

## DMX-F920DS

### MONITOR WITH RECEIVER INSTRUCTION MANUAL

JVCKENWOOD Corporation

- Updated information (the latest Instruction Manual, system updates, new functions, etc.) is available from <<https://www.kenwood.com/cs/ce/>>.
- The Instruction manual is subject to change for modification of specifications and so forth. Be sure to download the latest edition of the Instruction manual for reference.  
<[https://www.kenwood.com/cs/ce/im\\_edition/im411/](https://www.kenwood.com/cs/ce/im_edition/im411/)>



# SOFTWARE LICENSE AGREEMENT

## Important Notice on Software

### ■ Software License on This Product

The software embedded in this product comprises a number of independent software components, each of which is copyrighted by JVCKENWOOD Corporation or by a third party. This product uses software components that are based on an End-User License Agreement (hereinafter called "EULA") stipulated by JVCKENWOOD Corporation and by third parties. The EULA dictates the availability of the source codes of free-software components as a prerequisite to distributing them in executable form under the terms of the GNU General Public License or the Lesser General Public License (hereinafter called "GPL/LGPL"). To get information about the software components that are subject to the terms of the GPL/LGPL, please visit the following Website: Website URL <https://www2.jvckenwood.com/gpl/>

Queries concerning the contents of the source code or the like will not be accepted.

Please note that software components based on a EULA that is not subject to the terms of the GPL/LGPL or those that have been developed or created by JVCKENWOOD Corporation will be excluded from the scope of source code disclosure.

Because licenses to use software components distributed under the GPL/LGPL are offered to the customers for free of charge, no warranty is granted to the customers, whether explicitly or implicitly, to the extent of the applicable laws. Unless otherwise stipulated by the applicable laws or agreed upon in writing, the copyright holders or those who are entitled to modify and redistribute the software components are not held responsible for any and all damages resulting from their use or from inability to use them. For more information about the terms of use of the software components, required items of compliance and so on, please refer to the GPL/LGPL.

Customers wishing themselves to use a software component that is subject to the GPL/LGPL embedded in this product are encouraged to read the terms of the corresponding license before use. Because each individual license is prescribed by a third party other than JVCKENWOOD Corporation, the original (English) of the license is presented.

## EULA

### ■ Software License Agreement

JVCKENWOOD Corporation (hereinafter called "Licensor") holds either the copyright to the embedded software or the right to sublicense it. This agreement establishes the conditions under which the customer uses this "Licensed Software."

The customer shall agree to the terms of this license agreement before proceeding to use Licensed Software.

This agreement is deemed to have taken effect when the customer (hereinafter called "User") has used a product implementation of Licensed Software.

The Licensed Software may contain software Licensor has been licensed to use by third parties directly or indirectly. Some third parties may have terms of use prescribed for their customers, apart from this Software License Agreement. This agreement does not apply to such software. Be sure to consult "Important Notice on Software" as presented separately.

#### Article 1 (General)

Licensor grants to User a non-exclusive, non-assignable right of use Licensed Software within the country where the User purchases the Product (hereinafter the "Country") (except for the exception provided for in Paragraph 1, Article 3).

#### Article 2 (Right of Use)

1. The rise of use granted under this agreement is the right to use Licensed Software in this product.
2. User may not duplicate, copy, modify, add to, translate or otherwise alter, or loan licensed Software and the associated literature in whole or in part.
3. Use of Licensed Software is limited to a private extent, and Licensed Software may not be distributed, licensed or sublicensed for any purposes whatsoever, including commercial use.
4. User shall use Licensed Software as per the instruction manual or instructions given in the help file and may not use or duplicate data in violations of the regulations of the Copyright Law or other governing laws by using Licensed Software in whole or in part.

#### Article 3 (Terms of License)

1. In assigning this product, User may not retain the original copy of the embedded Licensed Software (including associated literature, updates and upgrades) and any duplicates and associated literature with regard to the license to use Licensed Software. User may transfer Licensed Software only to the condition of binding the assignee to abide by the terms of this Software License Agreement.
2. User may not reverse-engineer, disassemble, decompile or otherwise analyze the source code of Licensed Software.

#### Article 4 (Rights to Licensed Software)

All rights to Licensed Software and the associated literature, including copyrights, shall reside with Licensor or the original right holder who has granted the Right of Use and right to sublicense to Licensor (hereinafter referred to as "Original Right Holder"), and User does not have any rights other than Right of Use granted hereunder with regard to Licensed Software and the associated literature.

#### Article 5 (Exemption Granted to Licensor)

1. Licensor and Original Right Holder do not assume any responsibility for damages caused to User or third parties resulting from the exercise by User of the license granted hereunder, unless otherwise provided by any law to the contrary.
2. Licensor does not warrant Licensed Software to be merchantable, compatible and fit for specific purposes.

#### Article 6 (Responsibility for Third Parties)

If disputes over the infringement of third parties' intellectual property rights, such as copyrights and patent rights, arise out of the use of Licensed Software by User, User shall resolve these disputes at User's own expenses while keep Licensor and Original Right Holder harmless.

## **SOFTWARE LICENSE AGREEMENT**

### **Article 7 (Secrecy Obligation)**

User shall keep confidential Licensed Software provided hereunder, information contained in the associated literature or the like and those provisions of this agreement not yet in public knowledge and may not disclose or leak these to third parties without prior written consent from Licensor.

### **Article 8 (Cancellation of the Agreement)**

Licensor reserves the right to cancel this agreement forthwith and claim compensation from User for the damages caused by such cancellation when User:

- (1) Breaches any of the provisions of this agreement, or
- (2) Has received a petition for seizure, provisional seizure, provisional disposition or any other kind of compulsory execution.

### **Article 9 (Destruction of Licensed Software)**

If this agreement is terminated under the provision of the foregoing paragraph, User shall destroy Licensed Software, along with all associated literature and its duplicates, within two (2) weeks from the date of termination.

### **Article 10 (Copyright Protection)**

1. Copyrights and all other intellectual property rights relating to Licensed Software shall reside with Licensor and Original Right Holder and in no circumstances with User.
2. User shall abide by the laws relating to copyrights and intellectual property rights in using Licensed Software.

### **Article 11 (Export Control)**

1. Licensed Software and the associated literature or the like may not be exported to places outside the Country (including transmission outside the Country over the Internet or the like).
2. User agrees that Licensed Software is subject to export controls imposed by the Country and the United States of America.
3. User agrees to comply with all the international and domestic laws that apply to this software (U.S. Export Administration Regulations and regulations established by the U.S., the Country and their governmental agencies regarding usage by end users and export destinations).

### **Article 12 (Miscellaneous)**

1. Even if this agreement is invalidated in part by law, all other provisions shall remain in effect.
2. Licensor and User shall consult each other in good faith to resolve any matters not provided for in this agreement or questions arising from the interpretation of this agreement.
3. Licensor and User agree that this agreement is governed by the law of Japan and that all disputes involving claims and obligations that may arise out of this agreement will be settled by arbitration at the Tokyo District Court as the court of first instance.

# Contents

## **Before Use 7**

Precautions.....	7
How to read this manual .....	8
Disposal notes .....	8

## **Basic Operations 9**

Functions of the Buttons on the Front Panel. ....	9
Turning on the Unit .....	10
Initial Settings .....	10
Adjusting the volume .....	11
Touch screen operations.....	12
Popup menu .....	12
HOME screen descriptions.....	13
Source selection screen description.....	13
Short-cut Menu .....	15
Common screen .....	15

## **USB 16**

Connecting a USB device .....	16
USB Basic Operation.....	17
Search Operation .....	19

## **iPhone 20**

Preparation .....	20
iPhone Basic Operation.....	21
Search Operation .....	22

## **APPS 24**

Apple CarPlay Operation.....	24
Android Auto™ Operation.....	26
Mirroring.....	28

## **Radio 29**

Radio Basic Operation .....	29
Memory Operation .....	30
Selecting Operation .....	30
Settings.....	31

## **Digital Radio 33**

Digital Radio Basic Operation .....	33
Storing Service in Preset Memory .....	34
Selecting Operation .....	34
Settings.....	35

## **Bluetooth Control 37**

Information for using Bluetooth® devices .....	37
Register the Bluetooth device.....	38
Bluetooth Setup .....	39
Playing the Bluetooth Audio Device.....	40
Using the Hands-Free Unit .....	40
Hands-Free Setup .....	43

## **Other External Components 44**

View Camera.....	44
External audio/video players (AV-IN).....	45
HDMI source .....	46

## **Setup 47**

Bluetooth Setup .....	47
Display Setup.....	48
Input Setup.....	48
System Setup.....	49

## **Controlling Audio 50**

3-way speaker system setup.....	50
Speaker / X'over setup .....	51
Equalizer Control.....	52
Listening Position / DTA.....	53
Fader / Balance Control .....	54
Volume Offset.....	54
Volume adjust .....	55
Sound Effect.....	55
Audio Memory .....	56

## **Remote control 57**

Battery Installation .....	57
Functions of the Remote control Buttons.....	57

**Connection/Installation 60**

Before Installation ..... 60  
Installing the accessories..... 62  
Installing the unit ..... 63  
Connecting the unit ..... 66

**Troubleshooting 70**

Problems and Solutions ..... 70

**Appendix 71**

Playable Media and Files ..... 71  
Specifications..... 73  
About this Unit ..... 76

# Before Use

## IMPORTANT

Please read this manual carefully to ensure proper use before using this product. It is especially important that you read and observe **WARNINGS** and **CAUTIONS** in this manual. Please keep the manual in a safe and accessible place for future reference.

## Precautions

### ▲ WARNINGS

#### ■ 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 metallic 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 a language to display menus, audio file tags, etc. See **System Setup (P.49)**.
- The Radio Data System feature won't work in areas 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 a 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 it with a cloth moistened with neutral cleaner, then wipe it again with a clean soft dry cloth.

## NOTE

- Applying spray cleaner directly to the unit may damage 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 the screened print.

#### ■ Acquiring GPS signal

The first time you turn on this unit, you must wait while the system acquires satellite signals for the first time. This process could take up to several minutes. Make sure your vehicle is outdoors in an open area away from tall buildings and trees for fastest acquisition. After the system acquires satellites for the first time, it will acquire satellites quickly each time thereafter.

#### ■ Caution for Smartphone Users

Simultaneously running multiple applications on your smartphone while screen sharing places heavy demand on the microprocessor of the phone, potentially affecting communication and performance.

For best results while pairing with your KENWOOD receiver, please be sure to close any unused applications.

## How to read this manual

- The screens and panels shown in this manual are examples used to provide a clear explanation of operations. For this reason, they may be different from the actual screens or panels, or some display patterns may be different from the actual ones.
- Display language: English is used for the purpose of explanation. You can select a display language from the [System] menu. See **System Setup (P.49)**.
- [ ]: Indicates the name of touch keys.



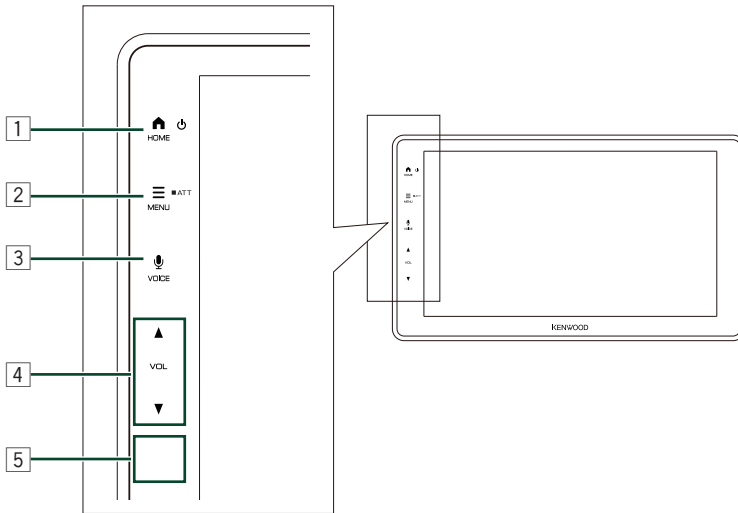
This symbol on the product means there are important operating and maintenance instructions in this manual. Be sure to carefully read instructions in this manual.

## Disposal notes

- Do not dispose of your old unit/batteries in the household trash.
- Use the return and collection systems available to dispose of the old device.
- To protect your privacy, please clear your personal information before discarding the device.





# Basic Operations

## Functions of the Buttons on the Front Panel



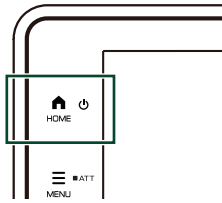
### NOTE

- The panels shown in this manual are examples used to provide a clear explanation of operations. For this reason, they may be different from the actual panels.

Number	Name	Motion
1	HOME / 	<ul style="list-style-type: none"> <li>Displays the HOME screen.</li> <li>When the power is off, turns the power on.</li> <li>When the power is on, press and hold to turn off the power.</li> </ul>
2	 MENU / ATT	<ul style="list-style-type: none"> <li>Displays the popup menu screen.</li> <li>Pressing and holding, switches attenuation of the volume on/off.</li> </ul>
3	 VOICE	<ul style="list-style-type: none"> <li>Switches the voice recognition function on/off.</li> <li>Pressing and holding this button when Apple CarPlay, Android Auto, or a Bluetooth Hands-Free phone is not connected will open the Bluetooth screen in the Settings menu.</li> </ul>
4	 (Volume)	<ul style="list-style-type: none"> <li>Adjusts the volume.</li> <li>ATT state: Release ATT</li> <li>Pressing and holding, decrease/increase the volume level continuously. Note: The incremental increase will not exceed a maximum level of 15.</li> </ul>
5	Remote Sensor	<ul style="list-style-type: none"> <li>Receives the remote control signal.</li> </ul>

## Turning on the Unit

- 1 Press the  button.




The unit is turned on.

### NOTE

- If it is your first time to turn the unit on after installation, it will display Caution interface. Please check the information and touch [Agree].

### To turn off the unit:

- 1 Press and hold the  button.  
The unit is turned the power (screen, audio, and button illumination) off.

## Initial Settings

### Initial SETUP

Perform this setup when you use this unit first time.

- 1 Set each item as follows.



#### [Language]

Select the language used for the control screen and setting items.

- ① Touch the area of [Language].
- ② Select the desired language in the list.

#### [24H Format]

Set the time format of the unit.  
When this function is enabled, the unit displays time in 24-hour format.

#### [Time zone]

- ① Touch the area of [Time zone].
- ② Select the time zone of your region in the list.

#### [Rear Camera Interruption]

Touch to turn on or off the function.  
When this function is enabled, the unit displays the camera view when reversing.

#### [Parking Guidelines]

Touch to turn on or off the function.  
When this function is enabled, the unit displays the parking guidelines when reversing.

#### [Guidelines Setup]

Touch to enter the reverse guidance line setting screen. See **Guidelines Setup (P.44)**.

When [Parking Guidelines] is OFF, this function is invalid.

#### [Demonstration]

Set the demonstration mode. Default is ON.

## 2 Touch [Finish].

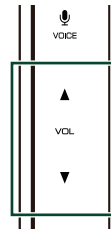


### NOTE

- These settings can be made from the [SETUP] menu.

## Adjusting the volume

You can adjust the volume (0 to 40).  
Press ▲ to increase, and press ▼ to decrease.

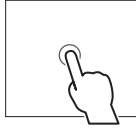


## Touch screen operations

To perform operations on the screen, you need to touch, touch and hold, flick or swipe to select an item, display a setting menu screen or change pages.

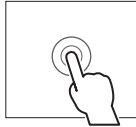
### ● Touch

Touch the screen gently to select an item on the screen.



### ● Touch and hold

Touch the screen and keep your finger in place until the display changes or a message is displayed.



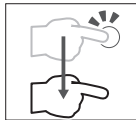
### ● Flick

Slide your finger quickly to the left or right on the screen to change the page. You can scroll a list screen by flicking up/down on the screen.



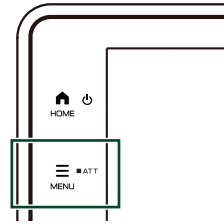
### ● Swipe

Slide your finger up or down on the screen to scroll the screen.



## Popup menu

### 1 Press the ≡ / [ATT] button.



Popup menu appears.

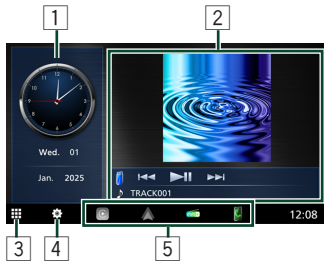


The contents of the menu are as follows.

	• Displays the Screen Adjustment screen.
	• Touch to turn the screen off.
	• Displays the camera screen.
	• Displays the Settings Menu.
	• Displays the DSP menu.
	• Close the popup menu.
	• Displays the Bluetooth settings menu.
	• Display Last Media Source button.
	• Display four shortcut function buttons consistent with the HOME page.

## HOME screen descriptions

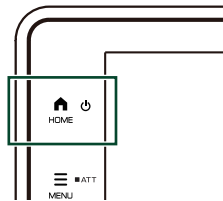
Most functions can be performed from the HOME screen.



1	• Display time information, touch to enter the time setting interface.
2	• Display current audio source (music/radio) information and support control.
3	• Click to enter All Source interface.
4	• Click to enter Settings interface.
5	• Display four application icons, touch to enter the corresponding function interface.

