JVC

DVD/CD RECEIVER
RECEPTOR CON DVD/CD
RECEPTEUR DVD/CD

KD-AVX1

Detachable

R·D·S

DOLBY
D I G I T A L

dts
2.0+DIGITAL OUT

COMPACT
disc
DIGITAL VIDEO

DVD
V I D E O
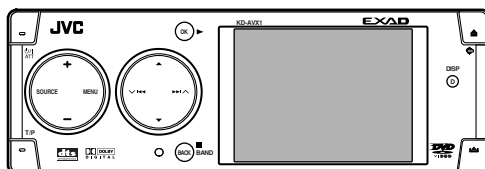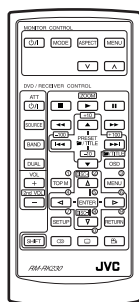
For installation and connections, refer to the separate manual.
Para la instalación y las conexiones, refiérase al manual separado.
Pour l'installation et les raccordements, se référer au manuel séparé.

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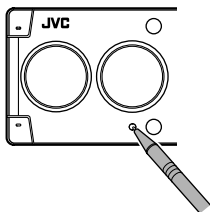
Thank you for purchasing a JVC product.
Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

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. (e)	ADVARSEL : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. (d)	VARNING : Synlig och osynlig laserstrålning när den öppnas och spärren är urkopplad. Betrakta ej strålen. (s)	VARO : Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. (f)

How to reset your unit

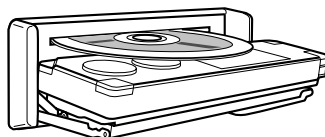*This will reset the microcomputer. Your preset adjustments will also be erased.*

How to forcibly eject a disc

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

Hold....

"NO EJECT?" (or "EJECT OK?") and "EMERGENCY EJECT?" appear on the monitor.
Press ▲ / ▼ repeatedly to select "EMERGENCY EJECT?", then press OK.

• *If this does not work, reset your receiver.*
• *Be careful not to drop the disc when it ejects.*

WARNINGS:

- **DO NOT install any receiver 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 receiver 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 receiver while driving, be sure to look ahead carefully or you may be involved in a traffic accident.**
- **If the parking brake is not engaged, "ParkingBrake" flashes 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.

Cautions on the monitor:

- The monitor built in this receiver has been produced with high precision, but it may have some ineffective dots. This is inevitable and is not malfunction.
- Do not expose the monitor to direct sunlight.

For safety....

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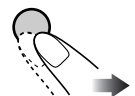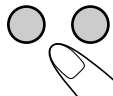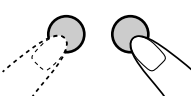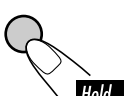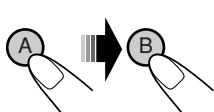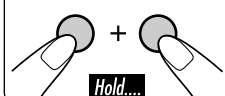- Stop the car before performing any complicated operations.

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 receiver" (see pages 61 – 65).
• Button operations are mainly explained with the illustrations as follows:

	Press briefly.
	Press repeatedly.
	Press either one.
Hold....	Press and hold until your desired response begins.
A ▶ B	Press Ⓐ, then press Ⓑ.
+ *Hold....*	Press and hold both buttons at the same time.

▦ Characters shown on the monitor

In addition to the Roman alphabets (A – Z, a –z), the following characters will be used to show the various information on the monitor.
• You can also use the following characters to assign titles (see page 48).

Accented letters

Upper case

Á	À	Â	Ä	Ã
Å	Æ	Œ	Č	Ć
Ç	É	È	Ê	Ë
Ğ	Í	Ì	Î	Ï
Ñ	Ó	Ò	Ô	Ö
Õ	Ø	Ř	Ŕ	Š
Ś	Ş	Ú	Ù	Û
Ü	Ý	Ž	Ź	ß
Þ	Ŋ	Đ	Ŧ	Ł
İ	Ʊ	ð	space	

Lower case

á	à	â	ä	ã
å	æ	œ	č	ć
ç	é	è	ê	ë
ě	ğ	í	ì	î
ï	ñ	ň	ń	ó
ò	ô	ö	õ	ø
ő	ř	ŕ	š	ś
ş	ú	ù	û	ü
ú	ŵ	ý	ŷ	ž
ź	ÿ	þ	ŋ	đ
ŧ	ľ	ı	ij	space

Numbers and symbols

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

Contents

Introduction — Playable discs

Discs you can play

You can play back the following discs (12 cm and 8 cm) on this receiver:
- **DVD Video:** Recorded in PAL color system with Region Code "2" (see below).
  – DVD-R/DVD-RW recorded in the DVD-Video format can also be played.
- **Video CD (VCD)/audio CD**
- **MP3/WMA/JPEG:** 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 receiver can only play back DVD discs whose Region Code numbers include "2".

Examples:

ALL   **2**   **1 2**   **1 2 3 4**

If you insert a DVD Video disc of an incorrect Region Code
"Region Error" appears on the monitor on the unit.
"REGION CODE ERROR!" appears on the external 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 registered 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.

Control panel

Parts identification

Monitor indications

Ex.: Source screen on JPEG playback
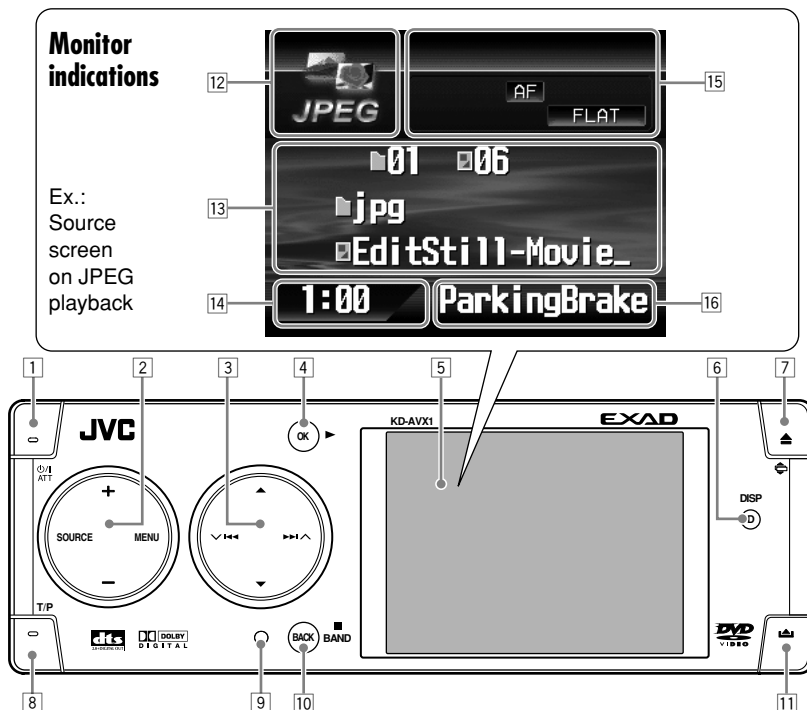
1. ⏻/I ATT (standby/on attenuator) button
2. • +/– (volume +/–) button
    • SOURCE button
    • MENU button
3. • ▲ (up) / ▼ (down) buttons
    • ⌄ ⏮/⏭ ⌃ buttons
4. • OK button
    • ► (play) button
5. Monitor
6. D DISP (display) button
7. • ⏏ (eject) button
    • ⇕ (angle) button
8. T/P (traffic programme/programme type) button
9. Reset button
10. • BACK button
    • BAND button
    • ■ (stop) button
11. ⏏ (control panel release) button

Monitor indications

12. Source indicator
13. Main display
14. Clock display
    Also indicates volume level when adjusting volume.
15. Status indicators
16. Alert information area
    Also indicates volume level bar when adjusting volume.

7

Remote controller — RM-RK230

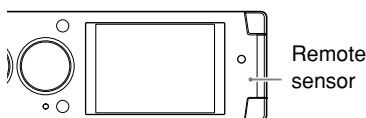## ■ Installing the lithium coin battery (CR2025)

CR2025
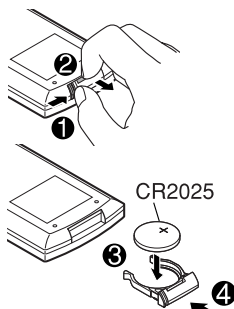
Before using the remote controller:

• Aim the remote controller directly at the remote sensor on the receiver. 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.

The receiver is equipped with the steering wheel remote control function.
• See the Installation/Connection Manual (separate volume) for connection.

Main elements and features
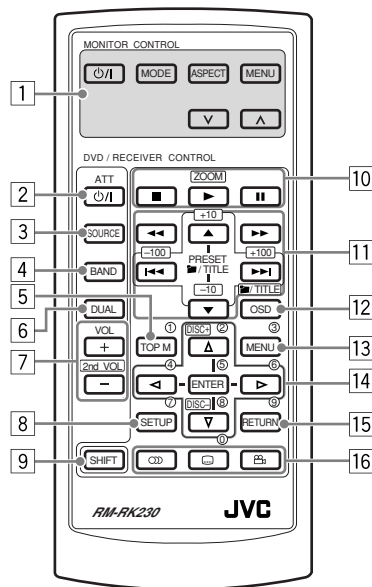
IMPORTANT:

If Dual Zone is activated (see page 40), the remote controller only functions for operating the DVD/CD player.

MONITOR CONTROL
1 Monitor control buttons*1
   • ⏻/| (standby/on), MODE, ASPECT, MENU, ∨ and ∧ .

DVD/RECEIVER CONTROL
2 ⏻/| 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/DAB 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 (for DVD/VCD)*2
9 SHIFT button
10 Basic disc operation buttons*4:
  ■ (stop), ► (play), II (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).
  • I◄◄ / ►►I (reverse skip/forward skip)
  • ◄◄ / ►► (reverse search/forward search)*6

For FM/AM tuner operations:
  • PRESET ▲ / ▼
    – Changes the preset stations.
  • I◄◄ / ►►I
    – Functions to search for stations.
      Press briefly: auto search
      Press and hold: manual search

For DAB tuner operations:
  • PRESET ▲ / ▼
    – Changes the preset services.
  • I◄◄ / ►►I
    – Changes the services if pressed briefly.
    – Searches the ensembles automatically if pressed and held.
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 22).
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), ◠◠ᴴ (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.*
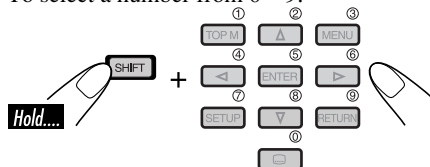*3 *Only when PBC is not in use.*
*4 *Not used for CD changer operations.*
*5 *These buttons function as the +10/–10 and +100/–100 buttons when pressed with SHIFT button.*
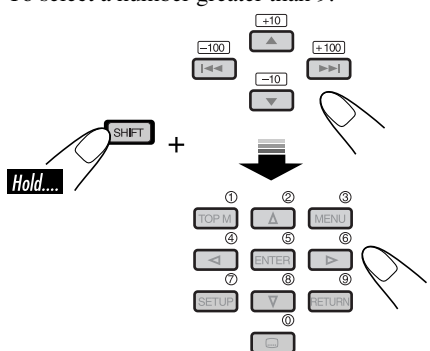*6 *Not used for MP3/WMA/JPEG operations.*

How to select a number

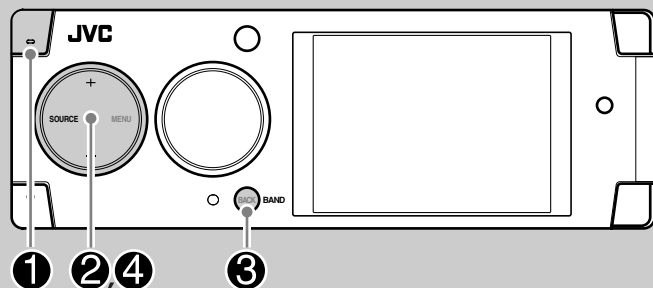To select a number from 0 – 9:

To select a number greater than 9:

• +100/–100 buttons used only for searching MP3/WMA/JPEG tracks number greater than 99.
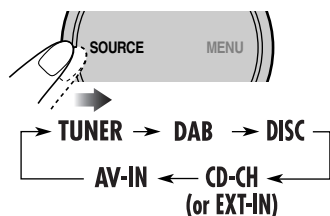
9

Getting started

Basic operations

➊ **Turn on the power.**

➋

TUNER → DAB → DISC

AV-IN ← CD-CH ←
(or EXT-IN)

You cannot select some sources if they are not ready.

➌ **For FM/AM tuner only**

BACK BAND → FM1 → FM2 → FM3
AM ←

For DAB tuner only

BACK BAND → DAB1 → DAB2
DAB3 ←

➍ **Adjust the volume.**

VOL 16
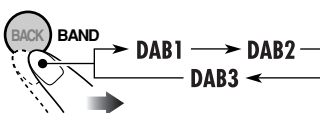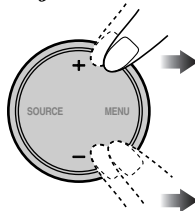
Volume level indicator

➎ **Adjust the sound as you want. (See pages 41 – 43.)**

To drop the volume in a moment (ATT)

To restore the sound, press it again.

To turn off the power

Hold....

10

Setting the clock

1

SOURCE   MENU
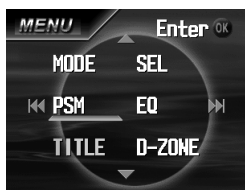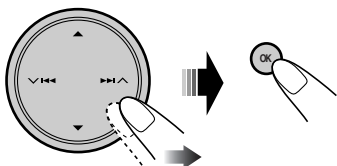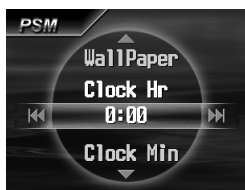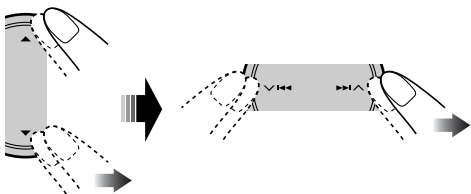
2 Select "PSM" menu.

