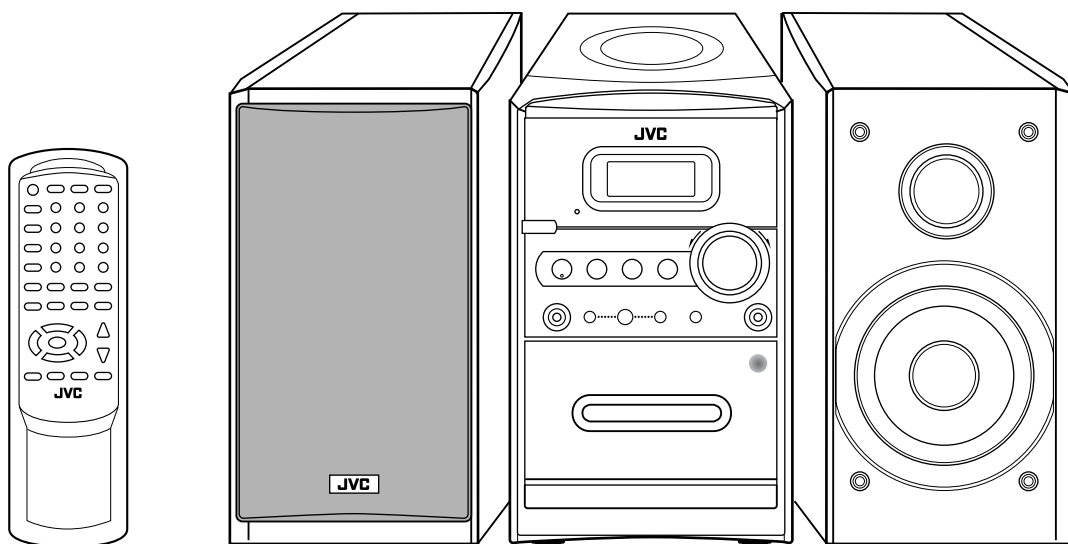# JVC

MICRO COMPONENT SYSTEM

UX-HB4 –Consists of CA-UXHB4 and SP-UXHB4
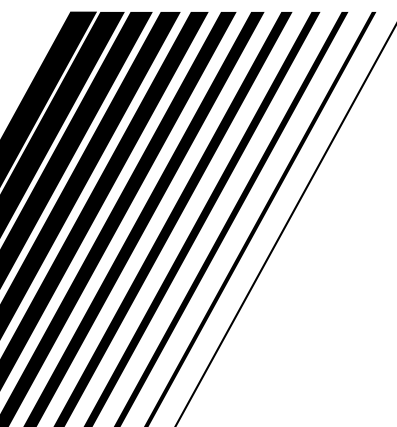
MP3 PLAYBACK

DAB Digital Audio Broadcasting

R·D·S

INSTRUCTIONS

Warnings, Cautions and Others

IMPORTANT for the U.K.

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not supplied fitted with a mains plug then follow the instructions given below:

IMPORTANT:

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:

Blue :   Neutral
Brown :   Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT—CONSULT A COMPETENT ELECTRICIAN.

CAUTION—⏻/❙ (STANDBY/ON) button!

Disconnect the mains plug to shut the power off completely (all lamps and indications go off). The ⏻/❙ (STANDBY/ON) button in any position does not disconnect the mains line.
- When the unit is on standby, the STANDBY lamp lights red.
- When the unit is turned on, the STANDBY lamp goes off.

The power can be remote controlled.

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

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

CAUTION -	INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
VORSICHT !	UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL. GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT DEM STRAHL AUSSETZEN!
VARNING -	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD STRÅLEN ÄR FARLIG.
ADVARSEL -	USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

