

JVC



ENGLISH

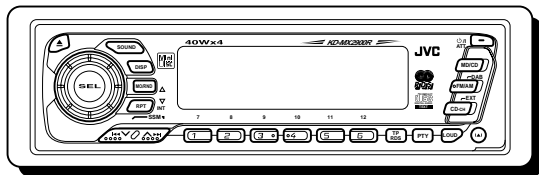
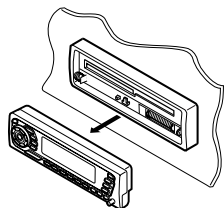
DEUTSCH

FRANÇAIS

NEDERLANDS

MD/CD RECEIVER
MD/CD-RECEIVER
RECEPTEUR MD/CD
MD/CD-RECEIVER

KD-MX2900R



COMPACT
disc
DIGITAL AUDIO
TEXT

Mini
Disc



For installation and connections, refer to the separate manual.

Für den Einbau und die Anschlüsse siehe das eigenständige Handbuch.

Pour l'installation et les raccordements, se référer au manuel séparé.

Bijzonderheden over de installatie en aansluiting van het apparaat vindt u in de desbetreffende handleiding.

INSTRUCTIONS

BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING

LVT0251-001A
[E]

Position And Reproduction Of Labels

WARNING LABEL, PLACED INSIDE THE UNIT

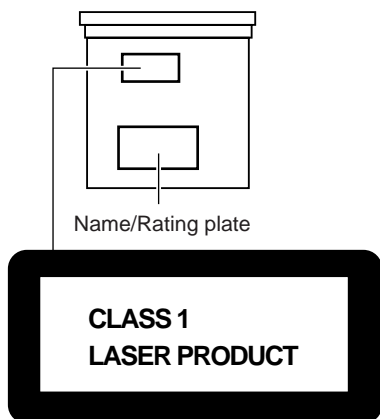
DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgåudsættelse for stråling. (d)

WARNING: Osynlig laserstråling når denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

VARO: Avattaessa ja suo-
jalukitus ohitettaessa olet
alttiina näkymättömälle
lasersäteilylle. Älä katso
säteeseen. (f)

Bottom panel of the main unit



Caution:

This product contains a laser component of higher laser class than Class 1.

IMPORTANT FOR LASER PRODUCTS

Precautions:

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

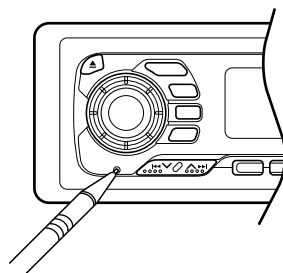
How to reset your unit

Press the reset button on the front panel using a ball-point pen or a similar tool.

This will reset the built-in microcomputer.

Note:

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



CAUTION on Volume Setting

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

Note:

For security reasons, a numbered ID card is provided with this unit, and the same ID number is imprinted on the unit's chassis. Keep the card in a safe place, as it will help the authorities to identify your unit if stolen.

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.

CONTENTS

How to reset your unit 2



BASIC OPERATIONS 5

RADIO BASIC OPERATIONS 6

Listening to the radio 6

Storing stations in memory 7

 FM station automatic preset: SSM 7

 Manual preset 8

Tuning into a preset station 9

Selecting FM reception sound 9



RDS OPERATIONS 10

What you can do with RDS EON 10

 Tracing the same programme automatically (Network-Tracking Reception) 10

 Using Standby Reception 12

 Selecting Your Favorite Programme for PTY Standby Reception 13

 Searching Your Favorite Programme 13

Other convenient RDS functions and adjustments 16

 Automatic selection of the station when using the number buttons .. 16

 Changing the display mode while listening to an FM station 16

 Setting the TA volume level 17

 Automatic clock adjustment 17



CD OPERATIONS 19

Playing a CD 19

Playing a CD Text 20

Locating a track or a particular portion on a CD 21

Selecting CD playback modes 22

Prohibiting CD ejection 23



MD OPERATIONS 24

Playing an MD 24

Locating a track or a particular portion on an MD 25

Selecting MD playback modes 26

Prohibiting MD ejection 27



To be continued on the next page

BEFORE USE

* *For safety...*

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

* *Temperature inside the car...*

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

SOUND ADJUSTMENTS 28
 Selecting preset sound control modes 28
 Tuning on/off the loudness function 28
 Adjusting the sound 29
 Storing your own sound adjustments 30



OTHER MAIN FUNCTIONS 31
 Setting the clock 31
 Changing the general settings (PSM) 32
 Selecting 24-hour or 12-hour clock 34
 Selecting the clock display 34
 Selecting the level display 34
 Selecting the dimmer mode 35
 Controlling the volume automatically (Audio Cruise Mode) 35
 Selecting the telephone muting 37
 Turning on or off the key-touch tone 37
 Adjusting the contrast level 37
 Selecting the scroll mode 38
 Assigning names to the sources 39
 Detaching the control panel 42



**REMOTE OPERATIONS
 (With an optionally purchased remote controller) 43**
 Installing the battery 43
 Using the remote controller 44



CD CHANGER OPERATIONS 45
 Playing CDs 45
 Selecting CD playback modes 47



DAB TUNER OPERATIONS 48
 Tuning into an ensemble and one of the services 48
 Storing DAB services in memory 50
 Tuning into a preset DAB service 52



EXTERNAL COMPONENT OPERATIONS 53

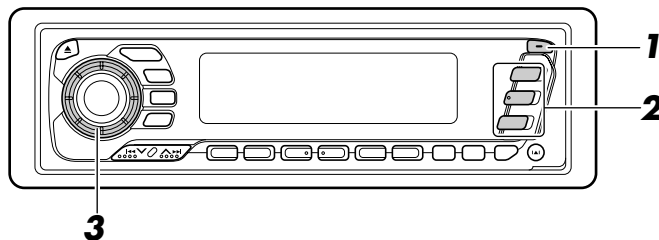


MAINTENANCE 54
 Handling Discs 54
 Taking care of CDs 54
 Taking care of MDs 55
 Moisture condensation 55



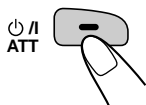
TROUBLESHOOTING 56

SPECIFICATIONS 57



Note:
When you use this unit for the first time, set the built-in clock correctly, see page 31.

1

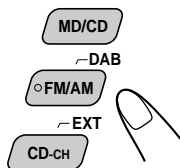


Turn on the power.

Note on One-Touch Operation:

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

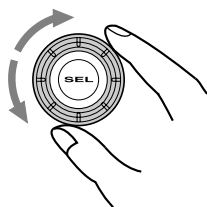
2



Select the source.

To operate the tuner, see pages 6 – 18.
To operate the CD player, see pages 19 – 23.
To operate the MD player, see pages 24 – 27.
To operate the CD changer, see pages 45 – 47.
To operate the DAB tuner, see page 48 – 52.
To operate an external component, see page 53.

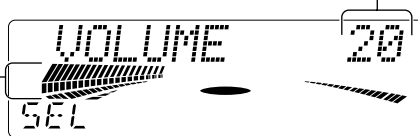
3



Adjust the volume.

Volume level indicator (see page 34).

Volume level appears.



4

Adjust the sound as you want (see pages 28 – 30).

To drop the volume in a moment

Press \odot /I/ATT briefly while listening to any source. “ATT” starts flashing on the display, and the volume level will drop in a moment.

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

To turn off the power

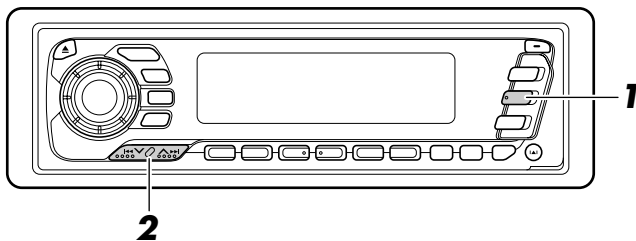
Press \odot /I/ATT for more than 1 second. “See You” appears, then the unit turns off.



RADIO BASIC OPERATIONS

ENGLISH

Listening to the radio

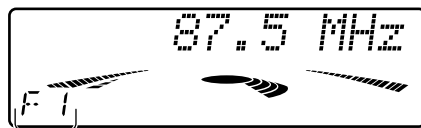
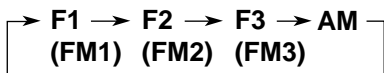


1



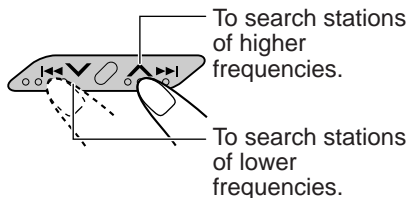
Select the band (FM1, FM2, FM3 or AM).

You can select any one of FM1, FM2, and FM3 to listen to an FM station.



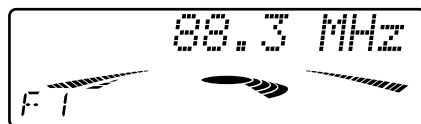
Selected band appears.

2



Start searching a station.

When a station is received, searching stops.



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

To tune in a particular frequency without searching:

1 Press FM/AM repeatedly to select the band (FM or AM).

2 Press and hold $\blacktriangle\blacktriangleright\blacktriangleright$ or $\blacktriangleleft\blacktriangleleft$ until "MANU" (for Manual) appears on the display.

Now you can manually change the frequency while "MANU" is on the display.

3 Press $\blacktriangle\blacktriangleright\blacktriangleright$ or $\blacktriangleleft\blacktriangleleft$ repeatedly until the frequency you want is reached.

- If you hold down the button, the frequency keeps changing (in 50 kHz intervals for FM and 9 kHz intervals for AM-MW/LW) until you release the button.

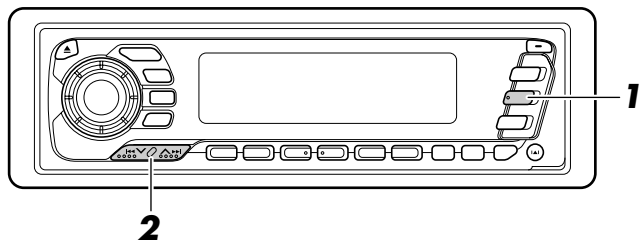
Storing stations in memory

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

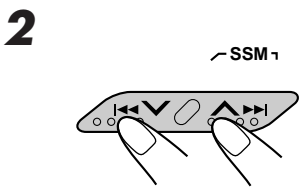
- Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
- Manual preset of both FM and AM stations

FM station automatic preset: SSM

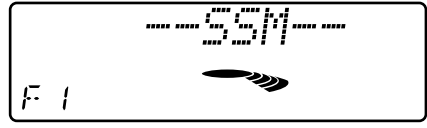
You can preset 6 local FM stations in each FM band (FM1, FM2 and FM3).



Select the FM band number (FM1, FM2 or FM3) you want to store FM stations into.



Press and hold both buttons for more than 2 seconds.



"SSM" appears, then disappears when automatic preset is over.

