JVC

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

KD-MX2800R

Detachable
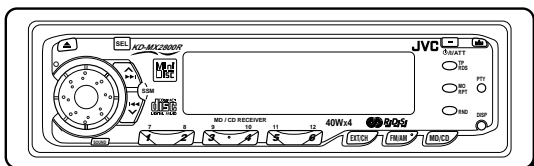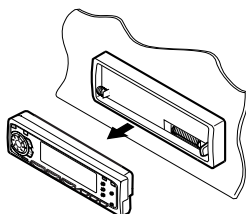
COMPACT
dISC
DIGITAL AUDIO

MiniDisc

For installation and connections, refer to the separate manual.
Angaben zu Einbau und Verkabelung entnehmen Sie bitte der gesonderten Anleitung.
Pour l'installtion et les raccordements, se référer au manuel séparé.
Zie de afzonderlijke handleiding voor details aangaande het installeren en verbinden van het toestel.

INSTRUCTIONS
BEDIENUNGSANLEITUNG
**MANUEL D'INSTRUCTIONS**
GEBRUIKSAANWIJZING

ENGLISH

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. Undgå udsættelse for stråling. (d)	**VARNING:** Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)	**VARO:** Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

Bottom panel of the main unit

Name/Rating plate

**CLASS 1
LASER PRODUCT**
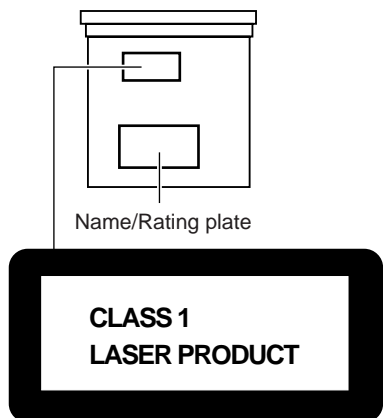
Caution:
This product contains a laser component of higher laser class than Class 1.

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.

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

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.
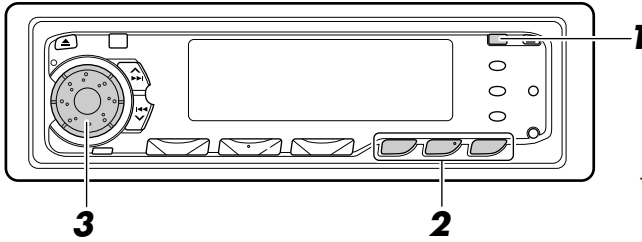
When this unit malfunctions or does not operate:
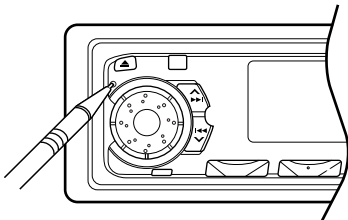
Press the reset button on the front panel using a ball-point pen or a similar tool. If this does not work, contact your JVC IN-CAR ENTERTAINMENT dealer.

BASIC OPERATIONS

Note:
When you use this unit for the first time, set the built-in clock correctly, see page 30.

1
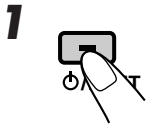
Turn on the power.

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
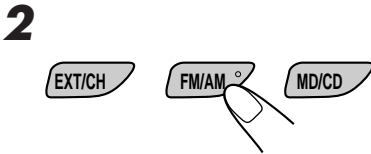
Select the source.

To operate the tuner, see pages 6 – 18.
To operate the CD player, see pages 19 – 22.
To operate the MD player, see pages 23 – 26.
To operate the CD changer, see pages 42 – 45.
To operate an external component, see page 46.

3
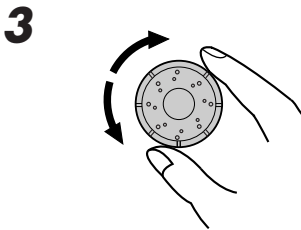
Adjust the volume.

Volume level appears.

Volume level indicator (see page 33).
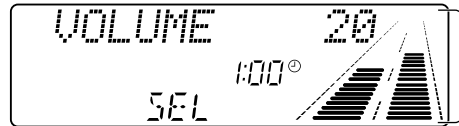
4

Adjust the sound as you want (see pages 27 – 29).

To drop the volume in a moment

Press Ὁ/Ι/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 Ὁ/Ι/ATT for more than 1 second.

Listening to the radio

2   **1**

1

FM/AM
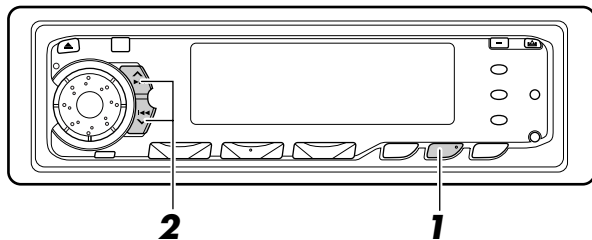
Select the band (FM1, FM2, FM3 or AM).
You can select any one of FM1, FM2, and FM3 to listen to an FM station.

→ **F1** → **F2** → **F3** → **AM** ─
  (FM1) **(FM2)** **(FM3)**

87.5 MHz

1:00⊕

F1
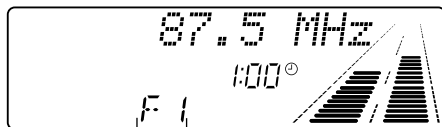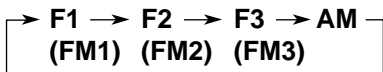
Selected band appears.

2
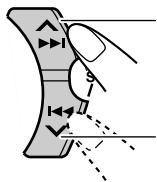
To search stations of higher frequencies.

To search stations of lower frequencies.

Start searching a station.
When a station is received, searching stops.

88.3 MHz

1:00⊕

F1
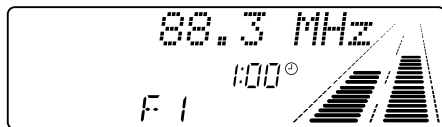
To stop searching before a station is received, press the same button you have pressed for searching.

To tune in a particular frequency without searching:

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

2 Press and hold ▶▶I ⌃ or I◀◀ ⌄ until "M" (for Manual) starts flashing on the display.
Now you can manually change the frequency while "M" is flashing.

3 Press ▶▶I ⌃ or I◀◀ ⌄ 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 9kHz intervals for AM–MW/LW) until you release the button.

