

KENWOOD

GPS NAVIGATION SYSTEM

DNX8120

MONITOR WITH DVD RECEIVER

DDX812

DDX8032BT

INSTRUCTION MANUAL

Kenwood Corporation



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/ DVD Receiver.

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 DNX8120/DDX812/DDX8032BT Serial number _____

US Residence Only

Register Online

Register your Kenwood product at
www.Kenwoodusa.com

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How to read this manual

This manual uses illustrations to explain its operations.

The displays 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 displays or panels used, or some display patterns may be different.

▼ : Continues to the next line.
● : Ends here.

Continue to the next page

The instruction continues to the next page. Make sure to flip the page for the rest of the instruction.

Seek Mode

Sets a station selection.



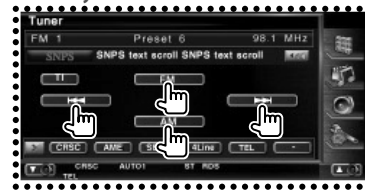
The mode is switched in following order each time you touch the button.

Display	Setting
"AUTO1"	Tunes in a station with good reception automatically.
"AUTO2"	Tunes in stations in memory one after another.
"MANU"	Switches to the next frequency manually.

Manual Memory

Stores the current receiving station in memory.

1 Select a station you wish to store in memory




2 Store in memory



Continue to touch until the memory number appears.

Next page

Short Press

Press the button, denoted by .


Change in the screen

With each operation, the screen changes in the order shown here.

Selecting a screen item

Select and choose an item on the screen. Select the item by touching the button on the screen.

Press 1 second or more

Press the button, denoted by , for 1 second or more (2-3 seconds). Indicates to press and hold down the button until operation starts or the screen changes. The left example indicates to press the button for 1 second. Press it approximately for the seconds shown in the clock.

Other marks



Important precautions are described to prevent injuries etc.



Special instructions, supplementary explanations, limitations, and reference pages are described.



General precautions and reference pages are shown on the item.



The initial value of each setup is shown.

The above operation example with the mark differs from the actual operation.

Before Use

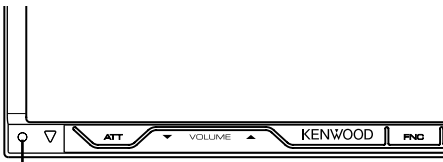
▲WARNING

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.

How to reset your unit

- If the unit or the connected unit fails to operate properly, press the Reset button. The unit returns to factory settings when the Reset button is pressed.
- Remove the USB device before pressing the Reset button. Pressing the Reset button with the USB device installed can damage the data contained in the USB device. For how to remove the USB device, refer to <Playing a USB device> (page 10).



Reset button

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 characters.

Lens Fogging

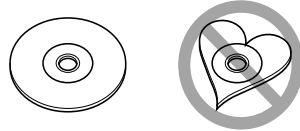
When you turn on the car heater in cold weather, dew or condensation may form on the lens in the disc player of the unit. Called lens fogging, this condensation on the lens may not allow discs to play. In such a situation, remove the disc and wait for the condensation to evaporate. If the unit still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

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 cannot be used

- Discs that are not round 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 CD-R or CD-RW that has not been finalized. (For the finalization process refer to your CD-R/CD-RW writing software, and your CD-R/CD-RW recorder instruction manual.)
- If you try to load a 3-inch-disc with its adapter into the unit, the adapter might separate from the disc and damage the unit.

Other notes

- If you experience problems during installation, consult your Kenwood dealer.
- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- The characters conforming to ISO 8859-1 character set can be displayed.
- The RDS or RBDS feature won't work where the service is not supported by any broadcasting station.

Notes

Navigation units that can be connected to this unit (DDX812/DDX8032BT only)

- KNA-G510* KNA-DV4100
- KNA-DV3100 KNA-DV2100

* Update the navigation software to the latest version. For how to update the software, refer to the instruction manual of the navigation unit.

iPod that can be connected to this unit

You can control an iPod from this unit by connecting an iPod (commercial product) with Dock connector using an optional accessory iPod connection cable (KCA-iP300V).

The following iPods can be controlled from this unit.

- iPod nano
- iPod nano (Second Generation)
- iPod nano (3rd Generation)
- Fifth Generation iPod (iPod with video)
- iPod classic
- iPod touch

Update iPod software to the latest version.

Supports audio only on iPod Touch.

By connecting your iPod to this unit with an optional accessory iPod connection cable (KCA-iP300V), you can supply power to your iPod as well as charge it while playing music. However, the power of this unit must be on.

TV tuner that can be connected to this unit

- KTC-V300N

About Satellite Radio tuner

This unit supports Satellite Radio tuners which are released by SIRIUS and XM.

Optional accessories below are necessary for connection.

SIRIUS tuner : Conversion cable CA-SR20

XM tuner : XM interface Box KCA-XM100

Refer to the instruction manual of Satellite Radio tuner.