CAUTION: Proper Ventilation

To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:
1 Front:
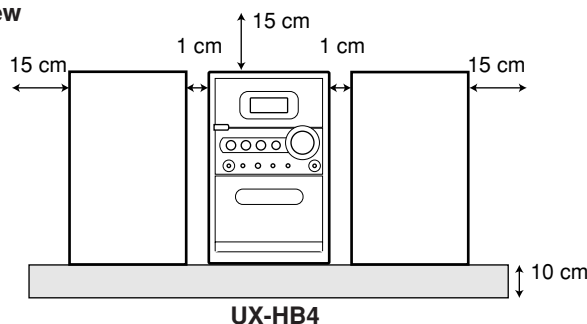   No obstructions and open spacing.
2 Sides/ Top/ Back:
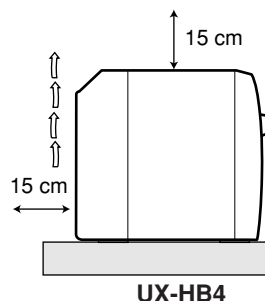   No obstructions should be placed in the areas shown by the dimensions below.
3 Bottom:
      Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.

Front view

15 cm   1 cm   ↑15 cm   1 cm   15 cm

10 cm

UX-HB4

Side view

15 cm

15 cm

UX-HB4

SAFETY INSTRUCTIONS
"SOME DOS AND DON'TS ON THE SAFE USE OF EQUIPMENT"

This equipment has been designed and manufactured to meet international safety standards, but like any electrical equipment, care must be taken if you are to obtain the best results and safety is to be assured.

✩✩

Do read the operating instructions before you attempt to use the equipment.

Do ensure that all electrical connections (including the mains plug, extension leads and interconnections between pieces of equipment) are properly made and in accordance with the manufacturer's instructions. Switch off and withdraw the mains plug when making or changing connections.

Do consult your dealer if you are ever in doubt about the installation, operation or safety of your equipment.

Do be careful with glass panels or doors on equipment.

✩✩

DON'T continue to operate the equipment if you are in any doubt about it working normally, or if it is damaged in any way —switch off, withdraw the mains plug and consult your dealer.

DON'T remove any fixed cover as this may expose dangerous voltages.

DON'T leave equipment switched on when it is unattended unless it is specifically stated that it is designed for unattended operation or has a standby mode.
Switch off using the switch on the equipment and make sure that your family know how to do this.

Special arrangements may need to be made for infirm or handicapped people.

DON'T use equipment such as personal stereos or radios so that you are distracted from the requirements of traffic safety. It is illegal to watch television whilst driving.

DON'T listen to headphones at high volume as such use can permanently damage your hearing.

DON'T obstruct the ventilation of the equipment, for example with curtains or soft furnishings.

Overheating will cause damage and shorten the life of the equipment.

DON'T use makeshift stands and NEVER fix legs with wood screws—to ensure complete safety always fit the manufacturer's approved stand or legs with the fixings provided according to the instructions.

DON'T allow electrical equipment to be exposed to rain or moisture.

ABOVE ALL

— NEVER let anyone, especially children, push anything into holes, slots or any other opening in the case—this could result in a fatal electrical shock.

— NEVER guess or take chances with electrical equipment of any kind—it is better to be safe than sorry!

Introduction

We would like to thank you for purchasing one of our JVC products. Before operating this unit, read this manual carefully and thoroughly to obtain the best possible performance from your unit, and retain this manual for future reference.

About This Manual

This manual is organized as follows:

- **This manual mainly explains operations using the buttons on the remote control.**
  You can use the buttons both on the remote control and on the unit for the same operations if they have the same or similar names (or marks), unless mentioned otherwise.
- Basic and common information that is the same for many functions is grouped in one place, and is not repeated for each procedure. For instance, we do not repeat the information about turning on/off the unit, setting the volume, changing the sound effects, and others, which are explained in the section "Common Operations" on pages 9 to 11.
- The following symbols are used in this manual:

 Gives you warning and caution to prevent damage or risk of fire/electric shock. In addition, we put information here about conditions which will prevent getting the best possible performance from the unit.

 Gives you information and hints you need to know.

Precautions

Installation

- Install in a place which is level, dry and neither too hot nor too cold—between 5°C and 35°C.
- Install the unit in a location with adequate ventilation to prevent internal heat buildup.
- Leave sufficient distance between the unit and the TV.
- Keep the speakers away from the TV to avoid interference with TV.

 DO NOT install the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or vibration.

Power sources

- When unplugging the unit from the wall outlet, always pull on the plug, not the AC power cord.

 DO NOT handle the AC power cord with wet hands.

