

## KDC-X895 KDC-BT848U KDC-X595 KDC-448U

### CD-RECEIVER INSTRUCTION MANUAL

Kenwood Corporation

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



**Take the time to read through this instruction manual.**

**Familiarity with installation and operation procedures will help you obtain the best performance from your new CD-receiver.**

#### **For your records**

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

Model KDC-X895/ KDC-BT848U/ KDC-X595/ KDC-448U Serial number \_\_\_\_\_

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## Before use

### Before using this unit for the first time

This unit is initially set on the Demonstration mode. When using this unit for the first time, cancel the Demonstration mode. Refer to [<Exit Demonstration Mode> \(page 4\)](#) of Quick start guide.

### ⚠ WARNING

#### To prevent injury or fire, take the following precautions:

- Stop the car before operating the unit.
- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.

### ⚠ CAUTION

- Adjust the volume so that you can hear sounds outside the car. Driving with the volume too high may cause an accident.
- Wipe off the dirt on the panel with a dry silicon or soft cloth.  
Failure to observe this precaution may result in damage to the monitor or unit."

### Cleaning the connector

Wipe off dirt on the connector of the unit and panel. Use a cotton swab or cloth




### Condensation

When the car is air-conditioned, moisture may collect on the laser lens. This may cause disc read errors. In this case, remove the disc and wait for the moisture to evaporate.

### Notes

- If you experience problems during installation, consult your Kenwood dealer.
- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- Characters that conform to ISO 8859-1 can be displayed.
- The illustrations of the display and the panel appearing in this manual are examples used to explain more clearly how the controls are used. Therefore, what appears on the display in the illustrations may differ from what appears on the display on the actual equipment, and some of the illustrations on the display may be inapplicable.

### About discs used with this unit

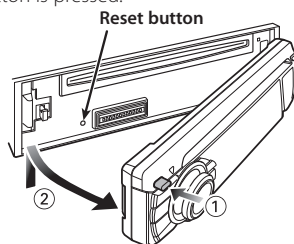
- This unit can only play the CDs with   
- The following discs cannot be used:
  - Discs that are not round
  - Discs with coloring on the recording surface or discs that are dirty
  - Recordable/Rewritable disc that has not been finalized (For the finalization process, refer to your disc writing software, and your disc recorder instruction manual.)
  - 8 cm (3 inch) disc (Attempt to insert using an adapter can cause malfunction.)

### Handling discs

- Do not touch the recording surface of the disc.
- Do not stick tape etc. on the disc, or use a disc with tape stuck on it.
- Do not use any accessories for the disc.
- Do not use any solvents to clean discs. Use a dry silicon or soft cloth.
- Clean from the center of the disc and move outward.
- When removing discs from this unit, pull them out horizontally.
- Remove the rims from the center hole and disc edge before inserting a disc.

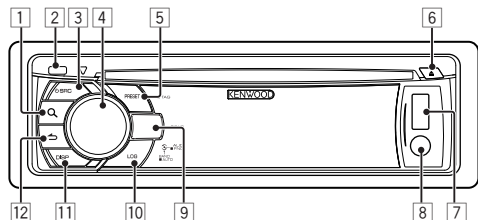
### How to reset your unit

If the unit fails to operate properly, press the Reset button. The unit returns to factory settings when the Reset button is pressed.





## Component names



- 1 [Q] button
- 2 Release button
- 3 [SRC] button
- 4 Control knob
- 5 [PRESET] button
- 6 [▲] button
- 7 USB terminal
- 8 Auxiliary input
- 9 KDC-X895 KDC-BT848U  
[ ] [ ] button  
KDC-X595 KDC-448U  
[iPod] button
- 10 [LOG] button
- 11 [DISP] button
- 12 [↵] button

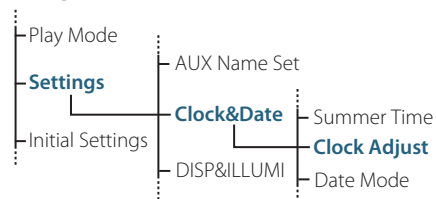
## Function setting

### Function setting operation

Preferences of this unit can be set in the Function setting mode. For detailed setting procedure and items, refer to the explanation for each source function.

- 1 Select the source**  
Press the [SRC] button.  
Switch to the source to display the items to set.
- 2 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 3 Select the Function item**  
Turn the Control knob to display the item to set, and then press the Control knob.  
Press the [↵] button to return to the previous item.

#### Example:



In this Instruction manual, the procedure to select "Clock Adjust" item in the Function setting layer as above is described as the following example:  
"Settings" > "Clock&Date" > "Clock Adjust".

- 4 Determine the setting value**  
Turn the Control knob to display the value to set, and then press the Control knob.  
The previous item is displayed.
- 5 Exit Function setting mode**  
Press the [↵] button for at least 1 second.

# Audio adjustments

## Audio control

You can adjust following Audio Control items;

Display	Audio item	Range
"SubWoofer Level"	Subwoofer level	-15 — +15 (dB)
"Bass Boost"	Bass Boost	Level1/Level2/OFF
"System Q"	Preset Equalizer curve	"Rock"/"Pops"/"Easy"/ "Top40"/"Jazz"/"Game"/ "Natural"/"User"*
<b>"Bass Adjust"</b>		
"Bass Center FRQ"	Bass Center Frequency*	40/50/60/70/80/100/ 120/150 (Hz)
"Bass Level"	Bass level	-8 — +8 (dB)
"Bass Q Factor"	Bass Q Factor*	1.00/1.25/1.50/2.00
"Bass EXT"	Bass Extend*	OFF/ON
<b>"Middle Adjust"</b>		
"Middle Center FRQ"	Middle Center Frequency*	0.5/1.0/1.5/2.0 (kHz)
"Middle Level"	Middle level	-8 — +8 (dB)
"Middle Q Factor"	Middle Q Factor*	1.0/2.0
<b>"Treble Adjust"</b>		
"Treble Center FRQ"	Treble Center Frequency*	10.0/12.5/15.0/17.5 kHz
"Treble Level"	Treble level	-8 — +8 (dB)
"Balance"	Balance	Left 15 — Right 15
"Fader"	Fader	Rear 15 — Front 15
"2Zone Rear Volume"	Rear volume during Dual zone	0 — 35
"SubWoofer"	Subwoofer output	OFF/ON
<b>"Detailed Settings"</b>		
"HPF Front"	Front High Pass Filter	Through/40*/60*/80/ 100/120/150/180/220* (Hz)
"HPF Rear"	Rear High Pass Filter	Through/40*/60*/80/ 100/120/150/180/220* (Hz)
"LPF SubWoofer"	Low Pass Filter	50*/60/80/100*/120/ Through (Hz)
"SubWoofer Phase"	Subwoofer Phase	Reverse (180°)/ Normal (0°)
"2Zone"	Dual Zone System	ON/OFF
"2Zone F/R Select"	Dual Zone output channel	Rear/Front
"Supreme"	Supreme setting	ON/OFF
"Audio Preset"	Audio Preset memory†	Recall/Memory
"Volume Offset ADJ"	Volume offset	-8 — ±0 (dB) (AUX: -8 — +8)

\*Function of KDC-X895/ KDC-X595.

†Refer to <Audio preset Memory> (page 8), <Audio preset recall> (page 8).

\*User\*: The customized Bass, Middle, and Treble levels are effective.



- You can set Bass, Middle, and Treble for each source.  
About Supreme  
Technology to extrapolate and supplement with proprietary algorithm, the high-frequency range that is cut off when encoding at low bit rate (less than 128Kbps, Sampling frequency is 44.1kHz).  
Supplementing is optimized by compression format (AAC, MP3 or WMA) and processed according to bit rate.  
The effect is negligible with music that is encoded at high bit rate, variable bit rate or has minimal high frequency range.
- About Dual Zone System  
Main source and sub source (Auxiliary input) output Front channel and Rear channel separately.  
- When "2Zone" is set to "ON", the main source sound and AUX input sound are output to the front speakers and rear speakers separately.  
- Set up the channel of sub source by "2Zone".  
- Select Main source by [SRC] button.  
- Adjust the volume of Front channel by Control knob.  
- Adjust the volume of Rear channel by "2Zone Rear Volume".  
- The Audio Control has no effect on sub source.  
- When Bluetooth audio source is selected, set "2Zone F/R Select" to "Rear". "2Zone" cannot be turned "ON" when this is set to "Front". While "2Zone" is turned "ON", "2Zone F/R Select" function is disabled.

### 1 Select the source to adjust

Press the [SRC] button.

### 2 Enter Audio control mode

Press the Control knob.

### 3 Select the Audio item to adjust

Turn the Control knob to select the audio item for adjustment and then press the Control knob.

Press the [↵] button to return to the previous item.

### 4 Adjust the Audio item

Turn the Control knob to display the value to set, and then press the Control knob.

The previous item is displayed.

### 5 Exit Audio control mode

Press the [↵] button for at least 1 second.

# Audio adjustments

## Audio preset Memory

Registering the value setup by Audio Control.

### 1 Setup Audio control

Setup the <Audio control> (page 7).

### 2 Enter Audio control mode

Press the Control knob.

### 3 Select Audio preset memory mode

The item can be selected and determined as follows.

“Detailed Settings” > “Audio Preset”

To select the item, turn the Control knob. To determine the item, press the Control knob.


### 4 Select the Audio preset memory

Turn the Control knob to select “Memory”, and then press the Control knob.

### 5 Turn the Control knob to select “YES”, and then press the Control knob.

“Memory Completed” is displayed.

### 6 Exit Audio Control mode

Press the [  ] button for at least 1 second.



- Register 1 pair of Audio Preset Memory. You cannot register by the source.
- When you press the Reset, all the sources will be the setting value which is registered.
- The following items can be registered.  
“Bass Center FRQ”, “Bass Level”, “Bass Q Factor”, “Bass EXT”,  
“Middle Center FRQ”, “Middle Level”, “Middle Q Factor”,  
“Treble Center FRQ”, “Treble Level”, “SubWoofer Level”, “HPF Front”, “HPF Rear”, “LPF SubWoofer”, “SubWoofer Phase”

## Audio preset recall

Recalling the sound setup registered by <Audio preset Memory> (page 8).

### 1 Select the source

Press the [SRC] button.

### 2 Enter Audio control mode

Press the Control knob.

### 3 Select Audio preset memory mode

The item can be selected and determined as follows.

“Detailed Settings” > “Audio Preset”

To select the item, turn the Control knob. To determine the item, press the Control knob.


### 4 Select the Audio preset recall

Turn the Control knob to select “Recall”, and then press the Control knob.

### 5 Turn the Control knob to select “YES”, and then press the Control knob.

“Recall Completed” is displayed.

### 6 Exit Audio Control mode

Press the [  ] button for at least 1 second.



# iPod control operation

For basic operation to playback iPod contents, refer to the Quick Start Guide.

## Music search

Searching for the song you want to play.

### 1 Enter Music search mode

Press the [ Q ] button.

"MUSICSEARCH" is displayed.

### 2 Search for music

Operation type	Operation
Movement between items	Turn the Control knob.
Move to the Alphabet search mode	Press the [ Q ] button for at least 1 second. Refer to <Alphabet search> (page 9).
Selection of item	Press the Control knob.
Return to previous item	Press the [ ⏮ ] button.
Return to Top menu	Push the Control knob towards left for at least 1 second.

### Cancelling the Music search mode

Press the [ ⏮ ] button for at least 1 second.



- If no characters included in a song name can be displayed, the browse item name and digits are displayed.

Items	Display	Items	Display
Playlists	"PLIST****"	Podcasts	"PDC****"
Artists	"ART****"	Genres	"GEN****"
Albums	"ALB****"	Composers	"COM****"
Songs	"PRGM****"		

## Alphabet search

You can select an alphabetic character from the list in the browse item (artist, album, etc.) currently selected.

### 1 Enter Music search mode

Press the [ Q ] button twice.

"MUSICSEARCH" is displayed.

### 2 Select Alphabet search mode

Turn the Control knob to select "Alphabet Search", and then press the Control knob.

### 3 Search for character

Operation type	Operation
Select the characters	Turn the Control knob.
Determine the characters.	Press the Control knob.

Return to the Music search mode.

### Cancelling the Alphabet search mode

Press the [ ⏮ ] button for at least 1 second.



- The time of Alphabet search may become long depending on the number of items (songs) in iPod.
- To search for a character other than A to Z and 1, enter "\*\*".
- If the first character string begins with an article "a", "an", or "the" in the alphabet search mode, it is searched for in defiance of the article.