## Display the HOME screen

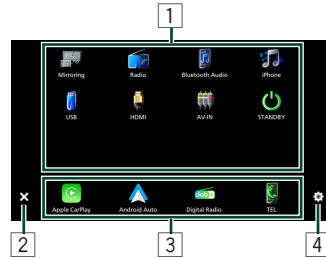
- 1 Press the / .



HOME screen appears.

## Source selection screen description

You can display icons of all playback sources and options on the source selection screen.



1	• Display function icons except for the 4 functions in the bottom bar.
2	• Returns to the previous screen.
3	• Display four shortcut function buttons consistent with the HOME page.
4	• Displays the Settings screen.

## Select the playback source




- 1 Press the / button.  
HOME screen appears.

- 2 Touch .

From the screen, you can select the following sources and functions.

	• Switches to the Apple CarPlay screen from the connected iPhone.
	• Switches to the Android Auto screen from the connected Android™ smartphone.
	• Displays Digital Radio screen.
	• Displays the Hands-Free screen.
	• Displays the Mirroring screen.
	• Displays Radio screen.
	• Plays a Bluetooth audio player.
	• Plays an iPhone.
	• Plays files on a USB device.

## Basic Operations

	• Displays HDMI screen.
	• Switches to an external component connected to the AV Audio input and the Video input terminal. <sup>*1*2</sup>
	• Puts the unit in standby.

- \*1 You can use the [AV-IN] source when a cable from a visual source except a camera is connected to the Video input terminal, and a cable is connected to the AV Audio input terminal.
- \*2 In the input settings, set “AV Input” to “AV-IN”.  
**Input Setup (P.48)**
- Due to different configurations, the function icons may vary.




### To select the playback source on the HOME screen

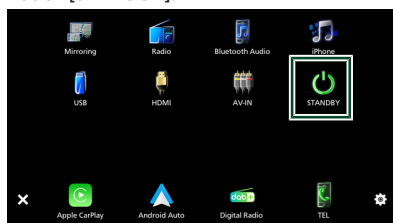


The 4 items displayed on the bottom side of the source selection screen are shown on the HOME screen.

You can change the items displayed on this area by customizing the source selection screen.




### STANDBY source

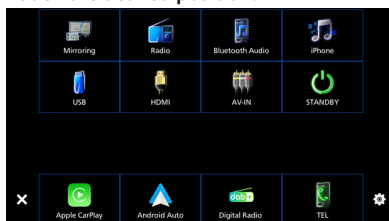
- 1 Press the  /  button.  
HOME screen appears.
- 2 Touch .
- 3 Touch [STANDBY].



### Customize Short-cut source icons

You can arrange the positions of the source icons as you like.

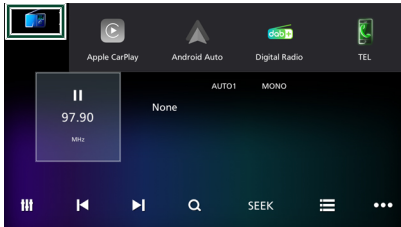
- 1 Press the  /  button.  
HOME screen appears.
- 2 Touch .
- 3 Touch and hold the icon which you want to move in the customizing mode.
- 4 Touch the desired position.



- Due to different configurations, the function icons may vary.

## Short-cut Menu

At each playing mode, touch top left corner of the screen to pop up Shortcut Menu.




The screen will display four shortcut function buttons consistent with the HOME screen.

## Common screen

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


### Display the list screen

**For USB/iPhone:**

- 1 Touch  in the source control screen.  
The list screen appears.

### Display the DSP screen

**For audio and video screens:**

- 1 Touch  in the source control screen.  
The EQ/SW Level screen appears.

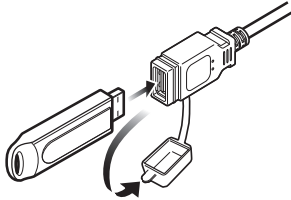
#### NOTE

- Depending on the current source or mode, some function key may not appear.

# USB




## Connecting a USB device

- 1 Connect the USB device with the USB cable.





The source changes to "USB" and playback starts.

### When already connected

- 1 Press the  /  button.  
HOME screen appears.
- 2 Touch .
- 3 Touch [USB].

### Disconnect the USB device

- 1 Press the  /  button.  
HOME screen appears.
- 2 Touch a source other than [USB].
- 3 Detach the USB device.

### Usable USB device

You can use a mass-storage-class USB device with this unit. The word "USB device" appearing in this manual indicates a flash memory device.

### ● About the file system

The file system should be the one of the following.

- FAT16
- FAT32
- exFAT
- NTFS

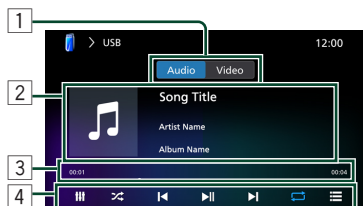
### NOTE

- 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.

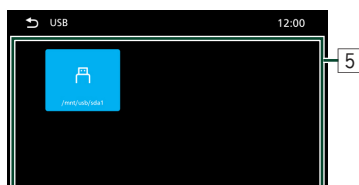
## USB Basic Operation

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

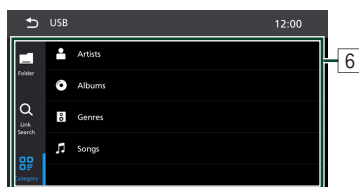
### Audio Control screen



### USB partition



### Open the List screen



### 1 Audio/Video

Touch to enter Audio/Video playback screen.

### 2 Track information

Displays the information on the current file. Only a file name and a folder name are displayed if there is no tag information.

### 3 Playing time

For confirmation of current playing position. You can drag the circle left or right to change the playing position.



### 4 Operation keys

- ◀ ▶: Searches the previous/next track/file.

Touch and hold to fast forward or fast backward.

- ▶||: Plays or pauses.
- ↺: Repeats the current track/folder. Each time you touch the key, repeat modes are switched in the following sequence: Repeat File, Repeat Folder, Repeat All
- ⚡: Randomly plays all tracks. Each time you touch the key, random modes are switched in the following sequence: Random Folder, Random off.
- 📊: Touch to display the EQ / SW Level screen.
- ☰: Touch to display the USB partition list.

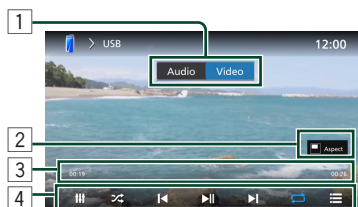
### 5 USB partition list

- Touch the ☰ of the screen to display USB partitions (only contain music file), up to a maximum of 5 partitions.
- The section containing the currently playing song is highlighted.

### 6 Content list

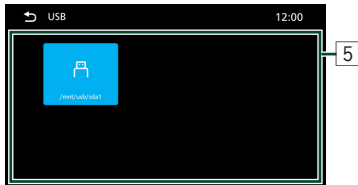
- Touch one section of the USB partition list to display the Content list. When you touch a track/file name on the list, playback will start.
- 📁: Display all folders containing audio files.
- 🔍: Search a file of the same artist/album/genre with the audio file playing
- 🗂️: Search a file by its category (only for audio files)

### Video Control screen

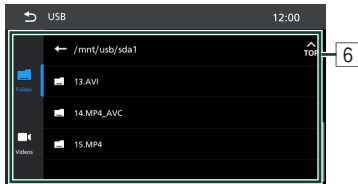


## USB

### USB partition



### Open the List screen



#### 1 Audio/Video

Touch to enter Audio/Video playback screen.

#### 2 Aspect

Touch to switch screen display proportions: Auto, Full, Normal.

#### 3 Playing time

For confirmation of current playing position. You can drag the circle left or right to change the playing position.



#### 4 Operation keys

- ◀ ▶ : Searches the previous/next file.
- ▶ || : Plays or pauses.
- ↺ : Repeats the current file/folder. Each time you touch the key, repeat modes are switched in the following sequence : Repeat File, Repeat Folder, Repeat All
- 🎲 : Randomly plays all files. Each time you touch the key, random modes are switched in the following sequence: Random Folder,, Random off.
- 🎛 : Touch to display the DSP screen.
- ☰ : Touch to display the USB partition list.

#### 5 USB partition list

- Touch the ☰ of the screen to display USB partitions (only contain video file), up to a maximum of 5 partitions.
- The section containing the currently playing video is highlighted.

#### 6 Content list

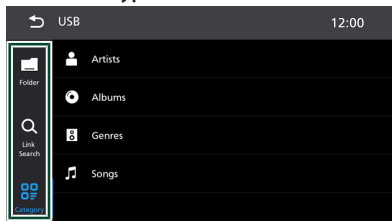
- Touch one section of the USB partition list to display the Content list. When you touch a file name on the list, playback will start.
- 📁 : Display all folders containing video files.
- 🎞 : Display all video files.

## Search Operation

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

1 Touch [Menu].

2 Select a list type.

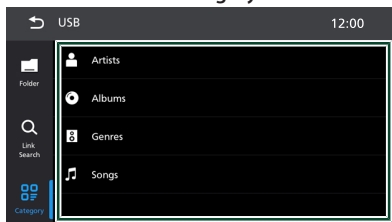


### Category search (Audio file only)

You can search for a file by selecting a category.

1 Touch [Category].

2 Touch the desired category.



The list corresponding to your selection appears.

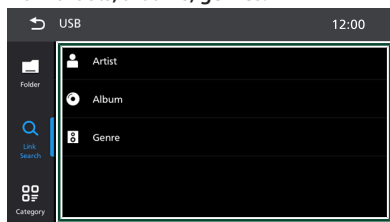
3 Touch to select the desired item in the list. Repeat this step until you find the desired file.

### Link search (Audio file only)

You can search for a file of the same artist/album/genre as that in the current track.

1 Touch [Link Search].

2 Touch the desired tag type. You can select from artists, albums, genres.



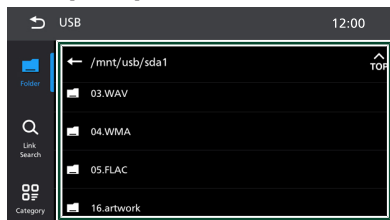
The list corresponding to your selection appears.

3 Touch the desired item in the content list.

### Folder search

You can search for a file according to hierarchy.

1 Touch [Folder].



When you touch a folder its contents are displayed.

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

# iPhone

## Preparation

### Connectable iPhone

The following models can be connected to this unit.

#### Made for

- iPhone 15 Pro Max
- iPhone 15 Pro
- iPhone 15 Plus
- iPhone 15
- iPhone 14 Pro Max
- iPhone 14 Pro
- iPhone 14 Plus
- iPhone 14
- iPhone SE (3rd generation)
- iPhone 13 Pro Max
- iPhone 13 Pro
- iPhone 13
- iPhone 13 mini
- iPhone 12 Pro Max
- iPhone 12 Pro
- iPhone 12
- iPhone 12 mini
- iPhone SE (2nd generation)
- iPhone 11 Pro Max
- iPhone 11 Pro
- iPhone 11
- iPhone XS Max
- iPhone XS
- iPhone XR

#### NOTE

- By connecting your iPhone to this unit with the iPhone connection cable (optional accessory), you can supply power to your iPhone as well as charge it while playing music. Note that the power of this unit must be held on.
- If you restart playback after connecting the iPhone, the music that has been played by the iPhone is played first.

### Connect iPhone

#### Wired connection

##### Preparation

- Connect an iPhone with the connection cable (optional accessory) while Apple CarPlay is not connected.
- With an iPhone compatible with Apple CarPlay, turn off Apple CarPlay by operating the iPhone at functional setup before connecting iPhone. For details of the setup method, contact the manufacturer of the terminal.
- Plug the iPhone into the USB terminal with the connection cable (optional accessory).
- Only one iPhone can be connected.

#### 1 Connect the iPhone using the connection cable.

#### 2 Press the / button. HOME screen appears.

#### 3 Touch .

#### 4 Touch [iPhone].

#### ● To disconnect the iPhone connected with the cable:

#### 1 Detach the iPhone.

#### Bluetooth connection

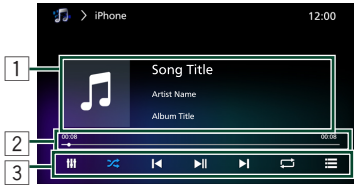
Pair the iPhone through Bluetooth.

##### Preparation

- To connect an iPhone via Bluetooth, register it as a Bluetooth device and do the profile setting for the connection beforehand. See **Register the Bluetooth device (P.38)** and **Switch the connected device (P.38)**.
- Connect an iPhone via Bluetooth while Apple CarPlay and an iPhone are not connected via USB.
- With an iPhone compatible with Apple CarPlay, turn off Apple CarPlay by operating the iPhone at functional setup before connecting iPhone. For details of the setup method, contact the manufacturer of the terminal.

## iPhone Basic Operation

### Control screen



### Open the List screen



### 1 Track information

Displays the information on the current file.

### 2 Playing time

For confirmation of current playing position. You can drag the circle left or right to change the playing position.



### 3 Operation keys


- **◀ ▶**: Searches the previous/next file. Touch and hold to fast forward or fast backward.
- **▶||**: Plays or pauses.
- **↺**: Repeats the current file. Each time you touch the key, repeat modes are switched in the following sequence: Repeat File, Repeat Off, Repeat All
- **⌘**: Randomly plays all tracks. Each time you touch the key, random modes are switched in the following sequence: Random Folder, Random off
- **≡**: Touch to display the EQ / SW Level screen.
- **☰**: Touch to display the Content list.

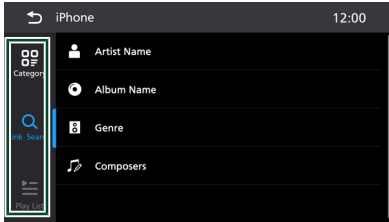
### 4 Content list

- **☰** Play List: Display the tracks in the current playlist
- **🔍** Link Search: Search a file of the same artist/album/genre/composers with the audio file playing
- **☰** Category: Search a file by its Artists, albums, Songs, Podcasts, Genres, Composers, Audio books.

## Search Operation

You can search music files by the following operations.

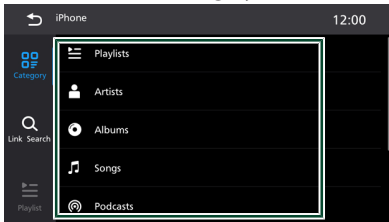
- 1 Touch .
- 2 Select a list type.



### Category search

You can search for a file by selecting a category.

- 1 Touch [Category].
- 2 Touch the desired category.



The list corresponding to your selection appears.

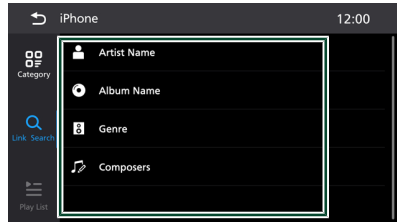
- 3 Touch to select the desired item in the list. Repeat this step until you find the desired file.

### Link search

You can search for a file of the same artist/album/genre/composer as that in the current track.

- 1 Touch [Link Search].

- 2 Touch the desired tag type. You can select from artists, albums, genres and composers.



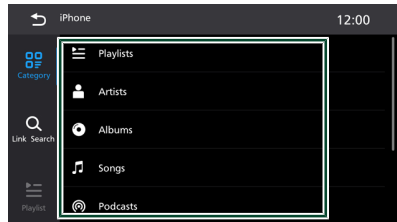
The list corresponding to your selection appears.

- 3 Touch the desired item in the content list.

### Alphabet search

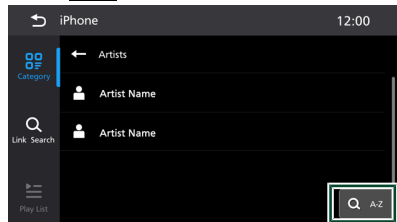
You can search for a file by Alphabet.

- 1 Touch [Category].
- 2 Touch the desired category.



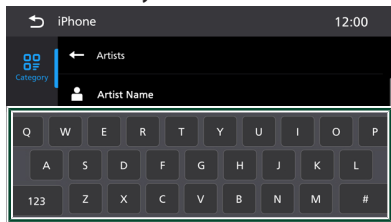
The list corresponding to your selection appears.

- 3 Touch .



The English keyboard appears.

**4** Search through English Alphabet, numbers and symbols.



# APPS

## Apple CarPlay Operation

Apple CarPlay is a smarter, safer way to use your iPhone in the car. Apple CarPlay takes the things you want to do with iPhone while driving and displays them on the screen of the product. You can get directions, make calls, send and receive messages, and listen to the music from iPhone while driving. You can also use Siri voice control to make it easier to operate iPhone. For details about Apple CarPlay, visit <https://www.apple.com/ios/carplay/>.

### Compatible iPhone devices

You can use Apple CarPlay with the following iPhone models.

- iPhone 15 Pro Max
- iPhone 15 Pro
- iPhone 15 Plus
- iPhone 15
- iPhone 14 Pro Max
- iPhone 14 Pro
- iPhone 14 Plus
- iPhone 14
- iPhone SE (3rd generation)
- iPhone 13 Pro Max
- iPhone 13 Pro
- iPhone 13
- iPhone 13 mini
- iPhone 12 Pro Max
- iPhone 12 Pro
- iPhone 12
- iPhone 12 mini
- iPhone SE (2nd generation)
- iPhone 11 Pro Max
- iPhone 11 Pro
- iPhone 11
- iPhone XS Max
- iPhone XS
- iPhone XR

### Connecting an iPhone

#### Wired connection

##### 1 Connect your iPhone via the USB terminal.

When an iPhone compatible with Apple CarPlay is connected to the USB terminal, the Bluetooth Hands-Free phone currently connected is disconnected. If another Bluetooth Hands-Free phone is being used, disconnection will occur after ending the call.