About HD Radio

When you connect an HD Radio, Tuner features of the unit are disabled and changed to HD Radio tuner features.

With the HD Radio tuner, you can use the similar functions of Tuner features. Refer to Tuner features for how to use the functions.

List of playable discs

Disc types	Standard	Support	Remark
DVD	DVD Video	○	
	DVD Audio	○	
	DVD-R	○	
	DVD-RW	○	MP3/WMA/AAC/JPEG/MPEG/DivX Playback Multi-border/Multisession/ (Playback depends on authoring conditions)
	DVD+R	○	Compatible with 8-cm (3 inch) discs
	DVD+RW	○	
	DVD-R DL (Dual layer)	○	Only video format
	DVD+R DL (Double layer)	○	
CD	DVD-RAM	×	
	Music CD	○	CD-TEXT/8-cm (3 inch) discs supported.
	CD-ROM	○	MP3/WMA/AAC/JPEG playback
	CD-R	○	Multisession supported
	CD-RW	○	Packet write not supported.
	DTS-CD	○	
	Video CD (VCD)	○	
	Super video CD	×	
	Photo CD	×	
	CD-EXTRA	△	Only music CD session can be played.
	HDCD	△	Sound quality of normal CD music
	CCCD	×	
Others	Dualdisc	×	
	Super audio CD	△	Only CD layer can be played.

○ : Playback is possible.

△ : Playback is partly possible.

× : Playback is impossible.



- When buying DRM enabled contents, check the Registration Code in the <DivX Setup> (page 89). Registration Code changes each time a file with the displayed Registration Code is played to protect against copying.

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 Audio files

- **Playable Audio file**
AAC-LC (.m4a), MP3 (.mp3), WMA (.wma)

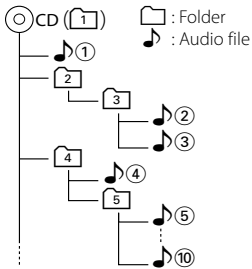


If music of normal CD and other playback systems are recorded in the same disc, only the playback system recorded at the first setout is played.

- **Playable disc media**
CD-R/RW/ROM, DVD±R/RW
- **Playable disc file format**
ISO 9660 Level 1/2, Joliet, Romeo, Long file name.
- **Playable USB device**
USB mass storage class, iPod with KCA-iP300V
- **Playable USB device file system**
FAT16, FAT32

Although the audio files are compiled with the standards listed above, the play maybe impossible depending on the types or conditions of media or device.

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



An online manual about audio files is put on the site, www.kenwood.com/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.



- In this manual, the word "USB device" is used for flash memories and digital audio players which have USB terminals.
- The word "iPod" appearing in this manual indicates the iPod connected with the KCA-iP300V (optional accessory).

About Video files

- **Acceptable video files**
MPEG1, MPEG2, DivX
- **Extensions**
mpg, mpeg, m1v, m2v, divx, div, avi
- **Acceptable media**
CD-R/RW/ROM, DVD±R/RW, VCD,

iPod with KCA-iP300V

Acceptable discs, disc formats, file and folder names and playing order are the same as those for audio files. Refer to <About Audio files>.

About Picture files

- **Acceptable picture files**
JPEG
- **Extensions**
jpg, jpeg
- **Acceptable media**
CD-R/RW/ROM, DVD±R/RW,

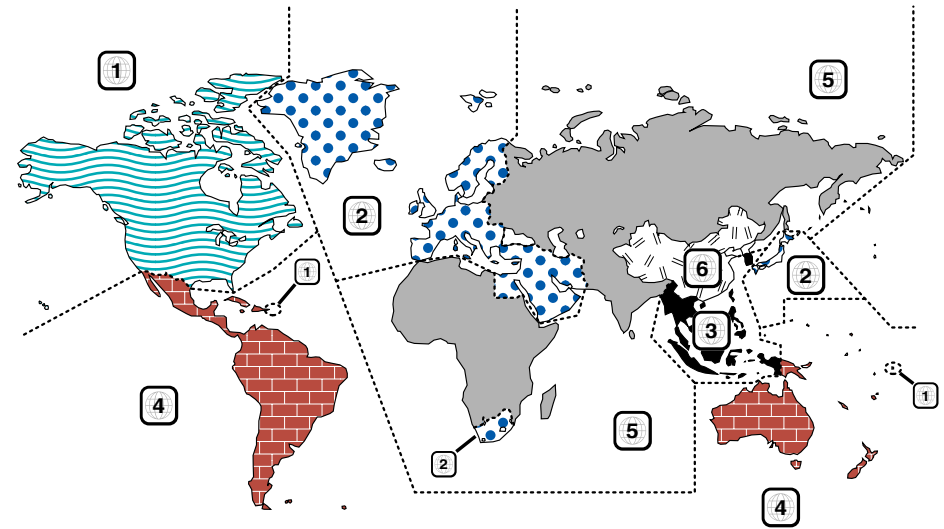
Acceptable discs, disc formats, file and folder names and playing order are the same as those for audio files. Refer to <About Audio files>.

