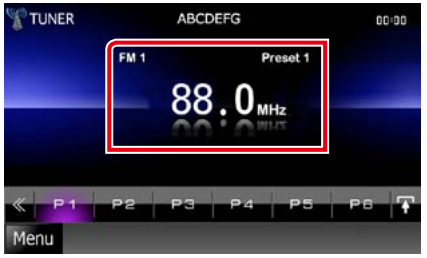
Selecting from the multi function menu

1 | Touch the desired number from P1 to P6.

The unit will tune to the selected station or channel.

Selecting from the preset list

1 | Touch illustrated area.



List Control screen appears.

2 | Select a station or channel from the list.

NOTE

- For SIRIUS XM and HD Radio tuner, touching [ ] and then [Preset List] displays the preset channel list. You can also select your desired channel from the list.

Search by program type (FM tuner and HD Radio tuner only)

You can tune to a station with a specific program type when listening to FM.

1 | Touch [ ] in the control screen.

The multi function menu appears.

2 | Touch [PTY] in the multi function menu.

TUNER PTY Mode screen appears.

3 | Select a program type from the list.

4 | Touch [Search].



You can search a station of the selected program type.

Direct search (SIRIUS XM and HD Radio tuner only)

You can tune in by entering the desired frequency or channel number.

1 | Touch illustrated area.



List Control screen appears.

2 | Touch [ ].



10Key Direct screen appears.

3 | Enter the channel number and touch [Enter].

NOTE

- To cancel the direct search, touch [Cancel].
- To clear the number you entered, touch [Clear].
- For HD Radio tuner, you can search by frequency. Each time you touch [Mode] in the left part of the screen, it changes the mode between frequency entering mode and channel entering mode.

Category/Channel search (SIRIUS XM and HD Radio tuner only)

You can specify the desired category and select a channel.

1 | Touch [ ] in the control screen.
The multi function menu appears.

2 | Touch [ ] in the multi function menu.
List select screen appears.

3 | Touch [Preset list] or [Category/ Channel list].



The previously used category or channel list appears.

4 | Select the desired content from the list.

NOTE
- For SIRIUS XM tuner, all the channels in the selected category appear.
- For SIRIUS XM tuner, touching [All Channel] displays all the channels.
- Each time you touch [Info Change] in the channel list, switches the sequence of the list.

  SIRIUS XM: Channel name, artist name, song title, category name, content info

  HD Radio tuner: Song title, artist name, album name

Traffic Information (FM Tuner and HD Radio tuner Only)

You can listen and watch the traffic information automatically when a traffic bulletin starts.

However, this feature requires a Radio Broadcast Data System that includes the TI information.

1 | Touch [ ] in the control screen.
The multi function menu appears.

2 | Touch [TI] in the multi function menu.
Traffic information mode is set.

When the traffic bulletin starts

The Traffic Information screen appears automatically.



NOTE
- It is necessary to have Traffic Information function set to on in order to have the Traffic Information screen appear automatically.
- The volume setting during reception of traffic information is automatically stored. The next time the traffic information is received, this unit recalls the volume setting automatically.

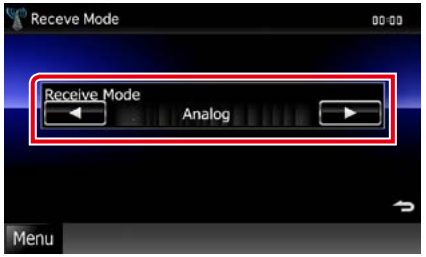
Receive Mode (HD Radio tuner only)

You can set the radio broadcasts receive mode.

1 | Touch [ ] in the control screen.
The multi function menu appears.

2 | Touch [RCV] in the multi function menu.
HD Radio tuner Mode screen appears.

3 | Select the receive mode from [Auto], [Digital], and [Analog] using [◄] and [►].



NOTE
- If you select [Auto], tunes to analog broadcast automatically when there is no digital broadcast.

iTunes Tagging (SIRIUS XM and HD Radio tuner only)

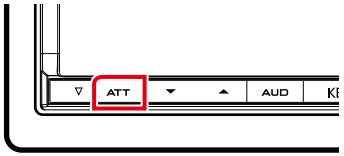
You can tag your music using an iTunes Tagging enabled HD Radio tuner and SIRIUS XM receiver.

When you hear a song you enjoy on your local HD Radio tuner or SIRIUS XM, you only have to press the <ATT> button (DNX7190HD) or <TEL> button (DNX6990HD/ DNX6190HD/ DNX5190/ DNX5060EX) for 1 second.
The song's information will then be saved on this unit. The saved songs will then show up in a playlist called "Tagged" in iTunes the very next time you sync your iPod to your computer. So then you just need to click and then easily buy and download the song you were tagging directly from the Apple iTunes Music Store.

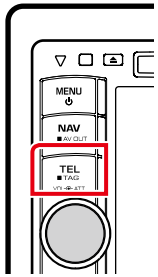
Registering a tag

1 | Press the button instructed in each diagram for 1 second during listening to the song from HD Radio tuner or SIRIUS XM station.

DNX7



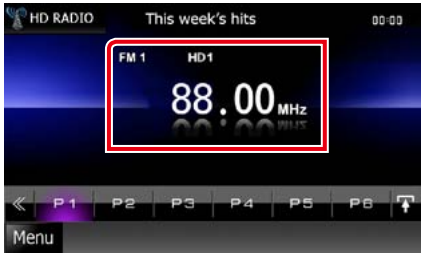
DNX6 DNX5



"TAG" appears on the display when the song information can be registered.

Checking the memory usage

1 | Touch illustrated area.



List control screen appears.

2 | Touch [ ].
Information list appears.

3 | Scroll down the list and confirm "Tagging Information".



NOTE
- Up to 50 tags can be registered to this unit. When iPod is connected, the tag information registered to this unit is transferred to the connected iPod.

Content alert (SIRIUS XM only)

When a broadcast program related to the registered artist, song, team or city starts, a message appears to allow you to switch the current channel to the relevant channel.

1 | When the broadcast of the registered content starts, an Alert screen appears.



Jump
Touch to display the Alert Content List screen.

Ignore
Touch to cancel the Content alert.

2 | Select a content from the list.



NOTE
- Each time you touched [Type], switches the sequence of the Content alert list as follows; Aritst alert, Song alert, Team alert.
- For how to register artists and songs and turn on/off the City alert function, see *Multi function menu (P.50)*.
- For how to set up the Content alert function, see *SIRIUS XM Setup (P.59)*.

Instant Replay (SIRIUS XM only)

You can replay last 30 minutes of current channel.

1 | Touch [ ] in the sub function menu.
Instant Replay screen appears.
Program play pauses.



[|◄◄] [►►|]
Searches the previous/next track.

[►II]
Plays or pauses.

[◄◄] [►►]
Fast forward or fast backward.

Status bar
Confirms the current location.

[ ]
Exit Instant Replay

[ ]
Displays a list of recorded data on a program basis.

2 | Touch [ ] to display a program list.



Program list
Touching this plays back the displayed program.

[Info Change]
Touching this allows you to switch among the Artist name, Song title, Category name, and Content info cyclically.

3 | Touch [►II].
Playback starts.

NOTE
- Recording starts at the time the current channel is received.
- Recorded data of the previously received channel is cleared immediately when a different channel is received.

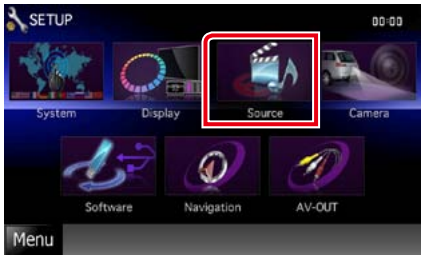
SIRIUS XM Setup

NOTE
- Each operation in this section can be started from the Top Menu screen. For details, see *Operating With The Top Menu Screen (P.14)*.

1 | Touch [ ] in the control screen.
Multi function menu appears.

2 | Touch [SETUP] in the multi function menu.
SETUP Menu screen appears.

3 | Touch [Source].



Source SETUP Menu screen appears.

4 | Touch [SIRIUS XM SETUP] in the list.
SIRIUS XM SETUP screen appears.
See the following section for each setting.

- **Set up the parental code** *(P.59)*
- **Set up the parental lock** *(P.60)*
- **Set up the Mature parental lock** *(P.61)*
- **Set up the skip channel select** *(P.61)*
- **Set up the Content alerts** *(P.62)*
- **Set up the content for Content alerts** *(P.62)*
- **Select the city for Content alerts** *(P.62)*

Parental code

You can set a SIRIUS XM parental code.

1 | Touch [Change] of [Parental Code] in the SIRIUS XM SETUP screen.
Parental Pass Check screen appears.

NOTE
- The code number is set to "0000" as default.

2 | Enter the current code number.
Parental Pass 1st entering screen appears.

3 | Enter the new code number and touch [Enter].
Parental Pass 2nd entering screen appears.

4 | Enter the same code number as you input in step 3 and touch [Enter].
The code number is confirmed and SIRIUS XM parental code is now set.

Parental lock

You can select the channels to enable SIRIUS XM Parental Lock function.

1 **Touch [SET] of [Parental Lock Channel Select] in the SIRIUS XM SETUP screen.**

Parental Pass Check screen appears.

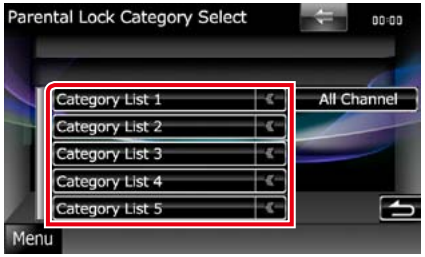
NOTE

- You need to complete *Parental code (P.59)* beforehand.
- To delete the parental lock channel setting, touch and hold [Clear] for 2 seconds, enter the Parental code number, then touch [Enter].

2 **Enter the same code number as you originally input in *Parental code (P.59)* and touch [Enter].**

Parental Lock Category Select screen appears.

3 **Touch the desired category from the list.**



Displays all the channels in the selected category.

NOTE

- Touch [All Channel] to display all the channels.

4 **Touch each channel list and set on or off.**



NOTE

- Each time you touched [Info Change], switches the sequence of the channel list as follows; Channel name, Artist name, Song title, Category name, Content information.
- Touch [⇧] to return to Parental Lock Category Select screen.
- Touch [ ] to return to SIRIUS XM SETUP screen.

Mature setup

You can automatically limit children's contact with the channel for which Parental Lock is not turned on when the channel is deemed inappropriate.

1 **Touch [ON] or [OFF] of [Parental Lock Mature] in the SIRIUS XM SETUP screen.**

Turns the Mature on or off.

Default is "OFF".

NOTE

- When this function is turned on, Mature channels are indicated "forced on" in the function which is described in *Parental lock (P.60)*.

Skip channel select

You can set the undesired channels to skip.

1 **Touch [SET] of [Skip Channel Select].**

Skip Category Select screen appears.

2 **Touch the desired category from the list.**

Displays all the channels in the selected category.

3 **Touch each channel list and set ON or OFF.**

NOTE

- Operations in each list screen are same as *Parental lock (P.60)*.

Content alerts setup

You can turn on or off the Content alerts function.

1 **Touch [ON] or [OFF] of [Content alerts] in the SIRIUS XM SETUP screen.**
Turns the Content alerts on or off.
Default is "ON".

Content alerts Content Set

You can set a content for Content alerts.

1 **Touch [SET] of [Content alerts Content Set] in the SIRIUS XM SETUP screen.**
Artist list screen appears.



2 **Touch [Type] to select the screen of the content you want to set up.**
Touching this allows you to switch among the Artist list, Song list, and Team list cyclically.

3 **Touch each content list and set ON or OFF.**

NOTE

- Touch "Delete" to delete the currently selected content from the Artist list and Song list.
- Available teams were pre-registered in the Team list. Team(s) cannot be registered or deleted manually.

City select for Content alerts

You can select a city for which traffic information or weather forecast is to be received with the Content alerts function.

1 **Touch [◄] and [►] of [Traffic Weather Jump City Select] to select a city.**

Return to the Top page
Radio, HD Radio, SIRIUS XM

Bluetooth Control

Using the Bluetooth function, various functions can be used: listening to the audio file, making/receiving a call.

About the cell-phone and Bluetooth audio player

This unit conforms to the following Bluetooth specifications:

DNX7 DNX6

Version

Bluetooth Ver. 3.0 Certified

Profile

Cell-phone:

HFP (Hands Free Profile)

OPP (Object Push Profile)

PBAP (Phonebook Access Profile)

SYNC (Synchronization Profile)

Audio player:

A2DP (Advanced Audio Distribution Profile)

AVRCP (Audio/Video Remote Control Profile)

DNX5

Version

Bluetooth Ver. 2.0 Certified

Profile

Cell-phone:

HFP (Hands Free Profile)

NOTE

- For the cell-phones verified for compatibility, access the following URL: *http://www.kenwood.com/cs/ce/bt/*.
- The units supporting the Bluetooth function have been certified for conformity with the Bluetooth Standard following the procedure prescribed by Bluetooth SIG.
  However, it may be impossible for such units to communicate with your cell-phone depending on its type.