OK

MENU   Enter OK
    MODE   SEL
I◄◄ PSM   EQ   ►►I
    TITLE   D-ZONE

3 Set the hour and minute.
   1 **Select "Clock Hr" (hour), then adjust the hour.**
   2 **Select "Clock Min" (minute), then adjust the minute.**
   3 **Select "24H/12H", then select "24Hours" or "12Hours".**

PSM
    WallPaper
    Clock Hr
I◄◄   0:00   ►►I
    Clock Min

4 Finish the procedure.

OK

TUNER   AF
             DX FLAT
FM1
  *NO NAME
  ⋏ 87.5 MHz
10:25
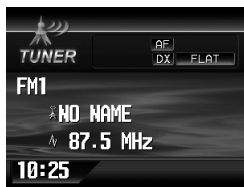
How to go back to the previous menu

In the menu operations, you can go back to the previous screens by pressing BACK repeatedly.
Ex.:

PSM
    WallPaper
    Clock Hr
I◄◄   0:00   ►►I
    Clock Min

BACK BAND

MENU   Enter OK
    MODE   SEL
I◄◄ PSM   EQ   ►►I
    TITLE   D-ZONE
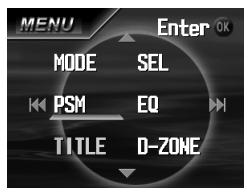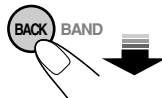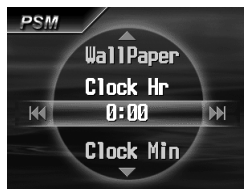
• Press BACK repeatedly to go back to the previous screens in operations explained on the following pages when no particular explanation exists.
• To cancel menu operations and return to the source screen, press D DISP.

Radio operations

Listening to the radio

❶

SOURCE   MENU

→ TUNER (FM1/2/3,AM) →

❷

BACK BAND → FM1 → FM2 → FM3 ┐
              └─ AM ←─────────┘
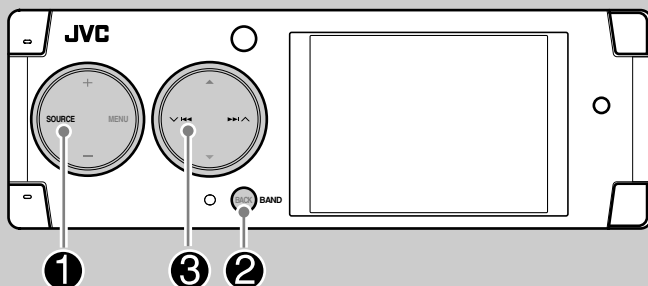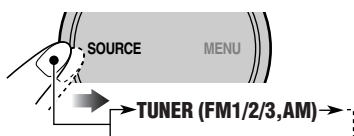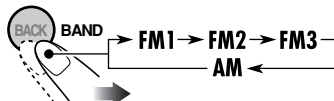
Lights up when receiving an FM stereo broadcast with sufficient signal strength.

TUNER
FM1
ST DX FLAT AF
♪NO NAME
♫ 87.5 MHz
1:00

Selected band appears.

❸ **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 ❸ on the left column...

①

∨ ◄◄   ►►∧

Hold....

TUNER
FM1   Manual Search
AF
MO DX FLAT
♫ 94.3 MHz
1:00
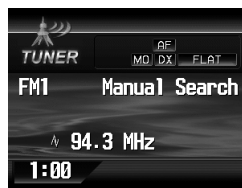
② **Select the desired station frequencies.**

∨ ◄◄   ►►∧

When an FM stereo broadcast is hard to receive

1

SOURCE   **MENU**

2 Select "MODE" menu.

OK
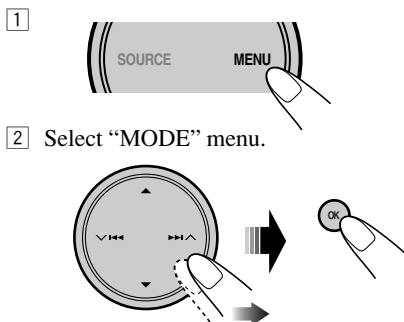
3 Select "MONO", then set it to "On".

MODE
List
MONO
On
PTY

4 Finish the procedure.

OK

TUNER
AF
MO DX FLAT
FM1
NO NAME
94.3 MHz
1:00
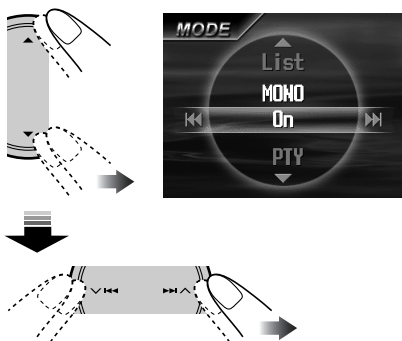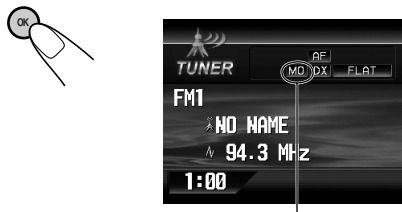
Lights up when monaural mode is activated.

Reception improves, but stereo effect will be lost.

To restore the stereo effect, repeat the same procedure to set "MONO" to "Off". The MO indicator goes off.

To tune in strong-signal FM station only

In step 2 on the left column....

1 Select "Lo/DX", then set it to "Local".

MODE
PTY
Lo/DX
Local
SSM

2 Finish the procedure.

OK

TUNER
AF
LO FLAT
FM1
NO NAME
94.3 MHz
1:00
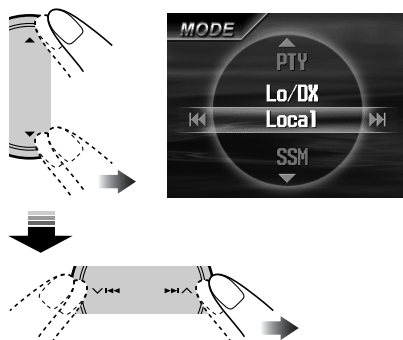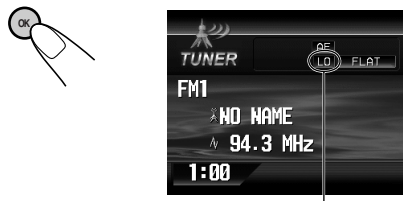
Lights up when "Local" mode is activated.

Only stations with sufficient signal strength will be detected.

To tune in to all receivable stations, repeat the same procedure to set "Lo/DX" to "DX". The LO indicator goes off and the DX indicator lights up.

Storing stations in memory

You can preset six stations for each band.

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

1
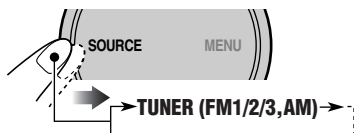
2 Select the FM band (FM1 – FM3) you want to store into.

3 Select "MODE" menu.
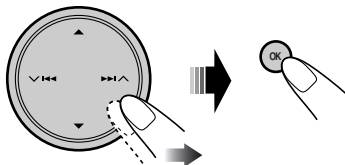
4 Select "SSM", then press "OK".
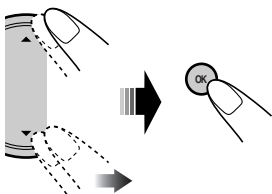
"-SSM-" is shown until automatic presetting is over.

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

■ Manual presetting

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

1

2

3

4

Hold....

```
PRESET LIST    MEMORY  OK
 FM1  |◀◀ ▶▶|  CHANGE  OK
▶① 87.5     ④105.9
 ② 89.9     ⑤108.0
 ③ 97.9     ⑥ 87.5
```

PRESET LIST appears.

5

Hold....

```
   •)))
 TUNER        AF
              DX  FLAT
 FM1 Preset1
 ♪ NO NAME
 ∿ 92.5 MHz
 1:00
```
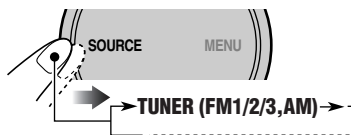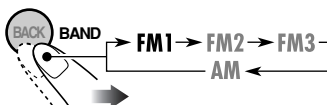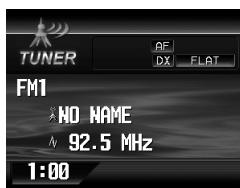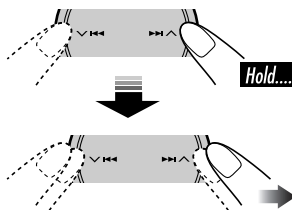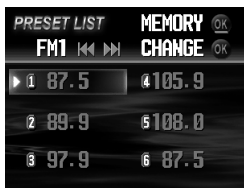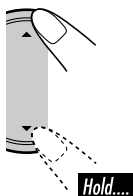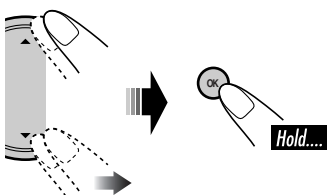
"Preset1" flashes for a while.

▮ **How to exit from menus or lists**

DISP

Menu or list operations are canceled and the screen returns to the source screen or DVD/VCD/JPEG playback.

Listening to a preset station

While selecting TUNER as the source....

1

Hold....
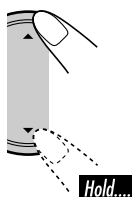
The preset list appears.

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

OK
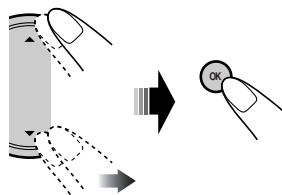
- You can also move to the preset list by selecting "List" on the "MODE" menu. See "When an FM stereo broadcast is hard to receive" on page 13 to see how to move into the "MODE" menu.

When using the remote controller....

SHIFT   +

① TOP M ② △ ③ MENU
④ ◁ ⑤ ENTER ⑥ ▷

Hold....

or

▲
PRESET
▣/TITLE
▼

15
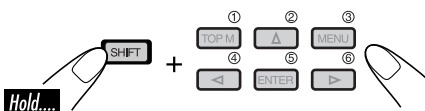
FM RDS operations

Searching for your favorite FM RDS programme
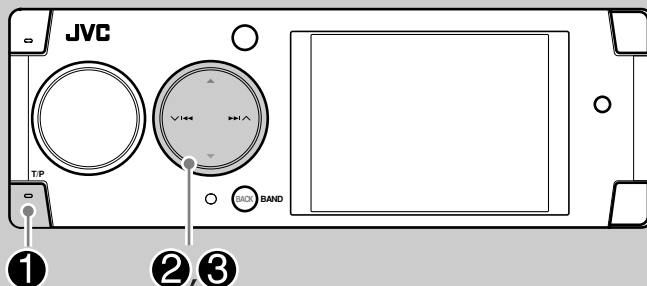
You can tune in to a station broadcasting your favorite programme by searching for a PTY code.
• To store your favorite programme, see page 17.

1

Hold....
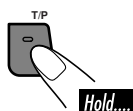
PTY menu appears.

2 **Select "PTY Search".**
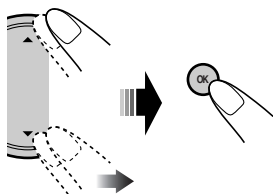
PTY LIST appears.

3 **Select one of the twenty-nine PTY codes.**
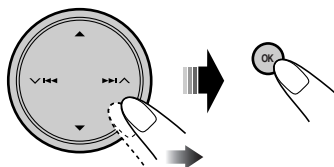
If there is a station broadcasting a programme of the same PTY code as you have selected, that station is tuned in.

PTY codes

News, Affairs, Info, Sport, Educate, Drama, Culture, Science, Varied, Pop M (music), Rock M (music), Easy M (music), Light M (music), Classics, Other M (music), Weather, Finance, Children, Social, Religion, Phone In, Travel, Leisure, Jazz, Country, Nation M (music), Oldies, Folk M (music), Document

What you can do with RDS

RDS (Radio Data System) allows FM stations to send an additional signal along with their regular programme signals.
By receiving the RDS data, this receiver can do the following:
• Programme Type (PTY) Search (see page 16)
• Temporarily switches to Traffic Announcement—TA Standby Reception. (See the right column.)
• Temporarily switches to your favorite programme—PTY Standby Reception. (See pages 18 and 45.)
• Tracing the same programme automatically —Network-Tracking Reception (See page 18.)
• Programme Search (See page 45.)

Storing your favorite programmes

You can store six favorite programme types.

1

Hold....

2 **Select "PTY Memory".**

3 **Select a preset number (Preset1–6) you want to store the programme into.**
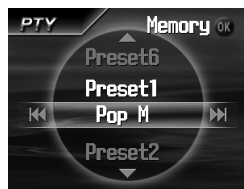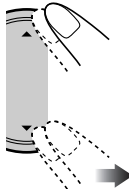
4 **Select a PTY code you want to store.**
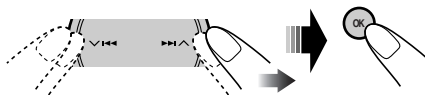
The selected preset number and PTY code flash for a while.

5 **Finish the procedure.**
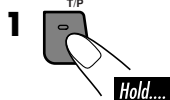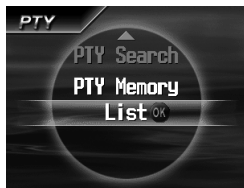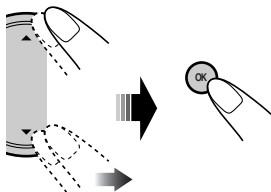
Using the standby receptions

TA Standby Reception

TA Standby Reception allows the receiver to switch temporarily to Traffic Announcement (TA) from any source other than AM.
• The volume changes to the preset TA volume level (see page 45).
• If the DAB tuner is connected, Standby Reception also works to search for a DAB service.

To activate TA Standby Reception
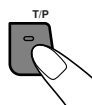
TP either lights up or flashes.

To be continued....

17

- If **TP** lights up, TA Standby Reception is activated.
- If **TP** flashes, TA Standby Reception is not yet activated. (This occurs when you are listening to an FM station without the RDS signals required for TA Standby Reception.) To activate TA Standby Reception, tune in to another station (or DAB service) providing these signals. **TP** will stop flashing and remain lit.

To deactivate the TA Standby Reception
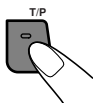
TP goes off.

