

Thank you for purchasing a JVC product.

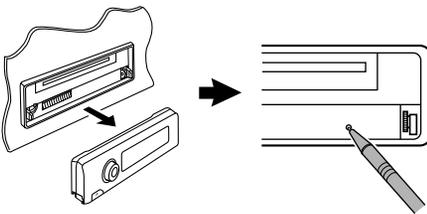
Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

IMPORTANT FOR LASER PRODUCTS

1. CLASS 1 LASER PRODUCT
2. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
3. **CAUTION:** Visible and invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
4. REPRODUCTION OF LABEL: CAUTION LABEL, PLACED OUTSIDE THE UNIT.

CAUTION : Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM.	ADVARSEL : Synlig og usynlig laserstråling når maskinen er åpen eller interlocken fejler. Undgå direkte eksponering til stråling.	WARNING : Synlig och osynlig laserstråling när den öppnas och spärren är urkopplad. Beträkta ej strålen.	VARO : Avattassa ja suojalukitus ohjeltuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersträilylle. Vältä säteen kohdistumista suoraan itseesi. (f)
(e)	(d)	(s)	

How to reset your unit



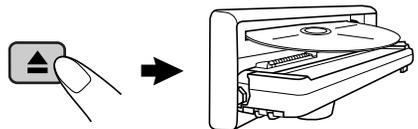
This will reset the microcomputer. Your preset adjustments will also be erased.

How to forcibly eject a disc

If a disc cannot be recognized by the unit or cannot be ejected, ejects the disc as follows.



“PLEASE” and “EJECT” appear alternately on the display.



- If this does not work, reset your unit.
- Be careful not to drop the disc when it ejects.

WARNINGS:

- **DO NOT install any unit in locations where;**
 - it may obstruct the steering wheel and gearshift lever operations, as this may result in a traffic accident.
 - it may obstruct the operation of safety devices such as air bags, as this may result in a fatal accident.
 - it may obstruct visibility.
- **DO NOT operate any unit while manipulating the steering wheel, as this may result in a traffic accident.**
- **The driver must not watch the monitor while driving.**
If the driver watches the monitor while driving, it may lead to carelessness and cause an accident.
- **The driver must not put on the headphones while driving. It is dangerous to shut off the outside sounds while driving.**
- **If you need to operate the unit while driving, be sure to look ahead carefully or you may be involved in a traffic accident.**
- **If the parking brake is not engaged, “DRIVER MUST NOT WATCH THE MONITOR WHILE DRIVING.” appears on the monitor, and no playback picture will be shown.**
 - This warning appears only when the parking brake wire is connected to the parking brake system built in the car (refer to the Installation/Connection Manual).

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Caution on volume setting:

Discs produce very little noise compared with other sources. Lower the volume before playing a disc to avoid damaging the speakers by the sudden increase of the output level.

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.

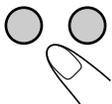
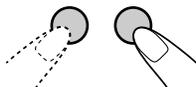
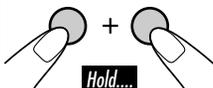
Temperature inside the car....

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.

How to read this manual

The following methods are used to make the explanations simple and easy-to-understand:

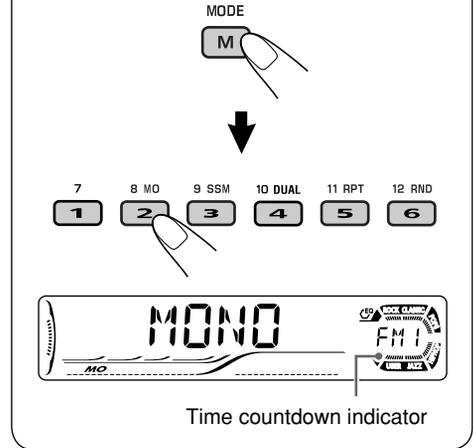
- Some related tips and notes are explained in “More about this unit” (see pages 46 – 49).
- Button operations are mainly explained with the illustrations as follows:

	Press briefly.
	Press repeatedly.
	Press either one.
	
	Press and hold until your desired response begins.
	Press and hold both buttons at the same time.

How to use the M MODE button

If you press M MODE, the unit goes into functions mode, then the number buttons and ▲/▼ buttons work as different function buttons.

Ex.: When number button 2 works as MO (monaural) button.



To use these buttons for original functions again after pressing M MODE, wait for 5 seconds without pressing any of these buttons until the functions mode is cleared.

- Pressing M MODE again also clears the functions mode.

Contents

How to reset your unit	2	Other disc operations	29
How to forcibly eject a disc	2	Basic operations.....	29
How to read this manual	4	Changing the display information	30
How to use the M MODE button.....	4	Selecting the playback modes.....	31
Introduction — Playable discs.....	6	Dual Zone operations	32
Control panel	7	Listening with headphones	32
Parts identification	7	Sound adjustments	33
Remote controller — RM-RK230	8	Selecting preset sound modes	33
Main elements and features	8	Storing your own sound adjustments....	33
Getting started	10	Adjusting the sound	34
Basic operations.....	10	General settings — PSM.....	35
Canceling the display demonstrations ...	11	Basic procedure	35
Setting the clock	11	Other main functions	37
Radio operations.....	12	Assigning titles to the sources	37
Listening to the radio	12	Detaching the control panel	38
Storing stations in memory	13	CD changer operations.....	39
Listening to a preset station	14	Playing discs in the CD changer....	39
Disc operations	15	Changing the display information	41
Playing a disc in the unit	15	Selecting the playback modes.....	42
Basic operations	17	External component operations.....	43
DVD/VCD special functions	19	Playing an external component....	43
Selecting subtitles	19	Maintenance	44
Selecting audio languages	19	Language codes.....	45
Selecting multi-angle views.....	19	More about this unit.....	46
Disc menu operations	20	Troubleshooting	50
Zoom in.....	20	Specifications	53
On-Screen disc operations.....	21		
Basic on-screen bar operations	22		
Basic control screen operations	24		
List screen operations	25		
DVD setup menu	26		
Basic setting procedure.....	26		

Introduction — Playable discs

Discs you can play

You can play back the following discs (12 cm and 8 cm) on this unit:

- **DVD Video:** Recorded in either PAL or NTSC color system with Region Code “3” (see below).
 - DVD-R/DVD-RW recorded in the DVD-Video format can also be played (see page 46).
- **Video CD (VCD)/audio CD**
- **MP3/WMA:** Recorded either in CD-R/CD-RW or DVD-R/DVD-RW/DVD-ROM.
 - CD-R/CD-RW: Compliant with ISO 9660 Level 1, ISO 9660 Level 2, Romeo, and Joliet.
 - DVD-R/DVD-RW/DVD-ROM: Compliant with UDF-Bridge Format*¹.

On some discs, the actual operations may be different from what is explained in this manual.

Discs cannot be played back

DVD-Audio, DVD-ROM (data), DVD-RAM, DVD-R/DVD-RW recorded in the DVD-VR format, CD-ROM, CD-I (CD-I Ready), Photo CD, etc.

- Playing back these discs will generate noise and damage the speakers.

Note on Region Code:

DVD players and DVD Video discs have their own Region Code numbers. This unit can only playback DVD discs whose Region Code numbers include “3.”

Examples:



If you insert a DVD Video disc of an incorrect Region Code

“REGION CODE ERROR!” appears on the monitor.

Caution for DualDisc playback

- The Non-DVD side of a “DualDisc” does not comply with the “Compact Disc Digital Audio” standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.

Digital audio formats

The System can play back the following digital audio formats.

Linear PCM: Uncompressed digital audio, the same format used for CDs and most studio masters.

Dolby Digital *²: Compressed digital audio, developed by Dolby Laboratories, which enables multi-channel encode to create the realistic surround sound.

DTS *³ (Digital Theater Systems):

Compressed digital audio, developed by Digital Theater Systems, Inc., which enables multi-channel like Dolby Digital. As the compression ratio is lower than for Dolby Digital, it provides wider dynamic range and better separation.

MPEG Audio: Another compressed digital audio which also enables multi-channel encode to create the realistic surround sound. However, this System downmix the multi-channel signals into 2 channels (decoded PCM) and play it back.

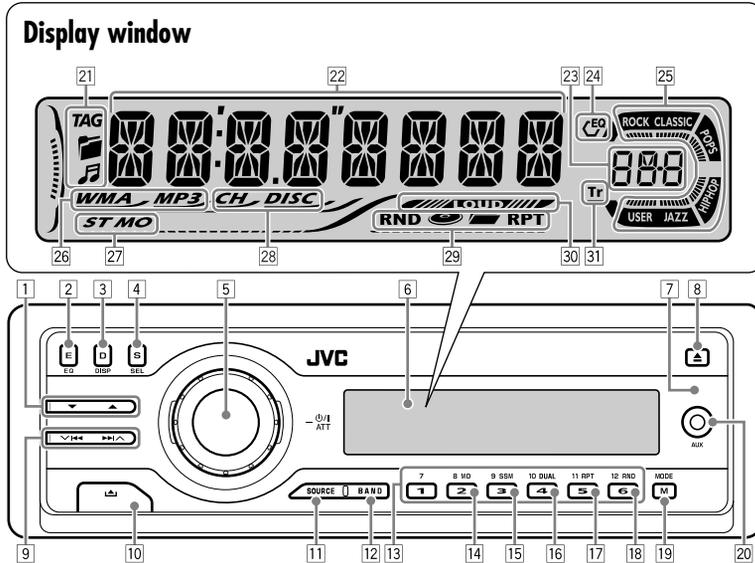
*¹ A hybrid file system used to provide compatibility with ISO 9660 for accessing any type of files on the disc. (UDF stands for Universal Disk Format.)

*² Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

*³ “DTS” and “DTS 2.0 + Digital Out” are trademarks of Digital Theater Systems, Inc.

“DVD Logo” is a trademark of DVD Format/Logo Licensing Corporation registered in the US, Japan and other countries.

Parts identification



- 1 ▲ (up) / ▼ (down) buttons
 - Function as Play / Stop buttons for DVD and VCDs.
- 2 E EQ (equalizer) button
- 3 D DISP (display) button
- 4 S SEL (select) button
- 5
 - Control dial
 - ϕ /I ATT (standby/on attenuator) button
- 6 Display window
- 7 Remote sensor
- 8 ▲ (eject) button
- 9 ▼ ◀▶▶▶ ▲ buttons
- 10 ▲ (control panel release) button
- 11 SOURCE button
- 12 BAND button
- 13 Number buttons
- 14 MO (monaural) button
- 15 SSM (Strong-station Sequential Memory) button
- 16 DUAL (dual zone) button
- 17 RPT (repeat) button
- 18 RND (random) button
- 19 M MODE button
- 20 AUX (auxiliary) input jack

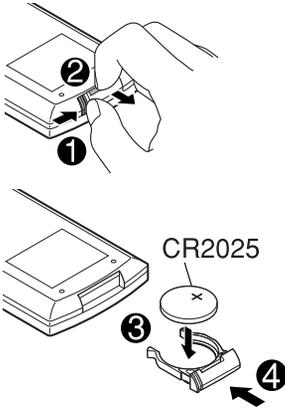
Display window

- 21 Disc information indicators—
TAG (ID3 Tag), (folder), (track/file)
- 22 Main display
- 23 Source display / Volume level indicator
- 24 EQ (equalizer) indicator
- 25 Sound mode indicators—ROCK, CLASSIC, POPS, HIP HOP, JAZZ, USER
 - also works as the time countdown indicator and level meter during play (see page 35).
- 26 Disc type indicators—WMA, MP3
- 27 Tuner reception indicators—
ST (stereo), MO (monaural)
- 28 Playback source indicators—
CH: Lights up for the CD changer.
DISC: Lights up for the built-in DVD/CD player.
- 29 Playback mode / item indicators—
RND (random), (disc), (folder),
RPT (repeat)
- 30 LOUD (loudness) indicator
- 31 Tr (track) indicator

Remote controller — RM-RK230

ENGLISH

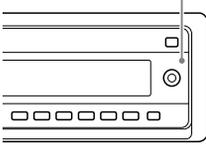
Installing the lithium coin battery (CR2025)



Before using the remote controller:

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

Remote sensor

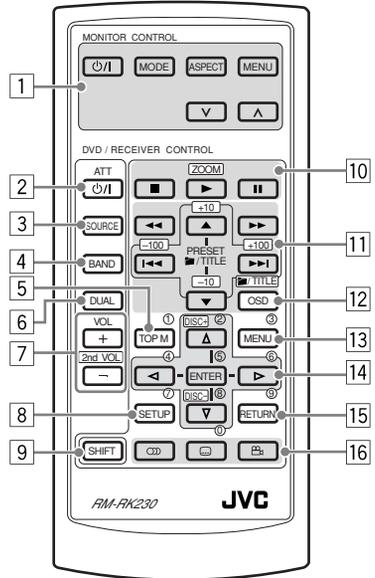


- Do not expose the remote sensor to strong light (direct sunlight or artificial lighting).