# iPod control operation

## Related search

Browsing for music of the same artist or genre as the one being played.

- 1 Enter Search select mode**  
Press the [ Q ] button for at least 1 second.
- 2 Select Related search mode**  
Turn the Control knob to select “Related Search”, and then press the Control knob.
- 3 Select desired browsing item**  
Turn the Control knob to select browse item, and then press the Control knob.

Display	Browses music
“Search Artist”	Displays the album of the same artist.
“Search Album”	Displays music in the album in which the one being played is included.
“Search Genre”	Displays the artist of the same genre.
“Search Composer”	Displays the album including music created by the same composer.

### 4 Search for music

Operation type	Operation
Movement between items	Turn the Control knob.
Selection of item	Press the Control knob.
Return to previous item	Press the [ ⏮ ] button.

### Canceling the Related search mode

Press the [ ⏮ ] button for at least 1 second.



- Related search cannot be performed while playing a Podcast.
- When the music being played has no information on browsing items or no music was found, “Not Found” is displayed.

## Direct search

Searching for music by selecting a browse item and an alphabetic character(s).

- 1 Enter Search select mode**  
Press the [ Q ] button for at least 1 second.
- 2 Select Direct search mode**  
Turn the Control knob to select “Direct Search”, and then press the Control knob.
- 3 Select browse item**  
Turn the Control knob to select browse item, and then press the Control knob.

Display	Browses item
“PLAYLISTS”	Playlists
“ARTISTS”	Artists
“ALBUMS”	Albums
“SONGS”	Songs
“PODCASTS”	Podcasts
“GENRES”	Genres
“COMPOSERS”	Composers

- 4 Select the character to be searched for**  
Turn the Control knob to select character, and then press the Control knob.  
You can select up to three characters.

- 5 Search for music**  
Turn the Control knob to select “DONE”, and then press the Control knob.  
A search result list is displayed.

- 6 Select the music**  
Turn the Control knob to select music, and then press the Control knob.

### Canceling the Direct search mode

Press the [ ⏮ ] button for at least 1 second.

## Skip search

The number of songs to be skipped is determined by the ratio of the total number of songs in the list which is selected.

**1 Enter Music search mode**

Press the [ Q ] button.

"MUSICSEARCH" is displayed.

**2 Enter Search select mode**

Press the [ Q ] button.

**3 Select Skip search mode**

Turn the Control knob to select "Skip Search", and then press the Control knob.

**4 Search for music**

Operation type	Operation
Movement between items	Turn the Control knob.
Skip Search	Push the Control knob towards up or down.
Selection of item	Press the Control knob.
Sets the ratio of skip performed	Push the Control knob towards right or left.

***Cancelling the Music search mode***

Press the [ ↵ ] button for at least 1 second.



- The ratio of the Skip Search is set to 0.5% as default. Refer to <Skip search ratio setting> (page 11).
- Keep pushing Control knob for 3 seconds or longer skips songs at 10% regardless of the setting.

## Skip search ratio setting

Sets the ratio of skip performed with <Skip search> (page 11).

**1 Select iPod source**

Press the [SRC] button.

Select the "iPod" display.

**2 Enter Function setting mode**

Press the Control knob for at least 1 second.

**3 Select the Skip search**

The item can be selected and determined as follows.

"Settings">"Skip Search"

To select the item, turn the Control knob. To determine the item, press the Control knob.

**4 Set the Skip search ratio**

Turn the Control knob to select ratio ("0.5%", "1%", "5%", or "10%"), and then press the Control knob.

**5 Exit Function setting mode**

Press the [ ↵ ] button for at least 1 second.

# iPod control operation

## Play mode

You can select a Play Mode, such as Random play and Repeat play.

- 1 Select iPod source**  
Press the [SRC] button.  
Select the “iPod” display.
- 2 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 3 Select the Play mode**  
Turn the Control knob to select “Play Mode”, and then press the Control knob.
- 4 Select the desired Play function**  
Turn the Control knob to select Play function, and then press the Control knob.

Display	Overview
“Play Mode”	
“iPod by Hand”	When set to “ON”, allows you to operate iPod with the control on the iPod. “ON” / “OFF”
“Folder Random”	When set to “ON”, plays the music in the folder randomly. (Music only) “ON” / “OFF”
“All Random”	When set to “ON”, plays all songs in iPod randomly. (Music only) “ON” / “OFF”
“File Repeat”	When set to “ON”, plays the music repeatedly. “ON” / “OFF”

( \_\_ : Factory setting)

- 5 Set the Play function**  
Press the Control knob.  
The previous item is displayed.
- 6 Exit Function setting mode**  
Press the [↵] button for at least 1 second.

## Registering a song in the playlist

You can register your favorite songs to make a playlist. You can register up to ten songs in the playlist.

- 1 Play the song you want to register**  
Push the Control knob towards up, down, right, and left.
- 2 Enter Search select mode**  
Press the [Q] button for at least 1 second.
- 3 Register the song**  
Turn the Control knob to select “Register My Playlist”, and then press the Control knob.  
“## (registration number) Stored” is displayed. You can register up to ten songs.

### In Music search mode

- 4 Enter Music search mode**  
Press the [Q] button.  
“MUSICSEARCH” is displayed.
- 5 Play the song you want to register**  
Refer to <Music search> (page 9).
- 6 Enter Register playlist mode**  
Press the [Q] button.
- 7 Register the song**  
Turn the Control knob to select “Register My Playlist”, and then press the Control knob.  
“## (registration number) Stored” is displayed. You can register up to ten songs.



- When creating a playlist, you can register the songs stored in one iPod. If you attempt to register a song by connecting an unregistered iPod, “My Playlist Delete” is displayed. Selecting “YES” deletes the playlist.
- If you attempt to register the eleventh song, “Memory Full” is displayed and you cannot register the song. To register it, delete an unnecessary song.
- Do not register Podcasts. Songs may be registered or played improperly. For example, unintended songs are registered.

## Playing the playlist

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- 1 Enter Search select mode**  
Press the [ Q ] button for at least 1 second.
- 2 Select Recall playlist mode**  
Turn the Control knob to select "Recall My Playlist", and then press the Control knob.
- 3 Play a song in the playlist**  
Turn the Control knob to select the song you want to play, and then press the Control knob.



- To stop playing the song in the playlist, turn the power off.
- If a song does not end with 1 second or longer silence, its last portion may not be played.
- Songs cannot be played at random during playback of the songs in playlist.

## Deleting a song from the playlist

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- 1 Enter Search select mode**  
Press the [ Q ] button for at least 1 second.
- 2 Select Delete playlist mode**  
Turn the Control knob to select "Delete My Playlist", and then press the Control knob.
- 3 Select how to delete song(s)**  
Turn the Control knob to select "Delete One" or "Delete All", and then press the Control knob.  
Selecting "Delete All" deletes all songs.  
Selecting "Delete All" moves to step 5 and all songs are deleted.
- 4 Select the song to delete**  
Turn the Control knob to select the song, and then press the Control knob.
- 5 Turn the Control knob to select "YES", and then press the Control knob.**  
"Completed" is displayed.

### *In Function setting mode*

- 1 Select iPod source**  
Press the [SRC] button.  
Select the "iPod" display.
- 2 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 3 Select the Playlist delete mode**  
The item can be selected and determined as follows.  
"Settings" > "My Playlist Delete" > "Delete One" or "Delete All"  
To select the item, turn the Control knob. To determine the item, press the Control knob.  
Selecting "Delete All" deletes all songs.  
Selecting "Delete All" moves to step 5 and all songs are deleted.
- 4 Select the song to delete**  
Turn the Control knob to select the song, and then press the Control knob.
- 5 Turn the Control knob to select "YES", and then press the Control knob.**  
"Completed" is displayed.
- 6 Exit Function setting mode**  
Press the [ ⏮ ] button for at least 1 second.

# Music disc/Audio file (CD or USB) Operation

For basic operation to playback Music disc/Audio file contents, refer to the Quick Start Guide.

## Music search



Selecting the music you want to listen to from the device or media being played now.

- 1 Enter Music search mode
- Press the [ Q ] button.
- "MUSICSEARCH" is displayed.

2 Search for music

Audio file

Operation type	Operation
Movement between folders/files	Turn the Control knob.
Selection of folder/file	Press the Control knob.
Return to previous folder	Press the [ ⏮ ] button.
Return to root folder	Push the Control knob towards left for at least 1 second.
Cancel the Music Search mode	Press the [ ⏮ ] button for at least 1 second.

 indicator: Audio file  
 indicator: Folder

CD source

Operation type	Operation
Movement between track	Turn the Control knob.
Selection of track	Press the Control knob.
Return to first track	Push the Control knob towards left for at least 1 second.
Cancel the Music Search mode	Press the [ ⏮ ] button.

Music Editor media

## Skip search

The number of songs to be skipped is determined by the ratio of the total number of songs in the list which is selected.

- 1 Enter Music search mode
- Press the [ Q ] button.
- "MUSICSEARCH" is displayed.
- 2 Enter Search select mode
- Press the [ Q ] button.
- 3 Select Skip search mode
- Turn the Control knob to select "Skip Search", and then press the Control knob.

4 Search for music

Operation type	Operation
Movement between items	Turn the Control knob.
Skip Search	Push the Control knob towards up or down.
Selection of item	Press the Control knob.
Sets the ratio of skip performed	Push the Control knob towards right or left.

## Cancelling the Music search mode

Press the [ ⏮ ] button for at least 1 second.



- The ratio of the Skip Search is set to 0.5% as default. Refer to [<Skip search ratio setting> \(page 11\)](#).
- Keep pushing Control knob for 3 seconds or longer skips songs at 10% regardless of the setting.

Play mode

You can select a Play Mode, such as Random play and Repeat play.

- 1 Select CD/ USB source  
Press the [SRC] button.  
Select the "CD" or "USB" display.
- 2 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 3 Select the Play function mode  
Turn the Control knob to select "Play Mode", and then press the Control knob.
- 4 Select the desired Play function  
Turn the Control knob to select Play function, and then press the Control knob.

Display	Overview
"Play Mode"	
"Track Scan" (CD)/ "File Scan" (Audio file)	When set to "ON", plays the intro of the music in the disc/folder successively. "ON" / "OFF"
"Disc Random" (CD)/ "Folder Random" (Audio file)	When set to "ON", plays the music in the folder randomly. "ON" / "OFF"
"All Random"	When set to "ON", plays all songs in CD/USB randomly. (Audio file only) "ON" / "OFF"
"Track Repeat" (CD)/ "File Repeat" (Audio file)	When set to "ON", plays the music repeatedly. "ON" / "OFF"
"Disc Repeat" (CD changer)/ "Folder Repeat" (Audio file)	When set to "ON", plays the music in the disc/folder repeatedly. "ON" / "OFF"
"MGZN Random"	When set to "ON", plays the music in the disc changer randomly. (Disc changer only) "ON" / "OFF"

( \_\_ : Factory setting)

- 5 Set the Play function  
Press the Control knob.  
The previous item is displayed.
- 6 Exit Function setting mode  
Press the [ ⏮ ] button for at least 1 second.

Function of remote control

Direct music search

Searching the music by entering the track number.

- 1 Enter Direct Music search mode  
Press the [DIRECT] button on the remote control.  
"--" is displayed.
- 2 Enter the music number  
Press the number buttons on the remote control.
- 3 Search the music  
Press the [◀◀] or [▶▶] button on the remote control.

Cancelling Direct music search

Press the [ ⏮ ] button on the remote control.

# Music disc/Audio file Operation

*Function of disc changers*

## Basic operation of Disc changer (Optional)

---

### **Selecting CD changer source**

Press the [SRC] button.

Select the "CD CH" display.

### **Music search**

Push the Control knob towards right or left.

### **Disc search**

Push the Control knob towards up or down.

*Function of disc changers with remote control*

## Direct search in Disc changer (Optional)

---

Searching the disc or music by entering the disc or music number.

### **1 Enter Direct search mode**

Press the [DIRECT] button on the remote control.

"--" is displayed.

### **2 Enter the disc or music number**

Press the number buttons on the remote control.

### **3 Search the disc**

Press the [FM] or [AM] button on the remote control.

### **4 Search the music**

Press the [◀◀] or [▶▶] button on the remote control.

### **Cancelling Direct search**

Press the [↵] button on the remote control.



- Input "0" to select disc 10.





# Tuner Operation

For basic operation to listen to the radio, refer to the Quick Start Guide.

## Auto memory

Memorizes 18 (FM)/ 6 (AM) stations with good reception automatically.

