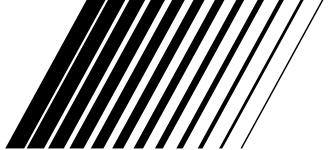


# JVC



CD RECEIVER

KD-LH2000

ENGLISH

CD 收音組合機

KD-LH2000

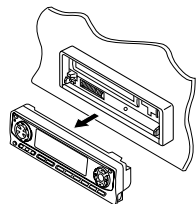
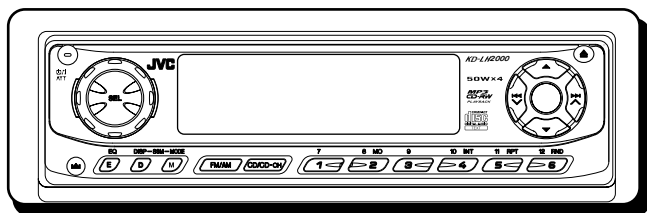
中文

ถอดใส่ซีดี

KD-LH2000

ไทย

## KD-LH2000



COMPACT  
disc  
DIGITAL AUDIO  
TEXT

CD-RW  
PLAYBACK

MP3

This unit is equipped with the display demonstration. To cancel it, see page 8.

對本機具有顯示演示功能。要取消該功能，請參見第 8 頁。  
เครื่องนี้ได้รับการติดตั้งการสาธิตภาพประกอบ หากต้องการยกเลิก โปรดดู หน้า 8

For installation and connections, refer to the separate manual.

有關安裝和連接方法，分別參閱操作手冊。

กรุณาดูคู่มือที่แยกต่างหาก ในการติดตั้งและการเชื่อมต่อ

# INSTRUCTIONS

## 使用說明書

### คำแนะนำ

## IMPORTANT FOR LASER PRODUCTS

### Precautions:

1. CLASS 1 LASER PRODUCT
2. **CAUTION:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the top cover. There are no user-serviceable parts inside. Leave all servicing to qualified service personnel.
4. **CAUTION:** This CD player uses invisible laser radiation, however, is equipped with safety switches to prevent radiation emission when unloading CDs. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### Caution:

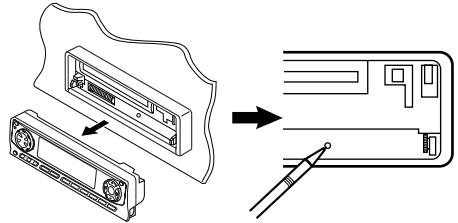
*If the temperature inside the car is below 0° C, the movement of source animation and text scroll will be halted on the display to prevent the display from being blurred. When the temperature increases, and the operating temperature is resumed, these functions will be start working again.*

### How to reset your unit

After detaching the control panel, press the reset button on the panel holder using a ball-point pen or similar tool. This will reset the built-in microcomputer.

### Note:

*Your preset adjustments—such as preset channels or sound adjustments—will also be erased.*



### BEFORE USE

#### \*For safety....

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

#### \*Temperature inside the car....

*If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.*

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

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## How to use the MODE (M) button:

If you press MODE (M), the unit goes into functions mode and the number buttons work as different function buttons.



To use these buttons as number buttons again after pressing MODE (M), wait for 5 seconds without pressing any number button until the functions mode is cleared.

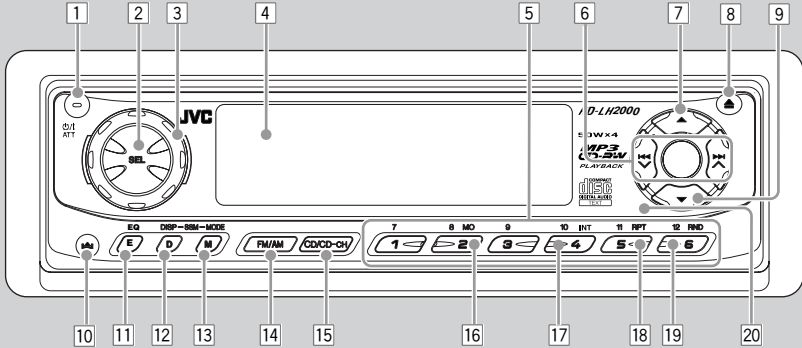
- Pressing MODE (M) again also clears the functions mode.



# LOCATION OF THE BUTTONS

ENGLISH

## Control panel

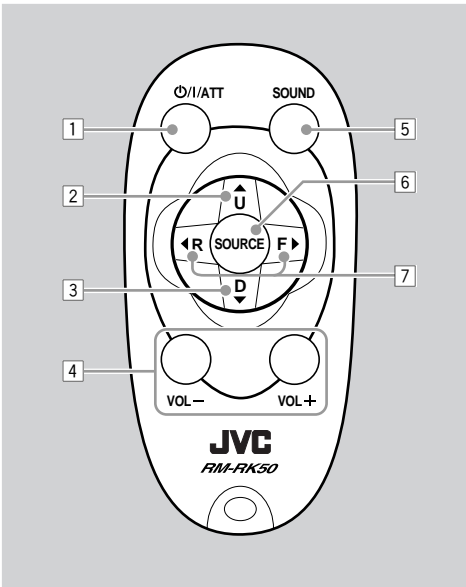


- 1 ATT (standby/on/attenuator) button
- 2 SEL (select) button
- 3 Control dial
- 4 Display window
- 5 Number buttons
- 6 buttons
- 7 (up) button
- 8 (eject) button
- 9 (down) button
- 10 (control panel release) button
- 11 EQ(E) (equalizer) button

- 12 DISP (D) (display) button
  - Also functions as SSM buttons when pressed together with MODE (M) button.
- 13 MODE (M) button
  - Also functions as SSM buttons when pressed together with DISP (D) (display) button.
- 14 FM/AM button
- 15 CD/CD-CH button
- 16 MO (monaural) button
- 17 INT (intro) button
- 18 RPT (repeat) button
- 19 RND (random) button
- 20 Remote sensor



## Remote controller



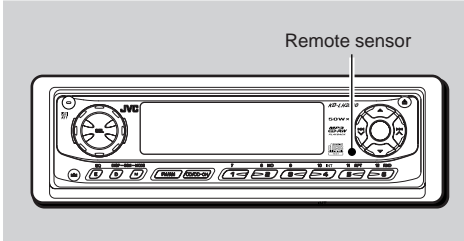
- 1 • Turns on the unit if pressed when the unit is turned off.
  - Turns off the unit if pressed and held for a few seconds.
  - Drops the volume level in a moment if pressed briefly. Press again to resume the volume.
- 2 • Selects the band while listening to the radio. Each time you press the button, the band changes.
  - Skips to the next disc while listening to the CD changer. Each time you press the button, the disc number increases, and the selected disc starts playing.
  - Skips to the first file of the next directory while listening to an MP3 disc. Each time you press the button, you can move to the next directory and start playing the first file.
- 3 • Selects the preset stations while listening to the radio. Each time you press the button, the preset station number increases, and the selected station is tuned in.
  - Skips to the previous disc while listening to the CD changer. Each time you press the button, the disc number decreases, and the selected disc starts playing.
  - Skips to the first file of the previous directory while listening to an MP3 disc. Each time you press the button, you can move to the previous directory and start playing the first file.
- 4 Functions the same as the control dial on the main unit.

**NOTE:** These buttons do not function for the preferred setting mode adjustment.
- 5 Selects the sound (iEQ) mode. Each time you press the button, the sound (iEQ) mode changes.
- 6 Selects the source. Each time you press the button, the source changes.
- 7 • Searches for stations while listening to the radio.
  - Fast-forwards or reverses the track/file if pressed and held while listening to a disc.
  - Skips to the beginning of the next track/file or goes back to the beginning of the current (or previous) tracks/files if pressed briefly while listening to a disc.

## Preparing the remote controller

Before using the remote controller:

- Aim the remote controller directly at the remote sensor on the main unit. Make sure there is no obstacle in between.



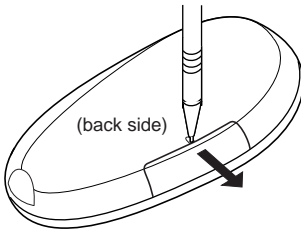
- Do not expose the remote sensor to strong light (direct sunlight or artificial lighting).

### Installing the battery

When the controllable range or effectiveness of the remote controller decreases, replace the battery.

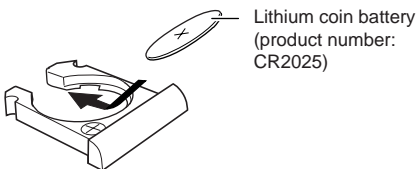
#### 1. Remove the battery holder.

- 1) Push out the battery holder in the direction indicated by the arrow using a ball-point pen or a similar tool.
- 2) Remove the battery holder.



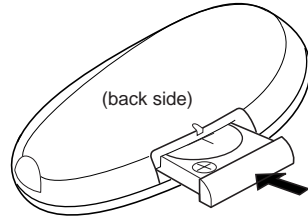
#### 2. Place the battery.

Slide the battery into the holder with the + side facing upwards so that the battery is fixed in the holder.



#### 3. Return the battery holder.

Insert again the battery holder pushing it until you hear a clicking sound.

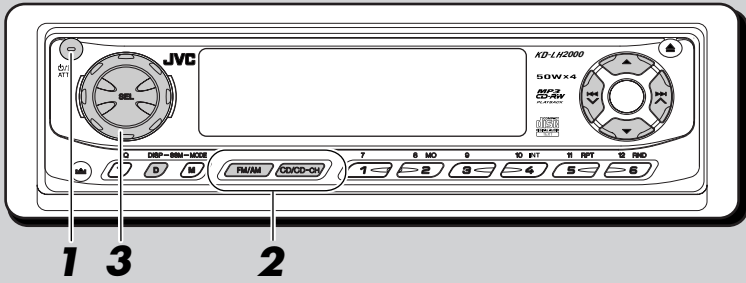


#### WARNING:

- Store the battery in a place where children cannot reach.  
*If a child accidentally swallows the battery, consult a doctor immediately.*
- Do not recharge, short, disassemble or heat the battery or dispose of it in a fire.  
*Doing any of these things may cause the battery to give off heat, crack or start a fire.*
- Do not leave the battery with other metallic materials.  
*Doing this may cause the battery to give off heat, crack or start a fire.*
- When throwing away or saving the battery, wrap it in tape and insulate; otherwise, the battery may start to give off heat, crack or start a fire.
- Do not poke the battery with tweezers or similar tools.  
*Doing this may cause the battery to give off heat, crack or start a fire.*

#### CAUTION:

*DO NOT* leave the remote controller in a place (such as dashboards) exposed to direct sunlight for a long time. Otherwise, it may be damaged.



## Turning on the power

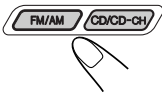
### 1 Turn on the power.



#### Note on One-Touch Operation:

When you select a source in step 2 below, the power automatically comes on. You do not have to press this button to turn on the power.

### 2 Select the source.



To operate the tuner (FM or AM), see pages 9 – 13.