Moisture condensation

Moisture may condense on the lenses inside the unit in the following cases:
- After starting to heat the room.
- In a damp room.
- If the unit is brought directly from a cold to a warm place. Should this occur, the unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, then plug it in again.

Others

- Should any metallic object or liquid fall into the unit, unplug the AC power cord and consult your dealer before operating any further.
- If you are not going to operate the unit for an extended period of time, unplug the AC power cord from the wall outlet.
- Rating label is placed on the exterior of the bottom.

 DO NOT disassemble the unit since there are no user serviceable parts inside.

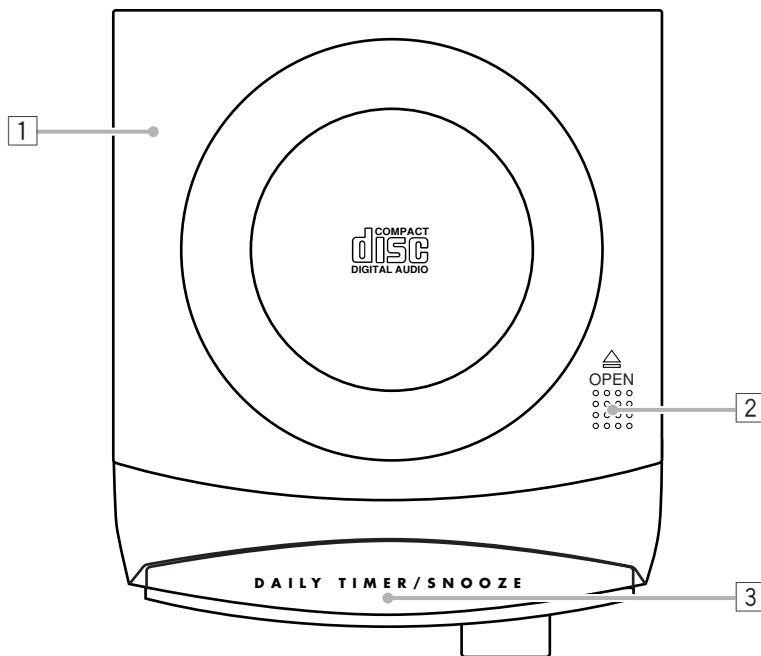If anything goes wrong, unplug the AC power cord and consult your dealer.

Contents

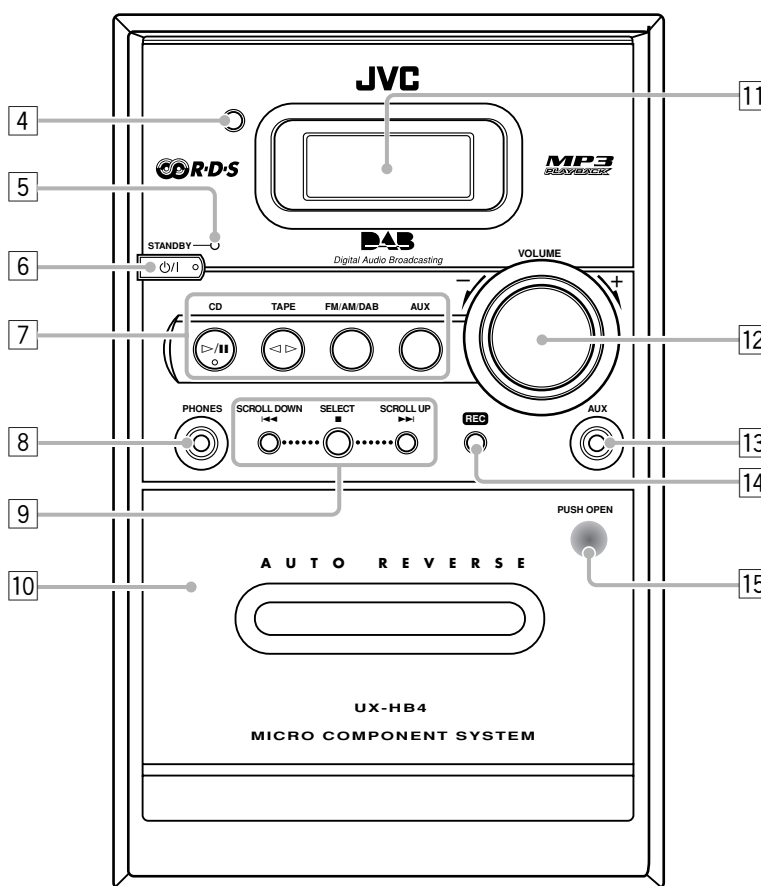# Location of the Buttons and Controls

Become familiar with the buttons and controls on your unit.