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

2 3   1
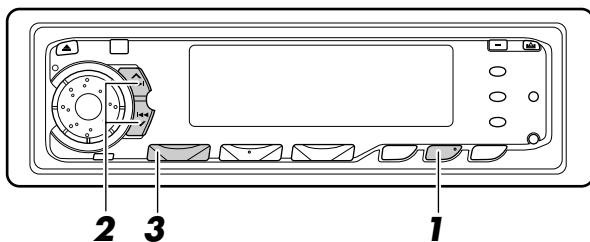
1

Select the FM1 band.

```
87.5 MHz
        1:00
F 1
```
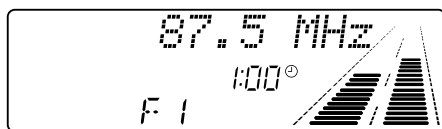
2
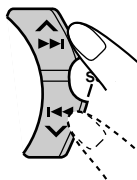
Tune into a station of 88.3 MHz.
See page 6 to tune into a station.

```
88.3 MHz
        1:00
F 1
```
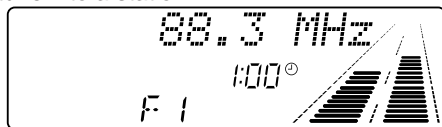
3
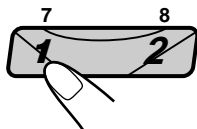
Press and hold the number button (in this example, 1) for more than 2 seconds.

```
MEMO
```

Preset number and "MEMO" flash alternately for a while.

```
F 1  1ᶜᴴ
```

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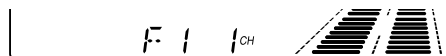
4 Repeat the above procedure to store other stations into other preset numbers.

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.

DISP

2 **1**

1

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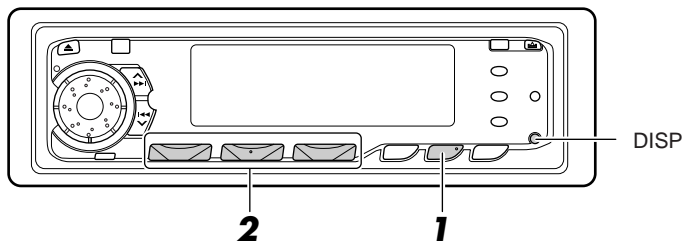
Select the band (FM1, FM2, FM3 or AM) you want.

2

7 8 9 10 11 12

1 2 3 ° 4 5 6
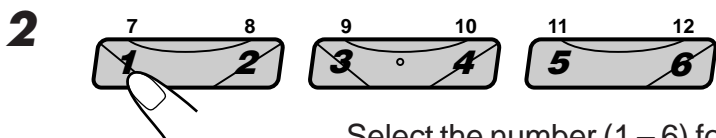
Select the number (1 – 6) for the preset station you want.

To change the display information while receiving an FM RDS station

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

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

Selecting FM reception sound

When an FM stereo broadcast is hard to receive:

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

MO
RPT
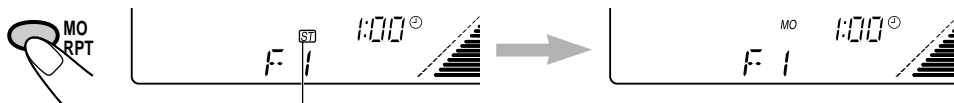
Lights up when receiving an FM broadcast in stereo.

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

9

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 signals, 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
• TA (Traffic Announcement) 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 signals are used to make Network-Tracking Reception work correctly — PI (Programme Identification) and AF (Alternative Frequency) data.

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

TP RDS **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:

→ Mode 1 → Mode 2 → Mode 3 ⌐

ENGLISH

Mode 1 (AF:on / REG:off)

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 (AF:on / REG:on)

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 (AF:off / REG:off)

Network-Tracking is deactivated.

The same programme can be received on different frequencies.

Programme 1 broadcasting
on frequency A

Programme 1 broadcasting on frequency E

Programme 1 broadcasting on
frequency B

Programme 1 broadcasting on frequency C

Programme 1 broadcasting on frequency D

ENGLISH
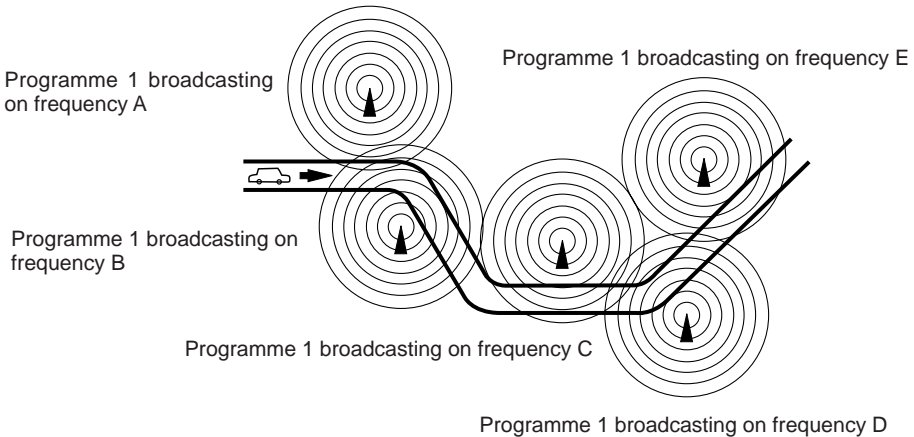
Using Standby Reception

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

TP
RDS

• 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 ▶▶| ∧ or |◀◀ ∨ 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 16).

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

PTY Standby Reception

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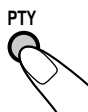
• When PTY is briefly pressed in the FM mode, the PTY indicator is lit during reception of a PTY station and the PTY standby mode is engaged. The selected PTY name stored on page 13 flashes for 5 seconds.

Note:
When the station being received is not a PTY station, the PTY indicator flashes. Press ▶▶| ∧ or |◀◀ ∨ 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

ENGLISH

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.
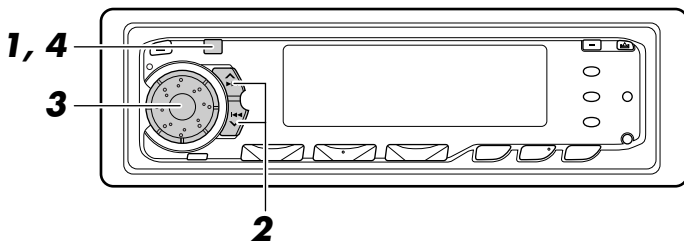
1, 4

3

2

1 | SEL | Press and hold the button for more than 2 seconds to call up the Preferred Setting Mode (PSM: see page 31).

