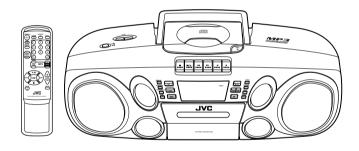
JVC



# **CD PORTABLE SYSTEM**

# RC-BM5





# 

#### For Customer Use:

Enter below the Model No. and Serial No. which are located on the rear of the cabinet.

Retain this information for future reference.

Model No.

Serial No.

# Warnings, Cautions and Others

## Caution — $\bigcirc/\bigcirc$ (on/off) button!

#### CAUTION

To reduce the risk of electrical shocks, fire, etc.:

- 1. Do not remove screws, covers or cabinet.
- 2. Do not expose this appliance to rain or moisture.

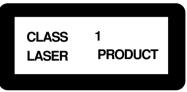
#### CAUTION

- Do not block the ventilation openings or holes.
   (If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
- Do not place any naked flame sources, such as lighted candles, on the apparatus.
- When discarding batteries, environmental problems must be considered and local rules or laws governing the disposal of these batteries must be followed strictly.
- Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

#### **IMPORTANT FOR LASER PRODUCTS**

#### REPRODUCTION OF LABELS

 CLASSIFICATION LABEL, PLACED ON EXTERIOR SURFACE



WARNING LABEL, PLACED INSIDE THE UNIT

CAUTION: Invisible laser | ADVARSEL: Usynlig laser | VARNING: Osynlig laser | VARO: Avattaessa | a radiation when open and sträling ved Abning, når strålning när denna del är supjaluktus ohitettaessa interlock falledor deteated, sikkerhetasfbrydere er ude i opprad och spärren är olet attitina näkymättö-AVOIDOIRECTEXPOSURE [är funktion. Undpåudsæt- urkopplad. Betrakta ej målle lasersäteliylle. TO BEAM. (e) | telse for stråling. (d) strålen. (s) | Alä katso säteeseen. (f)

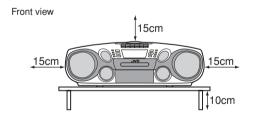
- 1. CLASS 1 LASER PRODUCT
- DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
- CAUTION: Do not open the top cover. There are no user serviceable parts inside the Unit; leave all servicing to qualified service personnel.

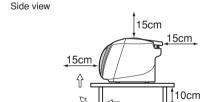
#### **Caution: Proper Ventilation**

To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:

- 1 Front:
- No obstructions and open spacing.
- 2 Sides/Top/Back:
  - No obstructions should be placed in the areas shown by the dimensions below.
- 3 Bottom:

Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.





## CONTENTS

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#### **FEATURES**

- 1 Portable system incorporating CD player
  - CD functions can be operated with the remote control unit as well as on the main unit.
  - · 8-cm CD playback capability
- Digital LCD (Liquid Crystal Display) indicates general playback status.
- 3 Synchronized recording with CD playback
- 4 MP3 playback capability
- 5 Hyper-Bass Sound effect

# **SAFETY PRECAUTIONS**

# Prevention of Electric Shocks, Fire Hazards and Damages

- Even when the ①/O (on/off) button is set to the off position, a very small current will flow. To save power and for safety when not using the unit for an extended period of time, disconnect the power cord from the household AC outlet.
- Do not handle the power cord with wet hands.
- When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
- Consult your nearest dealer when damage, disconnection, or contact failure is found with the cord.
- Do not bend the cord sharply, or pull or twist it.

- Do not modify the power cord in any manner.
- Do not remove screws to disassemble the unit and do not touch anything inside the unit to avoid accidents.
- Do not insert any metallic objects into the unit.
- Unplug the power cord when there is a possibility of lightning.
- If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
- Do not block the ventilation holes of the unit so that heat can escape.
- Do not install the unit in a badly ventilated place.

## HANDLING PRECAUTIONS

Do not use this unit in direct sunlight or leave the unit in a closed automobile (or yacht, etc.) where it would be exposed to high temperatures above 40°C.

#### 1 Avoid using the unit in the following places:

- Where the temperature may become excessively high or low; the recommended temperature range is 5°C and 35°C.
- Where it could be subject to vibrations.
- Where it is excessively humid, such as in a bathroom.
- Where it could be magnetized by a magnet or speaker.

#### 2 Pay attention to dust.

Be sure to close the disc holder so that the lens is not contaminated by dust. Do not touch the lens.

#### 3 Condensation

Condensation may occur in the following cases, in which the unit may not operate correctly:

- The unit is in a room where a heater has just been switched on.
- The unit is in a place where there is smoke or high humidity.
- The unit has just moved from a cold place to a warm room.

In these cases, set the  $\bigcirc/\bigcirc$  (on/off) button to the on position and wait one or two hours before use.