Warning:

- Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
- Store the battery in a place where children cannot reach to avoid risk of accident.
- To prevent the battery from over-heating, cracking, or starting a fire:
 - Do not recharge, short, disassemble, or heat the battery, or dispose of it in a fire.
 - Do not leave the battery with other metallic materials.
 - Do not poke the battery with tweezers or similar tools.
 - Wrap the battery with tape and insulate when throwing away or saving it.

Main elements and features



IMPORTANT:

If Dual Zone is activated (see page 32), the remote controller only functions for operating the DVD/CD player.

MONITOR CONTROL

- 1 Monitor control buttons*1
 - Φ /I (standby/on), MODE, ASPECT, MENU, ∇ and \wedge .

DVD/RECEIVER CONTROL

- 2 Φ /I ATT (standby/on attenuator) button
 - Turns on and off the power and also attenuates the sound.
- 3 SOURCE button
 - Selects the source.

- 4 BAND button
 - Selects the FM/AM bands.
- 5 TOP M (menu) button*2
 - Display the DVD and VCD*3 disc menu.
- 6 DUAL button
 - Activate and deactivate Dual Zone.
- 7 VOL + / - buttons
 - Adjusts the volume level.
 - Also function as 2nd VOL +/- buttons when pressed with SHIFT button.
- 8 SETUP button*2
- 9 SHIFT button
- 10 Basic disc operation buttons*4
 - (stop), ► (play), || (pause)
 - ► (play) also function as ZOOM button when pressed with SHIFT button.

11 Advanced disc operation/tuner operation buttons*5

For advanced disc operations:

- / TITLE ▲ / ▼ — Select the titles (for DVD) or folders (for MP3/WMA).
- / (reverse skip/forward skip)
- / (reverse search/forward search)*4

For tuner operations:

- PRESET ▲ / ▼ — Changes the preset stations.
- / — Functions to search for stations.

- 12 OSD button
 - Display the on-screen bar.
 - Also function as the / TITLE button when pressed with SHIFT button.
 - You can directly select titles (for DVD) or folders (for MP3/WMA) using the number buttons (see page 18).

- 13 MENU button*2
 - Display the DVD and VCD*3 disc menu.

- 14 Menu operation buttons*2
 - Cursor (▲, ▼, ◀, ▶), and ENTER
 - ▲ / ▼ : Also function as DISC + / - buttons when the source is “CD-CH.”

- 15 RETURN button*2
- 16 Special function buttons
 - DVD/VCD: (audio)
 - DVD: (subtitle), (angle)

*1 Controllable only if your monitor is one of the JVC monitors — KV-MR9010 or KV-MH6510.

*2 These buttons function as the number buttons when pressed with SHIFT button.

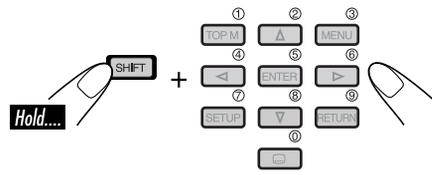
*3 Only when PBC is not in use.

*4 Not used for CD changer operations.

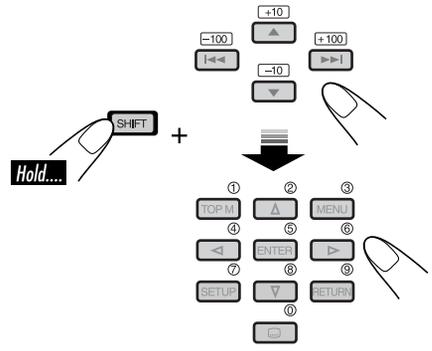
*5 These buttons function as the +10/-10 and +100/-100 buttons when pressed with SHIFT button.

How to select a number

To select a number from 0 – 9:



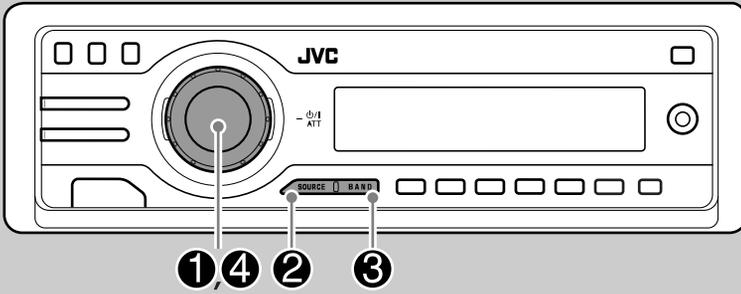
To select a number greater than 9:



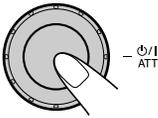
- +100/-100 buttons used only for searching MP3/WMA tracks number greater than 99.

Getting started

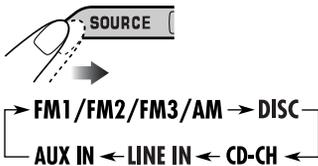
Basic operations



1



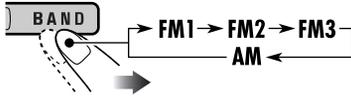
2



You cannot select some sources if they are not ready.

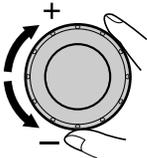
3

For FM/AM tuner only

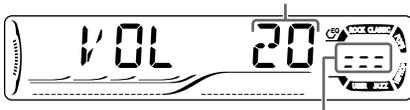


4

Adjust the volume.



Volume level appears.

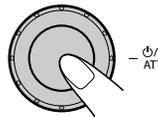


Volume level indicator

5

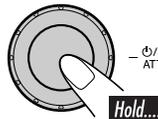
Adjust the sound as you want.
(See pages 33 and 34.)

To drop the volume in a moment (ATT)



To restore the sound, press it again.

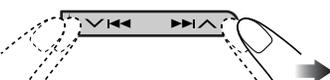
To turn off the power

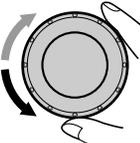


Canceling the display demonstrations

If no operations are done for about 20 seconds, display demonstration starts.

[Initial: DEMO ON]—see page 35.

- 1  **S**
SEL **Hold....**
- 2 

- 3  **DEMO OFF ↔ DEMO ON**


4 Finish the procedure.



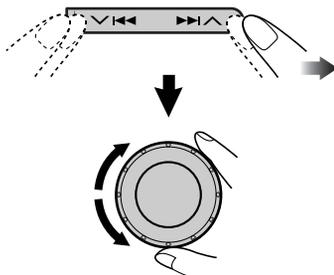
To activate the display demonstration

In step 3 above...



Setting the clock

- 1  **S**
SEL **Hold....**
- 2 Set the hour and minute.
 - 1 Select “CLOCK H” (hour), then adjust the hour.
 - 2 Select “CLOCK M” (minute), then adjust the minute.



3 Finish the procedure.

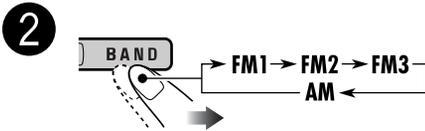
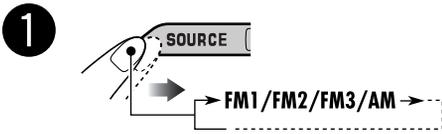
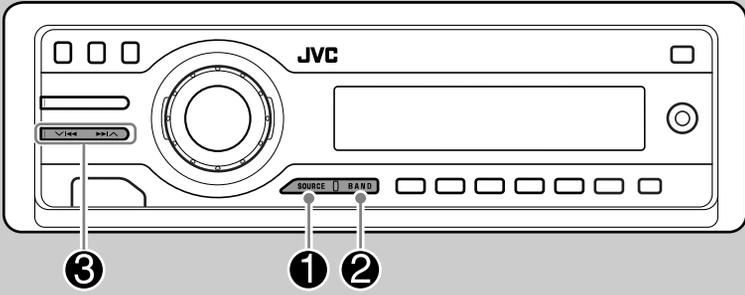


To check the current clock time when the power is turned off

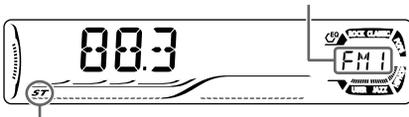


Radio operations

Listening to the radio

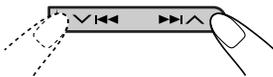


Selected band appears.



Lights up when receiving an FM stereo broadcast with sufficient signal strength.

3 Start searching for a station.

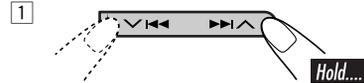


When a station is received, searching stops.

To stop searching, press the same button again.

To tune in to a station manually

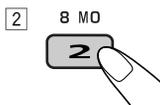
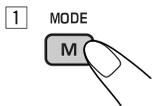
In step 3 on the left column...



2 Select the desired station frequencies.



When an FM stereo broadcast is hard to receive



Lights up when monaural mode is activated.

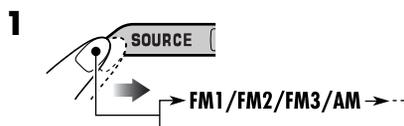
Reception improves, but stereo effect will be lost.

To restore the stereo effect, repeat the same procedure. "MONO OFF" appears and the MO indicator goes off.

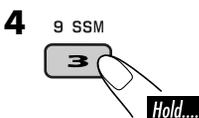
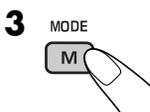
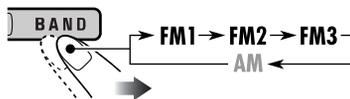
Storing stations in memory

You can preset six stations for each band.

FM station automatic presetting—SSM (Strong-station Sequential Memory)



2 Select the FM band (FM1 – FM3) you want to store into.



"SSM" flashes, then disappears when automatic presetting is over.

Local FM stations with the strongest signals are searched and stored automatically in the FM band.

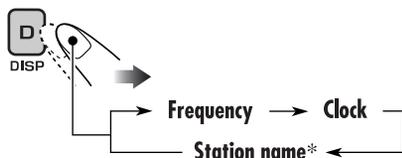
To be continued....

Manual presetting

Ex.: Storing FM station of 92.5 MHz into the preset number 1 of the FM1 band.

-
-
-
- Preset number flashes for a while.

To check the current clock time while listening to an FM or AM station



* If no title is assigned to a station, "NO NAME" appears. To assign a title to a station, see page 37.

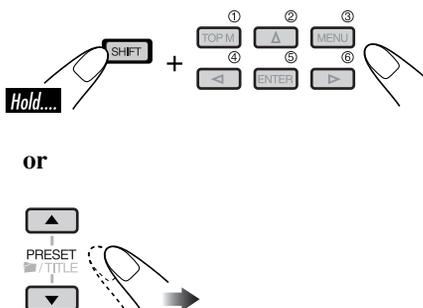
Listening to a preset station

-
-
- Select the preset station (1 – 6) you want.

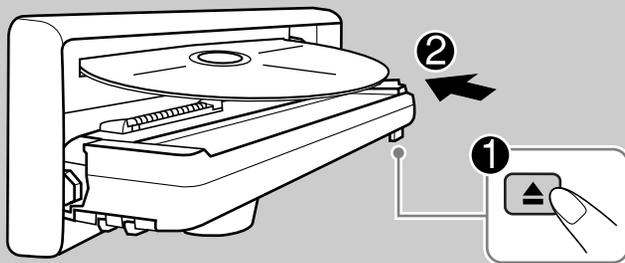
7	8 MO	9 SSM	10 DUAL	11 RPT	12 RND
1	2	3	4	5	6

or

When using the remote controller....