##### 2 Unlock your iPhone.

#### Wireless connection

You can select the iPhone registered in [Device List] and use it as the Apple CarPlay device. See **Register the Bluetooth device (P.38)**.

#### NOTE

- Turn on the Bluetooth function and Wi-Fi function of an iPhone.
- If two or more iPhone have been registered, select the iPhone to be used as the [Apple CarPlay] source.
- It is necessary to connect the GPS antenna in order to use a wireless Apple CarPlay.
- When the Wi-Fi connection becomes unavailable, the HOME screen is displayed.
- You cannot use Apple CarPlay if the function is turned off by operating the iPhone at functional setup.

#### To switch the current screen to the Apple CarPlay screen when connecting your iPhone

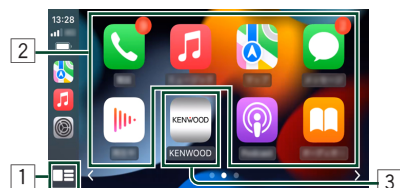
- Touch [Apple CarPlay] icon on the source selection screen.

#### Select an Apple CarPlay device

If two or more iPhone compatible with Apple CarPlay have been registered, select the iPhone to be used as the Apple CarPlay source. See **Switch the connected device (P.38)**.

#### Operation keys and available Apps on the home screen of Apple CarPlay

You can use the Apps of the connected iPhone. The items displayed and the language used on the screen differ among the connected devices. To enter the Apple CarPlay mode, touch [Apple CarPlay] icon on the source selection screen.





- Displays the home screen of Apple CarPlay.
- Touch and hold to activate Siri.

## 2 Application keys

Starts the application.

## 3 [HOME]

Exits the Apple CarPlay screen and displays the HOME screen.

\* The icon design may change depending on the iOS version.

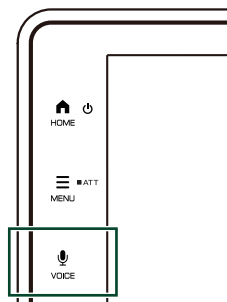
### To exit the Apple CarPlay screen

- 1 Press the  /  button.  
HOME screen appears.

## Use Siri

You can activate Siri.

- 1 Press the  button.



- 2 Talk to Siri.

### To deactivate

- 1 Press the  button.

## Switch to the Apple CarPlay screen while listening to another source

- 1 Press the  /  button.

- 2 Touch .

## 3 Touch [Apple CarPlay].

### NOTE

- When listening to another source with the Apple CarPlay screen displayed, playing music in the Apple CarPlay mode will switch the current source to the Apple CarPlay source.

## Android Auto™ Operation

Android Auto enables you to use the functions of your Android smartphone convenient for driving. You can easily access route guidance, make calls, listen to music, and access convenient functions on the Android smartphone while driving.

For details about Android Auto, visit <https://www.android.com/auto/> and <https://support.google.com/androidauto>.

### Compatible Android smartphones

Compatible Android phone and compatible active data plan required. To wirelessly use Android Auto on your car display, you need a compatible Android smartphone with an active data plan. You either need:

1. A smartphone with Android 11 or higher and 5 GHz Wi-Fi (subject to local regulations\*); or
2. An Android or Samsung smartphone with Android 10; or
3. A Samsung Galaxy S8, Galaxy S8+, or Note 8, with Android 9

#### NOTE

- Android Auto may not be available on all devices and may not be available in all countries or regions.

### About the placement of smartphone

Install the smartphone connected as Android Auto device in the place where it can receive the GPS signals.

When using Google Assistant, install the smartphone in the place where the smartphone easily catch a voice by the microphone.

#### NOTE

- Do not put the smartphone in a spot exposed to direct sunlight or near an air blowing out port of an air conditioner. The placement of the smartphone in such places can lead to malfunction or damage of your smartphone.
- Do not leave the smartphone in the vehicle.

## Connect Android smartphone

### Wired connection

#### 1 Connect an Android smartphone via the USB terminal.

To use the hands-free function, connect the Android smartphone via Bluetooth. When an Android smartphone compatible with Android Auto is connected to the USB terminal, the smartphone is connected via Bluetooth automatically, and the Bluetooth Hands-Free phone currently connected is disconnected.

#### 2 Unlock your Android smartphone.

#### 3 Press the / button.

#### 4 Touch .

#### 5 Touch [Android Auto].

### Wireless connection

You can select the Android smartphone registered in [Device List] and use it as the Android Auto device. See **Register the Bluetooth device (P.38)**.

#### 1 Press the / button.

#### 2 Touch .

#### 3 Touch [Android Auto].

#### NOTE

- Turn on the Bluetooth function and Wi-Fi function of Android smartphone.
- If two or more Android smartphones have been registered, select the Android smartphone to be used as the Android Auto source.
- When the Wi-Fi connection becomes unavailable, the HOME screen is displayed.

## Select an Android smartphone

If two or more Android smartphones have been registered, select the Android smartphone to be used as the Android Auto source. See **Switch the connected device (P.38)**.

## Operation keys and available Apps on the Android Auto screen

You can perform the operations of the Apps of the connected Android smartphone. The items displayed on the screen differ among the connected Android smartphones. To enter the Android Auto mode, touch the [Android Auto] icon on the source selection screen.



### 1 Navigation bar

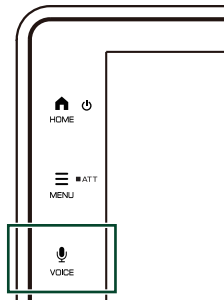
Starts the application or displays information.

## To exit the Android Auto screen

- 1 Press the  /  button.  
HOME screen appears.

## Using voice control

- 1 Press the  button.






- 2 Start speaking.

## To cancel

- 1 Press the  button.

## Switch to the Android Auto screen while listening to another source

- 1 Press the  /  button.
- 2 Touch .
- 3 Touch [Android Auto].

### NOTE

- When listening to another source with the Android Auto screen displayed, playing music in the Android Auto mode will switch the current source to the Android Auto source.

## Mirroring

You can display the same screen of the iPhone or Android smartphone on the monitor of the unit using the Mirroring function.

### NOTE

- When using Mirroring, park in a safe place. While driving, an iPhone or Android smartphone screen will not appear on this unit's display.
- Some content and applications may not display or output sound due to copyright reasons.
- If your iPhone or Android smartphone isn't working the way you want, try restarting it by turning it off and then turning it back on.

## Preparation

### 1 Download Mirroring App from the (Apple) App Store or Google Play.

Install the latest version of the Mirroring application "CarbitLink-EasyConnection" on your iPhone or Android smartphone.

### 2 Depending on your device, set the iPhone Connection Mode or the Android Phone Connection Mode to Mirroring. See *Input Setup (P.48)*.

### 3 Use USB cable to connect mobile phone or Use phone to scan the QR Code in CarbitLink App to establish a wireless connection.

### NOTE

- Go to the CarbitLink-EasyConnection web page on the App Store or Google Play to confirm compatibility.
- This application is not provided by JVCKENWOOD.
- JVCKENWOOD is not liable for any damages incurred by the customer in connection with the use of the application, except in cases where such damages are caused by JVCKENWOOD's willful misconduct or gross negligence.

## Mirroring Operation

### 1 Press the / button. HOME screen appears.

### 2 Touch .

### 3 Touch [Mirroring]. The App screen is displayed.

### 4 Operate your iPhone or Android smartphone to activate the Mirroring function, then connect to this unit.

When the connection is established, then the same screen displayed on the phone is displayed.

### NOTE

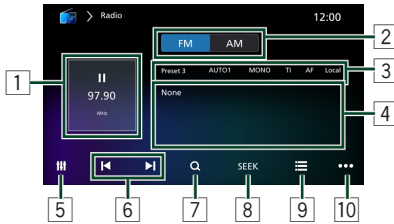
- You can use the Mirroring function with phones compatible with this function.
- The settings on your phone differ depending on the device type. For details, refer to the instruction manual supplied with your phone.
- If your phone is locked, Mirroring screen may not appear.
- Apps is discontinued when the power is turned ON/OFF or you leave the vehicle. To restart Apps, operate the iPhone or Android smartphone.
- When the Apps source is displayed, you cannot register or reconnect a Bluetooth device. Switch the Apps source to another source, and then operate the Bluetooth device.

# Radio

## Radio Basic Operation

Most functions can be controlled from the source control screen. To listen to the Radio source, touch [Radio] icon on the source selection screen.

### Control screen



#### 1 Radio frequency

- Display radio frequency.
- Touch to pause/output radio sound.

#### 2 Band keys

Switches bands (between FM and AM).

#### 3 Indicator Items

- Preset #: The channel number in the preset radio station list.
- AUTO1, AUTO2, MANU: SEEK mode
- MONO: Displayed when the MONO switch is on (can be selected to reduce background noise when the stereo signal is poor).
- TI: Indicates the reception state of traffic information. Displayed when the TI switch is on.
- AF: Displayed when the AF switch is on.
- Local: Displayed when the Local switch is on.

#### 4 Information display

Displays the name and information of the current station.

#### 5 DSP

Touch to display the EQ/SW Level screen.

#### 6 Tune

Touch to tune in a station.

The method of switching frequencies can be changed (see 8 Seek mode).

#### 7 Auto memory (AME)

Search for the best signal radio station in the current band and store it in the preset radio station list.

#### 8 Seek

Touch to switch seek mode in the following sequence: [AUTO1], [AUTO2], [MANUAL].

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

#### 9 Radio List

Enter Radio List interface.

- [Preset]: Recalls the memorized station.
- [PTY]: Searches for a program by program type.

#### 10 More buttons

Touch to pop up more buttons:

- [Settings]: Touch to pop up the RDS settings interface. For details, see **Settings (P.31)**.
- [Add Station]: Touch to pop up the manual input frequency keyboard.

## Memory Operation

### Auto memory

You can store stations with good reception in the memory automatically.

- 1 Touch desired band key.



- 2 Touch .



Auto memory starts.

### Manual memory

You can store the currently being received station in the memory.

- 1 Select the station you wish to store in the memory.

- 2 Touch .



- 3 Touch [Preset #] (FM\_#:1-15) (AM\_#:1-5) in which you want to store the station for 2 seconds.

## Selecting Operation

### Preset select

You can list and select memorized stations.

- 1 Touch .



- 2 Touch [FM#] (#:1-15) or [AM#] (#:1-5) in which you want to recall.

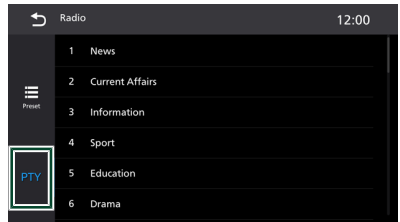
### Search by program type (FM only)

You can tune in the station broadcasting the specified type of program when listening to FM.

- 1 Touch .



- 2 Touch [PTY].



- 3 Select a program type from the list.

You can search for the station broadcasting the selected type of program.

### Direct search

You can tune in by entering the desired frequency number.

- 1 Touch .



- 2 Touch [Add Station].




### 3 Enter the frequency number.



### 4 Touch [OK].

#### NOTE

- To clear the number you entered, touch .

## Settings

### (FM only)

RDS transmits data to the radio which displays information such as name station, song artist, and song title. RDS service availability varies with areas.

#### 1 Touch .



#### 2 Touch [Settings] on the pop up menu.



#### 3 Set each function as follows.

##### ■ [RDS]

Switch RDS to ON or OFF. Default is "ON". When the RDS function is turned off, [TI], [AF], [REG], [RT] are closed and cannot be clicked.

##### ■ [TI]

You can listen to and watch traffic information automatically when a traffic bulletin starts. However, this feature requires a Radio Data System that includes TI information.

##### ■ [AF]

When station reception is poor, automatically switches to the station that is broadcasting the same program over the same Radio Data System network.

##### ■ [REG]

Sets whether to switch to the station only in the specific region using the "AF" control.

##### ■ [RT]

When the RT function is turned on, Radio Text informations are being received.

##### ■ [MONO]

Switch MONO to ON or OFF. When turned on, forcibly switches to mono when the stereo signal of the radio station is weak.

- The MONO switch is a non RDS function and can be used normally when RDS is turned off.

## **Radio**

### ■ **[Local]**

The function may not be available due to local reasons.

- ON: Lower detection sensitivity and detect stations at frequencies with better signal strength.
- OFF: Standard detection level.

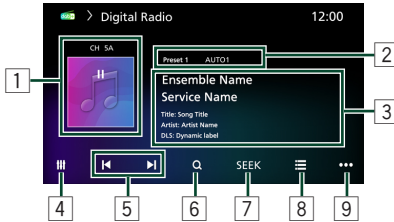
# Digital Radio

## Digital Radio Basic Operation

Most functions can be controlled from the source control screen.

To listen to Digital Radio source, touch [Digital Radio] icon on the source selection screen.

### Control screen



#### 1 Digital Radio channel number

- Display channel number.
- Touch to pause/output radio sound.

#### 2 Indicator items

- Preset # : Preset number.
- AUTO1, AUTO2, MANU: SEEK mode

#### 3 Information display

Displays the information on the current station: Ensemble name, Service Name, Song Title, Artist Name, DLS

#### 4 DSP

Touch to display the EQ/SW Level screen.

#### 5 Tune

Touch to tune in an ensemble, service, and component.

The seek mode witching can be changed. (see

7 Seek mode).

#### 6 Search

Displays the Service List screen. For details on search operation, see **Service search (P.34)**.

#### 7 Seek

Touch to switch seek mode in the following sequence: [AUTO1], [AUTO2], [MANU].

- [AUTO1]: Tunes in a ensemble with good reception automatically.
- [AUTO2]: Tunes in the memorized stations one after another.
- [MANU]: Switches to the next ensemble manually.

#### 8 Digital Radio List

Enter Digital Radio List interface.

- [Preset]: Recalls the memorized service.
  - When touched for 2 seconds, stores the currently being received service in the memory.
- [PTY]: Searches for a program by program type. For details, see **Search by program type (P.34)**.

#### 9 More buttons

Touch to pop up more buttons:

- [Settings]: Touch to pop up the Digital Radio settings interface. **(P.35)**
- [Announcement category]: Touch to pop up the announcement category setting screen. See **Announcement setup (P.35)**.

## Storing Service in Preset Memory

You can store the current receiving service in the memory.

**1** Select a service you wish to store in memory.

**2** Touch .



**3** Touch [Preset #] (#:1-15) in which you want to store the station for 2 seconds.

## Selecting Operation

### Preset select

You can list and select memorized stations.

**1** Touch .



**2** Touch [Preset#] (#:1-15) in which you want to recall.

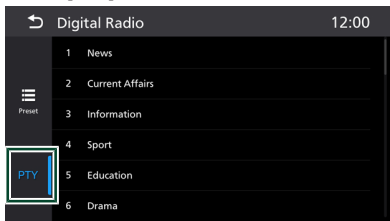
### Search by program type

You can tune in the station broadcasting the specified type of program.

**1** Touch .



**2** Touch [PTY].



**3** Select a program type from the list.

You can search for the station broadcasting the selected type of program.

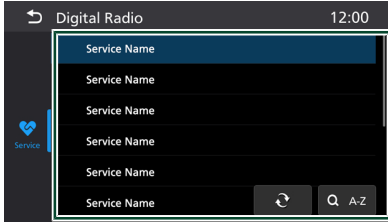
### Service search

You can select a service from a list of all services received.

**1** Touch .



2 Select the desired content from the list.



**MPU Version: 00.72 or later.**

Touch and hold to find the latest service list.



Displays the keyboard screen.  
Jump to the letter you entered (alphabet search).

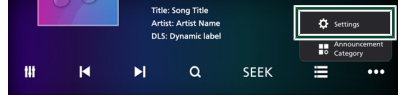
## Settings

You can set Digital Radio related parameters.

1 Touch



2 Touch [Settings] on the pop up menu.



3 Set each function as follows.

■ [PTY]

Touch to switch ON/OFF. Default is OFF.

- Turn ON, the PTY list displays the list content
- Turn Off, the PTY list does not display program types.

■ [Service Following]

When you select ON, the unit switches to a related service (if exists) when a Digital Radio service network is not available.

■ [Service Following Soft Link]

This option is available when [Service Following] is turned on.

Turning it on will allow for switching even when the same station is not available.

- The selection screen will appear when switching to FM radio, and touching [Play] will switch to radio.
- Touch [Cancel] on the selection screen to close. It will also close automatically after ten seconds.

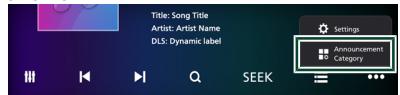
## Announcement setup

When the service for which ON is selected starts, switches from any source to Announcement to receive it.

1 Touch

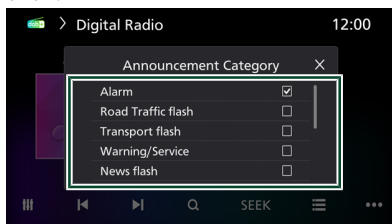


2 Touch [Announcement category] on the pop up menu.



## Digital Radio

- 3 Touch each Announcement list and set on or off.