#### 4 Volume control

Compact discs produce very little noise compared with analog records. If you adjust the volume by listening to the noise as you do with analog records, the speakers could be damaged by a sudden blast of sound when playback starts. Therefore, turn down the volume before starting and adjust it as required while playing a CD.

#### 5 Safety mechanism

The unit incorporates a safety interlock mechanism which switches off the laser beam when the disc holder is opened.

# 6 Do not place magnetic objects such as cassette tapes near the speakers.

Since the speakers contain magnets inside, do not place cassette tapes or magnetic cards nearby as recorded data could be erased.

#### 7 Keep the unit away from the TV.

When the unit is used near a TV, the TV picture could be distorted. If this happens, move the unit away from the TV. If this does not correct the situation, avoid using the unit when the TV is turned on.

#### 8 Cleaning the cabinet

If the cabinet gets dirty, wipe it with a soft, dry cloth. Never use benzine or thinner as these could damage the surface finish.

#### 9 When listening with headphones

- Do not listen at high volumes as it could damage your hearing.
- For safety, do not drive while listening with headphones.

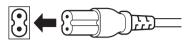
#### 10 Carrying handle

Do not raise or lower the carrying handle with the telescopic antenna extended, to avoid damaging the antenna. Position the carrying handle so that it does not interfere with operation.

#### **POWER SUPPLY**

# Operation on household AC

Connect the AC power cord.



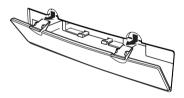
#### **CAUTIONS:**

- Use only with the JVC power cord provided with this unit to avoil malfunction or damage to the unit.
   Remove batteries when using the power cord.
- Be sure to unplug the power cord from the outlet when going out or when the unit is not in use for an extended period of time.

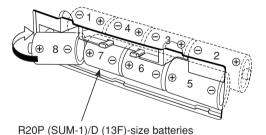
# Operation on batteries Loading batteries

#### 1 Open the battery cover.

Pull the battery cover toward you while pressing the sections marked by the arrows.



**2** Insert eight R20P (SUM-1)/D (13F)-size batteries. Be sure to insert the batteries with the ⊕ and ⊖ terminals positioned correctly.



3 Replace the cover.

#### **Checking batteries**

When the tape speed or output sound level decreases, or CD playback becomes intermittent, replace all batteries with fresh ones.

When making an important recording, use new batteries (preferably alkaline batteries with a longer service life) to avoid any possible failure.

#### For better battery usage

- Continuous operation of the unit causes the battery power to be consumed quicker than noncontinuous operation.
- Operation of the unit in a cold place causes the battery power to be consumed more quickly than in a warm place.

#### **CAUTIONS:**

- When not using the unit for a long time (more than two weeks) or when using the household AC, remove the batteries to avoid a malfunction or damage to the unit
- When the JVC power cord provided with this unit is connected, the power is automatically switched from the batteries to the household AC even when the batteries are loaded.

However, remove the batteries when using the power cord.

#### CAUTIONS WHEN USING BATTERIES:

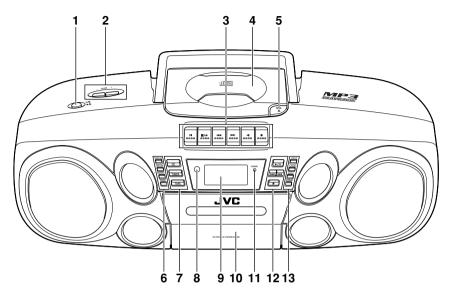
When batteries are used incorrectly, it may result in the leakage of chemicals from the batteries or they may explode. The following care should be taken:

- Check that the positive  $\bigoplus$  and negative  $\bigoplus$  terminals of the batteries are positioned correctly and load them as shown in the figure on the left.
- Do not mix new and old batteries together, or mix different types of batteries.
- Do not try to recharge non-rechargeable batteries.
- Remove the batteries when the unit is not to be used for an extended period of time.

If chemicals from the batteries come in contact with your skin, wash them off immediately with water. If chemicals leak onto the unit, clean the unit completely.

# NAMES OF PARTS AND CONTROLS

# Top and front sides



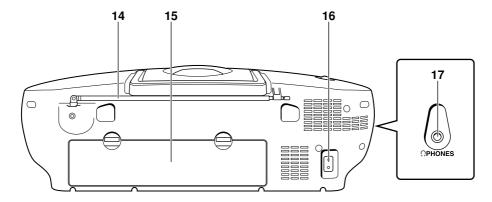
- 1 ⊙/ċ (on/off) button
- 2 VOLUME -/+ buttons
- 3 Tape operation buttons

**■** PAUSE button

- ■/▲ STOP/EJECT button
- **◄** FF button
- ▶► REW button
- PLAY button
- REC button
- 4 Disc door
- 5 OPEN ≜ button
- 6 PRESET UP button
  PRESET DOWN button
  FM MODE/BEAT CUT button
  SOUND button