Playing a disc in the unit



The disc type is automatically detected, and playback starts automatically (for DVD: automatic start depends on its internal program).

If the current disc is an audio CD, CD Text, MP3/WMA, or VCD without PBC, all tracks will be played repeatedly until you change the source or eject the disc.

- If a title list or disc menu appears while playing a DVD or VCD with PBC, see “Disc menu operations” on page 20.

Before performing any operations, make sure the following....

- To watch the playback pictures, select the appropriate video system (NTSC or PAL) to match it to the connected monitor. (See page 36.)
- Turn on the monitor for playing a DVD or VCD. If you turn on the monitor, you can also control the audio CD, CD Text, and MP3/WMA playback by referring to the monitor screen. (See pages 24 and 25.)
- For DVD playback, you can change the Setup Menu setting to your preference. (See pages 26 – 28.)
- The operations explained on pages 17 – 28 are using the remote controller.
- When you want to operate the DVD/CD player using the buttons on the control panel, see “Other disc operations” on pages 29 – 31.

The following marks are used to indicate the playable discs....



DVD Video



Video CD with PBC only



Video CD with/without PBC



Audio CD/ CD Text



MP3/WMA disc



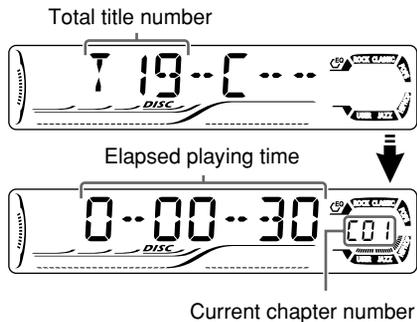
All discs listed here

If “⊘” appears on the monitor when pressing a button, the unit cannot accept an operation you have tried to do.

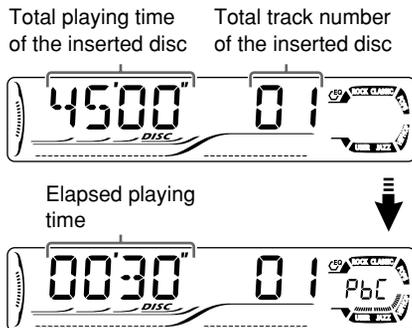
- In some cases, without showing “⊘,” operations will not be accepted.

To be continued....

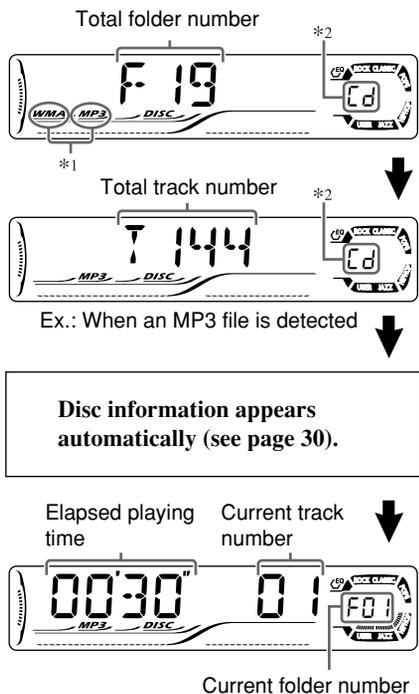
• When inserting a DVD disc:



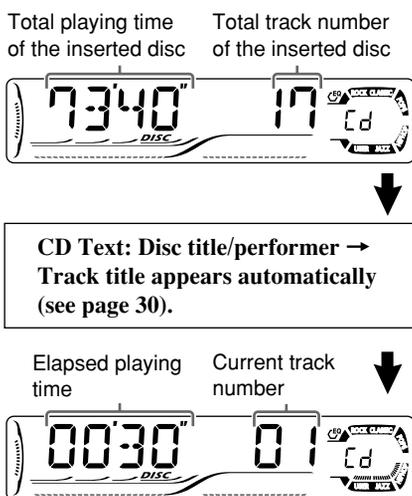
• When inserting a VCD:



• When inserting an MP3/WMA disc:



• When inserting a CD Text/audio CD:



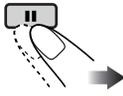
To eject the disc



*1 Either the MP3 or WMA indicator lights up depending on the detected file.

*2 Does not light up for DVD-R/DVD-RW.

Basic operations

Operations	Display indication and/or next operation
<p>To stop play temporarily</p> 	<p>“PAUSE” illuminates on the display. </p> <hr/> <p>A still picture appears. </p> <p>Ⓐ Frame by frame playback</p>  <p>Ⓑ Slow motion playback</p>  <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">▶ 1/32 ⇒ 1/16 ⇒ 1/8 ⇒ 1/4 ⇒ 1/2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin: 5px;">◀ 1/32 ⇒ 1/16 ⇒ 1/8 ⇒ 1/4 ⇒ 1/2</div> <ul style="list-style-type: none"> • No sound comes out during Slow Motion Playback. • When playing a VCD, Reverse Slow Motion Playback is prohibited. <p>To resume normal play:</p> 
<p>To replay the previous scenes—One Touch Replay</p> 	<p>The playback position moves back about 10 seconds before the current position. </p> <ul style="list-style-type: none"> • This function works only within the same title. • For some DVDs, this function does not work.
<p>To stop playback</p> 	<p>When you start playback again, playback starts from where it has been stopped (Resume play). </p> <hr/> <p>When you start playback again, playback starts from the beginning of the last playing track. </p>

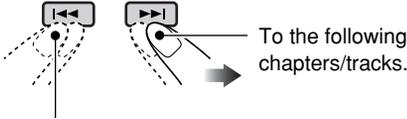
* During play, on-screen guide icons appear on the monitor for a while (see page 48).

To be continued...

To go to the next or previous chapters/tracks

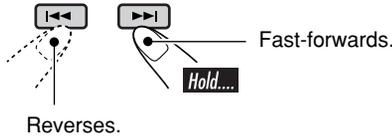


- For DVD: During play or pause



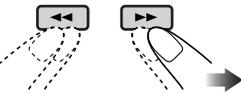
To go back to the beginning of the current chapter/track, then the previous chapters/tracks.

To fast-forward or reverse the chapter/track



* The search speed changes to x2 ⇔ x10 for all discs (DVD, VCD, CD), but the information shown on the monitor is only for DVD/VCD.

To forward or reverse search the chapter/track



The information shown is only for DVD/VCD:

- ▶▶ x2 ⇔ x5 ⇔ x10 ⇔ x20 ⇔ x60
- ◀◀ x2 ⇔ x5 ⇔ x10 ⇔ x20 ⇔ x60

- To resume normal speed



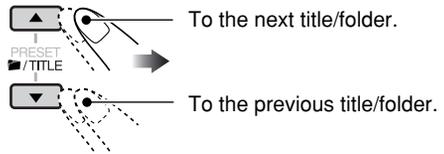
To locate a particular title/chapter/track directly



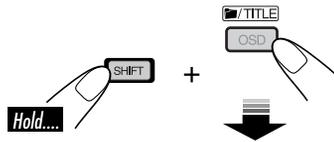
- For DVD: During play or pause—select a chapter. During stop—select a title.
- For VCD: While PBC (see page 20) is not in use.
- For MP3/WMA: Select a track within the same folder.

Select the number corresponding to the item you want (see page 9).

To locate a title/folder



To locate a particular title/folder



Within 10 seconds, press the number buttons (see page 9).

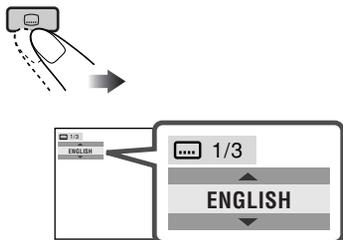
DVD/VCD special functions

Selecting subtitles

You can select the language of the subtitle to be shown on the monitor.



- You can set the initial subtitle language using the setup menu (see page 27).

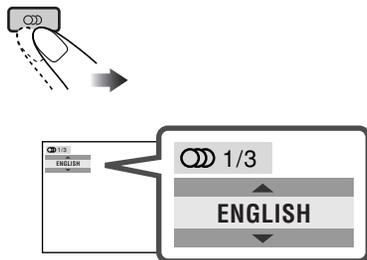


Ex.: When the disc has 3 options

Selecting audio languages

For DVD:

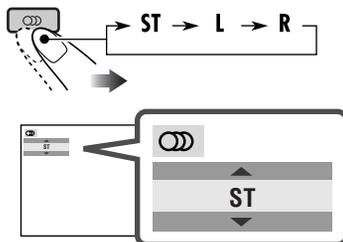
You can select the language to listen to if the disc has multiple audio languages.



Ex.: When the disc has 3 options

For VCD:

You can select the audio channel to play. (This is convenient when playing a Karaoke VCD.)



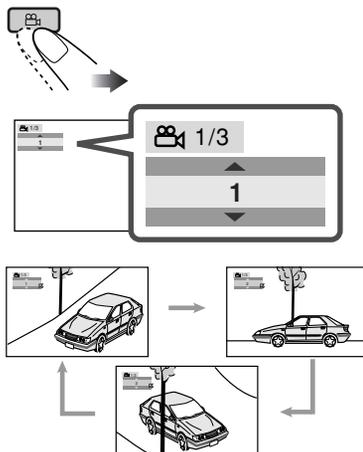
ST: To listen to normal stereo (left/right) playback.

L: To listen to the L (left) audio channel.

R: To listen to the R (right) audio channel.

Selecting multi-angle views

You can view the same scene at different angles if the disc has multi-angle views.



Ex.: When the disc has 3 multi-angle views

- For some DVDs and VCDs, changing the subtitle language, audio language (or audio channel) without using the disc menu is prohibited.

Disc menu operations

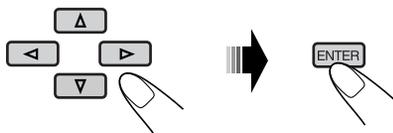
Menu-driven playback is possible while playing back a DVD with menu-driven features or a VCD with the PBC (PlayBack Control).

While playing a DVD



A title list or disc menu will appear on the monitor.

2 Select the item you want on the menu.



Selected item starts playback.

- On some discs, you can also select items using the corresponding number buttons.

While playing a VCD



- When a list of items is displayed on the monitor.



- To select a number greater than 9, see “How to select a number” on page 9.

To return to the previous menus



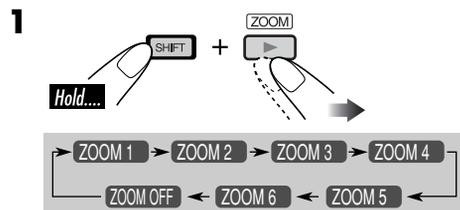
Canceling the PBC playback

- 1
- 2 Select a track to start normal playback using the number buttons (see page 9).

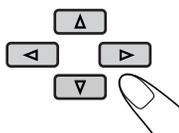
To resume the PBC function



Zoom in



2 Move the zoomed-in portion.



To cancel zoom, select “ZOOM OFF” in step 1.

On-Screen disc operations

About the On-Screen Bar

You can check the disc information and use some functions through the on-screen bar.

- For audio CD, CD Text, and MP3/WMA disc you can also use the control screen and list screen (see pages 24 and 25).

On-Screen bars



* Only for DTS audio CD

- 1 Disc type
- 2
 - Audio signal format type (for DVD and DTS audio CD)
 - PBC (only for VCD)
- 3 Playback information
 - T02-C03** Current track/chapter
 - TRACK 01** Current track
 - TOTAL** Elapsed playing time of the disc
 - T. REM** Remaining disc time (for VCD)/remaining title time (for DVD-V)
 - TIME** Elapsed playing time of the current chapter/track
 - REM** Remaining time of the current chapter/track
- 4 Playback condition
 - Playback
 - Forward/reverse search
 - Forward/reverse slow-motion
 - Pause
 - Stop
- 5 Operation icons
 - TIME** Time indication
 - Time Search—Enter the elapsed playing time of the current title or of the disc.
 - TITLE →** Title Search
 - CHAP →** Chapter Search
 - TRACK →** Track Search
 - Change the audio language or audio channel.
 - Change the subtitle language.
 - Change the view angle.
 - Repeat play (for DVD)
 - REPEAT** Repeat play (for other discs)
 - INTRO** Intro play
 - RANDOM** Random play

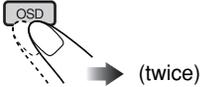
To be continued....