- 1 Select Tuner source**  
Press the [SRC] button.  
Select the "TUNER" display.
- 2 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 3 Select the Auto memory mode**  
The item can be selected and determined as follows.  
"Settings" > "Auto Memory"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 4 Start Auto memory mode**  
Turn the Control knob to select "YES", and then press the Control knob.  
When 18 (FM)/ 6 (AM) stations that can be received are put in the memory, auto memory entry closes.

## Seek mode setting

Selects the tuning mode of the radio.

- 1 Select Tuner source**  
Press the [SRC] button.  
Select the "TUNER" display.
- 2 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 3 Select the Seek mode**  
The item can be selected and determined as follows.  
"Settings" > "Seek Mode"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 4 Set to the desired Seek mode**

Tuning mode	Display	Operation
Auto seek	"Auto1"	Automatic search for a station.
Preset station seek	"Auto2"	Search in order of the stations in the Preset memory.
Manual	"Manual"	Normal manual tuning control.

Turn the Control knob to select Seek mode, and then press the Control knob.
- 5 Exit Function setting mode**  
Press the [↵] button for at least 1 second.

## Tuner setting

Sets the tuner items.

**1 Select Tuner source**

Press the [SRC] button.  
Select the "TUNER" display.

**2 Enter Function setting mode**

Press the Control knob for at least 1 second.

**3 Select the Setting mode**

Turn the Control knob to select "Settings", and then press the Control knob.

**4 Select the desired Tuner setting item**

Turn the Control knob to select Tuner setting item, and then press the Control knob.

Display	Overview
"Settings"	
"MONO"	You can reduce the noise when stereo broadcasts are received as monaural. "ON" / "OFF"
"TI"	Switches to the traffic information automatically when the traffic bulletin starts "ON" / "OFF"

( \_ : Factory setting)

**5 Set the Tuner setting item**

Turn the Control knob to select desired value, and then press the Control knob.  
The previous item is displayed.

**6 Exit Function setting mode**

Press the [↵] button for at least 1 second.

Function of remote control

## Direct access tuning

Entering the frequency and tuning.

**1 Enter Direct access tuning mode**

Press the [DIRECT] button on the remote control.  
"----" is displayed.

**2 Enter the frequency**

Press the number buttons on the remote control.  
Example:

Desired frequency	Press button
92.1 MHz (FM)	[9], [2], [1]
810 kHz (AM)	[8], [1], [0]

**3 Search the frequency**

Press the [◀◀] or [▶▶] button on the remote control.

**Cancelling Direct access tuning**

Press the [↵] button on the remote control.

# Tuner Operation

## PTY (Program Type)

Selecting the Program Type below and searching for a station;

Program Type	Display	Program Type	Display
Speech	"Speech"	Soft	"Soft"
Music	"Music"	Nostalgia	"Nostalga"
News	"News"	Jazz	"Jazz"
Information	"Inform"	Classical	"Classicl"
Sports	"Sports"	R & B	"R & B"
Talk	"Talk"	Soft R & B	"Soft R&B"
Rock	"Rock"	Language	"Language"
Classic Rock	"Cls Rock"	Religious Music	"Rel Musc"
Adult Hits	"Adlt Hit"	Religious Talk	"Rel Talk"
Soft Rock	"Soft Rck"	Personality	"Persnlty"
Top 40	"Top 40"	Public	"Public"
Country	"Country"	College	"College"
Oldies	"Oldies"	Weather	"Weather"

- Speech and Music include the Program type shown below.  
Speech: Items in the white letters.  
Music: Items in the black letters.

- 1 Enter PTY mode**  
Press the [ Q ] button twice.
- 2 Select the Program Type**  
Turn the Control knob.
- 3 Search for the selected Program Type station**  
Push the Control knob towards right or left.
- 4 Exit PTY mode**  
Press the [ ↵ ] button.



- This function cannot be used during a traffic bulletin or AM reception.
- When the selected Program Type is not found, "No PTY" is displayed. Select another Program Type.

## Program Type preset

Putting the Program Type in the Preset button memory and quick recall.

### Presetting the Program Type

- 1 Select the Program Type to preset**  
Refer to <PTY (Program Type)> (page 20).
- 2 Enter Program Type preset mode**  
Press the [PRESET] button.
- 3 Select a number and store it in the memory**  
Turn the Control knob to select memory number ("1" – "6"), and then press the Control knob for at least 2 seconds.

### Cancelling the Preset Memory mode

Press the [ ↵ ] button.

### Recalling the preset Program Type

- 1 Enter PTY mode**  
Press the [ Q ] button twice.
- 2 Enter Preset memory mode**  
Press the [PRESET] button.
- 3 Select the number you want to recall from the memory**  
Turn the Control knob to select recall number ("1" – "6"), and then press the Control knob.



# Log memory

## Log memory recall

This unit automatically memorizes the previously used functions and Function setting items, which can easily be recalled.

**1 Display the Log memory list**  
Press the [LOG] button.

**2 Recall the desired function**  
Turn the Control knob to select function, and then press the Control knob.

Category display	Function category
"FM"	FM broadcast
"AM"	AM broadcast
"iPod"	iPod music
"USB"	USB music
"CD"	CD music
"PLAY"	Play mode item
"INIT"	Initial setting item
"SET"	Setting item
"DISP"	Display setting item
"AUD"	Audio control setting
"BT"	Calling number
"SR"	Sirius channel
"XM"	XM channel

**Cancelling the Log memory recall**  
Press the [↵] button.



- Maximum of 15 recently used functions are logged. When this limit is reached, they are deleted from the oldest.
- Logged functions can be deleted. Refer to [<Deleting a Log memory item>](#) (page 23).
- Functions to be logged can be set by categories. Refer to [<Log memory category setting>](#) (page 23).
- Logged functions can be locked to avoid them being deleted. Refer to [<Log memory item lock>](#) (page 22).
- Stations are logged after 2 minutes of reception. This timing can be changed. Refer to [<Tuner Log memory time setting>](#) (page 24).

## Log memory item lock

Locks Log memory items to avoid them being deleted.

- 1 Display the Log memory list**  
Press the [LOG] button.
- 2 Lock the Log memory item**  
Turn the Control knob to select item, and then press the Control knob for at least 1 second. Locked items are indicated with "🔒".
- 3 Exit Log memory**  
Press the [↵] button.

## Deleting a Log memory item

Deletes Log memory items.

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select the Log delete mode**  
The item can be selected and determined as follows.  
“Settings” > “Log” > “Log Delete”  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the Log memory item to delete**  
Turn the Control knob to select Log memory item, and then press the Control knob.  
Selecting “All” deletes all Log memory. (exclude a locked items.)
- 4 Turn the Control knob to select “YES”, and then press the Control knob.**  
“Completed” is displayed.
- 5 Exit Function setting mode**  
Press the [ ⏪ ] button for at least 1 second.

## Log memory category setting

Sets the function category to be logged.

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select the Log memory setting mode**  
The item can be selected and determined as follows.  
“Settings” > “Log” > “Log Settings”  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Set the category to be logged**

Category display	Setting category
“Tuner Log”	Radio-related
“Data CD Log”	CD-related
“iPod Log”	iPod-related
“USB Log”	USB-related
“Phone Log”	Call-related
“Function Log”	Function setting-related

  
Turn the Control knob to select category, and then press the Control knob.
- 4 Exit Function setting mode**  
Press the [ ⏪ ] button for at least 1 second.

## Log memory

### Tuner Log memory time setting

---

You can set the timing to log the station by the reception time.

#### 1 Enter Function setting mode

Press the Control knob for at least 1 second.

#### 2 Select the Tuner log time set mode

The item can be selected and determined as follows.


"Settings" > "Log" > "Tuner Log Time Set"

To select the item, turn the Control knob. To determine the item, press the Control knob.

#### 3 Set the reception time for the timing to start logging the station

Turn the Control knob to select time ("10SEC", "30SEC", "1MIN", "2MIN", or "5MIN"), and then press the Control knob.

#### 4 Exit Function setting mode

Press the [  ] button for at least 1 second.





# Display settings

## Selecting display type

Shown below are examples of display types.


Display type	Display information
Type A	Displays 3 lines of text.
Type B	Displays 2 line of text.
Type C	Displays the clock.
Type D	Displays the spectrum analyzer.
Type E	Displays off.

- 1

**Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2

**Select the Display type select mode**  
The item can be selected and determined as follows.  
"Settings" > "DISP&ILLUMI" > "Display Select" > "Type Select"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3

**Select the Display type**  
Turn the Control knob to select Display type, and then press the Control knob.
- 4

**Exit Function setting mode**  
Press the [  ] button for at least 1 second.

## Selecting text display

Changes displayed information on each of the following sources:

### In Tuner source

Information	Display
Frequency & Program Service name (FM)	"Frequency/PS"
Song title (FM)*	"Song Title"
Artist name (FM)*	"Artist Name"
Title & Artist name (FM)**	"Title/Artist"
Station name (FM)	"Station Name"
Radio text + (FM)	"Radio Text Plus"
Radio text (FM)	"Radio Text"
Frequency (AM)	"Frequency"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

\*Display type A only

\*\*Display type B only

### In HD Radio (Optional accessory) source

Information	Display
Frequency	"Frequency"
Station name	"Station Name"
Title & Artist name (KTC-HR300 only)	"Title/Artist"
Album & Artist name (KTC-HR300 only)	"Album/Artist"
Title (KTC-HR200 only)	"Title"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

### In CD & External disc source

Information	Display
Disc title	"Disc Title"
Track title	"Track Title"
Play time	"P-Time"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

## In Audio file/ iPod source

Information	Display
Song Title*	"Song Title"
Album name*	"Album Name"
Artist name*	"Artist Name"
Title & Artist name**	"Title/Artist"
Album & Artist name	"Album/Artist"
Folder name	"Folder Name"
File name	"File Name"
Play time	"P-Time"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

\*Display type A only

\*\*Display type B only

## In Standby/ Auxiliary input source

Information	Display
Source name	"Source Name"
Spectrum analyzer & Clock (AUX only)	"Speana/Clock"
Clock (Standby only)	"Clock"
Date	"Date"
Blank	"Blank"

## In SIRIUS (Optional accessory) source

Information	Display
Channel Name	"Channel Name"
Artist Name, Composer name, & Music Title	"Artist/Song"
Category Name	"Category Name"
Channel Number	"Channel Number"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

## In XM (Optional accessory) source

Information	Display
Channel Name	"CHANNEL NAME"
Name & Title	"NAME/TITLE"
Category Name	"CATEGORY"
Channel Number	"CHANNEL NUMBER"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Blank	"Blank"

## In Bluetooth Audio "BT AUDIO EXT" (Optional accessory KCA-BT200, KCA-BT300) source

Information	Display
Source name	"Source Name"
Spectrum analyzer & Clock	"Speana/Clock"
Date	"Date"
Title & Artist name (KCA-BT300 only)	"Title/Artist"
Album & Artist name (KCA-BT300 only)	"Album/Artist"
Blank	"Blank"

## 1 Enter Function setting mode

Press the Control knob for at least 1 second.

## 2 Select Text display selection mode

The item can be selected and determined as follows.

"Settings" > "DISP&ILLUMI" > "Display Select" > "Text Select"

To select the item, turn the Control knob. To determine the item, press the Control knob.

## 3 Select the text display part

Push the Control knob towards up or down.

The selected text display part blinks.

## 4 Select the text

Turn the Control knob.

## 5 Exit Function setting mode

Press the [↵] button for at least 1 second.



- If the selected display item does not have any information, alternative information is displayed.
- Setting is available when the Display type is A or B which allows text display. Refer to <Selecting display type> (page 26).
- Some items cannot be selected depending on the display type and row.
- When selecting "Folder name" while playing with iPod, names will be displayed depending on currently selected browsing items.
- If the iPod Control by Hand Mode is set to on while playing the iPod, "iPod by Hand Mode" is displayed.
- If all characters cannot be displayed while playing with iPod, the file number in the list is displayed.

Information	Display
Music title	"TITLE****"
Folder name	"FLD****"
File name	"FILE****"

# Display settings

## Information display setting

Sets side and graphic parts of the display.

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select the Display select mode**  
The item can be selected and determined as follows.  
"Settings" > "DISP&ILLUMI" > "Display Select"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the desired Information display setting item**  
Turn the Control knob to select Display setting item, and then press the Control knob.