2 | Select "PTY STANDBY" if not shown on the display.
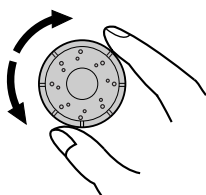
3 | Select one of twenty-nine PTY codes. (See the table on page 18.)
Selected code name appears on the display and is stored into memory.

4 | SEL | Finish 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

13

To store your favorite programme types
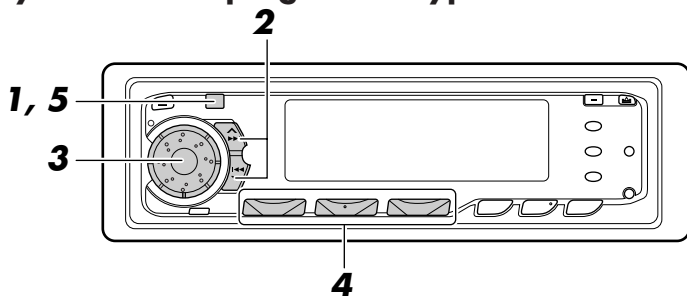
ENGLISH

1

SEL

Press and hold the button for more than 2 seconds to call up the Preferred Setting Mode (PSM: see page 31).

2

Select "PTY SEARCH" if not shown on the display.
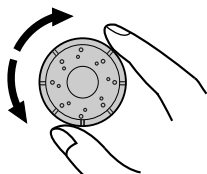
3

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
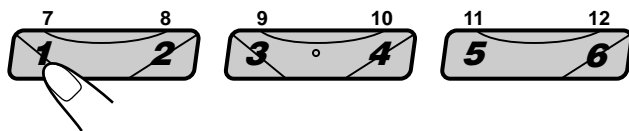
Press and hold the number button for more than 2 seconds to store the PTY code selected into the preset number you want.
PTY preset number appears, and selected code name and "MEMORY" alternate on the display.

5

SEL

Finish setting.

14

FM AM

To search your favorite programme type

ENGLISH

1

PTY
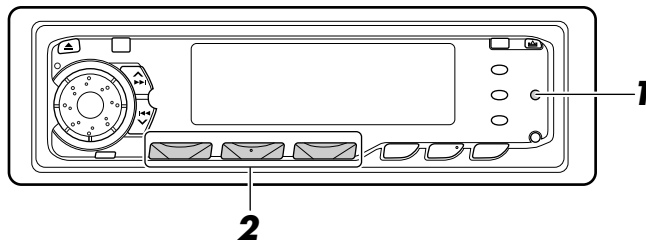
Press and hold the button for more than 1 second while listening to an FM station.

The last selected PTY code and preset number appear.

```
POP M
        1:00⊕
    PTY1ᴄʜ
```

2

7 8   9 10   11 12
1 2   3 4   5 6
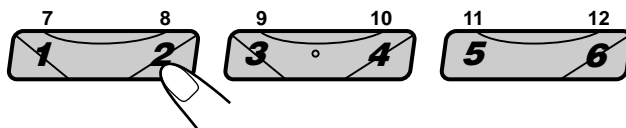
Select one of PTY codes stored in the preset number buttons (1 to 6).

```
CLASSICS
        1:00⊕
    PTY2ᴄʜ
```
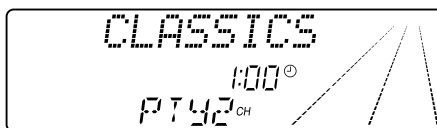
Ex. When "CLASSICS" is stored in preset number button 2.

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.

15

Other convenient RDS functions

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 starts searching another station broadcasting the same programme as the original preset station is broadcasting, then if any station broadcasting the same programme is found, the station will be tuned in.

Changing the display mode while listening to an FM station

You can change the initial indication on the display to either station name (PS) or to station frequency, while listening to an FM RDS station.
• See also "Changing the general settings (PSM)" on page 31.

1. Press and hold SEL (select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "DISPLAY MODE" with ►►I ∧ or I◄◄ ∨.
3. Set to the desired indication (either station name or station 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:

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

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 31.

1. Press and hold SEL (select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "TA VOLUME" with ►►I ∧ or I◄◄ ∨.
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 31.

1. Press and hold SEL (select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "AUTO ADJUST" with ►►I ∧ or I◄◄ ∨.
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.

ENGLISH

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
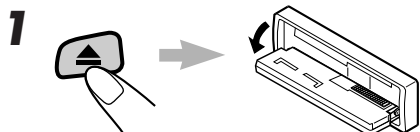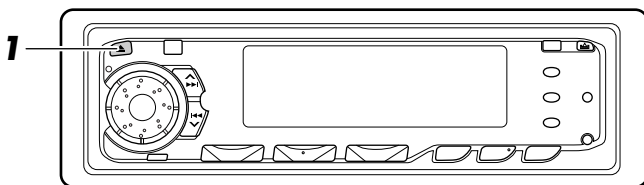NATION M: Current popular music from another nation or region, in that country's language
OLDIES: Classic pop music
FOLK M: Folk music
DOCUMENT: Programmes dealing with factual matters, presented in an investigative style
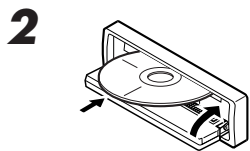
CD OPERATIONS 🔊💿

ENGLISH

Playing a CD

1

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

2

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.

Total track number of the inserted disc | Total playing time of the inserted disc | Current track | Elapsed playing time
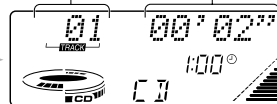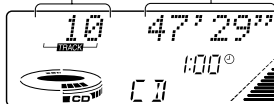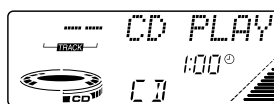
Note:
When a CD is inserted up side down, "PLEASE EJECT" appears on the display.
When you open the control panel by pressing ▲, the CD automatically ejects.

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 38) appear alternately on the display.
• See also "Selecting the scroll mode" on page 37.

19

►►I ∧   Number buttons
I◄◄ ∨

To fast forward or reverse the track

Press and hold ►►I ∧, while playing a CD, to fast forward the track.

Press and hold I◄◄ ∨, while playing a CD, to reverse the track.

To go to the next track or the previous track

Press ►►I ∧ 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 track is located and played back.

Press I◄◄ ∨ 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 track is located and played back.