Basic on-screen bar operations

1 Display the on-screen bar.



- For DVD/VCD:



- For other discs:



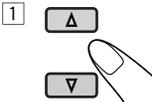
2 Select an item.



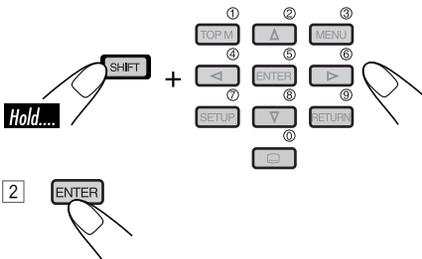
3 Make a selection.



- If pop-up menu appears...



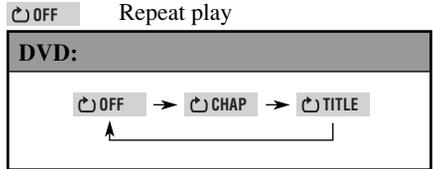
or



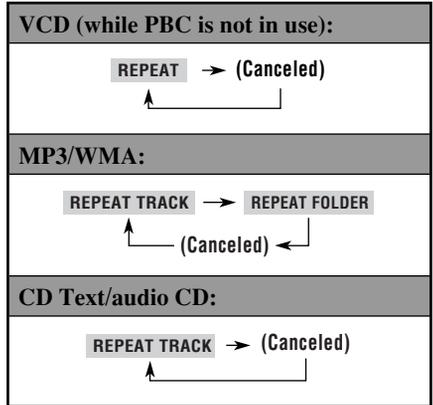
To erase the on-screen bar



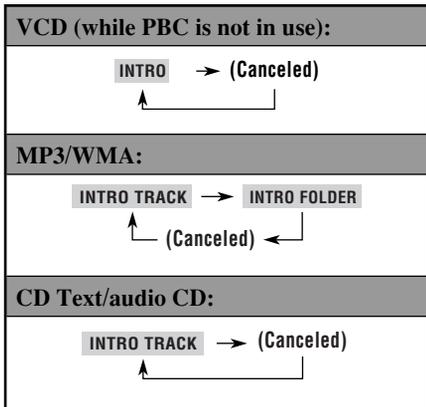
- The selectable options for Repeat/Intro/Random plays:



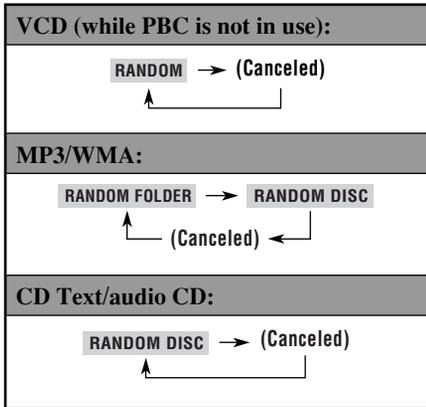
REPEAT Repeat play



INTRO Intro play



RANDOM Random play



Refer also page 22 for the following operations.

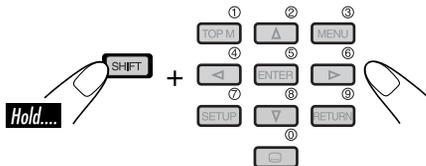
To change the time information

- 1 Select **TIME**.
- 2 Change the time information.



To search for a particular point by playing time

- 1 Select **⏮**.
- 2 Enter the elapsed playing time of the current title or of the disc.



- Ex.:
- To enter 1 (hours): 02 (minutes): 00 (seconds), press 1, 0, 2, 0, then 0.
 - To enter 54 (minutes): 00 (seconds), press 0, 5, 4, 0, then 0.

- It is always required to enter the hour digit (even "0" hour), but it is not required to enter trailing zeros (the last two digits in the examples above).
- To correct a misentry, press...

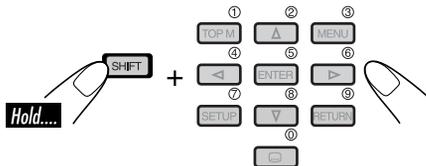


- 3 Finish the procedure.



To search for a particular title /chapter / track

- 1 Select **TITLE**, **CHAP**, or **TRACK**.
- 2 Enter the number.



- To correct a misentry, press the number button until the correct number is entered.

- 3 Finish the procedure.

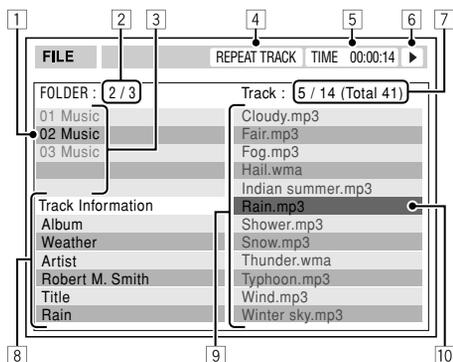


Basic control screen operations

You can search for and play the desired items through the control screen.

- The control screen automatically appears on the monitor when you insert a disc.

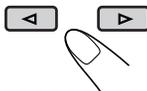
MP3/WMA control screen



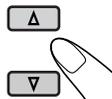
- 1 Current folder
- 2 Current folder number/total folder number
- 3 Folder list
- 4 Selected playback mode
- 5 Elapsed playing time of the current track
- 6 Operation mode icon
▶ (play), ■ (stop), || (pause)
- 7 Current track number/total number of tracks in the current folder (total number of tracks on the disc)
- 8 Track information
- 9 Track list
- 10 Current track (highlighted bar)

To select a folder or track

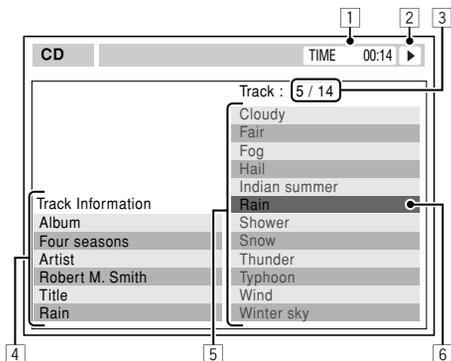
- 1 Select "Folder" column or "Track" column on the control screen.



- 2 Select a folder or track.

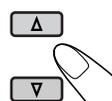


CD Text/audio CD control screen



- 1 Elapsed playing time of the current track
- 2 Operation mode icon
▶ (play), ■ (stop), || (pause), ►► (fast-forward), ◀◀ (reverse)
- 3 Current track number/total number of tracks on the disc
- 4 Track information
- 5 Track list
- 6 Current track (highlighted bar)

To select a track



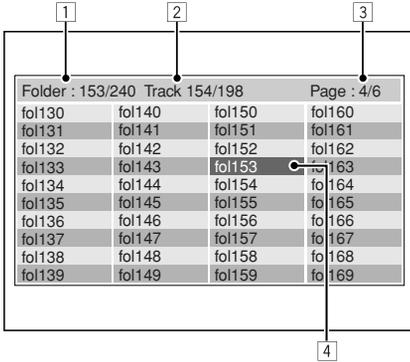
List screen operations

You can display the folder list/track list before starting play. On this list, you can confirm the contents and start playing a disc.

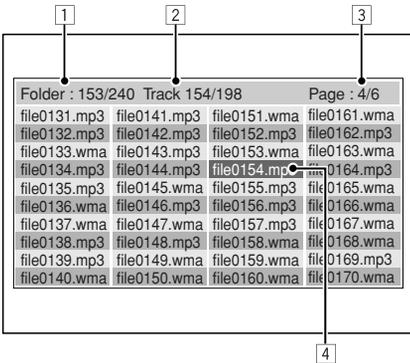
Folder/track list screens



Folder list (MP3/WMA)



Track list (MP3/WMA/CD Text/audio CD)



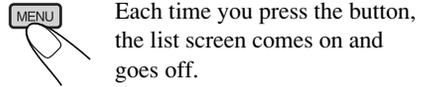
Ex.: Track list for MP3/WMA

- 1 Current folder number/total folder number (only for MP3/WMA)
- 2 Current track number/total number of tracks in the current folder
- 3 Current page/total number of the pages included in the list
- 4 Current folder/track (highlighted bar)

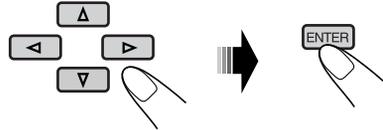
For MP3/WMA:

While stop....

1 Display the folder list.



2 Select a folder on the list.

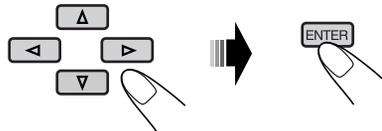


The track list of the selected folder appears.

To go back to the folder list



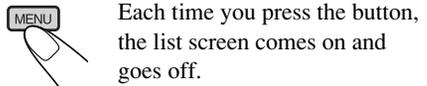
3 Select a track on the list.



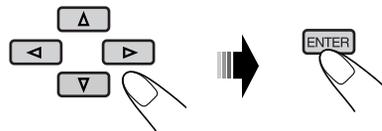
For CD Text/audio CD:

While stop....

1 Display the track list.



2 Select a track on the list.

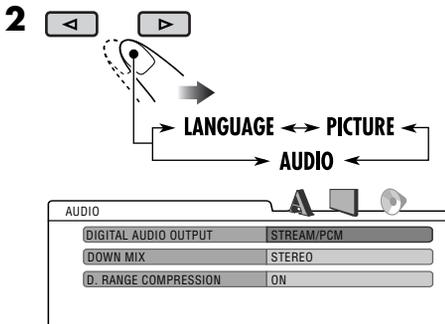
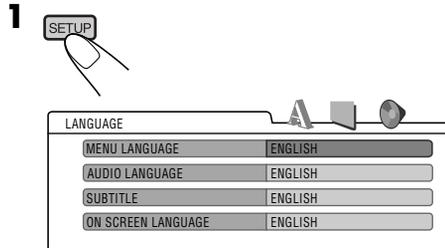


DVD setup menu

You can store the initial disc playback status.
• While playing, no change can be made on the setup menu.

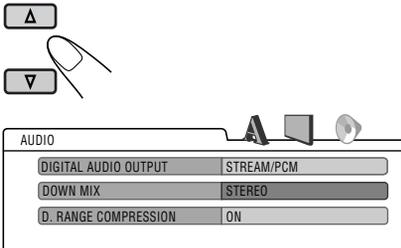
Basic setting procedure

While stop...

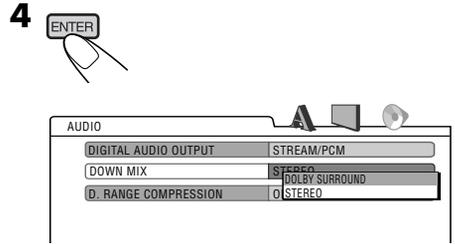


Ex.: When selecting the "AUDIO" menu

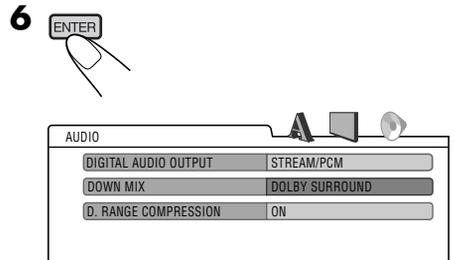
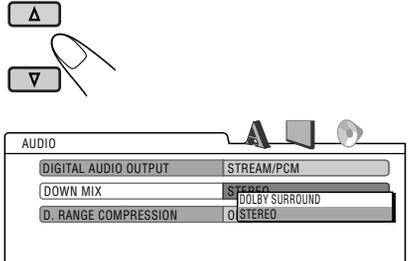
3 Select an item you want to set up.



Ex.: When selecting "DOWN MIX"



5 Select an option.



To set other items on the same menu

Repeat steps 3 to 6.

To set other items on other menus

Repeat steps 2 to 6.