To play a CD, see pages 14 – 17 .

To play an MP3 disc, see pages 20 – 24.

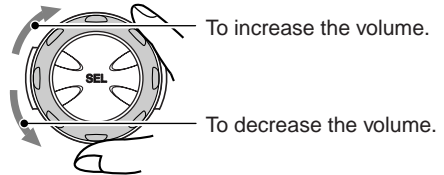
To operate the CD changer, see pages 39 – 42.

To operate the external component (Line In), see page 43.

#### CAUTION on Volume Setting:

Discs produce very little noise compared with other sources. If the volume level is adjusted for the tuner, for example, the speakers may be damaged by the sudden increase in the output level. Therefore, lower the volume before playing a disc and adjust it as required during playback.

### 3 Adjust the volume.



Volume level appears

### 4 Adjust the sound as you want. (See pages 25 – 28.)

#### To drop the volume in a moment

Press **CH/ATT** briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop in a moment.

To resume the previous volume level, press the button briefly again.

- If you turn the control dial, you can also restore the sound.

#### To turn off the power

Press **CH/ATT** for more than one second.

- **If you turn off the power while listening to a disc,** CD play will start from where playback has been stopped previously, next time you turn on the power.

#### Note:

When you use this unit for the first time, set the built-in clock correctly, see page 29.

## Changing the display pattern

You can change the display pattern. The number of the selectable display patterns varies according to the playback sources. However, the unit basically provides three main display patterns for each source, and once one of these three patterns is selected, the same pattern is used for all the sources.

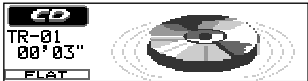
### Press DISP (D).



Each time you press the button, the display patterns change as follows:

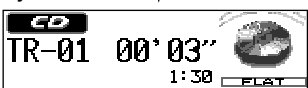
EX.: When playing a CD

**Large animation display**




↓

**Small animation displays\***



↓

**Clock time display**



\* Small animation displays are used for showing not only the source's main information (illustrated on this page as examples), but also showing some other information. For details, see each related section.

In this manual, the illustrations of the display are mainly of the large animation display (initial setting). If you have changed the display patterns or some PSM items, the actual displays you see will be different.

### Note:

While playing a source, you can also show the level meter on the display. For details, see "Activating the level meter" on page 28.

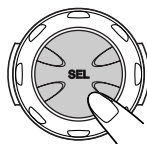
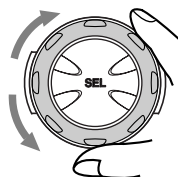
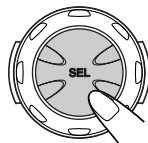
## Cancelling the display demonstration

When shipped from the factory, display demonstration (MovieDemo) has been activated, and starts automatically when no operations are done for about 20 seconds.

- It is recommended to cancel the demonstration before you use the unit for the first time.

To cancel the display demonstration, follow the procedure below:

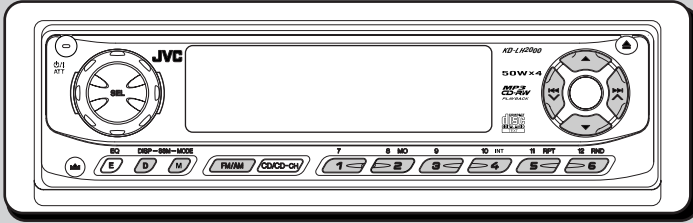
- 1 Press and hold SEL (select) for more than 2 seconds so that "MovieDemo" appears on the display.** (PSM: see pages 30 and 31.)
- 2 Select "Off."**
- 3 Press SEL (select) to finish the setting.**



To activate the display demonstration, repeat the same procedure and select "Interval" or "All Time" in step 2.

- For more details, see "To set the movie demo—MovieDemo" on page 31.



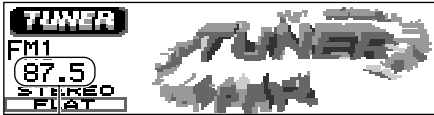
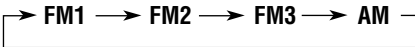


## Listening to the radio

You can use either automatic searching or manual searching to tune in to a particular station.

### Searching for a station automatically: Auto search

#### 1 Select the band (FM1 – 3, AM).

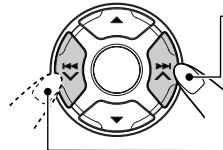


Last received station of the selected band is tuned in.

**Note:**

This receiver has three FM bands (FM1, FM2, FM3). You can use any one of them to listen to an FM broadcast.

#### 2 Start searching for a station.



Press **▶▶▲** to search stations of higher frequencies.

Press **◀◀▼** to search stations of lower frequencies.



Ex.: When the band is FM

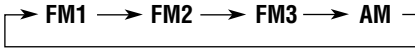
When a station is received, searching stops.

**To stop searching before a station is received,** press the same button you have pressed for searching.



## Searching for a station manually: Manual search

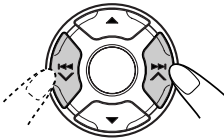
### 1 Select the band (FM1 – 3, AM).



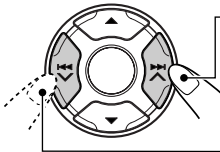
**Note:**

This receiver has three FM bands (FM1, FM2, FM3). You can use any one of them to listen to an FM broadcast.

### 2 Press and hold **▶▶|▲** or **◀◀|▼** until “Manual Search” starts flashing on the display.



### 3 Tune in to a station you want while “Manual Search” is flashing.



Press **▶▶|▲** to tune in to stations of higher frequencies.

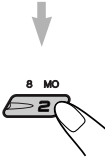
Press **◀◀|▼** to tune in to stations of lower frequencies.

- If you release your finger from the button, the manual mode will automatically turn off after 5 seconds.
- If you hold down the button, the frequency keeps changing (in 50 kHz intervals for FM and 9 kHz intervals for AM) until you release the button.

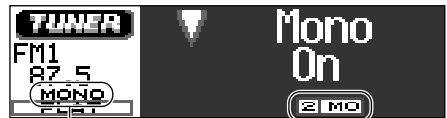
## When an FM stereo broadcast is hard to receive:



1 Press MODE (M) to enter the functions mode while listening to an FM stereo broadcast. “Mode” appears on the display.



2 Press MO (monaural), while “Mode” is still on the display, so that the MO indicator is highlighted on the display. Each time you press MO, “Mono On” and “Mono Off” alternately appears.



MONO indicator

MO indicator



“STEREO” is lit when receiving an FM broadcast in stereo.

When the MONO indicator is lit on the display, the sound you hear becomes monaural but the reception will be improved.

### If the sound quality decreases and the stereo effect is lost while listening to an FM station

In some areas, adjacent stations may interfere with each other. If this interference occurs, this unit can automatically reduce this interference noise (the initial setting when shipped from the factory). However, in this case, the sound quality will be degraded and the stereo effect will be also lost.

If you do not want to degrade the sound quality and to lose the stereo effect, rather than to eliminate the interference noise, see “To change the FM tuner selectivity—IF Filter” on page 33.

## Storing stations in memory

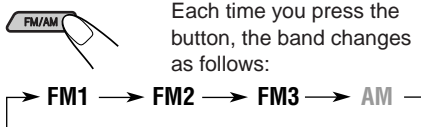
You can use one of the following two methods to store broadcasting stations in memory.

- Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
- Manual preset of both FM and AM stations

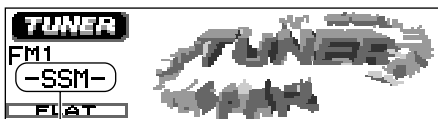
### FM station automatic preset: SSM

You can preset 6 local FM stations in each FM band (FM1, FM2 and FM3).

- 1 Select the FM band (FM1 – 3) you want to store FM stations into.**



- 2 Press and hold both buttons for more than 2 seconds.**



“-SSM-” appears, then disappears when automatic preset is over.

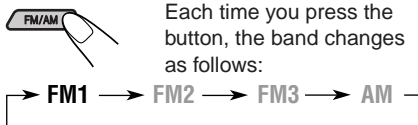
Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No.1 (lowest frequency) to No.6 (highest frequency). When automatic preset is over, the station stored in number button 1 will be automatically tuned in.

## Manual preset

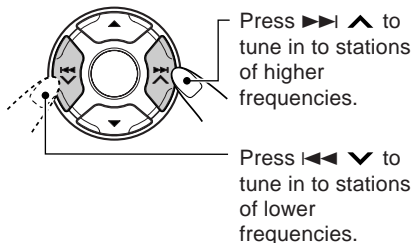
You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

Ex.: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band.

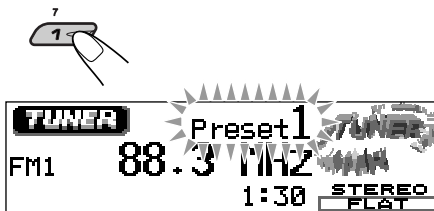
- 1 Select the band (FM1 – 3, AM) you want to store stations into (in this example, FM1).**



- 2 Tune in to a station (in this example, of 88.3 MHz).**



- 3 Press and hold the number button (in this example, 1) for more than 2 seconds.**



The display pattern automatically changes to the small animation display and the preset number flashes (then the previous display pattern resumes).

CONTINUED ON THE NEXT PAGE



**4** Repeat the above procedure to store other stations into other preset numbers.

**Note:**

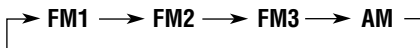
A previously preset station is erased when a new station is stored in the same preset number.

## Tuning in to a preset station

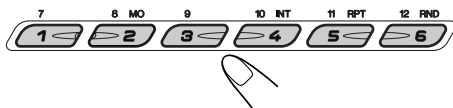
You can easily tune in to a preset station. Remember that you must store stations first. If you have not stored them yet, see "Storing stations in memory" on page 11.

### Selecting a preset station directly

**1** Select the band (FM1 – 3, AM).



**2** Select the number (1 – 6) for the preset station you want.



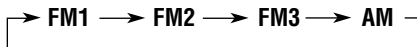
**Note:**

You can also use the ▲ (up) or ▼ (down) buttons on the unit to select the next or previous preset stations. Each time you press the ▲ (up) or ▼ (down) buttons, the next or previous preset station is tuned in.

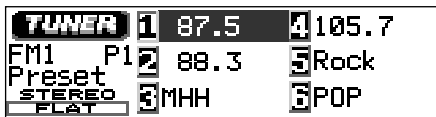
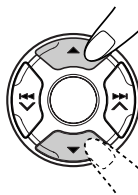
### Selecting a preset station using the preset station list

If you forget what stations are stored in what preset numbers, you can check the preset station list, then select your desired station on the list.

**1** Select the band (FM1 – 3, AM).



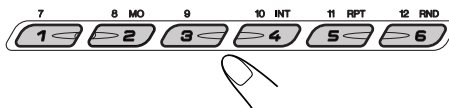
**2** Press and hold ▲ (up) or ▼ (down) until the preset station list for the current band (FM1, FM2, FM3, or AM) appears on the display.