Display	Overview
"Display Select"	
"Side Select"	Sets the side part display for Type A, B, and D. 1 / 2 / 3
"Graphic Select"	Sets the Type C clock display and Type D spectrum analyzer display. 1 / 2
"Status"	Sets the status display (ON/OFF indicator for each function) for Type A and B. "ON" / "OFF"

( \_\_ : Factory setting)

- 4 Set the Display setting item**  
Turn the Control knob to select desired value, and then press the Control knob.  
The previous item is displayed.
- 5 Exit Function setting mode**  
Press the [ ⏪ ] button for at least 1 second.

## Illumination color selection

Selecting the Illumination Color of the panel.

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select Color select mode**  
The item can be selected and determined as follows.  
"Settings" > "DISP&ILLUMI" > "Color Select"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the part where you want to set the Illumination Color**

Display	Part
"Color Select"	
"ALL"	All
"Display"	Display
"Key"	Button
"USB&AUX"	USB terminal and Auxiliary input

Turn the Control knob to select part, and then press the Control knob.

- 4 Select the Illumination Color**  
Turn the Control knob to select color, and then press the Control knob.  
Select the color from "Variable Scan" / "Color1" — "Color24".

### Adjusting RGB values

You can create your original color during the selection from "Color1" — "Color24".  
The color you created can be called when you select "User".

- 1. Press the Control knob for at least 1 second.**  
Enter the detail color adjustment mode.
- 2. Set the color.**



Operation type	Operation
To select the color to adjust. (red, green, or blue)	Push the Control knob towards right or left.
To adjust color. (Range: 0 – 9)	Turn the Control knob.

- 3. Press the Control knob.**  
Exit the detail color adjustment mode.
- 5 Exit Function setting mode**  
Press the [ ⏪ ] button for at least 1 second.

# Display & Illumination setting

Sets the display and illumination.

- 1 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 2 Select Display & Illumination setting mode  
The item can be selected and determined as follows.  
“Settings” > “DISP&ILLUMI”  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the desired Display & Illumination setting item  
Turn the Control knob to select Display & Illumination setting item, and then press the Control knob.

Display	Overview
“DISP&ILLUMI”	
“DISP ILLUMI OFF”	When “Type E” (Display off) is selected in <Selecting display type> (page 26), sets whether to turn off display only or display and key illumination. “DISP&ILLUMI” / “DISP”
“Display Dimmer”	Dims the display part in conjunction with the light switch of the vehicle. “Auto”: Dims the display in conjunction with the Light switch of the vehicle. “Manual1”: Dims the display constantly. “Manual2”: Dims the display darker than Manual1. “OFF”: Does not dim the display.
“Contrast”	Sets the display contrast. “1” – “10” – “30”
“DISP NEGA/POSI”	Switches the panel display between positive or negative. “NEGA1”: Displays the text in the negative. “NEGA2”: When the interior light is off, the text is displayed in the negative; when the interior light is on, the text is displayed in the positive. “POSI1”: Displays the text in the positive. “POSI2”: When the interior light is off, the text is displayed in the positive; when the interior light is on, the text is displayed in the negative.
“Text Scroll”	Sets the method of scroll to view hidden text. “Auto”: Scrolls. “Once”: Scrolls once. “OFF”: Does not scroll.
“BT DVC Status”	You can display the connection status, signal strength, and battery level.  : Battery level of cell-phone.  : Signal strength of cell-phone.

“ILLUMI Dimmer”	Reduces the key Illumination brightness. “Auto”: Dims the illumination in conjunction with the Light switch of the vehicle. “Manual1”: Dims the illumination constantly. “Manual2”: Dims the illumination darker than Manual1. “OFF”: Does not dim the illumination.
“ILLUMI Effect”	Sets whether the key illumination color is changed in conjunction with the key operation. “ON” / “OFF”
“ILLUMI Music SYNC”	Sets whether the key illumination color is changed in conjunction with the sound volume. “ON” / “OFF”

( \_\_ : Factory setting)

- 4 Set the Display & Illumination setting items  
Turn the Control knob to select desired value, and then press the Control knob.  
The previous item is displayed.
- 5 Exit Function setting mode  
Press the [↵] button for at least 1 second.

# General operation

## Adjusting the Clock

---

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select the Clock Adjust mode**  
The item can be selected and determined as follows.  
"Settings" > "Clock&Date" > "Clock Adjust"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Set hour**  
Turn the Control knob to adjust the hour, and then press the Control knob.
- 4 Set minute**  
Turn the Control knob to adjust the minute, and then press the Control knob.
- 5 Exit Function setting mode**  
Press the [ ↵ ] button for at least 1 second.



- For adjustment during summer time, refer to "Summer Time" of <Clock & Date display type setting> (page 31).

## Adjusting the Date

---

- 1 Enter Function setting mode**  
Press the Control knob for at least 1 second.
- 2 Select the Date Adjust mode**  
The item can be selected and determined as follows.  
"Settings" > "Clock&Date" > "Date Adjust"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Set year**  
Turn the Control knob to adjust the year, and then press the Control knob.
- 4 Set month**  
Turn the Control knob to adjust the month, and then press the Control knob.
- 5 Set day**  
Turn the Control knob to adjust the day, and then press the Control knob.
- 6 Exit Function setting mode**  
Press the [ ↵ ] button for at least 1 second.

Dual clock display

Sets time for two different cities.

- 1 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 2 Select the City Select mode  
The item can be selected and determined as follows.  
"Settings" > "Clock&Date" > "City Select"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the clock display part  
Push the Control knob towards up or down.
- 4 Set cities for Home/ Sub  
Turn the Control knob.
- 5 Determine cities for Home/ Sub  
Press the Control knob.
- 6 Exit Function setting mode  
Press the [↵] button for at least 1 second.



- For adjustment of Home time, refer to <Adjusting the Clock> (page 30).
- Time of Sub City is automatically derived from Home time. When summer time systems are different between Home and Sub cities, adjustment can be done by referring to "Sub Clock Adjust" of <Clock & Date display type setting> (page 31).

Clock & Date display type setting

Sets the display type of the clock and calendar.

- 1 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 2 Select the Clock & Date settin mode  
The item can be selected and determined as follows.  
"Settings" > "Clock&Date"  
To select the item, turn the Control knob. To determine the item, press the Control knob.
- 3 Select the desired Clock & Date setting item  
Turn the Control knob to select Clock & Date display setting item, and then press the Control knob.

Display	Overview
"Clock&Date"	
"Time Synchronized"	Synchronizing the Radio data system station time data and this unit's clock. "ON" / "OFF"
"Summer Time"	Advances the clock one hour when set to ON. "ON" / "OFF"
"Sub Clock Adjust"	Adjusts the time difference caused by summer time. "-1h" / "0h" / "+1h"
"Date Mode"	Sets the date display mode. 7 types

( \_\_ : Factory setting)

- 4 Set the Clock & Date setting items  
Turn the Control knob to select desired value, and then press the Control knob.  
The previous item is displayed.
- 5 Exit Function setting mode  
Press the [↵] button for at least 1 second.

## General operation

### Auxiliary input display setting

---

Sets the display when switched to AUX source.

#### 1 Select the AUX source

Press the [SRC] button.

Select the "AUX" display.

#### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

#### 3 Select the Name set mode

The item can be selected and determined as follows.

"Settings" > "AUX Name Set"

To select the item, turn the Control knob. To determine the item, press the Control knob.

#### 4 Sets the display of the AUX source

Turn the Control knob to select Auxiliary input display, and then press the Control knob.

Select "AUX", "DVD", "PORTABLE", "GAME", "VIDEO", or "TV".

#### 5 Exit Function setting mode

Press the [↵] button for at least 1 second.

*Function of KDC-X595, KDC-448U*

### Muting the audio upon reception of phone call

---

The audio system automatically mutes when a call comes in.

#### **When a call comes in**

"CALL" is displayed.

The audio system pauses.

#### **Listening to the audio during a call**

Press the [SRC] button.

The "CALL" display disappears and the audio system comes back ON.

#### **When the call ends**

Hang up the phone.

The "CALL" display disappears and the audio system comes back ON.



- To use the TEL Mute feature, you need to hook up the MUTE wire to your telephone using a commercial telephone accessory. Refer to [<Connecting wires to terminals>](#) (page 12) of Quick start guide.



Initial setting

Configures initial settings of this unit.

1 Select Standby

Press the [SRC] button.

Select the "STANDBY" display.

2 Enter Function setting mode

Press the Control knob for at least 1 second.

3 Select the Initial setting mode

Turn the Control knob to select "Initial Settings", and then press the Control knob.

4 Select the desired Initial setting item

Turn the Control knob to select Initial setting item, and then press the Control knob.

Display	Overview
"Initial Settings"	
"Source Select"	Select "2" to change the source selection method. Press the [SRC] button, turn the Control knob to select the source, and then press the Control knob to determine it. 1 / 2
"Key Beep"	Setting the operation check sound (beep sound) ON/OFF. "ON" / "OFF"
"Function Language"	Changes the display language of items in Function setting. "English" / "Français" / "Español"
"Built-in AUX"	Sets whether to display AUX during source selection. "ON" / "OFF"
"CD Read"	Sets the method for reading CD. When unable to play special format CD, set this function to "2" to force playing. Note that some music CDs may be unplayable even when set to "2". In addition, audio files cannot be played when set to "2". Normally, keep this set to "1". 1: Automatically distinguishes between audio file disc and music CD when playing disc. 2: Forces playing as music CD.
"Built-in AMP"	Selecting "OFF" turns off the built-in amplifier. Turning off the built-in amplifier improves the quality of the sound from Preout. "ON" / "OFF"
"Speaker Select"	Fine-tuning so that the System Q value is optimal when setting the speaker type as follows; "OFF": OFF "5/4inch": For 5 & 4 in. speaker "6x9/6inch": For 6 & 6x9 in. speaker "O.E.M.": For the OEM speaker

"F/W Update ###"	Upgrades the firmware. Selecting "YES" and then pressing Control knob starts upgrading the firmware. For how to update the firmware, access our web site. <a href="http://www.kenwood.com/cs/ce/">http://www.kenwood.com/cs/ce/</a>
------------------	--

( \_ : Factory setting)

5 Set the Initial setting item

Turn the Control knob to select desired value, and then press the Control knob.

The previous item is displayed.

6 Exit Function setting mode

Press the [↵] button for at least 1 second.

## General operation

### Demonstration mode Setting

---

Turning the demonstration mode ON/OFF.

**1 Enter Function setting mode**

Press the Control knob for at least 1 second.

**2 Select the Demonstration mode**

Turn the Control knob to select "DEMO Mode", and then press the Control knob.

**3 Set the Demonstration mode**

Turn the Control knob to select desired value ("ON" or "OFF"), and then press the Control knob.

Exit Function setting mode.



# Operation of hands-free phoning

## Before use

### KDC-X895/ KDC-BT848U

- If your cell-phone is not yet registered, register (pair) it by referring to <Registering cell-phone> (page 8) in the Quick Start Guide or <Registering cell-phone> (page 36) in this document.
- To register a new cell-phone, you can also refer to <Registering cell-phone> (page 36).

### KDC-X595/ KDC-448U

- If your cell-phone is not yet registered, register (pair) it by referring to <Registering cell-phone> (page 8) in the Quick Start Guide or <Registering Bluetooth device> (page 46) in this document.



- For details on the Bluetooth cell-phone with the hands-free function, see <About the Cell-phone> (page 65).

## Function of KDC-X895, KDC-BT848U

## Registering cell-phone

### 1 Enter Bluetooth mode

Press the [  ] button for at least 1 second.

If your cell-phone is not yet registered, the search for a cell-phone starts with “Searching” displayed.

### Paring with new cell-phone

Turn the Control knob to select “Device Search”, and then press the Control knob.

The search for a cell-phone starts with “Searching” displayed.

### 2 Select the used cell-phone

Turn the Control knob to select cell-phone name, and then press the Control knob.

### 3 Input the PIN code

Operation type	Operation
Select the numbers.	Turn the Control knob.
Move to the next digit.	Push the Control knob towards right.
Delete the last digit.	Push the Control knob towards left.
Transmit the PIN code.	Press the Control knob.

Pairing completes with “HF Connect” displayed.



- When any error code is displayed while the paring is in progress, refer to <Troubleshooting guide> (page 66).

## Receiving a call

### Answering a phone call

KDC-X895 KDC-BT848U

Press the [  ] button.

KDC-X595 KDC-448U

Press the Control knob.



- The following operations disconnect the line:
  - Inserting a CD.
  - Connecting a USB device.
- The name of the calling party is displayed if it has already been registered in the Phone Book.

### Rejecting an incoming call

KDC-X895 KDC-BT848U

Press the [  ] button.

KDC-X595 KDC-448U

Press the [SRC] button.