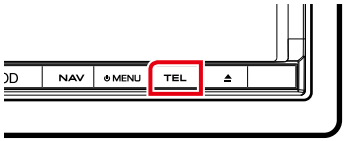
Registering And Connecting Bluetooth Unit

It is necessary to register the Bluetooth audio player or cell-phone to this unit before using the Bluetooth function.

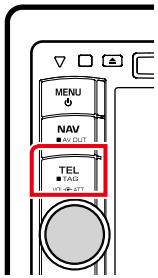
You can register up to 5 Bluetooth unit.

1 | Press the <TEL> button.

DNX7



DNX6 DNX5



Hands Free screen appears.

2 | Touch [BT SETUP].



Bluetooth SETUP screen appears.

See the following section for each setting.

- **Registering the Bluetooth Unit** *(P.65)*
- **Connecting the Bluetooth unit** *(P.66)*

Registering the Bluetooth Unit

1 | Touch [SET] of [Regist New Device].

Searched Device List screen appears.

NOTE

- A new device cannot be registered if there are 5 registered Bluetooth units. Delete unnecessary registration. See *Connecting the Bluetooth unit (P.66)*.
- If a Bluetooth unit cannot be registered by normal register (pairing) operation, touch [SP DEV]. For details, see *Registering special Bluetooth unit (P.66)*.
- The Searched Device List screen cannot be displayed, when the receiving source is PANDORA internet radio or Bluetooth Audio,

2 | Touch [PIN Code Set].



PIN Code Set screen appears.

NOTE

- If the unit cannot be searched in step 1, you can search the unit again by touching [Search] in above screen.
- Touch [Cancel] to cancel searching for the Bluetooth unit.

3 | Enter PIN code and touch [Enter].

The entered code is recognized and Searched Device List screen appears again.

4 | Select the Bluetooth unit to register from the list.

The Connection Device List screen appears.

NOTE

- Registering operation can be performed from the Bluetooth unit. In this operation, entering the PIN code is necessary. See *Registering Bluetooth unit PIN code (P.72)*.
- If registering cannot be completed even when the PIN code is correct, try *Registering special Bluetooth unit (P.66)*.

Connecting the Bluetooth unit

1 | Touch [SET] of [Paired Device List].
Connection Device List screen appears.

2 | Touch the device name you want to connect.



Means that the device is a cell-phone.

DNX7 DNX6

Means that the device is an audio player or cell-phone with audio player.

DNX7 DNX6

Means that the device is a PANDORA internet radio.

NOTE
- If the icon is lighted, it means that the unit will use that device.

3 | Touch [TEL(HFP)], [Audio(A2DP)], or [Pandora(SPP)].
[TEL(HFP)] is for cell-phone.
[Audio(A2DP)] is for audio player.
[Pandora(SPP)] is for Bluetooth device.

NOTE
- [Audio(A2DP)] and [Pandora(SPP)] is available only for DNX7 and DNX6.
- Touching [Remove] removes registration information. After you touch the key, a confirmation message appears. Follow the message and complete the operation.
- To disconnect the device, perform above procedures again.
- A cell-phone cannot be connected by touching [TEL(HFP)] when the receiving source is PANDORA internet radio or Bluetooth Audio.

Registering special Bluetooth unit DNX7 DNX6

If registering cannot be completed by normal operation, there is another method.

1 | Touch [SP DEV] in the Searched Device List screen.



Special Device List screen appears.

2 | Select the device name you want to register from the list.



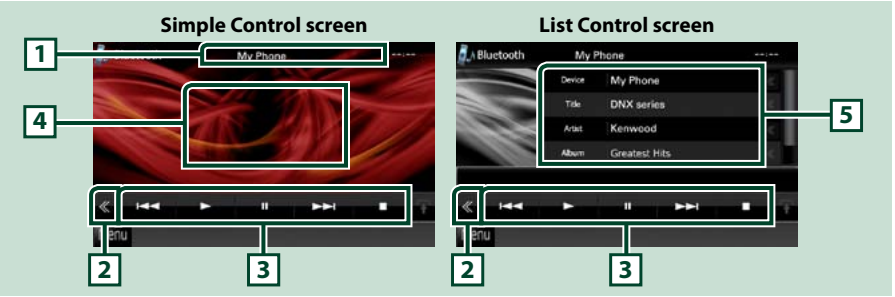
Special Device Select Confirm screen appears.

3 | Confirm the device name and touch [Yes].

NOTE
- If you touch [No], operation is cancelled.
- The devices not listed cannot be registered.

Playing Bluetooth Audio Device DNX7 DNX6

Bluetooth basic operation



1 Information display
Displays the name of the track information. If the information is not available, device name is displayed.

2 Multi function key
Touch to switch the multi function menu.

3 Multi function menu
The functions of each key are as follows.
- [|◄◄] [►►|]: Searches the previous/next content.*
- [►]: Plays.*
- [❚❚]: Pauses.*
- [AUDIO]: Touch to display the Audio Control screen. See *Controlling Audio (P.90)*.
- [SETUP]: Touch to display the SETUP Menu screen. See *Setting Up (P.78)*.
- [EXT SW] DNX7: Control the external device power supply. For details, see *External Device Control (P.88)*.
- [■]: Stops playback.
- [REAR]: Touch to mute the rear speaker.

4 Control switching area
Touch to switch between the Simple Control and List Control screen.

5 File information
Displays the information of the current file.

*** These items appear only when the audio player which supports AVRCP profile is connected.**

NOTE
- If the operation keys do not appear, operate from the player.
- Depending on your cell-phone or audio player, audio may be heard and controlled but text information may not appear.

Using Hands-Free Unit

You can use telephone function by connecting the Bluetooth telephone to this unit.

Downloading the phonebook

If you want to use your phonebook data, it is necessary to download the data from the cell-phone to this unit in advance.

1 | Operate the cell-phone to send the phonebook data to this unit.

2 | Operate the cell-phone to start the hands-free connection.

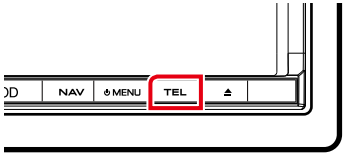
NOTE

- If your cell-phone supports auto-download of phonebook but not downloaded automatically, follow the procedure above to download manually.
- See the instruction manual of your cell-phone for the operation.
- Up to 600 phone numbers can be registered for each registered cell-phone.
- Up to 32 digits can be registered for each phone number along with up to 50 characters representing a name. (50 is the number of alphabetical characters. Fewer characters can be input depending on the type of characters.)
- Depending on the type of your cell-phone, the following restrictions are placed;
  - The phonebook data cannot be downloaded normally.
  - Characters in the phonebook are garbled.
- To cancel downloading the phonebook data, operate the cell-phone.

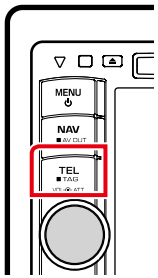
Making a call

1 | Press the <TEL> button.

DNX7



DNX6 DNX5



Hands Free screen appears.

2 | Select a dialing method.



See the following table for each method.

Call by entering a phone number

①Touch [Direct Number].
②Enter a phone number with number keys.
③Touch [ ].

Call using call records

①Touch [Incoming Calls], [Outgoing Calls], or [Missed Calls].
②Select the phone number from the list.
③Touch [ ].

Redial

①Touch [Redial] to display the previously called number.
②Touch [ ].

Call using the phonebook

①Touch [Phonebook].
②Select the name from the list.*1*2
③Select the number from the list.
④Touch [ ].

Call using the preset number

①Touch [Preset #] to start calling the corresponding phone number.

***1 You can sort the list to begin with touched character.**



- **Characters with no corresponding name will not appear.**
- **During search, a non-accent character such as "u" is searched for instead of an accent character such as "ü".**

***2 You can set the list to arrange in the order of last name or first name. For details, see Setting up the Hands-Free phone (P.73).**

***3 If more than one number are assigned to one name, say the key word for the category, and then touch [ ] to make a call.**
If there are plural numbers under one key word or if you do not register the key word voice to the unit, touch [Phonebook] and select the desired number from the list.

NOTE

- While your car is moving, some functions are disabled for safety reasons. The keys associated with the disabled functions become ineffective if touched.
- The status icons such as battery and antenna displayed may differ from those displayed on the cell-phone.
- Setting the cell-phone in the private mode can disable the hands-free function.

Receiving a call

1 | Touch [ ] to answer a phone call or [ ] to reject an incoming call.



NOTE

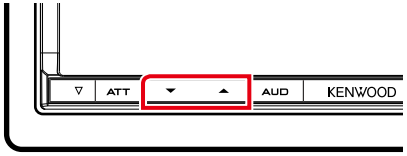
- While monitoring the camera view, this screen does not appear even if a call comes in. To display this screen, press the <TEL> button or return the shift knob of car to the driver position.

Operations during a call

Adjust the receiver volume

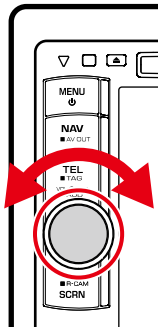
DNX7

Press the <▼> or <▲> button.



DNX6 DNX5

Turn the volume knob.



Switch the voice output

Touch [ ] to switch the voice output between phone and speaker.

Output the dial tone

Touch [DTMF] to display the tone input screen.
You can send tones by touching desired keys on the screen.

Muting Audio Volume upon Reception of Phone Call (DNX5190 only)

When a call is received or you answer a call, the Call Interrupt screen appears and system is paused.



The system resumes playing automatically when the call ends and hang up the phone.

NOTE

- To use the Mute feature, you need to hook up the mute wire to your telephone using a commercial telephone accessory. See "Connection" (P.27) in Quick Start Guide.

Call waiting DNX7

If you receive a call during another call, you can answer it with the current call suspended or switch between the current call and waiting call.

Answer the new incoming call

Touch [ ]. The current call is kept suspended.

Switch between the current and waiting call

Touch [ ] again.
Each time you touch [ ], the calling party is switched.

Terminate the current call

Touch [ ].
The call switches to the waiting one.

Bluetooth Setup

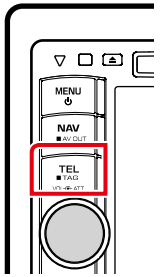
You can register PIN code, select the device to connect, and perform output setup.

1 | Press the <TEL> button.

DNX7



DNX6 DNX5



Hands Free screen appears.

2 | Touch [BT SETUP].



Bluetooth SETUP screen appears.
See the following section for each setting.

- **Register the PIN code** (P.72)
- **Select the unit to connect** (P.66)
- **Set up output** (P.72)

Registering Bluetooth unit PIN code

You can set the PIN code to the Bluetooth unit. The code is acquired when registering (pairing) from the cell-phone or audio player side.

1 Touch [SET] of [Receiver PIN Code] in the Bluetooth SETUP screen.

Receiver PIN Code Set screen appears.

2 Enter a code number and touch [Enter].

NOTE

- If you want to cancel the registration, touch [Cancel].
- If you want to clear the entered number, touch [Clear].

Bluetooth output setup

You can select speakers to output the sound from cell-phone (such as phone call voice and ringing tone) and Bluetooth audio player.

1 Touch [Front Only] or [All] of [Bluetooth HF/Audio] in the Bluetooth SETUP screen.

Front Only

Outputs from the front speakers.

All

Outputs from all speakers.

Hands-Free Control

You can perform various setup about hands-free function.

1 Press the <TEL> button.

Hands Free screen appears.

2 Touch desired key in the Hands Free screen.



See the following section for each setting.

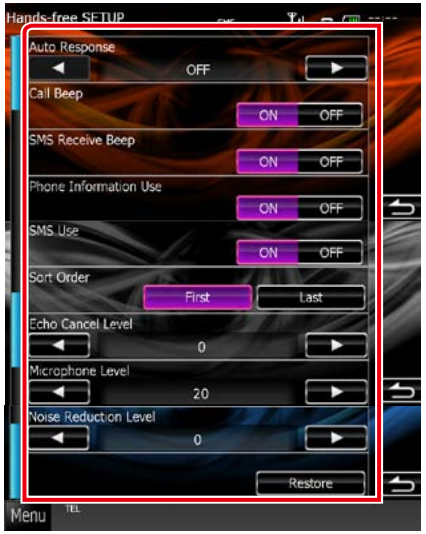
- **Set up the Hands-Free system** *(P.73)*
- **Set up SMS** *(P.74)*
- **Preset the phone number** *(P.76)*

Setting up the Hands-Free phone

1 Touch [TEL SETUP] in the Hands Free screen.

Hands Free SETUP screen appears.

2 Set each item as follows.



Auto Response*1

Sets an automatic response time to pick-up an incoming call.

OFF (Default): Automatic response is not available.

0-99: Set calling ring time (second).

Call Beep DNX7 DNX6

Select whether to beep at an incoming call.

ON (Default): Beeps.

OFF: Not beeps.

SMS Receive Beep

Select whether to beep at an incoming SMS.

ON (Default): Beeps.

OFF: Not beeps.

Phone Information Use

Sets whether to download phonebook for outgoing, incoming and missed calls list.