- 7 CD/RANDOM button TUNER/BAND button TAPE button
- 8 Remote sensor section
- 9 Display window
- 10 Cassette holder
- 11 STANDBY indicator
- 12 ►/II button
  - |◀◀/▶▶| TUNER DOWN/UP buttons
  - button
- 13 DISPLAY button
  TITLE SEARCH button
  REPEAT button
  PROGRAM button

#### Rear side



- 14 Telescopic antenna
- 15 Battery compartment cover
- 16  $\sim$ AC IN (AC input) jack

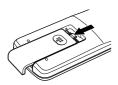
#### 17 PHONES jack

Connect a pair of stereo mini headphones (3.5-mm diameters, impedance of  $16~\Omega$  to  $32~\Omega$ ) to this jack. The speaker output is switched off with headphones connected.

# **REMOTE CONTROL UNIT**

# Installing batteries

1 Remove the battery cover from the back of the remote control unit.



2 Insert two R03 (UM4)/AAA (24F)-size batteries. Insert the batteries with the ⊕ and ⊖ terminals matching the indication inside the battery compartment. Insert the ⊖ ends first.

R03 (UM4)/AAA (24F)-size batteries



3 Replace the battery cover.



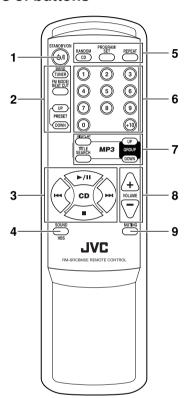
# **Battery replacement**

The maximum operating distance between the remote control unit and the remote sensor section of the unit is approximately 7 meters. When the operating range decreases or remote control operation becomes unstable, replace the batteries with new ones.

# Notes on using the remote control unit

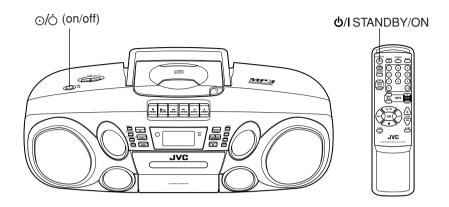
- Point the top of the remote control unit toward the remote sensor section of the unit as directly as possible. The operable distance from the main unit decreases if you point the remote control unit at an angle.
- Press the buttons gently and firmly.
- Do not expose the remote sensor section of the unit to strong light (direct sunlight or artificial lighting) and make sure that there are no obstacles between the remote sensor section and the remote control unit.

#### Names of buttons



- 1 U/I STANDBY/ON button
- 2 TUNER/BAND button FM MODE/BEAT CUT button PRESET UP/DOWN buttons
- 3 CD operation buttons
  - ►/II button
  - **I**◀**■** button
  - **▶**►I button
  - button
- 4 SOUND/HBS (Hyper-Bass Sound) button
- 5 CD/RANDOM button PROGRAM/SET button REPEAT button
- 6 Number buttons
- 7 MP3 disc operation buttons DISPLAY button TITLE SEARCH button GROUP UP/DOWN buttons
- 8 VOLUME +/- buttons
- 9 MUTING button

# **TURNING THE UNIT ON/OFF**



# © 1° ⊙/ċ (on/off) button

Press the  $\bigcirc/\dot\bigcirc$  (on/off) button on the unit to turn on and off the unit.

**-** ⊙ : Power-on position

**■**  $\dot{\circ}$  : Power-off position

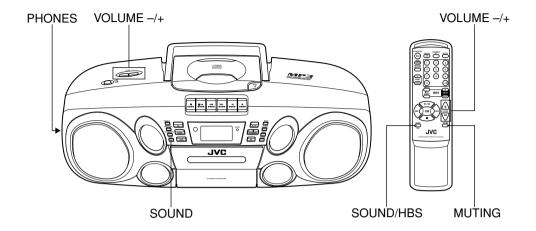
You can turn on and off the unit by pressing the  $\circlearrowleft/$ I STANDBY/ON button on the remote control unit, if the  $\circlearrowleft/$  $\circlearrowleft$  (on/off) button on the unit is set to the on position.

The STANDBY indicator goes out when the unit is turned on. The unit comes on ready to play the source selected when the unit was last turned off.

#### Notes:

- The ॳ/l STANDBY/ON button on the remote control unit does not function when the ⊙/ਂ (on/off) button is set to the off position.
- Remove the batteries when carrying the unit by hand or in the trunk of a car. This prevents the power from being accidentally turned on, thus avoiding wasteful battery consumption.
- If you plug the AC power cord into the AC outlet with the ⊙/⊙ (on/off) button set to the on position, the unit enters standby mode. In this case, press the ℃/I STANDBY/ON button on the remote control unit, or press the CD/RANDOM, TUNER/BAND or TAPE button on the unit to turn on the unit.

# **ADJUSTING THE SOUND**



# Adjusting the volume

Press the VOLUME - or VOLUME + button.