About USB device

- If you start playback after connecting the iPod, the music that has been played by the iPod is played first.
In this case, "RESUMING" 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.
- When the USB device is connected to this unit, it can be charged up provided that this unit is powered.
- Install the USB device in the place where it will not prevent you from driving your vehicle properly.
- 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 out of erasure of the stored 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.
Normal playback is not guaranteed when a cable other than the USB compatible cable is used.
Connecting a cable whose total length is longer than 5 m can result in abnormal playback.

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.

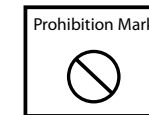


DVD disc marks

Symbol	Description
	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

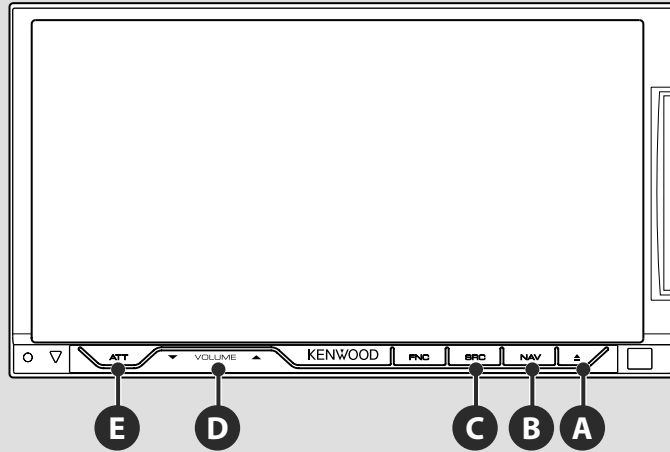
With this DVD, some functions of this unit such as the play function may be restricted depending on the location where the DVD is playing. In this case, the following marks will appear on the screen. For more information, refer to the disc manual.



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.

Basic Operations



C
Turns power ON/OFF
 Press the button to turn on the power.
 When the button is pressed and held down for 1 second or more, the power is turned off.

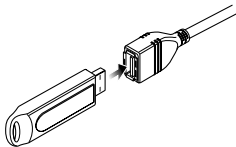
B
Switches to the Navigation system
 Press the button to switch the display to the navigation system screen.

D
Adjusts the volume

E
Attenuates the volume
 Press it to attenuate the volume.
 Press it again to cancel muting.

Playing a USB device

When connecting a USB device, playback starts automatically.
 You must update the database if you are using a USB device that is different from the one you used before or if you have replaced the audio files in the USB device. For information on how to update the database, refer to <Function while displaying the Control Screen> in USB Device Control (page 37).



- If the USB source is selected when a USB device is not connected, "No Device" is displayed.
- When the playback is stopped and then restarted, the playback will start from the point where it was stopped at the last time. Even if the USB is removed and connected again, the playback will start from the last stopped point unless the contents in the USB device is changed.
- Make sure that the USB device is connected firmly.

Removing the USB device

Press on the USB control screen to enter the USB suspend mode, and then remove the USB device. Refer to <USB Device Control> (page 37).



- Removing the USB device before entering the USB suspend mode may result in damaging the data in the USB device.

C

Selecting a source

Press it to display the source select screen. Touch the source button to select the source.

Full Source Select screen



- 1 Scrolls the source display.
- 2 Displays the external device control screen. See <External Device Power Supply Control> (page 78).
- 3 Changes the screen skin each time it is pressed.
- 4 Displays the Hands Free screen. (page 52)
- 5 Press for at least 2 seconds to erase the buttons. Touch the screen to redisplay the buttons.



- The displayed source depends on the type of device connected. In addition, you cannot press the button of currently unavailable source.



The following buttons are always displayed on the source select screen and source control screen.

Favorite Source Select screen



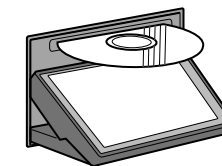
- 6 Clock display
- 7 Displays the Source Select screen.
The display switches between Favorite Source Select screen and Full Source Select screen by touching the button.
- 8 Displays Source Control screen.
- 9 Displays the Audio Control Menu screen. (page 92)
- 10 Displays the SETUP Menu screen. (page 64)
- 11 Adjust the volume.
- 12 Displays the full source screen.



- For how to register the frequently used source buttons to Favorite Source Select screen, see <Direct Source Button Setup> (page 76).