**Notes:**

- If one of FM band preset station lists (FM1, FM2, or FM3) is shown on the display, you can show the other lists by pressing ▲ or ▼.
- If a name has been assigned to a station (see page 37), it will be shown instead of the station frequency.

**3** Select the number (1 – 6) for the preset station you want.



## Changing the display pattern

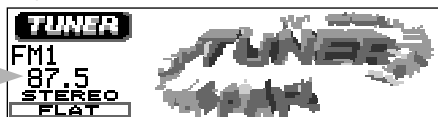
By pressing DISP (D), you can change the information shown on the display.



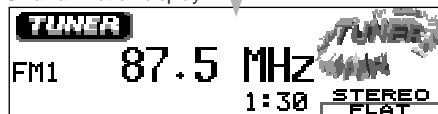
Each time you press the button, the display patterns change as follows:

- When receiving an AM or FM station

Large animation display

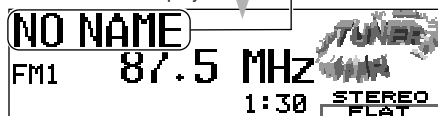


Small animation display



If a name has been assigned to a station, it will be shown instead of "NO NAME."

Small animation display

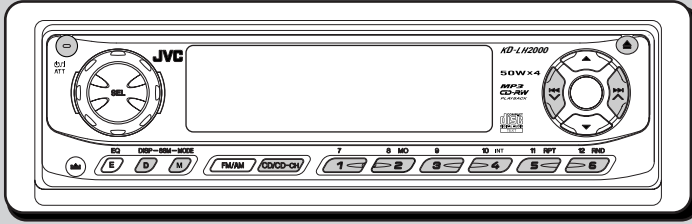


Clock time display



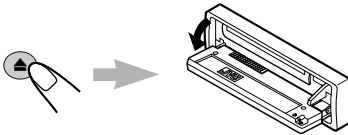


# CD OPERATIONS

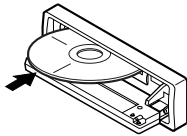


## Playing a CD

### 1 Open the control panel.

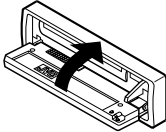


### 2 Insert a disc into the loading slot.

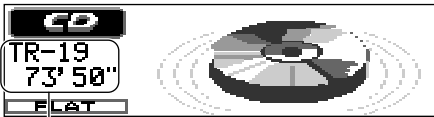


The unit turns on, draws a disc and starts playback automatically.

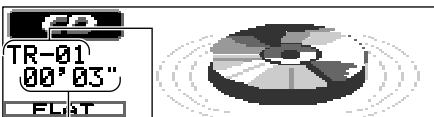
### 3 Close the control panel by hand.



The opening display then source name display appears first...



Total track number/Total playing time



Current track  
Elapsed playing time

All tracks will be played repeatedly until you stop playback.

### Notes:

- When a disc is already in the loading slot, selecting "CD" as the source starts CD play.
- When a disc is inserted upside down, the disc automatically ejects (if the control panel is open). If the control panel is closed, "Please Eject" appears.
- If you change the source, CD play also stops (without ejecting the disc). Next time you select "CD" as the source, CD play starts from where playback has been stopped previously.

## To stop play and eject the disc

Press ▲.

CD play stops, the control panel opens, then the disc automatically ejects from the loading slot. If you change the source, the CD play also stops (without ejecting the disc this time).

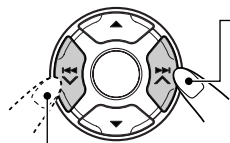
### Notes:

- If the ejected disc is not removed for about 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust. (CD play will not start this time.)
- You can eject the disc even when the unit is turned off.



## Locating a track or a particular portion on a CD

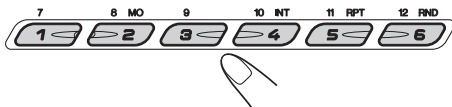
### To fast-forward or reverse the track



Press and hold **▶▶** **▲**, while playing a disc, to fast-forward the track.

Press and hold **◀◀** **▼**, while playing a disc, to reverse the track.

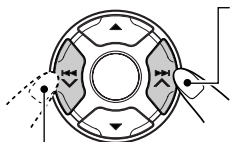
### To go to a particular track directly



Press the number button corresponding to the track number to start its playback.

- To select a track number from 1 – 6:  
Press 1 (7) – 6 (12) briefly.
- To select a track number from 7 – 12:  
Press and hold 1 (7) – 6 (12) for more than 1 second.

### To go to the next or previous tracks



Press **▶▶** **▲** briefly, while playing a disc, to go ahead to the beginning of the next track.

Each time you press the button consecutively, the beginning of the next tracks is located and played back.

Press **◀◀** **▼** briefly, while playing a disc, to go back to the beginning of the current track.

Each time you press the button consecutively, the beginning of the previous tracks is located and played back.

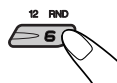
## Selecting CD playback modes

### To play back tracks at random (Random Play)

You can play back all tracks on the disc at random.



- 1 Press **MODE** (M) to enter the functions mode while playing a disc. "Mode" appears on the display.



- 2 Press **RND** (random), while "Mode" is still on the display, so that the RND indicator is highlighted on the display. Each time you press RND, "Random On" or "Random Off" alternately appears.



RANDOM indicator

RND indicator is highlighted when "Random On" is selected.

When Random Play is turned on, the **RANDOM** indicator lights up on the display and a track randomly selected starts playing.

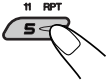


### To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.



- 1 Press MODE (M) to enter the functions mode while playing a disc.  
"Mode" appears on the display.



- 2 Press RPT (repeat), while "Mode" is still on the display, so that the RPT indicator is highlighted on the display. Each time you press RPT, "Repeat On" or "Repeat Off" alternately appears.



REPEAT indicator

RPT indicator is highlighted when "Repeat On" is selected.

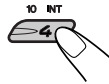
When Repeat Play is turned on, the REPEAT indicator lights up on the display.

### To play back only intros (Intro Scan)

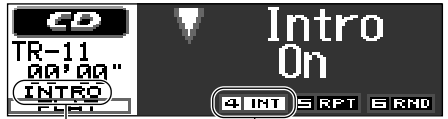
You can play back the first 15 seconds of each track sequentially.



- 1 Press MODE (M) to enter the functions mode while playing a disc.  
"Mode" appears on the display.



- 2 Press INT (intro), while "Mode" is still on the display, so that the INT indicator is highlighted on the display. Each time you press INT, "Intro On" or "Intro Off" alternately appears.



INTRO indicator

INT indicator is highlighted when "Intro On" is selected.

When Intro Scan is turned on, the INTRO indicator lights up on the display.

## Prohibiting CD ejection

You can prohibit CD ejection and can lock a disc in the loading slot.

**While pressing CD/CD-CH, press and hold ATT for more than 2 seconds.**



"No Eject" flashes on the display for about 5 seconds, and the disc is locked and cannot be ejected.

**To cancel the prohibition and unlock the disc,** press ATT again for more than 2 seconds, while pressing CD/CD-CH.

"Eject OK" flashes on the display for about 5 seconds, and the disc is unlocked.





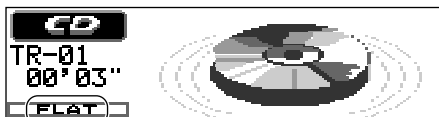
## Changing the display pattern

By pressing DISP (D), you can change the information shown on the display.



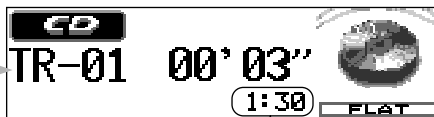
Each time you press the button, the display patterns change as follows:

Large animation display



iEQ mode  
(see page 26)

Small animation display 1

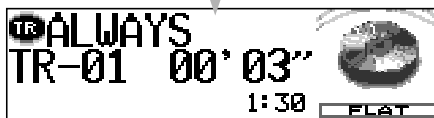


Clock time

Small animation display 2



Small animation display 3



Small animation display 4



Clock time display



### Notes:

- When the disc title/performer is shown, the DISC indicator lights up. When the track title is shown, the TR indicator lights up.
- If the information cannot be shown at a time, it will scroll on the display.  
Some characters or symbols will not be shown (will be blanked or substituted) on the display.
- If no name is assigned to the audio CD, "NO NAME" will appear.  
To assign a name to a conventional CD, see page 37.
- If no disc title/performer or no track title is recorded for the CD Text, "NO NAME" will appear.



# MP3 INTRODUCTION

## What is MP3?

MP3 is an abbreviation of Motion Picture Experts Group (or MPEG) Audio Layer 3. MP3 is simply a file format with a data compression ratio of 1:10 (128 Kbps\*). That means, by using MP3 format, one CD-R or CD-RW can contain 10 times as much data volume as a regular CD can.

\* Bit rate is the average number of bits that one second of audio data will consume. The unit used is Kbps (1000 bits/second). To get a better audio quality, choose a higher bit rate. The most popular bit rate for encoding is 128 Kbps.

This unit is incorporated with an MP3 decoder. You can play back MP3 files (tracks) recorded on CD-Rs, CD-RWs, and CD-ROMs.

## Compatible with ID3v1

Extra information data such as album title, performer name, song title, recording year, music genre and a brief comment can be stored within an MP3 file.

This unit can show ID3v1 tags (album name, performer name and song title) on the display. (See page 47.)

- Some characters cannot be shown correctly.
- This unit is not compatible with ID3v2.

### Other Main Features in this unit:

- Maximum number of directories/files: 289 (Total)
- Available characters for directory/file names: A–Z, 0–9, \_ (underscore)
- Maximum number of characters for file name (ISO 9660 Level 1): 12 (inclusive of separation mark—“.” and extension code—“mp3”)
- (ISO 9660 Level 2): 31 (inclusive of separation mark—“.” and extension code—“mp3”)
- (Joliet): 64 (inclusive of separation mark—“.” and extension code—“mp3”)
- Maximum number of characters for directory name: 64

## Precautions when recording MP3 files on a CD-R or CD-RW

This unit can only read MP3 files that are recorded in the format that is compliant with ISO 9660 Level 1, Level 2 or Joliet.

## How are MP3 files recorded and played back?

MP3 “files (tracks)” can be recorded in “directories (folders)”—in PC terminology. During recording, the files and directories can be arranged in a way similar to arranging files and directories/folders of computer data.

“Root” is similar to the root of a tree. Every file and directory can be linked to and be accessed from the root.

Playback order, file search order, and directory search order of the MP3 files recorded on a disc are determined by the writing (or encoding) application; therefore, playback order may be different from the one you have intended while recording the directories and the files.