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

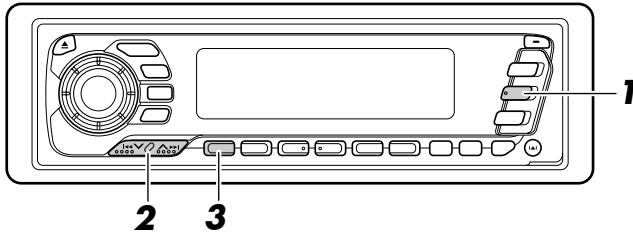
When automatic preset is over, the station stored in number button 1 will be automatically tuned in.



Manual preset

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

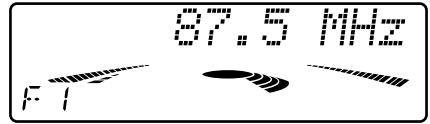
EXAMPLE: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band



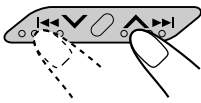
1



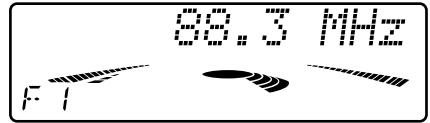
Select the FM1 band.



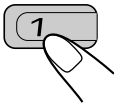
2



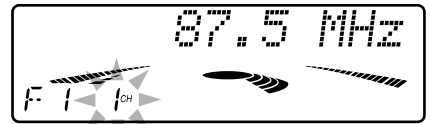
Tune into a station of 88.3 MHz.
See page 6 to tune into a station.



3



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



Preset number flashes for a while.

4

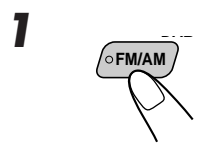
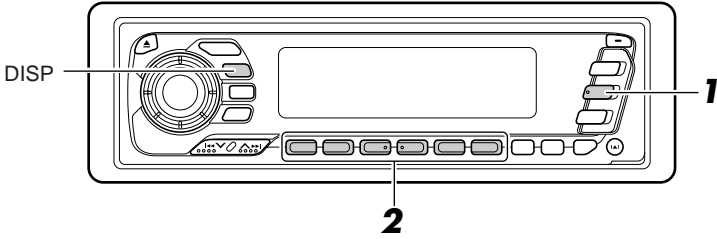
Repeat the above procedure to store other stations into other preset numbers.

Notes:

- A previously preset station is erased when a new station is stored in the same preset number.
- Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.

Tuning into a preset station

You can easily tune into a preset station. Remember that you must store stations first. If you have not stored them yet, see pages 7 and 8.



Select the band (FM1, FM2, FM3 or AM) you want.



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

To change the display information while receiving an FM RDS station

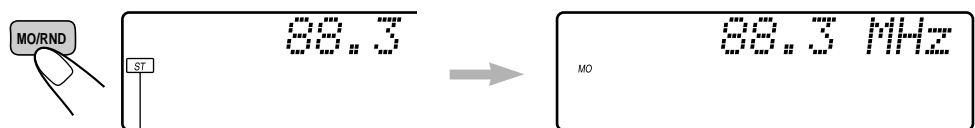
Press DISP. Each time you press the button, the display changes as follows:



Selecting FM reception sound

When an FM stereo broadcast is hard to receive:

Press MO/RND (Mono/Random) while listening to an FM stereo broadcast. "MONO" appears on the display and the sound you hear becomes monaural but reception will be improved.



Lights up when receiving an FM broadcast in stereo.

To restore the stereo effect, press the same button again.



RDS OPERATIONS

ENGLISH

What you can do with RDS EON

RDS (Radio Data System) allows FM stations to send an additional signal along with their regular programme signals. For example, the stations send their station names, as well as information about what type of program they broadcast, such as sports or music, etc. Another advantage of RDS function is called "EON (Enhanced Other Networks)." The EON indicator lights up while receiving an FM station with the EON data. By using the EON data sent from a station, you can tune into a different station of a different network broadcasting your favorite programme or traffic announcement while listening to another programme or to another source such as CD.

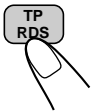
- By receiving the RDS data, this unit can do the following:
- Tracing the same programme automatically (Network-tracking Reception)
 - Standby Reception of TA (Traffic Announcement) or your favorite programme
 - PTY (Program Type) search
 - TP (Traffic Programme) search
 - And some other functions

Tracing the same programme automatically (Network-Tracking Reception)

When driving in an area where FM reception is not good, the tuner built in this unit automatically tunes in another RDS station broadcasting the same programme with stronger signals. So, you can continue to listen to the same programme in its finest reception, no matter where you drive. (See illustration.)

Two types of the RDS data are used to make Network-Tracking Reception work correctly — PI (Programme Identification) and AF (Alternative Frequency).

Without receiving these data correctly from the RDS station you are listening to, Network-Tracking Reception will not operate.



To use Network-Tracking Reception, press and hold TP RDS (Traffic Programme/Radio Data System) for more than 1 second. Each time you press and hold the button, Network-Tracking Reception modes change as follows:



AF indicator REG indicator



Mode 1

The AF indicator lights up but the REG indicator does not. Network-Tracking is activated with Regionalization set to “off.” Switches to another station within the same network when the receiving signals from the current station become weak.

Note:

In this mode, the programme may differ from the one currently received.

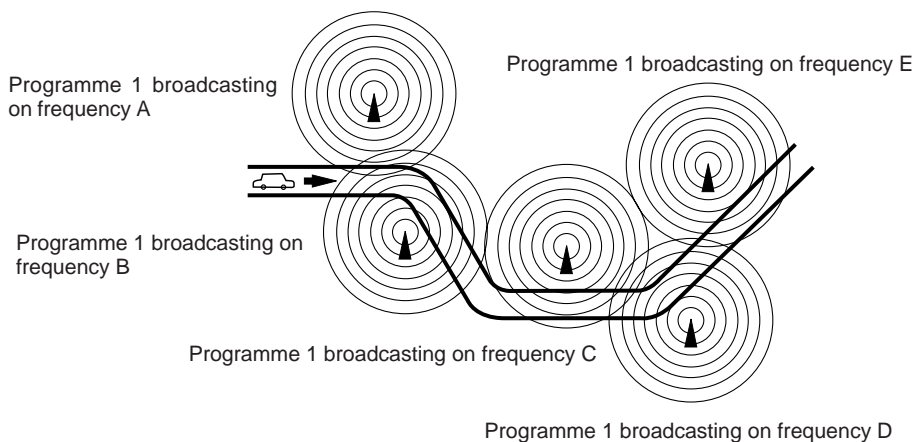
Mode 2

Both the AF indicator and the REG indicator light up. Network-Tracking is activated with Regionalization set to “on.” Switches to another station, within the same network, broadcasting the same programme when the receiving signals from the current station become weak.

Mode 3

Neither the AF indicator nor the REG indicator lights up. Network-Tracking is deactivated.

The same programme can be received on different frequencies.





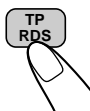
Using Standby Reception

Standby Reception allows the unit to switch temporarily to your favorite programme (PTY: Programme Type) and Traffic Announcement (TA) from the current source (another FM station, MD, CD, and other connected components).

Note:

Standby Reception will not work if you are listening to an AM station.

TA Standby Reception



- When TP RDS is pressed briefly in the FM mode, the TP indicator is lit during reception of a TP station and the TA standby mode is engaged.

Note:

When the station being received is not a TP station, the TP indicator flashes. Press \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangledown to engage the TA standby mode. "SEARCH" appears on the display, and TP station search starts. When a TP station is tuned in, the TP indicator is lit.

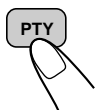
- If you are listening to a CD or an MD, and wish to hear a TA broadcast, press TP RDS to enter the TA standby mode. (The TP indicator lights up.)

If a TA programme starts broadcasting while the TA standby mode is active, "TRAFFIC" appears and the FM mode is engaged. The volume increases to the preset "TA VOLUME" level and the TA programme can be heard (see page 17).

Note:

To deactivate the TA standby mode, press TP RDS again.

PTY Standby Reception



- When PTY is briefly pressed in the FM mode, the PTY indicator is lit during reception of a PTY station and the PTY standby mode is engaged. The selected PTY name stored on page 13 flashes for 5 seconds.

Note:

When the station being received is not a PTY station, the PTY indicator flashes. Press \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangledown to engage the PTY standby mode. "SEARCH" appears on the display, and PTY station search starts. When a PTY station is tuned in, the PTY indicator is lit.

- If you are listening to a CD or an MD, and wish to hear a selected PTY broadcast, press PTY to enter the PTY standby mode. (The PTY indicator lights up.)

If the PTY starts broadcasting while the PTY standby mode is active, the selected PTY name appears and the FM mode is engaged. The selected PTY can then be heard.

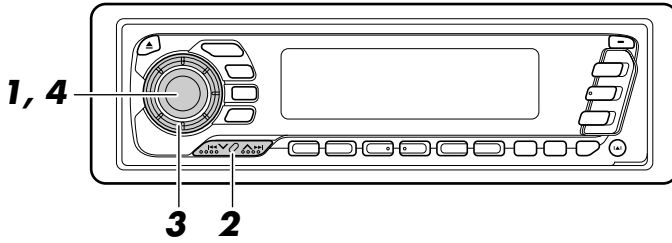
Note:

To deactivate the PTY standby mode, press PTY again.



Selecting Your Favorite Programme for PTY Standby Reception

You can select your favorite programme for PTY Standby Reception to store in memory. When shipped from the factory, "NEWS" is stored as the programme type for PTY Standby Reception.

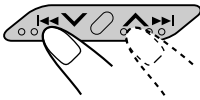


1



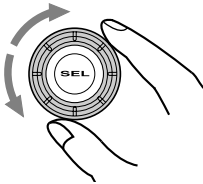
Press and hold the button for more than 2 seconds to call up the Preferred Setting Mode (PSM: see page 32).

2



Select "PTY STANDBY" if not shown on the display.

3



Select one of twenty-nine PTY codes. (See the table on page 18.)
Selected code name appears on the display and is stored into memory.

4



Finish the setting.

Searching Your Favorite Programme

You can search one of your 6 favorite programme types stored in memory. When shipped from the factory, the following 6 programme types have been stored in the number buttons (1 to 6).

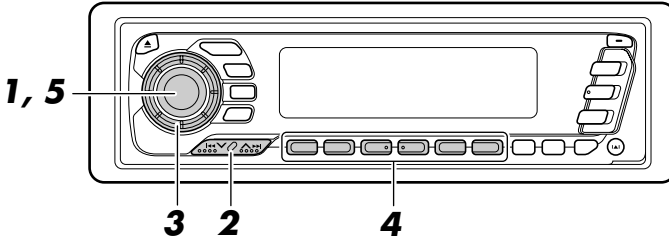
To change the factory preset settings, see page 14.

To search your favorite programme, see page 15.

1	2	3	4	5	6
POP M	ROCK M	EASY M	CLASSICS	AFFAIRS	VARIED



To store your favorite programme types

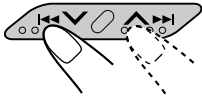


1



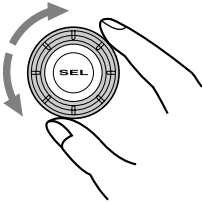
Press and hold SEL (Select) for more than 2 seconds to call up the Preferred Setting Mode (PSM: see page 32).

2



Select “PTY SEARCH” if not shown on the display.