PTY Standby Reception

PTY Standby Reception allows the receiver to switch temporarily to your favorite PTY programme from any source other than AM.

- If the DAB tuner is connected, Standby Reception also works to search for a DAB service.

To activate and select your favorite PTY code for PTY Standby Reception, see page 45.
PTY either lights up or flashes.

- If **PTY** lights up, PTY Standby Reception is activated.
- If **PTY** flashes, PTY Standby Reception is not yet activated.
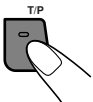
To activate PTY Standby Reception, tune in to another station (or DAB service) providing these signals. The PTY indicator will stop flashing and remain lit.

To deactivate the PTY Standby Reception, select "OFF" on "PTY" in the "MODE" menu. **PTY** goes off.

- See "When an FM stereo broadcast is hard to receive" on page 13 to see how to move into the "MODE" menu.

Tracking the same programme— Network-Tracking Reception

When driving in an area where FM reception is not sufficient enough, this receiver automatically tunes in to another FM RDS station of the same network, possibly broadcasting the same programme with stronger signals (see the illustration below).

When shipped from the factory, Network-Tracking Reception is activated (**AF** lights up when the power is turned on for the first time). **To change the Network-Tracking Reception setting,** see "AF-Regn'l" on page 45.

Programme A broadcasting on different frequency areas (01 – 05)

Disc operations
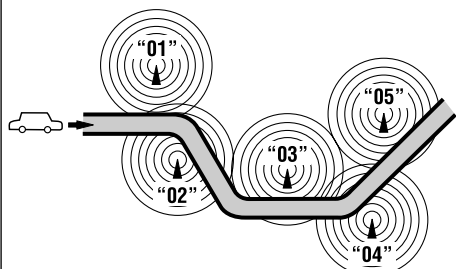
Playing a disc in the receiver
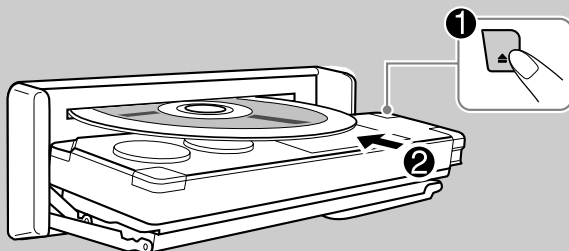
The disc type is automatically detected, and playback starts automatically (for DVD: automatic start depends on its internal program).

If the current disc is an audio CD, CD Text, MP3/WMA, JPEG, 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 24.

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

DVD
DVD Video

VCD PBC
Video CD with PBC only

VCD
Video CD with/without PBC

CD
Audio CD/ CD Text

MP3 WMA
MP3/WMA disc

JPEG
JPEG disc

ALL
All discs listed here

Before performing any operations, make sure the following....
- For DVD playback, you can change the Setup Menu setting to your preference. (See pages 30 – 33.)
- The operations explained on pages 21 – 29 are using the remote controller.
- ⊙⊙☐ shows functions which you can also use on the unit.
- When you want to operate the DVD/CD player using the buttons on the control panel, see "Other disc operations" on pages 35 – 39.

If "⊘" appears on the monitor when pressing a button, the receiver cannot accept an operation you have tried to do.
- In some cases, without showing "⊘", operations will not be accepted.

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

• **When inserting a DVD disc:**
DVD playback starts automatically on the monitor when the parking brake is applied. The screen such as below appears when pressing D DISP.

DVD

▮01 ▮01 0:00:09 — Elapsed playing time

1:00

Current title number Current chapter number

• To return to DVD playback, press D DISP again.

• **When inserting an MP3/WMA/JPEG**[1] **disc:**

Ex.: When an MP3 file is detected

CD MP3 FLAT

▮05 ♪83 — Total track number — Total folder number

1:00

[2] Current folder/track number

CD MP3 FLAT

▮01 ♪01 00' 09" — Elapsed playing time[3]
Folder1 — Current folder name
♪01 Cities On Fla

1:00
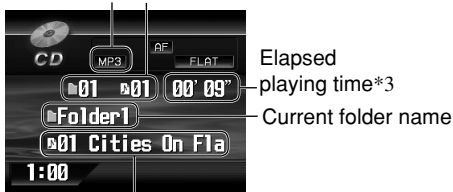
Current track name

[1] *Each time you press D DISP, the monitor changes between the source screen and JPEG playback.*
[2] *Either the MP3 or WMA indicator lights up depending on the detected file.*
[3] *Does not appear for JPEG disc.*

• **When inserting a VCD:**
VCD playback starts automatically on the monitor when the parking brake is applied. The screen such as below appears when pressing D DISP.

VCD PBC FLAT — PBC indicator[4]

♪01 00' 09" — Elapsed playing time
— Current track number

1:00
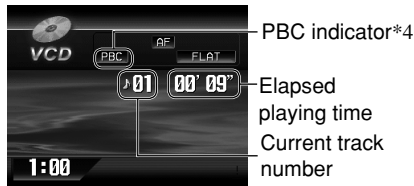
[4] *Light up when the disc has the PBC function.*

• To return to VCD playback, press D DISP again.

• **When inserting a CD Text/audio CD:**

CD FLAT

♪16 76' 09" — Total playing time of the inserted disc
— Total track number of the inserted disc

1:00

DTS indicator[5]

CD DTS FLAT

♪01 00' 09" — Current track number
⊙NO NAME
♪NO NAME

1:00

[6] Elapsed playing time
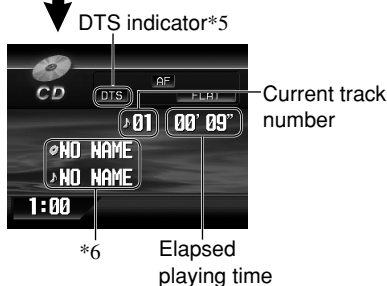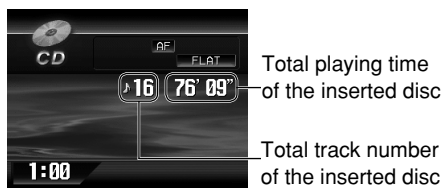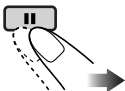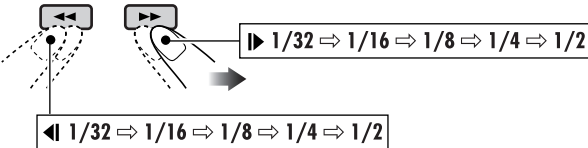
[5] *Appears when playing back a DTS CD.*
[6] *Disc title/performer and track title are displayed when playing a CD Text.*

To eject the disc

20

Basic operations

Operations	Monitor indication and/or next operation
To stop play temporarily	Playback is paused. *ALL*
	A still picture appears. Ⓐ **Frame by frame playback** *DVD* *VCD* Ⓑ **Slow motion playback** ▶ 1/32 ⇨ 1/16 ⇨ 1/8 ⇨ 1/4 ⇨ 1/2 ◀ 1/32 ⇨ 1/16 ⇨ 1/8 ⇨ 1/4 ⇨ 1/2 • *No sound comes out during Slow Motion Playback.* • *When playing a VCD, Reverse Slow Motion Playback is prohibited.* To resume normal play:
To replay the previous scenes—One Touch Replay	The playback position moves back about 10 seconds before the current position. *DVD* • *This function works only within the same title.* • *For some DVDs, this function does not work.*
To stop playback	When you start playback again, playback starts from where it has been stopped (Resume play). *DVD* *VCD* *CD*
	When you start playback again, playback starts from the beginning of the last track. *MP3/WMA* *JPEG*

• *During play, on-screen guide icons appear on the monitor for a while (see page 64).*

To be continued....

To go to the next or previous chapters/tracks

ALL

• For DVD: During play or pause

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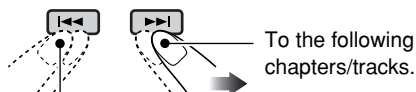
To go back to the beginning of the current chapter/track, then the previous chapters/tracks.

To fast-forward or reverse the chapter/track
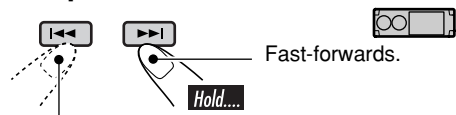
DVD VCD CD

Fast-forwards.

Hold....

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 forward or reverse search the chapter/track
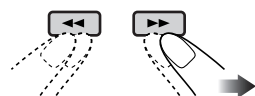
DVD VCD CD

The information shown is only for DVD/VCD:

$$\blacktriangleright\blacktriangleright \text{ x2} \Rightarrow \text{x5} \Rightarrow \text{x10} \Rightarrow \text{x20} \Rightarrow \text{x60}$$
$$\blacktriangleleft\blacktriangleleft \text{ x2} \Rightarrow \text{x5} \Rightarrow \text{x10} \Rightarrow \text{x20} \Rightarrow \text{x60}$$
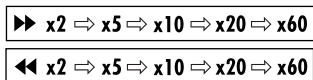
• To resume normal speed

To locate a particular title/chapter/ track directly

ALL

• For DVD: During play or pause—select a chapter.
    During stop—select a title.
• For MP3/WMA/JPEG: Select a track within the same folder.

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

To locate a title/folder

DVD MP3/WMA JPEG

To the next title/folder.

PRESET
📁/TITLE

To the previous title/folder.
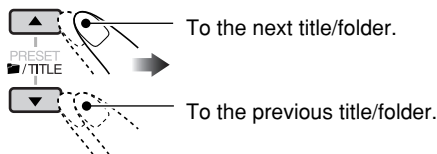
To locate a particular title/folder

DVD MP3/WMA

📁/TITLE
OSD

SHIFT +

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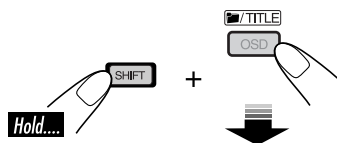
Within 10 seconds, press the number buttons (see page 9).

IMPORTANT:

• For 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.

DVD/VCD special functions

Selecting audio languages

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

[DVD]

1/3

ENGLISH
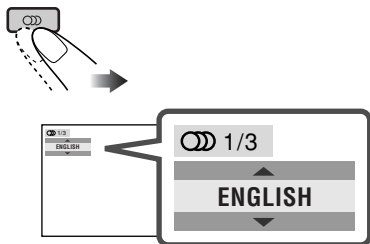
Ex.: When the disc has 3 options

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

[VCD]

ST → L → R

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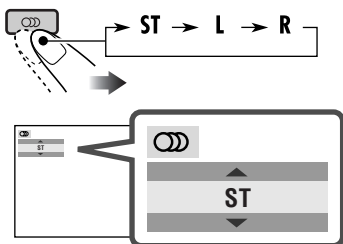
ST: To listen to normal stereo (left/right) playback.

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

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

Selecting subtitles

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

[DVD]

• You can set the initial subtitle language using the setup menu (see page 30).

1/3

ENGLISH
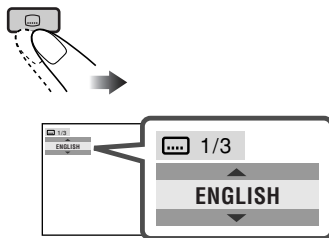
Ex.: When the disc has 3 options

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

Selecting multi-angle views

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

[DVD]

1/3

1
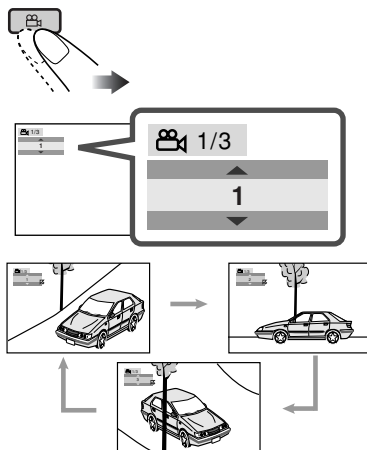
Ex.: When the disc has 3 multi-angle views

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

1 [TOP M] [MENU]
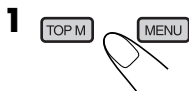
A title list or disc menu will appear on the monitor.

2 Select the item you want on the menu.

[△] [◁] [▷] [▽] ➡ [ENTER]
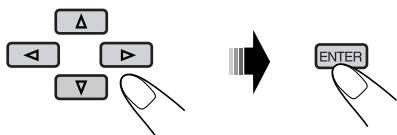
Selected item starts playback.
• On some discs, you can also select items using the corresponding number buttons.

■ While playing a VCD

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

[SHIFT] *Hold....* +
① [TOP M] ② [△] ③ [MENU]
④ [◁] ⑤ [ENTER] ⑥ [▷]
⑦ [SETUP] ⑧ [▽] ⑨ [RETURN]

• To select a number greater than 9, see "How to select a number" on page 9.

To return to the previous menus

[RETURN]

Canceling the PBC playback

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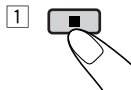
2 Select a track to start normal playback using the number buttons (see page 9).

To resume the PBC function

[TOP M] [MENU]

Zoom in

DVD VCD JPEG

1 [SHIFT] *Hold....* + [ZOOM ►]

➤ ZOOM 1 ➤ ZOOM 2 ➤ ZOOM 3 ➤ ZOOM 4
ZOOM OFF ◄ ZOOM 6 ◄ ZOOM 5 ◄
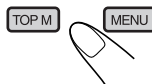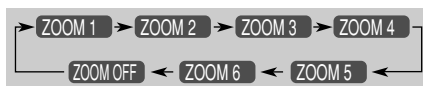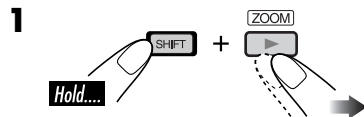
• For JPEG disc (effective only when pausing):

➤ ZOOM 1 ➤ ZOOM 2
ZOOM OFF ◄
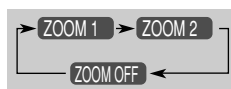
2 Move the zoomed-in position.

[△] [◁] [▷] [▽]
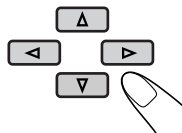
• For JPEG files:
You cannot move the zoomed-in position when the entire picture is still displayed on the monitor.

To cancel zoom, select "ZOOM OFF" in step **1**.