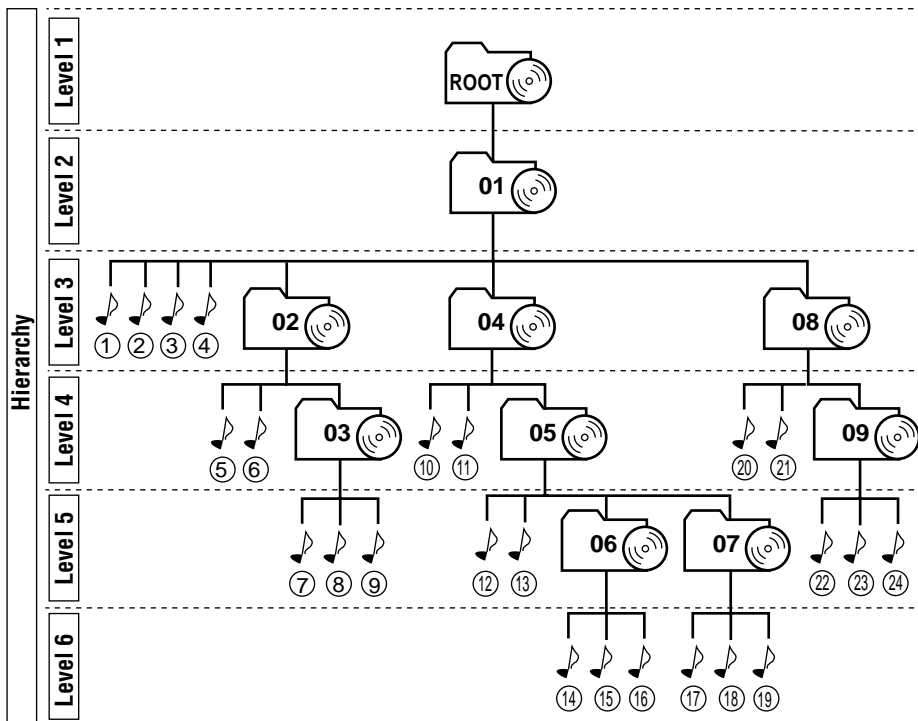
The illustration on the next page shows an example of how MP3 files are recorded on a CD-R or CD-RW, how they are played back, and how they are searched for on this unit.

### Notes:

- *The unit can read a CD-ROM containing MP3 files. However, if non-MP3 files are recorded together with MP3 files, this unit will take a longer time to scan the disc. It may also cause the unit to malfunction.*
- *The unit cannot read or play an MP3 file without the extension code—mp3.*
- *This player is not compatible with the data encoded with Layer 1 and Layer 2 formats.*
- *The unit is not compatible with Playlist\*\*.*

\*\* A playlist is a simple text file, used on a PC, which enables users to make their own playback order without physically rearranging the files.

## MP3 directory/file configuration



	: Root
	: Directories
	: MP3 files

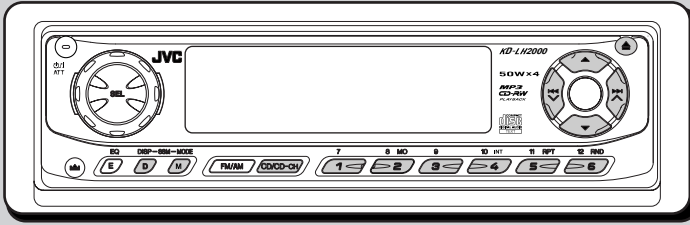
**Note:**

There is no limit on the number of the hierarchy levels (nested directories).

However, it is recommend to limit the numbers of hierarchy levels up to 8 for stable operations.

## MP3 playback/search order

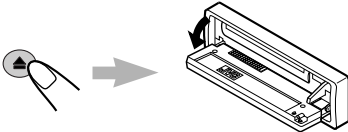
- The numbers in circles below the MP3 files (♪) indicate the playback order and search order of the MP3 files. Normally this unit plays back MP3 files in the recorded order.
- The numbers inside the directories indicate the playback order and search order of the directories on an MP3 disc. Normally this unit plays back MP3 files in the directories in the recorded order.



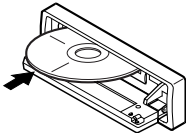
Refer also to "CD OPERATIONS" on pages 14 to 17.

## Playing an MP3 disc

**1** Open the control panel.

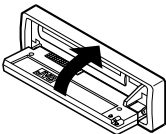


**2** Insert an MP3 disc into the loading slot.

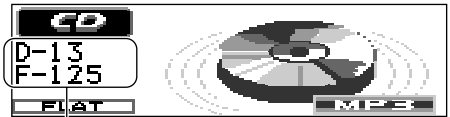
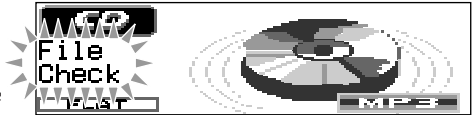


The unit draws the disc. Playback starts automatically from the first file of the first directory once disc check is completed.

**3** Close the control panel by hand.



The display changes to show the following:



Ex.: When the disc contains 13 directories and 125 MP3 files.



Current file (track)  
Elapsed playing time

All the files (tracks) on the disc will be played repeatedly until you stop playback.

**Notes:**

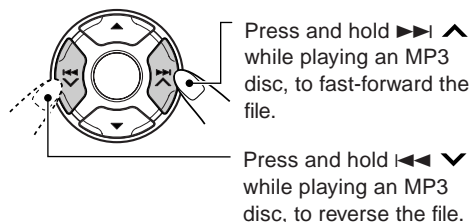
- MP3 discs require a longer readout time. (It differs due to the complexity of the directory/file configuration.)
- If you change the source or turn the power off, MP3 playback stops (without ejecting the disc). Next time you select disc play as the source or turn the power on, MP3 playback starts from where playback has been stopped previously.

## To stop play and eject the disc

Press ▲.  
 Playback stops, the control panel moves down, and the disc automatically ejects from the loading slot.

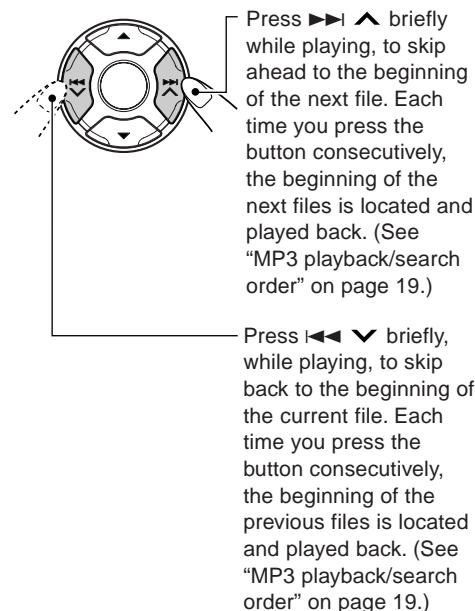
## Locating a file or particular portion on an MP3 disc

### To fast-forward or reverse the file



**Note:**  
 During this operation, you can only hear intermittent sounds. (The elapsed playing time also changes intermittently on the display.)

### To skip to the next or previous files



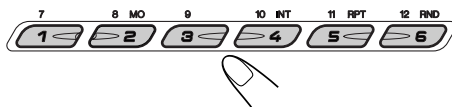
## Selecting a directory

You can select a directory or skip to another directory easily.

### To go to a particular directory directly

**IMPORTANT:**  
 To directly select the directories using the number button(s), it is required that directories are assigned 2 digit numbers at the beginning of their directory names. (This can only be done during the recording of CD-Rs or CD-RWs.)  
 Ex.: If directory name is "01 ABC"  
 → press 1 to go to Directory 01 ABC.  
 If directory name is "1 ABC," pressing 1 does not work.  
 If directory name is "12 ABC"  
 → press and hold 6 (12) to go to Directory 12 ABC.

Press the number button corresponding to the directory number to start playing the first file in the selected directory.



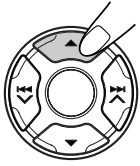
- To select a directory number from 01 – 06: Press 1 (7) – 6 (12) briefly.
- To select a directory number from 07 – 12: Press and hold 1 (7) – 6 (12) for more than 1 second.

**Notes:**

- If "MP3" flashes on the display after you have selected a directory, it means that the directory does not contain any MP3 files.
- You cannot directly select a directory with a number greater than 12.

**To select a particular file in a directory, press ►►► ▲ or ◀◀◀ ▼ after selecting the directory.**

### To skip to the next directory



Press ▲ (up) briefly while playing an MP3 disc. Each time you press the button consecutively, the next directory is located (and the first file in the directory starts playing, if recorded). (See "MP3 playback/search order" on page 19.)

### To skip to the previous directory



Press ▼ (down) briefly while playing an MP3 disc. Each time you press the button consecutively, the previous directory is located (and the first file in the directory starts playing, if recorded). (See "MP3 playback/search order" on page 19.)

**Note:**

If the directory does not contain any MP3 files, it is skipped.

### To select a directory on the list shown on the display

You can show the lists of directory names on the display (six names at a time), and can select a directory on the lists.

- 1 Press and hold ▲ or ▼ so that the first list of the directory names (directory no.1 to no.6) appears on the display.



**Note:**

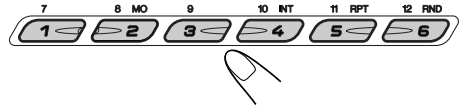
When a directory does not contain any MP3 files, it may take time to show the lists.

### 2 Find a directory you want to play.



Each time you press ▲ or ▼, the directory name lists change.

### 3 Select the number (1 – 6) for the directory you want.



The first file in the selected directory starts playing.

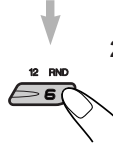
## Selecting MP3 playback modes

### To play back files at random (Random Play)

You can play back all files on the MP3 disc at random.



- 1 Press MODE (M) to enter the functions mode while playing an MP3 disc. "Mode" appears on the display.



- 2 Press RND (random) while "Mode" is still on the display, so that the RND indicator is highlighted on the display. Each time you press RND, the random play mode changes as follows.





RANDOM indicator RND indicator  
(See the following table.)

Ex.: When you select "Random 1."

Mode	RND Indicator	Plays at random
Random 1	Highlighted	All files of the current directory, then the files of the next directory and so on.
Random 2	Flashes	All files on the disc.

Mode	RPT Indicator	Plays repeatedly
Repeat 1	Highlighted	The current file (or specified file).
Repeat 2	Flashes	All files of the current directory (or specified directory).

When Repeat Play is turned on, the REPEAT indicator lights up or flashes on the display.

### To play back only intros (Intro Scan)

You can play back the first 15 seconds of each file sequentially.

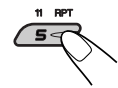
When Random Play is turned on, the RANDOM indicator lights up or flashes on the display.

### To play back files repeatedly (Repeat Play)

You can play back the current file or all the files in the current directory repeatedly.



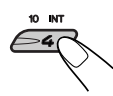
- 1 Press MODE (M) to enter the functions mode while playing an MP3 disc. "Mode" appears on the display.



- 2 Press RPT (repeat) while "Mode" is still on the display, so that the RPT indicator is highlighted on the display. Each time you press RPT, the repeat play mode changes as follows.



- 1 Press MODE (M) to enter the functions mode while playing an MP3 disc. "Mode" appears on the display.



- 2 Press INT (intro) while "Mode" is still on the display, so that the INT indicator is highlighted on the display. Each time you press INT, the intro scan mode changes as follows:



INTRO indicator INT indicator  
(See the following table.)