#### Caution:

DO NOT turn off the unit with the volume set to an extremely high level; otherwise a sudden blast of sound could damage your hearing and/or the speakers and headphones, when you turn on the unit or start playing another source next time.

REMEMBER you cannot adjust the volume unless the unit is turned on.

#### Turning off the sound temporarily

During playback, press the MUTING button on the remote control unit.

Playback continues without sound.

To restore the sound, press the MUTING button again or increase or decrease the volume level.

# Listening through headphones

Connect a pair of headphones to the PHONES jack. No sound comes out of the speakers anymore. Be sure to turn down the volume before connecting headphones.

# Selecting the sound mode

Sound mode can be selected to enhance the type of music being played.

Press the SOUND button repeatedly until the sound mode you want appears in the display window.

Alternatively, press the SOUND/HBS button on the remote control unit.

Each time you press the button, the sound mode changes as follows:



\* No indication. The sound mode is canceled.

# Reinforcing the bass sound

You can enjoy powerful bass sound with the Hyper-Bass Sound effect.

Press and hold the SOUND button so that the HBS indicator lights up in the display window.

Alternatively, press and hold the SOUND/HBS button on the remote control unit.

To turn off the effect, press and hold the button again so that the HBS indicator goes off.

# **PLAYING COMPACT DISCS**

# Notes on compact discs

This unit is designed to play audio CDs, CD-Rs and CD-RWs.

You can use compact discs with the mark shown below.



#### Note on CD-R and CD-RW

- User-edited CD-Rs (Recordable) and CD-RWs (Rewritable) can be played only if they are already finalized.
- You can play your original CD-Rs or CD-RWs recorded in music CD format. However, they may not be played depending on their characteristics and recording conditions.
- Before playing CD-Rs or CD-RWs, read their instructions or cautions carefully.
- Some CD-Rs or CD-RWs may not be played on the unit because of their disc characteristics, damage or stain on them, or if the player's lens is dirty.
- CD-RWs may require a longer readout time. (This is caused by the fact that the reflectance of CD-RWs is lower than that of regular CDs.)

#### MP3 formats supported on the unit

- ISO 9660 format 17 characters max.
- Max. number of tracks and albums: 256
- Max. number of directory nesting levels: 8
- Max. number of albums: 99
- Max. length of a track: 255 minutes 59 seconds
- Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz
- Bit rate: 32 kbps, 64 kbps, 96 kbps, 128 kbps, 192 kbps, 256 kbps

#### Handling discs

Since dirty, damaged or warped discs could damage the unit, care should be taken of the following:

- Do not touch the reflective recorded surface.
- Do not stick or write anything on the label side.
- · Do not bend discs.

#### **Storage**

- After removing a disc from the unit, be sure to put it back in its case.
- Do not expose discs to direct sunlight, high temperatures from a heater, etc., high humidity or dust.

#### Cleaning discs

Before loading a disc, wipe off any dust, dirt or fingerprints with a soft, dry cloth. Discs should be cleaned by wiping radially, from the center to edge. Never use thinner, benzine, record cleaner or antistatic spray.

• Removing the disc from its storage case and replacing it



Press the center and lift out.



Press to secure the disc.

Handling



Incorrect

Cleaning

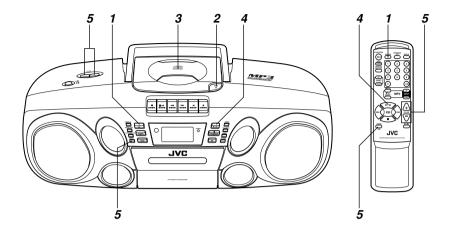


Correct



Incorrect

# **Basic operation**



- 1 Press the CD/RANDOM button to enter CD mode, if the unit is in TUNER or TAPE mode.
- 2 Press the OPEN **≜** button to open the disc door.
- 3 Load a disc with the label side facing up and close the disc door.
  - 8-cm compact discs can be played on the unit without an adapter.
  - When loading an MP3 disc, the MP3 indicator lights up, and the total number of albums and total number of tracks scroll through the display window.
- 4 Press the ►/II button to start playback.

The current track number and elapsed playing time are displayed during playback.



5 Adjust the volume and sound.

#### Notes:

- When an MP3 disc is loaded, it may take more than 30 seconds to be read in, depending on the amount of information compiled in the disc.
- "UNREAD DISC" scrolls through the display window when the disc cannot be read because it is dirty or scratched.
- The following indication may be displayed when the disc is loaded upside down. Reload the disc correctly.



- If mistracking occurs during playback, lower the volume.
- Mistracking may occur if a strong shock is applied to the unit or if it is used in a place subject to vibrations (e.g. in a car travelling on a rough road).

## To stop playback

Press the ■ button.





Main unit

Remote

#### Caution:

Press the **b**utton before opening the disc door. Check that the disc has completely stopped rotating before unloading the disc.

## To pause playback

Press the ►/II button during playback.