24

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 use the on-screen bar only when using an external monitor and Dual Zone is on (see page 40).
- For audio CD, CD Text, and MP3/WMA disc you can also use the control screen and list screen (see pages 28 and 29).

■ On-Screen bars

DVD

VCD

MP3/WMA

JPEG

CD Text/audio CD

* Only for DTS CD

1 Disc type
2 • Audio signal format type (for DVD and DTS CD)
  • PBC (only for VCD)
3 Current playback mode
4 Playback information

T01 C01	Current title/chapter
TRACK 01	Current track (for VCD)
TOTAL	Elapsed playing time of the disc
T. REM	Remaining disc time (for VCD)/ remaining title time (for DVD)
TIME	Elapsed playing time of the current chapter/track
REM	Remaining time of the current chapter/track

5 Playback condition

▶, ▶	Playback
▶▶/◀◀, ▶▶/◀◀	Forward/reverse search
▶/◀, ▶/◀	Forward/reverse slow-motion
‖, ‖	Pause
■, ■	Stop

6 Operation icons

TIME	Time indication
⊙➡, ⊙➡	Time Search—Enter the elapsed playing time of the current title or of the disc.
TITLE	Title Search
⟳OFF	Repeat play (for DVD)
REPEAT, RPT	Repeat play
INTRO, INT	Intro play
RANDOM, RND	Random play

25

Basic on-screen bar operations

1 **Display the on-screen bar.**

or

(twice) (DVD, VCD) (CD Text/audio CD, MP3/WMA, JPEG)

| DVD-V | DD Digital 5.1ch |
| TO1 CO1 TOTAL 0:00:23 ▶ |
| TIME ⊙→ TITLE ○ OFF |
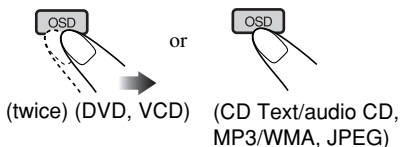
When a JPEG disc is loaded, skip to step **3**.

2 **Select an item.**

3 **Make a selection.**

• If pop-up menu appears....

1

| DVD-V | DD Digital 5.1ch |
| TO3 CO3 TOTAL 0:08:24 ▶ |
| TIME ⊙→ TITLE ○ OFF |

or

① TOP M	② △	③ MENU
④ ◁	⑤ ENTER	⑥ ▷
⑦ SETUP	⑧ ▽	⑨ RETURN
	⑩ ▢	

SHIFT + Hold....
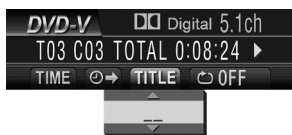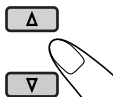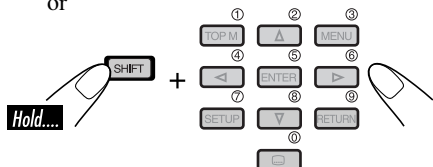
2

To erase the on-screen bar

• The on-screen bar for a CD or MP3/WMA/ JPEG disc automatically disappears in a few seconds after the last operation.

• **The selectable options for Repeat/Intro/ Randam plays:**

○OFF   Repeat play (See page 37.)

DVD:

○OFF → ○CHAP → ○TITLE
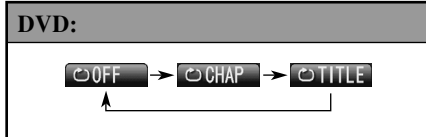
REPEAT , REPEAT Repeat play (See page 37.)

VCD (while PBC is not in use):

REPEAT → **(Canceled)**

MP3/WMA:

REPEAT TRACK → REPEAT FOLDER → **(Canceled)**

JPEG:

FOLDER ▶ OFF → OFF ▶ FOLDER **(Canceled)**

CD Text/audio CD:

REPEAT TRACK → **(Canceled)**
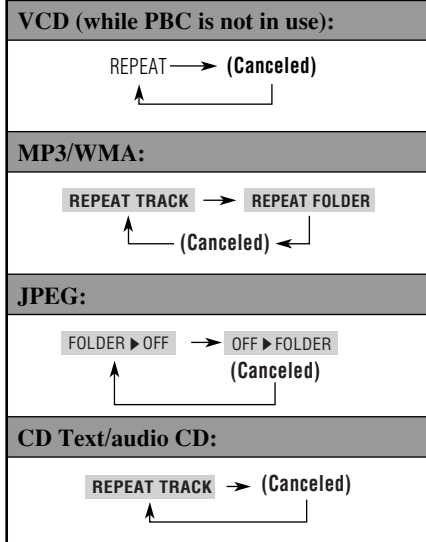
INTRO, INTRO　　Intro play (See page 38.)

VCD (while PBC is not in use):

INTRO　→　**(Canceled)**

MP3/WMA:

INTRO TRACK　→　**INTRO FOLDER**

(Canceled)　←

CD Text/audio CD:

INTRO TRACK　→　**(Canceled)**

RANDOM, RANDOM　Random play (See page 38.)

VCD (while PBC is not in use):

RANDOM　→　**(Canceled)**

MP3/WMA:

RANDOM FOLDER　→　**RANDOM DISC**

(Canceled)　←

CD Text/audio CD:

RANDOM DISC　→　**(Canceled)**

Refer also page 25 for the following operations.

To change the time information

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

ENTER

→ TIME 0:00:58 → REM 0:11:23
T. REM 0:35:24 ← TOTAL 1:01:58

To search for a particular point by playing time

1　Select ⊙→ (or 🕐→).
2　Enter the elapsed playing time of the current title or of the disc.

Hold....　SHIFT　+　① TOP M　② △　③ MENU　④ ◁　⑤ ENTER　⑥ ▷　⑦ SETUP　⑧ ▽　⑨ RETURN　⓪ 🔲
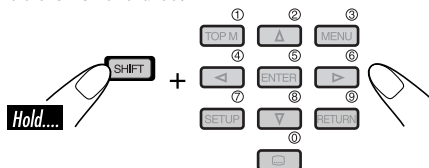
Ex.: • To enter 1 (hours): 02 (minutes): 00 (seconds), press 1, 0, 2, 0, then 0.
• To enter 54 (minutes): 00 (seconds), press 0, 5, 4, 0, then 0.

• 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....

◁

• You can also specify the elapsed playing time by using $\triangle$ / ∇ / $\triangleleft$ / $\triangleright$.

3　Finish the procedure.

ENTER

To search for a particular title

1　Select **TITLE**.
2　Enter the number.

Hold....　SHIFT　+　① TOP M　② △　③ MENU　④ ◁　⑤ ENTER　⑥ ▷　⑦ SETUP　⑧ ▽　⑨ RETURN　⓪ 🔲
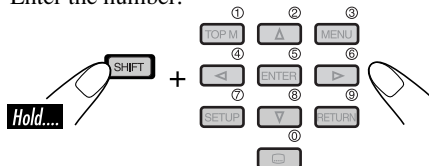
• To correct a misentry, press the number button until the correct number is entered.

3　Finish the procedure.

ENTER

27

Basic control screen operations

You can search for and play the desired items through the control screen when using the external monitor.

- The control screen automatically appears on the monitor when you insert a disc (external monitor only).
- JPEG control screen appears only when playback stops.

■ MP3/WMA/JPEG control screen

| FILE | | | REPEAT TRACK | TIME | 00:00:14 | ▶ |

Folder : 2 / 3   Track : 5 / 14 (Total 41)

01 Music
02 Music
03 Music

Cloudy.mp3
Fair.mp3
Fog.mp3
Hail.wma
Indian summer.mp3
Rain.mp3
Shower.mp3
Snow.mp3
Thunder.wma
Typhoon.mp3
Wind.mp3
Winter sky.mp3

Track Information
Album
Weather
Artist
Robert M. Smith
Title
Rain
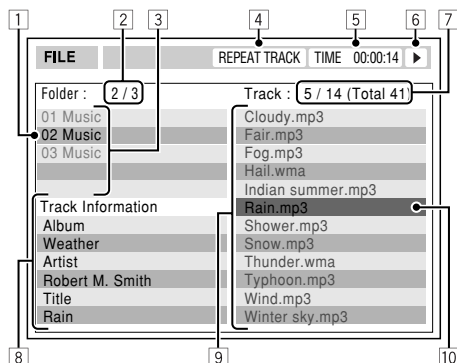
1 Current folder
2 Current folder number/total folder number
3 Folder list
4 Selected playback mode
5 Elapsed playing time of the current track (MP3/WMA only)
6 Operation mode icon (MP3/WMA only)
   ▶ (play), ■ (stop), ❙❙ (pause)
7 Current track (file) number/total number of tracks (files) in the current folder (total number of tracks/files on the disc)
8 Track information (MP3/WMA only)
9 Track (file) list
10 Current track (file) (highlighted bar)

To select a folder or track

While Dual Zone (see page 40) is on....

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

   ◁   ▷
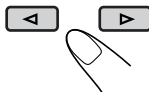
2 Select a folder or track.

   △
   ▽
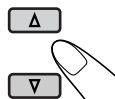
■ CD Text/audio CD control screen

| CD | | | REPEAT TRACK | TIME | 00:14 | ▶ |

Track : 5 / 14

Cloudy
Fair
Fog
Hail
Indian summer
Rain
Shower
Snow
Thunder
Typhoon
Wind
Winter sky

Track Information
Album
Four seasons
Artist
Robert M. Smith
Title
Rain
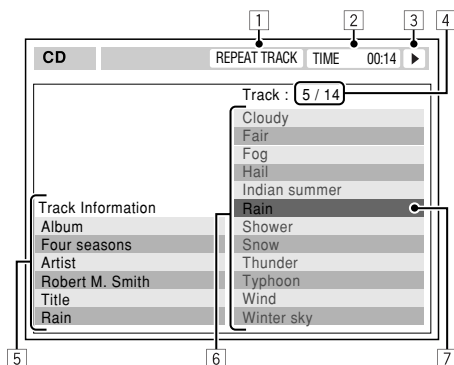
1 Selected playback mode
2 Elapsed playing time of the current track
3 Operation mode icon
   ▶ (play), ■ (stop), ❙❙ (pause), ▶▶ (fast-forward), ◀◀ (reverse)
4 Current track number/total number of tracks on the disc
5 Track information
6 Track list
7 Current track (highlighted bar)

To select a track

   △
   ▽
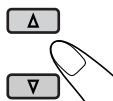
List screen operations

You can display the folder list/track list before starting play when using the external monitor and Dual Zone function (see page 40). On this list, you can confirm the contents and start playing a disc.

■ Folder/track list screens

CD MP3/WMA JPEG

Folder list (MP3/WMA/JPEG)

| 1 | | 2 | | 3 |

Folder : 153/240 Track 154/198			Page : 4/6
fol130	fol140	fol150	fol160
fol131	fol141	fol151	fol161
fol132	fol142	fol152	fol162
fol133	fol143	fol153	fol163
fol134	fol144	fol154	fol164
fol135	fol145	fol155	fol165
fol136	fol146	fol156	fol166
fol137	fol147	fol157	fol167
fol138	fol148	fol158	fol168
fol139	fol149	fol159	fol169

4

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

| 1 | | 2 | | 3 |

Folder : 153/240 Track 154/198			Page : 4/6
file0131.mp3	file0141.mp3	file0151.wma	file0161.wma
file0132.mp3	file0142.mp3	file0152.mp3	file0162.mp3
file0133.wma	file0143.mp3	file0153.wma	file0163.wma
file0134.mp3	file0144.mp3	file0154.mp3	file0164.mp3
file0135.mp3	file0145.wma	file0155.mp3	file0165.wma
file0136.wma	file0146.mp3	file0156.mp3	file0166.wma
file0137.wma	file0147.wma	file0157.mp3	file0167.wma
file0138.mp3	file0148.mp3	file0158.wma	file0168.wma
file0139.mp3	file0149.wma	file0159.wma	file0169.mp3
file0140.wma	file0150.wma	file0160.wma	file0170.wma

4

Ex.: Track list for MP3/WMA

1 Current folder number/total folder number (only for MP3/WMA/JPEG)
2 Current track number/total number of tracks in the current folder (for MP3/WMA/JPEG) or in the disc (for CD Text/audio CD)
3 Current page/total number of the pages included in the list
4 Current folder/track (highlighted bar)

For MP3/WMA/JPEG:

While Dual Zone is on and the disc play stops....

1 Display the folder list.

MENU

Each time you press the button, the list screen comes on and goes off.
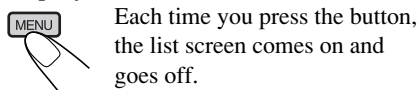
2 Select a folder on the list.

△ ◁ ▷ ▽ ENTER
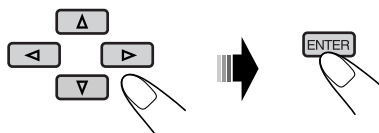
The track list of the selected folder appears.

To go back to the folder list

RETURN

3 Select a track on the list.

△ ◁ ▷ ▽ ENTER
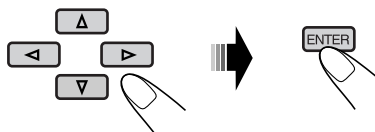
For CD Text/audio CD:

While Dual Zone is on and the disc play stops....

1 Display the track list.

MENU

Each time you press the button, the list screen comes on and goes off.

2 Select a track on the list.

△ ◁ ▷ ▽ ENTER

AV 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....

1

```
SOURCE          MENU
```
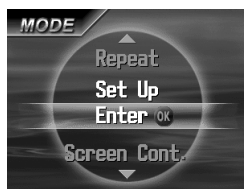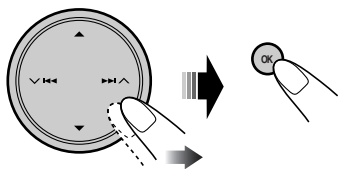
2 Select "MODE" menu.

MODE menu when a DVD is loaded

3 Select "Set Up".
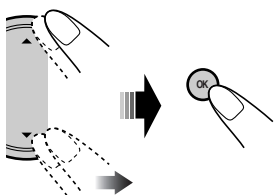
4 Select an item you want to set up.
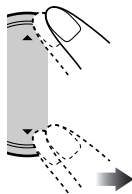
Ex.: When selecting "DOWN MIX"
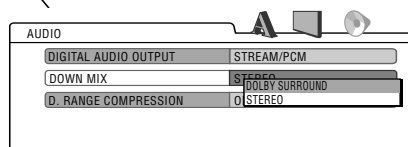
5 Select an option.