Ex.: When you select "Intro 1."

Mode	INT Indicator	Plays the beginnings
Intro 1	Highlighted	Of all files on the disc.
Intro 2	Flashes	Of the first file of all directories.

When Intro Scan is turned on, the INTRO indicator lights up or flashes on the display.



REPEAT indicator RPT indicator  
(See the following table.)

Ex.: When you select "Repeat 1."



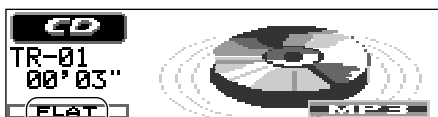
## Changing the display pattern

By pressing DISP (D), you can change the information shown on the display.



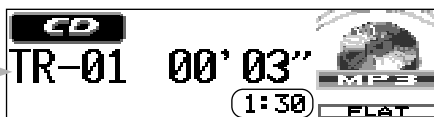
Each time you press the button, the display patterns change as follows:

Large animation display



iEQ mode  
(see page 26)

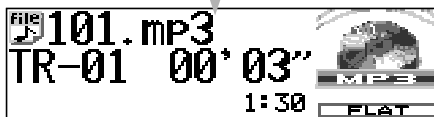
Small animation display 1



Small animation display 2



Small animation display 3



Small animation display 4





Clock time display



The above diagram shows the examples of the display when "ID3 Tag" is set to "Off."

### Notes:

- When the directory name is shown, the "Dir" indicator (  ) lights up. When the file name is shown, the "File" indicator (  ) lights up.
- If the information cannot be shown at a time, it will scroll on the display.  
Some characters or symbols cannot be shown (blanked or substituted) on the display.
- If "ID3 Tag" is set to "On" (see page 33) if a disc has an ID3 tag, ID3 tag information will appear on the display. The album name/performer appears on the display instead of the directory name, while track title appears instead of the file name.





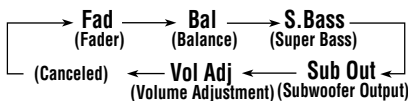
## Adjusting the sound

You can adjust the sound characteristics to your preference.

### 1 Select the item you want to adjust.



Each time you press the button, the adjustable items change as follows:



Indication	To do:	Range
Fad* <sup>1</sup>	Adjust the front and rear speaker balance.	R06 (Rear only)   F06 (Front only)
Bal	Adjust the left and right speaker balance.	L06 (Left only)   R06 (Right only)
S. Bass* <sup>2</sup>	Adjust the bass.	00 (min.)   08 (max.)
Sub Out* <sup>3</sup>	Adjust the subwoofer output level and cutoff frequency level.	00 (min.)   12 (max.) Low/Mid/High
Vol Adj* <sup>4</sup>	Adjust and store the input level of each source.	-12 (min.)   +12(max.)

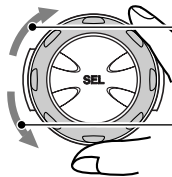
\*<sup>1</sup> If you are using a two-speaker system, set the fader level to "00."

\*<sup>2</sup> The richness and fullness of the bass sound is clearly maintained regardless of how low you set the volume.

\*<sup>3</sup> This takes effect only when a subwoofer is connected.

\*<sup>4</sup> By adjusting the input level to match it to the FM sound level, you will not need to adjust the volume level each time you change the source. This adjustment is memorized for each source except FM.

### 2 Adjust the level.



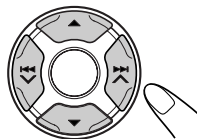
To increase the level.

To decrease the level.

#### While adjusting fader and balance

##### —Fad, Bal:

You can make these two adjustments at the same time, by referring to the indication on the display.

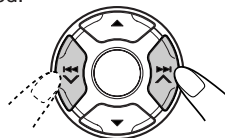


- Press ▲ or ▼ to adjust the fader.
- Press ►► ▲ or ◀◀ ▼ to adjust the balance.

#### While adjusting subwoofer output

##### —Sub Out:

You can also set an appropriate cutoff frequency level according to the subwoofer connected:



- Press ►► ▲ or ◀◀ ▼ to select "Low," "Mid," or "High."

Low: Frequencies higher than 50 Hz are cut off to the subwoofer.

Mid: Frequencies higher than 80 Hz are cut off to the subwoofer.

High: Frequencies higher than 115 Hz are cut off to the subwoofer.



## Selecting preset sound modes (iEQ: i-equalizer)

You can select a preset sound mode suitable to the music genre.

- There is a time limit in doing the following procedure. If the setting is canceled before you finish, start from step 1 again.

### 1 Press EQ (equalizer).



The last selected sound mode is called up.



Ex.: If you have selected "Flat" previously

### 2 Select the sound mode you want.



As you turn the control dial, the sound modes change as follows:

Flat	↔	Hard Rock	↔	R&B*	↔	Pop	↔
Jazz	↔	Dance Music	↔	Country	↔		
Reggae	↔	Classic	↔	User 1	↔	User 2	↔
User 3	↔	(back to the beginning)					

\* Rhythm and Blues

To cancel the sound mode, select "Flat" in step 2.

#### Note:

For details about the preset settings of each sound mode, see page 28.

## Storing your own sound adjustments

You can adjust the sound modes to your preference and store your own adjustments in memory (User 1, User 2 and User 3).

- There is a time limit in doing the following procedure. If the setting is canceled before you finish, start from step 1 again.

### 1 Press EQ (equalizer).

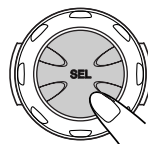


### 2 Select the sound mode you want to adjust.



Ex.: If you have selected "R & B"

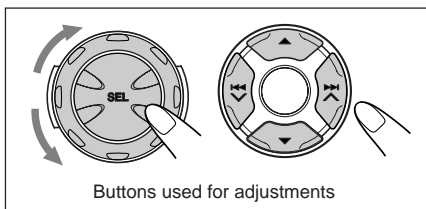
### 3 Enter the sound adjustment mode.



The following sound mode adjustment screen appears on the display.



**4** Make adjustments as you like, referring to the table “Sound adjustment items.”



- 1) Press ►►| ▲ or |◀◀ ▼ to select the frequency band—Low, Mid, or High.
- 2) Turn the control dial to select the center frequency for the selected band.
- 3) Press ▲ or ▼ to adjust the level of the selected band.
- 4) Press SEL (select) to enter the Q level (band width) adjustment mode for the selected band.
- 5) Turn the control dial to adjust the Q level for the selected band.
- 6) Repeat steps 1) to 5) to adjust the other frequency bands.

**5** Exit from the sound adjustment mode.



The confirmation message appears—whether you want to store the adjustment.



If you want to cancel the adjustments, press any button other than SEL (select).

**6** Select one of the user sound modes (User 1, User 2, User 3).



**7** Store the adjustment in the selected user sound mode.



Ex.:When you have selected “User 1”

### Sound adjustment items

Band	Selectable values		
	Low	Mid	High
Center frequency	50 Hz 80 Hz 120 Hz	700 Hz 1 kHz 2 kHz	8 kHz 12 kHz
Q (band width)	Q1 (min.)   Q4 (max.)	Q1 (min.)   Q2 (max.)	(Fixed)
Level	-06 (min.)   +06 (max.)	-06 (min.)   +06 (max.)	-06 (min.)   +06 (max.)



## Activating the level meter

You can show the level meters on the display while playing any source.

This unit is equipped with three level meter patterns.

- There is a time limit in doing the following procedure. If the setting is canceled before you finish, start from step 1 again.

### 1 Press EQ (equalizer) *twice*.

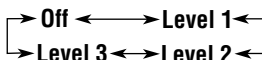


The last selected level meter appears on the display.

### 2 Select the level meter pattern you want.

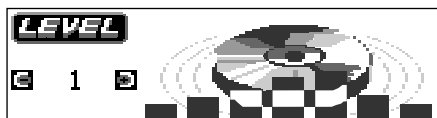


As you turn the control dial, the level meters change as follows:



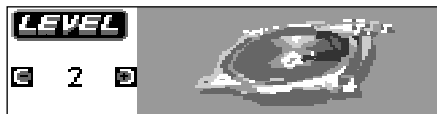
### Level Meter 1:

The audio level meter fluctuates vertically.



### Level Meter 2:

The speaker on the display vibrates as input audio level changes.



### Level Meter 3:

The left and right audio level meters appear.

- If the small animation display is selected, only one audio level meter can be shown.



The list below shows the preset value settings for each sound mode (see also page 26).

Sound modes	Preset values							
	Low			Mid			High	
	C.Freq.	Q (Width)	Level	C.Freq.	Q (Width)	Level	C.Freq.	Level
Flat	50 Hz	Q1	+00	700 Hz	Q1	+00	8 kHz	+00
Hard Rock	80 Hz	Q2	+03	700 Hz	Q1	+00	8 kHz	+02
R & B	80 Hz	Q3	+03	2 kHz	Q2	+01	12 kHz	+03
Pop	120 Hz	Q1	+02	2 kHz	Q2	+01	12 kHz	+02
Jazz	80 Hz	Q1	+03	1 kHz	Q1	+01	8 kHz	+03
Dance Music	50 Hz	Q2	+04	700 Hz	Q1	-02	8 kHz	+01
Country	50 Hz	Q4	+02	700 Hz	Q1	+00	12 kHz	+02
Reggae	80 Hz	Q1	+03	2 kHz	Q2	+02	12 kHz	+02
Classic	120 Hz	Q1	+03	1 kHz	Q1	+00	8 kHz	+02
User 1	50 Hz	Q1	+00	700 Hz	Q1	+00	8 kHz	+00
User 2	50 Hz	Q1	+00	700 Hz	Q1	+00	8 kHz	+00
User 3	50 Hz	Q1	+00	700 Hz	Q1	+00	8 kHz	+00

## Changing the general settings (PSM)

You can change the items listed on the next page by using the PSM (Preferred Setting Mode) control.

- The PSM items are grouped into five categories—"Disp (display)," "Clock," "Tuner," "Color," and "Audio."

### Basic Procedure

- 1** Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display. (See pages 30 and 31.)



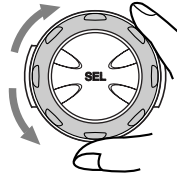
- 2** Press ▲ (up) or ▼ (down) repeatedly until your desired PSM category appears on the left side of the display.



- 3** Select the PSM item you want to adjust.



- 4** Adjust the PSM item selected.



- 5** Repeat steps 2 to 4 to adjust the other PSM items if necessary.

- 6** Finish the setting.



### To set clock—Clock Hr, Clock Min

You can set the clock using the PSM control.

- 1** Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display.
- 2** Press ▲ or ▼ repeatedly until "Clock" is selected as the PSM category (it is shown on the left side of the display).
- 3** Press ►►| ▲ or |◄◄ ▼ to select "Clock Hr (hour)."
- 4** Turn the control dial to adjust the hour.
- 5** Press ►►| ▲ or |◄◄ ▼ to select "Clock Min (minute)."
- 6** Turn the control dial to adjust the minute.
- 7** Press SEL (select) to finish the setting.