ON (Default): Yes.

OFF: No.

SMS Use

Select whether to use SMS.

ON (Default): Uses SMS.

OFF: Not uses SMS.

Sort Order

Sets how to arrange the cell-phone phonebook.

First: Arranges in the order of first name.

Last (Default): Arranges in the order of last name.

Echo Cancel Level

Adjusts the level of echo cancellation. Default is "0".

Microphone Level

Adjusts the sensitivity of the telephone microphone. Default is "20".

Noise Reduction Level

Reduces the noises generated by surrounding environment without changing the microphone volume. Use this setting when the voice of caller is not clear. Default is "0".

[Restore]

Resets the settings to the default settings.

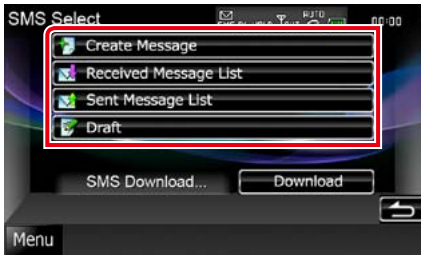
***1 Either the time interval for automatic answer set on this unit or the time interval set on the cell-phone, whichever is shorter takes effect.**

SMS (Short Message Service)

You can use SMS function.

1 | Touch [SMS] in the Hands Free screen.
SMS Select screen appears.

2 | Select desired function from the list.



[Create Message]
Creates a message.
For details, see *Creating a new message (P.75)*.

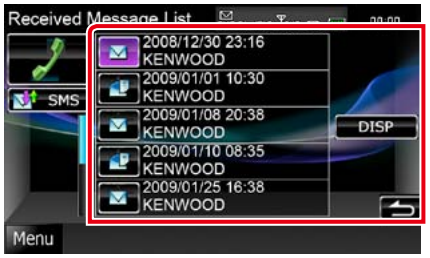
[Received Message List]
Displays the received message list.

[Sent Message List]
Displays the sent message list.

[Draft]
Displays the newest draft message. This key becomes active when any message has been created after turning power on.

[Download]
Retrieves message.

Operations in the message list screen



Calls the number in the message
Select desired message from the message list.

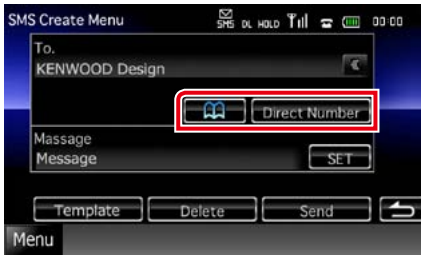
Displays message
Touch [DISP] to display the selected message.

Create a return message
Touch [SMS].

Creating a new message

1 | Touch [Create Message] in the SMS Select screen.
SMS Create Menu screen appears.

2 | Touch [ ] or [Direct Number].



Select from the phonebook
Touch [ ].

Enter the phone number
Touch [Direct Number].

3 | Touch [SET] of [Message] in the SMS Create Menu screen.
Create SMS Message screen appears.

4 | Enter a message using keys and touch [SET].



Moves the cursor
Use [◄] [►].

Switches the keyboard layout
Use [▲] [▼]. The layout changes in the following sequence; Alphabet, numbers, local language.

Toggles between uppercase and lowercase
Touch [Shift].

Changes the layout of the character keys
[ABC]: Alphabetical layout
[QWE]: Qwerty layout
[ALT]: Alternate key

Erases the entered character
Touch [Clear]. To erase all the input characters, touch for 2 seconds.

Enters a space
Touch [Space] at desired position.

5 | Touch [Send].
The message is sent.

NOTE
- [Delete] appears only when a draft message is being edited. Touching [Delete] deletes the message. After you touch [Delete], a confirmation message appears. Follow the message and complete the operation.

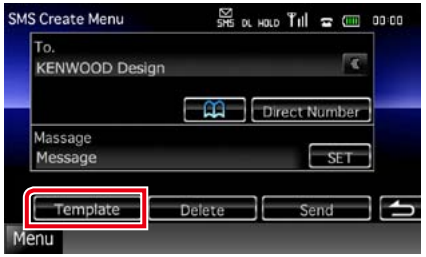
Using templates

You can create a message easily by selecting the desired sentence from the template list.

1 | Touch [Create Message] in the SMS Select screen.

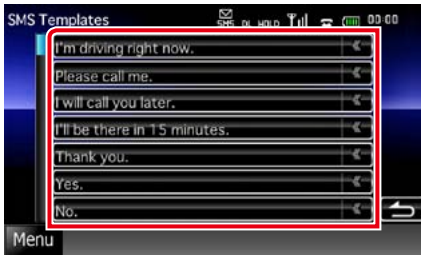
SMS Create Menu screen appears.

2 | Touch [Template].



Template list screen appears.

3 | Touch the desired template.



Selected template is entered.

Phone number preset

You can register frequently used phone numbers to this unit.

1 | Touch [Preset 1], [Preset 2], or [Preset 3] for 2 seconds in the Hands Free screen.

NOTE

- When there is no preset number, touching the key momentarily moves to the step 2.

2 | Touch desired key and enter the number you want to register.



See the table below for explanations for each key.

Register from received SMS messages

Touch [ ].

Register from sent SMS messages

Touch [ ].

Register from phonebook

Touch [ ].

Register from outgoing calls list

Touch [ ].

Register from incoming call list

Touch [ ].

Register from missed calls list

Touch [ ].

Enter phone numbers

Touch [Direct Number].

3 | Touch [Memory].

Entered number is registered to the preset number you selected.

NOTE

- Touching [Delete] deletes the currently displayed number. After you touch [Delete], a confirmation message appears. Follow the message and complete the operation.

Return to the Top page
Bluetooth Operation

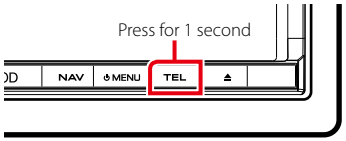
Setting Up

Monitor Screen Setup

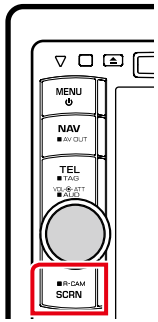
You can adjust image quality in iPod video, picture file, menu screen, etc.

1 | Press the button instructed in each diagram when the desired screen is displayed.

DNX7



DNX6 DNX5



Screen Control screen appears.

2 | Adjust each item as follows.



Bright/Tint/Color/Contrast/Black/Sharpness

Adjusts each item.

Dimmer

Select dimmer mode.

ON: The display and buttons dim.

OFF: The display and buttons do not dim.

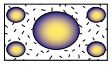
SYNC (Default): Turns the dimmer function on or off when the vehicle light control switch is turned on or off.

NAV-SYNC: Turns the dimmer function on or off according to the Navigation Day/Night display setting.

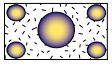
Mode (Playback screen only)

Select screen mode.

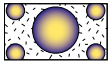
Full: Full picture mode



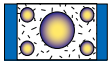
Just: Justify picture mode



Zoom: Zoom picture mode



Normal: Normal picture mode



NOTE

- Adjusting items are different depending on the current source.
- You can perform this function only when you have applied the parking brake.
- The image quality can be set for each source.

System Setup

NOTE

- Each operation in this section can be started from the multi function menu.

1 | Touch [Menu] on any screen.
TOP Menu screen appears.

2 | Touch [SETUP].

3 | Touch [System].



System Menu screen appears.
See the following section for each setting.

- **Set up the user interface** *(P.79)*
- **Adjust touch panel** *(P.80)*
- **Set up security** *(P.80)*
- **Set up external switch** **DNX7** *(P.81)*
- **Set up memory** *(P.81)*

User interface

You can setup user interface parameters.

1 | Touch [User Interface] in the list.
User Interface screen appears.

2 | Set each item as follows.



Beep

Turns the key touch tone on or off.
Default is "ON".

Remote Sensor

Selects a remote control signal. Default is "ON".

Language

Select the language used for the control screen and setting items. See *Language setup (P.80)*.

Text Scroll

Allows scrolling of text display on the source control screen. Select from "Auto"/"Once"/"OFF".

Auto (Default): Scrolls the text automatically.

Once: Allows you to scroll the text only once automatically when updated.

OFF: Does not scroll the text automatically.



Drawer Close

Sets whether to close the common menu *(P.16)* automatically. Default is "Auto".

Animation

Sets whether to display animation. Default is "ON".

Secondary

Sets whether to display the navigation information in the audio screen or vice versa. Default is "ON".

Language setup

1 | Touch [SET] of [Language] in the User Interface screen.

Language Setting screen appears.

2 | Set each item as follows.



Select Mode

Selects the mode to select a language.

Easy (Default): Selects a language easily.

Advanced: Allows you to select languages for respective items.*

Language Select

Selects a language.

*** If you select [Advanced] for Select Mode, the following screen appears.**



GUI Language Select:

Selects the display language used for the control screen and so forth.

Navigation Language Select:

Selects the language used for navigation.

Text Language Select:

Selects the language used for tag text (song information).

3 | Touch [Enter].

NOTE

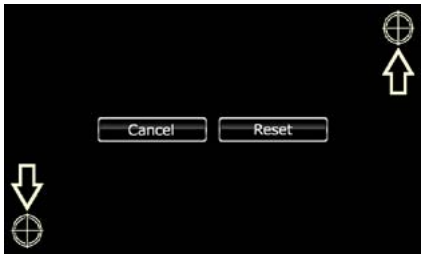
- To cancel the language setup, touch [Cancel].

Touch panel adjustment

1 | Touch [Touch] in the System Menu screen.

Touch Panel Adjustment screen appears.

2 | Follow the instruction on the screen and touch the center of each ⊕.



NOTE

- To cancel the touch panel adjustment, touch [Cancel].
- To reset to the initial status, touch [Reset].

Security setup

A red indicator will blink on the unit after the ACC is set to OFF, warning potential thieves.

If turned to "ON" (default), the security indicator on the front panel flashes when the vehicle ignition is off.

1 | Touch [Security] in the System Menu screen.

Security screen appears.

2 | Touch [ON] or [OFF] of [SI].

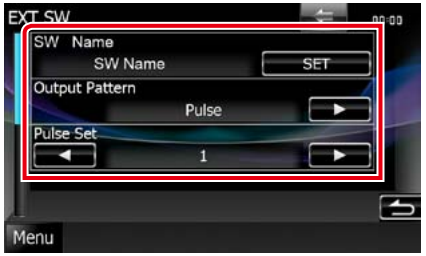
EXT SW setup DNX7

Set up the external switch power mode.

1 | Touch [EXT SW] in the System Menu screen.

EXT SW screen appears.

2 | Set each item as follows.



SW Name

Sets the name of the external device.

Output Pattern

Sets the power signal output mode among "Pulse"/"Level". Default is "Pulse".

You can set to turn output on/off each time the button on the EXT SW screen is touched. See *External Device Control (P.88)*.

Pulse Set

Sets the pulse signal output time.

Outputs 500ms when "1" is set.

Increases by 200ms with each step. Up to 100 steps can be set.

NOTE

- You can enter characters only after you have applied the parking brake.
- "Pulse": Generates a single power signal pulse.



- "Level": Continues output of high power signal.



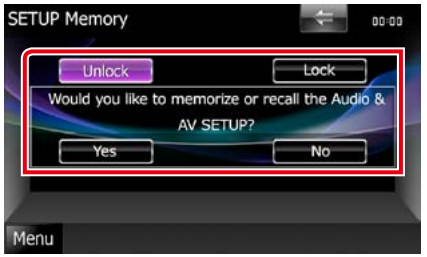
Setup memory

Audio Control, AV-IN SETUP, Camera, and Audio SETUP settings can be memorized. The memorized settings can be recalled at any time. For example, even when the settings are cleared due to replacement of the battery, the settings can be restored.

1 | Touch [SETUP Memory] in the System Menu screen.

SETUP Memory screen appears.

2 | Follow the instruction on the screen.



[Lock]/[Unlock]*

Locks or unlocks the AV-IN SETUP, and Audio SETUP settings.

Yes

Memorizes or recalls the settings.

No

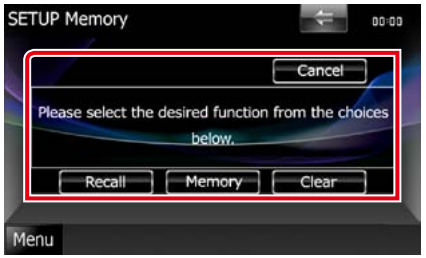
Cancels the function or memorization.

The SETUP Menu screen appears again.

*** When [Lock] is selected, you cannot change the AV-IN SETUP, and Audio SETUP settings. Also, the locked key mark is displayed under each setting icon in the setup menu.**

Continued

3 | Follow the instruction on the screen.



Recall

Recalls the memorized settings.

Memory

Memorizes the current settings.

Clear

Clears the currently memorized settings.

Cancel

Quits memorization/recalling of settings.