# Bluetooth Control

Using the Bluetooth function allows you to use various functions such as listening to the audio file and making/receiving a call.

## Information for using Bluetooth® devices



Bluetooth is a short-range wireless radio communication technology for mobile devices such as smartphones/cell-phones, portable PCs, and other devices. Bluetooth devices can be connected without cables and communication with each other.

### NOTE

- While driving, do not perform complicated operations such as dialing numbers, using the phonebook, etc. When you perform these operations, stop your car in a safe place.
- Some Bluetooth devices may not be connected to this unit depending on the Bluetooth version of the device.
- This unit may not work for some Bluetooth devices.
- Connecting conditions may vary depending on your environment.
- Some Bluetooth devices are disconnected when this unit is turned off.
- The Bluetooth devices cannot be used while using Apple CarPlay.
- The Bluetooth currently connected with other device is disconnected when an iPhone compatible with Apple CarPlay is connected.

## About the smartphone/cell-phone and Bluetooth audio player

This unit conforms to the following Bluetooth specifications:

- Version
  - Bluetooth Ver. 5.3
- Profiles
  - Smartphone/cell-phone:
    - HFP (V1.7) (Hands Free Profile)

- SPP (Serial Port Profile)
  - PBAP (Phonebook Access Profile)
- Audio player:
- A2DP (Advanced Audio Distribution Profile)
  - AVRCP (V1.6) (Audio/Video Remote Control Profile)
- Sound codec
    - SBC, AAC

### NOTE

- The units supporting the Bluetooth function have been certified for conformity with the Bluetooth Standard according to the procedure prescribed by Bluetooth SIG. However, it may be impossible for such units to communicate with your smartphone/cell-phone depending on its type.

## Notes on privacy and security for Bluetooth connections

- Make sure that you are pairing the correct device when pairing a Bluetooth device.
- Always delete any paired Bluetooth devices yourself if you sell or transfer the unit, or if the unit malfunctions or otherwise becomes unusable.
- Always use the latest version of the software for the unit and Bluetooth devices.

## Register the Bluetooth device

It is necessary to register the Bluetooth audio player or smartphone/cell-phone in this unit before using the Bluetooth function. You can register up to 5 Bluetooth devices.

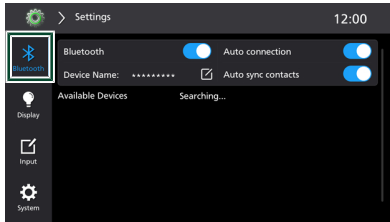
### NOTE

- Up to 5 Bluetooth devices can be registered. If an attempt is made to register the 6th Bluetooth device, the Bluetooth device connected on the earliest date will be deleted to register the 6th one.
- This unit is compatible with the Apple Easy Pairing function. When an iPhone is connected to this unit, an authentication dialog appears. Performing operation for authentication on this unit, or iPhone registers the smartphone as a Bluetooth device.

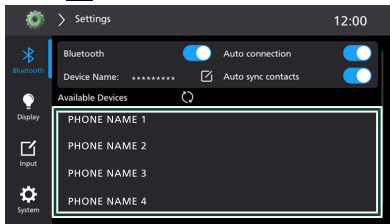
1 Press the **Home / Power** button.

2 Touch **Settings**.

Bluetooth setting menu appears.



3 Touch **Available Devices** to search available devices.



4 Select a device from the list. Or search for the unit ("DMX-F920DS") from your smartphone/cell-phone.

5 Operate your smartphone / cell-phone according to the displayed messages.

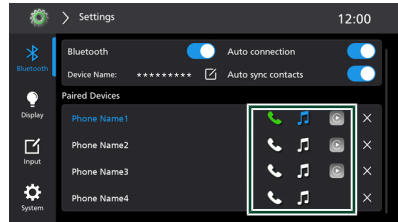
### Switch the connected device

If two or more Bluetooth devices have been registered, select the device to be used.

1 Touch **Bluetooth** to enter Bluetooth setting menu.

2 Touch the icon for the device to connect with.

The color of the icon (color icon or white icon) will determine the available action.



● **Color icon**

Touch the icon and then touch [Disconnect] to disconnect the device.

● **White icon**

Touch the icon to select the connection method.

• When one hands-free phone is connected:  
[Add]: Add the device as a Hands-Free phone.

[Replace]: Add the device as a Hands-Free phone and make it the current connection.

[Cancel]: Cancel the operation.

• When two Hands-Free phones are connected:

Touching either connected device will disconnect that device and connect the new device as a Hands-Free phone.






[Cancel]: Cancel the operation.

● **White icon**

[Switch]: Switch to the selected device.

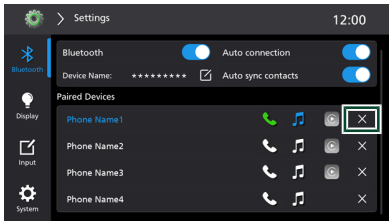
[Cancel]: Cancel the operation.

**NOTE**

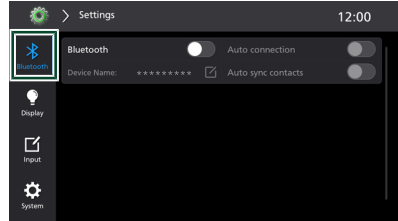
- The names of connected devices are displayed in blue.
- Up to two devices can be connected as Hands-Free phones.
- If the icon is lighted, it means that the unit will use that device.
- You can confirm the connection status of Bluetooth, Apple CarPlay or Android Auto as follows.
  - Bluetooth: If the device compatible with Bluetooth is paired,  : Hands-Free phone (Green),  : Bluetooth Audio (Blue)
  - Apple CarPlay: The  icon will be lit if an Apple CarPlay compatible device is connected.
  - Android Auto: The  icon will be lit if an Android Auto compatible device is connected.
- You can quickly display the Device List screen by touching  in the popup menu.
- Touching the area with the device name when connected to Apple CarPlay or Android Auto will change the source to Apple CarPlay or Android Auto.

**To delete the registered device**

You can delete the device that is registered as Bluetooth source.

**1 Touch [X] on the Device List screen.****2 Touch [Delete].****Bluetooth Setup****1 Press the  /  button.****2 Touch .**

Bluetooth setting menu appears.

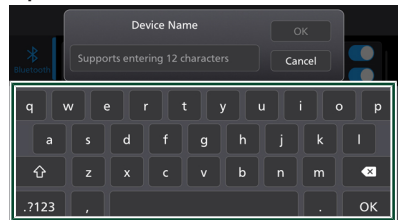
**3 Touch the circle icon right to [Bluetooth] and set to [ON].**

See the following section for each setting.

- Change the device name
- Turn on/off the [Auto connection]
- Turn on/off the [Auto sync contacts]

** Change the device name****1 Touch  in the Bluetooth setting menu.**

Change Device Name screen appears.

**2 Input the device name.****3 Touch [OK].**

## Playing the Bluetooth Audio Device

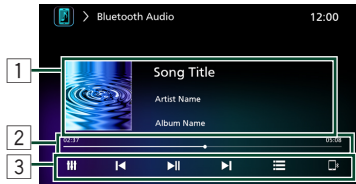
Most function can be controlled from the source control screen. To select Bluetooth source, touch [Bluetooth Audio] icon on the source selection screen.

### NOTE

- The Bluetooth audio source is disabled while using Apple CarPlay.
- The Bluetooth audio source is disabled when the device set as Audio(A2DP)/App(SPP) is using Android Auto.

## Bluetooth basic operation

### Control screen



### 1 Track information

Displays the information on the current file. Only a file name and a folder name are displayed if there is no tag information.

### 2 Play mode indicator/Playing time

For confirmation of current playing position.



### 3 Operation keys

◀ ▶: Searches the previous/next track/file.

▶ ||: Plays or pauses.

☰: Touch to display the Content list.

### NOTE

- The operation keys, indications and information displayed on the screen differ depending on the connected device.
- If the operation keys do not appear, operate from the player.

## Using the Hands-Free Unit

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

### NOTE

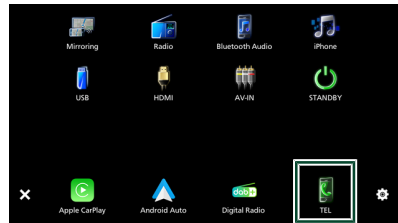
- While Apple CarPlay or Android Auto is connected, the Bluetooth Hands-Free function and cannot be used. Only the Apple CarPlay or Android Auto Hands-Free function can be used.

## Make a call

1 Press the / button.

2 Touch

3 Touch [TEL].

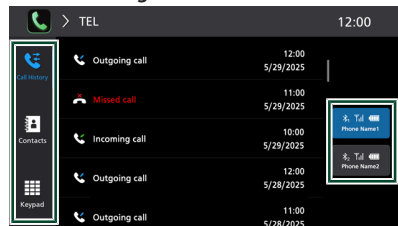


Hands-Free screen appears.

### NOTE

- If your smartphone/cell-phone supports PBAP, you can display the phonebook and call lists onto the touch panel screen when the smartphone/cell-phone is connected.
  - Phonebook: up to 2000 entries
  - Up to 100 entries including dialed calls, received calls, and missed calls

## 4 Select a dialing method.



- : Call using call records
- : Call using the phonebook
- : Call by entering a phone number

## ● Select the smartphone/cell-phone to use


When you connect two smartphones/cell-phones

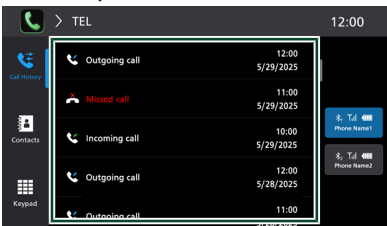
- 1 Touch   to select the phone you want to use.

### NOTE



- Status icons such as battery and antenna icons may differ from those displayed on the smartphone/cell-phone.
- Setting the smartphone/cell-phone in the private mode can disable the Hands-Free function.

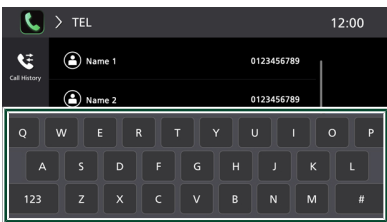
### Call using call records

- 1 Touch .
- 2 Select the phone number from the list.



### Call using the phonebook

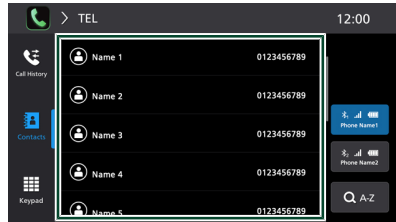
- 1 Touch .
- 2 Touch .
- 3 Select the initial.




- Characters with no corresponding name will not appear.
- A first character with an accent character such as “ü” can be searched for with a non-accent character “u”. A character with an accent character in a sentence cannot be searched for.

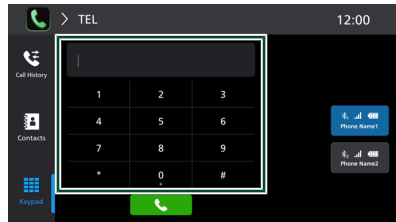
- You can search through letters or numbers.

- 4 Select the person or number you want to call from the list.





### Call by entering a phone number

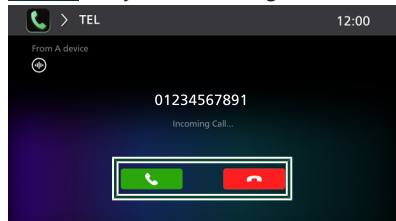
- 1 Touch .
- 2 Enter a phone number with number keys.



- 3 Touch .

### Receive a call

- 1 Touch  to answer a phone call or  to reject an incoming call.




### NOTE

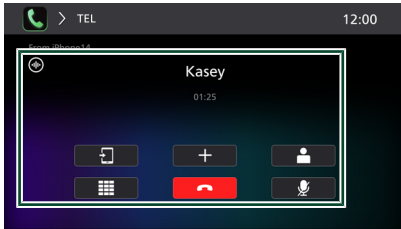
- When shifting the gear to the reverse (R) position and monitoring the picture from the rear view camera, this screen does not appear even if a call comes in.

## Bluetooth Control

### To end call

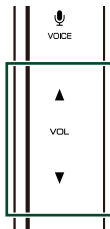
- 1 While talking, touch .

### Operations during a call



#### ● Adjust the receiver volume

Press ▲ to increase, and press ▼ to decrease.




#### ● Speech Quality Adjust


Touch .

- [EC LEVEL]  
Adjust the level of echo cancellation.
- [NR LEVEL]  
Reduce the noise generated in the surrounding environment without changing the microphone volume. Use this function when the voice of caller is not clear.
- [MIC LEVEL]  
Adjust the level of microphone gain.


#### ● Mute your voice

Touch  to mute or not to mute your voice.


#### ● Switching between speaking voice output destinations

Touching  each time switches speaking voice output destinations between the smartphone/cell-phone and the speaker.


#### ● Viewing call records during a call

Touch  to enter the call record list. Touch on a contact person to directly make the second call.



#### ● Viewing contacts during a call

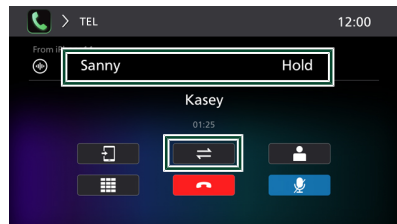
Touch  to enter the contact list. Touch on a contact person to directly make the second call.


#### ● Output the dial tone

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

#### ● Call-waiting

When you receive a new call while talking on the phone, you can answer the newly received call by touching . The current call is put on hold. Touch the caller name or , the caller will change to the other one.



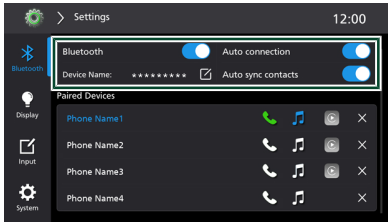
When you touch , the current call will end to be switched to the call waiting on hold..

## Hands-Free Setup

You can make various settings for the Hands-Free function.

- 1 Press the **🏠 / 🔌** button.
- 2 Touch **⚙️** to enter Bluetooth setting menu.

Bluetooth SETUP Menu screen appears.



- 3 Set each function as follows.
  - **[Bluetooth]**  
Turns the Bluetooth function on or off.
  - **[Device Name]**  
Touch the **📄** right to the Device name to change the Bluetooth device name.
  - **[Auto connection]**  
Turn on the function to re-connect the Bluetooth device paired before automatically.
  - **[Auto sync contacts]**  
Turn on to synchronize address book automatically.

# Other External Components

## View Camera


### ⚠ CAUTION

The position of parking guidelines displayed on the monitor may differ from actual condition. Please take the actual parking guidelines as reference and check with eyes.

#### NOTE

- To use a rear view camera, a REVERSE lead connection is required.
- If [Rear Camera Interruption] is active the camera screen is displayed when you shift the gear to the reverse (R) position.
- The camera whose view was displayed last is kept and the same camera view will be displayed the next time. If its assignment setting is changed, the rear camera view is displayed.
- Rear camera interruption screen is not kept as the camera screen which will be displayed the next time.

### 📺 Display the camera screen

- 1 Press the  / [ATT] button.
- 2 Pop up menu appears.
- 3 Touch [Camera].



View camera screen appears.

- 4 Adjust as follows.







#### 1 Back key

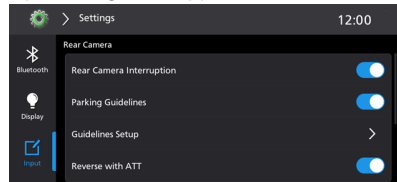
Touch to quit camera interface.

### 2 Camera Switching Keys

Touch to switch between the Rear view camera and AV-IN camera . It is necessary to set "AV Input" to "Camera". See **Input Setup (P.48)**.

### 📺 Camera Setup

- 1 Press the  /  button.
- 2 Touch .  
SETUP Menu screen appears.
- 3 Touch .  
Input setting menu appears.



#### ■ [Rear Camera Interruption]

- ON: Display camera screen automatically when reversing.
- OFF: Camera screen will not display automatically when reversing.

#### ■ [Parking Guidelines]

Show/Hide the Parking guidelines.

#### ■ [Guidelines Setup]

Touch to enter the reverse guidance line setting screen. When Parking Guidelines is OFF, the Guidelines Setup is invalid. See **(P.44)**.

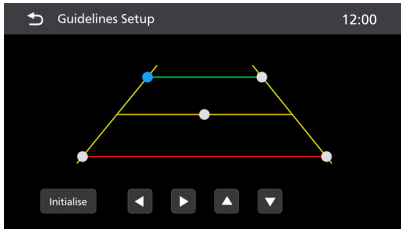
#### ■ [Reverse with ATT]


Turn ON/OFF the attenuator of reverse.

- ON: Decrease the audio volume automatically when the gear is shifted to the reverse (R) position.

### 📺 Guidelines Setup

Touch [Guidelines Setup] in the Input setting menu to enter the reverse guidance line setting screen.



- 1 Touch on the small dot Highlight the currently selected trajectory line.
- 2 Touch  key to adjust the selected Guideline.

#### NOTE

- [Initialise]: Touch to reset.