3

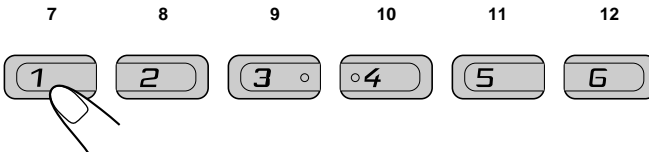


Select one of twenty-nine PTY codes. (See the table on page 18.)

Selected code name appears on the display.

- If the code already stored in memory is selected, it will flash on the display.

4



Press and hold the number button for more than 2 seconds to store the PTY code selected into the preset number you want.

PTY preset number appears, and selected code name and “MEMORY” alternate on the display.

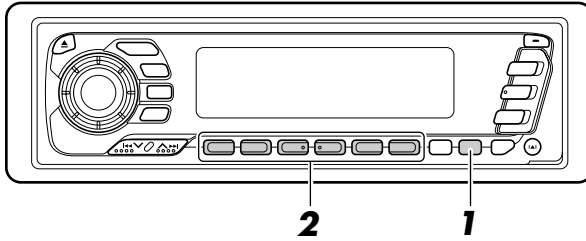
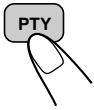
5



Finish the setting.

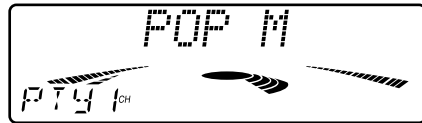
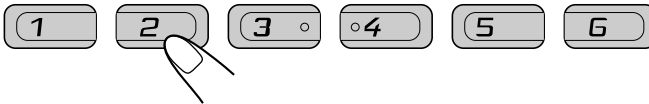


To search your favorite programme type

**1**

Press and hold PTY (programme type) for more than 1 second while listening to an FM station.

The last selected PTY code and preset number appear.

**2**

Select one of PTY codes stored in preset number buttons (1 to 6).



Ex. When "ROCK M" is stored in preset number button 2.

PTY search for your favorite programme starts after 5 seconds.

- If there is a station broadcasting a programme of the same PTY code you selected, that station is tuned in.
- If there is no station broadcasting a programme of the same PTY code you selected, the station will not change.

Note:

In some areas, the PTY search will not work correctly.



Other convenient RDS functions and adjustments

Automatic selection of the station when using the number buttons

Usually when you press the number button, the preset station is tuned in. However, when the preset station is an RDS station, something different will happen. If the signals from that preset station are not sufficient for good reception, this unit, using the AF data, tunes in another frequency broadcasting the same programme as the original preset station is broadcasting. In case no other station is tuned in, you can also search all receivable frequencies for the same programme. (Programme search) To activate programme search, follow the procedure below.

- Programme search takes a while.
- See also “Changing the general settings (PSM)” on page 32.

1. Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select “P(programme)-SEARCH” with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
3. Select “P-SEARCH ON” by turning the control dial clockwise.
Now programme search is activated.

To cancel programme search, repeat the same procedure and select “P-SEARCH OFF” in step 3 by turning the control dial counterclockwise.

Changing the display mode while listening to an FM station

You can change the initial indication on the display to either station name (PS NAME) or to station frequency (FREQUENCY), while listening to an FM RDS station.

- See also “Changing the general settings (PSM)” on page 32.

1. Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select “TUNER DISPLAY” with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
3. Set to the desired indication (“PS NAME” or “FREQUENCY”) with the control dial.

Note:

By pressing DISP, you can also change the display while listening to an FM RDS station. Each time you press the button, the display changes to show the following:

→ PS (Station name) → Station Frequency → PTY (Programme type)

** Then, the display goes back to the original indication in several seconds.*



Setting the TA volume level

You can preset the volume level for TA Standby Reception. When a traffic programme is received, the volume level automatically changes to the preset level.

- See also “Changing the general settings (PSM)” on page 32.

1. Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select “TA VOLUME” with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
3. Set to the desired volume level with the control dial.

Automatic clock adjustment

When shipped from the factory, the clock built in this unit is set to be readjusted automatically using the CT (Clock Time) data in the RDS signal.

If you do not want to use automatic clock adjustment, follow the procedure below.

- See also “Changing the general settings (PSM)” on page 32.

1. Press and hold SEL (select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select “AUTO ADJUST” with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
3. Select “ADJUST OFF” by turning the control dial counterclockwise.
Now automatic clock adjustment is canceled.

To reactivate clock adjustment, repeat the same procedure and select “ADJUST ON” in step 3 by turning the control dial clockwise.

Note:

It takes about 2 minutes to adjust the time using the CT data. So, you must tune to the station for more than 2 minutes continuously; otherwise, the clock time will not be adjusted.

**PTY codes**

No.	Indications on the display	No.	Indications on the display
1	NEWS	16	WEATHER
2	AFFAIRS	17	FINANCE
3	INFO	18	CHILDREN
4	SPORT	19	SOCIAL
5	EDUCATE	20	RELIGION
6	DRAMA	21	PHONE IN
7	CULTURE	22	TRAVEL
8	SCIENCE	23	LEISURE
9	VARIED	24	JAZZ
10	POP M	25	COUNTRY
11	ROCK M	26	NATION M
12	EASY M	27	OLDIES
13	LIGHT M	28	FOLK M
14	CLASSICS	29	DOCUMENT
15	OTHER M		

Descriptions of the PTY Codes

NEWS: News

AFFAIRS: Topical programmes expanding on current news or affairs

INFO: Programmes which impart advice on a wide variety of topics.

SPORT: Sport events

EDUCATE: Educational programmes

DRAMA: Radio plays

CULTURE: Programmes on national or regional culture

SCIENCE: Programmes on natural science and technology

VARIED: Other programmes like comedies or ceremonies

POP M: Pop music

ROCK M: Rock music

EASY M: Easy-listening music

LIGHT M: Light music

CLASSICS: Classical music

OTHER M: Other music

WEATHER: Weather information

FINANCE: Reports on commerce, trading, the Stock Market, etc.

CHILDREN: Entertainment programmes for children

SOCIAL: Programmes on social activities

RELIGION: Programmes dealing with any aspect of belief or faith, or the nature of existence or ethics

PHONE IN: Programmes where people can express their views either by phone or in a public forum

TRAVEL: Programmes about travel destinations, package tours, and travel ideas and opportunities

LEISURE: Programmes concerned with recreational activities such as gardening, cooking, fishing, etc.

JAZZ: Jazz music

COUNTRY: Country music

NATION M: Current popular music from another nation or region, in that country's language

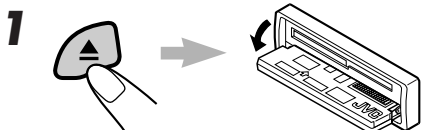
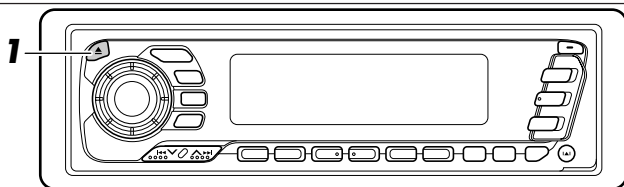
OLDIES: Classic pop music

FOLK M: Folk music

DOCUMENT: Programmes dealing with factual matters, presented in an investigative style

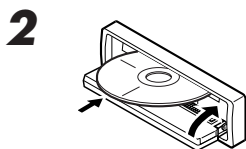


Playing a CD



Open the control panel.

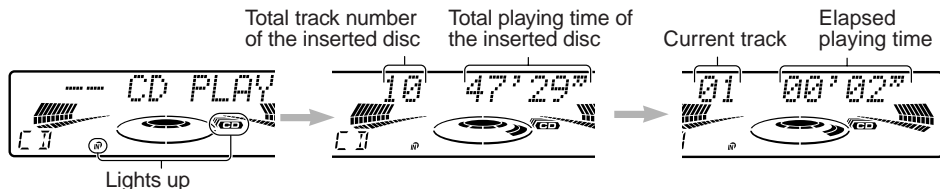
If there is already a CD or an MD inside the unit, it ejects automatically.



1. Insert a CD into the loading slot.

The unit turns on, draws the CD and starts playback automatically.

2. Close the control panel by hand.



Note:

When a CD is inserted up side down, "PLEASE EJECT" appears on the display. When you open the control panel by pressing , the CD automatically ejects.

Note on One-Touch Operation:

When a CD is already in the loading slot, pressing MD/CD turns on the unit and starts playback automatically.

To stop play and eject the CD

Press .

CD play stops, the control panel opens, then the CD automatically ejects from the loading slot. If you change the source to FM, AM, CD changer or external component, the CD play also stops (without ejecting the CD this time).

Notes:

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

To show the assigned name while the elapsed playing time appears

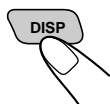
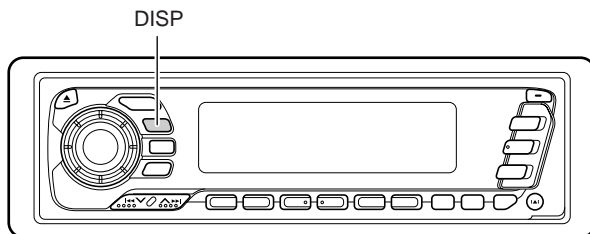
Press DISP. Each time you press the button, elapsed playing time and assigned name (see page 39) appear alternately on the display.

- See also "Selecting the scroll mode" on page 38.

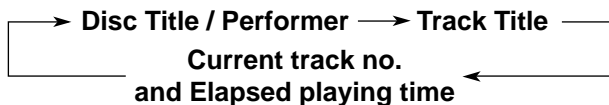


Playing a CD Text

In a CD Text, some information about the disc (its disc title, performer and track title) is recorded. You can show these disc information on the display.



Select text display mode while playing a CD Text.
Each time you press the button, the display changes as follows:

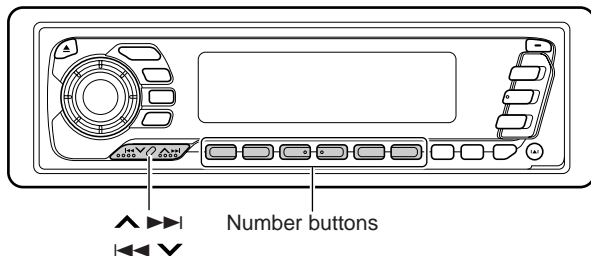


Notes:

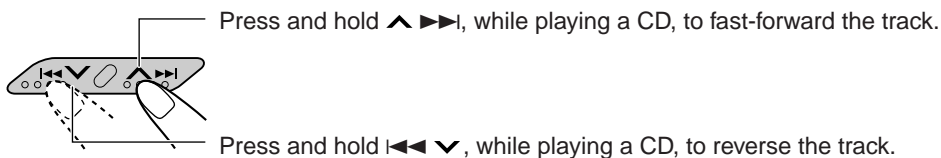
- The display shows up to 12 characters at one time and scrolls if there are more than 12 characters. See also “To select the scroll mode” on page 38.
- When you press *DISP* while playing a conventional CD, “NO NAME” appears for the disc title/performer and the track title.