A

Playing a disc



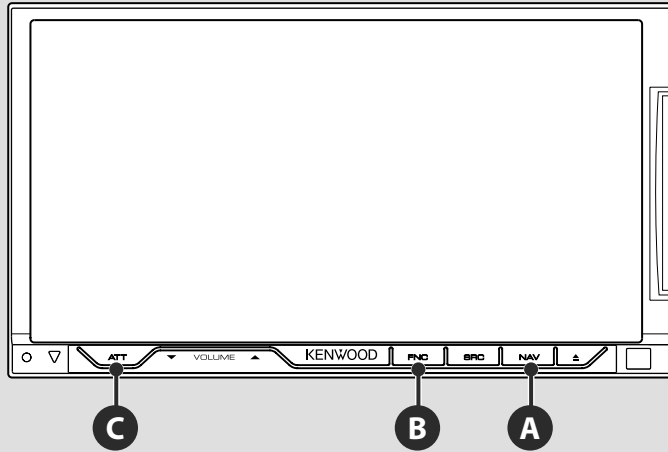
When you load a disc into disc loading slot, the disc starts playing.
 If a menu appears, when playing a video disc, select the desired item.



- See <List of playable discs> (page 7) for a list of supported discs and formats.


Removing a disc

Press (Eject) button.



B
Switches to the Hands Free control
 Press it for more than 1 second to the Hands Free control screen.
 Press it again for more than 1 second to resume the normal display.

A
Switches to the rear view
 Press it for more than 1 second to switch to rear view.
 Press it again for more than 1 second to resume the normal display.

 Functions of the [NAV] button can be changed to Display Off function. See <System Setup> (page 72) for the function setting of the [NAV] button.

C
Switches the Seek mode
 Press it for more than 1 second to switch the Seek mode.

B
Switching the function screen
 The function control screen switches in the following order each time you press the button.


Navigation screen	Picture or Video playback screen
▼ [FNC] button ▲	▼ [FNC] button ▲
Easy Control buttons appear.	Easy Control buttons appear.

Navigation screen

Easy Control button

Picture or Video playback screen

Easy Control button

 For the functions of Easy Control buttons, see <Control of Other Sources While Displaying the Navigation Screen> (page 14).

Hands Free Unit Control

Various functions can be used in the Hands Free control mode.

Before Use

- To use the Phonebook, it must be downloaded to this unit in advance. For details, see <Downloading the Phonebook> (page 52).
- You need to register your cell-phone before using it with this unit. For more details, see <Registering Bluetooth Unit> (page 86).
- If you have registered two or more cell-phones, you need to select one of them. For more details, see <Bluetooth Unit Connection> (page 88).

Downloading the Phonebook

Downloads the phonebook data from the cell-phone to this unit so that you can use the Phonebook of this unit.

- By operating the cell-phone, send the phonebook data to this unit.
- By operating the cell-phone, start the hands-free connection.



- For the cell-phones which support auto-download of phonebook: If the phonebook is not downloaded automatically for some reasons, follow the procedure above to download manually.
- For how to operate the cell-phone, refer to the Instruction Manual that comes with your cell-phone.
- Up to 1000 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 40 characters representing a name.
- 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.
 - The phonebook data cannot be downloaded normally if it contains images. It may take several hours to a full day to download the phone book depending on the total image size.
- To cancel downloading of the phonebook data, operate the cell-phone.

Control Screen Function

Displaying the control screen and using various functions.

- Display the Hands Free Control screen



Press the [FNC] button for more than 1 second.

or



- Displays the various conditions.
 - : Displays the signal strength.*
The more the number of bar segments, the stronger the signal.
 - : Displays the present Auto Answering status
 - : When Auto Answering is on
 - : When Auto Answering is off
 - : Displays the battery drain of the cell-phone.*
The more the number of bar segments, the higher the battery level.
- Displays the called phone numbers. If you have registered a phone number in the Phonebook, the destination person name is displayed.
- Calls the displayed preset phone number.
- Displays the SMS Select screen. See <SMS (Short Message Service)> (page 62).
- Displays the Search for Phonebook screen. See <Calling by Phonebook> (page 55).
- Displays the Outgoing Calls screen. See <Making a Call Using Outgoing/Incoming Call Records> (page 57).
- Displays the Incoming Calls screen. See <Making a Call Using Outgoing/Incoming Call Records> (page 57).
- Calls the preset phone number. For information on how to preset a phone number, see <Phone Number Preset> (page 61).
- Displays the Hands Free Set Up screen. See <Setting Up the Hands Free Phone> (page 58).
- Displays the Dialing Display screen. See <Calling by Entering a Phone Number> (page 54).
- Starts voice recognition. See <Calling by Voice Recognition> (page 57).
- Returns to the previous screen.



- While your car is moving, some functions are disabled for safety's sake. The buttons associated with the disabled functions become ineffective if pressed.
- When the Hands Free Control screen appears, the name of the connected cell-phone is displayed for 5 seconds.
- * Since the number of steps of the control unit is different from that of the cell-phone, the statuses displayed on the control unit may discord from those displayed on the cell-phone. No status is displayed if information about it cannot be obtained.
- Setting the cell-phone in the private mode can disable the hands free function.