To set other items, repeat steps **4** and **5**.

6 Finish the procedure.

You can also set up from the remote controller when a DVD or a VCD is inserted.
• While playing, no change can be made on the setup menu.
• When shipped from the factory, the on-screen langue is set to English. To change the language, see page 32.

From the remote controller:

While stop....

1 SETUP

LANGUAGE

MENU LANGUAGE	ENGLISH
AUDIO LANGUAGE	ENGLISH
SUBTITLE	ENGLISH
ON SCREEN LANGUAGE	ENGLISH

2 ◁ ▷

LANGUAGE ←→ PICTURE
AUDIO

AUDIO

DIGITAL AUDIO OUTPUT	STREAM/PCM
DOWN MIX	STEREO
D. RANGE COMPRESSION	ON

Ex.: When selecting the "AUDIO" menu

3 **Select an item you want to set up.**

△
▽

AUDIO

DIGITAL AUDIO OUTPUT	STREAM/PCM
DOWN MIX	STEREO
D. RANGE COMPRESSION	ON

Ex.: When selecting "DOWN MIX"

4 ENTER

AUDIO

DIGITAL AUDIO OUTPUT	STREAM/PCM
DOWN MIX	STEREO DOLBY SURROUND
D. RANGE COMPRESSION	O STEREO

5 **Select an option.**

△
▽

AUDIO

DIGITAL AUDIO OUTPUT	STREAM/PCM
DOWN MIX	STEREO DOLBY SURROUND
D. RANGE COMPRESSION	O STEREO

6 ENTER

AUDIO

DIGITAL AUDIO OUTPUT	STREAM/PCM
DOWN MIX	DOLBY SURROUND
D. RANGE COMPRESSION	ON

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

SETUP

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 (OSD LANGUAGE)	Select the language for the Setup menu called up from the remote controller (see page 31) and some indications shown on the monitor. • The language for the menus called up from the unit does not change.
MONITOR TYPE 16:9 4:3 LETTER BOX 4:3 PAN SCAN	Select the monitor type to watch a wide screen picture on your monitor. • **16:9** : Select this when the aspect ratio of your monitor is 16:9. • **4:3LB [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. • **4:3PS [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.
OSD POSITION Position 1 Position 2	Select the position of the on-screen bar for CD and MP3/WMA (see page 25) on the external monitor and AV set up menu from the remote controller (see page 31). • **1** : Higher position • **2** : Lower position The position of other indications than the on-screen bar does not change.
MP3/JPEG	Select playback file type when a disc contains both MP3 and JPEG files. • **MP3** : Plays back MP3/WMA files. • **JPEG** : Plays back JPEG files. Eject the disc and insert it again to make the new setting effective.

• For the LANGUAGE settings, see also the language codes list on page 60.

Item	Contents
DIGITAL AUDIO OUTPUT (D. AUDIO OUTPUT)	Select the signal format to be emitted through the DIGITAL OUT (Optical) terminal on the rear. For details, see page 65. • **PCM ONLY (PCM)** : Select this when connecting an amplifier or a decoder incompatible with Dolby Digital, DTS or MPEG Audio, or connecting to a recording device. • **DOLBY DIGITAL/PCM (DOLBY DIGITAL)** : Select this when connecting an amplifier or a decoder compatible with Dolby Digital. • **STREAM/PCM (STREAM)** : Select this when connecting an amplifier or a decoder compatible with Dolby Digital, DTS, and MPEG Audio.
DOWN MIX	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 (PCM)" is selected for "DIGITAL AUDIO OUTPUT (D.AUDIO OUTPUT)"). • **DOLBY SURROUND** : Select this when you want to enjoy multi-channel surround audio by connecting an amplifier compatible with Dolby Surround to this receiver. • **STEREO** : Normally select this.
D. (Dynamic) RANGE COMPRESSION (D. RANGE COMP.)	You can enjoy a powerful sound at low or middle volume levels while playing a Dolby Digital software. • **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.

Monitor adjustments

You can adjust color and brightness of the monitor on the unit.

While selecting disc (DVD, VCD, or JPEG disc only) as the source....

1

2 Select "MODE" menu.
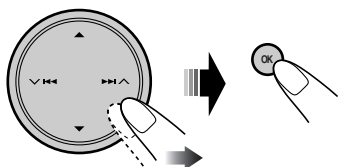
3 Select "Screen Cont."
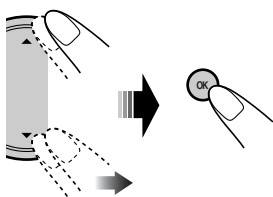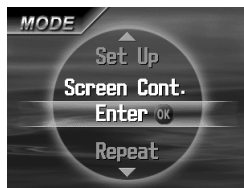
4 Select an item to adjust.
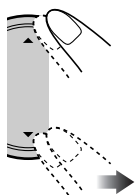
5 Adjust the item.
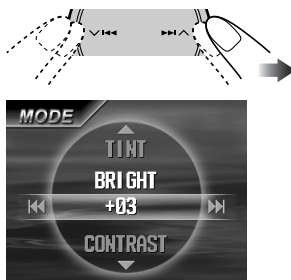
Ex.: When adjusting "BRIGHT"

- Each time you press ∨ |◄◄/►►| ∧, the menu screen disappears for a few seconds and you can see the result of the adjustment.

To adjust other items, repeat steps **4** and **5**.

6 Finish the procedure.

Adjustable items

BRIGHT: –15 to 0 to +15
Adjust if the picture is too bright or too dark.
CONTRAST: –15 to 0 to +15
Adjust the contrast of the bright and dark portion.
COLOR: –15 to 0 to +15
Adjust the color of the picture—lighter or darker.

- TINT is fixed though appearing on the menu.

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.

Basic operations

To stop a disc

To play a disc again

To eject a disc

To fast-forward or reverse the chapter/track `DVD` `VCD` `CD`

Hold....
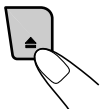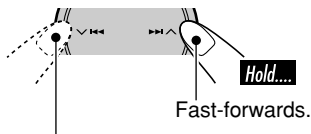
Fast-forwards.

Reverses.

• *The search speed changes to* x2 $\Rightarrow$ 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

For DVD: During play or pause
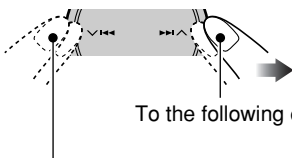
To the following chapters/tracks.

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

To go to the next or previous title
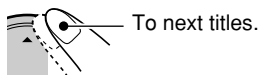
To next titles.

To previous titles.

35

To go to the next or previous folders

MP3 WMA JPEG

To next folders.

To previous folders.
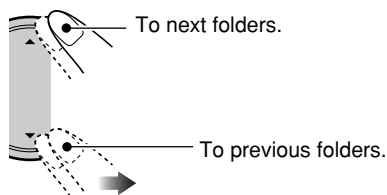
• To select a particular track in a folder (for MP3/WMA disc) after selecting a folder:

∨ ⏮   ⏭ ∧

To change monitor indication

DVD VCD JPEG

DISP
D

• Each time you press D DISP, the monitor changes between the source screen and DVD/ VCD/JPEG playback.

To scroll the disc information

CD MP3 WMA JPEG

For CD: Title-assigned CDs (see page 48) and CD Text

DISP
D

Hold....
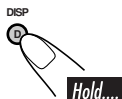
▉ Prohibiting disc ejection

You can lock a disc in the loading slot.

1

⏻/ ATT   +   ⏏

Hold....

NO EJECT?
EMERGENCY EJECT?

2 Select "NO EJECT?".

OK
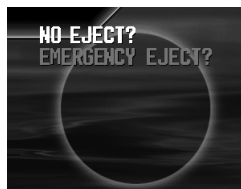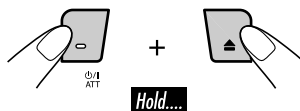
CD   AF
FLAT
♪01   00' 09"
⊘NO NAME
♪NO NAME
1:00   No Eject
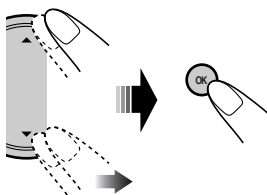
"No Eject" flashes.

To cancel the prohibition, repeat the same procedure to select "EJECT OK?".

Selecting the playback modes

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

1

SOURCE   MENU
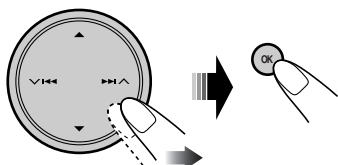
Playback mode indicator appears.
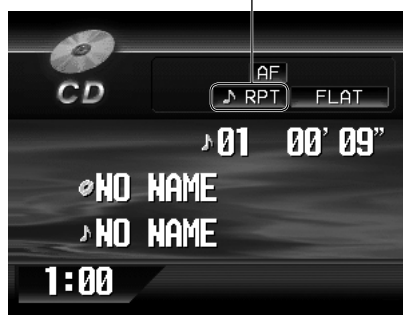
CD   AF
      ♪ RPT   FLAT

♪01   00' 09"

◉NO NAME
♪NO NAME

1:00

2 Select "MODE" menu.

OK

3 Select your desired playback mode.

Repeat		**Mode**	**Plays repeatedly**
		Chapter[1]:	The current chapter.
• For DVD: During play or pause.			• CHAP RPT lights up.
• For VCD: While PBC (see page 24) is		**Title**[1]:	The current title.
not in use.			• TITLE RPT lights up.

Track[2]: The current track.
• ♪ RPT lights up.

Folder[3]: All tracks of the current folder.
• ▶ RPT lights up.

Off: For DVD: Cancels Repeat play.
For other discs: All tracks of the disc.

MODE   Set OK
        Intro
        Repeat
    ◀◀ Track ▶▶
        Random

Ex.: When "Track" is selected

[1] *Only while playing a DVD disc.*
[2] *Except for DVD and JPEG discs.*
[3] *Only while playing an MP3, a WMA, or a JPEG disc.*

Random

VCD CD MP3/WMA

• For VCD: While PBC (see page 24) is not in use.

MODE   Set OK
▲
Repeat
Random
◄◄ **Disc** ►►
List
▼
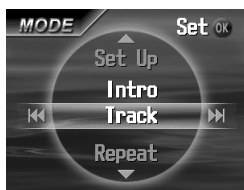
Ex.: When "Disc" is selected

Mode	Plays at random
Folder[*4]:	All tracks of the current folder, then tracks of the next folder and so on.
	• ▫ RND lights up.
Disc:	All tracks of the disc.
	• ⊘ RND lights up.
Off:	Cancels.

Intro

VCD CD MP3/WMA

• For VCD: While PBC (see page 24) is not in use.

MODE   Set OK
▲
Set Up
Intro
◄◄ **Track** ►►
Repeat
▼

Ex.: When "Track" is selected

Mode	Plays the first 15 seconds of
Track:	All tracks of the disc.
	• ♪ INT lights up.
Folder[*4]:	First tracks of all folders.
	• ▫ INT lights up.
Off:	Cancels.

[*4] *Only while playing an MP3 or a WMA disc.*

List screen operations

You can display the folder list/file list and select a folder/file directly while playing back.

Folder/file list screens

MP3 WMA JPEG

Folder list

```
FOLDER LIST
LIST  |◄◄ ►►|    ENTER  OK
►■Folder1    ■Folder4
 ■Folder2    ■Folder5
 ■Folder3    ■Folder6
```

File list

```
FILE LIST    001/032
LIST  |◄◄ ►►|    ENTER  OK
►■01 Citie  ■04 Astro
 ■02 The R  ■05 This
 ■03 Flami  ■06 _Don_
```

While playing...

1

SOURCE   MENU
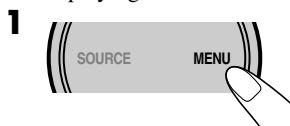
2 Select "MODE" menu.
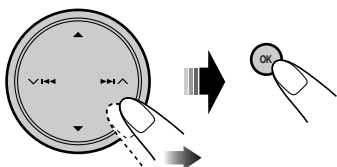
3 Select "LIST".
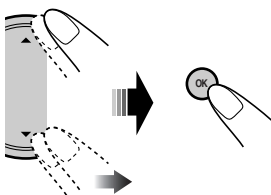
4 Select the list you want to use.

When "File" is selected, the file list of the current folder appears.

5 Select the folder/file you want.
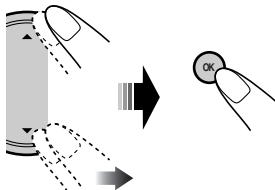
When selecting a folder from the list, the playback of the first track in the folder starts.
• The track list appears when selecting the current folder on the folder list.

• You can also access the folder list by pressing and holding ▲ / ▼.

Dual Zone operations

Playing back two sources at a time

You can connect external audio equipment to the 2nd AUDIO OUT plug on the rear, and play back a disc separately from the source selected on the unit.

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.

ON ←→ OFF

The source automatically changes to "DISC" and DUALZONE appears on the monitor. 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 volume through the 2nd AUDIO OUT plug.

VOL

SHIFT + 2nd VOL

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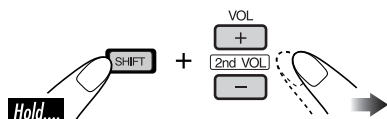
3 Operate the DVD/CD player using the remote controller by referring to the monitor screen.

To cancel Dual Zone operations, repeat step **1**. (DUALZONE disappears.)

On the control panel:
You can also activate and deactivate Dual Zone.

1

SOURCE   MENU

2 **Select "D-ZONE".**

OK

3 **Select "On".**

OK
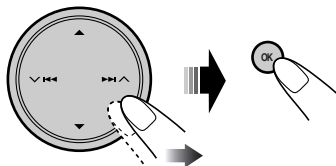
The source automatically changes to "DISC" when Dual Zone is activated.

To cancel Dual Zone operations, select "Off" on step 3.