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

MO/RPT

RND
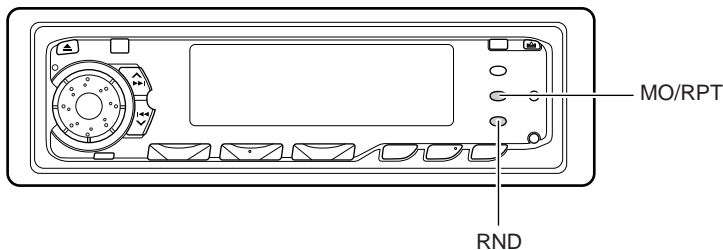
To play back tracks at random (Random Play)

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

RND

Each time you press RND (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.

```
 TRACK      RANDOM
      RND   1:00
      ■CD■   C 1
```
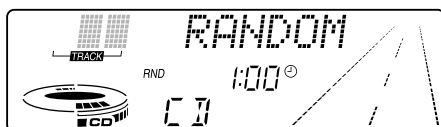
• To select the next track at random, press ▶▶| ∧ briefly.

To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.

MO RPT

Each time you press MO/RPT (Mono/Repeat) 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

```
 10      REPEAT
 TRACK
      RPT   1:00
      ■CD■   C 1
```
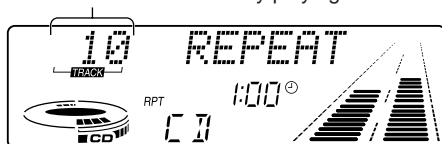
Prohibiting CD ejection
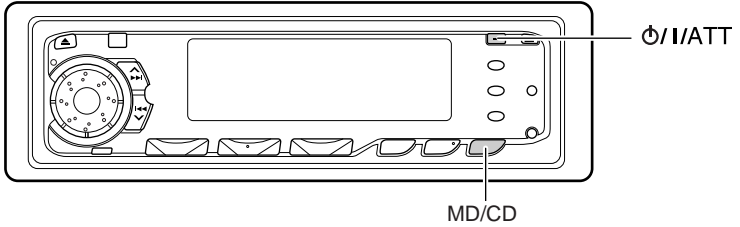
MD/CD

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

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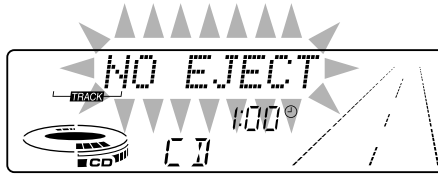
To cancel the prohibition and "unlock" the CD, press ⏻/ I /ATT again for more than 2 seconds, while pressing MD/CD. "EJECT OK" appears on the display, and the CD is "unlocked."
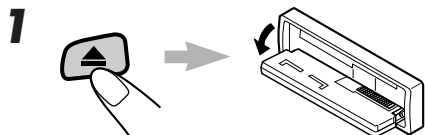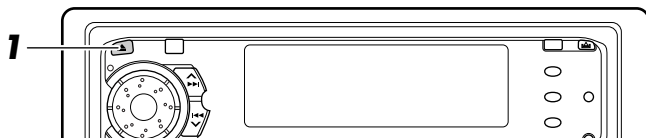
MD OPERATIONS

Playing an MD

1

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

2

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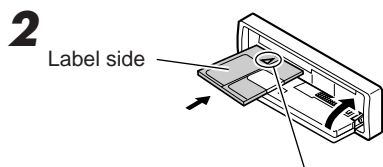
Insert an MD in the same way as indicated on the MD

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.

Title of the track

Current track

Elapsed playing time

```
----  MD PLAY
 TRACK        1:00⊙
      MD
```
→
```
    01
 TRACK
              1:00⊙
      MD
```
→
```
    01    00'02"
 TRACK
              1:00⊙
      MD
```
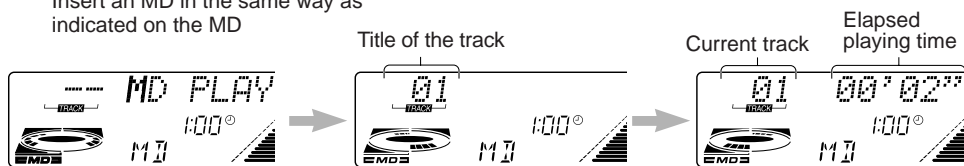
Note on One-Touch Operation:
When an MD is already in the loading slot, pressing MD/CD turns on the unit and starts playback automatically.

To stop play and eject the MD
Press ▲.
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:

→ Track number and Elapsed playing time → Disc title → Track title ⌐

Note:
If "SCROLL MODE" is set to either "AUTO" or "ONCE", names including more than 12 characters will be scrolled. (See page 37.)

23

Locating a track or a particular portion on an MD

►►I ∧
I◄◄ ∨   Number buttons
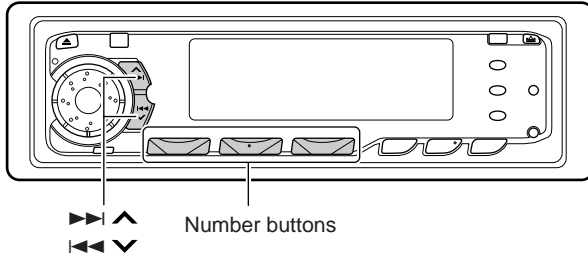
To fast forward or reverse the track
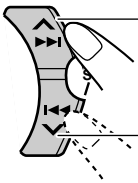
Press and hold ►►I ∧, while playing an MD, to fast forward the track.

Press and hold I◄◄ ∨, while playing an MD, to reverse the track.

To go to the next track or the previous track
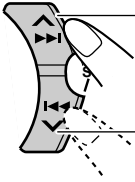
Press ►►I ∧ briefly, while playing an MD, to go ahead to the beginning of the next track. Each time you press the button consecutively, the beginning of the next track is located and played back.

Press I◄◄ ∨ briefly, while playing an MD, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the previous track is located and played back.

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.

24

ENGLISH
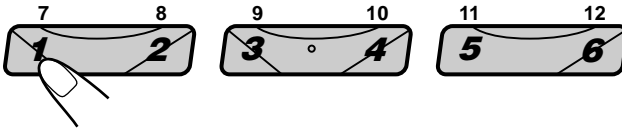
Selecting MD playback modes

MO/RPT

RND
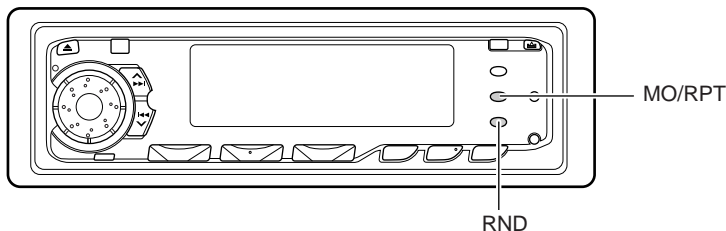
To play back tracks at random (Random Play)

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

RND

Each time you press RND (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.
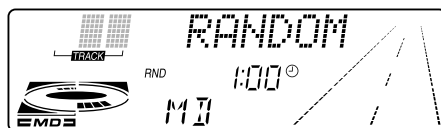
To play back tracks repeatedly (Repeat Play)

You can play back the current track repeatedly.