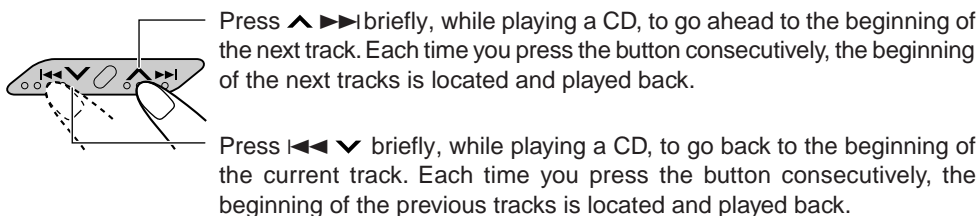
Locating a track or a particular portion on a CD



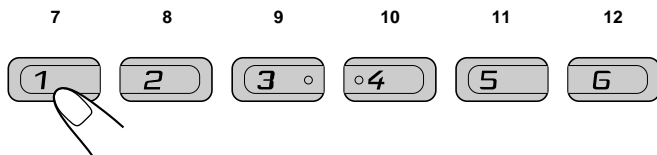
To fast-forward or reverse the track



To go to the next tracks or the previous tracks



To go to a particular track directly

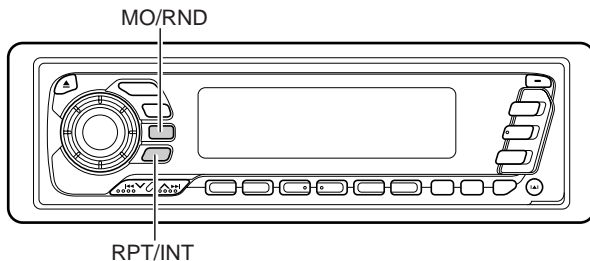


Press the number button corresponding to the track number to start its playback.

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



Selecting CD playback modes



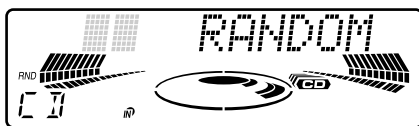
To play back tracks at random (Random Play)

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



Each time you press MO/RND (Mono/Random) while playing a CD, CD random play mode turns on and off alternately.

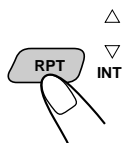
When the random mode is turned on, the RND indicator lights up on the display and a track randomly selected starts playing.



- To select the next track at random, press \wedge $\blacktriangleright\blacktriangleright$ briefly.

To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.

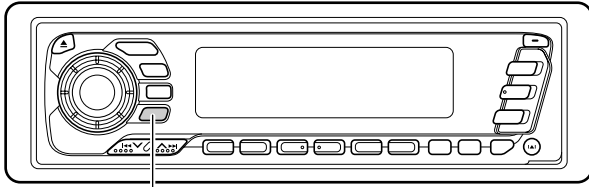


\triangle Each time you press RPT/INT (Repeat/Intro) for more than 1 second while playing a CD, CD repeat play mode turns on and off alternately.

When the repeat mode is turned on, the RPT indicator lights up on the display.

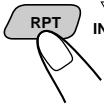
Track number of the currently playing track





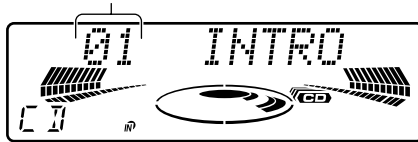
RPT/INT

To play back only intros (Intro Scan)

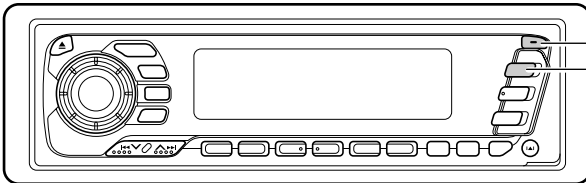


- △ Each time you press RPT/INT (Repeat/Intro) while playing a CD, CD intro scan mode turns on and off alternately.
- ▽ When the intro scan mode is turned on, "INTRO" appears on the display for 5 seconds and a track number flashes. The first 15 seconds of each track are played sequentially.

Track number of the currently playing track



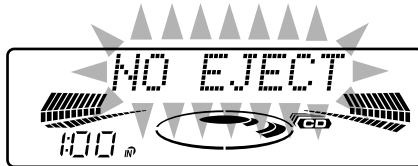
Prohibiting CD ejection



1/ATT
MD/CD

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

While pressing MD/CD, press 1/ATT for more than 2 seconds. "NO EJECT" flashes on the display for about 5 seconds, and the CD is "locked" and cannot be ejected.



To cancel the prohibition and "unlock" the CD, press 1/ATT again for more than 2 seconds, while pressing MD/CD. "EJECT OK" appears on the display, and the CD is "unlocked."

Note:

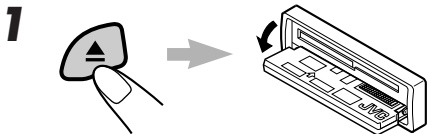
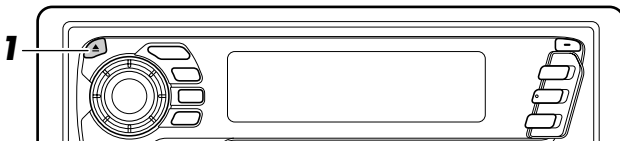
If the CD ejection is prohibited with no CD loaded, a CD or an MD can be inserted but cannot be ejected. To eject it, cancel the prohibition.



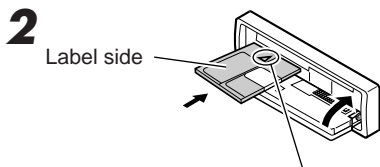
MD OPERATIONS

ENGLISH

Playing an MD



Open the control panel.
If there is already a CD or an MD inside the unit, it ejects automatically.

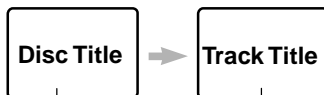


Label side
Insert an MD in the same way as indicated on the MD

1. Insert an MD into the loading slot.
The unit turns on, draws the MD and starts playback automatically.
2. Close the control panel by hand.



Lights up



Shown if a title is recorded



Note on One-Touch Operation:

When an MD is already in the loading slot, pressing MD/CD turns on the unit and starts playback automatically.

To stop play and eject the MD

Press \blacktriangle .

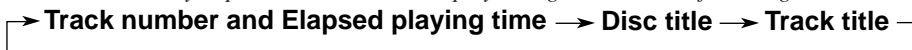
MD play stops, the control panel opens, then the MD automatically ejects from the loading slot. If you change the source to FM, AM, CD changer or external component, the MD play also stops (without ejecting the MD this time).

Notes:

- If the ejected disc is not removed for about 15 seconds, the disc is automatically inserted again into the loading slot to protect it from dust. (MD play will not start this time.)
- You can eject the MD even when the unit is turned off.
- You cannot insert a CD and an MD inside the unit at the same time.
- When you insert an MD recorded in monaural, it will be played in monaural. While playing such a monaural MD, the elapsed playing time may not be displayed correctly.

To change the display while playing an MD

Press DISP. Each time you press the button, the display changes to show the following:

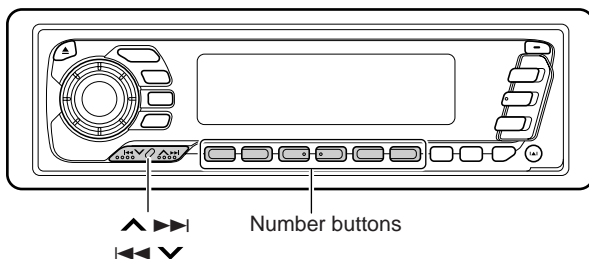


Note:

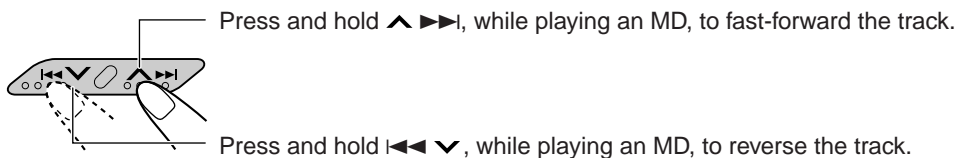
If "SCROLL MODE" is set to either "SCROLL AUTO" or "SCROLL ONCE," names including more than 12 characters will be scrolled. (See page 38.)



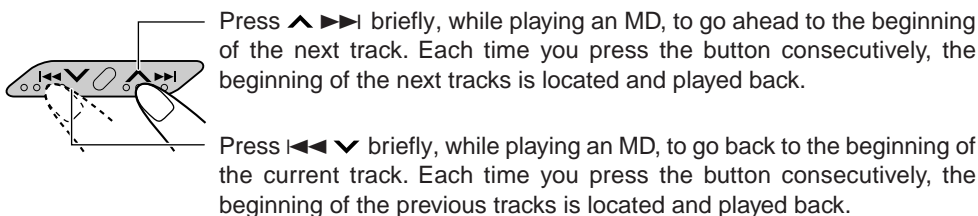
Locating a track or a particular portion on an MD



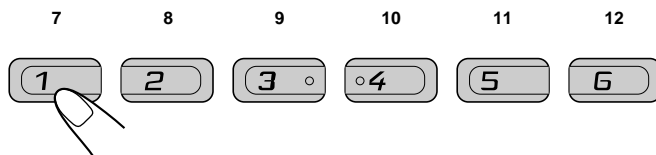
To fast-forward or reverse the track



To go to the next tracks or the previous tracks



To go to a particular track directly

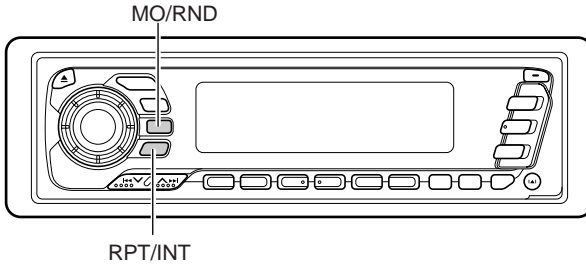


Press the number button corresponding to the track number to start its playback.

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



Selecting MD playback modes



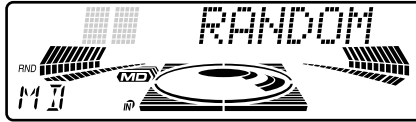
To play back tracks at random (Random Play)

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



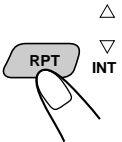
Each time you press MO/RND (Mono/Random) while playing an MD, MD random play mode turns on and off alternately.

When the random mode is turned on, the RND indicator lights up on the display and a track randomly selected starts playing.



To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.

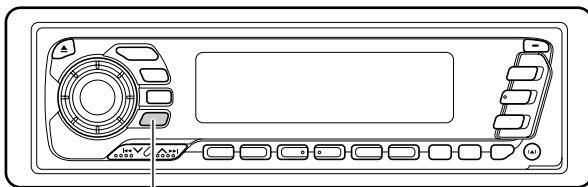


Each time you press RPT/INT (Repeat/Intro) for more than 1 second while playing an MD, MD repeat play mode turns on and off alternately.

When the repeat mode is turned on, the RPT indicator lights up on the display.