## External audio/video players (AV-IN)

- 1 Connect an external component to the AV Audio input and the Video input terminal.
- 2 Select [AV-IN] as the source.
- 3 Turn on the connected component and start playing the source.

#### NOTE

- To select the AV-IN source, it is necessary to set "AV Input" to "AV-IN" in **Input Setup (P.48)**.

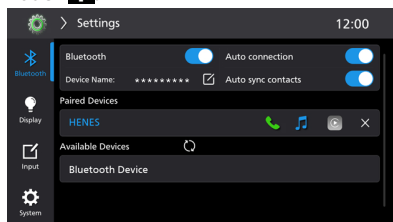
## HDMI source

- 1** Connect your smartphone to the HDMI input terminal.  
Use HDMI cable (optional accessory).
- 2** Select [HDMI] as the source.
- 3** Start an application or playback on your smartphone.

# Setup

1 Press the  /  button.

2 Touch .



See the following section for each setting.

- Setup Bluetooth
- Setup Display
- Setup Input
- Setup Systems

## Bluetooth Setup

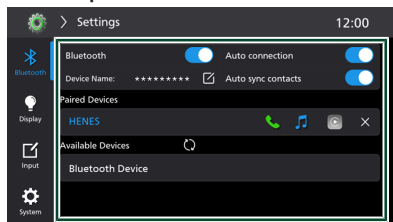
You can set connections and AV parameters.

1 Press the  /  button.

2 Touch .

Bluetooth SETUP Menu screen appears.


3 Set each parameter as follows.



### ■ [Bluetooth]

Turns the Bluetooth function on or off.

### ■ [Device Name]

Touch the  right to the Device name to change the Bluetooth device name. See ***Change the device name (P.47)***.

### ■ [Auto connection]

Turn on the function to re-connect the Bluetooth device paired before automatically.

### ■ [Auto sync contacts]

Turn on to synchronize address book automatically.


### ■ [Paired Devices]

Select a device to disconnect/delete.

### ■ [Available Devices]

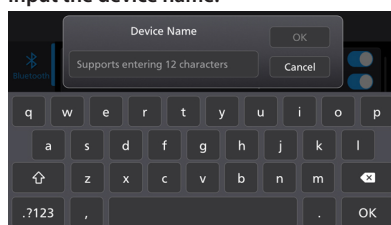
Select a device pair.

## Change the device name

1 Touch  right to the Device name in the Bluetooth setting menu.





Change Device Name screen appears.

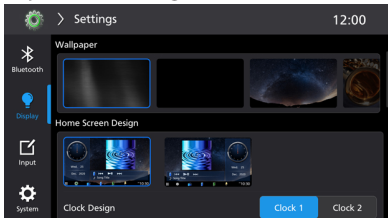
2 Input the device name.



3 Touch [OK].

## Display Setup

- 1 Press the  /  button.
- 2 Touch .  
SETUP Menu screen appears.
- 3 Touch .  
Display setup menu appears.
- 4 Adjust each setting as follows.



### ■ Wallpaper

Select a wallpaper.

### ■ HOME Screen Design

Select a HOME screen mode.

### ■ Clock Design

Select the clock design.

### ● Screen Adjustment

#### ■ [Dimmer]

Select the dimmer mode.

- AUTO : Turns the dimmer function on or off when the vehicle light control switch is turned on or off.
- ON : Dims the display and buttons.
- OFF : Does not dim the display and buttons.

#### ■ [Backlight] / [Contrast] / [Colour]

Adjust each setting.

### ● Other

#### ■ [Demonstration]

ON: Display the Demo mode if the screen is not operated for 30 seconds.





#### ■ [Driving Position]

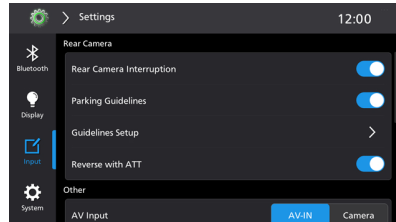
Switch Apple CarPlay or Android Auto to left-hand/right-hand drive mode.

### NOTE

- Settings to adjust vary depending on the current source.
- You can also access the screen by touching "Screen Adjustment" on Popup menu.

## Input Setup

- 1 Press the  /  button.
- 2 Touch .  
SETUP Menu screen appears.
- 3 Touch .  
Input setup menu appears.



### ● Rear Camera

#### ■ [Rear Camera Interruption]

- ON: Display camera screen automatically when reversing.
- OFF: Camera screen will not display automatically when reversing.

#### ■ [Parking Guidelines]

Show/Hide the Parking guidelines.

#### ■ [Guidelines Setup]

Touch to enter the reverse guidance line setting screen. When Parking Guidelines is OFF, the Guidelines Setup is invalid.

#### ■ [Reverse with ATT]

Turn ON/OFF the attenuator of reverse.

- ON: Decrease the audio volume automatically when the gear is shifted to the reverse (R) position.

### ● Other

#### ■ [AV Input]

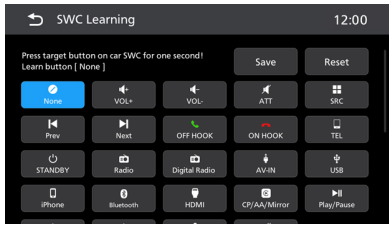
- [AV-IN]: Select this when an external AV devices connected.
- [Camera]: Select this to watch the view from the connected camera.

#### ■ [AV-IN Camera Mirror]

Set the image of AV-IN Camera is mirrored or not. When "AV Input" is set to "AV-IN", this option is invalid.

#### ■ [SWC Learning]

Touch to enter the SWC Learning setup screen.



Touch a function button on the screen, then press target button on car SWC for more than 1 second.

Touch [Save] to save the settings.

Touch [Reset] to reset the settings.

#### ■ [iPhone Connection Mode]

Select whether to use Apple CarPlay or mirroring for a wired connection. <sup>\*1</sup>

#### ■ [Android Phone Connection Mode]

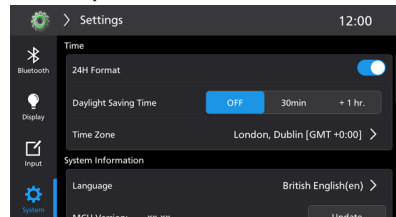
Select whether to use Android Auto or mirroring for a wired connection. <sup>\*1</sup>

\*1 The device cannot switch between Mirroring, Apple CarPlay, and Android Auto when either is connected.

## System Setup

You can setup system parameters.

- 1 Press the / button.
- 2 Touch .  
SETUP Menu screen appears.
- 3 Touch .  
System setting menu appears.
- 4 Set each parameter as follows.



#### ● Time

##### ■ [24H Format]

Turn on the function to activate 24H Format.

##### ■ [Daylight Saving Time]

Activate this by selecting the additional time for daylight saving time (if available in your residential area).  
[OFF], [30min], [+1hr]

##### ■ [Time Zone]

Select the time zone on the pop-up menu.

#### ● System information

##### ■ [Language]

Select system language from the pop-up menu

##### ■ [MCU Version] / [MPU Version] / [Digital Radio Version]

Show the current software version.

##### ■ [Product Production Number]

Display the Product Production Number.

##### ■ [Model Name]

Display Model Name.

##### ■ [Restore initial settings]

Reset to the initial state of the system.

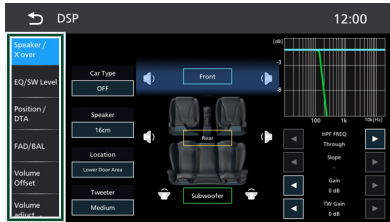
##### ■ [Open Source Licenses]

Display the open source licenses.

# Controlling Audio

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

- 1 Press the **≡** / [ATT] button.
- 2 Touch [DSP].



See the following section for each setting.

- Set up Speaker / X'over
- Controlling EQ / SW Level
- Set Position / DTA
- Controlling FAD / BAL
- Set Volume Offset
- Set Volume Adjust
- Set Sound Effect
- Use Audio Memory

## 3-way speaker system setup

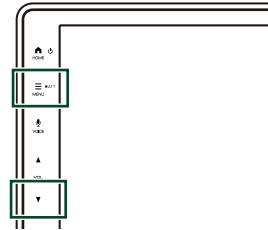
Select the appropriate crossover network mode for the speaker system used (2-way or 3-way speaker system).

### ⚠ CAUTION

- Connecting 3-way speakers with the 2-way mode selected can break the speakers.

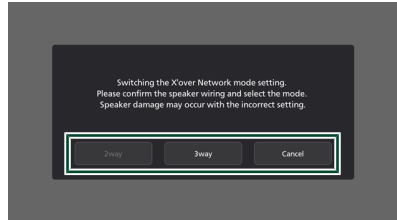
- 1 Press the **🏠** / **🔌** button.  
HOME screen appears.
- 2 Touch **📶**.  
Source selection screen appears.
- 3 Touch [STANDBY].

- 4 Press **▼** button followed by the **≡** / [ATT] button for 2 seconds at the same time.



Speaker system select screen appears.

- 5 Select the crossover network mode.



A confirmation screen appears.

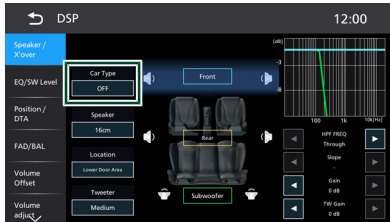
- 6 Touch [Yes].

### NOTE

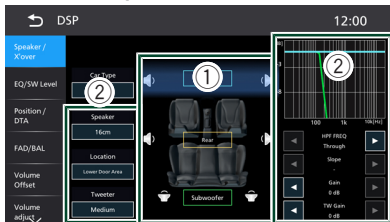
- When the 3-way speaker system is selected, the following functions are disabled.
  - Fader for Fader / Balance Control
  - Beep for Sound Effect
- While talking on the paired phone or using the voice recognition function, the speaker system cannot be switched.

## Speaker / X'over setup

- 1 Press the **≡** / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Speaker / X'over].
- 4 Select a car type.  
You can select the car type and speaker network, etc.  
When you select your car type, the Delay Time Alignment is activated automatically (for timing adjustment of sound output for each channel) to have the highest surround effects.



- 5 Touch the speaker ① you wish to adjust and set each parameter ② as follows.



### ■ [Speaker]

You can select a speaker type and its size to get the best sound effects. If you have no speakers, select "None". When the speaker type and size are selected, the speaker crossover network is set automatically.

### ■ [Location] (Only for Front, Rear)

Select the speaker position you have installed.

### ■ [Tweeter] (Only for Front)

You can set up the tweeter when you are selecting front speakers.  
None, Small, Medium, Large

### ■ [HPF FREQ] (Only for Front, Rear)

High Pass Filter adjustment.

### ■ [LPF FREQ] (Only for Subwoofer)

Low Pass Filter adjustment.

### ■ [Slope]

Set a crossover slope.

### ■ [Gain]

Adjust the gain of the front speaker, rear speaker, or subwoofer.

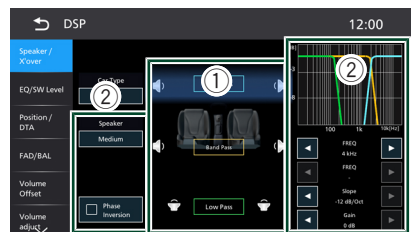
### ■ [TW Gain] (Only for Front)

Adjust the tweeter level.

### ■ [Phase Inversion] (Only for Subwoofer)

Set the phase of subwoofer output. Check [Phase Inversion] to shift the phase 180 degrees.

## When Speaker network is set to 3-way:



### ■ [Speaker]

You can select a speaker type and its size to get the best sound effects. If you have no speakers, select "None". When the speaker type and size are selected, the speaker crossover network is set automatically.

### ■ [FREQ] (High Pass)

High Pass Filter adjustment. (Only for High Pass)

### ■ [FREQ] (Low Pass)

Low Pass Filter adjustment. (Only for Low Pass)

### ■ [HPF FREQ], [LPF FREQ] (Only for Band Pass)

Band Pass Filter adjustment.

### ■ [Slope]<sup>\*1\*2</sup>

Set a crossover slope.

### ■ [Gain]

Set the gain of each speaker.

### ■ [Phase Inversion]

Set the phase of tweeter, mid range, and woofer output. Check [Phase Inversion] to shift the phase 180 degrees.

## Controlling Audio

- \*1 Only when “LPF FREQ”/“HPF FREQ” (Band Pass) is set to a mode other than “Through”.
- \*2 Only when “FREQ” (Low Pass) is set to a mode other than “Through”.

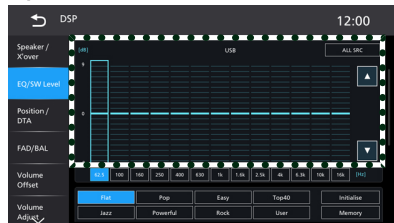
### NOTE

- For how to switch to the 3-way speaker system, see **3-way speaker system setup (P.50)**.

## Equalizer Control

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

- 1 Press the **≡** / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [EQ / SW Level].
- 4 Touch the screen and set the Graphic Equalizer as desired.



### ■ Gain level (area in dotted frame)

Adjust the gain level by touching each frequency bar. You can select a frequency bar and adjust its level by ▲, ▼.

### ■ [ALL SRC]

Apply the adjusted equalizer curve to all sources. Touch [ALL SRC] and then touch [OK] on the confirmation screen.

### ■ [Memory]

Saves the adjusted equalizer curve as “User”.

### ■ [Initialise]

Initialize (flatten) the current EQ curve.

### ■ [Bass EXT] (Bass Extend Settings)

When turned on, the frequencies lower than 62.5 Hz is set to the same gain level (62.5 Hz).

### ■ [SW Level]

Adjust the subwoofer volume. This setting is not available when Subwoofer is set to “None”. See Speaker / X'over setup

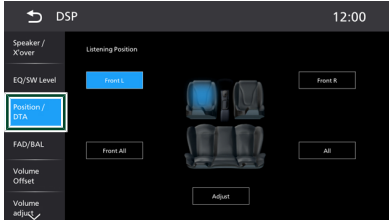
### ■ [Flat]/[Pops]/[Easy]/[Top40]/[Jazz]/[Powerful]/[Rock]/[User]

Recall the preset EQ curve.

## Listening Position / DTA

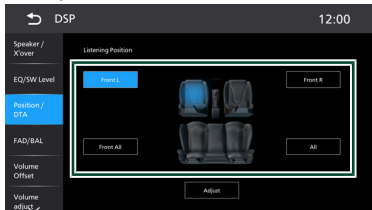
Adjust the sound delay time so that the sounds from different speakers arrive at the listener sitting on the selected seat at the same time.

- 1 Press the  $\equiv$  / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Position / DTA].

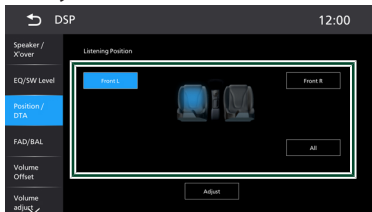


- 4 Select a listening position from [Front R] (Right front), [Front L] (Left front), [Front All] (All front), and [All].

### ● 2-Way



### ● 3-Way



\* 2-Way mode only

### Position DTA control

You can fine-adjust your listening position.

- 1 Touch [Adjust].
- 2 Touch [Delay].

- 3 Touch [ $\triangleleft$ ] or [ $\triangleright$ ] to adjust the delay time of the selected speaker.

### ● 2-Way



### ● 3-Way



- 4 Touch [Level].

- 5 Touch [ $\triangleleft$ ] or [ $\triangleright$ ] to adjust the sound level of the selected speaker.

### ● 2-Way



### ● 3-Way



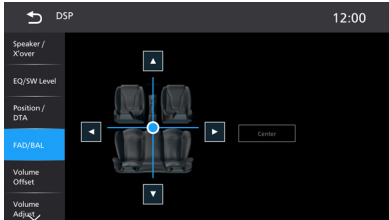
### NOTE

- To initialize the Delay and Level settings, touch [Initialise] and [OK] on the confirmation screen.

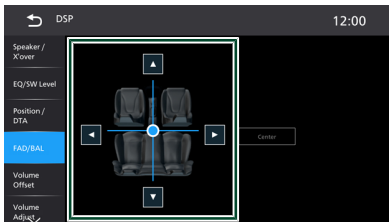
## Fader / Balance Control

You can adjust the volume balance among the speakers.

- 1 Press the  $\equiv$  / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [FAD / BAL].



- 4 Touch  $\leftarrow$ ,  $\rightarrow$ ,  $\blacktriangle$ , and  $\blacktriangledown$  to adjust the volume balance.



- $\leftarrow$  and  $\rightarrow$  adjust the left and right volume balance.
- $\blacktriangle$  and  $\blacktriangledown$  adjust the front and rear volume balance.
- [Center]  
Clear the adjustment.

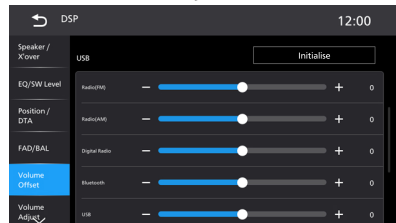
### NOTE

- When the 3-way speaker system is selected, "Fader" adjustment is disabled.

## Volume Offset

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

- 1 Press the  $\equiv$  / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Volume Offset].
- 4 Touch [+ ] or [- ] to adjust the level.



### ■ [Initialise]

Returns to the initial settings.

Touch [Initialise] and then touch [OK] on the confirmation screen.