To return to the normal screen





LANGUAGE menu

Item	Contents
MENU LANGUAGE	Select the initial disc menu language.
AUDIO LANGUAGE	Select the initial audio language.
SUBTITLE	Select the initial subtitle language or erase the subtitle (OFF).
ON SCREEN LANGUAGE	Select the language for the Setup menu and some indications shown on the monitor.

- For the LANGUAGE settings, see also the language codes list on page 45.



PICTURE menu

Item	Contents
<p>MONITOR TYPE</p> <p>16:9 4:3 LETTER BOX</p> <p>4:3 PAN SCAN</p>	<p>Select the monitor type to watch a wide screen picture on your monitor.</p> <ul style="list-style-type: none"> • 16:9 [MULTI]* : Select this when the aspect ratio of your monitor is 16:9. • 4:3 [MULTI]* LETTER BOX : Select this when the aspect ratio of your monitor is 4:3. While viewing a wide screen picture, the black bars appear on the top and the bottom of the screen. • 4:3 [MULTI]* PAN SCAN : Select this when the aspect ratio of your monitor is 4:3. While viewing a wide screen picture, the black bars do not appear; however, the left and right edges of the pictures will not be shown on the screen. <p>* Select [MULTI] options for the multi-color system TVs.</p>
<p>OSD POSITION</p> <p>Position 1 Position 2</p>	<p>Select the on-screen bar position on the monitor.</p> <ul style="list-style-type: none"> • 1 : Higher position • 2 : Lower position

To be continued....



AUDIO menu

Item	Contents
DIGITAL AUDIO OUTPUT	<p>Select the signal format to be emitted through the DIGITAL OUT (Optical) terminal on the rear. For details, see page 49.</p> <ul style="list-style-type: none"> • PCM ONLY : Select this when connecting an amplifier or a decoder incompatible with Dolby Digital, DTS, MPEG Audio, or connecting to a recording device. • DOLBY DIGITAL/PCM : Select this when connecting an amplifier or a decoder compatible with Dolby Digital. • STREAM/PCM : Select this when connecting an amplifier or a decoder compatible with Dolby Digital, DTS, and MPEG Audio.
DOWN MIX	<p>When playing back a multi-channel DVD disc, this setting affects the signals reproduced through the LINE OUT jacks (and through the DIGITAL OUT terminal when “PCM ONLY” is selected for “DIGITAL AUDIO OUTPUT”).</p> <ul style="list-style-type: none"> • DOLBY SURROUND : Select this when you want to enjoy multi-channel surround audio by connecting an amplifier compatible with Dolby Surround to this unit. • STEREO : Normally select this.
D.RANGE COMPRESSION	<p>You can enjoy a powerful sound at low or middle volume levels while playing a Dolby Digital software.</p> <ul style="list-style-type: none"> • AUTO : Select this to apply the effect to multi-channel encoded software (excluding 1-channel and 2-channel software). • ON : Select this to always use this function.

Other disc operations

In this section, you can learn how to use the buttons on the control panel in order to operate the DVD/CD player.

MP3
WMA

ENGLISH

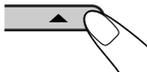
Basic operations

To stop playback



DVD VCD

To start playback again



DVD VCD

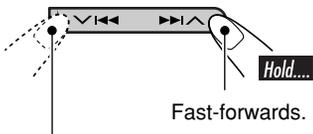
To eject a disc



MP3
WMA

To fast-forward or reverse the chapter/track

DVD VCD CD



Fast-forwards.

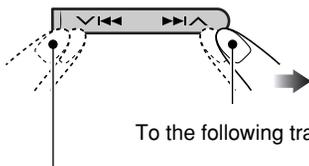
Reverses.

* The search speed changes to x2 ⇒ x10 for all discs (DVD, VCD, CD), but the information shown on the monitor is only for DVD/VCD.

To go to the next or previous chapters/tracks

MP3
WMA

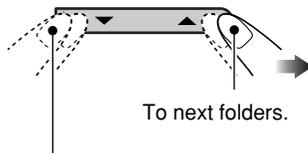
For DVD: During play or pause



To the following tracks.

To the beginning of the current track, then the previous tracks.

To go to the next or previous folders



To next folders.

To previous folders.

To locate a particular title/chapter/folder/track directly

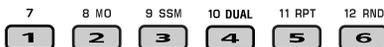
MP3
WMA

- For DVD: During play or pause—select a chapter.
During stop—select a title.
- For VCD: While PBC (see page 20) is not in use.

To select a number from 1 – 6:

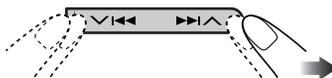


To select a number from 7 – 12:



- The number buttons can also use to select item on the PBC menu.
- To use folder search on MP3/WMA discs, it is required that folders are assigned with 2-digit number at the beginning of their folder names—01, 02, 03, and so on.

- To select a particular track in a folder (for MP3/WMA disc) after selecting a folder:

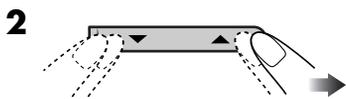
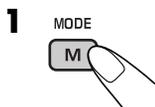


To be continued....

To go to a chapter/track quickly

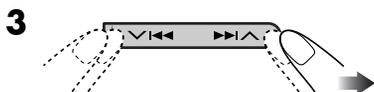


- For DVD: During play or pause.
- For VCD: While PBC (see page 20) is not in use.
- For MP3/WMA: Select a track within the same folder.



First time you press ▲ or ▼ button, the chapter/track skips to the nearest higher or lower chapter/track with a number of multiple ten (ex. 10th, 20th, 30th). Then each time you press the button, you can skip 10 chapters/tracks.

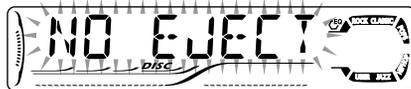
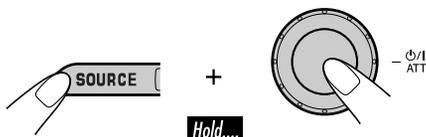
- After the last chapter/track, the first chapter/track will be selected and vice versa.



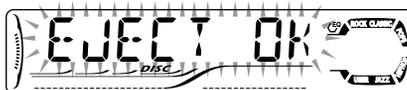
Each time you press the button consecutively, the next or previous chapters/tracks is located and played back.

Prohibiting disc ejection

You can lock a disc in the loading slot.



To cancel the prohibition, repeat the same procedure.

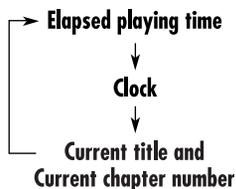


Changing the display information



- For MP3/WMA, CD Text, and audio CD, see page 41.

While playing a DVD

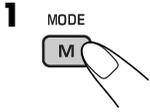


While playing a VCD



Selecting the playback modes

You can use only one of the following playback modes at a time.



2 Select your desired playback mode.

Repeat play



- For DVD: During play or pause.
- For VCD: While PBC (see page 20) is not in use.

11 RPT



Ex.: When "TRK RPT" is selected while playing an MP3 disc

Mode	Plays repeatedly
CHP RPT *1	: The current chapter. • RPT lights up.
TIT RPT *1	: The current title. • and RPT light up.
TRK RPT *2	: The current track. • RPT lights up.
FLDR RPT *3	: All tracks of the current folder. • and RPT light up.
RPT OFF	: For DVD: Cancels Repeat play. For other discs: All tracks of the disc.

Random play



- For VCD: While PBC (see page 20) is not in use.

12 RND



Ex.: When "DISC RND" is selected while playing an MP3 disc

Mode	Plays at random
FLDR RND *3	: All tracks of the current folder, then tracks of the next folder and so on. • RND and light up.
DISC RND	: All tracks of the disc. • RND and light up.
RND OFF	: Cancels.

*1 Only while playing a DVD disc.
*2 Except for DVD discs.
*3 Only while playing an MP3 or a WMA disc.

Dual Zone operations

Listening with headphones

By connecting headphones to the 2nd AUDIO OUT plug on the rear, you can listen to the playback sound through the DVD/CD player while listening to another source through the speakers.



You can activate Dual Zone while listening to any source.

- When Dual Zone is in use, you can only operate the DVD/CD player using the remote controller.

On the remote controller:

1 Activate Dual Zone.

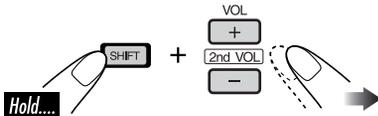


The source automatically changes to “DISC.”

To select a different source to listen through the speakers, press **SOURCE** on the control panel.

- By using the buttons on the control panel, you can operate the newly selected source without affecting Dual Zone operations.

2 Adjust the headphone volume through the 2nd AUDIO OUT plug.

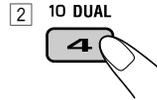
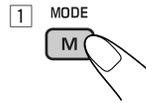


3 Operate the DVD/CD player using the remote controller by referring to the monitor screen.

To cancel Dual Zone operations, repeat step 1. (“DUAL OFF” appears on the display.)

On the control panel:

You can also activate and deactivate Dual Zone.



The source automatically changes to “DISC” when Dual Zone is activated.

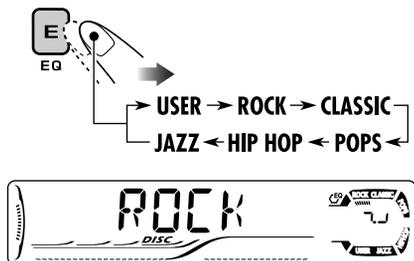
Cautions:

- DO NOT put on the headphones while driving a car. It is dangerous to shut off the outside sounds while driving.
- DO NOT put on the headphones before adjusting the 2nd VOL level properly; otherwise, it may damage your hearing.

Sound adjustments

Selecting preset sound modes

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



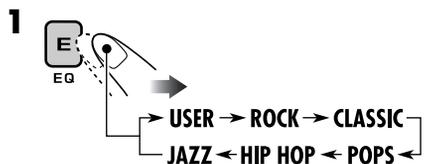
Ex.: When "ROCK" is selected

Indication pattern for each sound mode:

USER	ROCK
JAZZ	CLASSIC
HIP HOP	POPS

Storing your own sound adjustments

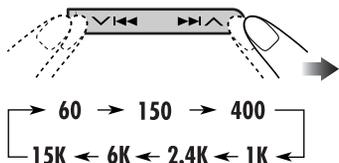
You can adjust the sound modes and store your own adjustments in memory.



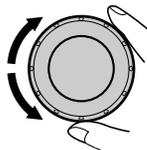
2 Enter the sound adjustment mode.



3 Select a frequency to adjust.



4 Adjust the level (-05 to +05).



5 Repeat steps 3 and 4 to adjust the other frequency bands.

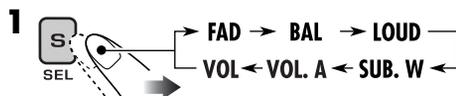
6 Store the adjustments in the respective mode.



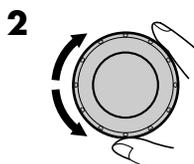
- For the preset frequency level settings, see page 48.

Adjusting the sound

You can adjust the sound characteristics to your preference.



Ex.: When "FAD" is selected



Indication pattern changes as you adjust the level.



Indication	To do:	Range
FAD* ² (fader)	Adjust the front and rear speaker balance.	R06 (Rear only) to F06 (Front only)
BAL (balance)	Adjust the left and right speaker balance.	L06 (Left only) to R06 (Right only)
LOUD (loudness)	Boost low and high frequencies to produce a well-balanced sound at low volume level.	LOUD ON ↓ LOUD OFF
SUB. W* ³ (subwoofer)	Adjust the subwoofer output level.	00 (min.) to 08 (max.)
VOL. A* ⁴ (volume adjust)	Adjust and store the volume level of each source.	-05 (min.) to +05 (max.)
VOL* ⁵ (volume)	Adjust the volume.	00 (min.) to 30 or 50 (max.)* ⁶

*² If you are using a two-speaker system, set the fader level to "00."

*³ This takes effect only when a subwoofer is connected.

*⁴ You cannot make an adjustment if the source is FM. "FIX" will appear.

*⁵ Normally the control dial works as the volume control. So you do not have to select "VOL" to adjust the volume level.