Track number of the currently playing track

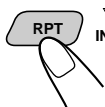




RPT/INT

To play back only intros (Intro Scan)

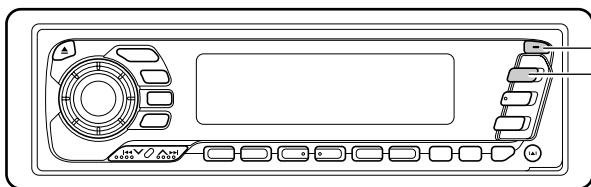
- △ Each time you press RPT/INT (Repeat/Intro) while playing a MD, MD intro scan mode turns on and off alternately.
- ▽ When the intro scan mode is turned on, "INTRO" appears on the display for 5 seconds and a track number flashes. The first 15 seconds of each track are played sequentially.



Track number of the currently playing track



Prohibiting MD ejection



⏻/||/ATT
MD/CD

You can prohibit the MD ejection and can "lock" an MD in the loading slot.

While holding MD/CD, press ⏻/||/ATT for more than 2 seconds. "NO EJECT" flashes on the display for about 5 seconds, and the MD is "locked" and cannot be ejected.



To cancel the prohibition and "unlock" the MD, press ⏻/||/ATT again for more than 2 seconds, while holding MD/CD. "EJECT OK" appears on the display, and the MD is "unlocked."

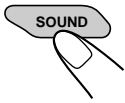
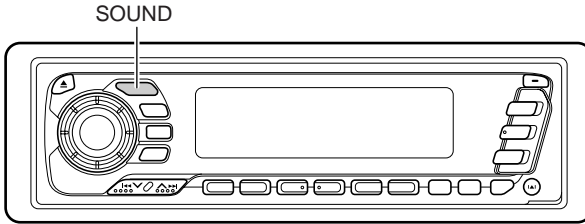
Note:

If the MD ejection is prohibited with no MD loaded, an MD or a CD can be inserted but cannot be ejected. To eject it, cancel the prohibition.

SOUND ADJUSTMENTS

Selecting preset sound control modes

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



Call up the sound control mode you want.
Each time you press the button, the sound control mode (SCM) changes as follows:

→ **SCM OFF** → **SCM BEAT** → **SCM SOFT** → **SCM POP**

Indication	For:	Preset values		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
SCM BEAT	Rock or disco music	+02	00	On
SCM SOFT	Quiet background music	+01	-03	Off
SCM POP	Light music	+04	+01	Off

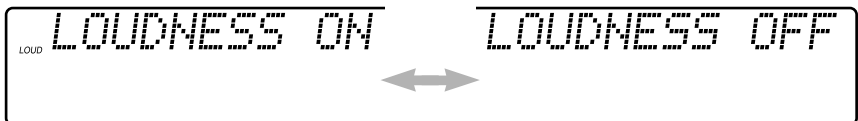
Notes:

- You can adjust the preset sound control mode to your preference, and store it in memory. If you want to adjust and store your original sound control mode, see “Storing your own sound adjustments” on page 30.
- To adjust only the bass and treble reinforcement levels to your preference, see “Adjusting the sound” on page 29.

Turning on/off the loudness function

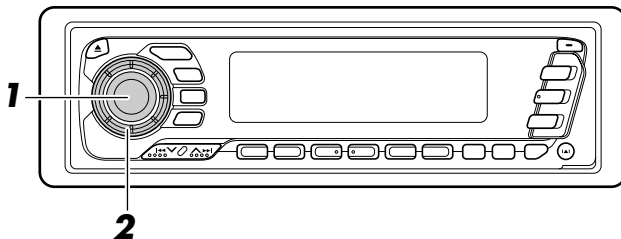
The human ear is less sensitive to low and high frequencies at low volumes. The loudness function can boost these frequencies to produce well-balanced sound at low volume level.

Each time you press LOUD, the loudness function turns on and off alternately.



Adjusting the sound

You can adjust the sound characteristics to your preference.



1



Select the item you want to adjust.

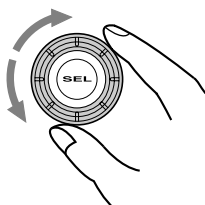


Indication	To do:	Range
BASS	Adjust the bass.	-06 (min.) — +06 (max.)
TREBLE	Adjust the treble.	-06 (min.) — +06 (max.)
FADER*	Adjust the front and rear speaker balance.	R06 (rear only) — F06 (front only)
BALANCE	Adjust the left and right speaker balance.	L06 (left only) — R06 (right only)
VOLUME	Adjust the volume.	00 (min.) — 50 (max.)

Note:

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

2



Adjust the level.

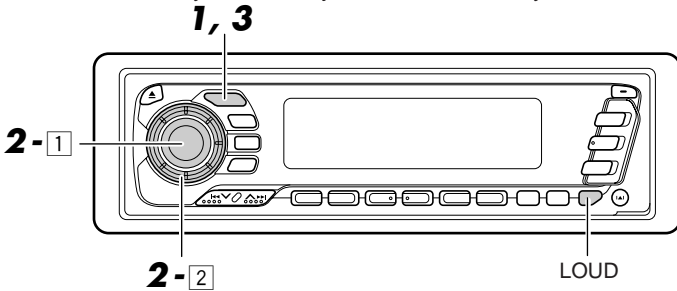
Note:

Normally the control dial is used to set the volume. So you do not have to select “VOLUME” to adjust the volume level.

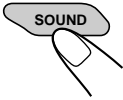


Storing your own sound adjustments

You can adjust the sound control modes (SCM BEAT, SCM SOFT, SCM POP: see page 28) to your preference and store your own adjustments in memory.

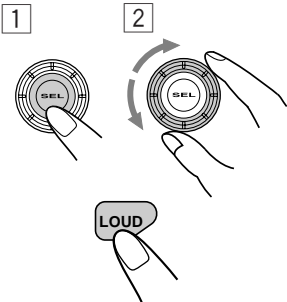


1



Call up the sound control mode you want to adjust.
See page 28 for details.

2



To adjust the bass or treble

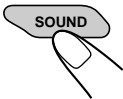
- 1 Select "BASS" or "TREBLE."



- 2 Adjust the bass or treble level.

To turn on or off the loudness function.
See page 28.

3



Press and hold SOUND until the sound control mode you selected flashes on the display.
Your setting is stored in memory.

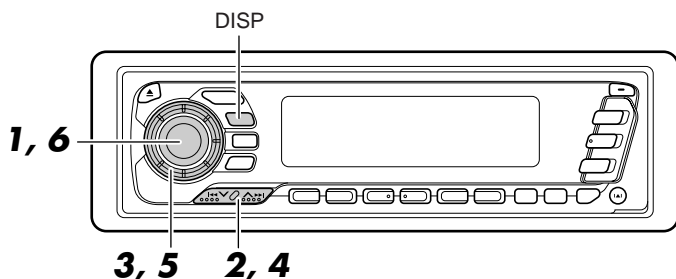
4

Repeat the same procedure to store other settings.

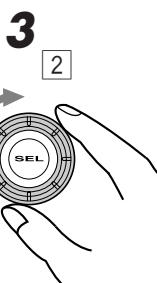
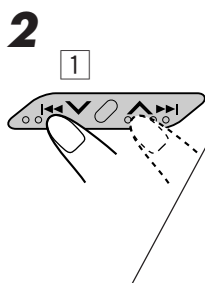
To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 28.

Setting the clock



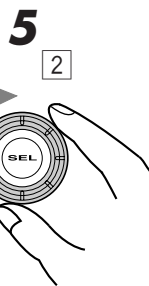
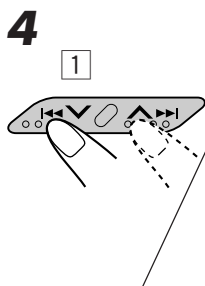
Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.



Set the hour.

1 Select "CLOCK HOUR" if not shown on the display.

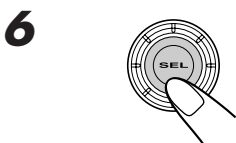
2 Adjust the hour.



Set the minute.

1 Select "CLOCK MINUTE."

2 Adjust the minute.



Finish the setting.

To check the current clock time while the unit is turned off, press DISP.

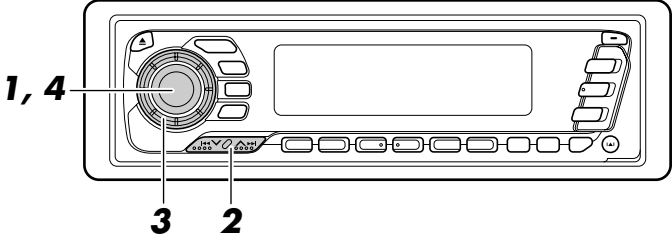
The power turns on, the clock time is shown for 5 seconds, then the power turns off.


- If the ignition of your car is turned off or set to the accessory-off (ACC OFF) position, you cannot use this function.


Changing the general settings (PSM)

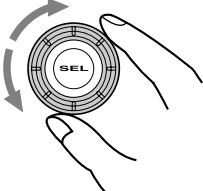
You can change the items listed on the next page by using the PSM (Preferred Setting Mode) control.


Basic Procedure






1  Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.

2  Select the PSM item you want to adjust (see page 33).

3  Select or adjust the PSM item selected above.

4  Finish the setting.

1 	2  Select.	3  Set.		Factory-preset settings	See page
CLOCK HOUR	Hour adjustment	Back	Advance	0:00	31
CLOCK MINUTE	Minute adjustment	Back	Advance		
CLOCK24H/12H	24/12-hour time display	CLOCK 12HOUR	CLOCK 24HOUR	CLOCK 24HOUR	31
AUTO ADJUST	Automatic setting of the clock	ADJUST OFF	ADJUST ON	ADJUST ON	17
CLOCK MODE	Clock display	CLOCK OFF	CLOCK ON	CLOCK ON	34
TUNER DISPLAY	Display mode	FREQUENCY	PS NAME	PS NAME	16
PTY STANDBY	PTY standby	29 programme types (See page 18.)		NEWS	13
PTY SEARCH	PTY search			(See page 13.)	13
TA VOLUME	Traffic announcement volume	TA VOLUME (00 – 50)		TA VOLUME (20)	17
P-SEARCH	Programme search	P-SEARCH ON	P-SEARCH OFF	P-SEARCH OFF	16
LEVEL METER	Level display	LEVEL NORMAL ↔ LEVEL PEAK ↔ LEVEL RACE ↓ ↓ ↓ LEVEL ALLOFF ↔ LEVEL OFF		LEVEL NORMAL	34
DIMMER MODE	Dimmer	DIMMER AUTO ↔ DIMMER OFF ↙ ↘ DIMMER ON		DIMMER AUTO	35
CRUISE MODE	Audio cruise	CRUISE 1 ↔ CRUISE 2 ↙ ↘ CRUISE OFF		CRUISE OFF	35
+OR- RPM SET	Idling speed*	—		800 rpm	36
BOOST	Boost*	01 – 15		05	36
TELEPHONE	Telephone muting	MUTING OFF ↔ MUTING 1 ↙ ↘ MUTING 2		MUTING OFF	37
BEEP SWITCH	Key-touch tone	BEEP OFF	BEEP ON	BEEP ON	37
CONTRAST	Display contrast	1 – 10		5	37
SCROLL MODE	Name display	SCROLL ONCE ↔ SCROLL AUTO ↙ ↘ SCROLL OFF		SCROLL ONCE	38

* When you select "1" or "2" for Audio Cruise Mode, you can adjust these items.