## Calling a number in the Phone book

### 1 Enter Bluetooth mode

KDC-X895 KDC-BT848U

Press the [  ] button.

KDC-X595 KDC-448U

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

### 2 Select the Name search mode

Turn the Control knob to select "Phone Book", and then press the Control knob.

### 3 Search for Phone book

Operation type	Operation
Select the Phone number.	Turn the Control knob.
Select the name.	Push the Control knob towards right or left.
Select the initial.	Push the Control knob towards up or down.
Determine the Phone number.	Press the Control knob.

### 4 Make a call

KDC-X895 KDC-BT848U

Press the [  ] button.

KDC-X595 KDC-448U

Press the Control knob.



- Pressing [DISP] button each time switches between name and telephone number.
- During search, a non-accent character such as "u" is searched for instead of an accent character such as "ü".

## Operation of hands-free phoning

### Dialing a number

---

#### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

#### 2 Select the Number dial mode

Turn the Control knob to select "Number Dial", and then press the Control knob.

#### 3 Enter a phone number

Turn the Control knob to select number, and then Push the Control knob towards right.

#### 4 Make a call

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the Control knob.

**To erase the entered phone number digit by digit:**

Push the Control knob towards left.



- You can input a maximum of 32 (KCA-BT300/BT200)/ 25 (KDC-X895/ KDC-BT848U) digits.

### Calling a number in the call log

---

#### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

#### 2 Select the call log mode

Turn the Control knob to select "Incoming Calls", "Outgoing Calls", or "Missed Calls", and then press the Control knob.

"Incoming Calls": Incoming calls

"Outgoing Calls": Outgoing calls

"Missed Calls": Missed calls

#### 3 Select a name or phone number

Turn the Control knob.

#### 4 Make a call

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the Control knob.



- Pressing [DISP] button each time switches between name and telephone number.
- The outgoing call list, the incoming call list, and the missed call list, are the lists of calls originated from and received at this unit. They are not the ones stored in the cell-phone memory.

## Speed dialing (Preset dial)

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

### 2 Select the Preset dial mode

Turn the Control knob to select "Preset Call", and then press the Control knob.

### 3 Select the number you want to recall from the memory

Turn the Control knob to select recall number ("P1" – "P6"), and then press the Control knob.

### 4 Make a call

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the Control knob.



- You need to register the preset dial number. Refer to [<Registering to the Preset dial number list> \(page 39\)](#).

## Registering to the Preset dial number list

### 1 Enter the phone number you wish to register

Enter the phone number with reference to the following:

Dialing a number/ Calling a number in the call log/

Calling a number in the Phone Book

### 2 Enter Preset memory mode

Press the [PRESET] button.

### 3 Select a number and store it in the memory

Turn the Control knob to select memory number ("P1" – "P6"), and then press the Control knob for at least 2 seconds.

### Canceling the Preset memory mode

Press the [  ] button.

## Operation of hands-free phoning

### During a call

#### **Disconnecting a Call**

Press the [SRC] button.

#### **Switching to the Private mode**

Push the Control knob towards right or left.

Switches between Private talk ("PRIVATE") and Hands-free talk each time this button is pressed.



- Depending on the type of your cell-phone, switching to the private talk mode may select the source that was used before commencing the hands-free connection. If this happens, the source cannot be switched back to the hands-free talk mode by operating this unit. Operate your cell-phone to return to the hands-free talk mode.

#### **Adjusting the voice volume during a call**

Turn the Control knob.

### Call waiting

#### **Answering another incoming call with the current call suspended**

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

- 1) Press the Control knob.
- 2) Turn the Control knob to select "Answer", and then press the Control knob.

#### **Answering another Incoming call after terminating the current call**

Press the [SRC] button.

#### **Continuing the Current Call**

- 1) Press the Control knob.
- 2) Turn the Control knob to select "Reject", and then press the Control knob.

#### **Answering the waiting call after terminating the current call**

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [SRC] button.

#### **Switching between the current call and waiting call**

Press the Control knob.

Each pressing of this knob switches the calling party.



## Clearing the Disconnection message

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"HF Disconnect" disappears.

## Making a voice dialing call

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

### 2 Enter voice recognize mode

Turn the Control knob to select "Voice Recognize", and then press the Control knob.

### 3 Have the unit recognize your spoken name

Press the Control knob. If you hear a beep, speak a registered name within 2 seconds.

### 4 Have the unit recognize the spoken category

When you hear a beep, speak the category within 2 seconds.

The recognized phone number (name) is displayed.  
When you want to change the displayed phone number (name), press the [DISP] button.

### 5 Make a call

Press the Control knob.








- If your voice cannot be recognized, a message is displayed. Refer to [<Troubleshooting guide> \(page 66\)](#). Pressing the Control knob allows you to retry voice input.
- Both the name and category requires registration of a voice tag. Refer to [<Setting a voice command for category> \(page 51\)](#).

# Operation of hands-free phoning

## Displays of phone number type (category)

The category items in the Phone Book are displayed as follows:

Display	Information
"General" / 	General
"Home" / 	Home
"Office" / 	Office
"Mobile" / 	Mobile
"Other" / 	Other



## Bluetooth audio operation

### Before Use

---

- You need to register your Bluetooth audio player before using it with this unit. For more details, see [<Registering Bluetooth device> \(page 46\)](#).
- You need to select the Bluetooth audio player you wish to connect. Refer to [<Selecting the Bluetooth device you wish to connect> \(page 48\)](#).

### Basic operation

---

#### **Selecting Bluetooth audio source**

Press the [SRC] button.

Select the "BT AUDIO EXT" display.

#### **Pause and play**

Press the [↵] button.

#### **Music search**

Push the Control knob towards right or left.



- All or some of the operations above cannot be performed if the Bluetooth audio player is not ready for remote control.
- Switching between Bluetooth audio sources does not start or stop playback automatically. Perform the operation for starting or stopping playback.
- Some audio players cannot be controlled remotely or reconnected after Bluetooth disconnection. Operate the main unit of the audio player to connect Bluetooth.
- When "2Zone" is set to "ON" and "2Zone F/R Select" is set to "Front" of [<Audio control> \(page 7\)](#), Bluetooth Audio source cannot be selected.



# Bluetooth setup

## Registering Bluetooth device

To make your Bluetooth device (cell-phone) usable with this unit, you need to register it (pairing). You can register up to five Bluetooth devices to this unit.

### When registering from Bluetooth devices

- 1 Turn on the this unit.
- 2 Start registering a unit by operating the Bluetooth device  
By operating the Bluetooth device, register the hands-free unit (pairing). Select "KENWOOD BT CD/R-3P1", "KCA-BT300", or "KCA-BT200" from the list of connected units.

- 3 Enter a PIN code  
Input the PIN code registered as mentioned in <Registering PIN Code> (page 47).  
Check that registration is complete on the Bluetooth device.

- 4 By operating the Bluetooth device, start hands-free connection.

### When registering from this unit

- 1 Enter Bluetooth mode  
KDC-X895 KDC-BT848U  
Press the [ ] button.  
KDC-X595 KDC-448U  
Press the [LOG] button for at least 1 second.  
"BT MODE" is displayed.
- 2 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 3 Select Bluetooth device registration mode  
The item can be selected and determined as follows.  
"Settings" > "Pairing" > "Device Registration"  
To select the item, turn the Control knob. To determine the item, press the Control knob.  
Search for the Bluetooth device.  
When search is completed, "Finished" is displayed.

- 4 Select the desired Bluetooth device  
Turn the Control knob to select Bluetooth device, and then press the Control knob.  
KDC-X895 KDC-BT848U  
Input the PIN code (steps 5).  
KDC-X595 KDC-448U  
When "Paring Success" is displayed, PIN code input (steps 5) is not required.  
When "Pin Code NG" is displayed, press the Control knob. Then enter the PIN code (steps 5).

## 5 Input the PIN code

Operation type	Operation
Select the numbers.	Turn the Control knob.
Move to the next digit.	Push the Control knob towards right.
Delete the last digit.	Push the Control knob towards left.
Transmit the PIN code.	Press the Control knob.

If "Pairing Success" is displayed, registration is complete.

- 6 Return to the device list  
Press the Control knob.
- 7 Exit Bluetooth mode  
Press the [SRC] button.



- This unit allows up to eight digits to be input for a PIN code. If a PIN code cannot be input from this unit, it can be input from the Bluetooth device.
- If there are 5 Bluetooth devices registered, you cannot register a new Bluetooth device.
- If the error message appears even though the PIN code is correct, try <Registering Special bluetooth device> (page 47).

## Registering Special bluetooth device

Allow registration of a special device that cannot be registered normally (pairing).

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.  
"BT MODE" is displayed.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select Special device registration mode

The item can be selected and determined as follows.

"Settings" > "Pairing" > "SPCL Device Select"

To select the item, turn the Control knob. To determine the item, press the Control knob.

### 4 Select a desired device name

Turn the Control knob to select device name, and then press the Control knob.

If "Completed" is displayed, registration is completed.

### 5 Go through the procedure of <Registering Bluetooth device> (page 46) and complete the registration (pairing).

#### Cancelling Bluetooth mode

Press the [SRC] button.



- If the device name is not in the list, select "Other Phones".

## Registering PIN Code

By operating the Bluetooth device, specify the PIN code necessary for registering this unit.

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.  
"BT MODE" is displayed.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select PIN code edit mode

The item can be selected and determined as follows.

"Settings" > "Detailed Settings" >

"PIN Code Edit"

To select the item, turn the Control knob. To determine the item, press the Control knob.

### 4 Input the PIN code

Operation type	Operation
Select the numbers.	Turn the Control knob.
Move to the next digit.	Push the Control knob towards right.
Delete the last digit.	Push the Control knob towards left.
Transmit the PIN code.	Press the Control knob.

If "Completed" is displayed, registration is complete.

### 5 Exit Bluetooth mode

Press the [SRC] button.



- By default, "0000" is specified.
- A PIN code can be specified with up to eight digits.

## Bluetooth setup

### Downloading the Phone book

Download the phone book data from the cell-phone to this unit so that you can use the Phone Book of this unit.

#### Downloading automatically

If the cell-phone supports a phone book synchronization function, the phone book is downloaded automatically after Bluetooth connection.



- Setting on the cell-phone may be required.
- If no phone book data is found in the unit even after the "Completed" is displayed, your cell-phone may not support automatic download of phone book data. In this case, try downloading manually.

#### Downloading from the cell-phone manually

**1 Operate the cell-phone to end the hands-free connection.**

**2 Operate the cell-phone to send the phone book data to this unit**

By operating the cell-phone, download the phone book data to this unit.

- During downloading:  
"Downloading" is displayed.
- After completion of downloading:  
"Completed" is displayed.

**3 Operate the cell-phone to start the hands-free connection.**

#### Clearing the downloading completion message

Press any button.



- Up to 1000 phone numbers can be registered for each registered cell-phone.
- Up to 32 digits can be registered for each phone number along with up to 50\* characters representing a name.  
(\* 50: Number of alphabetic alphabetical characters. Fewer characters can be input depending on the type of characters.)
- To cancel downloading of the phone book data, operate the cell-phone.

### Selecting the Bluetooth device you wish to connect

When two or more Bluetooth devices have already been registered, you need to select the Bluetooth device you wish to use.

#### 1 Enter Bluetooth mode

**KDC-X895 KDC-BT848U**

Press the [  ] button.

**KDC-X595 KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

#### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

#### 3 Select Bluetooth device selection mode

The item can be selected and determined as follows.

"Settings" > "Pairing" > "Phone Selection" (to select the cell-phone) or "Audio Selection" (to select the audio player)

To select the item, turn the Control knob. To determine the item, press the Control knob.

"(name)" is displayed.

#### 4 Select a desired Bluetooth device

Turn the Control knob to select Bluetooth device name, and then press the Control knob.

'\*(name)' or '-(name)' is displayed.

"\*": The selected Bluetooth device is busy.

"-": The selected Bluetooth device is on standby.

" " (blank): The Bluetooth device is deselected.

#### 5 Exit Bluetooth mode

Press the [SRC] button.



- If a cell-phone is already selected, deselect it, and then select a different one.
- If you cannot select a device using the audio player, connect the device with the audio player.



## Deleting a registered Bluetooth device

You can delete a registered Bluetooth device.

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select Bluetooth device deletion mode

The item can be selected and determined as follows.

"Settings" > "Pairing" > "Device Delete"

To select the item, turn the Control knob. To determine the item, press the Control knob.

Device name is displayed.

### 4 Delete the selected Bluetooth device

Turn the Control knob to select device name, and then press the Control knob.