When Received a Call

When you receive a call, you can use the hands free phone.

- Respond to a call



When a call arrives, the Talking screen appears automatically.

- Starts conversation with a person called.
 - Switches the call destination if you hear a tone of call-waiting.
 - Resumes conversation with the person on hold after completed conversation with the other party.
- Disconnects the phone. The Hand Free screen reappears.
- Switches the voice output between phone and speaker.
- Outputs dial tone. See <Controlling Tone-based Services> (page 55).

Calling by Entering a Phone Number

Make a call by entering a phone number.

1 Display the number input screen



2 Enter a phone number



- 1 Calls the entered phone number.
- 2 Creates an SMS for the entered phone number.
See <SMS (Short Message Service)> (page 62).
- 3 Clears the number.
- 4 Returns to the previous screen.

3 Make a call



You can start talking when the destination responds.

4 End the call



The Hand Free screen reappears.

- You can input max 32 digits.

Quick Dialing

You can register up to 6 phone numbers for quick dialing.

- Phone numbers must be registered in advance.
See <Phone Number Preset> (page 61).

1 Recall the phone number



2 Make a call



- Only the phone numbers can be registered for Quick Dialing. Therefore, the destination subscriber name and others are not displayed during dialing.

Controlling tone-based services

Uses tone base service using DTMF (Dual Tone Multi Frequency).

1 Display the DTMF input screen

Display the Talking screen. See <Calling by Entering a Phone Number> (page 54).



2 You can send tones during a call



- 1 Returns to the previous screen.

Calling by Phonebook

You can call a person using his/her phone number that you have registered in the Phonebook.

1 Display the Phonebook screen



The Initial Input screen appears.

2 Select the Phonebook search method

You can search by the initial of the Phonebook data.

Initial alphabet screen



- 1 Displays the Phonebook beginning with the name whose first character you have touched.
- 2 Scrolls the character array display.
- 3 Returns to the Hands Free Control screen.



Initial number screen



- 4 Displays a list of numbers in the Phonebook starting with the selected number.



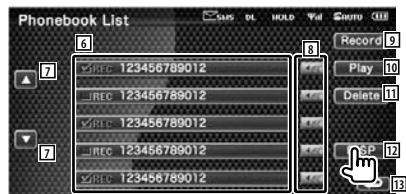
Next page ►

Cyrillic alphabet search screen



5 Displays the Phonebook beginning with the name whose first character you have touched.

3 Select the name to call



- 6 Phonebook data list. "REC" turns on for data with voice for voice recognition already registered.
- 7 Scrolls the Phonebook data list.
- 8 Scrolls the name.
- 9 Registers the voice for voice recognition to the selected Phonebook. If there are already 35 voice tag registered in the same cell-phone, [Record] button is deactivated. See <Voice Registration> (page 59).
- 10 Plays the voice registered in the selected Phonebook data.
- 11 Deletes the voice registered in the selected Phonebook data. Touch to display the confirmation screen. Touch [YES] to delete or [NO] to cancel.
- 12 Displays the detail of the selected Phonebook data.
- 13 Returns to the Hands Free Control screen.

4 Select the phone number to call



- 14 Calls the selected phone number.
- 15 Creates an SMS for the displayed phone number. See <SMS (Short Message Service)> (page 62).
- 16 Scrolls the phone number.
- 17 Returns to the Name List screen.
- 18 Returns to the Hands Free Control screen.

5 Make a call



- To use the Phonebook, it must have been downloaded from the cell-phone.
- Initials including no corresponding name will not be displayed.
- During search, a non-accent character such as "u" is searched for instead of an accent character such as "ü".

Making a Call Using Outgoing/Incoming Call Records

Calls by selecting a phone number from the outgoing or incoming calls list.

1 Display the Outgoing Calls or Incoming Calls screen

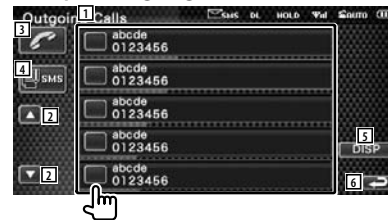


- : Outgoing Calls
- : Incoming Calls

The Outgoing Calls or Incoming Calls list screen appears.

2 Select from calls list

Example : Outgoing Calls screen



- 1 Outgoing Calls list.
- 2 Scrolls the list.
- 3 Makes a call to the selected number.
- 4 Creates an SMS for the selected phone number. See <SMS (Short Message Service)> (page 62).
- 5 Displays the detail of the selected phone number.
- 6 Returns to the Hands Free Control screen.

3 Make a call



- The Outgoing Calls list screen or Incoming Calls list screen shows the list of the calls originated from or received at this unit. They are not the ones stored in the cell-phone memory.