## Preferred Setting Mode (PSM) items

The PSM items are grouped into five categories—"Disp (display)," "Clock," "Tuner," "Color," and "Audio." To select a desired item, first select the category where the desired item is listed.

Indications		Selectable values		Factory-preset settings	See page
Disp (display)	<b>MovieDemo</b> Movie demo	Interval ↕	↔    Off All Time    ↕	Interval	8, 31
	<b>SRC Anime</b> Source animation	On	Off	On	31
	<b>Scroll</b> Scroll mode	Once ↕	↔    Auto Off    ↕	Once	32
	<b>Dimmer</b> Dimmer mode	Auto ↕	↔    Off On    ↕	Auto	32
	<b>Contrast</b> Contrast	1 — 10		5	32
	<b>LCD Type</b> Display type	Positive ↕	↔    Negative Auto    ↕	Positive	32
	<b>Font Type</b> Font type	1	2	1	32
	<b>ID3 Tag</b> ID3 Tag display	On	Off	On	33
Clock	<b>Clock Hr</b> Hour adjustment	1 —12		1 (1:00)	29
	<b>Clock Min</b> Minute adjustment	00 —59		00 (1:00)	29
Tuner	<b>IF Filter</b> Intermediate frequency filter	Auto	Wide	Auto	33

Indications		Selectable values		Factory-preset settings	See page
Color	<b>Mode</b> Color mode	Source	User	Source	34
	<b>Source</b> *1 Source color selection	See page 34 and 35 for details		All Source	34,35
		<b>AllSource</b> *2 (Selected source)		See page 34 and 35 for details	Every
	<b>User</b> *3 User color selection	Day	Night	Day	35,36
	<b>Red</b> *3 Red	0 — +11		Day:+7 / Night:+5	35,36
	<b>Green</b> *3 Green	0 — +11		Day:+7 / Night:+5	35,36
	<b>Blue</b> *3 Blue	0 — +11		Day:+7 / Night:+5	35,36
Audio	<b>Beep</b> Key-touch tone	On	Off	On	33
	<b>Ext Input</b> *4 External component	Changer	Line In	Changer	33
	<b>Telephone</b> Telephone muting	Off	↔ Muting 1	Off	33
		↵ Muting 2 ↗			

\*1 Displayed only when "Mode" is set to "Source."

\*2 What appears actually here—source name—varies according to the "Source" setting.

\*3 Displayed only when "Mode" is set to "User."

\*4 Displayed only when one of the following sources is selected – FM, AM and CD.

### To set the movie demo—MovieDemo

When shipped from the factory, the movie demo has been activated ("Interval" is selected).

- Interval: If no operation is done for about 20 seconds, the movie demo and playback source indication alternately appears on the display.
- All Time: If no operation is done for about 20 seconds, the movie demo automatically starts.
- Off: Cancels the movie demo.

### To set the source animation on the display—SRC Anime

When changing the source, the display shows the source animation. If you do not want this animation, you can turn it off.

- On: The source animation appears just after you change the source.
- Off: Cancels the source animation.

### To select the scroll mode—Scroll

You can scroll the disc information if it cannot be displayed at a time.

- Once: Scrolls only once.
- Auto: Repeats the scroll (in 5-second intervals).
- Off: Cancels Auto Scroll.

### To select the dimmer mode—Dimmer

When you turn on the car headlights, the display automatically dims (Auto Dimmer).

When shipped from the factory, Auto Dimmer mode is activated.

- Auto: Activates Auto Dimmer.
- Off: Cancels Auto Dimmer.
- On: Always dims the display.

**Note:**

*Auto Dimmer equipped for this unit may not work correctly on some vehicles, particularly on those having a control dial for dimming.*

*In this case, set the dimmer mode to “On” or “Off.”*

### To adjust the display contrast level— Contrast

You can adjust the display contrast level among 1 (dark) to 10 (bright).

### To select the display illumination pattern—LCD Type

You can select the display illumination patterns according to your preference.

- Auto: Positive pattern will be selected during the day time (while the headlights are turned off); on the other hand, negative pattern will be used during the night time (while the headlights are turned on.)
- Positive: Positive (normal) pattern of the display.
- Negative: Negative pattern of the display.

### To select the font on the display—Font Type

You can change the font types used on the display. Select either “1” or “2” according to your preference.



## To turn the tag display on or off – ID3 Tag

An MP3 file can contain file information called “ID3 Tag” where its album name, performer, track title, etc. are recorded.

There are two versions—ID3v1 (ID3 Tag version 1) and ID3v2 (ID3 Tag version 2). This unit is compatible only with ID3v1.

- On: Turns on the ID3 tag display while playing MP3 files.  
\* If an MP3 file does not have ID3 tags, directory name and file name appear.

**Note:**

*If you change the setting from “Off” to “On” while playing an MP3 file, the tag display will be activated when the next file starts playing.*

- Off: Turns off the ID3 tag display while playing MP3 files. (Only the directory name and file name can be shown.)

## To change the FM tuner selectivity—IF Filter

In some areas, adjacent stations may interfere with each other. If this interference occurs, noise may be heard.

- Auto: When this type of interference occurs, this unit automatically increases the tuner selectivity so that interference noise will be reduced. (But the stereo effect will also be lost.)
- Wide: Subject to the interference from adjacent stations, but sound quality will not be degraded and the stereo effect will not be lost.

## To turn on/off the key-touch tone—Beep

You can deactivate the key-touch tone if you do not want it to beep each time you press a button.

- On: Activates the key-touch tone.
- Off: Deactivates the key-touch tone.

## To select the external component to use—Ext Input

You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).

To use the external component as the playback source through this unit, you need to select which component—CD changer or external component—to use.

- Changer: To use the CD changer.
- Line In: To use the external component other than CD changer.

**Note:**

*For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/Connection Manual (separate volume).*

## To select the telephone muting—Telephone

This mode is used when a cellular phone system is connected. Depending on the phone system used, select either “Muting 1” or “Muting 2,” whichever mutes the sounds from this unit.

When shipped from the factory, this mode is deactivated.

- Muting 1: Selects this if this setting can mute the sounds.
- Muting 2: Selects this if this setting can mute the sounds.
- Off: Cancels the telephone muting.

## Changing the display color

You can set the display color using the PSM control. By selecting “Source” as the “Mode” (color mode) setting, you can select your favorite color for each source (or for all sources).

**Note:**

When selecting “User” as the “Mode” setting, you can adjust and store your own colors as you like. See page 35.

### Setting the desired color for each source—Source

Once you have set the color for each source (or for all sources), the display illuminates in the selected color when the source is selected.

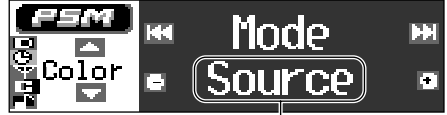
- 1 Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display. (See pages 30 and 31.)



- 2 Press ▲ (up) or ▼ (down) repeatedly until “Color” appears as the PSM category on the left side of the display.



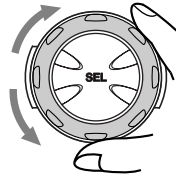
- 3 Select “Mode.”



Currently selected setting for “Mode”

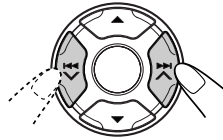
- 4 Select “Source” as the “Mode” (color mode) setting.

As you turn the control dial, the “Mode” settings alternate between “Source” and “User.”



Source ↔ User

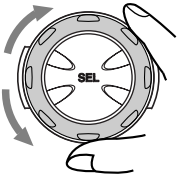
- 5 Enter the source selecting mode.



Currently selected setting for “Source”

**6 Select the source that you want to set the display color for.**

As you turn the control dial, the source names change as follows:



\*1 When you select "AllSource," you can use the same color for all sources.

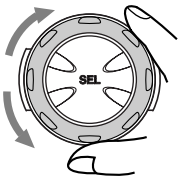
\*2 Selected only when these components are connected.

**7 Enter the color selecting mode.**



**8 Select the display color.**

As you turn the control dial, the colors change as follows:



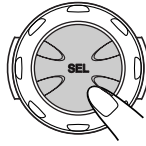
Every\*1 ⇄ Aqua ⇄ Sky ⇄ Sea ⇄  
 Leaves ⇄ Grass ⇄ Rose ⇄ Cherry ⇄  
 Orange ⇄ Honey ⇄ Violet ⇄ Grape ⇄  
 Snow ⇄ User\*2 ⇄ (back to the beginning)

\*1 When you select "Every," the color changes every two seconds (changing to every color listed above except "User.")

\*2 When you select "User," one of the original colors—"Day" or "Night" can be selected depending on the "User" setting.

**9 Repeat steps 5 to 8 to select the color for each source (except when selecting "AllSource" in step 6).**

**10 Finish the setting.**



**Selecting or adjusting your own color—User**

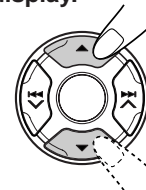
You can adjust and store your own colors—"Day" and "Night," and select one of them as the display color for any desired source.

- Day: Can be used as your user color during the day time (while the headlights are turned off).
- Night: Can be used as your user color during the night time (while the headlights are turned on.)

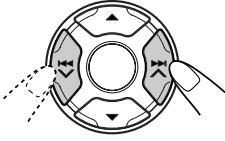
**1 Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display. (See pages 30 and 31.)**



**2 Press ▲ (up) or ▼ (down) repeatedly until "Color" appears as the PSM category on the left side of the display.**



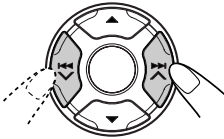
**3** Select “Mode.”



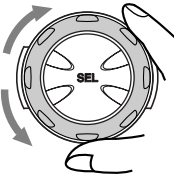
**4** Select “User” as the “Mode” (color mode) setting.



**5** Select “User.”



**6** Select either “Day” or “Night” as your user color.

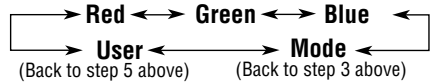
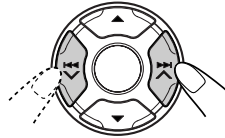


As you turn the control dial, the user color alternates between “Day” and “Night.”

- If you want to select the user color, but do not need to adjust the color, go to step 9 to finish the setting.
- If you want to adjust the user color, go to the next step.

**7** Adjust the user color.

- 1) Press **▶▶|▲** or **◀◀▼** to select one of three primary colors—“Red” “Green,” and “Blue.”



- 2) Turn the control dial to adjust the selected primary color.  
You can adjust within the range of 0 to +11.



- 3) Repeat steps 1) and 2) to adjust the other primary colors.

**8** Repeat steps 6 and 7 to adjust the other user color—“Day” or “Night.”

**9** Finish the setting.



**Note:**

To use the color adjusted in this procedure, select “User” in the step 8 (“Select the display color”) of “Setting the desired color for each source—Source.” (See page 35.)