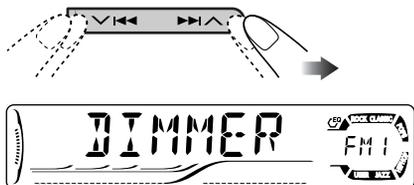
*⁶ Depending on the amplifier gain control setting. (See page 36 for details.)

General settings — PSM

Basic procedure

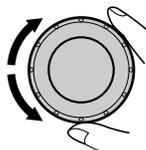
You can change PSM (Preferred Setting Mode) items listed in the table that follows.

- 1  **Hold...**
- 2 Select a PSM item.



Ex.: When you select "DIMMER"

- 3 Adjust the PSM item selected.



- 4 Repeat steps 2 and 3 to adjust the other PSM items if necessary.
- 5 Finish the procedure.



Indications	Selectable settings, [reference page]
DEMO Display demonstration	DEMO ON : [Initial]; Display demonstration will be activated automatically if no operation is done for about 20 seconds, [11]. DEMO OFF : Cancels.
CLOCK H Hour adjustment	1 – 12, [11] [Initial: 1 (1:00)]
CLOCK M Minute adjustment	00 – 59, [11] [Initial: 00 (1:00)]
LEVEL Audio level meter	ON : [Initial]; Activates the audio level indicator. OFF : Cancels; sound mode indicator is shown, [33].
DIMMER Dimmer	AUTO : [Initial]; Dims the display when you turn on the headlights. ON : Activates dimmer. OFF : Cancels.
TEL Telephone muting	MUTING 1/MUTING 2 : Select either one which mutes the sounds while using the cellular phone. OFF : [Initial]; Cancels.

To be continued...

Indications	Selectable settings, [reference page]
SCROLL *1 Scroll	ONCE : [Initial]; Scrolls the disc information once. AUTO : Repeats scrolling (5-second intervals in between). OFF : Cancels. • Even if “SCROLL” is set to “OFF,” you can scroll the display by pressing D DISP for more than one second.
WOOFER Subwoofer cutoff frequency	LOW : Frequencies lower than 80 Hz are sent to the subwoofer. MID : [Initial]; Frequencies lower than 120 Hz are sent to the subwoofer. HIGH : Frequencies lower than 160 Hz are sent to the subwoofer.
HPF High pass filter	HPF ON : The cut-off frequency is chosen automatically according to the WOOFER setting (LOW/MID/HIGH) so that you can enjoy the low frequency effect (LFE) purely from the subwoofer if it is connected. HPF OFF : [Initial]; Cancels.
TAG DISP Tag display	TAG ON : [Initial]; Shows the ID3 tag while playing MP3/WMA tracks, [41]. TAG OFF : Cancels.
NTSC/PAL *2 Video format	PAL : [Initial]; Select this if your monitor is of the PAL color system. NTSC : Select this if your monitor is of the NTSC color system.
REAR SPK *3 Rear speaker output	ON : [Initial]; Select this to turn on the rear speaker output. OFF : Cancels.
AMP GAIN Amplifier gain control	You can change the maximum volume level of this unit. LOW PWR : VOL 00 – VOL 30 (Select this if the maximum power of the speaker is less than 50 W to prevent them from damaging the speaker.) HIGH PWR : [Initial]; VOL 00 – VOL 50

*1 Some characters or symbols will not be shown (and will be blanked) on the display (Ex. “ABC&!d#” ⇨ “ABCA D ”).

*2 The newly selected video format takes effect only after you turn on the power again, reload the disc, or change the source.

*3 Displayed only when Dual Zone is activated (see page 32).

Other main functions

Assigning titles to the sources

You can assign titles to station frequencies and CDs (both in this unit and in the CD changer).

Sources	Maximum number of characters
FM/AM tuner	Up to 8 characters (up to 30 station frequencies)
DISC/CD-CH	Up to 32 characters (up to 30 discs)

- You cannot assign a title to a DVD, VCD, CD Text, or an MP3/WMA disc.

1 Select the source.

- For FM/AM tuner: Tune into a station.
- For a CD in this unit: Insert a CD.
- For CDs in the CD changer: Select "CD-CH," then select a disc number.

2 Enter the title assignment mode.



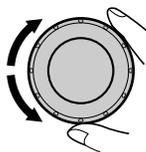
Hold....



Ex.: When you select "DISC" as the source

3 Assign a title.

- 1 Select a character.



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	0	1
2	3	4	5	6	7	8	9	-	/	<	>	space	

- 2 Move to the next (or previous) character position.



- 3 Repeat steps 1 and 2 until you finish entering the title.

4 Finish the procedure.



To erase the entire title

In step 2 on the left column....

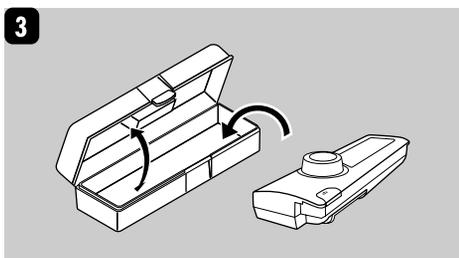
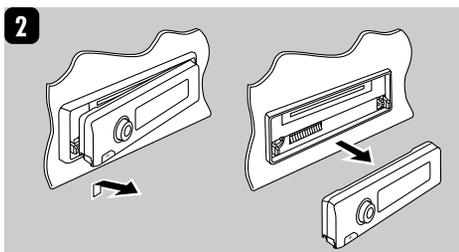
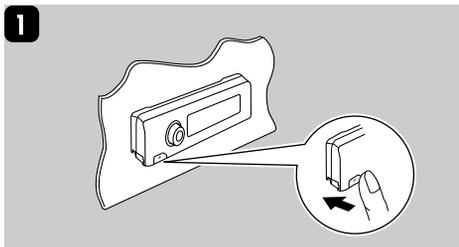


Detaching the control panel

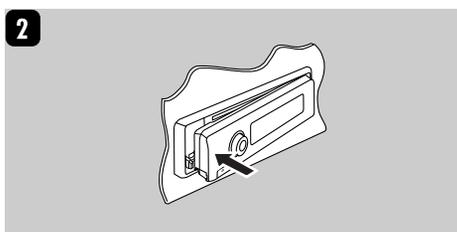
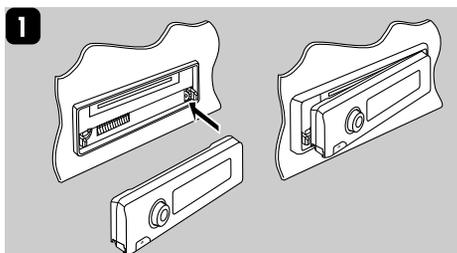
When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

■ Detaching the control panel

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

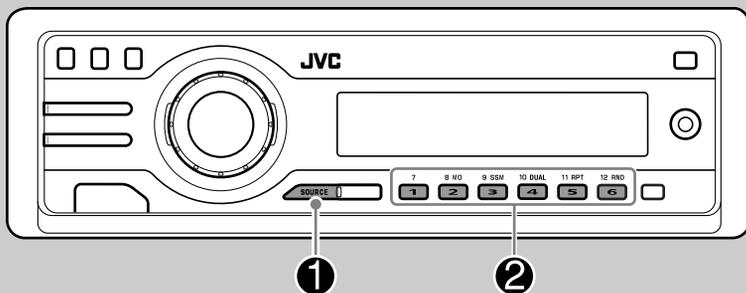


■ Attaching the control panel



CD changer operations

Playing discs in the CD changer

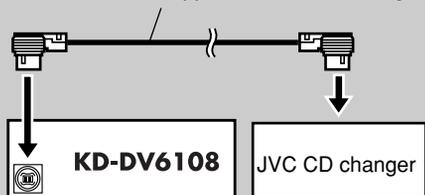


Before connecting the CD changer

- To prevent short circuits, it is recommended to disconnect the car battery's negative terminal and make all electrical connections before connecting the CD changer.
- When mounting this unit into your car, be sure to use the screws provided.
- When tightening screws or bolts, be careful not to pinch any connection cord.
- If you are not sure how to connect the CD changer correctly, consult your car dealer or JVC car audio dealer, or have it installed by a qualified technician.

Connecting the CD changer

Connection cord supplied for the CD changer

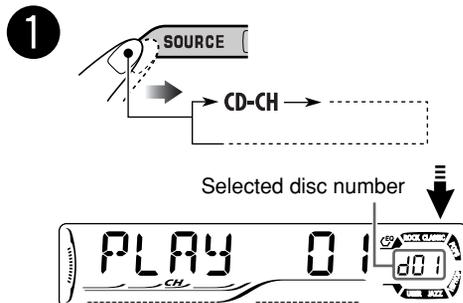


About the CD changer

It is recommended to use the JVC MP3-compatible CD changer with your unit.

- You can also connect other CH-X series CD changers (except CH-X99 and CH-X100). However, they are not compatible with MP3 discs, so you cannot play back MP3 discs.
- You cannot play any DVD, VCD, and WMA disc in the CD changer.
- You cannot use the KD-MK series CD changers with this unit.
- Disc text information recorded in the CD Text can be displayed when a JVC CD Text compatible CD changer is connected.

All tracks of the inserted disc in the magazine will be played repeatedly until you change the source or eject the magazine from the CD changer.



To be continued...

2

Select a disc.

For disc number from 01 – 06:

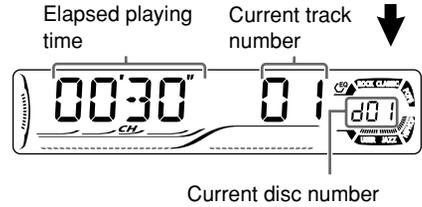


For disc number from 07 – 12:

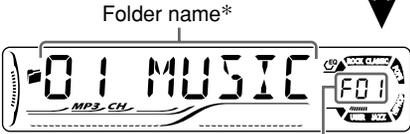
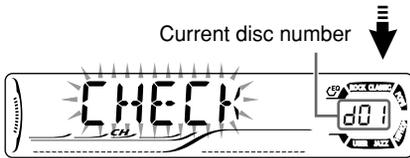


- When the current disc is an audio CD or a CD Text disc:

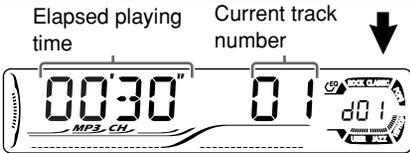
CD Text: Disc title/performer →
Track title appear automatically
(see page 41).



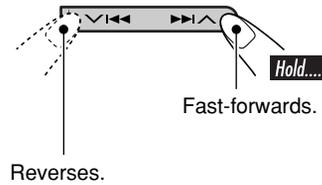
- When the current disc is an MP3 disc:



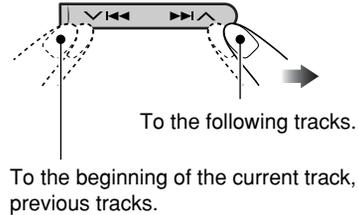
Current folder number
Disc information appears automatically (see page 41).



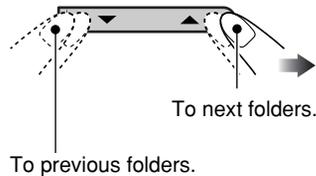
To fast-forward or reverse the track



To go to the next or previous tracks



To go to the next or previous folders (only for MP3 discs)

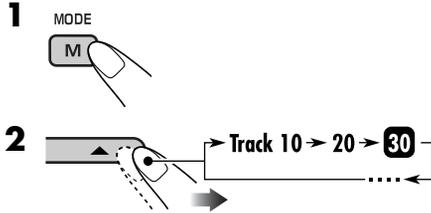


* "ROOT" appears if no folder is included in the disc.

To skip to a track quickly during play

- For MP3 disc, you can skip a track within the same folder.

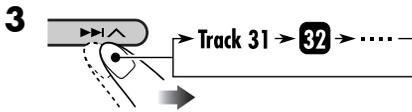
Ex.: To select track 32 while playing track 6



First time you press ▲ or ▼ button, the track skips to the nearest higher or lower track with a track number of multiple ten (ex. 10th, 20th, 30th).

Then each time you press the button, you can skip 10 tracks.