Calling by Voice Recognition

Calls by recognizing the registered voice.



- In order to perform voice recognition, voice must be registered in the Phonebook data. See <Voice Registration> (page 59). Or, to perform voice recognition by Phone number category (Home, Office, Mobile etc.) of Phonebook data, a key word voice must be registered. See <Key Word Voice Registration> (page 60).

1 Display the Voice Recognition screen



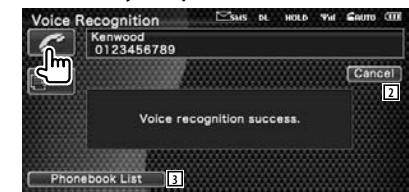
2 Utter the voice registered in the Phonebook



Utter within 2 seconds after the Beep.

- 1 Displays the recognized phone number or address.
- 2 Cancels voice recognition.

If the voice recognition is succeeded and there is only one phone number found:



- Make a call.
- 2 Cancels voice recognition.
- 3 Displays the phonebook list.

Next page ►

If you hear another Beep sound:

Speak the key word within 2 seconds after the Beep, or touch the [Phonebook List] button to select the phone number.

Make a call.



- If there are more than one phone numbers registered under the same name, and the key word voice is registered for each phone number, you will hear another beep. For how to register key word, see <Key Word Voice Registration> (page 60).

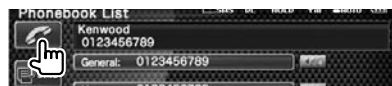
If there are more than one phone numbers registered under the same name, go to step 3.

3 Select a Phone number category



- 4 Calls the displayed phone number.
- 5 Creates an SMS to the displayed address. See <SMS (Short Message Service)> (page 62).
- 6 Selects the Phone number category.
- 7 Scrolls the phone number.
- 8 Returns to the Hands Free Control screen.

4 Make a call



- A message is displayed if the voice is not recognized. Read the message for the further operation.

Setting Up the Hands Free Phone

The Hands Free system can be set as follows.

1 Display the Hands Free Setup screen



2 Setup each item



- 1 Moves to the "Hands Free Setup 2" screen.
- 2 Sets an automatic response time after call termination. (☑ "8")
"Off": This function can not use.
"0-99": Sets to calling ring time (second).
- 3 Sets a ringing tone output position. (☑ "Front R")
"Front L": Outputs the tone from the front left-hand side speaker.
"Front R": Outputs the tone from the front right-hand side speaker.
"Front All": Outputs the tone from the both front speakers.
- 4 Sets the beep of the incoming call. (☑ "On")
"On": Beep is heard.
"Off": Beep is canceled.

- 5 Sets the beep of the incoming SMS. (☑ "On")
"On": Beep is heard.
"Off": Beep is canceled.
- 6 Returns to the "Hands Free Control" screen.
- 7 Returns to the "Hands Free Setup 1" screen.
- 8 Sets whether to use cell-phone phonebook, outgoing calls list and incoming calls list. (☑ "On")
"On": Yes.
"Off": No.
- 9 Sets the SMS function. (☑ "On")
"On": Use SMS function.
"Off": SMS not available.
- 10 Registers the voice to select phone number category with voice recognition. See <Key Word Voice Registration> (page 60).
- 11 Registers the phone number to Hands Free Control screen preset button. See <Phone Number Preset> (page 61).
- 12 Returns to the Hands Free Control screen.



- 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.
- Select the speaker which is further from the microphone in order to prevent howling or echoes.

Voice Registration

Registers voice for voice recognition in Phonebook. Up to 35 voices can be recorded in one cell-phone.

1 Select the name to register

Go through the procedure of <Calling by Phonebook> (page 55).

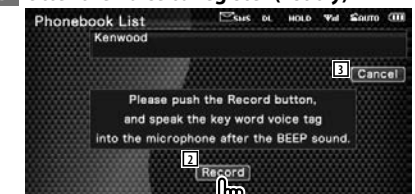


- 1 Selects a name. "REC" turns on for data with voice for voice recognition already registered.

2 Display the voice registration screen



3 Utter the voice to register (1st try)



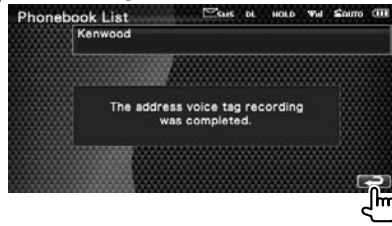
- 2 Registers the voice.
- 3 Cancels voice registration.

Utter within 2 seconds after the Beep.

4 Utter the voice to register (2nd try)



5 End voice registration



- A message is displayed if the voice is not recognized. Read the message for the further operation.
- Repeat from 1st try if the voice is different from the 1st try.