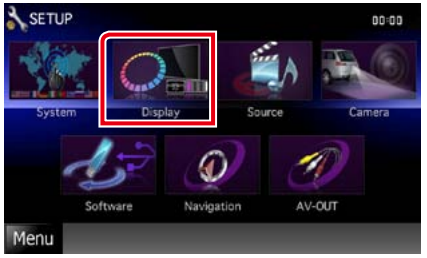
Display Setup

1 | Touch [Menu] on any screen.

2 | Touch [SETUP].

SETUP Menu screen appears.

3 | Touch [Display].



Display Menu screen appears.

See the following section for each setting.

- **Control monitor angle DNX7** *(P.82)*
- **Adjust panel color** *(P.83)*
- **Changing background image** *(P.84)*

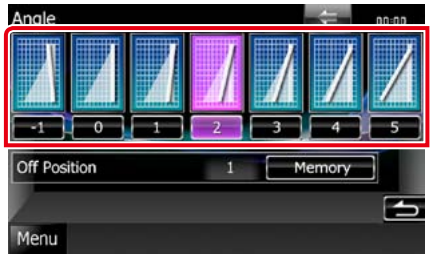
Monitor angle control DNX7

You can adjust the position of the monitor.

1 | Touch [Angle] in the Display Menu screen.

Angle setup screen appears.

2 | Select a below number that represents your desired angle setting.



Default is "0".

NOTE

- You can store the current monitor angle as the angle during power off. Touch [Memory] when the desired angle is selected.

Panel color coordinate

You can set the screen and button illumination color.

The selectable items differ depending on the unit.

1 | Touch [Color] in the Display Menu screen.

Color screen appears.

2 | Touch [SET] of [Panel Color Coordinate].



Panel Color Coordinate screen appears.

NOTE

- You can touch [SET] or [Initialize] when [Panel Color Scan] is set to off.
- Touch [Initialize] to reset the settings to the default settings.

3 | Touch the desired color.



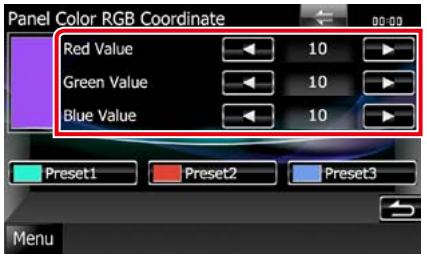
Registering original color

You can register your original color.

1 | Touch [Adjust] in the Panel Color Coordinate screen.

Panel Color RGB Coordinate screen appears.

2 | Use [◄] and [►] to adjust each color value.



3 | Touch the desired preset key for 2 seconds.

Panel color scan

You can set the panel color to continuously scan through the color spectrum.

1 | Touch [ON] of [Panel Color Scan] in the Color screen.

Panel Color Scan is set to on.

Changing background image

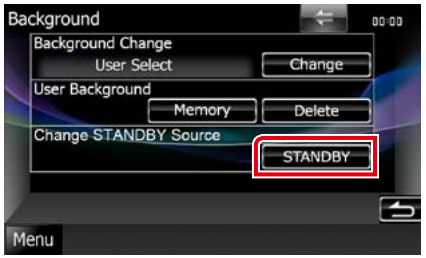
You can load an image from the connected USB device and set it for the background image.

Before operating this procedure, it is necessary to connect the device which has the image to load.

1 | Touch [Background] in the Display Menu screen.

Background screen appears.

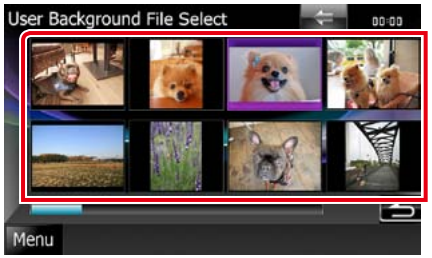
2 | Touch [STANDBY].



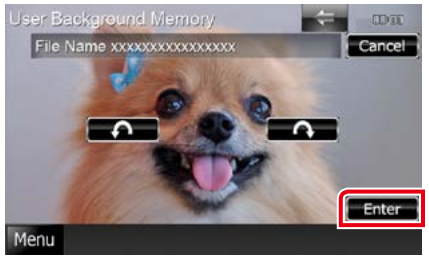
3 | Touch [Memory] of [User Background].

User Background File Select screen appears.

4 | Select the image to load.



5 | Touch [Enter].



The selected image is loaded and the display returns to the Background screen.

NOTE

- Touching [ ] rotates counter clockwise.
- Touching [ ] rotates clockwise.

6 | Touch [Change] of [Background Change] in the Background screen.

7 | Select an image for background and touch [Enter].

NOTE

- See *Playable Media And Files (P.108)* for readable image specifications.
- Touching [Delete] in the Background screen deletes the background image. After you touch [Delete], a confirmation message appears. Follow the message and complete the operation.

Navigation Setup

You can set navigation parameters.

1 | Touch [Menu] on any screen.

2 | Touch [SETUP].

SETUP Menu screen appears.

3 | Touch [Navigation].



Navigation SETUP screen appears.

4 | Set each item as follows.



NAV Interrupt Speaker

Selects speakers used for voice guidance of the navigation system.

Front L: Uses the front left side speaker for voice guidance.

Front R: Uses the front right side speaker for voice guidance.

Front All (Default): Uses both front speakers for voice guidance.

NAV Voice Volume

Adjusts the volume for voice guidance of the navigation system. Default is "25".

NAV Mute

Mutes the volume of rear speakers during voice guidance of the navigation system. Default is "ON".

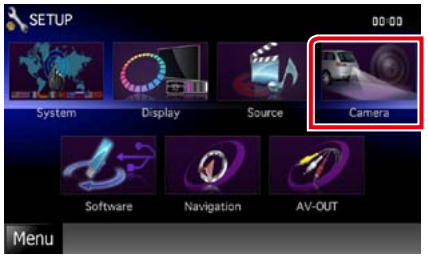
Camera Setup

You can set camera parameters.

1 | Touch [Menu] on any screen.

2 | Touch [SETUP].
SETUP Menu screen appears.

3 | Touch [Camera].



Camera SETUP screen appears.

4 | Set each item as follows.



Rear Camera*1 DNX7

Selects the type of rear camera to use.

CMOS-3xx: When the CMOS-300 series with ID 1 set is connected.

Other (Default): When the other camera is connected.

R-CAM Interruption

Sets a method for switching the display. Setting values are ON and OFF.

ON: Switches to the rear view camera video display when shifting to reverse or pressing the <AUD> DNX7 or <SCRN> DNX6 DNX5 button for 1 second.

OFF (Default): Switches to the rear view camera video display when pressing the <AUD> DNX7 or <SCRN> DNX6 DNX5 button for 1 second.

R-CAM Settings*2 DNX7

Adjusts the CMOS-300 series with ID 1 set. For details, see the instruction manual of your camera.

Front Camera*1 DNX7

Turn this setting on when the CMOS-300 series with ID 2 set is connected. Setting values are ON and OFF. Default is "OFF".

F-CAM Settings*3 DNX7

Adjusts the CMOS-300 series with ID 2 set. For details, see the instruction manual of your camera.

***1 These settings become settable only when the parking brake is on.**

***2 This setting becomes settable only when the parking brake is on and the CMOS-300 series is selected.**

***3 This setting becomes settable only when the parking brake is on and "Front Camera" is set to [ON].**

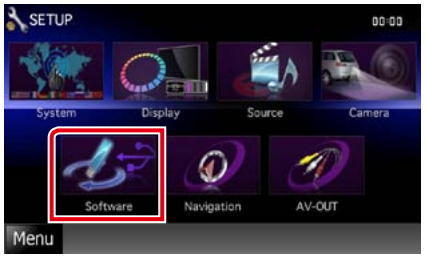
Software Information

Check the software version of this unit.

1 | Touch [Menu] on any screen.

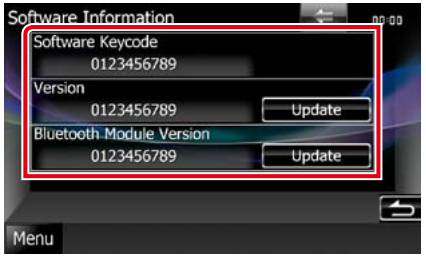
2 | Touch [SETUP].
SETUP Menu screen appears.

3 | Touch [Software].



Software Information screen appears.

4 | Confirm the software version. Touch [Update] as necessary.



NOTE

- For how to update the software, see the relevant update procedure manual which comes with the software.
- [Bluetooth Module Version] is available only DNX7.

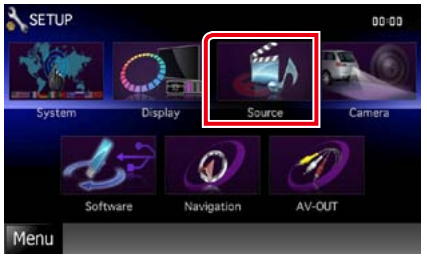
AV Input Setup

You can set AV input parameters.

1 | Touch [Menu] on any screen.

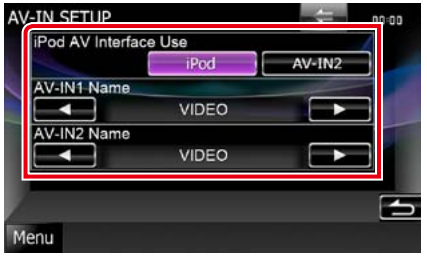
2 | Touch [SETUP].
SETUP Menu screen appears.

3 | Touch [Source].



4 | Touch [AV-IN SETUP] in the list.
AV-IN SETUP screen appears.

5 | Set each item as follows.



iPod AV Interface Use*1

Sets the terminal which iPod is connected. Setting values are iPod and AV-IN2. Default is "iPod".

AV-IN1 Name/AV-IN2 Name*2

Sets a name to be displayed when you select a system that is connected via the AV INPUT port. Default is "VIDEO".

***1 This item can be set when in STANDBY source and also the iPod is disconnected.**

***2 [AV-IN2 Name] becomes settable when "AV-IN2" is selected in [iPod AV Interface Use].**

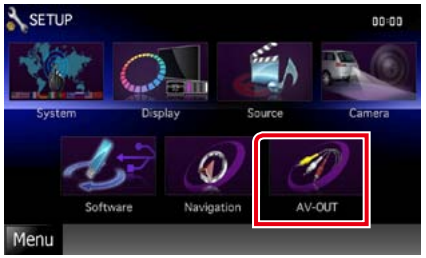
AV Output Interface Setup

You can select an AV source to be output at the AV OUTPUT port. Default is "VIDEO1".

1 | Touch [Menu] on any screen.

2 | Touch [SETUP].
SETUP Menu screen appears.

3 | Touch [AV-OUT].



AV-OUT Interface screen appears.

4 | Touch [◄] or [►] to set [AV-OUT] to VIDEO, DISC, TV DNX7, iPod, or OFF.

External Device Control DNX7

Control the external device power supply.

1 | Touch [EXT SW] in the Source Control screen.



EXT SW Control screen appears.

NOTE
- If [EXT SW] is not displayed, touch [ ].

2 | Touch the desired switch key.
You can turn on or off the external device power supply.

NOTE
- You must connect a commercially available relay unit in order to use this function. Connect the external device to be controlled to that relay unit.
- See *EXT SW setup (P.81)* for information on setting the power on or off specification.

Return to the Top page
Setting Up

Controlling Audio

NOTE
- Each operation in this section can be started from the multi function menu.

You can adjust the various settings such as audio balance or subwoofer level.

1 | Touch [Menu] on any screen.

2 | Touch [Audio].
Audio screen appears.
See the following section for each setting.

- **Setting audio** *(P.90)*
- **Controlling audio** *(P.94)*
- **Controlling equalizer** *(P.95)*
- **Performing zone control** *(P.97)*
- **Set space enhancer** DNX7 *(P.97)*
- **Set listening position** DNX7 *(P.98)*

Setting Audio

1 | Touch [Audio SETUP].



DNX7
Audio SETUP screen appears.



See the following section for each setting.

- **Set up speakers** *(P.90)*
- **Set up your car type** *(P.92)*
- **Select DSP** *(P.93)*
- **Set up elevation** *(P.93)*

DNX6 DNX5
Speaker Select screen appears.

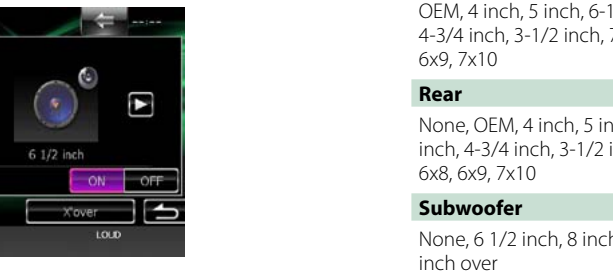
- **Set up speakers** *(P.90)*

Speaker setup

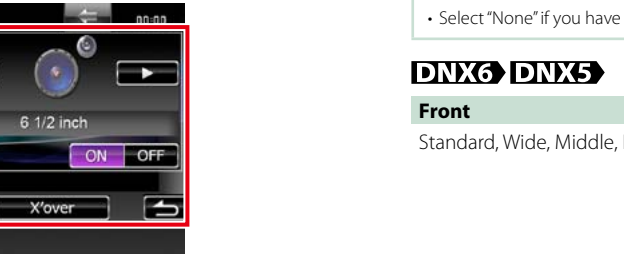
You can select a speaker type and its size to get the best sound effects.