Sound adjustments

Selecting preset sound modes

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

Available sound modes:
Hard Rock/R&B/Pop/Jazz/Dance/Country/
Reggae/Classic
User1/User2/User3
Flat (To cancel the sound mode)

1

SOURCE   MENU

2 **Select "EQ" menu.**

OK

3 **Select one of the preset sound modes.**

4 **Finish the procedure.**

DISP

CD   MP3   AF   HARD ROCK
⊳01 ⊳01 00' 09"
⊳Don't Fear The R
♪Cities On Flame
1:00
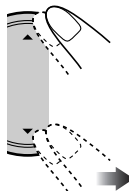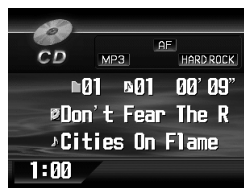
Ex.: When "Hard Rock" is selected
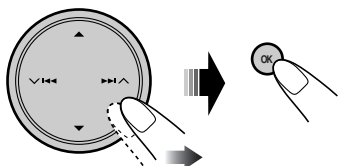
Storing your own sound adjustments

You can adjust the sound modes and store your own adjustments in memory.
After step **3** above....

1

EQ   Store OK
Level +03
Freq. 60 Hz
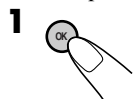
2 **Make adjustments as you like.**
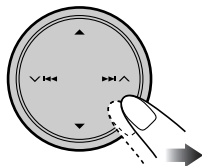
1 Select the frequency band to adjust—
   60 Hz, 150 Hz, 400 Hz, 1kHz, 2.5kHz,
   6.3kHz, 15kHz.
2 Adjust the level of the selected band
   (–05 to +05).
3 Repeat steps 1 and 2 to adjust other
   frequency bands.

3 **Finish adjustment.**

OK

EQ   Store OK
User 1

4 **Select one of the user sound modes**
(User1, User2, User3) you want to
store into.

OK

41

Adjusting the sound

You can adjust the sound characteristics to your preference.

1
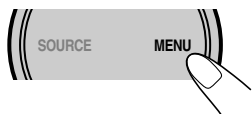
2 **Select "SEL" menu.**
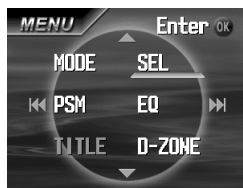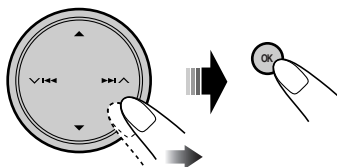
3 **Select your desired adjustment item.**

Fad/Bal (Fader/Balance)
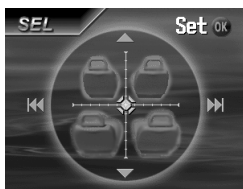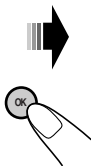
Adjust fader—speaker output balance between the front and rear speakers.
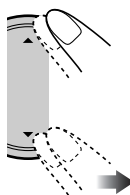
• Upmost—front only
• Downmost—rear only

When using a two-speaker system, set the fader center.

Adjust balance—speaker output balance between the left and right speakers.

• Leftmost—left only
• Rightmost—right only

Vol Adjust (volume adjust)
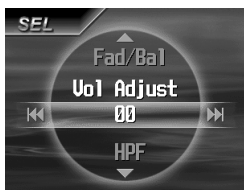
Adjust and store the volume level of each source except FM.
Once you have made an adjustment, it is memorized, and the volume level will automatically increase or decrease by adjusted level when you change the source.
Adjust to match the input level to the FM sound level.
• –12 (min) to +12 (max.)

HPF (High pass filter)

Adjust the cut-off frequency to the front/rear speakers according to the subwoofer setting.
• 55 Hz: Cuts off frequencies lower than 55 Hz.
• 85 Hz: Cuts off frequencies lower than 85 Hz.
• 125 Hz: Cuts off frequencies lower than 125 Hz.
• Through: Cuts off no frequencies.

See the article below for the subwoofer setting.

Sub Woofer
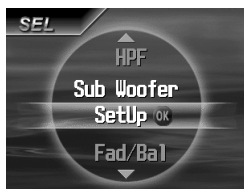
Adjust the settings below in the SetUp submenu.
• Volume: Subwoofer output level
• Freq.: Subwoofer cut-off frequency
• Phase: Subwoofer phase. Select which reproduces a better sound from "Normal" and "Reverse".

General settings — PSM

Basic procedure

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

1

SOURCE   MENU

2 **Select "PSM" menu.**

3 **Select a PSM item.**

PSM   Set
Scroll
Dimmer
|◀◀ **Auto** ▶▶|
Bright
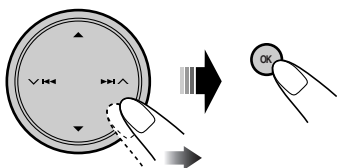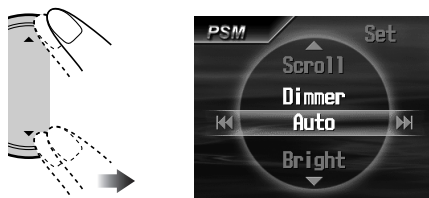
Ex.: When you select "Dimmer"

4 **Adjust the PSM item selected.**

∨◀◀   ▶▶∧

5 **Repeat steps 3 and 4 to adjust the other PSM items if necessary.**

6 **Finish the procedure.**

OK

Indications	Selectable settings, [reference page]
WallPaper	You can select the background picture of the monitor from these: **Standard**, **Red**, **Amber**, **Green**, **SkyBlue**, **Blue**, **Purple**.
Clock Hr Hour adjustment	**0 – 23 (1 – 12)**, [11] *[Initial: 0 (0:00)]*
Clock Min Minute adjustment	**00 – 59**, [11] *[Initial: 00 (0:00)]*
24H/12H Clock system	**12Hours – 24Hours**, [11] *[Initial: 24Hours]*
CLK Adj Automatic clock adjustments	**Auto:** *[Initial];* The built-in clock is automatically adjusted using the clock time data in the RDS signal. **Off:** Cancels.
Scroll*1	**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.

*1 *Some characters or symbols will not be shown (and will be blanked) on the monitor.*

Indications	Selectable settings, [reference page]
Dimmer	**Auto:** *[Initial];* Dims the monitor when you turn on the headlights. **Off:** Cancels. **On:** Activates dimmer. **Time Set:** Sets the Dimmer On/Off time.
Bright Brightness	You can adjust the brightness to make the monitor clear and legible. –15 (darkest) to +15 (brightest) *[Initial];* 0 • You can also adjust the brightness on "Screen Cont." on the "MODE" menu when the source is DVD, VCD, or JPEG disc, [34].
ID3 Tag Tag display	**On:** *[Initial];* Shows the ID3 tag while playing MP3/WMA tracks. **Off:** Cancels.
PTY Standby PTY standby	Activates PTY Standby Reception with one of the 29 PTY codes, [18]. **News** *[Initial]* and 28 PTY codes [16].
AF-Regn'l Alternative frequency/ regionalization reception	When the received signals from the current station become weak.... **AF:** *[Initial];* Switches to another station (the programme may differ from the one currently received), [18]. • 🔲 lights up. **AF-Reg:** Switches to another station broadcasting the same programme. • 🔲 and 🔲 light up. **Off:** Cancels (not selectable when "DAB AF" is set to "AF On").
TA Volume Traffic announcement volume	*[Initial: VOL 15];* VOL 00 — VOL 30 or 50*2, [17]
P-Search Programme search	**On:** Using the AF data, the receiver tunes in to another frequency broadcasting the same programme as the original preset RDS station is if the preset station signals are not sufficient. **Off:** *[Initial];* Cancels.

*2 *Depends on the amplifier gain control.*

Indications	Selectable settings, [reference page]
IF Filter Intermediate frequency filter	In some areas, adjacent stations may interfere with each other. If this interference occurs, noise may be heard. **Auto:** *[Initial];* When this type of interference occurs, this unit automatically increases the tuner selectivity so that interference noise will be reduced. (But the stereo effect will also be degraded.) **Wide:** Subject to the interference from adjacent stations, but sound quality will not be degraded and the stereo effect will not be degraded.
DAB AF*1 Alternative frequency reception	**On:** *[Initial];* Traces the programme among DAB services and FM RDS stations, [58]. **Off:** Cancels.
Announce*1 Announcement Standby Reception	Select one of the 9 announcement types for Announcement Standby Reception. **Travel** *[Initial]* ⇄ **Warning** ⇄ **News** ⇄ **Weather** ⇄ **Event** ⇄ **Special** ⇄ **Rad Inf** (Radio Information) ⇄ **Sports** ⇄ **Finance** ⇄ (back to the beginning)
EXT INPUT*2 External input	**CHANGER:** *[Initial];* To use a JVC CD changer, [50]. **EXT IN:** To use any external component, [53].
Beep	You can deactivate the key-touch tone if you do not want it to beep each time you press a button. **On:** *[Initial];* Activates the key-touch tone. **Off:** Cancels.
Rear SPK*3 Rear speaker output	**On:** *[Initial];* Select this to turn on the rear speaker output. **Off:** Cancels.
Telephone Telephone muting	**Muting1/Muting2:** Select either one which mutes the sounds while using the cellular phone. **Off:** *[Initial];* Cancels.

*1 *Displayed only when DAB tuner is connected.*

*2 *Cannot be selected if the source is "CD-CH" or "EXT-IN".*

*3 *Functions only when Dual Zone is activated (see page 40).*

Indications	Selectable settings, [reference page]
Amp Gain Amplifier gain control	You can change the maximum volume level of this receiver. **High Power:***[Initial];* VOL 00 – VOL 50 **Low Power:** 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.) **Off:** Deactivates the built-in amplifier.
AV INPUT Audio-Video input	You can determine the use of LINE IN and VIDEO IN jacks on this receiver. **Audio+Video:** *[Initial];* Select this when connecting an AV component such as a VCR. **Audio:** Select this when connecting an audio component such as a cassette deck. **Camera**[*4]**:** Select this when connecting the rear view camera. The rear view through the camera is automatically displayed on the monitor when you change the gear to the back position. **Camera Rev.**[*4]**:** The mirror image of the rear view through the rear view camera is automatically displayed on the monitor when you change the gear to the back position. (The monitor on the unit only; the normal rear view appears on the external monitor.)

[*4] *Reverse gear signal connection is needed to change the monitor view automatically. See Installation/Connection Manual (separate volume).*

Other main functions

Assigning titles to the sources

You can assign titles to CDs (both in this receiver and in the CD changer), and change the source names of AV-INPUT and EXT-INPUT.

Sources	Maximum number of characters
AV-INPUT/EXT-INPUT	Up to 16 characters
DISC/CD-CH	Up to 32 characters (up to 30 discs)

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

1 **Select the source.**
   • For AV-IN/EXT-IN: Select the source.
   • For a CD in this receiver: Insert a CD.
   • For CDs in the CD changer: Select "CD-CH", then select a disc number.

2

SOURCE   MENU

3 **Select "TITLE".**
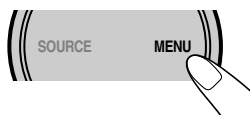
TITLE
Disc   Entry
K◀◀
                ▶▶I
            A-a-0
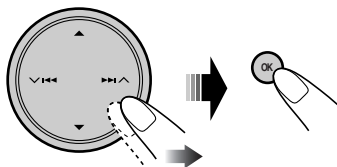
Ex.: When you select "DISC" as the source

4 **Assign a title.**
   1 **Select a character set.**

DISP
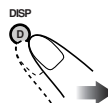
   2 **Select a character.**
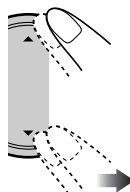
   • For available characters, see page 4.

   3 **Move to the next (or previous) character position.**

∨I◀◀   ▶▶I∧

   4 **Repeat steps** 1 **and** 2 **until you finish entering the title.**

5 **Finish the procedure.**

OK

TITLE
Disc   Entry
K◀◀ 01
                ▶▶I
            A-a-0

To erase the entire title

In step **3** on the left column....

DISP

Hold....

48
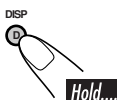
Detaching the control panel

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.

1
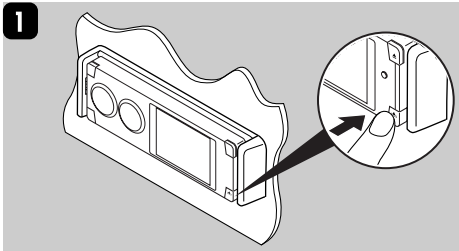
The control panel comes out toward you.

2

3

Attaching the control panel

1

2
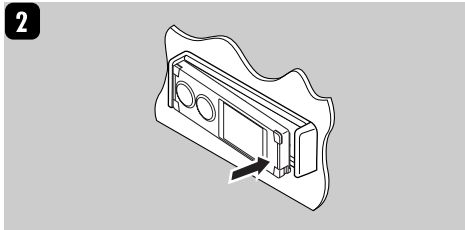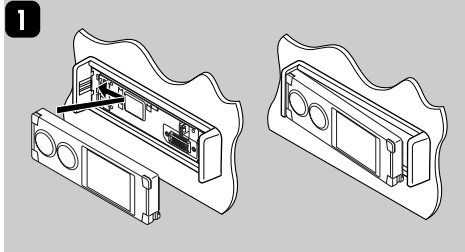
Changing the control panel angle
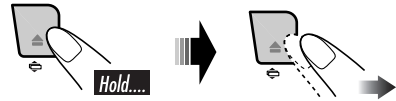
The control panel changes its angle as follows.

Angle 1   Angle 2

Angle 4   Angle 3
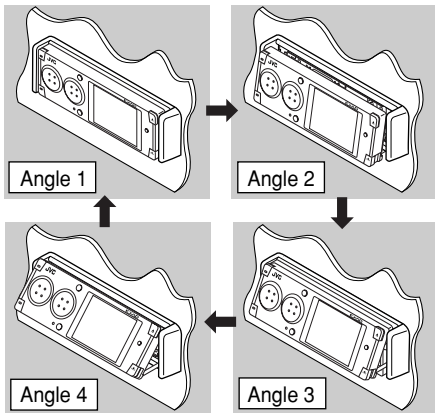
Caution:

Do not insert your finger behind the control panel.