Key Word Voice Registration

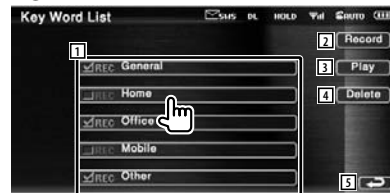
Registers the voice to select the Phone number category by Voice Recognition.

1 Display the Key Word List screen

Display the "Hands Free" screen and touch [Setup]. See <Control Screen Function> (page 52).



2 Select the Phone number category to register



- 1 Selects the Phone number category. "REC" turns on for data with voice for voice recognition already registered.
- 2 Registers voice for the selected Phone number category.
- 3 Plays voice registered for the selected Phone number category.
- 4 Deletes voice registered for the selected Phone number category. Touch to display the confirmation screen. Touch [YES] to delete or [NO] to cancel.
- 5 Returns to the Hands Free Set Up screen.

3 Display voice registration screen



4 Utter the voice to register (1st try)



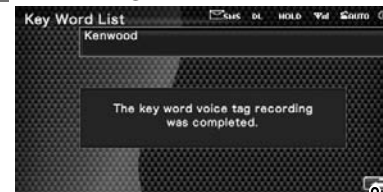
- 6 Registers the voice.
- 7 Cancels voice registration.

Utter within 2 seconds after the Beep.

5 Utter the voice to register (2nd try)



6 End voice registration



- A message is displayed if the voice is not recognized. Read the message for the further operation.
- Repeat from 1st try if the voice is different from the 1st try.

Phone Number Preset

Registers frequently used phone number to Hands Free control screen preset button.

1 Display the Hands Free Preset List screen

Display the "Hands Free" screen and touch [Setup]. See <Control Screen Function> (page 52)



2 Select the Preset number to register



- 1 Returns to the Hands Free Set Up screen.

3 Select the search destination of the number to register



- 2 Registers from SMS incoming calls list.
- 3 Registers from SMS outgoing calls list.
- 4 Registers from Phonebook.
- 5 Registers from outgoing calls list.
- 6 Registers from incoming calls list.
- 7 Registers by entering phone numbers.
- 8 Registers voice for voice recognition to preset number.

- 9 Registers the currently displayed phone number.
- 10 Deletes the currently displayed phone number.
- 11 Returns to the previous screen.

4 Search phone number to register with each function

5 Register phone number



- Press [Delete] to delete the registered phone number.

SMS (Short Message Service)

Uses SMS function.

1 Display the SMS Select screen



2 Select a function



- 1 Displays received message list.
- 2 Displays sent message list.
- 3 Displays the Message screen. If there is an unfinished message, the button will be active.
- 4 Retrieves SMS messages from the cell-phone.
- 5 Returns to the Hands Free screen.

3 Select message to display



- 6 Calls the number in the selected message.
- 7 Creates a new message for the selected message.
- 8 Scrolls the list.
- 9 Displays the selected message.

SMS Message screen



- 10 Calls the number in the selected message.
- 11 Creates a new message for the selected message.
- 12 Scrolls the message.
- 13 Returns to the previous screen.

4 Create a message



- 14 Moves the cursor.
- 15 Displays remaining number of characters allowed.
- 16 Enters character.
- 17 Changes keyboard character type.
- 18 Sends the message.
- 19 Sets the key layout of the character buttons.
ABC : Alphabetical key layout.
QWE : Qwerty key layout.
- 20 Enters space.
- 21 Erases the entered character.
If pressed more than 1 second, all the input characters are erased.
- 22 Returns to the previous screen.

Monitor section

- Picture Size**
: 6.95 inches (diagonal) wide
: 156.2 mm (W) x 82.4 mm (H)
- Display Sytem**
: Transparent TN LCD panel
- Drive System**
: TFT active matrix system
- Number of Pixels**
: 336,960 (480H x 234V x RGB)
- Effective Pixels**
: 99.99 %
- Pixel Arrangement**
: RGB striped arrangement
- Back Lighting**
: Cold Cathode Fluorescent Tube

DVD player section

- D/A Converter**
: 24 bit
- Audio Decoder**
: Linear PCM/ Dolby Prologic II/ Dolby Digital/ dts/ MLP/ MP3/ WMA/ AAC
- Video Decoder**
: MPEG1/ MPEG2/ MPEG4 (DivX)
- Wow & Flutter**
: Below Measurable Limit
- Frequency Response**
Sampling frequency; 192 kHz : 20 – 88,000 Hz
Sampling frequency; 176.4 kHz : 20 – 80,000 Hz
Sampling frequency; 96 kHz : 20 – 44,000 Hz
Sampling frequency; 88.2 kHz : 20 – 40,000 Hz
Sampling frequency; 48 kHz : 20 – 22,000 Hz
Sampling frequency; 44.1 kHz : 20 – 20,000 Hz
- Total Harmonic Distortion**
: 0.008 % (1 kHz)
- S/N Ratio (dB)**
: 98 dB (DVD-Audio 192 kHz)
- Dynamic Range**
: 98 dB (DVD-Audio 192 kHz)
- Disc Format**
: DVD-Audio/Video/ VIDEO-CD/ CD-DA
- Sampling Frequency**
: 44.1/ 48/ 88.2/ 96/ 176.4/ 192 kHz
- Quantifying Bit Number**
: 16/ 20/ 24 bit