When the speaker type and size are set, the speaker crossover network is set automatically.

1 | Touch [Speaker Select] in the Audio SETUP screen. DNX7
Speaker Select screen appears.



2 | Touch the speaker you wish to adjust and set each item as follows.



Subwoofer DNX6 DNX5
Select if you are using a subwoofer.

Tweeter DNX7
You can set the tweeter when you are selecting front speakers.
If you are using a tweeter together with the front speakers, set the tweeter to "ON".

X'over
Displays the speaker crossover setup screen.
You can adjust the crossover setup that was set automatically when you selected the speaker type.
For details, see *Crossover network setup (P.91)*

3 | Select a speaker size using [◄] and [►]. The speaker size is different depending on the speaker type and the unit.

DNX7

Front
OEM, 4 inch, 5 inch, 6-1/2 inch, 6-3/4 inch, 4-3/4 inch, 3-1/2 inch, 7 inch, 4x6, 5x7, 6x8, 6x9, 7x10

Rear
None, OEM, 4 inch, 5 inch, 6-1/2 inch, 6-3/4 inch, 4-3/4 inch, 3-1/2 inch, 7 inch, 4x6, 5x7, 6x8, 6x9, 7x10

Subwoofer
None, 6 1/2 inch, 8 inch, 10 inch, 12 inch, 15 inch over

NOTE
- Select "None" if you have no speakers.

DNX6 DNX5

Front
Standard, Wide, Middle, Narrow

Crossover network setup

You can set a crossover frequency of speakers.

1 | Touch the speaker to set the crossover in the Speaker Select screen.

2 | Touch [X'over].
X'over screen appears.

3 | Set each item as follows.



Phase*
Sets the phase of subwoofer output.
The phase is reversed 180 degrees when set to "Reverse".

HPF FREQ
High Pass Filter adjustment. (When front or rear speaker is selected on Speaker Select screen)

LPF FREQ
Low Pass Filter adjustment. (When subwoofer is selected on Speaker Select screen)

Slope DNX7
Sets a crossover slope.

*** This function is available in the specific situation.**
DNX7 Only when "Subwoofer" is set to other than "None" in "Speaker Setup".
DNX6 DNX5 Only when "Subwoofer" is set to "ON" in "Speaker Setup" and "LPF FREQ" is set to other than "Through".

Car type setup DNX7

You can setup the car type and speaker network, etc.

1 **Touch [Car Type] in the Audio SETUP screen.**
Car Type screen appears.

2 **Select your car type from the list.**



NOTE
- If your car type is selected, the Delay Time Alignment is set automatically (for timing adjustment of sound output for each channel) to have the highest surround effects.

Speaker location setup

1 **In the Car Type screen, touch [Location].**
Speaker Location screen appears.

2 **Select the speaker locations using [►].**



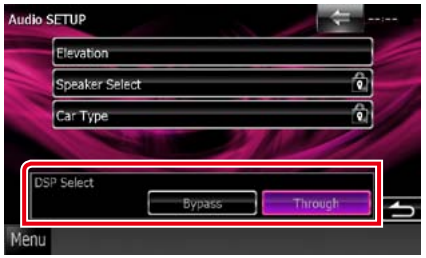
Front Speaker
Select the location from "Door"/"On Dash"/"Under Dash".

Rear Speaker
Select the location from "Door"/"Rear Deck", "2nd Row"/"3rd Row" (Minivan, Minivan (Long)).

DSP select DNX7

You can select whether using DSP (Digital Signal Processor) System.

1 **Touch [Bypass] or [Through] of [DSP Select] in the Audio SETUP screen.**



Bypass
There is no effect by DSP.

Through
There is an effect by DSP.

NOTE
- When the mode is set to [Bypass], DSP System cannot be adjusted.

Elevation DNX7

You can raise the sound position heard from the speakers virtually.

1 **Touch [Elevation] in the Audio SETUP screen.**

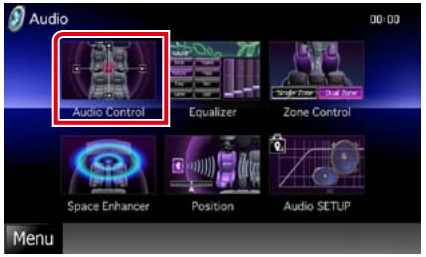


Elevation screen appears.

2 **Select Elevation level from [High], [Low], and [OFF].**

Controlling General Audio

1 | Touch [Audio Control].



2 | Set each item as follows.



Fader #/Balance #

Adjust the volume balance around the touched area.

[◄] and [►] adjust the right and left volume balance.

[▲] and [▼] adjust the front and rear volume balance.

Volume Offset*

Finely adjust the volume of the current source to minimize the difference in volume between different sources.

Subwoofer Level

Adjusts the subwoofer volume. This setting is not available when subwoofer is set to "None". See *Speaker setup (P.90)*.

Bass Boost DNX7

Sets the amount of bass boost among "OFF"/ "Level1"/ "Level2"/ "Level3".

Loudness DNX6 DNX5

Turns the loudness control function on or off. If turned on, high and low tones are automatically enhanced during low volume. Settable only when zone function *(P.97)* is set to off.

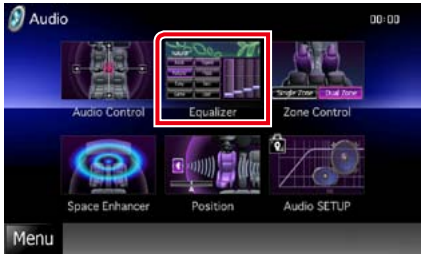
*** If you have increased the volume first, then reduced the volume using the "Volume Offset", the sound generated if you suddenly switch to another source may be extremely loud.**

Equalizer Control

You can adjust equalizer by selecting the optimized setting for each category.

If you use DNX7, you can also adjust equalizer manually.

1 | Touch [Equalizer].

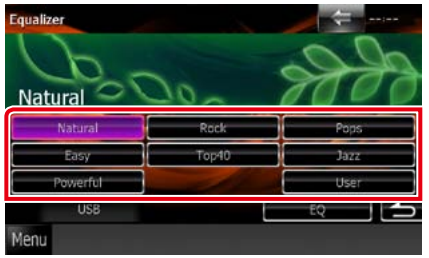


Equalizer screen appears.

DNX7 operation

Controlling EQ curves

1 | Select EQ curve from [Natural], [Rock], [Pops], [Easy], [Top40], [Jazz], [Powerful], [iPod], and [User].



NOTE

- [iPod] is available only during iPod source.

Controlling equalizer manually

This setting cannot be performed when you select [iPod] in the Equalizer screen.

1 | Touch [EQ] in the Equalizer screen.

2 | Touch the screen and set the Graphic Equalizer as desired.



Gain level (light green boxed area)

Adjust the gain level by touching the each frequency bar.

Touching [◄], [►], [▲] and [▼] can also adjust the level. Use [◄] and [►] to select a frequency, and [▲] and [▼] to set the level.

EQ INIT

Returns to the previous level which the gain level is adjusted.

Flat

Tone curve becomes flat.

Bass EXT (Bass Extend Settings)

When turned on, the frequency lower than 62.5 Hz is set to the same gain level as 62.5 Hz.

Loudness

When turned on, low and high tones are enhanced.

Highway Sound

Boosts a certain range of sound that becomes hard to hear due to road noise. See *Highway sound setting (P.96)*.

SW Level

Adjusts the subwoofer volume. This setting is not available when subwoofer is set to "None". See *Speaker setup (P.90)*.

Highway sound setting

You can boost a certain range of sound that becomes hard to hear due to road noise.

1 | Touch [Highway Sound] in the Graphic Equalizer screen.

Highway Sound screen appears.

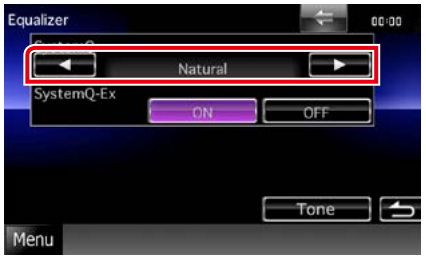


2 | Select the boost level from among [High], [Low], and [OFF].

DNX6 DNX5 operation

Controlling EQ curves

1 | Select EQ curve from [Natural], [Rock], [Pops], [Easy], [Top40], [Jazz], and [User] using [◄] and [►].



Controlling SystemQ-Ex

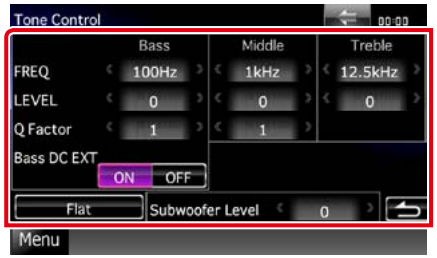
Selects items to be adjusted for tone curve setup. If you turn off this setting, only Level can be set up for tone curves.

1 | Touch [ON] or [OFF] of [SystemQ-Ex].

Controlling equalizer manually

1 | Touch [Tone] in the Equalizer screen.

2 | Set each item as follows.



FREQ

Adjusts the center frequency for each range.

Setting values are as follows.

Bass: 40Hz/50Hz/60Hz/70Hz/80Hz/100Hz/120 Hz/150Hz (Default is "100Hz".)

Middle: 500Hz/1kHz/1.5kHz/2kHz (Default is "1kHz".)

Treble: 10kHz/12.5kHz/15kHz/17.5kHz (Default is "12.5kHz".)

LEVEL

Adjusts the level of each range.

Each setting value is within -8dB and 8dB and default is "0dB".

Q Factor

Adjust Q value for bass and middle.

Setting values are as follows.

Bass: 1/1.25/1.5/2 (Default is "1".)

Middle: 1/2 (Default is "1".)

Bass DC EXT

Turns Bass DC EXT on or off. Default is "OFF".

If you select "ON", the bass center frequency is extended to the low register by approximately 20%.

[Flat]

Tone level becomes 0 (flat).

Subwoofer Level

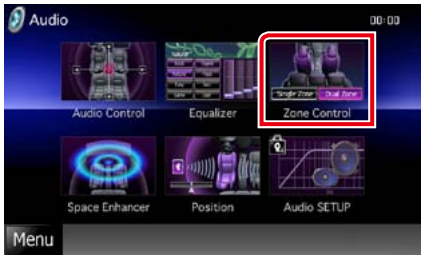
Adjusts the subwoofer volume. This setting is not available when subwoofer is set to "OFF".

See *Speaker setup (P.90)*.

Zone Control

You can select different sources for both front and rear positions in the vehicle.

1 | Touch [Zone Control].



Zone Control screen appears.

2 | Touch [Dual Zone].



3 | Set each source as follows.



[►] (Front Source, Rear Source)

Select the audio source for each.

[▼], [▲] (Rear VOL.)

Adjusts the rear channel volume.

[Single Zone]

Touch to turn off the dual zone function.

NOTE

- When the rear speaker sound is switched, the audio source that is output at the AV OUTPUT terminal is also switched to the same source.
- When the dual zone function is set to on, the following functions are not available.
  - Output from the subwoofer
  - Subwoofer Level/Bass Boost DNX7 *(P.94)*
  - Equalizer Control/Space Enhancer DNX7/ Listening Position DNX7 *(P.95, 97, 98)*
  - DSP Bypass Control DNX7/Speaker Setup/Car Type Setup DNX7 *(P.93, 90, 92)*

Space Enhancer DNX7

1 | Touch [Space Enhancer].



Space Enhancer screen appears.

2 | Touch [Small], [Large], or [OFF].

Each setting value indicates the soundscape level.

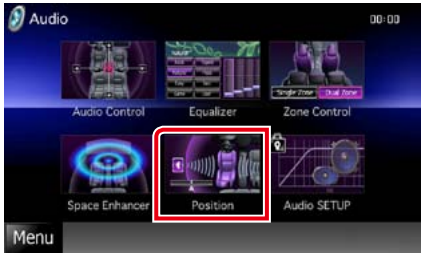
NOTE

- This setting is not available during HD Radio tuner source.

Listening Position DNX7

You can adjust the sound effects according to your listening position.

1 | Touch [Position].



Position screen appears.

2 | Select listening position from [Front R] (Right front), [Front L] (Left front), [Front All] (All front), and [All] using [◄] and [►].



Position DTA Control

You can fine-adjust your listening position.

1 | In Position screen, touch [Adjust].

2 | Select the speaker you wish to adjust by touching speaker icon.



3 | Set DTA as follows.



[◄], [►]

Adjust the settings of the DTA position.

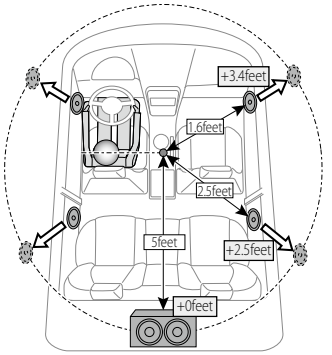
Gain

Touch to adjust the gain of each speaker.