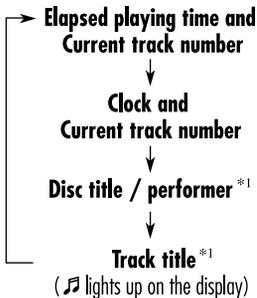
- After the last track, the first track will be selected and vice versa.



Changing the display information

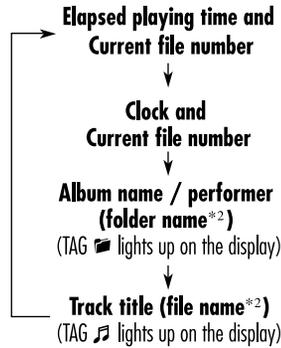


While playing an audio CD or a CD Text

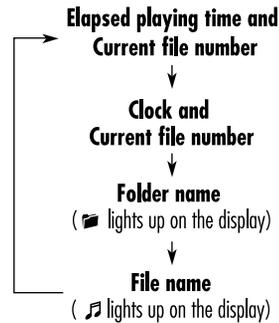


While playing an MP3 disc

- When “TAG DISP” is set to “TAG ON” (see page 36)



- When “TAG DISP” is set to “TAG OFF”



*1 If no title is assigned to an audio CD, “NO NAME” appears. To assign a title to an audio CD, see page 37.

*2 If an MP3 file does not have ID3 tags, folder name and file name appear. In this case, the TAG indicator will not light up.

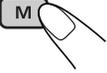
To be continued...

Selecting the playback modes

You can use only one of the following playback modes at a time.

1

MODE



2 Select your desired playback mode.

Repeat play

11 RPT



Ex.: When "TRK RPT" is selected while playing an MP3 disc

Random play

12 RND



Ex.: When "DISC RND" is selected while playing an MP3 disc

Mode

Plays repeatedly

- | | |
|------------------|---|
| TRK RPT | : The current track.
• RPT lights up. |
| FLDR RPT* | : All tracks of the current folder.
• and RPT light up. |
| DISC RPT | : All tracks of the inserted discs.
• and RPT light up. |
| RPT OFF | : Cancels. |

Mode

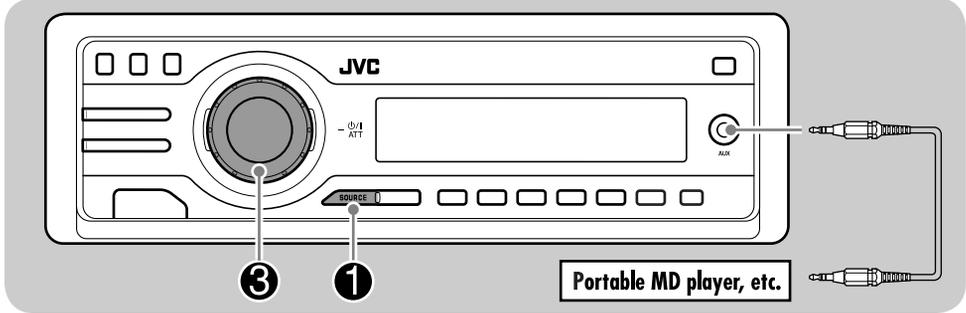
Plays at random

- | | |
|------------------|---|
| FLDR RND* | : All tracks of the current folder, then tracks of the next folder and so on.
• RND and light up. |
| DISC RND | : All tracks of the current disc.
• RND and light up. |
| MAG RND | : All tracks of the inserted discs.
• RND lights up. |
| RND OFF | : Cancels. |

* Only while playing an MP3 disc.

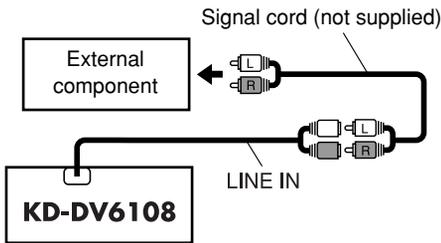
External component operations

Playing an external component

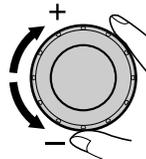


You can connect an external component to the LINE IN plug on the rear, and another to the AUX (auxiliary) input jack on the control panel.

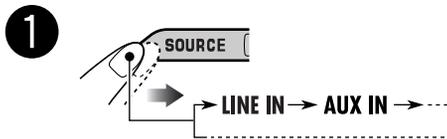
Connecting the external component to the LINE IN plug on the rear



- 2 Turn on the connected component and start playing the source.
- 3 Adjust the volume.



- 4 Adjust the sound as you want. (See pages 33 and 34.)



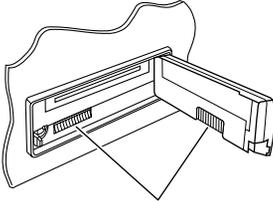
- LINE IN: For selecting the external component connected to the LINE IN plug.
- AUX IN: For selecting the external component connected to the AUX input jack.

Maintenance

How to clean the connectors

Frequent detachment will deteriorate the connectors.

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



Connector

Moisture condensation

Moisture may condense on the lens inside the DVD/CD player in the following cases:

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

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

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.

Center holder



- 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.



- Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzene, etc.) to clean discs.

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.

Do not use the following discs:



Language codes

Code	Language	Code	Language	Code	Language
AA	Afar	IK	Inupiak	RN	Kirundi
AB	Abkhazian	IN	Indonesian	RO	Rumanian
AF	Afrikaans	IS	Icelandic	RW	Kinyarwanda
AM	Ameharic	IW	Hebrew	SA	Sanskrit
AR	Arabic	JI	Yiddish	SD	Sindhi
AS	Assamese	JW	Javanese	SG	Sangho
AY	Aymara	KA	Georgian	SH	Serbo-Croatian
AZ	Azerbaijani	KK	Kazakh	SI	Singhalese
BA	Bashkir	KL	Greenlandic	SK	Slovak
BE	Byelorussian	KM	Cambodian	SL	Slovenian
BG	Bulgarian	KN	Kannada	SM	Samoan
BH	Bihari	KO	Korean (KOR)	SN	Shona
BI	Bislama	KS	Kashmiri	SO	Somali
BN	Bengali, Bangla	KU	Kurdish	SQ	Albanian
BO	Tibetan	KY	Kirghiz	SR	Serbian
BR	Breton	LA	Latin	SS	Siswati
CA	Catalan	LN	Lingala	ST	Sesotho
CO	Corsican	LO	Laothian	SU	Sundanese
CS	Czech	LT	Lithuanian	SW	Swahili
CY	Welsh	LV	Latvian, Lettish	TA	Tamil
DZ	Bhutani	MG	Malagasy	TE	Telugu
EL	Greek	MI	Maori	TG	Tajik
EO	Esperanto	MK	Macedonian	TH	Thai
ET	Estonian	ML	Malayalam	TI	Tigrinya
EU	Basque	MN	Mongolian	TK	Turkmen
FA	Persian	MO	Moldavian	TL	Tagalog
FI	Finnish	MR	Marathi	TN	Setswana
FJ	Fiji	MS	Malay (MAY)	TO	Tonga
FO	Faroese	MT	Maltese	TR	Turkish
FY	Frisian	MY	Burmese	TS	Tsonga
GA	Irish	NA	Nauru	TT	Tatar
GD	Scots Gaelic	NE	Nepali	TW	Twi
GL	Galician	NO	Norwegian	UK	Ukrainian
GN	Guarani	OC	Occitan	UR	Urdu
GU	Gujarati	OM	(Afan) Oromo	UZ	Uzbek
HA	Hausa	OR	Oriya	VI	Vietnamese
HI	Hindi	PA	Panjabi	VO	Volapuk
HR	Croatian	PL	Polish	WO	Wolof
HU	Hungarian	PS	Pashto, Pushto	XH	Xhosa
HY	Armenian	PT	Portuguese	YO	Yoruba
IA	Interlingua	QU	Quechua	ZU	Zulu
IE	Interlingue	RM	Rhaeto-Romance		

More about this unit

Basic operations

Turning on the power

- By pressing SOURCE on the unit, you can also turn on the power.

Selecting the sources

- When no disc is loaded in the unit, “DISC” cannot be selected.
- Without connecting to the CD changer, “CD-CH” cannot be selected.

Turning off the power

- If you turn off the power while listening to a disc, disc play will start automatically, next time you turn on the power.

Tuner operations

Storing stations in memory

- During SSM search...
 - All previously stored stations are erased and stations are stored newly.
 - Received stations are preset in No. 1 (lowest frequency) to No. 6 (highest frequency).
 - When SSM is over, the station stored in No. 1 will be automatically tuned in.
- When storing a station manually, a previously preset station is erased when a new station is stored in the same preset number.

Disc operations

General

- In this manual, words “track” and “file” are interchangeably used when referring to MP3/WMA files and their file names.
- This unit can also playback 8 cm discs.
- This unit can only playback audio CD (CD-DA) files if different type of files are recorded in the same disc.
 - The first track will be skipped if a different type of file is detected first.

- When a disc has been loaded, selecting “DISC” for the playback source starts disc play.

Inserting a disc

- When a disc is inserted upside down, “PLEASE” and “EJECT” appear alternately on the display. Press ▲ to eject the disc.

Playing a DVD-R/DVD-RW or CD-R/CD-RW

- Use only “finalized” discs.
- This unit can play back only the files of the same type which is first detected if a disc includes both audio CD (CD-DA) files and MP3/WMA files.
- Only for CD-R/CD-RW: This unit can play back multi-session discs; however, unclosed sessions will be skipped while playing.
- Some DVD-R/DVD-RW or CD-R/CD-RW may not play back on this unit because of their disc characteristics, and for the following causes:
 - Discs are dirty or scratched.
 - Moisture condensation occurs on the lens inside the unit.
 - The pickup lens inside the unit is dirty.
 - CD-R/CD-RW on which the files are written with “Packet Write” method.
 - DVD-R/DVD-RW which are not written in UDF-Bridge Format (eg. UDF format or ISO format).
 - There are improper recording conditions (missing data, etc.) or media conditions (stain, scratch, warp, etc.).
- DVD-RW/CD-RW may require a longer readout time since the reflectance of DVD-RW/CD-RW is lower than that of regular discs.

- Do not use the following DVD-R/DVD-RW or CD-R/CD-RW:
 - Discs with stickers, labels, or protective seal stuck to the surface.
 - Discs on which labels can be directly printed by an ink jet printer.

Using these discs under high temperatures or high humidities may cause malfunctions or damages to discs.

Playing an MP3/WMA disc

- This unit can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower) recorded in either CD-R/CD-RW or in DVD-R/DVD-RW.
- This unit can show the names of albums, artists (performer), and ID3 Tag (Version 1.0, 1.1, 2.2, 2.3, or 2.4) for MP3 files and WMA files.
- This unit can display only one-byte characters. No other characters can be correctly displayed.
- This unit can play back MP3/WMA files meeting the conditions below:
 - Bit rate: MP3: 32 kbps — 320 kbps
WMA: 32 kbps — 192 kbps
 - Sampling frequency:
48 kHz, 44.1 kHz, 32 kHz (for MPEG-1)
24 kHz, 22.05 kHz, 16 kHz (for MPEG-2)
48 kHz, 44.1 kHz, 32 kHz (for WMA)
 - Disc format: ISO 9660 Level 1/ Level 2, Romeo, Joliet, Windows long file name
- The maximum number of characters for file/folder names vary among the disc format used (includes 4 extension characters—<.mp3> or <.wma>).
 - ISO 9660 Level 1: up to 12 characters
 - ISO 9660 Level 2: up to 31 characters
 - Romeo: up to 128 characters
 - Joliet: up to 64 characters
 - Windows long file name: up to 128 characters
- This unit can recognize the total of 1100 files, 250 folders (maximum of 999 files per folder).

- This unit can play back the files recorded in VBR (variable bit rate).
The files recorded in VBR have a discrepancy in elapsed time display, and do not show the actual elapsed time. Especially, after performing the search function, this difference becomes noticeable.
- This unit cannot play back the following files:
 - MP3 files encoded with MP3i and MP3 PRO format.
 - MP3 files encoded in an unappropriated format.
 - MP3 files encoded with Layer 1/2.
 - WMA files encoded with lossless, professional, and voice format.
 - WMA files which are not based upon Windows Media® Audio.
 - WMA files copy-protected with DRM.
 - WMA files recorded with MBR (Multiple Bit Rate) format.
 - Files which have the data such as WAVE, ATRAC3, etc.