### 5 Turn the Control knob to select "YES", and then press the Control knob.

"Completed" is displayed.

### 6 Exit Bluetooth mode

Press the [SRC] button.



- When a registered cell-phone is deleted, its Phone Book, log, SMS, and voice tag are also deleted.

## Displaying the firmware version

Display the version of the firmware of this unit.

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select Bluetooth firmware update mode

The item can be selected and determined as follows.

"Settings" > "Detailed Settings" >

"BT F/W Update"

To select the item, turn the Control knob. To determine the item, press the Control knob.

The firmware version appears.

### 4 Exit Bluetooth mode

Press the [SRC] button.



- For how to update the firmware, access our web site.  
[www.kenwood.com/bt/information/](http://www.kenwood.com/bt/information/)

# Bluetooth setup

## Adding a voice dialing command

Add a voice tag to the phonebook for voice dialing. You can register up to 35 voice tags.

### 1 Enter Bluetooth mode

**KDC-X895** **KDC-BT848U**

Press the [  ] button.

**KDC-X595** **KDC-448U**

Press the [LOG] button for at least 1 second.  
"BT MODE" is displayed.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select Phonebook name edit mode

The item can be selected and determined as follows.

"Settings" > "Voice Tag" > "PB Name Edit"

To select the item, turn the Control knob. To determine the item, press the Control knob.

### 4 Search for the name to register

Turn the Control knob to select name, and then press the Control knob.

If a voice tag has already been registered for a name, "\*" is displayed before the name.

### 5 Select a mode

Turn the Control knob.

Display	Operation
"Register"	Register a voice tag.
"Check"*	Play a voice tag.
"Delete"*	Delete a voice tag.

\*Displayed only when a name for which a voice tag has been registered is selected.

### Selecting "Register" (Regist)

#### 6 Register a voice tag (first)

Press the Control knob. When you hear a beep, speak the voice tag within 2 seconds.

#### 7 Confirm the voice tag (second)

Press the Control knob. When you hear a beep, speak the same voice tag again within 2 seconds.

"Completed" is displayed.

### 8 Exit Function setting mode

Press the [  ] button for at least 1 second.

Return to step 2. You can register another voice tag continuously.



- If your voice cannot be recognized, a message is displayed.  
(Refer to <Troubleshooting guide> (page 66))

Pressing the Control knob allows you to retry voice input.

### Selecting "Check" (Play)

#### 6 Press the Control knob.

Play the registered voice and return to step 2.

### Selecting "Delete" (Delete)

#### 6 Delete a voice tag

Press the Control knob.

#### 7 Turn the Control knob to select "YES", and then press the Control knob.

### Exit Bluetooth mode

Press the [SRC] button.

Setting a voice command for category

Add a voice tag to the phone number category (type) for voice calling.

1 Enter Bluetooth mode

KDC-X895 KDC-BT848U

Press the [ ] button.

KDC-X595 KDC-448U

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

2 Enter Function setting mode

Press the Control knob for at least 1 second.

3 Select Phonebook type edit mode

The item can be selected and determined as follows.

"Settings" > "Voice Tag" > "PN Type Edit"

To select the item, turn the Control knob. To determine the item, press the Control knob.

4 Select the category (type) you wish to set

Turn the Control knob to select category name, and then press the Control knob.

"General"/"Home"/"Office"/"Mobile"/"Other"

5 Select a mode

Turn the Control knob.

Display	Operation
"Register"	Register a voice tag.
"Check"*	Play a voice tag.
"Delete"*	Delete a voice tag.

\*KCA-BT300/BT200 only. Displayed only when a name for which a voice tag has been registered is selected.

6 Register the category (type) by performing steps 6 to 7 in <Adding a voice dialing command> (page 50).

7 Exit Bluetooth mode

Press the [SRC] button.



- Set the voice tag for all the 5 categories. If the voice tag is not registered for all the categories, the Phonebook may not be recalled by voice command.

Bluetooth setup

Bluetooth detail setting

Configures initial settings of this unit.

1 Enter Bluetooth mode

KDC-X895 KDC-BT848U

Press the [  ] button.

KDC-X595 KDC-448U

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

2 Enter Function setting mode

Press the Control knob for at least 1 second.

3 Select Bluetooth detail setting mode

The item can be selected and determined as follows.

"Settings" > "Detailed Settings"

To select the item, turn the Control knob. To determine the item, press the Control knob.

4 Select the desired Bluetooth detail setting item

Turn the Control knob to select Bluetooth detail setting item, and then press the Control knob.

Display	Overview
"Detailed Settings"	
"Auto Answer"	This function automatically answers (responds to) a call after lapse of the preset time interval for automatic answer. "OFF": Does not answer the phone call automatically. "0": Automatically answers the phone call at once. "1SEC" – "8SEC" – "99SEC": Automatically answers the phone call after lapse of 1 – 99 seconds.
"Auto Reconnect"	When "ON" is selected, re-pairing with the registered Bluetooth device starts automatically when pairing is disconnected. "ON" / "OFF"
"Bluetooth HF" "Bluetooth HF/ Audio"	You can specify output speakers for hands-free voice communication and Bluetooth audio sound. "Front": Outputs sound from the front speakers. "All": Outputs sound from the front and rear speakers.
"Call Beep"	You can output a beep from the speaker when a call comes in. "ON": Beep is heard. "OFF": Beep is canceled.

"MIC Gain"	Adjusts the sensitivity of the built-in microphone for a telephone call. Adjust the voice of caller. Setting to "+" increases the voice volume. Function of the KDC-X895, KDC-BT848U "-3" – "0" – "+3"
"NR Level"	SReduces the noises generated by surrounding environment without changing the built-in microphone volume. Adjust the voice of caller when it is not clear. Setting to "+" increases the noise reduction. Function of the KDC-X895, KDC-BT848U "-3" – "0" – "+3"
"Echo Cancel"	Sets the echo cancellation level. Function of the KDC-X895, KDC-BT848U "-2" – "0" – "+2"


( \_ : Factory setting)

5 Set the Bluetooth detail setting item

Turn the Control knob to select desired value, and then press the Control knob.

The previous item is displayed.

6 Exit Function setting mode

Press the [  ] button for at least 1 second.

## SMS (Short Message Service)

### Displaying the SMS

The SMS received by at the cell-phone is displayed on the receiver.

A newly received message is displayed.



- To prevent car accidents, the driver should not read the SMS while driving.

#### When a new message arrives

"SMS Received" is displayed.

The display disappears with any operations.

### Displaying the SMS

#### 1 Enter Bluetooth mode

**KDC-X895 | KDC-BT848U**

Press the [  ] button.

**KDC-X595 | KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

#### 2 Select SMS inbox display mode

Turn the Control knob to select "SMS Inbox", and then press the Control knob.

#### 3 Select a message

Turn the Control knob.

Each press of the [DISP] button switches between displaying the telephone number or name and message reception date.

#### 4 Display the text

Press the Control knob.

Turn the Control knob to scroll through the message.

Press the Control knob to return to the message list screen.

#### 5 Exit Bluetooth mode

Press the [SRC] button.



- The unopened message is displayed at the beginning of the list. Other messages are displayed in the order of reception.
- The SMS that are received when the cell-phone is not linked with Bluetooth cannot be displayed. Download the SMS.
- The short message cannot be displayed during downloading the SMS.

### Downloading the SMS

Download the short message (SMS) received by the cell-phone so that it can be read on this unit.

#### 1 Enter Bluetooth mode

**KDC-X895 | KDC-BT848U**

Press the [  ] button.

**KDC-X595 | KDC-448U**

Press the [LOG] button for at least 1 second.

"BT MODE" is displayed.

#### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

#### 3 Select SMS download mode

The item can be selected and determined as follows.

"Settings" > "SMS Download"

To select the item, turn the Control knob. To determine the item, press the Control knob.

#### 4 Start downloading

Press the Control knob.

"SMS Downloading" is displayed.

When the downloading finishes, "Completed" is displayed.

#### 5 Exit Bluetooth mode

Press the [SRC] button.



- The cell-phone must be able to transmit the SMS using Bluetooth. Setting on the cell-phone may be required. If the cell-phone does not support SMS function, the SMS download item in Function Control mode is not displayed.
- When the SMS is downloaded from the cell-phone, the unopened messages in the cell-phone are opened.
- The up to 75 already-read and unread short messages respectively can be downloaded.

## HD Radio™ tuner control

### Basic Operation

---

#### **Selecting HD Radio source**

Press the [SRC] button.

Select the "HD RADIO" display.

#### **Selecting the band**

Push the Control knob towards down.

Switches between the FM1, FM2, FM3, and AM bands each time you push towards down.

#### **Selecting the station**

Push the Control knob leftward and rightward.



- The tuning mode can be changed. Refer to <Seek mode setting> (page 56).
- During reception of stereo stations the "ST" indicator lights up.

### Station preset memory

---

Putting a station in the memory.

- 1 Select the frequency to put in the memory**  
Push the Control knob towards right or left.
- 2 Enter Preset memory mode**  
Press the [PRESET] button.  
"Preset List" is displayed.
- 3 Select a number and store it in the memory**  
Turn the Control knob to select memory number ("1" – "6"), and then press the Control knob for at least 2 seconds.

#### **Cancelling the Preset memory mode**

Press the [↵] button.



- If you press the [PRESET] button twice in step 2, Mix Station preset mode is entered with "Mixed Preset List" displayed. In this mode, different bands and tuner sources (Radio, Sirius, XM etc.) can be saved in the same preset layer, which allows you to recall the desired station without switching the bands or tuner sources. Maximum of six stations can be preset in the Mix Station preset mode. Once the Mix Station preset mode is set, you can enter the same mode by just pressing the [PRESET] button once in step 2. Pressing the [PRESET] button twice returns to the normal Station preset mode.

## Preset tuning

---

Recalling the stations in the memory.

### 1 Enter Preset memory mode

Press the [PRESET] button.

"Preset List" is displayed.

### 2 Select the number you want to recall from the memory

Turn the Control knob to select recall number ("1" – "6"), and then press the Control knob.

### **Cancelling Preset tuning**

Press the [↶] button.

## Auto memory

---

Memorizes six stations with good reception automatically.

### 1 Select Tuner source

Press the [SRC] button.

Select the "HD RADIO" display.

### 2 Enter Function setting mode

Press the Control knob for at least 1 second.

### 3 Select the Auto memory mode

The item can be selected and determined as follows.

"Settings" > "Auto Memory"

To select the item, turn the Control knob. To determine the item, press the Control knob.

### 4 Start Auto memory mode

Turn the Control knob to select "YES", and then press the Control knob.

When 6 stations that can be received are put in the memory, auto memory entry closes.

HD Radio™ tuner control

Seek mode setting

Selects the tuning mode of the radio.

1 Select Tuner source

Press the [SRC] button.

Select the "HD RADIO" display.

2 Enter Function setting mode

Press the Control knob for at least 1 second.

3 Select the Seek mode

The item can be selected and determined as follows.

"Settings" > "Seek Mode"

To select the item, turn the Control knob. To determine the item, press the Control knob.

4 Set the desired Seek mode

Tuning mode	Display	Operation
Auto seek	"Auto1"	Automatic search for a station.
Preset station seek	"Auto2"	Search in order of the stations in the Preset memory.
Manual	"Manual"	Normal manual tuning control.

Turn the Control knob to select Seek mode, and then press the Control knob.

5 Exit Function setting mode

Press the [↶] button for at least 1 second.

Function of KTC-HR300

iTunes tagging

By using an iTunes Tagging enabled HD Radio you can tag your music. When you hear a song you enjoy on your local HD Radio station, you only have to press the Control knob. The song's information will then be saved on this unit. The saved songs will then show up in a playlist called "Tagged" in iTunes the very next time you sync your iPod to your computer. Then you just need to click and then easily buy and download the song you were tagging directly from the Apple iTunes Music Store.

1 Enter HD Radio iTunes tagging mode

Press the [PRESET] button for at least 1 second.

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

"TAG Storing" is indicated on the display while a tag is being stored to this unit. "TAG Stored" is indicated on the display after a tag is stored.

"TAG Transferred" is indicated on the display after a tag is stored to your iPod.



- Turn "ON" the "Tagging" of <HD Radio setting> (page 57) when using this function.
- Up to 50 TAGs (song's information) can be registered to this unit. When iPod is connected, the TAG information registered to this unit is transferred to the connected iPod.
- The memory usage can be checked by selecting "TAG Memory" of <HD Radio setting> (page 57).



Direct access tuning

Entering the frequency and tuning.

- 1 Enter Direct access tuning mode  
Press the [DIRECT] button on the remote control.  
"----" is displayed.