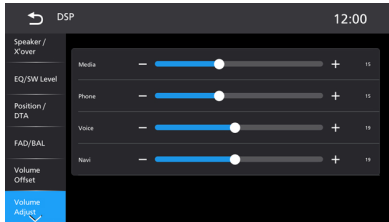
### NOTE

- If you have increased the volume first, then reduce the volume using "Volume Offset". Switching the current source to another source suddenly may output extremely loud sound.

## Volume adjust

Set the startup volume for each playback source.

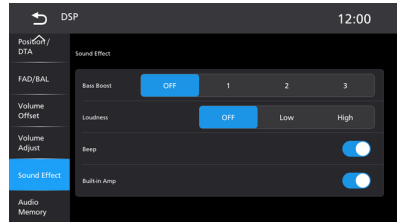
- 1 Press the  $\equiv$  / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Volume adjust].
- 4 Touch [+] or [-] to adjust the level.



## Sound Effect

You can set sound effects.

- 1 Press the  $\equiv$  / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Sound Effect].
- 4 Set each parameter as follows.



### ■ [Bass Boost]

Set the amount of bass boost  
"OFF"/"1"/"2"/"3".

### ■ [Loudness]

Set the amount of boost of low and high tones.

"OFF", "Low", "High"

### ■ [Beep]

Touch to turn the key touch tone OFF or ON.

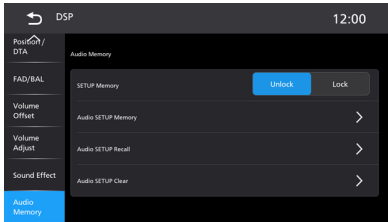
### ■ [Built-in Amp]

Touch to turn the Built-in amplifier OFF or ON.

## Audio Memory

Set the audio setup memory.

- 1 Press the **≡** / [ATT] button.
- 2 Touch [DSP].  
Audio screen appears.
- 3 Touch [Audio Memory].
- 4 Set each parameter as follows.



■ **[SETUP Memory]**

Lock or unlock the Audio SETUP Memory/ Recall/Clear.

■ **[Audio SETUP Memory]**

Memorize the current audio settings.

■ **[Audio SETUP Recall]**

Recall the memorized audio setting.

■ **[Audio SETUP Clear]**

Clear the Audio SETUP Memory and the currently memorized audio settings.

# Remote control

This unit can be operated using the remote control KCA-RCDV340 (optional accessory).

## ▲ CAUTION

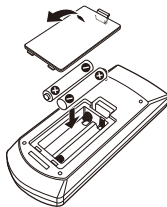
- Put the remote control in a place where it will not move during braking or other operations. A dangerous situation could result, if the remote control falls down and gets wedged under the pedals while driving.
- Risk of fire or explosion if the battery is replaced by an incorrect type.
- Ensure to replace only with the same type.
- Risk of fire, explosion or the leakage of flammable liquid or gas if the battery is left in an extremely high temperature surrounding environment and/or subjected extremely low air pressure. The battery pack or batteries shall not be exposed to excessive heat such as sunshine, fire or the like.
- Risk of fire, explosion or the leakage of flammable liquid or gas if the battery is disposed into fire or a hot oven, recharged, shorted, mechanically crushed or cut of the battery.
- If spilled fluid comes in contact with your eyes or on clothing, immediately rinse with water and consult a physician.

## Battery Installation

If the remote control 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.

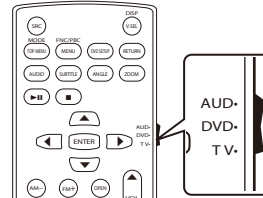
- 1 Insert two "AAA"/"R03"-size batteries with the ⊕ and ⊖ poles aligned properly, following the illustration inside the case.



## Functions of the Remote control Buttons

### ☐ Switch the operation mode

The functions operated from the remote control 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/TV mode

Not used.

### NOTE

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

### ☐ Direct search mode

Using the remote control, you can jump directly to the tuner frequency.

### NOTE

- This operation cannot be performed for the USB device and iPhone.

- 1 Press the [DIRECT] button several times until the desired content appears.

The available contents are different depending on the source type.

#### ■ Radio

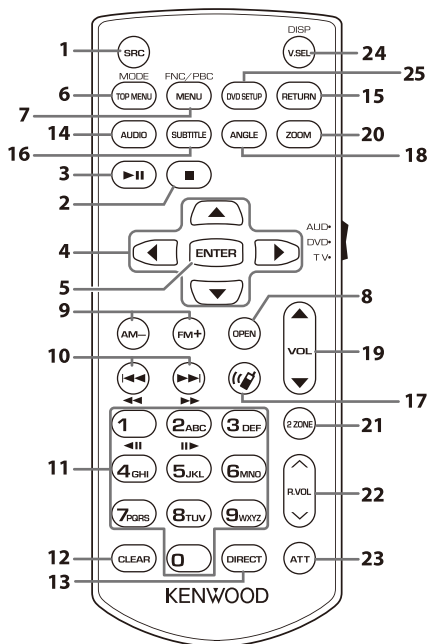
Frequency value

- 2 Press number buttons to enter a frequency.


- 3 Press the ◀◀◀ or ▶▶▶ button.

The content corresponding to the number you entered is played.

## Basic Operation



	Key Name	Mode switch	Function
1	SRC	–	Switches to the source to be played. In Hands-Free mode, hangs up the phone.
2	■	–	Not used.
3	▶	–	Pauses the track or file, and resumes playing by pressing twice. For the Radio and Digital Radio sources in AUD mode, switches the seek mode.
4	▲/▼/◀▶	–	Not used.
5	ENTER	–	Not used.
6	TOP MENU	–	Not used.
7	MENU	–	Not used.
8	OPEN	–	Not used.
9	AM-/FM+	AUD	Selects the folder to be played. For the Radio sources in AUD mode, selects FM/AM band to be received.
10	◀◀▶▶	–	Selects the track or file to be played. For the Radio and Digital Radio sources in AUD mode, switches to broadcast stations received by the unit.
11	Numeric Keypad	AUD	Allows you to enter the number to search in the direct search mode. For details on the direct search mode, see <b>Direct search mode (P.57)</b> .
12	CLEAR	–	Not used.
13	DIRECT	–	Switches to the direct search mode. <b>(P.57)</b> .
14	AUDIO	–	Not used.
15	RETURN	–	Not used.

	<b>Key Name</b>	<b>Mode switch</b>	<b>Function</b>
16	SUBTITLE	–	Not used.
17		–	When a call comes in, answers the call.
18	ANGLE	–	Not used.
19	VOL ▲▼	–	Adjusts the volume.
20	ZOOM	–	Not used.
21	2 ZONE	–	Not used.
22	R.VOL ^ v	–	Not used.
23	ATT	–	Lowers the volume by pressing the key once. Restores the previous volume by pressing the key twice.
24	V.SEL/DISP	–	Switches between the Apple CarPlay, Android Auto, Wireless mirroring and AV source screen each time it is pressed.
25	DVD SETUP	–	Not used.

## Connection/Installation

This section is for the professional installer. For safety's sake, leave wiring and mounting to professionals. Consult the car audio dealer.

### Before Installation

Before installation of this unit, please note the following precautions.

#### ▲ WARNINGS

- If you connect the ignition wire (red) and the battery wire (yellow) to the car chassis (ground), you may cause a short circuit, that in turn may start a fire. Always connect those wires to the power source running through the fuse box.
- Do not cut out the fuse from the ignition wire (red) and the battery wire (yellow). The power supply must be connected to the wires via the fuse.

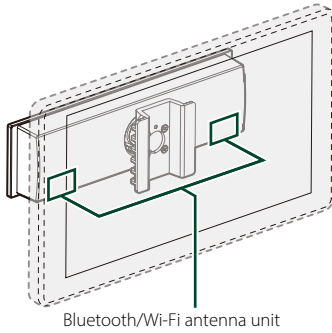
#### ▲ CAUTION

- Install this unit in the console of your vehicle. Do not touch the metal part of this unit during and shortly after the use of the unit. Metal part such as the heat sink and enclosure become hot.

#### NOTE

- Mounting and wiring this product requires skills and experience. For best safety, leave the mounting and wiring work to professionals.
- Do not install the unit if it becomes an obstacle to driver performance.
- Adjust the panel position not to become an obstacle to driver performance.
- Make sure to ground the unit to a negative 12V DC power supply.
- Do not install the unit in a spot exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- Do not use your own screws. Use only the screws provided. If you use the wrong screws, you could damage the unit.

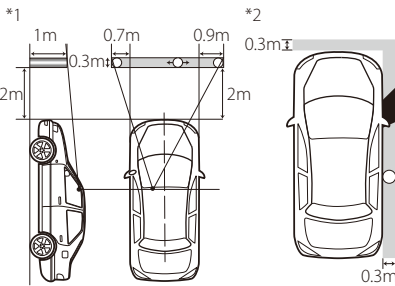
- If your car's ignition does not have an ACC position, connect the ignition wires to a power source that can be turned on and off with the ignition key. If you connect the ignition wire to a power source with a constant voltage supply, such as with battery wires, the battery may be drained.
- If the console has a lid, the lid will not be closed even when the unit is installed correctly.
- If the fuse blows, first make sure the wires are not touching to cause a short circuit, then replace the old fuse with one with the same rating.
- Insulate unconnected wires with vinyl tape or other similar material. To prevent a short circuit, do not remove the caps on the ends of the unconnected wires or the terminals.
- Connect the speaker wires correctly to the terminals to which they correspond. The unit may be damaged or fail to work if you share the ⊖ wires or ground them to any metal part in the car.
- When only two speakers are being connected to the system, connect the connectors either to both the front output terminals or to both the rear output terminals (do not mix front and rear). For example, if you connect the ⊕ connector of the left speaker to a front output terminal, do not connect the ⊖ connector to a rear output terminal.
- After the unit is installed, check whether the brake lamps, blinkers, wipers, etc. on the car are working properly.
- Mount the unit so that the mounting angle is 30° or less.
- This unit has the cooling fan to decrease the internal temperature. Do not mount the unit in a place where the cooling fan of the unit is blocked. Blocking these openings will inhibit the cooling of the internal temperature and result in malfunction.
- Do not press hard on the panel surface when installing the unit to the vehicle. Otherwise scars, damage, or failure may result.
- Reception may drop if there are metal objects near the Bluetooth/Wi-Fi antenna.



Bluetooth/Wi-Fi antenna unit

### ● Forward and Lateral Fields of Vision

- To determine driver's forward and lateral fields of vision under normal conditions, place a pole (directly visible from the front or visible through the car rear-view mirror) as shown.










- : Pole (height: 1m, diameter: 0.3m)
- : Field of vision from steering position
- : Exempted area (pole size is subject to regulation)

- For right hand drive vehicles, standards are reversed.
- \*1 The pole must be visible from the driver's position as direct forward field of vision.
- \*2 The pole must be directly visible or indirectly visible through the mirror, etc. from the driver's position.

### ■ Supplied accessories for installation

Note: This parts list does not include all the package contents.

①	Wiring harness 	×1
②	Microphone unit (3 m) 	×1
③	Truss head Screw (M5×8 mm) 	×4
④	Flat head screws (M5×8 mm) 	×4
⑤	GPS antenna (3 m) 	×1
⑥	Display unit 	×1
⑦	Learning steering remote extension cable 	×1

### ■ Installation procedure

- To prevent a short circuit, remove the key from the ignition and disconnect the ⊖ terminal of the battery.
- Remove the vehicle parts for installing the unit and connecting wires to terminal.
- Make the proper input and output wire connections for each unit.
- Take Connector B on the wiring harness and connect it to the speaker connector in your vehicle.
- Take Connector A on the wiring harness and connect it to the external power connector on your vehicle.
- Connect the wiring harness connector to the unit.

## Connection/Installation

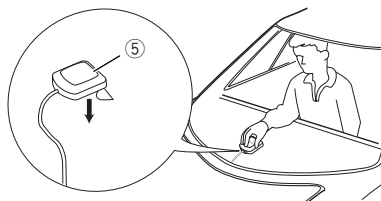
7. Install the unit in your car.  
Make sure that the unit is installed securely in place.  
If the unit is unstable, it may malfunction.
8. Reinstall the vehicle parts.
9. Reconnect the ⊖ terminal of the battery.
10. Perform the Initial Setup.  
See **Initial SETUP (P.10)**.

## Installing the accessories

### GPS antenna

GPS antenna is installed inside of the car. It should be installed as horizontally as possible to allow easy reception of the GPS satellite signals. To mount the GPS antenna inside your vehicle:

1. Clean your dashboard or other surface.
2. Remove the separator of the GPS antenna (accessory ⑤), and fix the antenna to the dashboard or other surface.

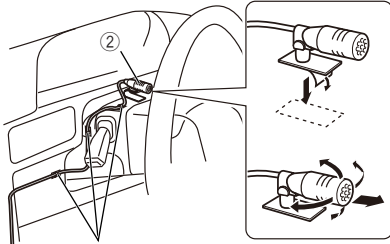


### NOTE

- Use the supplied GPS antenna. Using the GPS antenna other than the supplied one may cause a drop in positioning accuracy.
- Depending on the type of car, reception of the GPS satellite signals might not be possible with an inside installation.
- Please install the supplied GPS antenna in an area away from any antennas that are used with CB radios or satellite televisions.
- The supplied GPS antenna should be installed at a position that is spaced at least 30 cm from mobile phone or other transmitting antennas. Signals from the GPS satellite may be interfered with by these types of communication.
- Painting the supplied GPS antenna with (metallic) paint may cause a drop in performance.

### Microphone unit

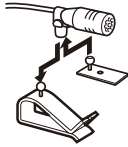
1. Check the installation position of the microphone (accessory ②).
2. Clean the installation surface.
3. Remove the separator of the microphone (accessory ②), and stick the microphone to the place shown below.
4. Wire the microphone cable up to the unit with it secured at several positions using tape or other desired method.
5. Adjust the direction of the microphone (accessory ②) to the driver.



Fix a cable with a commercial item of tape.

**NOTE**

- Replace the plate and clips as needed.



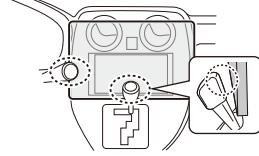
**Installing the unit**

- **Confirm the installing position of the display unit**

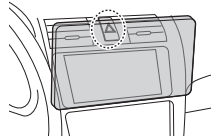
- **Vehicles cannot be installed**

It may be possible to install if it can avoid the following by adjustment for display height.

- Lever operations are interfered such as shift lever, wiper lever, winker lever when install the unit.

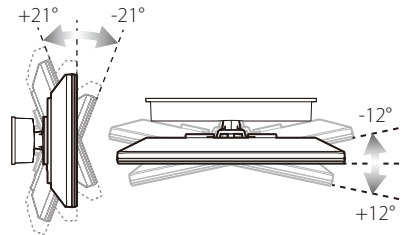


- A hazard switch is hidden from a driver seat.

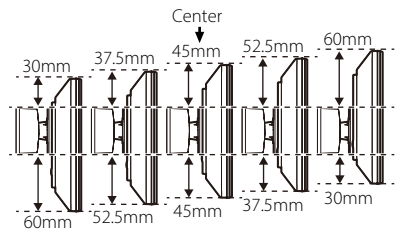


- **The adjusting position and mounting dimension of the display unit**

- Vertical tilt:  $\pm 21^\circ$ , horizontal tilt:  $\pm 12^\circ$



- Height adjustment:  $\pm 15$  mm from center (45 mm)



## Connection/Installation

### ⚠ CAUTION

- Do not rotate the unit side to side. Doing so could damage the unit.



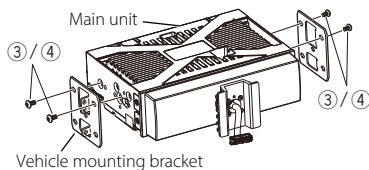
### 📦 Installing the main unit

#### NOTE

- Make sure that the unit is installed securely in place. If the unit is unstable, it may malfunction.

**1** Remove parts that interfere with installing such as a panel on the vehicle.

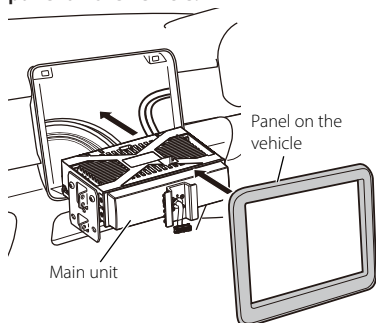
**2** Install the vehicle mounting bracket to the main unit.



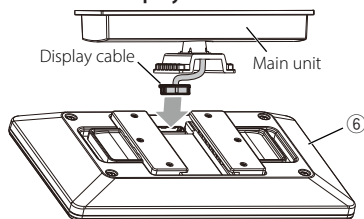
**3** Connect the wiring harness wires and peripheral equipment.

**4** Install the main unit to the vehicle.

**5** Reinstall the removed parts such as a panel on the vehicle.

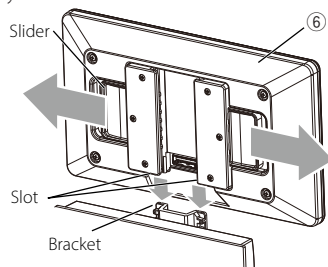


**6** Connect the display cable.



**7** Install the display unit (accessory ⑥) to the main unit.

To install, while pulling both sliders on the back of the display unit to the side, align the bracket on the main unit with the slot on the display unit.