NOTE

- Make fine adjustment of the delay time of the speaker output specified here to have a more suitable environment for your vehicle.
- If you specify the distance from the center of the currently set listening position to every speaker, the delay time will be automatically computed and set.
  ① Determine the center of the currently set listening position as the reference point.
  ② Measure the distances from the reference point to the speakers.
  ③ Calculate the differences between the distance of the furthest speaker and other speakers.
  ④ Input the differences calculated in step ③ for individual speakers.
  ⑤ Adjust gain for individual speakers. A sound image will be shifted to the speaker with increased gain.

Example: When [Front All] is selected as the listening position



Remote Controller

This unit can be operated using the remote controller.

For DNX7, DNX6990HD, and DNX6490BT, the remote controller is supplied with the unit.

For DNX6190HD, DNX5190, and DNX5060EX, the remote controller is the optional accessory (KCA-RCDV331).

⚠CAUTION

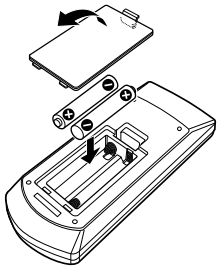
- **Put the remote controller in a place where it will not move during braking or other operations. A dangerous situation could result, if the remote controller falls down and gets wedged under the pedals while driving.**
- **Do not leave the battery near fire or under direct sunlight. A fire, explosion or excessive heat generation may result.**
- **Do not recharge, short, break up or heat the battery or place it in an open fire. Such actions may cause the battery to leak fluid. If spilled fluid comes in contact with your eyes or on clothing, immediately rinse with water and consult a physician.**
- **Place the battery out of reach of children. In the unlikely event that a child swallows the battery, immediately consult a physician.**

Battery Installation

If the remote controller operates only over shorter distances or does not operate at all, it is possible that the batteries are depleted.

In such instances, replace the both batteries with new ones.

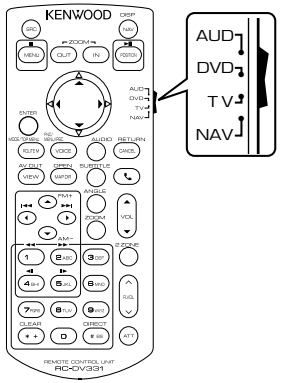
1 Insert two "AAA"/"R03"-size batteries with the ⊕ and ⊖ poles aligned properly, following the illustration inside the case.



Functions Of The Remote Controller Buttons

Switching the operation mode

The functions operated from the remote controller differ depending on the position of the mode switch.



AUD mode

Switch to this mode when controlling a selected source or tuner source, etc.

DVD mode

Switch to this mode when playing a disc media including DVD, VCD, and CD.

NAV mode

Switch to this mode when controlling navigation function.

NOTE

- When controlling a player that is not integrated in the unit, select "AUD" mode.

Direct search mode

Using the remote controller, you can jump directly to the desired file, track chapter, etc. with entering the number corresponding to the content.

NOTE

- This operation cannot be performed for USB device and iPod.

1 Press the <#BS> button several times until the desired content appears.

The available contents are different depending on the source.

DVD

Title number/Chapter number/Play time/Item number*

* You may not be able to use this function with some discs or scenes.

VCD 1.X and 2.X (PBC OFF)

Track number

VCD 2.X (PBC ON)

Scene number/number

Music CD

Track number/Play time

Audio files

Folder number/File number

Radio

Frequency value

HD Radio tuner

Frequency value/Channel number

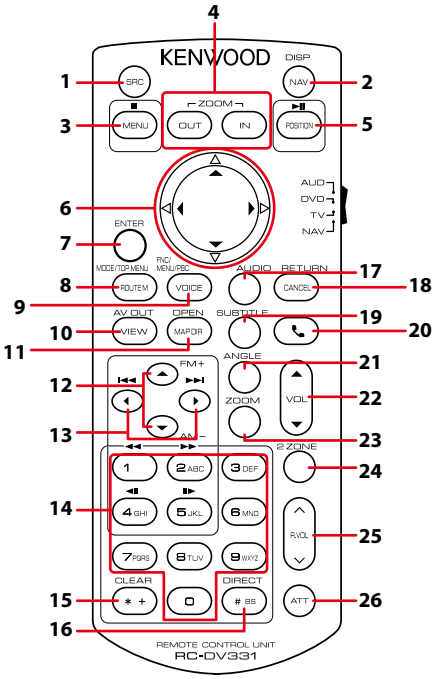
SIRIUS XM

Channel number

2 Enter the number of the content you want to play using the numeric keypad.

3 For DVD or VCD, press the <ENTER> button.
For music CD or audio files, press the <POSITION> button.
For radio, press the <◄> or <►> button.

The content you entered is played.



	Key Name	Location of the mode switch	Function
1	SRC	–	Switches to the source to be played. In hands-free mode, hangs up the phone.
2	NAV	–	Switches between the navigation and the source screens.
3	MENU	DVD	Stops playing and memorizes the last point where the disc stopped. The last point is deleted by pressing twice.
		NAV	Displays Main menu.
4	OUT, IN	NAV	Zooms in or out the navigation map.
5	POSITION	AUD, DVD	Pauses the track or file, and resumes playing by pressing twice. During radio, HD Radio, and SIRIUS XM source in AUD mode, switches the seek mode.
		NAV	Displays the current position.
6	Cursor Key	DVD	Moves the cursor in the DVD menu.
		NAV	Moves the cursor or scrolls the map.
7	ENTER	AUD, DVD	Performs the selected function.
		NAV	• Registers the selected position. • Performs the selected function.
8	ROUTE M	AUD	Screen mode changes each time you press this key during video playback.
		DVD	Returns to the DVD top menu.
		NAV	Displays Route Option menu.

	Key Name	Location of the mode switch	Function
9	VOICE	AUD	Switches navigation display on/off.
		DVD	Displays the DVD menu. Turns the playback control on or off while playing VCD.
		NAV	Speaks the voice guidance.
10	VIEW	AUD, DVD	Switches the AV source to be output.
		NAV	Switches between 2D and 3D map displays.
11	MAP DIR	AUD, DVD	DNX7 Switches the display angle each time it is pressed.
		NAV	Switches between the heading up navigation and north up navigation map displays.
12	▲/▼	AUD, DVD	Selects the folder to be played. During radio, HD Radio, and SIRIUS XM source in AUD mode, switches the bands to be received.
13	◄/►	AUD, DVD	Selects the track or file to be played. During radio, HD Radio, and SIRIUS/XM source in AUD mode, switches to broadcast stations received by the unit.
14	Numeric Keypad	AUD	Specifies the number to search in direct search. For details on the direct search mode, see Direct search mode (P.101).
		DVD	• Press [1] [2] to fast forward/backward. Switches the fast forward/backward speed each time you press this key. • Press [4] [5] to slow forward/backward. Switches the slow playback speed each time you press this key.* *DVD only
15	* +	DVD	Clears the number.
16	# BS	AUD, DVD	Switches to the direct search mode. For details on the direct search mode, see Direct search mode (P.101).
17	AUDIO	DVD	Switches the voice language each time you press this key.
18	CANCEL	DVD	Displays previous screen.
		NAV	Cancels the operations.
19	SUBTITLE	DVD	Switches the subtitle language.
20	✆	–	When a call comes in, answers the call.
21	ANGLE	DVD	Switches the picture angle each time you press this key.
22	Vol ▲▼	–	Adjusts the volume.
23	ZOOM	DVD	Switches the zoom ratio (1, 2, 3, Off) each time you press this key.
24	2 ZONE	AUD, DVD	Switches the Dual Zone function on and off.
25	R.VOL ∧∨	–	Adjusts volume at rear when the Dual Zone function is on.
26	ATT	–	Lowers the volume by pressing the key once. Restores the previous volume by pressing the key twice.

Troubleshooting

Problems And Solutions

If any trouble occurs, first check the following table for possible problems.

- **Some functions of this unit may be disabled by some settings made on this unit.**
- **What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring.**

About settings

Problem	Reason	Solution
• Cannot set up the subwoofer. • Cannot set up subwoofer phase. • No output from the subwoofer. • Cannot set up the low pass filter. • Cannot set up the high pass filter.	Subwoofer is not set to on.	Set the subwoofer to on. See ***Speaker setup (P.90)***.
	The dual zone function is enabled.	Set the dual zone function to off. See ***Zone Control (P.97)***.
• Cannot select the output destination of the subsource in the dual zone. • Cannot adjust the volume of the rear speakers.	The dual zone function is disabled.	Set the dual zone function to on. See ***Zone Control (P.97)***.
• Cannot set up the equalizer. • Cannot set up the crossover network.	The dual zone function is enabled.	Set the dual zone function to off. See ***Zone Control (P.97)***.
	"DSP Select" is set to "Bypass".	Set "DSP Select" to "Through". See ***DSP select (P.93)***.

About audio operations

Problem	Reason	Solution
Radio reception is poor.	The car antenna is not extended.	Pull out the antenna all the way.
	The antenna control wire is not connected.	Connect the wire correctly. See "Connection" in the Quick Start Guide.
Cannot play audio files stored in a disc.	"CD Read" is set to "2".	Set "CD Read" to "1". See ***Disc setup (P.27)***.
Cannot select a folder.	The random play function is enabled.	Turn off the random function.
Cannot perform repeat play during VCD playback.	The PBC function is enabled.	Turn off the PBC function.
The specified disc does not play, but another one plays instead.	The disc is quite dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	The disc is severely scratched.	Try another disc instead.
The sound skips when an audio file is being played.	The disc is scratched or dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	The recording condition is bad.	Record the file again or use another disc.

Other

Problem	Reason	Solution
The Touch Sensor Tone doesn't sound.	The preout jack is being used.	The Touch Sensor Tone cannot be output from the preout jack.

Error Messages

When you fail to operate the unit correctly, the cause of the failure appears as the message on the screen.

Error Message	Cause	Solution
Protect	Protective circuit has been activated because a speaker cord has shorted or it has come in contact with the car chassis.	Wire or insulate the speaker cord as appropriate and then push the <Reset> button ***(P.107)***.
Hot Error	When the internal temperature of this unit rises to 60°C or more, the protection circuit is activated and you may not be able to operate the unit.	Use the unit again after reducing the temperature of the unit.
Mecha Error	The disc player is malfunctioning.	Eject the disc and try inserting it again. Contact the Kenwood dealer if this indicator continues blinking or the disc cannot be ejected.
Disc Error	An unplayable disc is inserted.	Change the disc. See ***Playable Media And Files (P.108)***.
Read Error	The disc is quite dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	Disc is upside down.	Load the disc with the labeled side up.
Region Code Error	The disc you wanted to play has a region code that cannot be played with this unit.	See ***Region Codes In The World (P.113)*** or try another disc.
Parental Level Error	The disc you wanted to play has a higher level than the parental level you set.	Set the parental level. See ***Parental level (P.26)***.
Error 07–67	The unit is not operating correctly due to some reason or other.	Push the unit's Reset button. If the "Error 07–67" message does not disappear, see your nearest Kenwood dealer.
No Device (USB device)	The USB device is selected as a source although no USB device is connected.	Change the source to any source other than USB/iPod. Connect a USB device, and change the source to USB again.
Disconnected (iPod, Bluetooth audio player)	The iPod/Bluetooth audio player is selected as a source although no iPod/Bluetooth audio player is connected.	Change the source to any source other than iPod/Bluetooth. Connect an iPod/Bluetooth audio player, and change the source to iPod/Bluetooth again.
No Media file	The connected USB device contains no playable audio file. Media was played that doesn't have data recorded that the unit can play.	See ***Playable Media And Files (P.108)*** and try another USB device.

Error Message	Cause	Solution
USB Device Error!!	The connected USB device is rated a current capacity higher than the allowable limit.	Check the USB device. Some trouble may have occurred to the connected USB device.
		Change the source to any source other than USB. Remove the USB device.
Authorization Error	Connection to the iPod has failed.	• Remove the iPod and then reconnect it. • The unit does not support the iPod. See ***Connectable iPod/iPhone (P.110)***.
Update your iPod	The iPod's software is an older version which the unit can not support.	The unit may not support the connected iPod model. Confirm that the software for the iPod is the latest version. See ***Connectable iPod/iPhone (P.110)***.
Navigation Error. Please turn on power again later.	The communication error has occurred due to severely cold temperature.	Turn on power again after warming your car interior.

SIRIUS XM

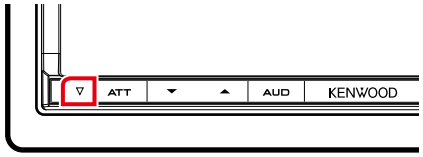
Check Tuner	A SiriusXM tuner is not connected to this unit.	Check that the connected SiriusXM tuner is connected.
Subscription Updated - Press Return To Continue	The SiriusXM subscription has been renewed.	Pressing the Control knob will clear the error message.
Channel Not Available	The currently selected channel is unavailable.	—
Ch Unsubscribed	The currently selected channel is not subscribed to.	—
Check Antenna	No antenna is connected to the SiriusXM tuner.	Check that an antenna is connected to the SiriusXM tuner.
No Signal	No SiriusXM radio signal is received.	Check that an antenna is connected to the SiriusXM tuner.