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CD changer operations

Playing discs in the CD changer
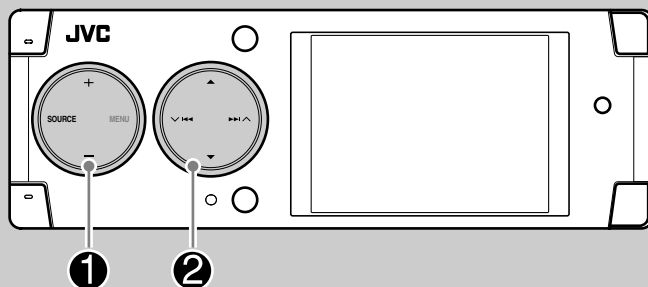
About the CD changer

It is recommended to use the JVC MP3-compatible CD changer with your receiver.
- 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 use the KD-MK series CD changers with this receiver.
- Disc text information recorded in the CD Text can be displayed when a JVC CD Text compatible CD changer is connected.

Before operating your CD changer:
- Refer also to the Instructions supplied with your CD changer.
- You cannot control and play any DVD, VCD, WMA or JPEG disc in the CD changer.

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

❶

SOURCE   MENU

CD-CH* (or EXT-IN)

* If you have changed "EXT INPUT" setting to "EXT IN" (see page 46), you cannot select the CD changer.

Selected disc number

❷ Select a disc.

① *Hold....*

```
DISC LIST
LIST |◀◀ ▶▶|    ENTER ⓞⓚ
▸ ⊙01        ⊙DISC 04
  ⊙02        ⊙MP3 DISC
  ⊙MP3 DISC  ⊙DISC 06
```

DISC LIST appears.

②

```
            AF
CD-CH          FLAT
⊙01      ♪12  04 27"
  ⊙01
  ♪Apollo
10:50
```
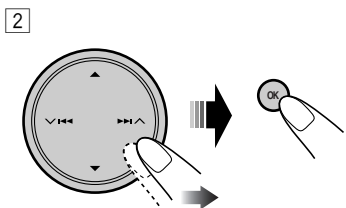
• You can move to the other lists by pressing |◀◀ / ▶▶|.

• When the current disc is an MP3 disc, you can move to FOLDER LIST by selecting it on DISC LIST.

• You can also access the lists from the "MODE" menu. See page 39 for the detail of the list operations.

When using the remote controller....
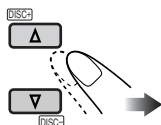
To fast-forward or reverse the track

∨|◀◀   ▶▶|∧   *Hold....*
Fast-forwards.
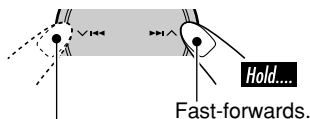
Reverses.

To go to the next or previous tracks

∨|◀◀   ▶▶|∧
To the following tracks.
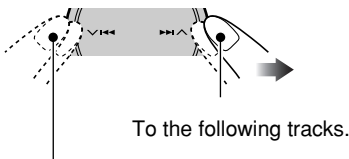
To the beginning of the current track, then the previous tracks.

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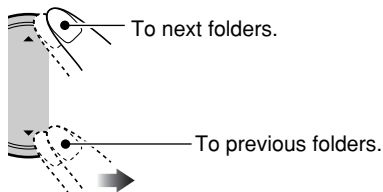
To next folders.

To previous folders.

When using the remote controller....

PRESET
■/TITLE

ENGLISH

Selecting the playback modes

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

1

SOURCE   MENU

2 Select "MODE" menu.

OK

3 Select your desired playback mode.

V◄◄   ►►∧

MODE   Set OK
        Intro
      Repeat
|◄◄   **Track**   ►►|
      Random

4 Finish the Procedure.

OK

CD-CH   AF
        ♪ RPT FLAT
○02   ♪09 02 28"
 ○02
 ♪SPINES
10:50
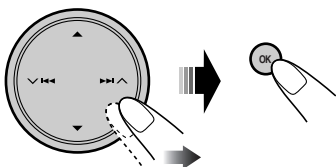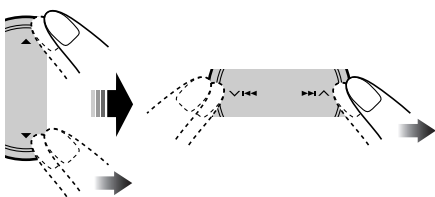
Selectable modes

Repeat

Mode	Plays repeatedly
Track:	The current track.
	• ♪ RPT lights up.
Folder*:	All tracks of the current folder.
	• ▣ RPT lights up.
Disc:	All tracks of the current disc.
	• ◉ RPT lights up.
Off:	Cancels.

Random

Mode	Plays at random
Folder*:	All tracks of the current folder, then tracks of the next folder and so on.
	• ▣ RND lights up.
Disc:	All tracks of the current disc.
	• ◉ RND lights up.
All:	All tracks of the inserted discs.
	• ◉ RND lights up.
Off:	Cancels.

Intro

Mode	Plays the first 15 seconds of
Track:	All tracks of the inserted discs.
	• ♪ INT lights up.
Folder*:	First tracks of all folders in the current disc.
	• ▣ INT lights up.
Disc:	First tracks of all the inserted discs.
	• ◉ INT lights up.
Off:	Cancels.

* Only while playing an MP3 disc

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External component operations

Playing an external component
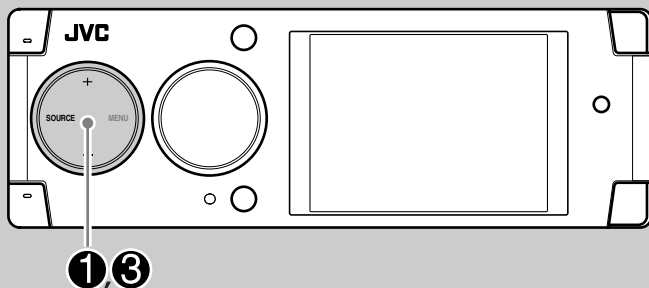
You can connect an external component to LINE IN plug and VIDEO IN plug on the rear, or to the CD changer jack on the rear using the KS-U57 Line Input Adapter (not supplied) or KS-U58 AUX Input Adapter (not supplied).

• For connection, see Installation/Connection Manual (separate volume).

❶

EXT-IN → AV-IN
(or CD-CH)

AV-IN: For selecting the external component connected to the LINE IN and/or VIDEO IN plug.
• To change the setting of AV INPUT, see page 47.

EXT-IN: For selecting the external component connected to the CD changer jack on the rear.
• If "EXT-IN" does not appear, see page 46 and select the external input (EXT-IN).

❷ Turn on the connected component and start playing the source.

❸ Adjust the volume.

• Volume indication does not appear when the picture from VIDEO IN plug is displayed on the unit. To check the volume level, press D DISP before volume adjustment.

❹ Adjust the sound as you want. (See pages 41 – 43.)

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DAB tuner operations

Listening to the DAB tuner

① **SOURCE** **MENU**

→ DAB →

② **BACK** **BAND** → DAB1 → DAB2 →
DAB3 ←

Current band

DAB
DAB

AF
FLAT

DAB1 ⚑**Country** ← Programme type

🎵**Bayern2**
🎵**Bayern**

23:50

Service label   Ensemble label

③ **Start searching for an ensemble.**

⌄◄◄   ►►⌃
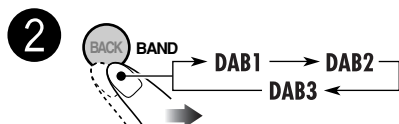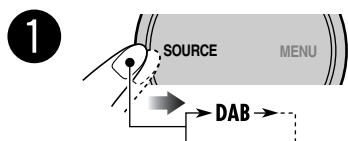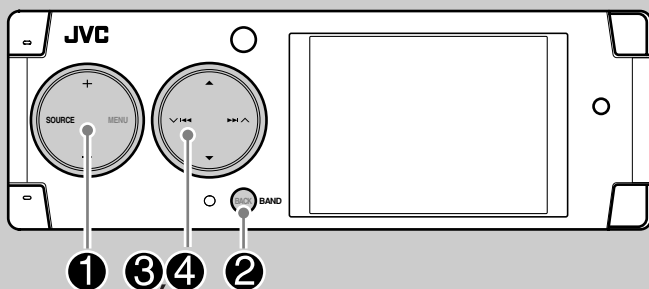
When an ensemble is received, searching stops.
To stop searching, press the same button again.

④ **Select a service (either primary or secondary) to listen to.**
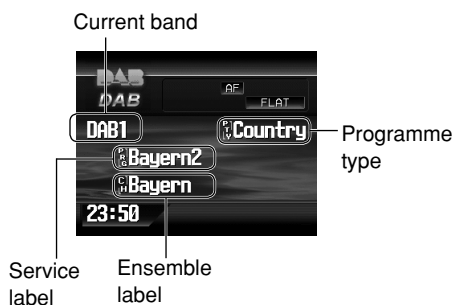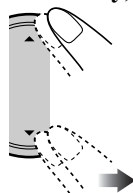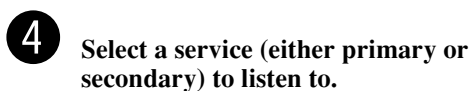
To tune in to an ensemble manually

In step ③ ....

⌄◄◄   ►►⌃
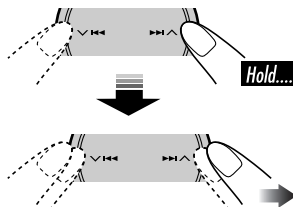
Activate "Manual Search"

Hold....

⌄◄◄   ►►⌃

Select ensemble frequencies

54

What is DAB system?

DAB can deliver CD quality sound without any annoying interference and signal distortion. Furthermore, it can carry text, pictures, and data. When transmitting, DAB combines several programmes (called "services") to form one "ensemble". In addition, each "service"—called "primary service"—can also be divided into its components (called "secondary service"). A typical ensemble has six or more programmes (services) broadcast at the same time.

By connecting the DAB tuner, this receiver can do the following:

• Tracing the same programme automatically —Alternative Frequency Reception (see "DAB AF" on page 46).

It is recommended to use DAB (Digital Audio Broadcasting) tuner KT-DB1000 with your receiver. If you have another DAB tuner, consult your JVC IN-CAR ENTERTAINMENT dealer.

• Refer also to the Instructions supplied for your DAB tuner.

■ When surrounding sounds are noisy

Some service provides Dynamic Range Control (DRC) signals together with their regular programme signals. DRC will reinforce the low level sounds to improve for your listening.

1

2 Select "MODE" menu.

3 Select one of the DRC signals level (1, 2, or 3).

The reinforcement level increases from 1 to 3.

4 Finish the procedure.

DRC indicator appears.

• The DRC indicator will be highlighted only when receiving DRC signals from the tuned service.
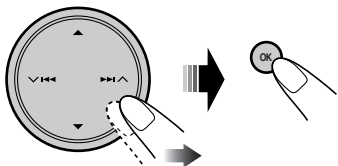
To search for your favorite service

You can search for either Dynamic or Static PTY codes.
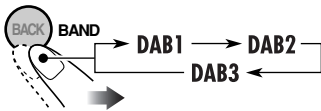
• Operations are exactly the same as explained on page 16 for FM RDS stations.
• You cannot store PTY codes separately for the DAB tuner and the FM tuner.
• Search will be performed on the DAB tuner only.

Storing DAB services in memory

You can preset six DAB services (primary) for each band.

Ex.: Storing an ensemble (primary service) into the preset number 4 of the DAB1 band.

When the source is DAB....

1

BACK **BAND** → DAB1 ⟶ DAB2
DAB3 ←

2 **Select an ensemble (primary service).**

3

Hold....

PRESET LIST	Memory OK
DAB1 |◀◀ ▶▶| Change OK
▶ ①No Serv.	④No Serv.
②No Serv.	⑤No Serv.
③No Serv.	⑥No Serv.

PRESET LIST appears.

4 **Select a preset number.**

5 **Store the service.**

Hold....

DAB

DAB1 **P4**   ♪Rock M
♪Bayern2
♪Bayern
23:50
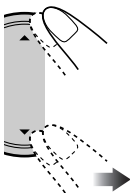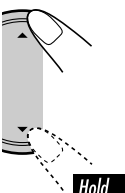
Preset number flashes
for a while.

Tuning in to a preset DAB service

When the source is DAB....

1

BACK **BAND** → DAB1 ⟶ DAB2
DAB3 ←

2

Hold....

PRESET LIST	Memory OK
DAB1 |◀◀ ▶▶| Change OK
①HR1	▶ ④No Serv.
②No Serv.	⑤HRS
③FFH	⑥HRH

3 **Select the preset number you want.**
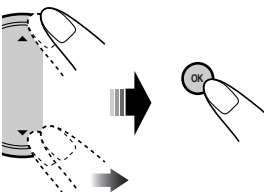
• You can move to the lists of the other DAB bands by pressing |◀◀/▶▶|.

When using the remote controller....

To directly select the preset service

Hold....

SHIFT +   ① TOP M   ② △   ③ MENU
④ ◁   ⑤ ENTER   ⑥ ▷
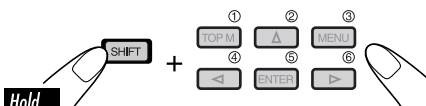
Using the standby receptions

■ TA (Road Traffic News) Standby Reception

- Operations are exactly the same as explained on page 18 for FM RDS stations.
- You cannot activate TA Standby Reception separately for the DAB tuner and for FM tuner.
- The volume changes to the preset TA volume level (see page 45).

■ PTY Standby Reception

- Operations are exactly the same as explained on page 18 for FM RDS stations.
- PTY Standby Reception for DAB tuner works only using a dynamic PTY code.
- You can neither store your favorite PTY nor activate PTY Standby Reception separately for the DAB tuner and for the FM tuner.
- You can activate and deactivate PTY Standby Reception when the source is either "FM" or "DAB".

■ Announcement Standby Reception

Announcement Standby Reception allows the receiver to switch temporarily to your favorite service (announcement type).

To select your favorite announcement type, see page 46.