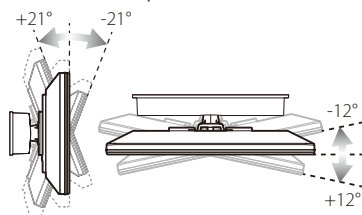


#### NOTE

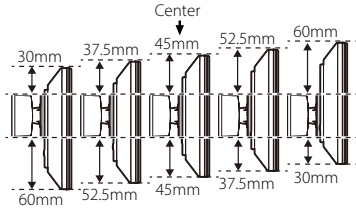
- Be careful that the display cable does not become pinched between the slot and bracket when installing the display unit. Forcefully inserting the unit with the cable trapped could damage the unit.

**8** Adjust the height and angle of the display unit.

- Vertical tilt:  $\pm 21^\circ$ , horizontal tilt:  $\pm 12^\circ$

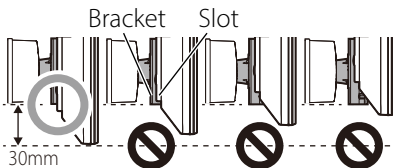


- Height adjustment:  $\pm 15$  mm from center (45 mm)

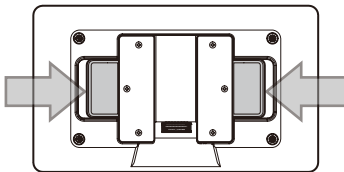


**CAUTION**

- Ensure that the bottom edge of the display unit is at least 30 mm away from the main unit panel for use. Do not use if the distance between the two is less than 30 mm (a position where the bracket is visible from the slot), as the display unit could fall.



- Check whether the sliders on the back of the display unit have returned to their original position. The sliders will not return to their original positions if the gears are misaligned.



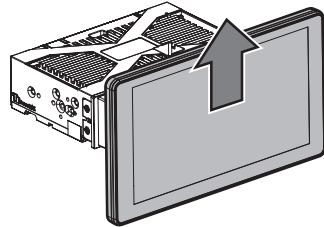
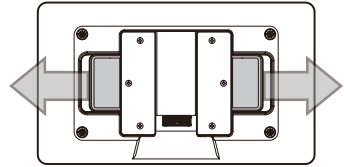
**Removing the display unit**

**CAUTION**

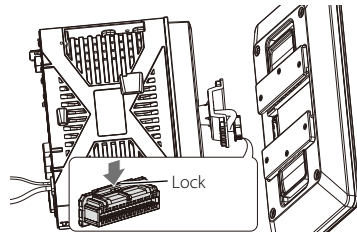
- A cable connects the display unit to the main unit. Slide the display unit carefully and slowly to avoid damaging the cable.

**1 Removing the display unit form the main unit**

While pulling the sliders on the back of the display unit to the side, slide the display unit up to remove it from the main unit.



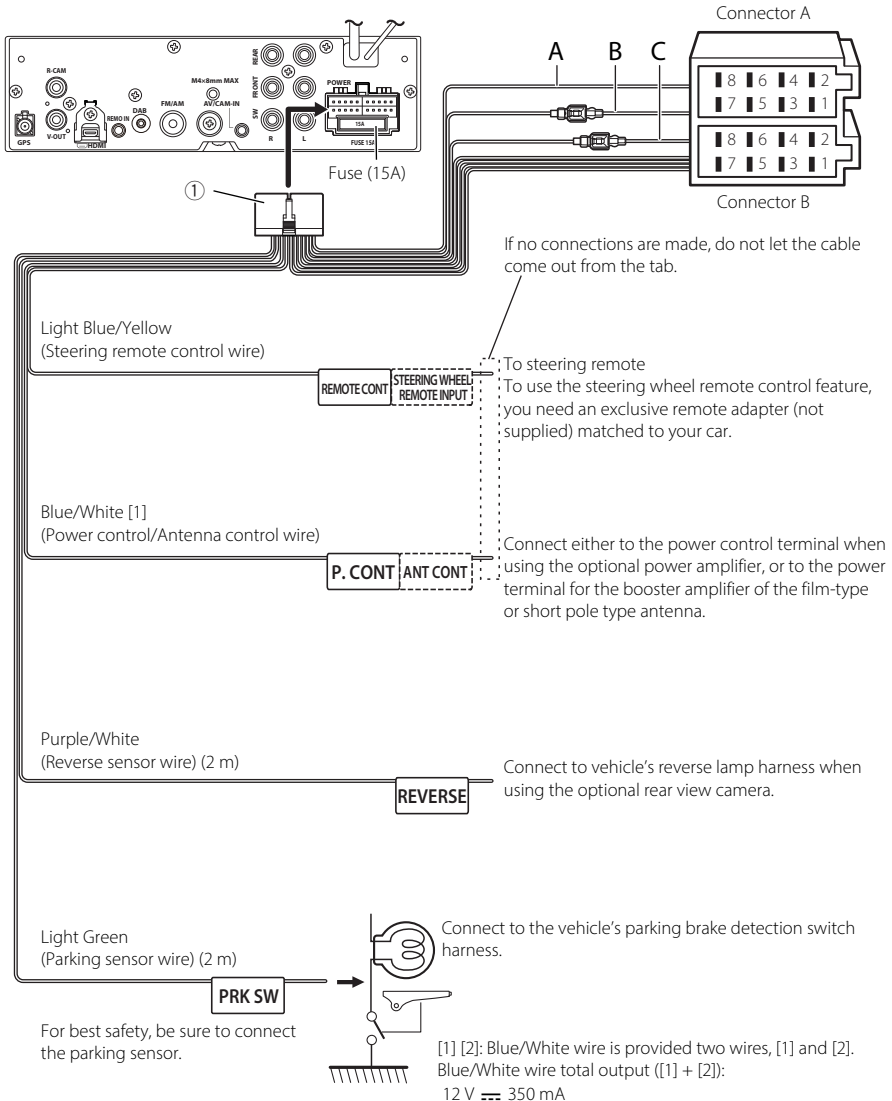
**2 Press and hold the display cable lock and then remove the cable.**



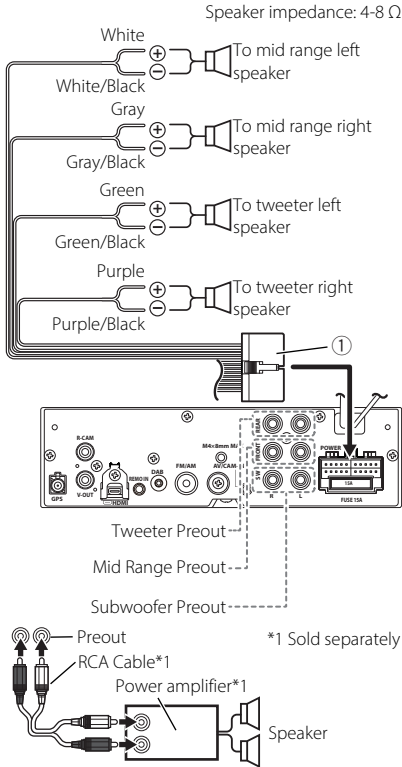
## Connecting the unit

### Connecting wires to terminals

- A: Black (Ground wire)
- B: Yellow (Battery wire)
- C: Red (Ignition wire)



### 3-way speaker system setup



#### NOTE

- When connecting to an external amplifier, connect its ground wire to the car's chassis to avoid damaging the unit.
- For how to switch to the 3-way speaker system, see **3-way speaker system setup (P.50)**.
- For speaker setup and crossover setup, see **Speaker / X'over setup (P.51)**.
- For how to connect speaker wires to terminals other than speaker terminals and Preout terminals, see **Connecting the system and external components (P.68)** and **Connecting wires to terminals (P.66)**.

### Wiring harness connector function guide

#### Wiring harness (Accessory ①)

Pin	Color and function	
A-4	Yellow	Battery
A-5	Blue/White [2]	Power Control
A-6	Orange/White	Dimmer
A-7	Red	Ignition (ACC)
A-8	Black	Earth (Ground) Connection
B-1/B-2	Purple (+) / Purple/Black (-)	Rear Right
B-3/B-4	Gray (+) / Gray/Black (-)	Front Right
B-5/B-6	White (+) / White/Black (-)	Front Left
B-7/B-8	Green (+) / Green/Black (-)	Rear Left

\* Speaker Impedance: 4-8 Ω

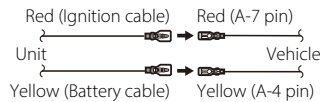
\* [1] [2]: Blue/White wire is provided two wires, [1] and [2]. Blue/White wire total output ([1] + [2]): 12 V  $\approx$  350 mA

#### ⚠ WARNING for Connecting the ISO Connector

The pin arrangement for the ISO connectors depends on the type of vehicle you drive. Make sure to make the proper connections to prevent damage to the unit. The default connection for the wiring harness is described in (1) below. If the ISO connector pins are set as described in (2), make the connection as illustrated. Please be sure to reconnect the cable as shown (2) below to install this unit to the Volkswagen vehicles etc.

##### (1): Default setting

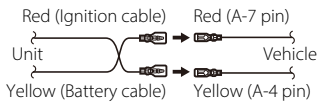
The red (A-7 pin) of the vehicle's ISO connector is linked with the ignition, and the yellow (A-4 pin) is connected to the constant power supply.



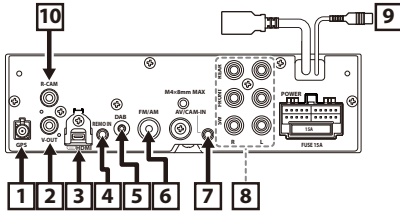
##### (2)

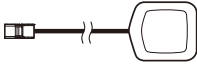
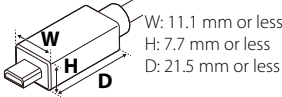
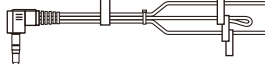
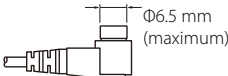
The red (A-7 pin) of the vehicle's ISO connector is connected to the constant power supply, and the yellow (A-4 pin) is linked to the ignition.



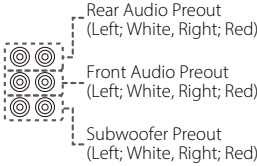
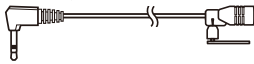
## Connection/Installation



### Connecting the system and external components

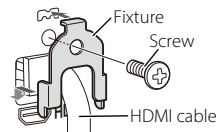


<b>1</b>	<p>Accessory ⑤ : GPS Antenna Use the supplied GPS antenna. Using the GPS antenna other than the supplied one may cause a drop in positioning accuracy.</p> 
<b>2</b>	<p>Visual Output (Yellow) * Images can be output only from the USB (video file) source.</p>
<b>3</b>	<p>HDMI input (Type-D) Connect a KCA-HD200 (optional accessory) to HDMI input terminal.</p> 
<b>4</b>	<p>Accessory ⑦ : Steering remote harness Connect to vehicle's steering remote harness. Contact your KENWOOD dealer for details.</p> 
<b>5</b>	<p>Digital Radio antenna CX-DAB1 (optional accessory) <b>CAUTION</b> Use of a CX-DAB1 (optional accessory) as a Digital Radio antenna is recommended. When using a commercially available Digital Radio antenna, the diameter of the SMB connector must be <math>\Phi 6.5</math> mm or less.</p> 

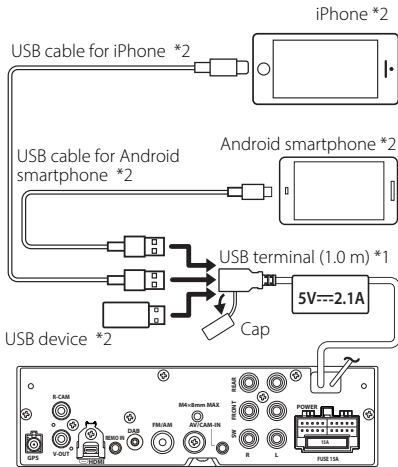
<b>6</b>	<p>FM/AM antenna input</p> 
<b>7</b>	<p>This jack accepts either AV-IN or front view camera input. For more information, see <b>Input Setup (P.48)</b>. 3.5 mm 4 pole mini plug (1; Left audio, 2; Video, 3; Ground, 4; Right audio)</p> 
<b>8</b>	<p>When connecting to an external amplifier, connect its ground wire to the car's chassis to avoid damaging the unit.</p> 
<b>9</b>	<p>Accessory ② : Microphone</p> 
<b>10</b>	<p>Rear view camera input (Yellow)</p>

### Installation/removal of fixing bracket

When you connect the cable to HDMI terminal, remove the fixture. After connecting the cable, put the fixture again.



### Connecting a USB device/ iPhone/Android™

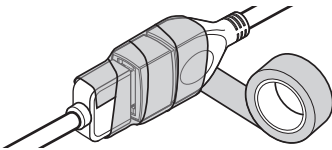


\*1 USB maximum power supply current : DC 5 V  
= 2.1 A

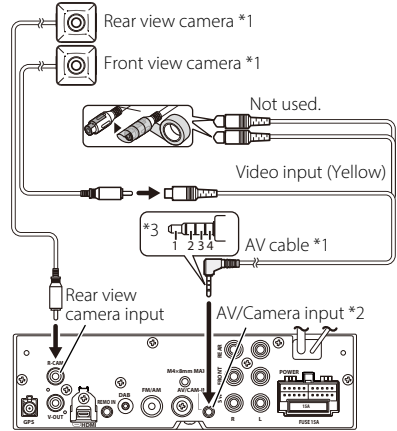
\*2 Sold separately.

### Securing the USB extension cable

Secure the USB extension cable with insulating tape or the like so that its connectors are not disconnected.



### Connecting the camera



\*1 Sold separately.

\*2 This jack accepts either AV-IN or front view camera input. For more information, see **Input Setup (P.48)**.

\*3 3.5 mm 4 pole mini plug (1; Left audio, 2; Video, 3; Ground, 4; Right audio)

# Troubleshooting

## Problems and Solutions

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

### NOTE

- 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 general operations

#### Unit can not power on

Unit fuse blown.

Install new fuse with correct rating.

Car battery fuse blown.

Install new fuse with correct rating.

#### Remote control does not work

Battery depleted.

Change the battery.

Battery installed incorrectly.

Install the battery correctly.

### About audio operations

#### 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 **Connecting the system and external components (P.68)**.

#### No sound

Adjust the volume.

Confirm whether the music and video is supported or not.

#### Cannot select a folder.

The random play function is enabled.

Turn off the random function.

### About reversing operations

#### Abnormal picture

Exit reversing mode and enter again.

Check whether the camera is covered by foreign matters.

Check whether the type of reverse camera is matched or not.

Check the reversing signal cable.

### About Bluetooth operations

#### Connecting fail

The Bluetooth function of the device is not enabled.

Please make sure that the Bluetooth of mobile device is turned on.

The device does not support the profiles required for the system.

Use another device to connect.

#### The audio quality is poor

The external microphone is not set correctly nor properly.

Adjust the gain and position of the external microphone.

# Appendix

## Playable Media and Files

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

### About files

#### Playable Audio files

	Format	Bit rate	Sampling frequency	Bit count
AAC-LC (.m4a)	MPEG-2/MPEG-4 AAC LC HE-AAC(V1,V2)	8 – 320kbps, VBR	16 – 48 kHz	16 bit
MP3 (.mp3)	MPEG-1/MPEG-2 Audio Layer 3	8 – 320kbps, VBR	16 – 48 kHz	16 bit
WMA (.wma)	Windows Media Audio Standard L3 profile (Version 7,8,9)	8 – 320kbps	16 – 48 kHz	16 bit
Linear PCM (WAVE) (.wav)	RIFF waveform Audio Format	–	16 – 192 kHz	16 / 24 bit
FLAC (.flac)	flac	–	16 – 192 kHz	16 / 24 bit
Vorbis (.ogg)	vorbis	VBR	16 – 48 kHz	16 bit

- WMA and AAC files with DRM cannot be played.
- Although the audio files complies with the standards listed above, they may not be played depending on the types or conditions of media or device.

#### Acceptable Video files

	Profile	Max. Picture size	Max. bit rate	Audio format
MPEG-1 (.mpg, .mpeg)	–	352 × 240, 352 × 288	1.5 Mbps	MPEG Audio Layer 2
MPEG-2 (.mpg, .mpeg)	MP@ML	720 × 480, 720 × 576	8 Mbps	MPEG Audio Layer 2
H.264/MPEG-4 AVC (.mp4, .m4v, .avi, .flv)	Baseline Profile, Main Profile	1920 × 1080 (30 fps)	8 Mbps	MP3, AAC
MPEG-4 (.mp4, .avi)	Advanced Simple Profile	1920 × 1080 (30 fps)	8 Mbps	MP3, AAC
WMV (.wmv)	Main Profile	1920 × 1080 (30 fps)	8 Mbps	WMA
MKV (.mkv)	Video format follows H.264/MPEG-4 AVC, MPEG-4, WMV			MP3, AAC, WMA, Vorbis, FLAC

- This unit can only play back files which are smaller than 4 GB.

#### Limitation on structure of file and folder

	USB device
Maximum number of folder layers	8

**Appendix**

	<b>USB device</b>
Maximum number of files (per folder)	999
Maximum number of folders (per folder)	9999
Maximum number of folders (per device)	Unlimited

- You can enter a folder name and file name with 255 or fewer single-byte characters.
- Files in the folder whose folder name begins with a dot (.) cannot be played.