Resetting The Unit

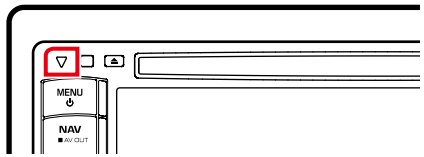
If the unit or the connected unit fails to operate properly, reset the unit.

1 Press the <Reset> button.

The unit returns to factory settings.



DNX7



DNX6 DNX5

NOTE

- Disconnect the USB device before pressing the <Reset> button. Pressing the <Reset> button with the USB device connected can damage the data stored in the USB device. For how to disconnect the USB device, see ***How To Play Media (P.13)***.
- When the unit is turned on after resetting, the Initial SETUP screen appears. See ***Initial setup (P.11)***.

Appendix

Playable Media And Files

You can play various kinds of media and files on this unit.

List of playable discs

Disc types	Standard	Support	Remark
DVD	DVD Video	○	
	DVD Audio	×	
	DVD-VR	×	
	DVD-R*1	○	• MP3/WMA/AAC/MPEG1/MPEG2/DivX*2 playback • Multi-border/Multisession playback (Playback depends on authoring conditions)
	DVD-RW	○	
	DVD+R	○	
	DVD+RW	○	
	DVD-R DL (Dual layer)	○	Only video format
	DVD+R DL (Double layer)	○	
	DVD-RAM	×	
CD	Music CD*1	○	CD-TEXT
	CD-ROM	○	• MP3/WMA/AAC/MPEG1/MPEG2/DivX*2 playback • Multisession is supported. • Packet write is not supported.
	CD-R	○	
	CD-RW	○	
	DTS-CD	○	
	Video CD (VCD)	○	
	Super video CD	×	
	Photo CD	×	
	CD-EXTRA	△	Only music CD session can be played.
	HDCD	○	
	CCCD	×	
Others	Dualdisc	×	
	Super audio CD	△	Only CD layer can be played.

*1 Incompatible with 8 cm (3 inch) discs.
*2 Available only for Central and South America sales area.

○ : Playback is possible.
△: Playback is partly possible.
× : Playback is impossible.

NOTE

- When buying DRM enabled contents, check the Registration Code in the *DivX setup (P.44)*. Each time a file with the displayed code is played and protected against copying, the code changes.
- DivX can be played only from a DVD disc media.

■ Use of DualDisc

When playing a "DualDisc" on this unit, the surface of the disc that is not played may be scratched while the disc is inserted or ejected. Since the music CD surface does not conform to the CD standard, playback may be impossible.

(A "DualDisc" is a disc with one surface containing DVD standard signals and the other surface containing music CD signals.)

■ About disc format

The disc format should be the one of the following.

- ISO 9660 Level 1/2
- Joliet
- Romeo
- Long file name

About files

The following audio, video, and picture files are supported.

■ Audio files

- AAC-LC (.m4a)
- MP3 (.mp3)
- WMA (.wma)
- Linear PCM (WAVE) (.wav)
  *Mass-storage-class USB device only

NOTE

- If music of normal CD and other playback systems are recorded in the same disc, only the playback system recorded at the first setout is played.
- WMA and AAC of which is covered with DRM cannot be played.
- Although the audio files are complied with the standards listed above, the play may be impossible depending on the types or conditions of media or device.
- An online manual about audio files is put on the site, ***www.kenwood.com/cs/ce/audiofile/***. On this online manual, detailed information and notes which are not written in this manual are provided. Make sure to read through the online manual as well.

■ Video files

- MPEG1 (.mpg, .mpeg, .m1v)
- MPEG2 (.mpg, .mpeg, .m2v)
- DivX (.divx, .div, .avi)
  *DVD only
- H.264/MPEG-4 AVC (.mp4, .m4v)
  *Mass-storage-class USB device only
- WMV 9 (.wmv, .m2ts)
  *Mass-storage-class USB device only

■ Picture files

Only picture files in USB device can be displayed.

Files stored in disc media is not supported.

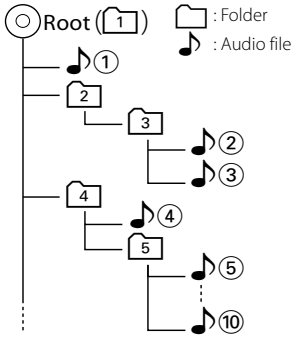
- JPEG (.jpg, .jpeg)
- PNG (.png)
- BMP (.bmp)

NOTE

- BMP and PNG can be set only as wallpaper.

■ Playing order of files

In the example of folder/file tree shown below, the files are played in the order from ① to ⑩.



Connectable iPod/iPhone

The following models can be connected to this unit.

You can control an iPod/iPhone from this unit by connecting an iPod/iPhone (commercial product) with Dock connector using an optional accessory iPod connection cable (KCA-iP202). The word "iPod" appearing in this manual indicates the iPod/iPhone connected with the KCA-iP202 (optional accessory).

Made for

- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod nano (3rd generation)
- iPod with video
- iPod classic
- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod touch (1st generation)
- iPhone 4S
- iPhone 4
- iPhone 3GS
- iPhone 3G
- iPhone

NOTE

- For the conformity information on iPod/iPhone software, access ***www.kenwood.com/cs/ce/ipod/***.
- By connecting your iPod/iPhone to this unit with an optional accessory iPod connection cable (KCA-iP202), you can supply power to your iPod/iPhone as well as charge it while playing music. However, the power of this unit must be on.
- If you start playback after connecting the iPod, the music that has been played by the iPod is played first. In this case, "Reading" is displayed without displaying a folder name, etc. Changing the browse item will display a correct title, etc.
- When the iPod is connected to this unit, "KENWOOD" or "✓" is displayed on the iPod to indicate that you cannot operate the iPod.

Usable USB device

You can use a mass-storage-class USB device on this unit.

The word "USB device" appearing in this manual indicates a flash memory device and digital audio players can be recognized as mass-storage.

■ About file system

The file system should be the one of the following.

- FAT16
- FAT32

NOTE

- When the USB device is connected to this unit, it can be charged through the USB cable.
- Install the USB device in the place where it will not affect safe driving.
- You cannot connect a USB device via a USB hub and Multi Card Reader.
- Take backups of the audio files used with this unit. The files can be erased depending on the operating conditions of the USB device. We shall have no compensation for any damage arising from any erased data.
- No USB device comes with this unit. You need to purchase a commercially available USB device.
- When connecting the USB device, usage of the CA-U1EX (option) is recommended. (However, maximum supply current of CA-U1EX is 500mA.) Normal playback is not guaranteed when a cable other than the USB compatible cable is used.

Status Bar Indicator Items

Shown below is a list of indicators displayed on the status bar in the screen.
Current status of this unit is displayed on the bar.



■ General

ATT
The attenuator is active.

DUAL
The dual zone function is on.

TEL
Indicates the connection state of the Bluetooth hands-free unit.
- White: Connected
- Orange: Not connected

LOUD DNX6 DNX5
The loudness control function is on.

■ DVD/CD

FO-REP
Folder repeat function is on.

IN
A disc is inserted.
- White: A Disc is inside the unit.
- Orange: Error at the disc player

VIDEO
Identifies the video file.

MUSIC
Identifies the music file.

RDM
The random function is on.

REP
The repeat function is on.

C-REP
The chapter repeat function is on.

T-REP
The title repeat function is on.

■ VCD

1chLL/2chLL
Identifies the left audio output of channel 1 or 2.

1chLR/2chLR
Identifies the monaural audio output of channel 1 or 2.

1chRR/2chRR
Identifies the right audio output of channel 1 or 2.

1chST/2chST
Identifies the stereo audio output of channel 1 or 2.

LL
Identifies the left audio output.

LR
Identifies the monaural audio output.

RR
Identifies the right audio output.

STEREO
Identifies the stereo audio output.

PBC
The PBC function is on.

SVCD
Identifies the Super Video CD.

VER1
The VCD version is 1.

VER2
The VCD version is 2.

REP
The repeat function is on.

■ USB

FO-REP
The folder repeat function is on.

VIDEO
Identifies the video file.

MUSIC
Identifies the music file.

PICTURE
Identifies the picture file.

RDM
The random function is on.

REP
The repeat function is on.

PLST
The play list mode is selected now.

■ iPod

MUSIC
Identifies the music file.

VIDEO
Identifies the video file.

RDM
The random function is on.

A-RDM
The album random function is on.

REP
The repeat function is on.

■ Tuner

AUTO1
Seek mode is set to AUTO1.

AUTO2
Seek mode is set to AUTO2.

MANUAL
Seek mode is set to MANUAL.

ST
A stereo broadcast is being received.

TI
Indicates the reception state of traffic information.
• White: TP is being received.
• Orange: TP is not being received.

CRSC
The CRSC *(P.47)* function is on.

■ HD Radio reception

AUTO1
Seek mode is set to AUTO1.

AUTO2
Seek mode is set to AUTO2.

MANUAL
Seek mode is set to MANUAL.

HD
HD Radio station is being received.

M/S
A multicast digital broadcast is being received.

ANALOG
An analog broadcast is being received.

DIGITAL
A digital broadcast is being received.

ST
A stereo broadcast is being received.

TAG
Tagging is enabled.

■ SIRIUS XM

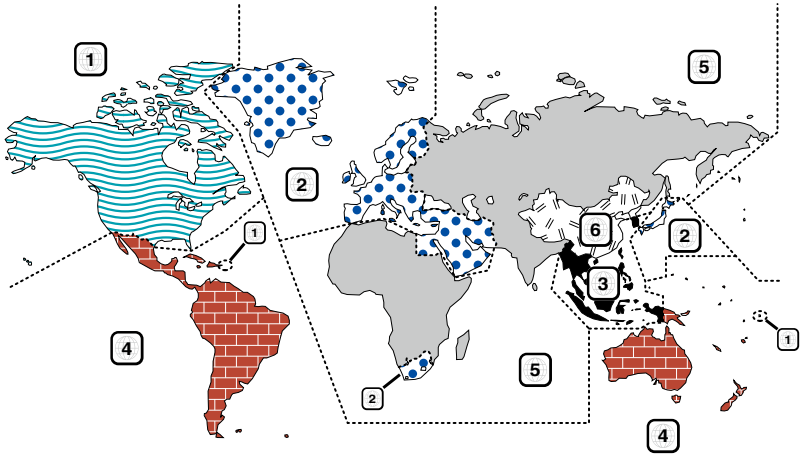
SEEK1
Seek mode is set to SEEK1.

SEEK2
Seek mode is set to SEEK2.

TAG
Tagging is enabled.

Region Codes In The World

The DVD players are given a region code according to the country or area it is marketed, as shown in the following map.



■ DVD disc marks



Indicates a region number. The discs with this mark can be played with any DVD player.



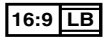
Indicates the number of audio languages recorded. Up to 8 languages can be recorded in a movie. You can select a favorite language.



Indicates the number of subtitled languages recorded. Up to 32 languages can be recorded.



If a DVD disc has scenes shot from multiple angles, you can select a favorite angle.



Indicates the type of screen for the image. The left mark indicates that a wide image picture (16:9) is displayed on a standard TV set screen (4:3) with a black band at both the top and bottom of the screen (letter box).

■ Operation regulatory marks

With this DVD, some functions of this unit such as the play function may be restricted depending on the location where the DVD is playing. In this case, the following marks will appear on the screen. For more information, refer to the disc manual.

Prohibition Mark



■ Discs with limited period of use

Do not leave discs with a limited period of use in this unit. If you load an already expired disc, you may not be able to remove it from this unit.