To activate the Announcement Standby Reception

1

2 Select "MODE" menu.

3 Select "Announce".

4

Preset announcement type (On)
Off
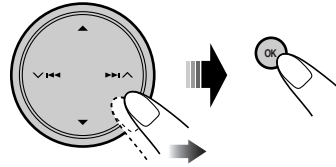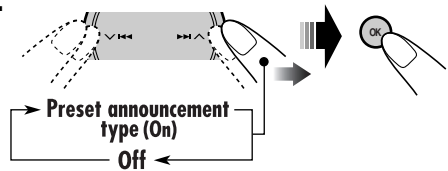
ANN indicator appears.

Appears when the service is received.

- If the ANN indicator lights up, Announcement Standby Reception is activated.
- If the ANN indicator flashes, Announcement Standby Reception is not yet activated.
  To activate, tune in to another service providing these signals. The ANN indicator will stop flashing and remain lit.

To deactivate the Announcement Standby Reception

Select "Off" in step **4** above.
The ANN indicator goes off.

Tracing the same programme— Alternative Frequency Reception

You can keep listening to the same programme by activating the Alternative Frequency Reception.

- **While receiving a DAB service:**
  When driving in an area where a DAB service cannot be received, this receiver automatically tunes in to another ensemble or FM RDS station, broadcasting the same programme.
- **While receiving an FM RDS station:**
  When driving in an area where a DAB service is broadcasting the same programme as the FM RDS station is broadcasting, this receiver automatically tunes in to the DAB service.

When shipped from the factory, Alternative Frequency Reception is activated.

To deactivate the Alternative Frequency Reception, see page 45.

To show the Dynamic Label Segment (DLS) information
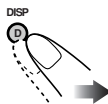
Service frequency is displayed.

While listening to an ensemble that supports DLS....

*

Dynamic Label Segment (DLS—DAB radio text information) is displayed.

* *Lights up when receiving a service providing Dynamic Label Segment (DLS)—DAB radio text information.*

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.
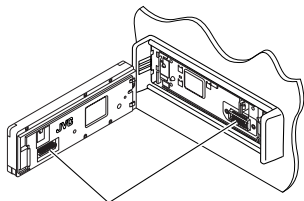
Connector

■ 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 receiver 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, benzine, 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 receiver 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:
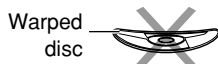
Warped disc

Sticker   Sticker residue

Disc   Stick-on label

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 receiver

Basic operations

Turning on the power

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

Selecting the sources

- When no disc is loaded in the receiver and Dual Zone is off, "DISC" cannot be selected.
- Without connecting to the CD changer or the DAB tuner, "CD-CH" or "DAB" 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.

FM RDS operations

- Network-Tracking Reception requires two types of RDS signals—PI (Programme Identification) and AF (Alternative Frequency) to work correctly. Without receiving these data correctly, Network-Tracking Reception will not operate.

- TA Standby Reception and PTY Standby Reception will be temporarily canceled while listening to an AM station.

Disc operations

General

- In this manual, words "track" and "file" are interchangeably used when referring to MP3/WMA/JPEG files and their file names.
- This receiver can also play back 8 cm discs.
- This receiver can only play back 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.

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

- Use only "finalized" discs.
- This receiver 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.
- This receiver can play back either MP3/WMA files or JPEG files if a disc includes both kind of files. Set the playback file type on AV setup menu (page 32) before playing back a disc containing both kind of files.
- Only for CD-R/CD-RW: This receiver can play back multi-session discs; however, unclosed sessions will be skipped while playing.

To be continued....

- Some DVD-R/DVD-RW or CD-R/CD-RW may not play back on this receiver because of their disc characteristics, and for the following causes:
  – Discs are dirty or scratched.
  – Moisture condensation occurs on the lens inside the receiver.
  – The pickup lens inside the receiver 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 receiver 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 receiver 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 receiver can display only one-byte characters. No other characters can be correctly displayed.

- This receiver 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 receiver can recognize the total of 1100 files, 250 folders (maximum of 999 files per folder).
- This receiver 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 receiver 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.

Playing a JPEG disc

- It is recommended that you record a file at 640 x 480 resolution. (If a file has been recorded at a resolution of more than 640 x 480, it will take a long time to be shown.)
- This System can play only baseline JPEG files. Progressive JPEG files or lossless JPEG files cannot be played.
  Baseline JPEG format: Used for digital cameras, web, etc.
  Progressive JPEG format: Used for web.
  Lossless JPEG format: An old type and rarely used now.
- If progressive or lossless JPEG files are played back, a black screen appears. In this case, stop playback and select a baseline JPEG file. Note that it may take a long time to select another file.

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 automatically.

Ejecting a disc

- If the ejected disc is not removed within 15 seconds, the disc is automatically inserted again into the loading slot to prevent 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.

- 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" for a picture whose aspect ratio is 4:3, the picture slightly changes due to the process for converting the picture width.
- Even if "4:3PS [PAN SCAN]" is selected, the screen size may become "4:3LB [LETTER BOX]" with some DVDs. This depends on how they are recorded.

General settings—PSM

- If you change the "Amp Gain" setting from "High Power" to "Low Power" while the volume level is set higher than "VOL 30", the receiver automatically changes the volume level to "VOL 30".

Other main functions

- If you try to assign a title to a 31st disc, "Name Full" flashes on the monitor. Delete unwanted titles before assignment.
- Titles assigned to discs in the CD changer can also be shown if you play back the disc on the receiver.

DAB tuner operations

- PTY Standby Reception works for the DAB tuner only using a Dynamic PTY, but not a Static PTY.
- TA Standby Reception for FM RDS station and Road Traffic News Standby Reception for DAB cannot be set separately. The T/P button always work for the both Standby Reception modes when the DAB tuner is connected.

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.
  (DOWN MIX: see page 33.)

• Through DIGITAL OUT (optical):
  Digital signals (Linear PCM, Dolby Digital, DTS, MPEG Audio) are emitted through this terminal. (For more details, see page 65.)
  To reproduce multi-channel sounds such as Dolby Digital, DTS, and MPEG Audio, connect an amplifier or a decoder compatible with these multi-channel sources to this terminal, and set "DIGITAL AUDIO OUTPUT (D. AUDIO OUTPUT)" correctly. (See page 33.)

• 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 play back sound of this DVD/CD player connected to the 2nd AUDIO OUT plug at the same time. (For details, see page 40.)

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-audio languages (for DVD only).

▭ : Appears at the beginning of a scene containing multi-subtitle 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

■ Output signals through the DIGITAL OUT terminal

Output signals are different depending on the "DIGITAL AUDIO OUTPUT" setting on the setup menu (see page 33).

DIGITAL AUDIO OUTPUT	Output Signals		
Playback Disc	STREAM/PCM	DOLBY DIGITAL/PCM	PCM ONLY
DVD 48 kHz, 16/20/24 bits Linear PCM	48 kHz, 16 bits stereo Linear PCM		
96 kHz, 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		
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		

■ Sound modes (preset frequency level settings)

The list below shows the preset frequency level settings for each sound mode (see page 41).

Sound mode	Preset equalizing values						
	60 Hz	150 Hz	400 Hz	1 kHz	2.5 kHz	6.3 kHz	15 kHz
Flat	00	00	00	00	00	00	00
Hard Rock	+03	+03	+01	00	00	+02	+01
R&B	+03	+02	+02	00	+01	+01	+03
Pop	00	+02	00	00	+01	+01	+02
Jazz	+03	+02	+01	+01	+01	+03	+02
Dance	+04	+02	00	–02	–01	+01	+01
Country	+02	+01	00	00	00	+01	+02
Reggae	+03	00	00	+01	+02	+02	+03
Classic	+02	+03	+01	00	00	+02	00

Troubleshooting

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

	Symptoms	Causes	Remedies
General	• Sound cannot be heard from the speakers.	The volume level is set to the minimum level.	Adjust it to the optimum level.
		Connections are incorrect.	Check the cords and connections.
	• The receiver does not work at all.	The built-in microcomputer may have functioned incorrectly due to noise, etc.	Reset the receiver (see page 2).
	• Remote controller does not work.	Dual Zone is activated (see page 40).	While Dual Zone is activated, remote controller only functions for operating the DVD/CD player.
	• Nothing appears on the monitor.	No video signal comes in when the source is AV-IN.	• Change the source. • Starts playback on the external comporment connected to the VIDEO IN jack. • Change AV INPUT setting to "Audio" (see page 47).
FM/AM	• SSM automatic presetting does not work.	Signals are too weak.	Store stations manually.
	• Static noise while listening to the radio.	The aerial is not connected firmly.	Connect the aerial firmly.
	• "No Text" appears on the monitor.	The station does not support RDS RT or the reception is weak.	Check the Network-Tracking Reception (see page 18).

	Symptoms	Causes	Remedies
Disc playback	• Disc cannot be played back.	Disc is inserted upside down.	Insert the disc correctly.
	• 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.	CD-R/CD-RW or DVD-R/DVD-RW is not finalized.	• 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.
	• Disc cannot be recognized.	The DVD/CD player may have functioned incorrectly.	Eject the disc forcibly (see page 2).
	• "No Disc" appears on the monitor.	Disc is inserted incorrectly.	Insert the disc correctly.
	• 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.
	• No playback picture (DVD, VCD) appears on the monitor.	Parking brake wire is not connected properly.	See Installation/Connection Manual.
	• No picture appears on the external 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.
	• The left and right edges of the picture are missing on the screen.	"4:3PS [PAN SCAN]" is selected when viewing on a conventional TV (aspect ratio 4:3).	Select "4:3LB [LETTER BOX]". (See page 32.)

To be continued....

Symptoms	Causes	Remedies
• 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.
• 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.	————
• Correct characters are not displayed (e.g. album name).	This receiver can only display a limited number of special characters (see page 4).	————

MP3/WMA playback

	Symptoms	Causes	Remedies
JPEG playback	• Disc cannot be played back.	No JPEG files are recorded on the disc.	Change the disc.
		JPEG files do not have the extension code <.jpg> or in their file names.	Add the extension code <.jpg> to their file names.
		JPEG files are not recorded in a compliant format.	Change the disc. Record JPEG files using a compliant application (see page 6).
		JPEG files are recorded in DVD+R/DVD+RW media.	Change the disc. Record JPEG files using DVD-R/DVD-RW media.
	• No picture appears on the external 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.
CD changer	• "No Disc" appears on the monitor.	No disc is in the magazine.	Insert disc into the magazine.
		Disc is inserted upside down.	Insert disc correctly.
	• "No Magazine" appears on the monitor.	No magazine is loaded in the CD changer.	Insert the magazine.
	• "Reset08" appears on the monitor.	This receiver is not connected to the CD changer correctly.	Connect this receiver and the CD changer correctly and press the reset button of the CD changer.
	• "Reset01" – "Reset07" appears on the monitor.	———————	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 receiver (see page 2).

	Symptoms	Causes	Remedies
DAB tuner	• "No DAB Signal" appears on the monitor.	Signal is too weak.	Search for another ensemble.
	• "Reset08" appears on the monitor.	This receiver is not connected to the DAB tuner correctly.	Connect this receiver and the DAB tuner correctly and reset the receiver (see page 2).
	• The DAB tuner does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	Reset the receiver (see page 2).
	• "Antenna Power NG" appears on the monitor.	Something is wrong with the DAB aerial.	Refer to the instructions supplied for your DAB tuner.

Specifications

■ AUDIO AMPLIFIER SECTION

Maximum Power Output:
  Front: 50 W per channel
  Rear: 50 W per channel
Continuous Power Output (RMS):
  Front: 20 W per channel into 4 Ω, 40 Hz
          to 20 000 Hz at no more than 0.8%
          total harmonic distortion.
  Rear: 20 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,
          2.5 kHz, 6.3 kHz, 15 kHz
  Level: ±10 dB
Signal-to-Noise Ratio: 70 dB
Line-In Level/Impedance:
  1.5 V/20 kΩ load
Line-Out Level/Impedance:
  5.0 V/20 kΩ load (full scale)
  Output Impedance: 1 kΩ
Subwoofer-Out Level/Impedance:
  2.0 V/20 kΩ load (full scale)
Color System: PAL
Video Input (composite):   1 Vp-p/75 Ω
Video Output (composite): 1 Vp-p/75 Ω
Other Terminals:
  2nd AUDIO OUT, DIGITAL OUT
  (optical), CD changer, Steering wheel
  remote input (OE REMOTE)

■ TUNER SECTION

Frequency Range:
  FM: 87.5 MHz to 108.0 MHz
  AM: (MW) 522 kHz to 1 620 kHz
         (LW) 144 kHz to 279 kHz

[FM Tuner]
Usable Sensitivity: 11.3 dBf (1.0 µV/75 Ω)
50 dB Quieting Sensitivity:
          16.3 dBf (1.8 µV/75 Ω)
Alternate Channel Selectivity (400 kHz): 65 dB
Frequency Response: 40 Hz to 15 000 Hz
Stereo Separation: 35 dB
Capture Ratio: 1.5 dB

[MW Tuner]
Sensitivity: 20 µV
Selectivity: 35 dB

[LW Tuner]
Sensitivity: 50 µV

■ 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: 16 Hz to 22 000 Hz
       fs=96 kHz: 16 Hz to 44 000 Hz
  VCD, CD: 16 Hz to 20 000 Hz
Dynamic Range: 93 dB
Signal-to-Noise Ratio: 95 dB
Wow and Flutter: Less than measurable limit
MP3 : Max. Bit Rate: 320 kbps
WMA (Windows Media® Audio):
          Max. Bit Rate: 192 kbps

■ MONITOR SECTION

Screen: 3-inch liquid crystal panel
Number of Pixels: 123 200 pixels
Drive Method:
  TFT (Thin Film Transistor) active matrix
  format
Color System: PAL

■ GENERAL

Power Requirement:
  Operating Voltage:
    DC 14.4 V (11 V to 16 V allowance)
Grounding System: Negative ground
Allowable Operating Temperature:
  0°C to +40°C
Dimensions (W × H × D):
  Installation Size (approx.):
    182 mm × 52 mm × 160 mm
  Panel Size (approx.):
    188 mm × 58 mm × 18 mm
Mass (approx.):
  2.0 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

¿Tiene PROBLEMAS con la operación?

Por favor reinicialice su unidad

Consulte la página de Cómo reposicionar su unidad

Vous avez des PROBLÈMES de fonctionnement?

Réinitialisez votre appareil

Référez-vous à la page intitulée Comment réinitialiser votre appareil

JVC