MO RPT

Each time you press MO/RPT (Mono/Repeat) 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

25
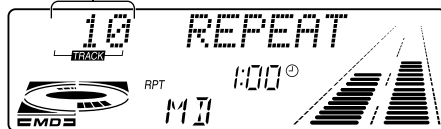
Prohibiting MD ejection
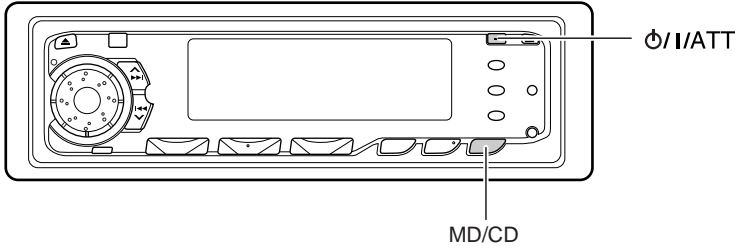
MD/CD

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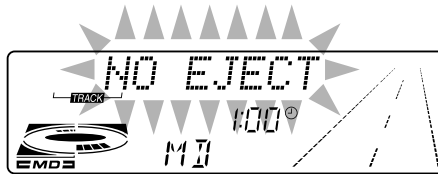
To cancel the prohibition and "unlock" the MD, press ⏻/ /ATT again for more than 2 seconds, while holding MD/CD. "EJECT OK" appears on the display, and the MD is "unlocked."

26

SOUND ADJUSTMENTS 🎵

Selecting preset sound control modes

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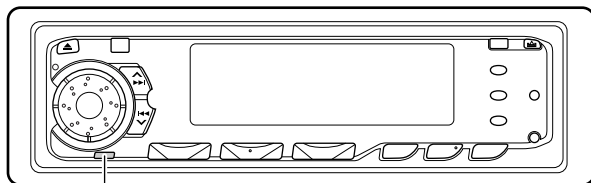
SOUND

SOUND

Call up the sound control mode you want.

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

→ **OFF** → **BEAT** → **SOFT** → **POP** ┐

Indication	For:	Preset values		
		Bass	Treble	Loudness
OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+02	00	On
SOFT	Quiet background music	+01	–03	Off
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 29.
• *To adjust only the bass and treble reinforcement levels to your preference, see "Adjusting the sound" on page 28.*

Adjusting the sound

You can adjust the sound characteristics to your preference.

1

SEL
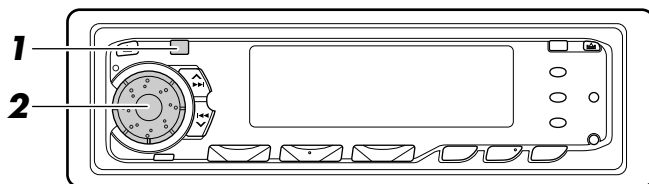
Select the item you want to adjust.

→ BASS → TREBLE → FADER ─┐
└─ VOLUME ← LOUDNESS ← BALANCE ←┘

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)
LOUDNESS	Boost low and high frequencies to produce a well-balanced sound at low volume level.	ON — OFF
VOLUME	Adjust the volume.	00 (min.) — 50 (max.)

Note:
* *If you are using a two-speaker system, set the fader level to "00" (center).*

2
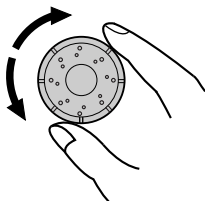
Adjust the level.

Note:
Normally the control dial is used to set the volume. So you do not have to select "VOLUME" to adjust the volume level.

28
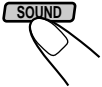
Storing your own sound adjustments

You can adjust the sound control modes (BEAT, SOFT, POP: see page 27) to your preference and store your own adjustments in memory.

1
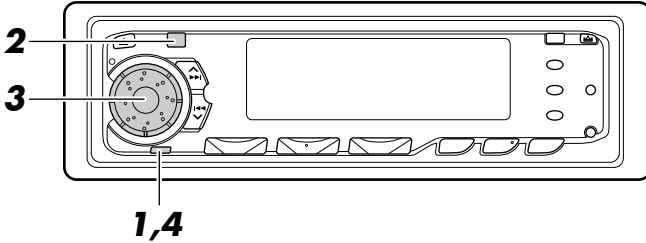
SOUND

Call up the sound control mode you want to adjust.
See page 27 for details.

2

SEL
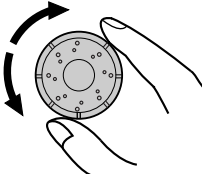
Select "BASS," "TREBLE" or "LOUDNESS."
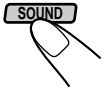
Within 5 seconds

3

Adjust the bass or treble level or turn the loudness function ON/OFF.
See page 28 for details.

4

SOUND

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

5

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 27.
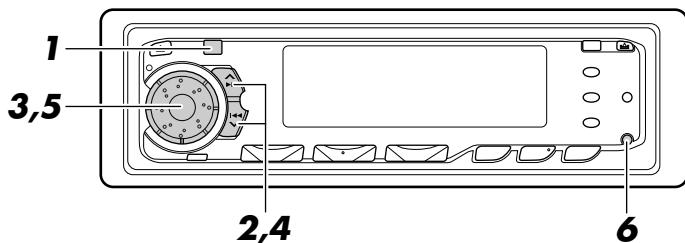
29

Setting the clock

ENGLISH

1 *3,5* *2,4* *6*

1

SEL

Press and hold the button for more than 2 seconds so that "PSM" appears on the lower part of the display.

---

2 *3*

1 2
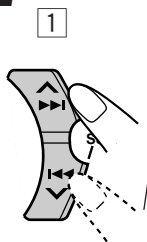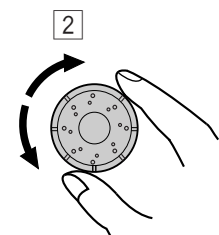
Set the hour.