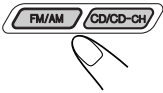
# Assigning names to the sources

You can assign names to discs (both in this unit and in the CD changer), station frequencies and the external component. After assigning a name, it will appear on the display when you select the source.

Sources	Maximum number of characters
CDs*	up to 32 characters (up to 40 discs)
Station frequencies	up to 10 characters (up to 30 station frequencies including both FM and AM.)
External component	up to 8 characters

\* You cannot assign a name to a CD Text or an MP3 disc.

## 1 Select a source you want to assign a name to.



When you select a source, the power automatically comes on.

## 2 Press and hold SEL (select) for more than 2 seconds while pressing DISP (D).

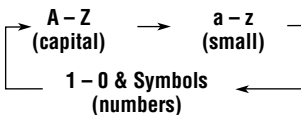


Ex.: When you select CD as the source

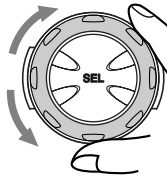
## 3 Select the character set you want while the first character position is flashing.



Each time you press the button, the character set changes as follows:



## 4 Select a character.



- About the available characters, see page 47.

## 5 Move the cursor to the next (or previous) character position.



## 6 Repeat steps 3 to 5 until you finish entering the name.

## 7 Finish the procedure while the last selected character is flashing.



### To erase the entered characters

Insert spaces using the same procedure described above. (About the available characters, see page 47.)

### Notes:

- When you try to assign a name to the 41st disc, you cannot enter the text entry mode (and will hear a beep sound if "Beep" has been set to "On": see page 33.) In this case, delete unwanted names before assignment.
- When the CD changer is connected, you can assign names to discs in the CD changer. These names can also be shown on the display if you insert the discs in this unit.



## Detaching the control panel

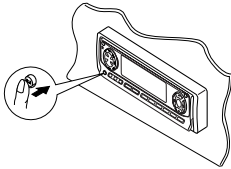
You can detach the control panel when leaving the car.

When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

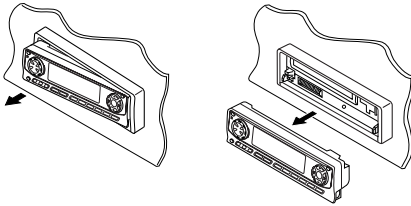
### Detaching the control panel

Before detaching the control panel, be sure to turn off the power.

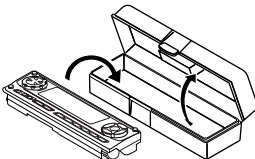
#### 1 Unlock the control panel.



#### 2 Pull the control panel out of the unit.

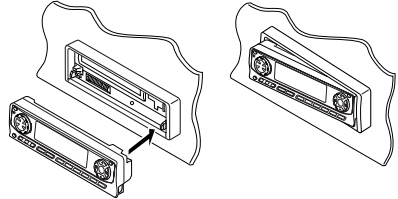


#### 3 Put the detached control panel into the provided case.

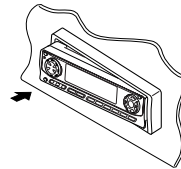


## Attaching the control panel

#### 1 Insert the right side of the control panel into the groove on the panel holder.



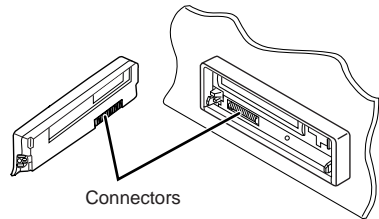
#### 2 Press the left side of the control panel to fix it to the panel holder.



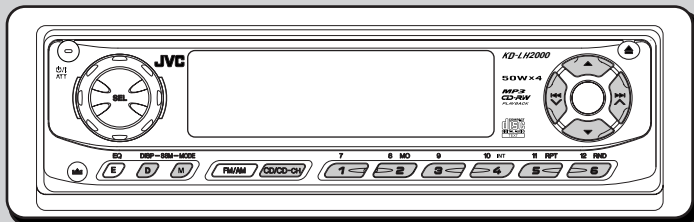
#### **Note on cleaning the connectors:**

*If you frequently detach the control panel, the connectors will deteriorate.*

*To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.*



# CD CHANGER OPERATIONS



We recommend that you use one of the CH-X series with your unit.

If you have another JVC CD automatic changer, consult your car audio dealer for connections.

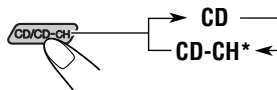
- For example, if your CD automatic changer is one of the KD-MK series, you need a cord (KS-U15K) for connecting it to this unit.

Before operating your CD automatic changer:

- Refer also to the Instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "No Disc" will flash on the display. If this happens, remove the magazine and set the discs correctly.
- If "Reset 1" – "Reset 8" flashes on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection and make sure the cords are connected firmly. Then, press the reset button of the CD changer.

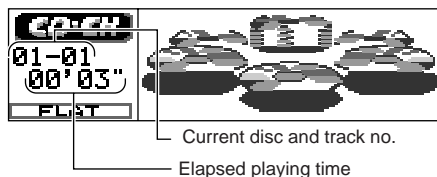
## Playing CDs

Select the CD automatic changer (CD-CH).



- \* If you have changed the "Ext Input" setting to "Line In" (see page 33), you cannot select the CD changer.

Playback starts from the first track of the first disc. All tracks of all discs are played back.



### Note on One-Touch Operation:

When you press CD/CD-CH, the power automatically turns on. You do not have to press ATT to turn on the power.

### To change the information shown on the display

Press DISP (D) repeatedly.

For details, see "Changing the display pattern" on page 17.

### Note:

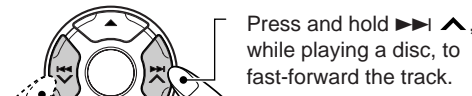
If you change the source or turn off the unit, CD play also stops.

Next time you select "CD-CH" as the source, CD play starts from where playback has been stopped previously.



# Locating a track or a particular portion on a CD

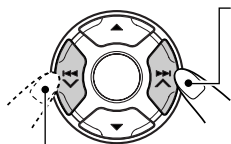
## To fast-forward or reverse the track



Press and hold **▶▶|▲**, while playing a disc, to fast-forward the track.

Press and hold **◀◀|▼**, while playing a disc, to reverse the track.

## To go to the next track or the previous tracks



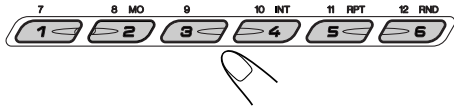
Press **▶▶|▲** briefly, while playing a disc, to go ahead to the beginning of the next track. Each time you press the button consecutively, the beginning of the next tracks is located and played back.

Press **◀◀|▼** briefly, while playing a disc, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the previous tracks is located and played back.

# Selecting a disc

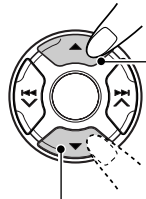
## To go to a particular disc directly

Press the number button corresponding to the disc number to start its playback (while the CD changer is playing).



- To select a disc number from 1 – 6:  
Press 1 (7) – 6 (12) briefly.
- To select a disc number from 7 – 12:  
Press and hold 1 (7) – 6 (12) for more than 1 second.

## To go to the next discs or the previous discs



Press **▲** (up), while playing a disc, to go to the next disc. Each time you press the button consecutively, the first track of the next disc is located and played back.

Press **▼** (down) while playing a disc, to go back to the previous disc. Each time you press the button consecutively, the first track of the previous disc is located and played back.





## To select a disc using the disc lists

If you forget what discs are loaded in the CD changer, you can show the disc title list and select a disc on the list shown on the display.

- The display can show only six disc names at a time.

- 1 While playing a CD, press and hold **▲** (up) or **▼** (down) until a disc name list appears on the display.



**Note:**

If a disc has an assigned disc name, it will be shown on the display. However, if the disc has not been played before, its disc number will appear.

- 2 Press **▲** or **▼** to show the other disc name list, if necessary.



- 3 Select the number (1 – 6) for the disc you want to play.



## Selecting CD playback modes

### To play back tracks at random (Random Play)

You can play back the tracks at random.



- 1 Press MODE (M) to enter the functions mode while playing a disc.  
“Mode” appears on the display.



- 2 Press RND (random), while “Mode” is still on the display, so that the RND indicator is highlighted on the display. Each time you press RND, the random play mode changes as follows:



RANDOM indicator

RND indicator  
(See the following table.)

Ex.: When you select “Random 1.”

Mode	RND Indicator	Plays at random
Random 1	Highlighted	All tracks of the current disc, then the tracks of the next disc and so on.
Random 2	Flashes	All tracks of all discs inserted in the magazine.

When Random Play is turned on, the RANDOM indicator lights up or flashes on the display.

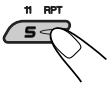


### To play back tracks repeatedly (Repeat Play)

You can play back the current track or the tracks on the current disc repeatedly.



1 Press MODE (M) to enter the functions mode while playing a disc. "Mode" appears on the display.



2 Press RPT (repeat), while "Mode" is still on the display, so that the RPT indicator is highlighted on the display. Each time you press RPT, the repeat play mode changes as follows:



REPEAT indicator

RPT indicator  
(See the following table.)

Ex.: When you select "Repeat 1."

Mode	RPT Indicator	Plays repeatedly
Repeat 1	Highlighted	The current track (or specified track).
Repeat 2	Flashes	All tracks of the current disc (or specified disc).

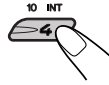
When Repeat Play is turned on, the REPEAT indicator lights up or flashes on the display.

### To play back only intros (Intro Scan)

You can play back the first 15 seconds of each track sequentially.



1 Press MODE (M) to enter the functions mode while playing a disc. "Mode" appears on the display.



2 Press INT (intro), while "Mode" is still on the display, so that the INT indicator is highlighted on the display. Each time you press INT, the intro scan mode changes as follows:



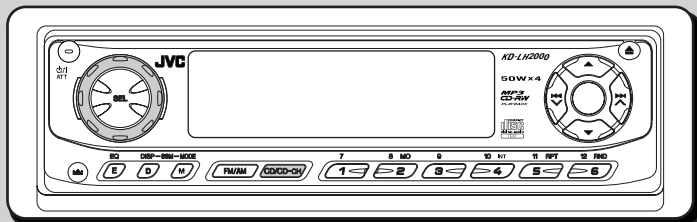
INTRO indicator

INT indicator  
(See the following table.)

Ex.: When you select "Intro 1."

Mode	INT Indicator	Plays the beginnings
Intro 1	Highlighted	Of all tracks on all inserted discs.
Intro 2	Flashes	Of the first track on each inserted disc.

When Intro Scan is turned on, the INTRO indicator lights up or flashes on the display.



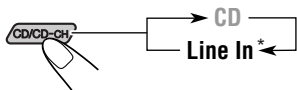
## Playing an external component

You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).

### Preparations:


- For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/Connection Manual (separate volume).
- Before operating the external component using the following procedure, select the external input correctly. (See “To select the external component to use—Ext Input” on page 33.)

- 1** Select the external component (Line In).



- \* If “Line In” does not appear on the display, see page 33 and select the external input (“Line In”).
- \* Displayed only when one of the following sources is selected—FM, AM and CD.