USB interface section

- USB Standard**
: USB 1.1/ 2.0
- File Sytem**
: FAT 16/ 32
- Maximum Power Supply Current**
: 500 mA
- D/A Converter**
: 24 Bit
- Audio Decoder**
: MP3/ WMA/ AAC

FM tuner section

- Frequency Range (200 kHz)**
: 87.9 MHz – 107.9 MHz
- Usable Sensitivity (S/N : 30 dB)**
: 9.3 dBf (0.8 μ V/ 75 Ω)
- Quieting Sensitivity (S/N : 50 dB)**
: 15.2 dBf (1.6 μ V/ 75 Ω)
- Frequency Response (\pm 3.0 dB)**
: 30 Hz – 15 kHz
- S/N Ratio (dB)**
: 70 dB (MONO)
- Selectivity (\pm 400 kHz)**
: \geq 80 dB
- Stereo Separation**
: 40 dB (1 kHz)

AM tuner section

- Frequency Range (10 kHz)**
: 530 kHz – 1700 kHz
- Usable Sensitivity**
: 28 dB μ

Video section

- Color System of External Video Input**
: NTSC
- External Video Input Level (mini jack)**
: 1 Vp-p/ 75 Ω
- External Audio Max Input Level (mini jack)**
: 2 V/ 25 k Ω
- Video Output Level (RCA jacks)**
: 1 Vp-p/ 75 Ω
- Audio Output Level (RCA jacks)**
: 1.2 V/ 10 k Ω
- Analog RGB input (DDX812/DDX8032BT only)**
: 0.7 Vp-p/ 75 Ω

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)**
: 5 V/ 10 k Ω
- Preout Impedance**
: 80 Ω
- Speaker Impedance**
: 4 – 8 Ω

External SW

- Maximum Power Supply Current**
: 500 mA

Bluetooth section

- Technology**
: Bluetooth Ver.1.2 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**
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), SYNC (Synchronization Profile)

DSP Section

- Graphics equalizer**
Band: 13 Band
Frequency (BAND1 – 13): 62.5/100/160/250/400/630/1k/1.6k/2.5k/4k/6.3k/10k/16k Hz
Front/ Rear/ Center
- Gain**
: -9/-7/-5/-3/-2/-1/0/1/2/3/5/7/9dB
- X'over**
High pass filter:
Frequency: Through, 30/40/50/60/70/80/90/100/120/150/180/220/250Hz
Slope: 12/18/24dB/Oct
Low pass filter:
Frequency: 30/40/50/60/70/80/90/100/120/150/180/220/250Hz
Slope: 12/18/24dB/Oct
- Time alignment**
Front/ Rear/ Sub Woofer : 0~6.1m (5cm Step)
0~20.3ft (0.17ft Step)
Center : 0~3.4m (5cm Step)
0~11.3ft (0.17ft Step)
- Channel level**
: \pm 10dB

Specifications

Navigation section (DNX8120 only)

Receiver

: High-sensitivity GPS receiver

Reception Frequency

: 1575.42 MHz (C/A code)

Acquisition Times

Cold : < 38 seconds

Factory Reset : < 45 seconds

(On average for a stationary receiver with a clear view of the sky)

Accuracy

Position : < 10 meters typical

Velocity : 0.05 m/sec. RMS

Position Method

: GPS

Antenna

: External GPS antenna

General

Operating voltage

: 14.4V (10.5 – 16 V allowable)

Maximum Current Consumption

: 15 A

Dimensions (W × H × D)

: 182 × 112 × 163 mm

7-3/16 × 4-7/16 × 6-7/16 inch

Operational Temperature Range

: -10 °C – +60 °C

Storage Temperature Range

: -20 °C – +85 °C

Weight (DNX8120)

: 2.6 kg (5.7 lbs)

Weight (DDX812/DDX8032BT)

: 2.55 kg (5.6 lbs)

Specifications subject to change without notice.

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.

▲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.

Kenwood Corporation
2967-3, ISHIKAWA-MACHI,
HACHIOJI-SHI
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT
CONFORMS TO DHHS REGULATIONS N0.21 CFR
1040. 10, CHAPTER 1, SUBCHAPTER J.

Location : Bottom Panel

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.

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About DivX Certified


DivX Certified products are officially tested by the creators of DivX and guaranteed to play all versions of DivX video, including DivX 6. Certified products qualify for one of several DivX Profiles that designate the type of video the product supports, from compact portable video to high-definition video.

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