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

2 Adjust the hour.

---

4 *5*

1 2
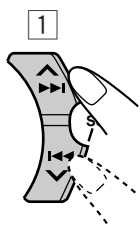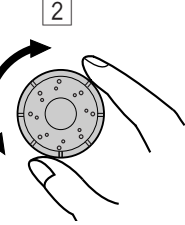
Set the minute.

1 Select "CLOCK MINUTE."

2 Adjust the minute.

6

DISP

Start the clock.

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.

30

1 SEL	**2** Select.	**3** Set.		Factory-preset settings	See page
CLOCK HOUR	Hour adjustment	Back	Advance	0:00	30
CLOCK MINUTE	Minute adjustment	Back	Advance		
CLOCK24H/12H	24/12-hour time display	12HOUR	24HOUR	24HOUR	33
AUTO ADJUST	Automatic setting of the clock	OFF	ON	ON	17
DISPLAY MODE	Display mode	FREQUENCY	PS NAME	PS NAME	16
PTY STANDBY	PTY standby	29 programme types (See page 18.)		NEWS	12
PTY SEARCH	PTY search			(See page 13.)	13
TA VOLUME	Traffic announcement volume	VOL (00 – 50)		VOL (20)	16
LEVEL METER	Level display	NORMAL ↔ PEAK ↳ OFF ↵		NORMAL	33
DIMMER MODE	Dimmer	AUTO ↔ OFF ↳ ON ↵		AUTO	33
CRUISE MODE	Audio cruise	1 ↔ 2 ↳ OFF ↵		OFF	34
+OR- RPM SET	Idling speed*	—		800 rpm	35
BOOST	Boost*	01 – 15		05	34
TELEPHONE	Audio mute for cellular phone system	OFF ↔ MUTING 1 ↳ MUTING 2 ↵		OFF	36
BEEP SWITCH	Key-touch tone	OFF	ON	ON	36
P.AMP SWITCH	Power amplifier switch	OFF	ON	ON	36
CONTRAST	Display contrast	1 –10		5	37
SCROLL MODE	Name display	ONCE ↔ AUTO ↳ OFF ↵		ONCE	37

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 "PSM" appears on the lower part of the display.
2. Select "CLOCK24H/12H" with ►►I ∧ or I◄◄ ∨.
3. Select "CLOCK 24HOUR" or "CLOCK 12HOUR" with the control dial.
   The clock alternates between 24-hour system and 12-hour system.

<div align="center">

24HOUR ←→ 12HOUR

</div>

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.
• NORMAL: Audio level indicator
• PEAK: Peak level indicator
• OFF: Volume level indicator

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "LEVEL METER" with ►►I ∧ or I◄◄ ∨.
3. Select the desired mode with the control dial.
   The level display setting changes as follows:

<div align="center">

→ **NORMAL ←→ PEAK ←→ OFF** ←

</div>

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.
• AUTO: Activates Auto Dimmer
• ON: Always dims the display
• OFF: Cancels Auto Dimmer

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "DIMMER MODE" with ►►I ∧ or I◄◄ ∨.
3. Select the desired mode with the control dial.
   The dimmer mode changes as follows:

<div align="center">

→ **AUTO ←→ ON ←→ OFF** ←

</div>

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 "ON" or "OFF."

ENGLISH

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 "OFF."

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

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "CRUISE MODE" with ▶▶| ∧ or |◀◀ ∨.
3. Select the desired mode with the control dial.
   The cruise mode changes as follows:

$$1 \longleftrightarrow 2 \longleftrightarrow OFF$$
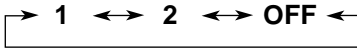
When this function is turned on (the CRUISE indicator lights up on the display), the proper volume level is automatically selected among the 3 possible levels according to the driving speed, and the selected level is shown on the display.

When the driving speed increases.

When the driving speed decreases.

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 "PSM" appears on the lower part of the display.
2. Select "CRUISE MODE" with ▶▶| ∧ or |◀◀ ∨.
3. Select either "CRUISE 1" or "CRUISE 2" with the control dial.
4. Select "BOOST" with ▶▶| ∧ or |◀◀ ∨.
   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.

34

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 "PSM" appears on the lower part of the display.
3. Select "CRUISE MODE" with ►►I ∧ or I◄◄ ∨.
4. Select either "CRUISE 1" or "CRUISE 2" with the control dial.
5. Select "+OR- PRM SET" with ►►I ∧ or I◄◄ ∨.
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.*

ENGLISH

35

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.
• OFF: Cancels the telephone muting.
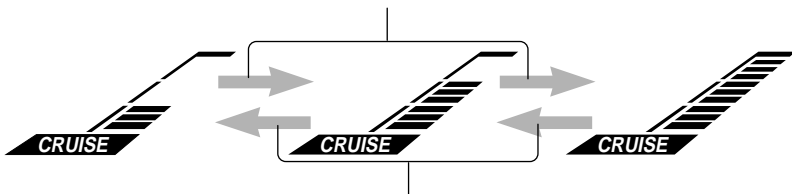
1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "TELEPHONE" with ►►I ∧ or I◄◄ ∨.
3. Select the desired mode with the control dial.
   The telephone muting mode changes as follows:

$$\rightarrow \textbf{MUTING 1} \longleftrightarrow \textbf{MUTING 2} \longleftrightarrow \textbf{OFF} \leftarrow$$

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.

• ON: Activates the key-touch tone
• OFF: Deactivates the key-touch tone

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "BEEP SWITCH" with ►►I ∧ or I◄◄ ∨.
3. Select the desired mode with the control dial.
   The key-touch tone alternates between on and off.

$$\textbf{ON} \longleftrightarrow \textbf{OFF}$$
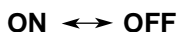
Turning on or off the power amplifier switch

You can switch off the built-in amplifier and send the audio signals only to the external amplifier(s) to get clear sounds and to prevent internal heat buildup. When shipped from the factory, the power amplifier switch is turned on so that the built-in amplifier works.

• ON: Select this when not using external power amplifier(s).
• OFF: Select this when using external power amplifier(s).

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "P.AMP SWITCH" with ►►I ∧ or I◄◄ ∨.
3. Select the desired mode with the control dial.
   The power amplifier switch alternates between on and off.

$$\textbf{ON} \longleftrightarrow \textbf{OFF}$$
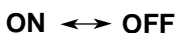
Adjusting the contrast level

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 "PSM" appears on the lower part of the display.
2. Select "CONTRAST" with ▶▶I ∧ or I◀◀ ∨.
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 "ONCE".
• AUTO: Repeats the scroll (5-second intervals in between).
• ONCE: Scrolls only once.
• OFF: Cancels Auto Scroll.