## Specifications

### ■ Monitor section

#### Picture Size

: 9 inches (diagonal)  
 : 198.91 (W) × 111.89 (H) mm  
 : 7.83 (W) × 4.41 (H) inch

#### Drive System

: TFT active matrix system

#### Number of Pixels

: 2,764,800 (1280H × RGB × 720V)

#### Pixel Arrangement

: RGB striped arrangement

#### Back Lighting

: LED

### ■ USB interface section

#### USB Standard

: USB 2.0 High Speed

#### File System

: FAT16, FAT32, exFAT, NTFS

#### Maximum Power Supply Current

: DC 5 V  $\overline{\text{---}}$  2.1 A

#### D/A Converter

: 24 bit

#### Audio Decoder

: MP3 / WMA / AAC / WAV / FLAC

#### Video Decoder

: MPEG-1 / MPEG-2 / MPEG-4 / WMV / H.264 / MKV

#### Frequency Response

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

#### Total Harmonic Distortion

: Typ : 0.05% (1 kHz)

#### S/N Ratio (dB)

: Typ : 78dB

#### Dynamic Range

: Typ : 89dB

### ■ HDMI section

#### HDMI

: Type-D

#### Input Resolution

- 640×480 60 Hz 4:3
- 720×480 60 Hz 4:3
- 720×480 60 Hz 16:9
- 1280×720 60 Hz 16:9

#### Input Audio Type

: 32K/44.1K/48K/88.2K/96K/176.2K/192K Hz  
 : 16/20/24 bit Linear PCM

### ■ Wi-Fi section

#### IEEE Standard

: 802.11 a/b/g/n/ac

#### Frequency Range

: Dual Band (2.4GHz/5GHz)

#### Channels

: Auto(149,153,157,161ch)

#### Transfer rates (MAX)

: 11a: 54 Mbps / 11b: 11 Mbps / 11g: 54 Mbps /  
 11n: 130 Mbps / 11ac: 390 Mbps

#### Output Power

- 2.4 GHz/SISO  
 : 11b:15dBm+3/-2dBm /  
 11g:14dBm+3/-0dBm /  
 11n(20MHz):13dBm+4/-1dBm
- 5 GHz/SISO  
 : 11a:12dBm+4/-2dBm /  
 11n(20MHz):12dBm±4dBm /  
 11n(40MHz):12dBm±4dBm /  
 11ac(20MHz):12dBm±4dBm /  
 11ac(40MHz):12dBm±4dBm /  
 11ac(80MHz):9dBm±3dBm

### ■ Bluetooth section

#### Technology

: Bluetooth Ver5.3

#### Frequency

: 2.402 – 2.480 GHz

#### RF Output Power (E.I.R.P.)

: +4 dBm (MAX), Power Class 2

#### Maximum Communication range

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

## Appendix

### Audio Codec

: SBC/AAC

### Profile (Multi Profile support)

- Support HFP v1.7
- Support SPP v1.2
- Support A2DP 1.4
- Support AVRCP v1.6
- Support PBAP v1.2

### ■ FM tuner section

#### Frequency Range (step)

: 87.5 MHz - 108.0 MHz (50 kHz)

#### Usable Sensitivity (S/N : 30 dB)

: Typ : 8dBf

#### Frequency Response ( $\pm$ 3.0 dB)

: 100Hz - 10kHz

#### S/N Ratio (dB)

: Typ : 75dB (MONO)

#### Stereo Separation

: Typ : 45dB (1kHz)

### ■ AM tuner section

#### Frequency Range (step)

: 531 kHz - 1611 kHz (9 kHz)

#### Usable Sensitivity

: Typ : 29dBu

### ■ Digital Radio section

Frequency Range

BAND III: 174.928 – 239.200 (MHz)

Sensitivity

: Typ : -100dBu

S/N Ratio (dB)

: Typ : 78dB

### ■ Digital Antenna Connector section

Connector type

: SMB

Output Voltage

: 11.8 – 12.8 V DC

Maximum Current

: < 100 mA

### ■ Video section

#### Color System of External Video Input

: NTSC/PAL

#### External video input level (RCA jacks)

: Typ : 1 Vp-p / 75  $\Omega$

#### External video input level (Mini jacks)

: Typ : 1 Vp-p / 75  $\Omega$

#### External audio max input level (Mini jacks)

: 1.1 VRMS / 10 k $\Omega$

#### Video Output Level (RCA jacks)

: Typ : 100 IRE

#### Audio Output level (RCA jacks)

: Typ : 3 V / 10 k $\Omega$

### ■ Audio section

#### Maximum Power (Front & Rear)

: 50 W  $\times$  4

#### Typical Power Output (Front & Rear)

#### 1KHz sine wave (at less than 10% THD)

: 22 W  $\times$  4

#### Output frequency band

: 20 - 20,000Hz

#### Preout Level (V)

: Typ 3 V / 10 k $\Omega$

#### Preout Impedance

:  $\leq$  600  $\Omega$

#### Speaker Impedance

: 4 – 8  $\Omega$

### ■ 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

#### Gain

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

#### 2-way X'Over

- High pass filter
  - Frequency: Through,  
30/40/50/60/70/80/90/100/120/150/180/2  
20/250 Hz
  - Slope: -6/-12/-18/-24 dB/Oct.
  - Gain: -8/-7/-6/-5/-4/-3/-2/-1/0 dB
- 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.
- Gain: -8/-7/-6/-5/-4/-3/-2/-1/0 dB

### 3-way X'Over

- High pass filter
  - Frequency: 250/300/1k/1.6k/2.5k/4k/5k/6.3k/8k/10k/12.5k Hz
  - Slope: -12/-18/-24 dB/Oct.
  - Gain: -8/-7/-6/-5/-4/-3/-2/-1/0 dB
- Band pass filter
  - Frequency: Through, 50/60/70/80/90/100/120/150/180/220/250/300 Hz, 250/300/1k/1.6k/2.5k/4k/5k/6.3k/8k Hz, Through
  - Slope: -12/-18/-24 dB/Oct.
  - Gain: -8/-7/-6/-5/-4/-3/-2/-1/0 dB
- Low pass filter
  - Frequency: 30/40/50/60/70/80/90/100/120/150 Hz, Through
  - Slope: -12/-18/-24 dB/Oct.
  - Gain: -8/-7/-6/-5/-4/-3/-2/-1/0 dB

### Position

- Front / Rear /Subwoofer Delay :0 – 6.1 m (0.01 m Step)
- Gain : -8 – 0 dB

### Subwoofer level

: -50 – +10 dB

### ■ General

#### Operating Voltage

: 12V DC Car Battery

#### Max Operating Current

: 15A

#### Operating Temperature

: -10 ~ +60 °C

#### Dimensions (W x H x D)

Chassis: 178mm x 50mm x 120mm

(7 x 1-15/16 x 4-3/4 inch)

Display: 240mm x 140mm x 31mm

(9-7/16 x 5-1/2 x 1-1/4 inch)

#### Weight

Main unit: 0.94kg (2.1 lb)

Display: 0.66kg (1.5 lb)

### 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 are subject to change without prior notice.

## About this Unit

### Trademarks and licenses

- The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JVCKENWOOD Corporation is under license. Other trademarks and trade names are those of their respective owners.
- Windows Media is a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries. This product is protected by certain intellectual property rights of Microsoft. Use or distribution of such technology outside of this product is prohibited without a license from Microsoft.
- This software is based in part on the work of the independent JPEG Group.
- Use of the Made for Apple badge means that an accessory has been designed to connect specifically to the Apple product(s) identified in the badge, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with an Apple product may affect wireless performance.
- Apple, Apple CarPlay, Apple Music, iPhone, Lightning, and Siri are trademarks of Apple Inc., registered in the U.S. and other countries and regions.
- Use of the Apple CarPlay logo means that a vehicle user interface meets Apple performance standards. Apple is not responsible for the operation of this vehicle or its compliance with safety and regulatory standards. Please note that the use of this product with iPhone, iPod, or iPad may affect wireless performance.
- App Store is a service mark of Apple Inc., registered in the U.S. and other countries.
- IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.
- Google, Android, Android Auto, Google Play and other marks are trademarks of Google LLC.

Wireless use of Android Auto requires a compatible Android 11.0+ phone and compatible active data plan.

Check [g.co/androidauto/requirements](http://g.co/androidauto/requirements) for compatibility.

- Wi-Fi® is a registered trademark of Wi-Fi Alliance®.
- The Wi-Fi CERTIFIED™ Logo is a certification mark of Wi-Fi Alliance®.
- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
- This product includes FontAvenue® fonts licenced by NEC Corporation. FontAvenue is a registered trademark of NEC Corporation.

### FontAvenue

- THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL USE OF A CONSUMER OR OTHER USES IN WHICH IT DOES NOT RECEIVE REMUNERATION TO (j) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (jj) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM)
- THIS PRODUCT IS LICENSED UNDER THE VC-1 PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO ( i ) ENCODE VIDEO IN COMPLIANCE WITH THE VC-1 STANDARD ("VC-1 VIDEO") AND/OR ( ii ) DECODE VC-1 VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE VC-1 VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE. ADDITIONAL INFORMATION MAY BE OBTAINED FROM MPEG LA, L.L.C. SEE [HTTP://WWW.MPEGLA.COM](http://WWW.MPEGLA.COM)
- libFLAC

Copyright (C) 2000-2009 Josh Coalson

Copyright (C) 2011-2013 Xiph.Org Foundation

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the Xiph.org Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

- libvorbis

Copyright (c) 2002-2008 Xiph.org Foundation  
Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

- Neither the name of the Xiph.org Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

- libogg

Copyright (c) 2002, Xiph.org Foundation  
Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

## Appendix

- Neither the name of the Xiph.org Foundation nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE FOUNDATION OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## Safety Information

- Information on Disposal of Old Electrical and Electronic Equipment (applicable for EU countries that have adopted separate waste collection systems)

Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste. Old electrical and electronic equipment should be recycled at a facility capable of handling these items and their waste byproducts. Contact your local authority for details in locating a recycle facility nearest to you. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.





**Declaration of Conformity with regard to the RE Directive 2014/53/EU**

**Declaration of Conformity with regard to the RoHS Directive 2011/65/EU**

**Manufacturer:**

JVCKENWOOD Corporation  
3-12, Moriyacho, Kanagawa-ku, Yokohama-shi,  
Kanagawa 221-0022, JAPAN

**EU Representative:**

JVCKENWOOD Europe B.V.  
Rendementsweg 20 B-9, 3641 SL Mijdrecht, THE  
NETHERLANDS

**English**

Hereby, JVCKENWOOD declares that the radio equipment DMX-F920DS is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

**Français**

Par la présente, JVCKENWOOD déclare que l'équipement radio DMX-F920DS est conforme à la directive 2014/53/UE. L'intégralité de la déclaration de conformité UE est disponible à l'adresse Internet suivante :

**Deutsch**

Hiermit erklärt JVCKENWOOD, dass das Funkgerät DMX-F920DS der Richtlinie 2014/53/EU entspricht. Der volle Text der EU-Konformitätserklärung steht unter der folgenden Internetadresse zur Verfügung:

**Nederlands**

Hierbij verklaart JVCKENWOOD dat de radioapparatuur DMX-F920DS in overeenstemming is met Richtlijn 2014/53/EU. De volledige tekst van de EU-verklaring van overeenstemming is te vinden op het volgende internetadres:

**Italiano**

Con la presente, JVCKENWOOD dichiara che l'apparecchio radio DMX-F920DS è conforme alla Direttiva 2014/53/UE. Il testo integrale della dichiarazione di conformità UE è disponibile al seguente indirizzo internet:

**Español**

Por la presente, JVCKENWOOD declara que el equipo de radio DMX-F920DS cumple la Directiva 2014/53/EU. El texto completo de la declaración de conformidad con la UE está disponible en la siguiente dirección de internet:

**Português**

Deste modo, a JVCKENWOOD declara que o equipamento de rádio DMX-F920DS está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade da UE está disponível no seguinte endereço de internet:

**Polska**

Niniejszym, JVCKENWOOD deklaruje, że sprzęt radiowy DMX-F920DS jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności EU jest dostępny pod adresem:

**Český**

Společnost JVCKENWOOD tímto prohlašuje, že rádiové zařízení DMX-F920DS splňuje podmínky směrnice 2014/53/EU. Plný text EU prohlášení o shodě je dostupný na následující internetové adrese:

**Magyar**

JVCKENWOOD ezennel kijelenti, hogy a DMX-F920DS rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU konformitási nyilatkozat teljes szövege az alábbi weboldalon érhető el:

**Hrvatski**

JVCKENWOOD ovim izjavljuje da je radio oprema DMX-F920DS u skladu s Direktivom 2014/53/EU. Cjeloviti tekst deklaracije Europske unije o usklađenosti dostupan je na sljedećoj internet adresi:

**Svenska**

Härmed försäkrar JVCKENWOOD att radioutrustningen DMX-F920DS är i enlighet med direktiv 2014/53 / EU. Den fullständiga texten av EU-försäkran om överensstämmelse finns på följande Internetadress :

## Appendix

### Suomi

JVCENWOOD julistaa täten, että radiolaite DMX-F920DS on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutus löytyy kokonaisuudessaan seuraavasta internet-osoitteesta:

### Slovensko

S tem JVCENWOOD izjavlja, da je radijska oprema DMX-F920DS v skladu z Direktivo 2014/53/EU. Celotno besedilo direktive EU o skladnosti je dostopno na tem spletnem naslovu:

### Slovensky

Spoločnosť JVCENWOOD týmto vyhlasuje, že rádiové zariadenie DMX-F920DS vyhovuje smernici 2014/53/EÚ. Celý text EÚ vyhlásenia o zhode nájdete na nasledovnej internetovej adrese:

### Dansk

Herved erklærer JVCENWOOD, at radioustyret DMX-F920DS er i overensstemmelse med Direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde ordlyd er tilgængelig på følgende internetadresse:

### Norsk

JVCENWOOD erklærer herved at radioustyret DMX-F920DS er i samsvar med Direktiv 2014/53/EU. Den fullstendige teksten til EU-konformitetserklæringen er tilgjengelig på følgende internettadresse:

### Ελληνικά

Με το παρόν, η JVCENWOOD δηλώνει ότι ο ραδιοεξοπλισμός DMX-F920DS συμμορφώνεται με την Οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης της ΕΕ είναι διαθέσιμο στην ακόλουθη διεύθυνση στο διαδίκτυο:

### Eesti

Käesolevaga JVCENWOOD kinnitab, et DMX-F920DS raadiovarustus on vastavuses direktiiviga 2014/53/EL. Eli vastavusdeklaratsiooni terviktekst on kättesaadav järgmisel internetiaadressil:

### Latviešu

JVCENWOOD ar šo deklarē, ka radio aparatūra DMX-F920DS atbilst direktīvas 2014/53/ES prasībām. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā tīmekļa adresē:

### Lietuviškai

Šiuo JVCENWOOD pažymi, kad radijo įranga DMX-F920DS atitinka 2014/53/EB direktyvos reikalavimus. Visą EB direktyvos atitikties deklaracijos tekstą galite rasti šiuo internetiniu adresu:

### Malti

B'dan, JVCENWOOD jiddikjara li t-tagħmir tar-radju DMX-F920DS huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità huwa disponibbli fl-indirizz intranet li ġej:

### Українська

Таким чином, компанія JVCENWOOD заявляє, що радіообладнання DMX-F920DS відповідає Директиві 2014/53/EU. Повний текст декларації про відповідність ЄС можна знайти в Інтернеті за такою адресою:

### Türkçe

Burada, JVCENWOOD DMX-F920DS radyo ekipmanının 2014/53/AB Direktifine uygun olduğunu bildirir. AB uyumluluk deklarasyonunun tam metni aşağıdaki internet adresinde mevcuttur.

### Limba română

Prin prezenta, JVCENWOOD declară că echipamentul radio DMX-F920DS este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației de conformitate UE este disponibil la urmatoarea adresă de internet:

### Български език

С настоящото JVCENWOOD декларира, че радиооборудването на DMX-F920DS е в съответствие с Директива 2014/53/ЕС. Пълният текст на ЕС декларацията за съответствие е достъпен на следния интернет адрес:

URL : <https://www.kenwood.com/euukdoc/>



**Declaration of Conformity with regard to the  
Radio Equipment Regulations 2017 (S.I.  
2017/1206)**

**Declaration of Conformity with regard to the  
Restriction of the Use of Certain Hazardous  
Substances in Electrical and Electronic  
Equipment Regulations 2012 (S.I.  
2012/3032)**

**Manufacturer:**

JVCKENWOOD Corporation  
3-12, Moriya-cho, Kanagawa-ku, Yokohama-shi,  
Kanagawa, 221-0022, JAPAN

**UK Importer:**

JVCKENWOOD U.K. Limited  
First Floor, Gleneagles, the Belfry, Colonial Way,  
Watford, Hertfordshire WD24 4WH, UNITED  
KINGDOM

Hereby, JVCKENWOOD declares that the radio  
equipment "DMX-F920DS" is in compliance  
with the relevant statutory requirements.

The full text of the declaration of conformity is  
available at the following internet address:

<https://www.kenwood.com/euukdoc/>

---

**KENWOOD**