To resume playback, press the button again.





Main unit

Remote

#### Skipping

• To skip to the next track

Press the ▶▶I button during playback to skip to the beginning of the next track.

To skip back to the previous track
 Press the ◄ button during playback to skip back to the previous track.







Main unit

Remote

# Selecting a desired track directly (audio CD only)

Use the number buttons on the remote control unit. Example:

To select track 8, press the 8 button.

To select track  $2\overline{1}$ , press the +10, +10 and 1 buttons in this order.

Playback starts from the specified track.

# Search – locating a desired position on the disc (audio CD only)

Press and hold the I◀◀ or ▶► button during playback.

Monitor the sound and release the button when the desired position is located.





Main unit

Remote

# Selecting a desired album and track (MP3 disc only)

1 In stop mode, press the PRESET UP or PRESET DOWN button repeatedly until the desired album is displayed.

Alternatively, press the GROUP UP or GROUP DOWN button repeatedly on the remote control unit.

2 Press the I◀◀ or ▶►I button to select a desired track from the current album.

Alternatively, use the number buttons on the remote control unit.

3 Press ►/II button to start playback.

If you use the number buttons in step 2, playback starts without your pressing the  $\blacktriangleright/\blacksquare$  button.

# Title search (MP3 disc only)

- 1 In stop mode, press the TITLE SEARCH button.
- 2 Press the PRESET UP or PRESET DOWN button repeatedly to input an alphabet or a number at the selected position.

Alternatively, press the GROUP UP or GROUP DOWN button on the remote control unit.

- 3 Press the I◀◀ or ▶▶I button to select another position to input a letter or a number.
- 4 Repeat steps 2 and 3 to input other letters or numbers.
- 5 Press the TITLE SEARCH button to start title search.

The number of titles (tracks) the unit found appears in the display window.

- If one or more titles are found, select a track from them and press the ►/II button to start playback.
- If no title is found, "FIND 000" appears briefly in the display window and the unit returns to step 3.

To exit title search mode, press the  $\blacksquare$  button in stop mode.

Alternatively, press the TUNER/BAND or TAPE button.

# Changing the display

# Press the DISPLAY button repeatedly during playback.

Each time you press the button, the display changes in the following order:

#### In case of an audio CD:

→ Track number being played and elapsed playing time



Track number being played and remaining time of the track

("REMAIN" lights up in the display window.)



Elapsed playing time of the disc ("TOTAL" lights up.)



Remaining time of the disc ("TOTAL REMAIN" lights up.)

#### In case of an MP3 disc:

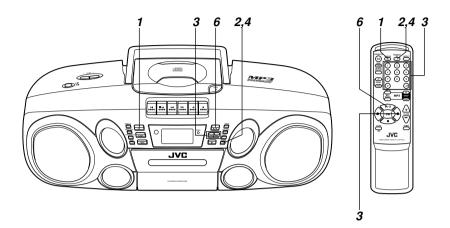
➤ Track number being played and elapsed playing time



Album number, album name, track number and track name being played

# Programmed playback of an audio CD

Up to 20 tracks can be programmed to play in any desired order.



#### 1 Press the CD/RANDOM button to enter CD mode.

#### 2 Press the PROGRAM button in stop mode.

Alternatively, press the PROGRAM/SET button on the remote control unit.

The PROG. indicator and the current track number start blinking in the display window.



#### 3 Press the |◀◀ or ▶▶| button to select a desired track to be programmed.

Alternatively, use the number buttons on the remote control unit.



#### 4 Press the PROGRAM button.

"OK" is displayed and the PROG. indicator lights up steadily.

#### 5 Repeat steps 2 to 4 to program other tracks.

6 Press the ►/II button to start programmed playback.

#### Note:

You cannot program more than 20 tracks. "PRG FULL" is displayed when you try to program the 21st track.

#### To clear the program

#### Press the **■** button in stop mode.

"PROG CLEARED" scrolls through the display window. The program is also cleared when you open the disc door.

#### To check the programmed tracks

Press the | ◀ or ▶ ▶ | button repeatedly in stop mode. Each time you press the button, the program number and

track number are displayed in the display window.

# Programmed playback of an MP3 disc

Up to 99 tracks can be programmed to play in any desired order.

#### 1 In stop mode, press the PROGRAM button.

Alternatively, press the PROGRAM/SET button on the remote control unit.

The PROG. indicator starts blinking in the display window.

# 2 Press the PRESET UP or PRESET DOWN button to select a desired album.

Alternatively, press the GROUP UP or GROUP DOWN button on the remote control unit.

# 3 Press the |◀◀ or ▶►| button to select a desired track in the album.

Alternatively, use the number buttons on the remote control unit.

#### 4 Press the PROGRAM button.

"OK" is displayed for a moment and the PROG. indicator lights up steadily.