### Note on One-Touch Operation:

When you press CD/CD-CH, the power automatically comes on. You do not have to press  I ATT to turn on the power.

- 2** Turn on the connected component and start playing the source.

- 3** Adjust the volume.



- 4** Adjust the sound as you want. (See pages 25 – 28.)



# TROUBLESHOOTING

What appears to be trouble is not always serious. Check the following points before calling a service center.

	Symptoms	Causes	Remedies
General Playback	<ul style="list-style-type: none"> <li>• Sound is sometimes interrupted.</li> </ul>	You are driving on rough roads.	Stop playback while driving on rough roads.
		Disc is scratched.	Change the disc.
		Connections are incorrect.	Check the cords and connections.
	<ul style="list-style-type: none"> <li>• Sound cannot be heard from the speakers.</li> </ul>	The volume level is set to the minimum level.	Adjust it to the optimum level.
		Connections are incorrect.	Check the cords and connections.
	<ul style="list-style-type: none"> <li>• CD cannot be played back.</li> </ul>	Disc is inserted upside down.	Insert the disc correctly.
	<ul style="list-style-type: none"> <li>• CD-R/CD-RW cannot be played back.</li> <li>• Tracks on the CD-R/CD-RW cannot be skipped.</li> </ul>	CD-R/CD-RW is not finalized.	<ul style="list-style-type: none"> <li>• Insert a finalized CD-R/CD-RW.</li> <li>• Finalize the CD-R/CD-RW with the component which you used for recording. (See page 46.)</li> </ul>
		<ul style="list-style-type: none"> <li>• “No Disc” flashes on the display .</li> </ul>	No disc in the loading slot.
	Disc is inserted incorrectly.		Insert the disc correctly.
	<ul style="list-style-type: none"> <li>• Disc cannot be ejected.</li> </ul>	Disc is locked.	Unlock the disc (See page 16.)
<ul style="list-style-type: none"> <li>• This unit does not work at all.</li> </ul>	The built-in microcomputer may have functioned incorrectly due to noise, etc.	Press the reset button on the panel holder using a ball-point pen after detaching the control panel. (The clock setting and preset stations stored in memory are erased.) (See page 2.)	
<ul style="list-style-type: none"> <li>• “Panel Connect Error” appears on the display.</li> </ul>	The control panel is not attached correctly and firmly.	Remove the control panel, wipe the connectors, then attach it again. (See page 38.)	
FM/AM	<ul style="list-style-type: none"> <li>• SSM (Strong-station Sequential Memory) automatic preset does not work.</li> </ul>	Signals are too weak.	Store stations manually.
	<ul style="list-style-type: none"> <li>• Static noise while listening to the radio.</li> </ul>	The antenna is not connected firmly.	Connect the antenna firmly.



Symptoms	Causes	Remedies	
<ul style="list-style-type: none"> <li>• “No Disc” flashes on the display .</li> </ul>	No disc in the magazine.	Insert a disc.	CD Changer
<ul style="list-style-type: none"> <li>• “Reset 8” flashes on the display .</li> </ul>	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.	
<ul style="list-style-type: none"> <li>• “Reset 1” – “Reset 7” flashes on the display.</li> </ul>	_____	Press the reset button of the CD changer.	
<ul style="list-style-type: none"> <li>• Disc cannot be played back.</li> </ul>	MP3 files do not have the extension code—mp3 in their file names.	Add the extension code—mp3 to their file names.	MP3 Playback
	MP3 files are not recorded in the format compliant with ISO 9660 Level 1, ISO 9660 Level 2, or Joliet.	Change the disc. (Record MP3 files using a compliant application.)	
<ul style="list-style-type: none"> <li>• Files skip, or 00'00" appears and playback stops.</li> </ul>	Files are encoded in Layer 1 or Layer 2 format.	Insert a disc that contains files encoded in Layer 3 format.	
<ul style="list-style-type: none"> <li>• Noise is generated.</li> </ul>	The file played back is not an MP3 file (although it has the extension code—mp3).	Skip to another file or change the disc. (Do not add the extension code—mp3 to non-MP3 files.)	
<ul style="list-style-type: none"> <li>• A longer readout time is required (“File Check” keeps flashing on the display).</li> </ul>	Readout time varies due to the complexity of the directory/file configuration.	Do not use too many hierarchies and directories. Also, do not record any other types of audio tracks together with MP3 files.	
<ul style="list-style-type: none"> <li>• Files cannot be played back as you have intended them to play.</li> </ul>	Playback order is determined when the files are recorded.	_____	
<ul style="list-style-type: none"> <li>• Elapsed playing time is not correct.</li> </ul>	This sometimes occurs during play. This is caused by how the files are recorded on the disc.	_____	
<ul style="list-style-type: none"> <li>• “MP3” flashes on the display.</li> </ul>	The current directory does not contain any MP3 files.	Select another directory.	
<ul style="list-style-type: none"> <li>• “No Files” appears on the display for a while, then “Please Eject” appears.</li> </ul>	The current MP3 disc does not contain any MP3 files.	Insert a disc that contains MP3 files.	
<ul style="list-style-type: none"> <li>• Correct characters are not displayed. (e.g. album name)</li> </ul>	This unit can only display alphabets (capital: A–Z, small: a–z), numbers, and a limited number of symbols.	_____	



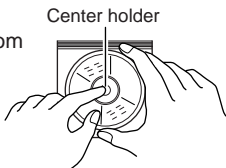
## Handling discs

This unit has been designed to play back CDs and CD-Rs.

- You can also play back CD Text.
- You can also play back your original CD-Rs (Recordable) and CD-RWs (Rewritable) either in audio CD format or MP3 format.

### How to handle discs

When removing a disc from its case, press down the center holder of the case and lift the disc out, holding it by the edges.



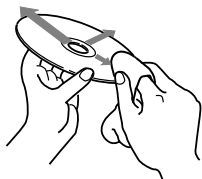
- Always hold the disc by the edges. Do not touch its recording surface.

When storing a disc into its case, gently insert the disc around the center holder (with the printed surface facing up).

- Make sure to store discs into the cases after use.

### To keep discs clean

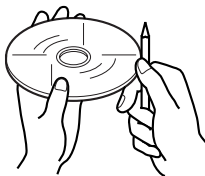
A dirty disc may not play correctly. If a disc does become dirty, wipe it with a soft cloth in a straight line from center to edge.



### To play new discs

New discs may have some rough spots around the inner and outer edges. If such a disc is used, this unit may reject the disc.

To remove these rough spots, rub the edges with a pencil or ball-point pen, etc.



#### About mistracking:

Mistracking may result from driving on extremely rough roads. This does not damage the unit and the disc, but will be annoying.

We recommend that you stop disc playback while driving on such rough roads.

### Moisture condensation

Moisture may condense on the lens inside the unit in the following cases:

- After starting the heater in the car.
- If it becomes very humid inside the car.

Should this occur, the unit may malfunction. In this case, eject the disc and leave the unit turned on for a few hours until the moisture evaporates.

### When playing a CD-R or CD-RW

You can play back your original CD-Rs or CD-RWs recorded in audio CD format or in MP3 format. However, they may not be played back depending on their characteristics or recording conditions.

- User-edited CD-Rs (Recordable) and CD-RWs (Rewritable) can be played back only if they are already "finalized."
- Before playing back CD-Rs or CD-RWs, read their instructions or cautions carefully.
- Some CD-Rs or CD-RWs may not be played back on this unit because of their disc characteristics, damage or stain on them, or if the player's lens is dirty.
- CD-Rs or CD-RWs are susceptible to high temperatures or high humidity; so do not leave them inside your car.
- CD-RWs may require a longer readout time. (This is caused by the fact that the reflectance of CD-RWs is lower than for regular CDs.)

#### CAUTIONS:

- Do not insert 8 cm discs (single CDs) into the loading slot. (Such discs cannot be ejected.)
- Do not insert any disc of unusual shape—like a heart or flower; otherwise, it will cause a malfunction.
- Do not expose discs to direct sunlight or any heat source or place them in a place subject to high temperature and humidity. Do not leave them in a car.
- Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzene, etc.) to clean discs.

## AUDIO AMPLIFIER SECTION

Maximum Power Output:

Front: 50 W per channel

Rear: 50 W per channel

Continuous Power Output (RMS):

Front: 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.

Rear: 19 W per channel into 4 Ω, 40 Hz to 20 000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4 Ω (4 Ω to 8 Ω allowance)

Equalizer Control Range:

Low: ±06 (50 Hz, 80 Hz, 120 Hz)

Mid: ±06 (700 Hz, 1 kHz, 2 kHz)

High: ±06 (8 kHz, 12 kHz)

Frequency Response: 40 Hz to 20 000 Hz

Signal-to-Noise Ratio: 70 dB

Line-Out Level/Impedance: 2.0 V/20 kΩ load

Output Impedance: 1 kΩ

## TUNER SECTION

Frequency Range:

FM: 87.5 MHz to 108.0 MHz

AM: 531 kHz to 1 602 kHz

### [FM Tuner]

Usable Sensitivity: 11.3 dBf (1.0 μV/75 Ω)

50 dB Quieting Sensitivity: 16.3 dBf (1.8 μV/75 Ω)

Alternate Channel Selectivity (400 kHz): 65 dB

Frequency Response: 40 Hz to 15 000 Hz

Stereo Separation: 35 dB

Capture Ratio: 1.5 dB

### [AM Tuner]

Sensitivity: 20 μV

Selectivity: 35 dB

## CD PLAYER SECTION

Type: Compact disc player

Signal Detection System: Non-contact optical pickup (semiconductor laser)

Number of channels: 2 channels (stereo)

Frequency Response: 5 Hz to 20 000 Hz

Dynamic Range: 96 dB

Signal-to-Noise Ratio: 98 dB

Wow and Flutter: Less than measurable limit

MP3 recording format: MPEG 1/2 Audio Layer 3

Max. Bit Rate: 320 Kbps

## GENERAL

Power Requirement:

Operating Voltage: DC 14.4 V

(11 V to 16 V allowance)

Grounding System: Negative ground

Allowable Operating Temperature: 0°C to +40°C

Dimensions (W × H × D):

Installation Size: 182 mm × 52 mm × 150 mm

Panel Size: 188 mm × 58 mm × 14 mm

Mass: 1.4 kg (excluding accessories)

*Design and specifications are subject to change without notice.*

### Available characters

You can use the following characters to assign names to CDs, radio stations and external components (see page 37).

Capital

A	B	C	D	E
F	G	H	I	J
K	L	M	N	O
P	Q	R	S	T
U	V	W	X	Y
Z	space			

Small

a	b	c	d	e
f	g	h	i	j
k	l	m	n	o
p	q	r	s	t
u	v	w	x	y
z	space			

Numbers and symbols

0	1	2	3	4
5	6	7	8	9
!	"	#	\$	%
&	'	(	)	*
+	,	-	.	/
:	;	<	=	>
?	@	_	`	space

**Having TROUBLE with operation?**  
**Please reset your unit**  
**Refer to page 2**