- Press SEL (Select) when the setting is complete.

Selecting 24-hour or 12-hour clock

You can change the clock built in this unit either to 24 hour system or 12 hour system.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "CLOCK24H/12H" with \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangle .
3. Select "CLOCK 24HOUR" or "CLOCK 12HOUR" with the control dial.
The clock alternates between 24-hour system and 12-hour system.

CLOCK 24HOUR \leftrightarrow CLOCK 12HOUR

Selecting the clock display

You can select either the clock or the source name to be shown on the lower part of the display. When shipped from the factory, the clock is selected.

- CLOCK ON: Clock
- CLOCK OFF: Source name (or station band)

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "CLOCK MODE" with \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangle .
3. Select the desired mode with the control dial.
The clock display mode alternates between on and off.

CLOCK ON \leftrightarrow CLOCK OFF

To check the other information during play

Press DISP (Display). Each time you press the button, the other information (either the clock or the source name) will be shown on the lower part of the display for a while.

Selecting the level display

You can select the level display according to your preference. When shipped from the factory, the level indicator on the display shows the audio level setting.

- LEVEL NORMAL: Audio level indicator
- LEVEL PEAK: Peak level indicator
- LEVEL RACE: Audio level indicator illuminates as if cars are racing
- LEVEL OFF: No audio level indicator
- LEVEL ALLOFF: Volume level indicator

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "LEVEL METER" with \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangle .
3. Select the desired mode with the control dial.
The level display setting changes as follows:



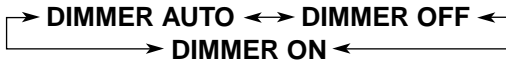
Selecting the dimmer mode

When you turn on the car head lights, the display automatically dims (Auto Dimmer).
When shipped from the factory, Auto Dimmer mode is activated.

- DIMMER AUTO: Activates Auto Dimmer
- DIMMER OFF: Cancels Auto Dimmer
- DIMMER ON: Always dims the display

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "DIMMER MODE" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangleright .
3. Select the desired mode with the control dial.

The dimmer mode changes as follows:



Note on Auto Dimmer:

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

In this case, set the dimmer mode to "DIMMER ON" or "DIMMER OFF."

Controlling the volume automatically (Audio Cruise Mode)

You can select the proper cruise mode for your car.

This unit changes the volume level automatically (at 3 possible levels) based on the driving speed of your car by detecting the alternator's generating frequency (Audio Cruise).

If you want to use this mode, follow the procedures below. When shipped from the factory, this mode is set to "CRUISE OFF."

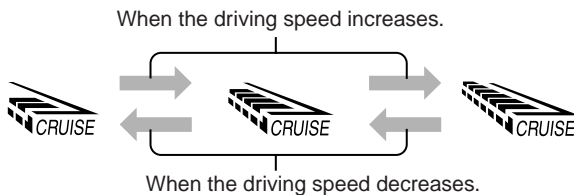
- CRUISE 1: Select this if your car is relatively quiet.
- CRUISE 2: Select this if your car is relatively loud.
The volume increase rate is twice as much as that of the CRUISE 1 setting.
- CRUISE OFF: Cancels Audio Cruise.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "CRUISE MODE" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangleright .
3. Select the desired mode with the control dial.

The cruise mode changes as follows:



When this function is turned on (the CRUISE indicator lights up on the display), the proper volume level is automatically selected among the 3 possible levels according to the driving speed, and the selected level is shown on the display.



If Audio Cruise does not function correctly

You may need to store the idling speed into memory to make Audio Cruise function correctly.

NOTICE that a number of factors, such as electric power steering, wipers, power windows, air conditioner, etc. do generate noises and, as a result, may cause Audio Cruise not to function correctly.

1. Start the engine and let it warm up.
2. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
3. Select "CRUISE MODE" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
4. Select either "CRUISE 1" or "CRUISE 2" with the control dial.
5. Select "+OR- RPM SET" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
6. Select the desired idling speed with the control dial.

When the setting is complete, the unit automatically checks to see if Audio Cruise functions correctly with this new idling setting. If it does not function correctly, Audio Cruise is canceled automatically and the idling setting becomes invalid.

• *If this happens, see the NOTICE above.*

To adjust the volume increase rate

If you find Audio Cruise increase (or decrease) the volume either too much or too little as the driving speed changes, you can adjust the increase rate by changing the boost level. To change it, follow the procedure below.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "CRUISE MODE" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
3. Select either "CRUISE 1" or "CRUISE 2" with the control dial.
4. Select "BOOST" with \blacktriangle \blacktriangleright or \blacktriangleleft \blacktriangledown .
The current boost level appears on the display.
5. Select the desired boost level (among 1 to 15) with the control dial while the current boost level is shown on the display.
 - To increase the volume increase rate, rotate it clockwise.
 - To decrease the volume increase rate, rotate it counterclockwise.

Selecting the telephone muting

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

When shipped from the factory, this mode is deactivated.

- **MUTING 1:** Select this if this setting can mute the sounds.
- **MUTING 2:** Select this if this setting can mute the sounds.
- **MUTING OFF:** Cancels the telephone muting.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "TELEPHONE" with \blacktriangle \blacktriangleright \blacktriangleright \blacktriangleright or \blacktriangleleft \blacktriangleleft \blacktriangleleft \blacktriangleleft .
3. Select the desired mode with the control dial.
The telephone muting mode changes as follows:

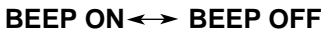


Turning on or off the key-touch tone

You can deactivate the key-touch tone if you do not want to make it beep when you press a button. When shipped from the factory, the key-touch tone is activated.

- **BEEP ON:** Activates the key-touch tone
- **BEEP OFF:** Deactivates the key-touch tone

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "BEEP SWITCH" with \blacktriangle \blacktriangleright \blacktriangleright \blacktriangleright or \blacktriangleleft \blacktriangleleft \blacktriangleleft \blacktriangleleft .
3. Select the desired mode with the control dial.
The key-touch tone alternates between on and off.



Adjusting the contrast level

You can adjust the display contrast level (among 1 to 10). When shipped from the factory, the display contrast level is at level 5.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "CONTRAST" with \blacktriangle \blacktriangleright \blacktriangleright \blacktriangleright or \blacktriangleleft \blacktriangleleft \blacktriangleleft \blacktriangleleft .
3. Select the desired level with the control dial.

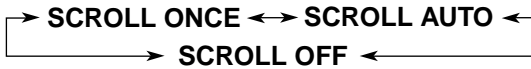
Selecting the scroll mode

You can select the scroll mode for the name display and disc information if they consist of more than 12 characters. When shipped from the factory, Auto Scroll mode is set to "SCROLL ONCE."

- SCROLL ONCE: Scrolls only once.
- SCROLL AUTO: Repeats the scroll (5-second intervals in between).
- SCROLL OFF: Cancels Auto Scroll.

1. Press and hold SEL (Select) for more than 2 seconds so that one of the PSM items appears on the display.
2. Select "SCROLL MODE" with \blacktriangle \blacktriangleright \blacktriangleleft or \blacktriangleleft \blacktriangleright \blacktriangle .
3. Select the desired mode with the control dial.

The scroll mode changes as follows:



Note:

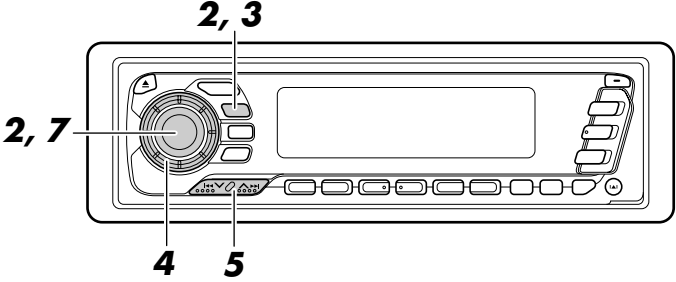
Even if the scroll mode is set to "SCROLL OFF," you can scroll the display by pressing DISP for more than 1 second.

Assigning names to the sources

You can assign names to CDs and the external component connected to the LINE IN plugs. After assigning a name, it will appear on the display when you select the source.

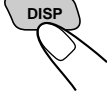
Sources	Maximum number of the characters
CD* and CD changer*	up to 32 characters (up to 40 discs)
External component	up to 12 characters

* You cannot assign a name to a CD Text.

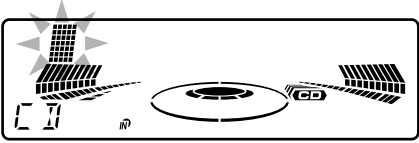


1 Select a source you want to assign a name to.

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



When you select the CD as the source:



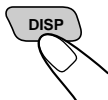
When you select the external component connected to LINE IN as the source:




Note:
You cannot assign a name to an MD.

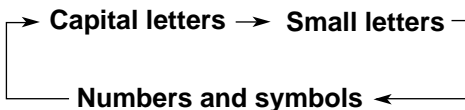
To be continued on the next page

3

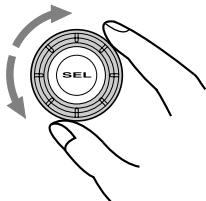


Select the character set you want while “” is flashing.

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



4



Select a character.

About the available characters, see page 41.

5



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

6

Repeat steps 3 to 5 until you finish inputting the name.

7



Press the button while the last selected character is flashing.

The input name is stored in memory.

To erase the input characters

Insert spaces using the same procedure described above.

Notes:

- When you assign a name to the 41st disc, “NAME FULL” appears on the display. (In this case, delete unwanted names before assignment.)
- When the CD changer is connected, you can assign names to CDs in the CD changer. These names can also be shown on the display if you insert the CDs in this unit.

Available characters

Capital letters

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

Small letters

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

Numbers and symbols

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

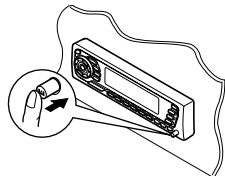
Detaching the control panel

You can detach the control panel when leaving the car. When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

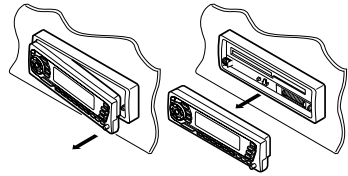
How to detach the control panel

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

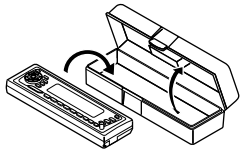
1 Unlock the control panel.



2 Pull the control panel out of the unit.

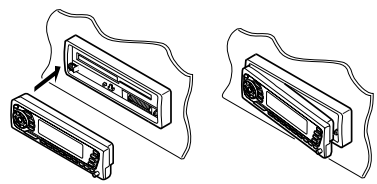


3 Put the detached control panel into the provided case.

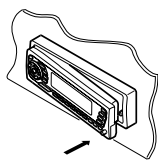


How to attach the control panel

1 Insert the **left side** of the control panel into the groove on the panel holder.



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



Note on cleaning the connectors:
If you frequently detach the control panel, the connectors will deteriorate. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.