1. Press and hold SEL (Select) for more than 2 seconds so that "PSM" appears on the lower part of the display.
2. Select "SCROLL MODE" with ▶▶I ∧ or I◀◀ ∨.
3. Select the desired mode with the control dial.
   The scroll mode changes as follows:

$$\rightarrow \textbf{AUTO} \leftrightarrow \textbf{ONCE} \leftrightarrow \textbf{OFF} \leftarrow$$

Note:
Even if the scroll mode is set to "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
CDs	up to 32 characters (up to 46 discs)
External component	up to 12 characters
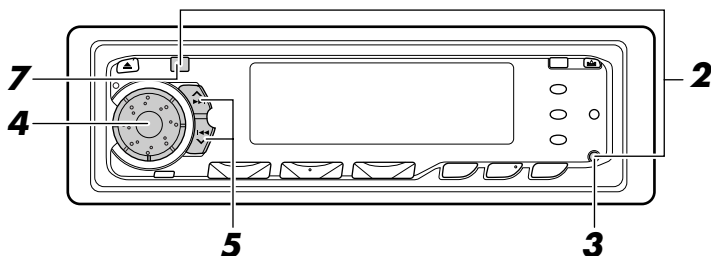
1

Select a source you want to assign a name to.

2

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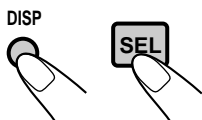
Press and hold SEL (select) for more than 2 seconds while pressing DISP.

When you select the CD as the source:

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

■LINE INPUT
1:00°
LINE
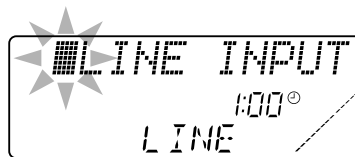
Note:
You cannot assign a name to an MD.

38

3 DISP

Select the character set you want while " ▦ " is flashing.

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

→ **Capital letters** → **Small letters**

Numbers and symbols ←
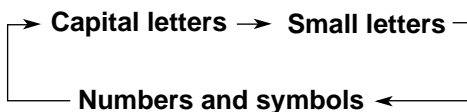
4
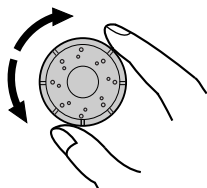
Select a character.

About the available characters, see page 40.

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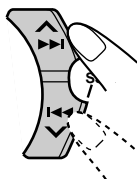
Move the cursor to the next (or previous) character position.

6

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

7 SEL

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.

Note:

When you assign a name to the 47th disc, "NAME FULL" appears on the display. (In this case, delete unwanted names before assignment.)

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.
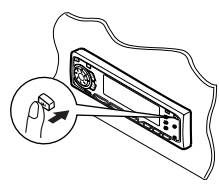
2
Pull the control panel out of the unit.
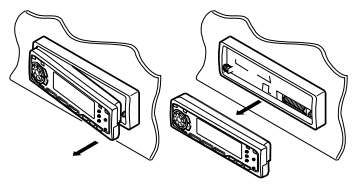
3
Put the detached control panel into the provided case.
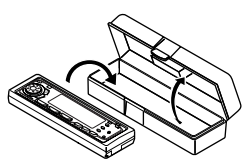
How to attach the control panel

1
Insert the left side of the control panel into the groove on the panel holder.
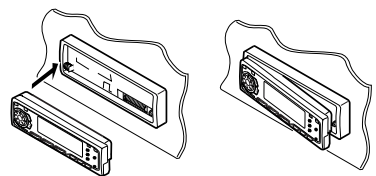
2
Press the right side of the control panel to fix it to the panel holder.
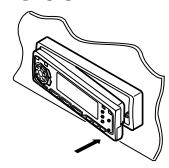
Note on cleaning the connectors:
If you frequently detach the control panel, the connectors will deteriorate.
To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.

Connectors
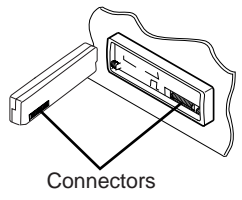
CD CHANGER OPERATIONS

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

▶▶| ∧
|◀◀ ∨   Number buttons   *1*

1

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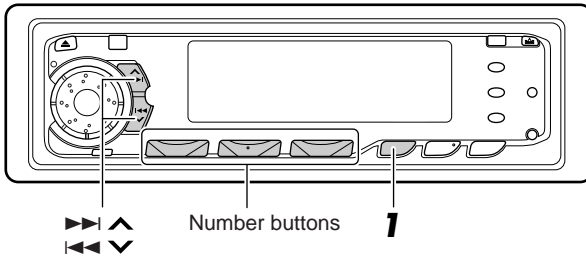
Select the CD automatic changer.
Each time you press the button, you can select the CD automatic changer and the external component alternately.

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

Track number*   Elapsed playing time*

TRACK
CHANGER
CD
DISC

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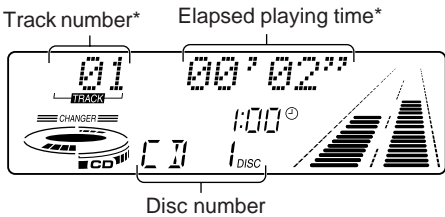
* When you play a CD Text, the disc title and performer appear. Then the current track number and elapsed playing time appear on the display.

Note on One-Touch Operation:
When you press EXT/CH, the power automatically comes on. You do not have to press ⏻/I/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 ⏐◄◄ ∨, while playing a CD, to reverse the track.

To go to the next track or the previous track

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 track is located and played back.

Press ⏐◄◄ ∨ 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 track 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

Track number

Disc number

43

Selecting CD playback modes

MO/RPT

RND
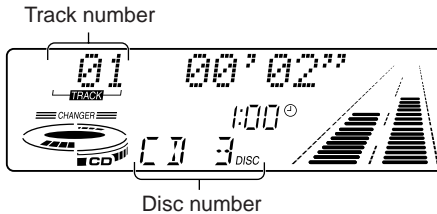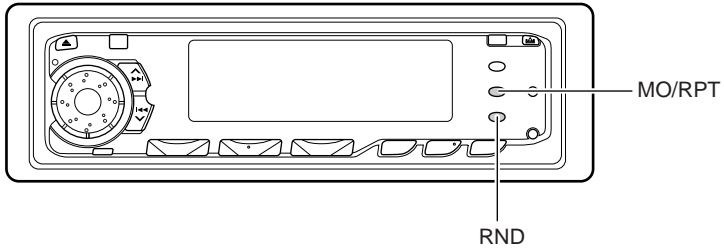
To play back tracks at random (Random Play)

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

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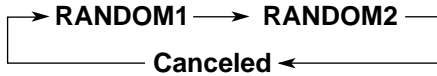
Mode	RND Indicator	Plays at random
RANDOM1	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RANDOM2	Flashes	All tracks of all discs inserted in the magazine.