Changing the source

- If you change the source, playback also stops (without ejecting the disc).
Next time you select “DISC” for the playback source (without activating Dual Zone), disc play starts from where it has been stopped previously.
For MP3/WMA discs, playback will start from the beginning of the last playing track.

Ejecting a disc

- If the ejected disc is not removed within 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust. (Disc will not play this time.)

DVD setup menu

- When the language you have selected is not recorded on a disc, the original language is automatically used as the initial language. In addition, for some discs, the initial languages settings will not work as you set due to their internal disc programming.

To be continued....

- While playing (or pausing), you cannot change these languages.
After you change any of these language settings, eject the disc and insert it (or another disc) again so that your setting takes effect.
- When you select “16:9 [MULTI]” for a picture whose aspect ratio is 4:3, the picture slightly changes due to the process for converting the picture width.
- Even if “4:3 [MULTI] PAN SCAN” is selected, the screen size may become “4:3 [MULTI] LETTER BOX” with some DVDs. This depends on how they are recorded.

General settings—PSM

- If you change the “AMP GAIN” setting from “HIGH PWR” to “LOW PWR” while the volume level is set higher than “VOL 30,” the unit automatically changes the volume level to “VOL 30.”

Other main functions

- If you try to assign a title to a 31st station or 31st disc, “NAMEFULL” flashes on the display. Delete unwanted titles before assignment.
- Titles assigned to discs in the CD changer can also be shown if you playback the disc on the unit.

On-screen guide icons

During play, the following guide icons may appear for a while on the monitor.

-  : Appears at the beginning of a scene containing multi-subtitle languages (for DVD only).
-  : Appears at the beginning of a scene containing multi-audio languages (for DVD only).
-  : Appears at the beginning of a scene containing multi-angle views (for DVD only).
-  : Playback
-  : Pause
-  : Forward Slow Motion Playback (for DVD and VCD only)
-  : Reverse Slow Motion Playback (for DVD only)
-  : Forward search
-  : Reverse search

Sound modes (preset frequency level settings)

The list below shows the preset frequency level settings for each sound mode (see page 33).

Sound mode	Preset equalizing values						
	60 Hz	150 Hz	400 Hz	1 kHz	2.4 kHz	6 kHz	15 kHz
USER	00	00	00	00	00	00	00
ROCK	+03	+02	00	00	+01	+02	+01
CLASSIC	+01	+03	+01	00	00	+02	00
POPS	00	+02	00	00	00	+01	+02
HIP HOP	+04	+01	-01	-02	00	+01	00
JAZZ	+03	+02	+01	+01	+01	+03	+01

About sounds reproduced through the rear terminals

- Through the analog terminals (Speaker out/LINE OUT/2nd AUDIO OUT): 2-channel signal is emitted.
When playing a multi-channel encoded disc, multi-channel signals are downmixed. (AUDIO—DOWN MIX: see page 28.)
- Through DIGITAL OUT (optical):
Digital signals (Linear PCM, Dolby Digital, DTS, MPEG Audio) are emitted through this terminal. (For more details, see below.)
To reproduce multi-channel sounds such as Dolby Digital and DTS, connect an amplifier or a decoder compatible with these multi-channel sources to this terminal, and set “DIGITAL AUDIO OUTPUT” correctly. (See page 28.)
- About Dual Zone
While you are listening to the radio, CD changer, or external component through the speakers built into your car compartment, you can listen to the playback sound of this DVD/CD player using the headphones connected to the 2nd AUDIO OUT plug at the same time. (For details, see page 32.)

Output signals through the DIGITAL OUT terminal

Output signals are different depending on the “DIGITAL AUDIO OUTPUT” setting on the setup menu (see page 28).

DIGITAL AUDIO OUTPUT Playback Disc		Output Signals		
		STREAM/PCM	DOLBY DIGITAL/PCM	PCM ONLY
DVD	48 kHz, 16/20/24 bits Linear PCM 96 kHz, Linear PCM	48 kHz, 16 bits stereo Linear PCM		
	with DTS	DTS bitstream	48 kHz, 16 bits stereo Linear PCM	
	with Dolby Digital	Dolby Digital bitstream		48 kHz, 16 bits stereo Linear PCM
	with MPEG Audio	MPEG bitstream	48 kHz, 16 bits Linear PCM	
Audio CD, Video CD		44.1 kHz, 16 bits stereo Linear PCM / 48 kHz, 16 bits stereo Linear PCM		
Audio CD with DTS		DTS bitstream	44.1 kHz, 16 bits stereo Linear PCM	
MP3/WMA		32/44.1/48 kHz, 16 bits Linear PCM		

Troubleshooting

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

	Symptoms	Causes	Remedies
General	<ul style="list-style-type: none"> • Sound cannot be heard from the speakers. 	<p>The volume level is set to the minimum level.</p> <p>Connections are incorrect.</p>	<p>Adjust it to the optimum level.</p> <p>Check the cords and connections.</p>
	<ul style="list-style-type: none"> • The unit does not work at all. 	<p>The built-in microcomputer may have functioned incorrectly due to noise, etc.</p>	<p>Reset the unit (see page 2).</p>
	<ul style="list-style-type: none"> • Remote controller does not work. 	<p>Dual Zone is activated (see page 32).</p>	<p>While Dual Zone is activated, remote controller only functions for operating the DVD/CD player.</p>
FM/AM	<ul style="list-style-type: none"> • SSM automatic presetting does not work. 	<p>Signals are too weak.</p>	<p>Store stations manually.</p>
	<ul style="list-style-type: none"> • Static noise while listening to the radio. 	<p>The antenna is not connected firmly.</p>	<p>Connect the antenna firmly.</p>
Disc playback	<ul style="list-style-type: none"> • Disc cannot be played back. 	<p>Disc is inserted upside down.</p>	<p>Insert the disc correctly.</p>
	<ul style="list-style-type: none"> • CD-R/CD-RW or DVD-R/DVD-RW cannot be played back. • Tracks on the CD-R/CD-RW or DVD-R/DVD-RW cannot be skipped. 	<p>CD-R/CD-RW or DVD-R/DVD-RW is not finalized.</p>	<ul style="list-style-type: none"> • Insert a finalized CD-R/CD-RW or DVD-R/DVD-RW. • Finalize the CD-R/CD-RW or DVD-R/DVD-RW with the component which you used for recording.
	<ul style="list-style-type: none"> • Disc cannot be recognized. 	<p>The DVD/CD player may have functioned incorrectly.</p>	<p>Eject the disc forcibly (see page 2).</p>
	<ul style="list-style-type: none"> • “NO DISC” appears on the display. 	<p>Disc is inserted incorrectly.</p>	<p>Insert the disc correctly.</p>

	Symptoms	Causes	Remedies
Disc playback	<ul style="list-style-type: none"> • Sound and picture are sometimes interrupted or distorted. 	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"> • No playback picture (DVD, VCD) appears on the monitor. 	Parking brake wire is not connected properly.	See Installation/Connection Manual.
	<ul style="list-style-type: none"> • No picture appears on the monitor at all. 	The video cord is not connected correctly.	Connect the video cord correctly.
		An incorrect input has been selected on the TV or monitor.	Select a correct input on the TV or monitor.
<ul style="list-style-type: none"> • The playback picture (DVD, VCD) are not stable and distorted. 	The disc (DVD, VCD) is recorded in NTSC format.	Change the disc. Change the video format to NTSC (see page 36).	
<ul style="list-style-type: none"> • The left and right edges of the picture are missing on the screen. 	“4:3 [MULTI] PAN SCAN” is selected when viewing on a conventional TV (aspect ratio 4:3).	Select “4:3 [MULTI] LETTER BOX.” (See page 27.)	
MP3/WMA playback	<ul style="list-style-type: none"> • Disc cannot be played back. 	No MP3/WMA tracks are recorded on the disc.	Change the disc.
		MP3/WMA tracks do not have the extension code <.mp3> or <.wma> in their file names.	Add the extension code <.mp3> or <.wma> to their file names.
		MP3/WMA tracks are not recorded in a compliant format.	Change the disc. Record MP3/WMA tracks using a compliant application (see page 6).
		MP3/WMA tracks are recorded in DVD+R/ DVD+RW media.	Change the disc. Record MP3/WMA tracks using DVD-R/DVD-RW media.

To be continued....

	Symptoms	Causes	Remedies
MP3/WMA playback	• Noise is generated.	The track played back is not an MP3/WMA file (although it has the extension code <.mp3> or <.wma>).	Skip to another track or change the disc. (Do not add the extension code <.mp3> or <.wma> to non-MP3 or WMA tracks.)
	• A longer readout time is required.	Readout time varies due to the complexity of the folder/file configuration.	Do not use too many hierarchies and folders.
	• Tracks cannot be played back as you have intended them to play.	Playback order is determined when the files are recorded.	_____
	• Elapsed playing time is not correct.	This sometimes occurs during play. This is caused by how the tracks are recorded on the disc.	_____
	• “PLEASE” and “EJECT” appear alternately on the display.	The current disc does not contain any MP3/WMA tracks.	Insert a disc that contains MP3/WMA tracks.
	• Correct characters are not displayed (e.g. album name).	This unit can only display alphabets (capital: A – Z), numbers, and a limited number of symbols.	_____
CD changer	• “NO DISC” appears on the display.	No disc is in the magazine. Disc is inserted upside down.	Insert disc into the magazine. Insert disc correctly.
	• “NO MAG” appears on the display.	No magazine is loaded in the CD changer.	Insert the magazine.
	• “RESET 8” appears on the display.	This unit is not connected to the CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.
	• “RESET 1” – “RESET 7” appears on the display.	_____	Press the reset button of the CD changer.
	• The CD changer does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	Reset the unit (see page 2).

- Microsoft and Windows Media are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Specifications

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:

Frequencies: 60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz

Level: ± 10 dB

Signal-to-Noise Ratio: 70 dB

Audio Output Level:

Analog (2nd AUDIO OUT):

6 mW (at 16 Ω)

Digital (DIGITAL OUT: Optical):

Signal wave length: 660 nm

Output level: -21 dBm to -15 dBm

Line-Out Level/Impedance:

5.0 V/20 k Ω load (full scale)

Output Impedance: 1 k Ω

Subwoofer-Out Level/Impedance:

2.0 V/20 k Ω load (full scale)

Color System: PAL/NTSC

Video Output (composite): 1 V_{p-p}/75 Ω

Other Terminals: LINE IN, CD changer

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 μ V/75 Ω)

50 dB Quieting Sensitivity:

16.3 dBf (1.8 μ V/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 μ V

Selectivity: 35 dB

DVD/CD PLAYER SECTION

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

Number of Channels: 2 channels (stereo)

Frequency Response:

DVD, fs=48 kHz/96 kHz: 16 Hz to 22 000 Hz

VCD, CD, MP3, WMA: 16 Hz to 20 000 Hz

Dynamic Range: 96 dB

Signal-to-Noise Ratio: 98 dB

Wow and Flutter: Less than measurable limit

MP3 (MPEG Audio Layer 3):

Max. Bit Rate: 320 kbps

WMA (Windows Media® Audio):

Max. Bit Rate: 192 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 \times H \times D):

Installation Size (approx.):

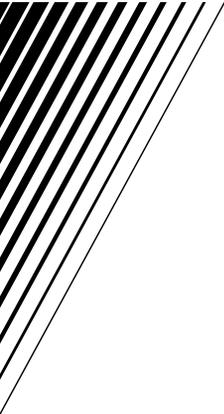
182 mm \times 52 mm \times 158 mm

Panel Size (approx.):

188 mm \times 58 mm \times 11 mm

Mass (approx.): 1.7 kg (excluding accessories)

Design and specifications are subject to change without notice.



Having TROUBLE with operation?

Please reset your unit

Refer to page of How to reset your unit

在操作時遇到麻煩了？

請重設本機

參閱如何重設本機之頁

JVC



EN, CT

© 2005 Victor Company of Japan, Limited

0905DTSMdTJEIN