- 5 Repeat steps 1 to 4 to program other tracks.
- 6 Press the ►/II button to start programmed playback.

#### Note:

You cannot program more than 99 tracks. "PRG FULL" is displayed when you try to program the 100th track.

#### To clear the program

Press the **■** button in stop mode.

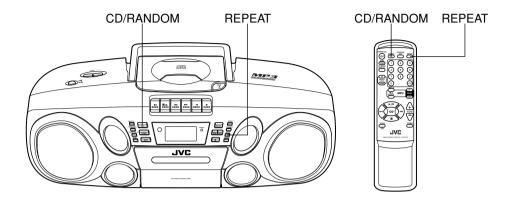
"PROG CLEAR" scrolls through the display window. The program is also cleared when you open the disc door.

## To check the programmed tracks

Press the | < or > > | button repeatedly in stop mode.

Each time you press the button, the program number and track number are displayed in the display window.

# Repeat/random playback



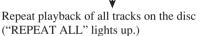
## Repeat playback

#### Press the REPEAT button during playback.

Each time you press the button, the repeat mode changes in the following order:

#### In case of an audio CD:

➤ Repeat playback of a single track ("REPEAT" lights up in the display window.)



Repeat playback is canceled.

#### In case of an MP3 disc:

➤ Repeat playback of a single track ("REPEAT" lights up in the display window.)

Repeat playback of an album ("REPEAT GROUP" lights up.)

Repeat playback of all tracks on the disc ("REPEAT ALL" lights up.)

Repeat playback is canceled.

# Random playback

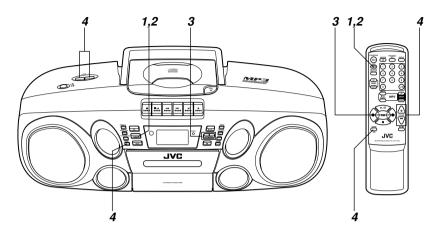
Press the CD/RANDOM button in CD mode so that the RANDOM indicator lights up in the display window.

Tracks are played in random order.

To cancel random playback, press the CD/RANDOM button so that the RANDOM indicator goes off.

# **RADIO RECEPTION**

# Tuning in a station



- 1 Press the TUNER/BAND button to enter TUNER mode.
- 2 Press the TUNER/BAND button to select the band, FM or AM.
- 3 Press and hold the |◀◀ or ▶►| button for more than 1 second.

The unit starts searching and stops when a station of sufficient signal strength is tuned in.

If you press the I◀◀ or ▶►I button briefly and repeatedly, the frequency changes step by step.

4 Adjust the volume and sound.

# Changing the FM reception mode

When an FM stereo broadcast is hard to receive or noisy, reception improves in monaural reception.

# Press the FM MODE/BEAT CUT button to change to the monaural reception.

Each time you press the button, the reception toggles between monaural and stereo modes.





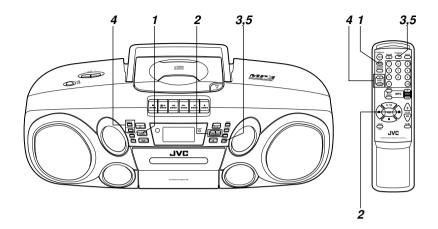
Main unit

Remote

The STEREO indicator lights up steadily in the display window when the unit receives an FM stereo broadcast of sufficient signal strength in stereo reception mode.

# **Presetting stations**

You can preset 20 FM and 10 AM stations.



- 1 Press the TUNER/BAND button to select the band, FM or AM.
- 2 Press the |◀◀ or ▶►| button to tune in the station you want to preset.
- 3 Press the PROGRAM button.

Alternatively, press the PROGRAM/SET button on the remote control unit.



4 Press the PRESET UP or PRESET DOWN button to select the preset number.

The selected preset number flashes.



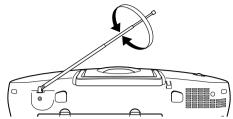
- 5 Press the PROGRAM button.
  - "STORED" is displayed in the display window. The preset number lights up steadily.
- 6 Repeat steps 2 to 5 to preset other stations, using different preset numbers.

## Tuning in a preset station

- 1 Press the TUNER/BAND button to select the band, FM or AM.
- 2 Press the PRESET UP or PRESET DOWN button repeatedly until the desired preset number appears.

## Using the antennas

#### FΜ



#### AM



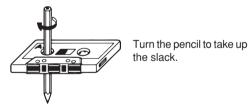
#### Note:

The built-in ferrite core antenna may pick up interference from television receivers in the neighborhood disturbing AM reception.

# **CASSETTE PLAYBACK**

## Notes on cassette tapes

- Use only type-I normal tapes. The recording/playback characteristics of this unit are those for normal tapes, which have different characteristics from CrO<sub>2</sub> and metal tapes.
- The use of tapes longer than 120 minutes is not recommended, since characteristic deterioration may occur and these tapes easily jam in the pinch roller and the capstan.
- Loose tape may cause trouble. Gently tighten the tape with a pencil as shown in the figure below.