To play back tracks repeatedly (Repeat Play)

Each time you press MO/RPT(Mono/Repeat) while playing a CD, CD repeat play mode changes as follows:

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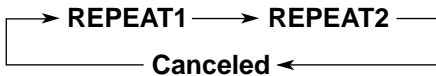
Mode	RPT Indicator	Plays repeatedly
REPEAT1	Lights	The current track (or specified track).
REPEAT2	Flashes	All tracks of the current disc (or specified disc).

Playing the CD Text

The following operations are possible only when a CD changer compatible with CD Text is connected (ex.: CH-X1200).
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.
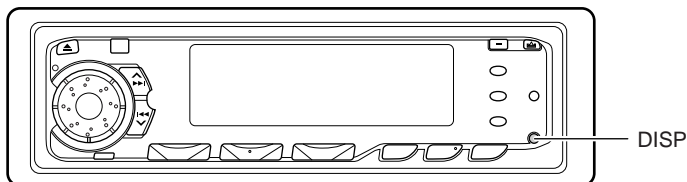
DISP

DISP

Select the text display mode while playing a CD.

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

```
 ┌→ Disc Title/Performer ──────→ Track Title ─┐
 └─ Current Track and Elapsed Playing Time ←──┘
```

Notes:
- *The display shows up to 12 characters at one time and scrolls if there are more than 12 characters. See also "Selecting the scroll mode" on page 37.*
- *When you press DISP while playing a CD you have assigned a name to, you can also show it on the display. If you have not assigned a name, "NO NAME" appears on the display.*

45

EXTERNAL COMPONENT OPERATIONS

3

1

1
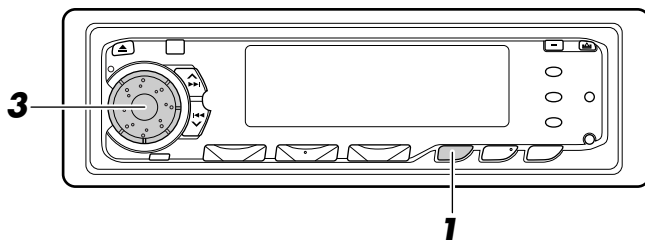
EXT/CH

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 EXT/CH, the power automatically comes on. You do not have to press
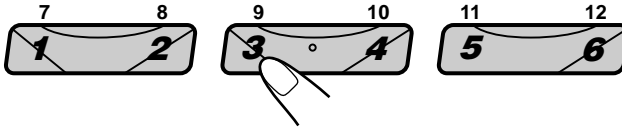⏻/ I /ATT *to turn on the power.*

2

Turn on the connected device and start playing the source.

3

To turn up the volume

To turn down the volume
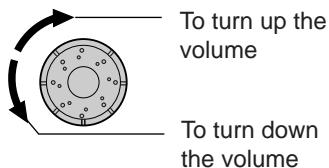
Adjust the volume.

Notes:
- *For the external component connection, see the Installation/Connection Manual (separate volume).*
- *See also "Assigning names to the sources" on page 38 if you want to match the name shown on the display with the name of the connected component.*

46

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

Center holder

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.
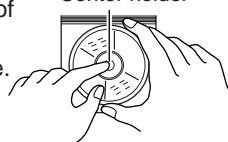
To keep CDs clean

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.
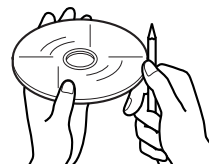
CAUTIONS:

• *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.*

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.
	"P. AMP (Power Amplifier) SWITCH" is not set correctly.	Set "P. AMP SWITCH" correctly. See page 36.
• 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.
• CD or MD can be neither played back nor ejected.	The unit may function incorrectly.	Press MD/CD and SEL at the same time for more than 2 seconds. ("PLEASE EJECT" appears on the display.) When you open the control panel by pressing ▲, be careful not to drop the disc when it is ejected.

?!

ENGLISH

Symptoms	Causes	Remedies
• "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 4.) • Press ⏻/I/ATT and SEL at the same time for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.)

50

SPECIFICATIONS

AUDIO AMPLIFIER SECTION

Maximum Power Output:
   Front: 40 watts per channel
   Rear: 40 watts per channel
Continuous Power Output (RMS):
   Front: 16 watts per channel into 4 Ω, 40
      to 20,000 Hz at no more than
      0.8% total harmonic distortion.
   Rear: 16 watts per channel into 4 Ω, 40
      to 20,000 Hz at no more than
      0.8% total harmonic distortion.
Load Impedance: 4 Ω (4 to 8 Ω allowance)
Tone Control Range
   Bass: ±10 dB at 100 Hz
   Treble: ±10 dB at 10 kHz
Frequency Response: 40 to 20,000 Hz
Signal-to-Noise Ratio: 70 dB
Line-In Level/Impedance: 1.5 V/20 kΩ
Line-Out Level/Impedance: 2.0 V/20 kΩ
   load (full scale)
Output Impedance: 1 kΩ

TUNER SECTION

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

[FM Tuner]
Usable Sensitivity: 11.3 dBf (1.0 µV/75 Ω)
50 dB   Quieting Sensitivity:
         16.3 dBf (1.8 µV/75 Ω)
Alternate Channel Selectivity (400 kHz):
         65 dB
Frequency Response: 40 to 15,000 Hz
Stereo Separation: 30 dB
Capture Ratio: 1.5 dB

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

[LW Tuner]
Sensitivity: 50 µV

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 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 (λ=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 to 20,000 Hz
Dynamic Range: 95 dB
Signal-to-Noise Ratio: 97 dB
Wow and Flutter: Immeasurable

GENERAL

Power Requirement
Operating Voltage: DC 14.4 volts (11 to 16
   volts allowance)
Grounding System: Negative ground
Allowable Operating Temperature:
         0°C to + 40°C
Dimensions (W $\times$ H $\times$ D)
   Installation Size:
         182 $\times$ 52 $\times$ 165 mm
      Panel Size: 188 $\times$ 58 $\times$ 14 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.

JVC

VICTOR COMPANY OF JAPAN, LIMITED

EN, GE, FR, NL