- 2 Select Tuning item  
Press the [DIRECT] button on the remote control.  
Pressing the [DIRECT] button each time switches the following tuning items as follows.

Tuning item	Display
Frequency	"----"
Channel	"HD --"
Cancelling Direct Access Tuning	—

- 3 Enter the frequency or channel  
Press the number buttons on the remote control.  
Example of frequency input:

Desired frequency	Press button
92.1 MHz (FM)	[9], [2], [1]
810 kHz (AM)	[8], [1], [0]

- 4 Do Direct access tuning  
Press the [◀◀] or [▶▶] button on the remote control.

Cancelling Direct access tuning  
Press the [↵] button on the remote control.

HD Radio setting

Sets the HR Radio-related items.

- 1 Enter Function setting mode  
Press the Control knob for at least 1 second.
- 2 Select the Setting mode  
Turn the Control knob to select "Settings", and then press the Control knob.
- 3 Select the desired HD Radio setting item  
Turn the Control knob to select HD Radio setting item, and then press the Control knob.

Display	Overview
"Settings"	
"Receive mode"	Sets the receive mode of the HD Radio. <b>Auto:</b> Automatically tunes to analog broadcast when there is no digital broadcast. <b>Digital:</b> Digital broadcasts only. <b>Analog:</b> Analog broadcasts only.
"TAG Memory"	Displays the tag memory usage of HD Radio. Up to 50 tags can be registered to this unit. Function of the KTC-HR300
"Tagging"	Turns ON / OFF the iTunes tag memory function of HD Radio. Function of the KTC-HR300 "ON" / "OFF"

( \_ : Factory setting)

- 4 Set the HD Radio setting item  
Turn the Control knob to select desired value, and then press the Control knob.  
The previous item is displayed.
- 5 Exit Function setting mode  
Press the [↵] button for at least 1 second.

# Satellite radio tuner (Optional accessory) control

## Basic operation

### Selecting Satellite Radio source

Press the [SRC] button.

Select the "SIRIUS" or "XM" display.



- You need to register to the service provider to receive the service by Satellite Radio. Consult the service provider if "CALL ... TO SUBSCRIBE" appears.
- The radio may take a little time to start receiving after you select the Satellite Radio source.
- If the signal reception fails, "Acquiring Signal"/"No Signal" appears.

### Selecting the channel

Push the Control knob towards right or left.

### Selecting the preset band

Push the Control knob towards down.

Each time you push the knob, the preset band alternates between the SR1, SR2, SR3 and SR4.

## Category and Channel search

Selecting the channel and category you want to receive.

### 1 Enter Category and Channel search mode

Press the [Q] button twice.

### 2 Select the Category

Turn the Control knob to select Category, and then press the Control knob.

### 3 Select the Channel

Turn the Control knob to select Channel, and then press the Control knob.

### Cancelling Category and Channel search mode

Press the [↵] button for at least 1 second.



- You cannot Channel search until the category information is acquired.

## Channel preset memory

---

Putting the channel in the memory.

- 1 Select the channel to put in the memory**  
Push the Control knob towards right or left.
- 2 Enter Preset memory mode**  
Press the [PRESET] button.
- 3 Select a number and store it in the memory**  
Turn the Control knob to select memory number, and then press the Control knob for at least 2 seconds.

### ***Canceling the Preset memory mode***

Press the [↵] button.



- Only the channel number is stored. Category information is not stored.
- If you press the [PRESET] button twice in step 2, Mix Station preset mode is entered with "Mixed Preset List" displayed. In this mode, different bands and tuner sources (Radio, Sirius, XM etc.) can be saved in the same preset layer, which allows you to recall the desired station without switching the bands or tuner sources.

Maximum of six stations can be preset in the Mix Station preset mode.

Once the Mix Station preset mode is set, you can enter the same mode by just pressing the [PRESET] button once in step 2.

Pressing the [PRESET] button twice returns to the normal Station preset mode.

## Preset tuning

---

Recalling the channels in the memory.

- 1 Enter Preset memory mode**  
Press the [PRESET] button.
- 2 Select the number you want to recall from the memory**  
Turn the Control knob to select recall number, and then press the Control knob.

### ***Canceling Preset tuning***

Press the [↵] button.

## Satellite radio tuner (Optional accessory) control

### Channel scan

Every receivable Channel is checked for 10 seconds.

#### 1 Start Channel Scan

Press the [ Q ] button for at least 1 second.

#### 2 Release it when the channel you want to listen to is received

Press the [ Q ] button for at least 1 second.

*Function of remote control*

### Direct access tuning

Entering the channel and tuning.

#### 1 Enter Direct access tuning mode

Press the [DIRECT] button on the remote control.

#### 2 Enter the channel

Press the number buttons on the remote control.

#### 3 Search the channel

Press the [◀◀] or [▶▶] button on the remote control.

#### Canceling Direct access tuning

Press the [↵] button on the remote control.



- If you make no button operation for 10 seconds, the Direct Access Tuning mode is automatically canceled.
- If you cannot receive any signal in the input Channel due to bad conditions on radio wave or other such problems, "Acquiring Signal" appears.

## Seek mode setting

Selects the tuning mode of the radio.

**1 Select Tuner source**

Press the [SRC] button.

Select the "SIRIUS" or "XM" display.

**2 Enter Function setting mode**

Press the Control knob for at least 1 second.

**3 Select the Seek mode**

The item can be selected and determined as follows.

"Settings" > "Seek Mode"

To select the item, turn the Control knob. To determine the item, press the Control knob.

**4 Select the desired Seek mode**

Display	Operation
"Channel"	Normal manual seeking control.
"Preset"	Search in order of the channels in the Preset memory.

Turn the Control knob to select Seek mode, and then press the Control knob.

**5 Exit Function setting mode**

Press the [↶] button for at least 1 second.

## Electronic serial number display

Displays the Electronic Serial Number of satellite radio.

**1 Select Tuner source**

Press the [SRC] button.

Select the "SIRIUS" or "XM" display.

**2 Enter Function setting mode**

Press the Control knob for at least 1 second.

**3 Select the Electronic serial number display mode**

The item can be selected and determined as follows.

"Settings" > "ESN Watch"

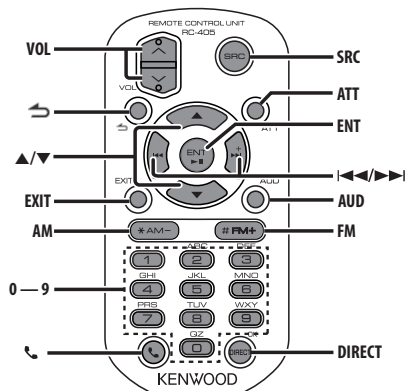
To select the item, turn the Control knob. To determine the item, press the Control knob.

The Electronic serial number is displayed.

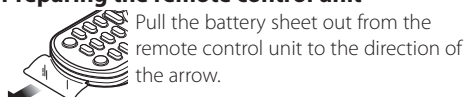
**4 Exit Function setting mode**

Press the [↶] button for at least 1 second.

# Basic operations of remote control



## Preparing the remote control unit



## Changing the battery of the remote control unit



## General control

- Volume control: **[VOL]**
- Source selection: **[SRC]**
- Volume reduction: **[ATT]**  
When the button is pressed again, the volume returns to the previous level.
- Return to previous item: **[↶]**
- Exit from mode: **[EXIT]**
- Selection of item: **[▲]/[▼]**
- Determination: **[ENT]**
- Enter Audio Control mode: **[AUD]**

## In Tuner source

- Band selection: **[FM]/[AM]**
- Station selection: **[◀◀]/[▶▶]**
- Recall preset stations: **[0] - [9] → [ENT]**

## HD Radio source

- Band selection: **[FM]/[AM]**
- Station selection: **[◀◀]/[▶▶]**
- Recall preset stations: **[1] — [6]**

## In CD/Audio file source

- Music selection: **[◀◀]/[▶▶]**
- Folder selection: **[FM]/[AM]**
- Pause/Play: **[ENT]**
- Enter Music search mode: **[▲]/[▼]**
- Movement between folders/files during Music search mode: **[▲]/[▼]**
- Return to previous folder: **[↶]**

## In iPod source

- Enter Music search mode: **[▲]/[▼]**
- Movement between items during Music search mode: **[▲]/[▼]**
- Return to previous item: **[↶]**

## In Satellite radio tuner source

---

- **Band selection:** [FM]
- **Channel selection:** [◀◀]/[▶▶]
- **Recall preset channels:** [1] — [6]

## Hands-free phone control

---

### ***Making a call***

- **Enter Bluetooth mode:** [📶]
- **Select a dialing method:** [▲]/[▼] → [ENT]
- **Number dial input:**  
Input a digit: [0] – [9]  
Input "+": [▶▶I]  
Input "#": [FM]  
Input "\*": [AM]  
Clear the entered phone number: [◀◀]
- **Make a call:** [DIRECT]

### ***Receiving a call***

- **Answer the call:** [📶]

### ***Call waiting***

- **Answer Another Incoming Call with the Current Call Suspended:** [📶]

### ***During a call***

- **End the call:** [SRC]

## **CAUTION**

- Keep battery out of reach of children and in original package until ready to use. Dispose of used batteries promptly. If swallowed contact physician immediately.
- Do not leave the battery near fire or under direct sunlight. A fire, explosion or excessive heat generation may result.
- Do not set the remote control in hot places such as on the dashboard.
- Danger of explosion if Lithium battery is incorrectly replaced. Replace only with the same or equivalent type.

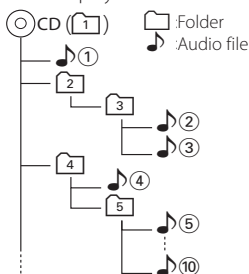
# Appendix

## About Audio file

- **Playable Audio file**  
AAC-LC (.m4a), MP3 (.mp3), WMA (.wma)
- **Playable disc media**  
CD-R/RW/ROM
- **Playable disc file format**  
ISO 9660 Level 1/2, Joliet, Romeo, Long file name.
- **Playable USB device**  
USB mass storage class
- **Playable USB device file system**  
FAT16, FAT32

Even if the audio files comply with the standards listed above, the play may be impossible depending on the types or conditions of media or device.

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



An online manual about audio files is put on the site, [www.kenwood.com/cs/ce/audiofile/](http://www.kenwood.com/cs/ce/audiofile/). On this online manual, detailed information and notes which are not written in this manual are provided. Make sure to read through the online manual as well.



- In this manual, the word "USB device" is used for flash memories and digital audio players which have USB terminals.

## About USB device

- When the USB device is connected to this unit, it can be charged up provided that this unit is powered.
- Install the USB device in the place where it will not prevent you from driving your vehicle properly.
- You cannot connect a USB device via a USB hub and Multi Card Reader.
- Save backups of the audio files used with this unit. The files can be erased depending on the operating conditions of the USB device.  
We shall have no compensation for any damage arising out of erasure of the stored data.
- No USB device comes with this unit. You need to

purchase a commercially available USB device.

- When connecting the USB device, usage of the CA-U1EX (option) is recommended.
- Normal playback is not guaranteed when a cable other than the USB compatible cable is used.  
Connecting a cable whose total length is longer than 4 m can result in abnormal playback.

## iPod/iPhone that can be connected to this unit

Made for

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

- For information on the compatibility of iPod/iPhone software, visit [www.kenwood.com/cs/ce/ipod/](http://www.kenwood.com/cs/ce/ipod/).
- Type of control available varies depending on the type of connected iPod. See [www.kenwood.com/cs/ce/ipod/](http://www.kenwood.com/cs/ce/ipod/) for further details.
- The word "iPod" appearing in this manual indicates the iPod or the iPhone connected with the iPod connection cable\* (optional accessory).

\* Not supported model KCA-iP500.

- Refer to the web site for connectable iPod and iPod connection cable.  
[www.kenwood.com/cs/ce/ipod/](http://www.kenwood.com/cs/ce/ipod/)



- If you start playback after connecting the iPod, the music that was playing on the iPod is played first.  
In this case, "RESUMING" is displayed without displaying a folder name, etc. Changing the browse item will display a correct title, etc.
- You cannot operate iPod if "KENWOOD" or "✓" displayed on iPod.



About “KENWOOD Music Editor”

- This unit supports the PC application “KENWOOD Music Editor Light ver1.1” or later.
- When you use the audio file with database information added by the “KENWOOD Music Editor Light ver1.1”, you can search a file by title, album or artist name using the <Music search> (page 14).
- In the Instruction manual, the term “Music Editor media” is used to mean the device that contains audio files with database information added with KENWOOD Music Editor.
- “KENWOOD Music Editor Light ver1.1” is available from the following web site:  
[www.kenwood.com/cs/ce/](http://www.kenwood.com/cs/ce/)
- For further information on “KENWOOD Music Editor Light ver1.1”, refer to the site above or the application help.