A line drawing showing the back of the control panel and the panel holder. Two lines connect the text 'Connectors' to the electrical contact points on both the panel and the holder.

Connectors

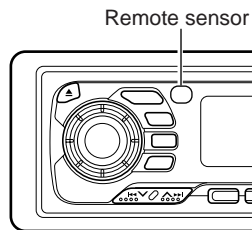
REMOTE OPERATIONS

(With an optionally purchased remote controller)

We recommend that you use remote controller RM-RK31 with your unit.
The followings are the instructions for using RM-RK31.

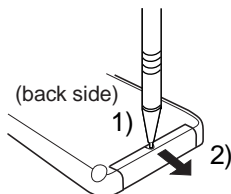
Before using the remote controller:

- Aim the remote controller directly at the remote sensor on the main unit. Make sure there is no obstacle in between.
- Do not expose the remote sensor to strong light (direct sunlight or artificial lighting).



Installing the battery

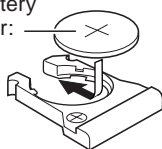
When the controllable range or effectiveness of the remote controller decreases, replace the battery.



1. Remove the battery holder.

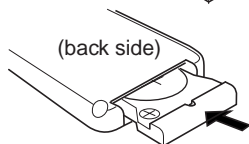
- 1) Push out in the direction indicated by the arrow using a ball point pen or a similar tool.
- 2) Remove the battery holder.

Lithium coin battery
(product number:
CR2025)



2. Place the battery.

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



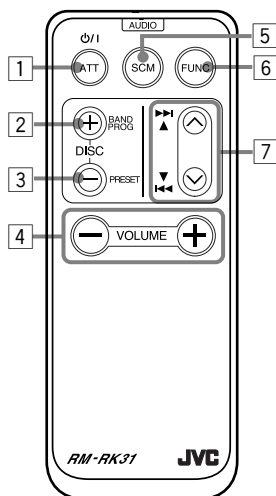
3. Return the battery holder.

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

WARNING:

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

Using the remote controller



- 1 Functions the same as the P/I/ATT button on the main unit.
- 2
 - Functions as the BAND button while listening to the radio (or the DAB tuner).
Each time you press the button, the band changes.
 - Functions as the DISC + button while listening to the CD changer.
Each time you press the button, the disc number increases, and the selected disc starts playing.
 - Does not function as the PROG button.
- 3
 - Functions as the PRESET button while listening to the radio (or the DAB tuner).
Each time you press the button, the preset station number increases, and the selected station is tuned in.
 - Functions as the DISC – button while listening to the CD changer.
Each time you press the button, the disc number decreases, and the selected disc starts playing.
- 4 Functions the same as the control dial on the main unit.
Note: *This button does not function for the preferred settings mode adjustment.*
- 5 Selects the sound mode.
Each time you press SCM (Sound Control Memory), the mode changes.
- 6 Selects the source.
Each time you press FUNC (function), the source changes.
- 7
 - Searches stations while listening to the radio.
 - Selects services while listening to the DAB tuner if pressed briefly.
 - Searches ensembles while listening to the DAB tuner if pressed for more than 1 second.
 - Fast-forwards or reverses the track if pressed and held while listening to a CD or an MD.
 - Skips to the beginning of the next tracks or goes back to the beginning of the current (or previous tracks) if pressed briefly while listening to a CD or an MD.

CD CHANGER OPERATIONS

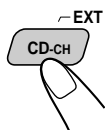
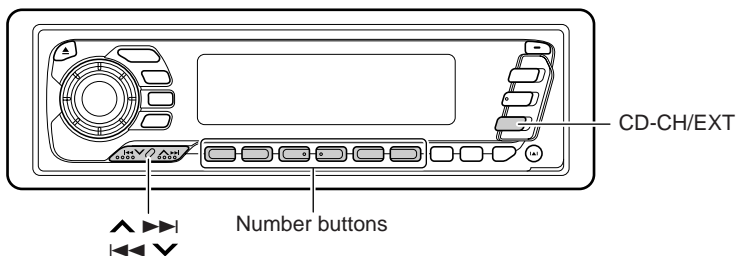
We recommend that you use one of the CH-X series (ex.: CH-X1200) with your unit. If you have another type of CD automatic changer, consult your JVC IN-CAR ENTERTAINMENT dealer for connections.

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

Before operating your CD automatic changer:

- Refer also to the Instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "NO DISC" will appear on the display. If this happens, remove the magazine and set the discs correctly.
- If "RESET 1 - RESET 8" appears on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection, connect the connecting cord(s) firmly if necessary, then press the reset button of the CD changer.

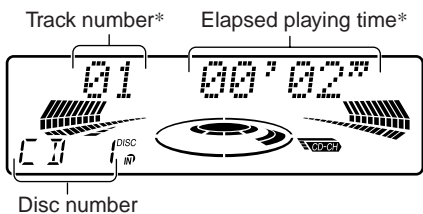
Playing CDs



Select the CD automatic changer.


Each time you press the button, you can select the CD automatic changer and the external component alternately.

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



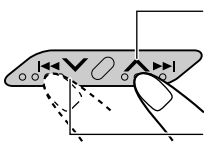
* When you play a CD Text, the disc title and performer appear. Then the current track number and elapsed playing time appear on the display.

Note on One-Touch Operation:

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



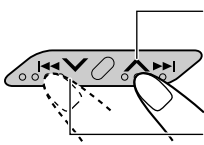
To fast-forward or reverse the track



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

Press and hold **◀◀◀ v**, while playing a CD, to reverse the track.

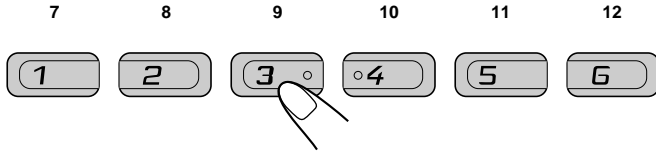
To go to the next tracks or the previous tracks



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

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

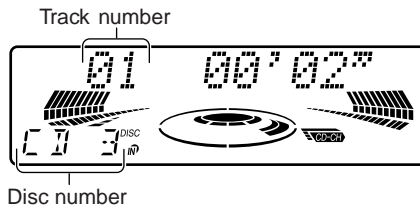
To go to a particular disc directly



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

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

Ex. When disc number 3 is selected



To show the CD Text information

This is possible only when connecting a JVC CD automatic changer equipped with CD Text reading capability.

See "Playing a CD Text" on page 20.

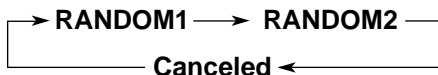


Selecting CD playback modes

To play back tracks at random (Random Play)



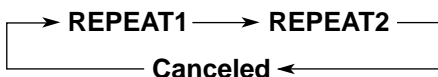
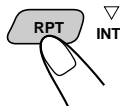
Each time you press MO/RND (Mono/Random) while playing a CD, CD random play mode changes as follows:



Mode	RND Indicator	Plays at random
RANDOM1	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RANDOM2	Flashes	All tracks of all discs inserted in the magazine.

To play back tracks repeatedly (Repeat Play)

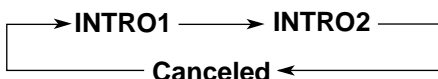
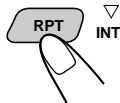
△ Each time you press RPT/INT (Repeat/Intro) for more than 1 second while playing a CD, CD repeat play mode changes as follows:



Mode	RPT Indicator	Plays repeatedly
REPEAT1	Lights	The current track (or specified track).
REPEAT2	Flashes	All tracks of the current disc (or specified disc).

To play back only intros (Intro Scan)

△ Each time you press RPT/INT (Repeat/Intro) while playing a CD, CD intro scan mode changes as follows:



Mode	Indication	Plays the beginnings (15 seconds)
INTRO1	Track number flashes	Of all tracks on all inserted discs.
INTRO2	Disc number flashes	Of the first tracks on each inserted disc.

DAB TUNER OPERATIONS

ENGLISH

We recommend that you use DAB tuner KT-DB1500 with your unit.
If you have another DAB tuner, consult your JVC IN-CAR ENTERTAINMENT dealer.
• Refer also to the Instructions supplied with your DAB tuner.

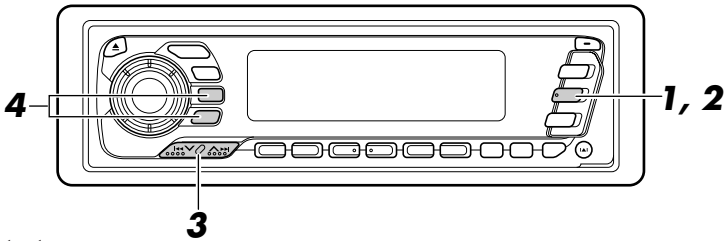
What is DAB system?

DAB is one of the digital radio broadcasting systems available today. It can deliver CD quality sound without any annoying interference and signal distortion. Furthermore, it can carry text, pictures and data.

In contrast to FM broadcast, where each programme is transmitted on its own frequency, DAB combines several programmes (called “services”) to form one “ensemble.” With the DAB tuner connected with this unit, you can enjoy these DAB services.

Tuning into an ensemble and one of the services

A typical ensemble has 6 or more programmes (services) broadcast at the same time. After tuning into an ensemble, you can select a service you want to listen to.



Before you start....

Press FM/AM/DAB briefly if you are selecting CD, CD changer or LINE IN as the source.

1



Select the DAB tuner.

Each time you press and hold the button for more than 1 second, the DAB tuner and the FM/AM tuner are alternately selected.

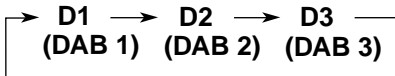
DAB ↔ FM/AM

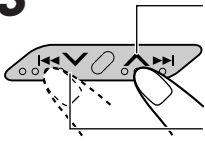
2



Select the DAB band (DAB1, DAB2, or DAB3).

You can select any one of DAB1, DAB2, and DAB3 to tune into an ensemble.



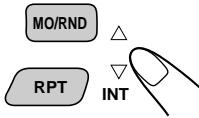
3


To search ensembles of higher frequencies

To search ensembles of lower frequencies

Start searching an ensemble.

When an ensemble is received, searching stops.

4


Select a service you want to listen to.

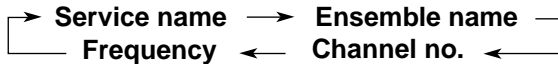
To stop searching before an ensemble is received, press the same button you have pressed for searching.

To change the display information while tuning into an ensemble

Normally service name is shown on the upper part of the display.

By pressing DISP, you can also change the display while tuning into an ensemble.

Each time you press the button, the following information appears for a while on the display.



To restore the FM/AM tuner

Press and hold FM/AM/DAB for more than 1 second again.

To tune in a particular ensemble without searching:

1 Press and hold FM/AM/DAB for more than 1 second.

2 Press FM/AM/DAB repeatedly to select the DAB band (DAB1, DAB2, or DAB3).

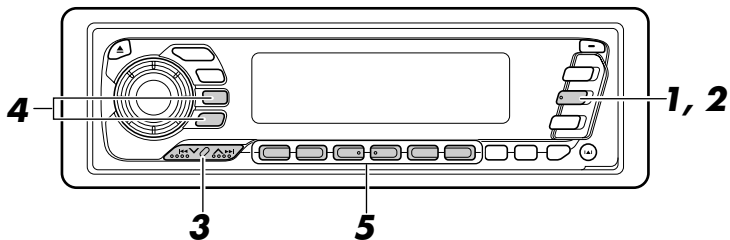
3 Press and hold ▲▶▶| or |◀◀▼ for more than 1 second.