DVD Language Codes

Code	Language
aa	Afar
ab	Abkhazian
af	Afrikaans
am	Amharic
ar	Arabic
as	Assamese
ay	Aymara
az	Azerbaijani
ba	Bashkir
be	Byelorussian
bg	Bulgarian
bh	Bihari
bi	Bislama
bn	Bengali, Bangla
bo	Tibetan
br	Breton
ca	Catalan
co	Corsican
cs	Czech
cy	Welsh
da	Danish
de	German
dz	Bhutani
el	Greek
en	English
eo	Esperanto
es	Spanish
et	Estonian
eu	Basque
fa	Persian
fi	Finnish
fj	Fiji
fo	Faroese
fr	French
fy	Frisian
ga	Irish
gd	Scots Gaelic
gl	Galician
gn	Guarani
gu	Gujarati
ha	Hausa
he	Hebrew
hi	Hindi
hr	Croatian
hu	Hungarian
hy	Armenian

Code	Language
ia	Interlingua
ie	Interlingue
ik	Inupiak
id	Indonesian
is	Icelandic
it	Italian
ja	Japanese
jv	Javanese
ka	Georgian
kk	Kazakh
kl	Greenlandic
km	Cambodian
kn	Kannada
ko	Korean
ks	Kashmiri
ku	Kurdish
ky	Kirghiz
la	Latin
lb	Luxembourgish
ln	Lingala
lo	Laotian
lt	Lithuanian
lv	Latvian, Lettish
mg	Malagasy
mi	Maori
mk	Macedonian
ml	Malayalam
mn	Mongolian
mo	Moldavian
mr	Marathi
ms	Malay
mt	Maltese
my	Burmese
na	Nauru
ne	Nepali
nl	Dutch
no	Norwegian
oc	Occitan
om	(Afan) Oromo
or	Oriya
pa	Punjabi
pl	Polish
ps	Pashto, Pushto
pt	Portuguese
qu	Quechua
rm	Rhaeto-Romance

Code	Language
rn	Kirundi
ro	Romanian
ru	Russian
rw	Kinyarwanda
sa	Sanskrit
sd	Sindhi
sg	Sangho
sh	Serbo-Croatian
si	Singhalese
sk	Slovak
sl	Slovenian
sm	Samoan
sn	Shona
so	Somali
sq	Albanian
sr	Serbian
ss	Siswati
st	Sesotho
su	Sundanese
sv	Swedish
sw	Swahili
ta	Tamil
te	Telugu
tg	Tajik
th	Thai
ti	Tigrinya
tk	Turkmen
tl	Tagalog
tn	Setswana
to	Tongan
tr	Turkish
ts	Tsonga
tt	Tatar
tw	Twi
uk	Ukrainian
ur	Urdu
uz	Uzbek
vi	Vietnamese
vo	Volapuk
wo	Wolof
xh	Xhosa
yo	Yoruba
zh	Chinese
zu	Zulu

Specifications

■ Monitor section

Picture Size

DNX7190HD, DNX7490BT

: 6.95 inches (diagonal) wide
: 156.6 mm (W) x 81.6 mm (H)

DNX6990HD, DNX6190HD, DNX6490BT, DNX5190, DNX5060EX

: 6.1 inches (diagonal) wide
:136.2 mm (W) x 72.0 mm (H)

Display System

: Transparent TN LCD panel

Drive System

: TFT active matrix system

Number of Pixels

: 1,152,000 (800H x 480V x RGB)

Effective Pixels

: 99.99 %

Pixel Arrangement

: RGB striped arrangement

Back Lighting

: LED

■ DVD player section

D/A Converter

: 24 bit

Audio Decoder

: Linear PCM/Dolby Digital/dts/MP3/WMA/AAC

Video Decoder

: MPEG1/ MPEG2/ DivX (DNX7490BT/ DNX6490BT only)

Wow & Flutter

: Below Measurable Limit

Frequency Response

DNX7190HD, DNX7490BT

- 96 kHz : 20 – 20,000 Hz
- 48 kHz : 20 – 20,000 Hz
- 44.1 kHz : 20 – 20,000 Hz

DNX6990HD, DNX6190HD, DNX6490BT, DNX5190, DNX5060EX

- 96 kHz : 20 – 22,000 Hz
- 48 kHz : 20 – 22,000 Hz
- 44.1 kHz : 20 – 20,000 Hz

Total Harmonic Distortion

DNX7190HD, DNX7490BT

: 0.008 % (1 kHz)

DNX6990HD, DNX6190HD, DNX5060EX, DNX6490BT, DNX5190

: 0.01 % (1 kHz)

S/N Ratio (dB)

: 98 dB (DVD-Video 96 kHz)

Dynamic Range

: 98 dB (DVD-Video 96 kHz)

Disc Format

: DVD-Video/ VIDEO-CD/ CD-DA

Sampling Frequency

: 44.1/48/96 kHz

Quantifying Bit Number

: 16/20/24 bit

■ USB interface section

USB Standard

: USB 2.0 High speed

File System

: FAT 16/ 32

Maximum Power Supply Current

: DC 5 V ⎓ 1 A

D/A Converter

: 24 Bit

Video Decoder

: MPEG1/MPEG2/MPEG4/WMV/H.264

Audio Decoder

: MP3/ WMA/ AAC/ WAV

■ Bluetooth section (Except DNX5190)

Technology

DNX7190HD, DNX7490BT

: Bluetooth Ver.3.0 Certified

DNX6990HD, DNX6190HD, DNX6490BT, DNX5190, DNX5060EX

: Bluetooth 2.0 Certified

Frequency

: 2.402 – 2.480 GHz

Output Power

: +4dBm (MAX), 0dBm (AVE), Power Class2

Maximum Communication Range

: Line of sight approx. 10m (32.8 ft)

Profile

DNX7190HD, DNX7490BT, DNX6990HD, DNX6190HD, DNX6490BT

- HFP (Hands Free Profile)
- SPP (Serial Port Profile)
- HSP (Headset Profile)
- A2DP (Advanced Audio Distribution Profile)
- AVRCP (Audio/Video Remote Control Profile)
- OPP (Object Push Profile)
- PBAP (Phonebook Access Profile)
- Multi Profile support

DNX5190, DNX5060EX

- HFP (Hands Free Profile)

■ DSP section (DNX7190HD, DNX7490BT)

Graphics equalizer

Band: 7 Band
Frequency (BAND1 – 7)
: 62.5/160/400/1k/2.5k/6.3k/16k Hz

Gain

: -9/-8/-7/-6/-5/-4/-3/-2/-1/0/1/2/3/4/5/6/7/8/9 dB

X'over

High pass filter
Frequency: Through, 30/ 40/ 50/ 60/ 70/ 80/ 90/ 100/ 120/ 150 / 180/ 220/ 250 Hz
Slope: -6/-12/-18/-24 dB/Oct.
Low pass filter
Frequency: 30/ 40/ 50/ 60/ 70/ 80/ 90/ 100/ 120/ 150/ 180/ 220/ 250 Hz, Through
Slope: -6/-12/-18/-24 dB/Oct.

Position

Front / Rear /Subwoofer Delay
: 0 – 20.0ft (0.07ft Step)
Gain
: -8 – 0 dB

Subwoofer level

: -50 – +10 dB

■ FM tuner section

Frequency Range

DNX7190HD, DNX6990HD, DNX6190HD, DNX5190, DNX5060EX

: 87.9 MHz – 107.9 MHz (200 kHz)

DNX7490BT, DNX6490BT

: 87.5 MHz – 108.0 MHz (50 kHz)

Usable Sensitivity (S/N : 30 dB)

: 9.3 dBf (0.8 µV/75 Ω)

Quieting Sensitivity (S/N : 50 dB)

: 15.2 dBf (1.6 µV/75 Ω)

Frequency Response (± 3.0 dB)

: 30 Hz – 15 kHz

S/N Ratio (dB)

: 70 dB (MONO)

Selectivity (± 400 kHz)

: ≥ 80 dB

Stereo Separation

: 40 dB (1 kHz)

■ Digital FM tuner section (DNX7190HD, DNX6990HD, DNX6190HD)

Frequency Range

: 87.9 MHz – 107.9 MHz (200 kHz)

Frequency Response (± 3.0 dB)

: 20 Hz – 20 kHz

S/N Ratio (dB)

: 70 dB (STEREO)

■ AM tuner section

Frequency Range (10 kHz)

: 530 kHz – 1700 kHz

Usable Sensitivity

: 28 dBµ

■ Digital AM tuner section (DNX7190HD, DNX6990HD, DNX6190HD)

Frequency Range (10 kHz)

: 530 kHz – 1700 kHz

Frequency Response (± 3.0 dB)

: 40 Hz – 15 kHz

S/N Ratio (dB)

: 70 dB (STEREO)

■ Video section

Color System of External Video Input

: NTSC/PAL

External Video Input Level (RCA/mini jack)

: 1 Vp-p/ 75 Ω

External Audio Max Input Level (RCA/mini jack)

: 2 V/ 25 kΩ

Video Output Level (RCA jacks)

: 1 Vp-p/ 75 Ω

Audio Output Level (RCA jacks)

: 1.2 V/ 10 kΩ

■ Audio section

Maximum Power (Front & Rear)

: 50 W x 4

Full Bandwidth Power (Front & Rear) (4 Ω, 14.4 V, 1 % THD)

: 22 W x 4

Preout Level (V)

DNX7190HD, DNX7490BT

: 4 V/ 10 kΩ

DNX6990HD

: 5 V/ 10 kΩ

DNX6190HD, DNX6490BT, DNX5190, DNX5060EX

: 2 V/ 10 kΩ

Preout Impedance

DNX6990HD

: 80 Ω

DNX7190HD, DNX7490BT, DNX6190HD, DNX6490BT, DNX5190, DNX5060EX

: ≤ 600 Ω

Speaker Impedance

: 4 – 8 Ω

Tone
(DNX6990HD, DNX6190HD, DNX6490BT, DNX5190, DNX5060EX)

Bass: 100Hz ± 10dB
Middle: 1kHz ± 10dB
Treble: 10kHz ± 10dB

■ External SW (DNX7190HD, DNX7490BT)

Maximum Power Supply Current

: 500 mA

■ Navigation section

Receiver

: High-sensitivity GPS receiver

Reception Frequency

: 1575.42 MHz (C/A code)

Acquisition Times

Cold : 35 seconds (typ)
(On average for a stationary receiver with a clear view of the sky)

Reception Frequency

: 1575.42 MHz (C/A code)

Update Rate

: 1/second, continuous
Velocity : 0.05 m/sec. RMS

Accuracy

Position: <6 meters, typical
Velocity: 0.1 meter/sec RMS

Position Method

: GPS

Antenna

: External GPS antenna

■ General

Operating Voltage

: 14.4 V (10.5 – 16 V allowable)

Maximum Current Consumption

: 15 A

Installation Dimensions (W x H x D)

DNX7190HD, DNX7490BT

: 182 x 112 x 163 mm
7-3/16 x 4-6/16 x 6-7/16 inch

DNX6990HD, DNX6190HD, DNX5060EX, DNX6490BT, DNX5190

: 182 x 112 x 160 mm
7-3/16 x 4-6/16 x 6-4/16 inch

Operational Temperature Range

: -10 °C – +60 °C

Weight

DNX7190HD, DNX7490BT: 2.5 kg (5.5 lbs)
DNX6990HD, DNX6190HD, DNX5060EX, DNX6490BT, DNX5190: 2.0 kg (4.4 lbs)

NOTE

- Although the effective pixels for the liquid crystal panel is given as 99.99% or more, 0.01% of pixels may not light or may light incorrectly.

Specifications subject to change without notice.

About This Unit

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- **About PANDORA® internet radio:**
  Requirements for listening to the PANDORA® internet radio are as follows:
  iPhone or iPod touch
  - Use an Apple iPhone or iPod touch running under iOS3 or later.
  - Search for "Pandora" in the Apple iTunes App Store to find and install the most current version of the Pandora® application on your device.
  - iPhone/ iPod touch connected to this unit with a KCA-iP102.

  Android™ or BlackBerry®
  - Download the Pandora application to your smartphone from Pandora site using it's standard browser.
  - Bluetooth must be built in and the following profiles must be supported.
    - SPP (Serial Port Profile)
    - A2DP (Advanced Audio Distribution Profile)

  NOTE
  - In the application on your device, log in and create an account with Pandora.
    (If you are not already a registered user, an account can also be created at www.pandora.com.)
  - Internet connection by 3G, EDGE, or WiFi.
  - Pandora® is available only in the U.S.
  - Because Pandora® is a third-party service, the specifications are subject to change without prior notice. Accordingly, compatibility may be impaired or some or all of the services may become unavailable.
  - Some functions of Pandora® cannot be operated from this unit.
  - For issues using the application, please contact Pandora® at pandora-support@pandora.com

■ FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

DNX7190HD/DNX6990HD/DNX6190HD/DNX5060EX/ DNX5190:

⚠CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

JVC KENWOOD Corporation
2967-3, ISHIKAWA-MACHI,
HACHIOJI-SHI, TOKYO, JAPAN

THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J IN EFFECT AT DATE OF MANUFACTURE.

Location: Top plate

DNX7190HD/ DNX6990HD/ DNX6190HD/ DNX5190/ DNX5060EX:

■ IC (Industry Canada) Notice

Operation is subject to the following two conditions:

(1)This device may not cause interference, and
(2)this device must accept any interference, including interference that may cause undesired operation of the device.

The term "IC: " before the certification/ registration number only signifies that the Industry Canada technical specification were met.

⚠CAUTION

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not Cause harmful interference.

DNX7190HD/DNX6990HD/DNX6190HD:

- Contains Transmitter Module
  FCC ID : RKXFC6000S
- Contains Transmitter Module
  IC: 5119A-FC6000S

DNX5190/DNX5060EX:

- Contains Transmitter Module
  FCC ID : XQN-BTR60X
- Contains Transmitter Module
  IC: 9688A-BTR601

DNX7490BT/DNX6490BT:

■ The marking of products using lasers



The label is attached to the chassis/case and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

■ CALIFORNIA, USA

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply.
See ***www.dtsc.ca.gov/hazardouswaste/perchlorate***.

HD Radio®

This HD Radio receiver enables:

PSD

HD2/HD3

Digital Sound

iTunes® Tagging

Artist Experience

SiriusXM READY

Bluetooth®

DOLBY DIGITAL

dts 2.0 Channel

DVD VIDEO

Made for iPod iPhone

Designed for Windows Media™

works with PANDORA internet radio

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