About Satellite radio tuner (Optional)

This unit supports Satellite Radio tuners which are released by SIRIUS and XM.  
Refer to the instruction manual of Satellite radio tuner.

About HD Radio reception (Optional)

When you connect an HD Radio tuner, Tuner features of the unit are disabled and changed to HD Radio tuner features.  
With the HD Radio tuner, you can use the similar functions of Tuner features. Refer to Tuner features for how to use the functions.

Function of KDC-X895, KDC-BT848U

About the Cell-phone

This unit conforms to the following Bluetooth specifications:

Version	Bluetooth Ver. 2.0 Certified
Profile	HFP (Hands Free Profile) HSP (Headset Profile) SPP (Serial Port Profile) PBAP (Phonebook Access Profile) OPP (Object Push Profile) SYNC (Synchronization Profile)

For the cell-phones verified for compatibility, access the following URL:

<http://www.kenwood.com/cs/ce/bt/>



- The units supporting the Bluetooth function have been certified for conformity with the Bluetooth Standard following the procedure prescribed by Bluetooth SIG. However, it may be impossible for such units to communicate with your cell-phone depending on its type.
- HFP is a profile used to make a hands-free call.
- OPP is a profile used to transfer data such as a phone book between units.

# Troubleshooting guide

Some functions of this unit may be disabled by some settings made on this unit.

- ! Cannot set up Display.**  
▶ <Demonstration mode Setting> (page 34) is not set to Off.

- ! Cannot set up "Text Select", "Side Select", and "Status" of "Display Select".**  
▶ <Selecting display type> (page 26) is set to Displays off.

- ! Cannot set up the subwoofer.**  
**• Cannot set up the low pass filter.**  
**• No output from the subwoofer.**  
▶ "SubWoofers" of <Audio control> (page 7) is not set to On.

- ! Cannot set up the subwoofer Phase.**  
▶ "LPF SubWoofers" of <Audio control> (page 7) is set to "Through".

What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems.

## General

- ? The Key beep does not sound**  
✓ The preout jack is being used.  
ⓘ The Key beep cannot be output from the preout jack.

## Tuner source

- ? Radio reception is poor.**  
✓ The car antenna is not extended.  
ⓘ Pull the antenna out all the way.

## Disc source

- ? The specified disc does not play, but another one plays instead.**  
✓ The specified CD is quite dirty.  
ⓘ Clean the CD, referring to the CD cleaning of the section on <Handling discs> (page 4).  
✓ The disc is severely scratched.  
ⓘ Try another disc instead.

## Audio file source

- ? The sound skips when an Audio file is being played.**  
✓ The media is scratched or dirty.  
ⓘ Clean the media, referring to the CD cleaning of the section on <Handling discs> (page 4).  
✓ The recording condition is bad.  
ⓘ Record the media again or use another media.

## The messages shown below display your systems condition.

- TOC Error: • No disc has been loaded in the disc magazine.  
• The CD is quite dirty. The CD is upside-down. The CD is scratched a lot.
- Error 05: The disc is unreadable.
- Error 77: The unit is malfunctioning for some reason.  
⇨ Press the reset button on the unit. If the "Error 77" code does not disappear, consult your nearest service center.
- Mecha Error: Something is wrong with the disc magazine. Or the unit is malfunctioning for some reason.  
⇨ Check the disc magazine. And then press the reset button on the unit. If the "Mecha Error" code does not disappear, consult your nearest service center.
- IN (Blink): The CD player section is not operating properly.  
⇨ Reinsert the CD. If the CD cannot be ejected or the display continues to flash even when the CD has been properly reinserted, please switch off the power and consult your nearest service center.
- Protect (Blink): The speaker wire has a short-circuit or touches the chassis of the vehicle, and then the protection function is activated.  
⇨ Wire or insulate the speaker cable properly and press the reset button. If the "Protect" code does not disappear, consult your nearest service center.
- NA File: An Audio file is played with a format that this unit can't support.
- Copy PRO: A copy-protected file is played.
- Read Error: The file system of the connected USB device is broken.  
⇨ Copy the files and folders for the USB device again. If the error message is still displayed, initialize the USB device or use other USB devices.
- No Device: The USB device is selected as a source although no USB device is connected.  
⇨ Change the source to any source other than USB. Connect an USB device, and change the source to USB again.
- N/A Device: • An unsupported USB device is connected.  
• Connection to the iPod has failed.  
⇨ Check that the connected iPod is an iPod that is supported. See <About Audio file> (page 64) for information on supported iPods.

No Music Data/Error 15:	<ul style="list-style-type: none"> <li>• The connected USB device contains no playable audio file.</li> <li>• Media was played that does not have data recorded that the unit can play.</li> </ul>	Too Long:	The word or utterance is too long to be recognized.
USB ERROR:	<p>Some trouble may have occurred to the connected USB device.</p> <ul style="list-style-type: none"> <li>✦ Remove the USB device, then cycle the power switch to ON. If the same display is repeated, use another USB device.</li> </ul>	No Phonebook:	Data is not contained in the phone book.
iPod Error:	<p>Connection to the iPod has failed.</p> <ul style="list-style-type: none"> <li>✦ Remove the USB device and then reconnect it.</li> <li>✦ Confirm that the software for the iPod is the latest version.</li> <li>✦ Reset iPod/ iPhone.</li> </ul>	No Message:	No short message in In Box.
No Number:	<ul style="list-style-type: none"> <li>• The calling party does not notify a caller ID.</li> <li>• There is no phone number data.</li> </ul>	No Record:	The voice tag is not registered in the phonebook.
No Data:	<ul style="list-style-type: none"> <li>• There is no outgoing call list.</li> <li>• There is no incoming call list.</li> <li>• There is no missed call list.</li> <li>• There is no phone book list.</li> </ul>	Memory Full:	The number of voice tags reaches the maximum number to be registered in the phonebook.
No Entry:	The cell-phone has not been registered (pairing).	LOG: No Memory:	The procedure is not registered to Log Preset Memory.
HF Disconnect:	The unit cannot communicate with the cell-phone.	No Access:	The procedure preset with Log Preset Memory cannot be available. The preset content may not be recalled depending on the selected source or mode.
HF Error 07:	<p>The memory cannot be accessed.</p> <ul style="list-style-type: none"> <li>✦ Turn off the power and on again. If this message still appears, press the reset button on the control unit.</li> </ul>	No Voice:	No call.
HF Error 68:	<p>The unit cannot communicate with the cell-phone.</p> <ul style="list-style-type: none"> <li>✦ Turn off the power and on again. If this message still appears, press the reset button on the control unit.</li> </ul>	Memory Full:	The tag memory of HD Radio is FULL.
Unknown:	The Bluetooth device cannot be detected.	iPod Full:	The iPod memory is FULL.
Device Full:	5 Bluetooth device have already been registered. No more Bluetooth devices are registered.	No TAG Function:	iPod which does not support the tag memory is connected.
PIN Code NG:	The PIN code is wrong.	N/A Channels:	No receivable channel and category.
Connect NG:	The unit cannot be connected to the device.		
Pairing Failed:	Pairing error.		
Err No Matching:	The voice tag is wrong. Voice cannot be recognized because of an unregistered voice tag, etc.		
Too Soft:	Voice is too small and cannot be recognized.		
Too Loud:	Voice is too large to be recognized.		

# Specifications

## FM tuner section

---

Frequency range (200 kHz step)  
: 87.9 MHz – 107.9 MHz  
Usable sensitivity (S/N = 26dB)  
: 11.2dBf (1  $\mu$ V/75  $\Omega$ )  
Quieting Sensitivity (S/N = 50dB)  
: 19.2dBf (2.5  $\mu$ V/75  $\Omega$ )  
Frequency response ( $\pm$ 3 dB)  
: 30 Hz – 15 kHz  
Signal to Noise ratio (MONO)  
: 63 dB  
Stereo separation (1 kHz)  
: 40 dB

## AM tuner section

---

Frequency range (10 kHz step)  
: 530 kHz – 1700 kHz  
Usable sensitivity (S/N = 20dB)  
: 31 dB $\mu$  (36  $\mu$ V)

## CD player section

---

Laser diode  
: GaAlAs  
Digital filter (D/A)  
: 8 Times Over Sampling  
D/A Converter  
: 24 Bit  
Spindle speed (Audio files)  
: 500 – 200 rpm (CLV)  
Wow & Flutter  
: Below Measurable Limit  
Frequency response ( $\pm$ 1 dB)  
: 10 Hz – 20 kHz  
Total harmonic distortion (1 kHz)  
KDC-X895/ KDC-X595 : 0.008 %  
KDC-BT848U/ KDC-448U : 0.010 %  
Signal to Noise ratio (1 kHz)  
KDC-X895/ KDC-X595 : 110 dB  
KDC-BT848U/ KDC-448U : 105 dB  
Dynamic range  
: 93 dB  
MP3 decode  
: Compliant with MPEG-1/2 Audio Layer-3  
WMA decode  
: Compliant with Windows Media Audio  
AAC decode  
: AAC-LC "m4a" files

## USB interface

---

USB Standard  
: USB1.1/ 2.0 (Full speed)  
File System  
: FAT16/ 32  
Maximum Supply current  
: 500 mA  
MP3 decode  
: Compliant with MPEG-1/2 Audio Layer-3  
WMA decode  
: Compliant with Windows Media Audio  
AAC decode  
: AAC-LC "m4a" files

## Audio section

---

Maximum output power  
: 50 W x 4  
Full Bandwidth Power (at less than 1% THD)  
: 22 W x 4  
Speaker Impedance  
: 4 – 8  $\Omega$   
Tone action  
Bass : 100 Hz  $\pm$ 8 dB  
Middle : 1 kHz  $\pm$ 8 dB  
Treble : 12.5 kHz  $\pm$ 8 dB  
Preout level / Load (CD)  
KDC-X895/ KDC-X595 : 4000 mV/10 k $\Omega$   
KDC-BT848U/ KDC-448U : 2500 mV/10 k $\Omega$   
Preout impedance  
:  $\leq$  600  $\Omega$

## Bluetooth section (KDC-X895/ KDC-BT848U)

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Version  
: Bluetooth Ver. 2.0 Certified  
Frequency range  
: 2.402 – 2.480 GHz  
Output Power  
: +4dBm (MAX), 0dBm (AVE) Power Class 2  
Maximum Communication range  
: Line of sight approx.10m (32.8 ft)  
Profiles  
: HFP (Hands Free Profile)  
: HSP (Headset Profile)  
: SPP (Serial Port Profile)  
: PBAP (Phonebook Access Profile)  
: OPP (Object Push Profile)  
: SYNC (Synchronization Profile)

### Auxiliary input

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Frequency response ( $\pm 3$  dB)  
: 20 Hz – 20 kHz  
Input Maximum Voltage  
: 1200 mV  
Input Impedance  
: 10 k $\Omega$

### General

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Operating voltage  
KDC-X895/ KDC-BT848U  
: 14.4 V (10.5 – 16V allowable)  
KDC-X595/ KDC-448U  
: 14.4 V (11 – 16V allowable)  
Maximum Current consumption  
: 10 A  
Installation Size (W x H x D)  
: 182 x 53 x 160 mm  
7-3/16 x 2-1/16 x 6-5/16 inch  
Weight  
: 2.9 lbs (1.3 kg)



## ▲ CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

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

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

Location : Top plate

## FCC WARNING

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

## FCC NOTE

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

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

## IC (Industry Canada) Notice

Operation is subject to the following two conditions:

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

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

- Contains Transmitter Module  
FCC ID : RKXCK5000NVIA
- Contains Transmitter Module  
IC: 5119A-CK5000NVIA

## CALIFORNIA, USA

This product contains a CR Coin Cell Lithium Battery which contains

Perchlorate Material – special handling may apply.

See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate)



This symbol mark indicates that Kenwood manufactured this product so as to decrease harmful influence on the environment.

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- iTunes is a trademark of Apple Inc.
- "Made for iPod" and "Made for iPhone" mean that an electronic accessory has been designed to connect specifically to iPod or iPhone, respectively, 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 iPod or iPhone may affect wireless performance.
- iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.
- Ready to receive HD Radio™ broadcasts when connected to the KTC-HR300/ KTC-HR200/ KTC-HR100, sold separately.