4 Press ▲▶▶| or |◀◀▼ repeatedly until the ensemble you want is reached.

- If you hold down the button, the frequency keeps changing until you release the button.

Storing DAB services in memory

You can preset up to 6 DAB services in each DAB band (DAB1, DAB2 and DAB3) manually.



1



Select the DAB tuner.

Each time you press and hold the button, the DAB tuner and the FM/AM tuner are alternately selected.

DAB ↔ FM/AM

2



Select the DAB band (DAB1, DAB2, or DAB3) you want.

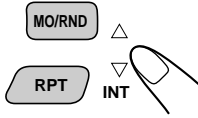
Each time you press the button, the DAB band changes as follows:

→ **D1** → **D2** → **D3**
(DAB 1) (DAB 2) (DAB 3)

3



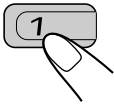
Tune into an ensemble you want.

4


Select a service of the ensemble you want.

5

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


6

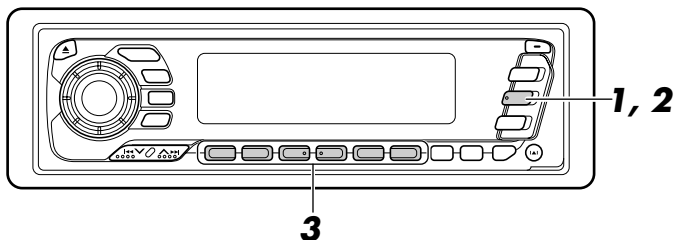
Repeat the above procedure to store other DAB services into other preset numbers.

Notes:

- A previously preset DAB service is erased when a new DAB service is stored in the same preset number.
- Preset DAB services are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the DAB services again.

Tuning into a preset DAB service

You can easily tune into a preset DAB service. Remember that you must store services first. If you have not stored them yet, see pages 50 and 51.



1



Select the DAB tuner.

Each time you press and hold the button, the DAB tuner and the FM/AM tuner are alternately selected.

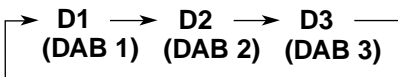
DAB ↔ FM/AM

2

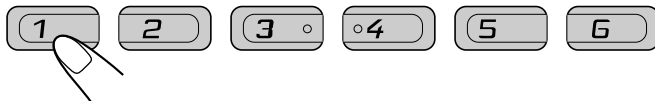


Select the DAB band (DAB1, DAB2, or DAB3) you want.

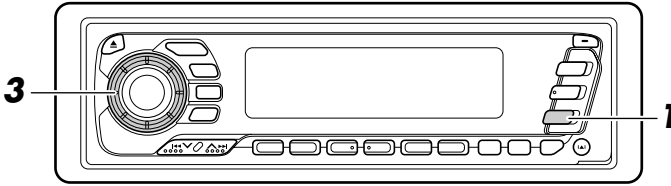
Each time you press the button, the DAB band changes as follows:



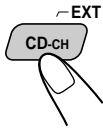
3



Select the number (1 – 6) for the preset DAB service you want.




1



Select the external component.

Each time you press the button, you can select the CD automatic changer and the external component alternately.

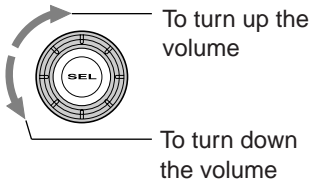
Note on One-Touch Operation:

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

2

Turn on the connected device and start playing the source.

3



Adjust the volume.

Notes:



- For the external component connection, see the Installation/Connection Manual (separate volume).
- See also “Assigning names to the sources” on page 39 if you want to match the name shown on the display with the name of the connected component.



MAINTENANCE

Handling Discs

Taking care of CDs

This unit has been designed only to reproduce the CDs bearing the  or  mark. Other discs cannot be played back.

How to handle CDs

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

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

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

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

To keep CDs clean

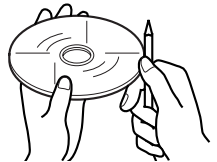
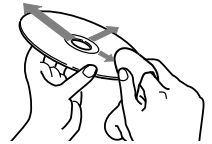
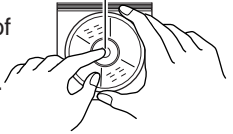
A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

To play new CDs

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

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

Center holder



CAUTIONS:

- Do not insert any CD of unusual shape – like a heart or flower; otherwise, it will cause a malfunction.
- Do not expose CDs to direct sunlight or any heat source or place them in a place subject to high temperature and humidity. Do not leave them in a car.
- Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean CDs.

When playing a CD-R (Recordable)

You can play back your original CD-Rs on this receiver.

- Before playing back CD-Rs, read their instructions or cautions carefully.
- Some CD-Rs recorded on CD recorders may not be played back on this receiver because of their disc characteristics, and of the following reasons:
 - Discs are dirty or scratched.
 - Moisture condensation occurs on the lens inside the unit.
 - The pickup lens inside the CD player is dirty.
- Use only “finalized” CD-Rs.
- CD-RWs (Rewritable) cannot be played back on this receiver.
- Do not use the CD-Rs with stickers or sticking labels on the surface. They may cause malfunctions.

About mistracking:

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

We recommend that you stop CD play while driving on such rough roads.



Taking care of MDs

Since the disc is accommodated inside a cartridge, it can be handled easily without caring about dust and dirt. However, to maintain the high audio quality for an extended period, use care in the following points.

Disc storage

Do not place the MD in following places:

- In a place subject to direct sunlight or where the temperature rises, for example in a closed automobile. The disc may be warped or damaged in these places.
- In a bathroom or where the humidity is high. The MD may be rusted in these places.
- On a beach where grit may penetrate through an opening on the cartridge.

Periodical maintenance

When the cartridge gets dusty or dirty, wipe it with a soft dry cloth.

Do not open the shutter

The shutter is usually locked to prevent opening. Do not force it open or the disc may be damaged.



Moisture condensation

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

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

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



TROUBLESHOOTING

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

Symptoms	Causes	Remedies
• CD cannot be played back.	CD is inserted upside down.	Insert the CD correctly.
• CD or MD sound is sometimes interrupted.	You are driving on rough roads.	Stop playing CD or MD while driving on rough roads.
	The disc is scratched.	Change the disc.
	Connections are incorrect.	Check the cords and connections.
• Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.
	Connections are incorrect.	Check the cords and connections.
• SSM (Strong-station Sequential Memory) automatic preset does not work.	Signals are too weak.	Store stations manually.
• Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.
• "NO DISC" appears on the display.	No CD is in the loading slot (or in the magazine).	Insert a CD.
	The CD is inserted incorrectly.	Insert it correctly.
• "RESET 8" appears on the display.	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.
• "RESET 1-RESET 7" appears on the display.	_____	Press the reset button of the CD changer.
• "DISC ERROR" appears on the display.	An error occurs while playing a CD or an MD.	Press ▲, then reinsert the disc.
• "BLANK DISC" appears on the display.	You have inserted a blank disc.	Insert a recorded MD.
• "NO DISC" appears on the display.	You have pressed MD/CD when there was no CD or MD inside the unit.	Insert a CD or an MD.
• "NO NAME" appears on the display.	You have pressed DISP with a disc for which no name was assigned.	Assign a name to the disc.
• "HIGH TEMP" appears on the display.	The temperature inside the unit becomes very high.	Switch the source to the tuner and wait until the temperature decreases.
• Nothing appears on the display.	The connectors are dirty.	Clean the connectors periodically (once a month).
• "NO PRE ADJ." appears on the display.	Preset adjustments have been lost or damaged due to noise interference, etc.	Contact the shop where you have purchased the unit or a service center.
• The unit does not work at all	The built-in microcomputer may function incorrectly due to noise, etc.	Press the reset button on the front panel. (See page 2.)

SPECIFICATIONS

AUDIO AMPLIFIER SECTION

Maximum Power Output:

Front: 40 W per channel

Rear: 40 W per channel

Continuous Power Output (RMS):

Front: 16 W per channel into 4 Ω , 40 Hz to 20,000 Hz at no more than 0.8% total harmonic distortion.

Rear: 16 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)

Tone Control Range

Bass: ± 10 dB at 100 Hz

Treble: ± 10 dB at 10 kHz

Frequency Response: 40 Hz to 20,000 Hz

Signal-to-Noise Ratio: 70 dB

Line-In Level/Impedance: 1.5 V/20 k Ω

Line-Out Level/Impedance: 2.0 V/20 k Ω load (full scale)

Output Impedance: 1 k Ω

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 μ V/75 Ω)

50 dB Quieting Sensitivity:

16.3 dBf (1.8 μ V/75 Ω)

Alternate Channel Selectivity (400 kHz):
65 dB

Frequency Response: 40 Hz to 15,000 Hz

Stereo Separation: 30 dB

Capture Ratio: 1.5 dB

[MW Tuner]

Sensitivity: 20 μ V

Selectivity: 35 dB

[LW Tuner]

Sensitivity: 50 μ V

CD PLAYER SECTION

Type: Compact disc player

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

Number of channels: 2 channels (stereo)

Frequency Response: 5 Hz to 20,000 Hz

Dynamic Range: 96 dB

Signal-to-Noise Ratio: 98 dB

Wow and Flutter: Less than measurable limit

MD PLAYER SECTION

Audio Playing System: MiniDisc digital audio system

Reading System: Non-contact, semiconductor laser pickup ($\lambda=780$ nm)

Error Correction System: CIRC (Cross Interleave Reed-Solomon Code)

Sampling Frequency: 44.1 kHz

Audio Compression System: ATRAC (Adaptive Transform Acoustic Coding)

Number of Channels: 2

Frequency Response: 5 Hz to 20,000 Hz

Dynamic Range: 92 dB

Signal-to-Noise Ratio: 95 dB

Wow and Flutter: Immeasurable

GENERAL

Power Requirement

Operating Voltage: DC 14.4 V (11 V to 16 V allowance)

Grounding System: Negative ground

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

Dimensions (W \times H \times D)

Installation Size:

182 mm \times 52 mm \times 165 mm

Panel Size: 188 mm \times 58 mm \times 11 mm

Mass: 1.8 kg (excluding accessories)

Design and specifications subject to change without notice.

US and foreign patents licensed from Dolby Laboratories Licensing Corporation.

Having TROUBLE with operation?

Please reset your unit

Refer to page of How to reset your unit

Haben Sie PROBLEME mit dem Betrieb?

Bitte setzen Sie Ihr Gerät zurück

Siehe Seite Zurücksetzen des Geräts

Vous avez des PROBLÈMES de fonctionnement?

Réinitialisez votre appareil

Référez-vous à la page intitulée Comment réinitialiser votre appareil

Hebt u PROBLEMEN met de bediening?

Stel het apparaat terug

Zie de pagina met de paragraaf Het apparaat terugstellen

JVC

VICTOR COMPANY OF JAPAN, LIMITED