 To prevent recordings from being accidentally erased, remove the tab(s) with a screwdriver. After the tabs have been broken off, reseal the slots with adhesive tape to erase or re-record.



# Loading a cassette

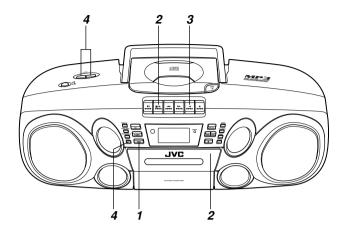
- 1 Press the ■/▲ STOP/EJECT button to open the cassette holder.
- 2 Load a cassette with the open side up and the playback side facing out as shown in the figure below.



3 Close the cassette holder by pressing it gently and firmly.

The cassette holder clicks back into position.

# Playing back a cassette



- 1 Press the TAPE button to enter TAPE mode.
- 2 Load a cassette.

Use only a type-I normal tape.

- 3 Press the **◄** PLAY button to start playback.
- 4 Adjust the volume and sound.

# To stop playback

Press the ■/▲ STOP/EJECT button.

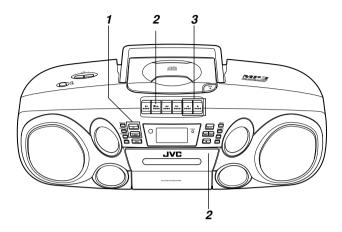
The tape also stops when it reaches the end.

#### Fast-winding a tape

Press the ►► REW or ◄◄ FF button.

When the tape reaches the end, press the ■/▲ STOP/ EJECT button to release the ▶► REW or ◄◄ FF button.

# **Basic operation**



#### 1 Prepare the recording source.

- When recording from the radio
   Set to the TUNER mode and tune in a desired station.
- When recording from a CD Set to the CD mode and load a CD.
- **2** Load a blank or erasable cassette. Use only a type-I normal tape.
- 3 Press the REC and ◀ PLAY buttons simultaneously.

#### To stop recording

Press the ■/▲ STOP/EJECT button.

The tape also stops when it reaches the end.

#### Notes:

- It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.
- In recording, the ALC circuit automatically optimizes the recording level. Adjustment of the recording level is unnecessary.
- If a recording you made has excessive noise or static, the unit may have been too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the unit.

#### Using the beat-cut function

When recording an AM broadcast, beats may occur. If this happens, press the FM MODE/BEAT CUT button to select the better beat-cut position, "BEAT 01" or "BEAT 02".

# To start recording at the exact moment

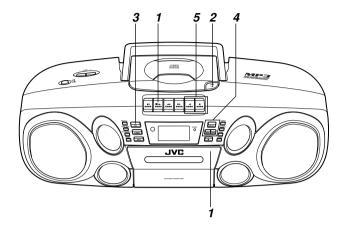
- 1 Press the II PAUSE button first, then press the REC and PLAY buttons simultaneously, thus entering the record-pause (standby) mode.
- 2 Press the II PAUSE button to release the tape at the exact moment you want to start recording.

#### Note:

Do not leave the unit in pause mode for more than a few minutes. Instead, press the ■/▲ STOP/EJECT button to stop the tape.

# Synchronized recording with CD playback

You can make the CD player to start playback when the tape deck enters the recording mode.



1 Load a cassette.

Use only a type-I normal tape.

- 2 Load a CD.
- 3 Press the CD/RANDOM button to enter CD mode.
- 4 Specify a track or point on the disc to start recording.
  - To start recording from the desired track, select the track by pressing the I◄◄ or ►►I button in stop mode.
  - To start recording from the desired point on a disc, play the disc and pause at the desired point by pressing the ►/II button.

**5** Press the ● REC and **◄** PLAY buttons simultaneously.

Synchronized recording starts.

When the tape reaches the end first, the CD player continues playback.

When the CD player stops first, the tape continues running. In this case, press the  $\blacksquare/\triangle$  STOP/EJECT button to stop the tape.

# **Erasing**

When recording on a pre-recorded tape, the previous recording is erased and only the new recording is heard next time the tape is played back.

# To erase a tape without making a new recording

- 1 Press the (CD stop) button with no disc loaded in the unit.
- 2 Press the REC and ◀ PLAY buttons simultaneously.

#### **MAINTENANCE**

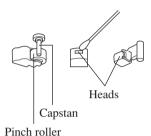
# Cleaning the heads, capstan and pinch roller

#### Cleaning is important!

When the tape is running, magnetic powder and dust naturally accumulate on the heads, capstan and pinch roller. When they become too dirty;

- · Sound quality deteriorates.
- The sound output level drops.
- The previous recording is not completely erased.
- Recording is not performed satisfactorily.

To avoid these, clean the heads, capstan and pinch roller every 10 hours of use.



# Open the cassette holder. Clean the heads, capstan and pinch roller.

For effective cleaning, use a cleaning kit available at an audio store.

After cleaning, make sure that the cleaning fluid has dried completely before loading a cassette.

#### Cautions:

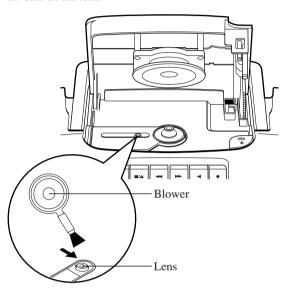
- Keep magnets and metallic objects away from the head. If the head becomes magnetized, noise will increase and the sound will deteriorate.
- Demagnetize the recording/playback head every 20 to 30 hours of use with a head demagnetizer available at an audio store. When demagnetizing the head, the ⊙/⊘ (on/off) button should be set to the off position. As the erasure head of the unit is of magnetic type, do not demagnetize it.
- Do not use anything other than alcohol for cleaning.
   Thinner and benzine will damage the rubber pinch roller.

# Cleaning the CD pickup lens

If the CD pickup lens is dirty, the sound may be degraded.

#### Open the disc door and clean the lens.

Use a blower (available at a camera store, etc.) to blow off dust on the lens.



## TROUBLESHOOTING

# What appears to be trouble is not always serious. Make sure first ...

- 1 Power cannot be turned on.
  - \* Is the power cord unplugged?
- 2 When the ■ PLAY button is pressed, tape does not move.
  - \* Is the **II** PAUSE button pressed?
- 3 Playback sound is at a very low level.
  - \* Are the batteries run down?
  - \* Is the head dirty?
- 4 The REC button does not function.
  - \* Have the safety tabs of the cassette been broken off?
  - \* Is a cassette loaded?
- 5 The disc is loaded but does not play.
  - \* Is the disc upside down?
  - \* Is the disc dirty?
  - \* Is the disc damaged or warped?
  - \* Is the lens dirty?
  - \* Is there lens condensation? If so, set the ⊙/Ò (on/ off) button to the on position and wait one or two hours before use.
- 6 No sound from the speakers.
  - \* Are headphones connected?

# 7 Since tape speed is irregular, wow and flutter occur.

- \* Is the pinch roller or capstan dirty?
- \* Are the batteries run down?
- 8 Radio reception is poor and there is much static.
  - \* Is the antenna properly adjusted?
- 9 Remote control is impossible.
  - \* Are the batteries in the remote control unit exhausted?
  - \* Is the remote sensor section exposed to bright light (direct sunlight, etc.)?

#### Note:

When the unit is moved from a cold place of around  $0^{\circ}$ C to a warm place, it may not operate normally, because moisture has formed inside the deck. Normal operation will be restored after waiting one or two hours.

## **SPECIFICATIONS**

## Compact disc player section

Type : Compact disc player

Signal detection

system : Non-contact optical pickup

(semiconductor laser)

Number of channels : 2 channels (stereo) Frequency response : 20 Hz to 20 000 Hz

Signal-to-noise ratio : 90 dB

Wow & flutter : Less than measurable limit

#### Radio section

Frequency range : FM 87.5 MHz to

108.0 MHz

AM 522 kHz to 1 710 kHz

Antennas : Telescopic antenna for FM

Ferrite core antenna for AM

## Tape deck section

Track system : 4-track 2-channel stereo

Motor : Electronic governor DC

motor for capstan

Heads : Hard permalloy head for

recording/playback, magnetic head for erasure

Frequency response : 80 Hz to 12 500 Hz Wow & flutter : 0.15% (WRMS)

Fast wind time : Approx. 120 sec.

(C-60 cassette)

#### General

Speakers :  $10 \text{ cm} \times 2$ ,

 $5 \text{ cm} \times 2$ ,  $2.7 \text{ cm} \times 2$ 

Power output : 5 W per channel, min. RMS,

driven into 3  $\Omega$  at 1 kHz, with no more than 10% total harmonic distortion (IEC

268-3)

Output terminals : PHONES  $\times$  1 (Output level: 0 mW to 30 mW/32  $\Omega$ .

Matching impedance: 16  $\Omega$  to

 $32 \Omega$ )

Power supply : AC 240 V  $\sim$ , 50 Hz

DC 12 V (R20P (SUM-1)/D (13F)-size batteries × 8)

Power consumption : 35 W (power-on mode)

2.6 W (standby mode)

Dimensions :  $520 \text{ (W) mm} \times 173 \text{ (H) mm}$ 

 $\times$  250 (D) mm

Mass : Approx. 4.5 kg (without

batteries)

Accessories provided : AC power  $cord \times 1$ 

Remote control unit × 1 Batteries for the remote control unit, R03 (UM4)/

 $AAA(24F) \times 2$ 

Design and specifications are subject to change without

notice.