Main Unit

Top view

Front view

Display window
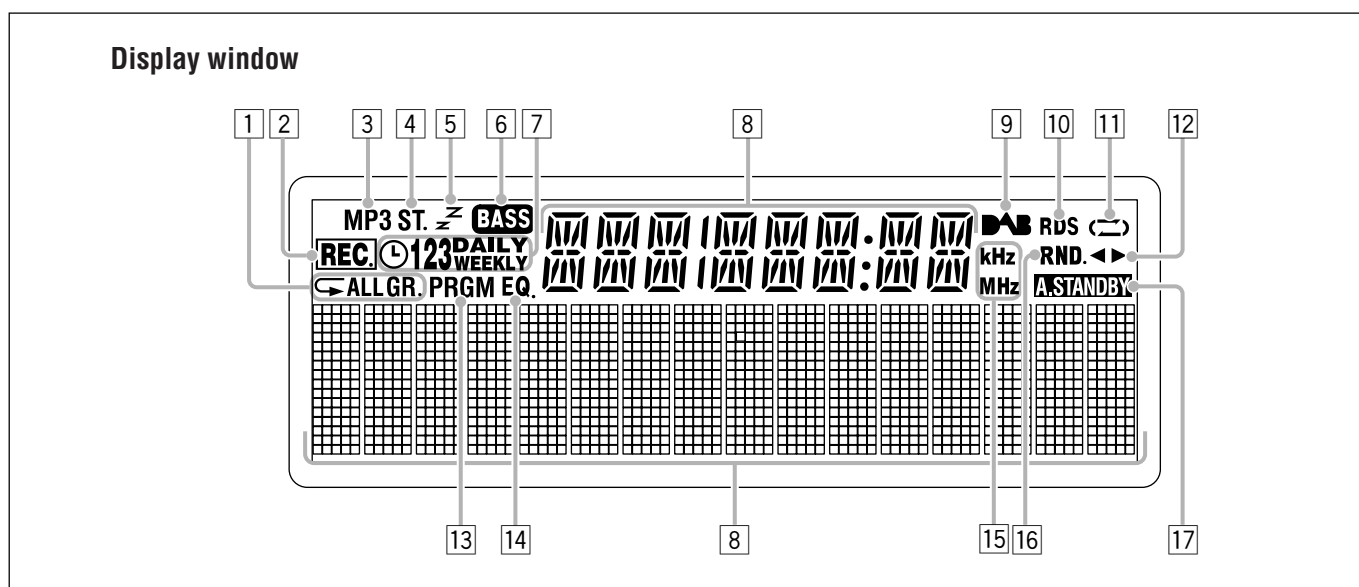
See pages in parentheses for details.

Main unit

1. Disc cover (12)
2. ⏏ OPEN (disc cover open) (12)
3. DAILY TIMER/SNOOZE button (28)
4. Remote sensor (5)
5. STANDBY lamp (10)
6. ⏻/❘ (STANDBY/ON) button (10)
7. Source buttons
   - CD ▷/❙❙, TAPE ◁▷, FM/AM/DAB, AUX
   Pressing one of these buttons also turns on the unit.
8. PHONES jack (10)
9. Multi control buttons
   - SCROLL DOWN ❙◀◀, SELECT ■, SCROLL UP ▶▶❙
10. Cassette holder (16, 25, 26)
11. Display window
12. VOLUME + / – control (10)
13. AUX jack (8, 24)
14. REC button (25, 26)
15. PUSH OPEN (16, 25)

Display window

1. Repeat indicators
   - ↪, ALL, GR. (group)
2. REC indicators
   - **REC.** (recording), **REC.** (recording timer)
3. MP3 indicator
4. ST. (stereo) indicator
5. ⭤ (sleep timer) indicator
6. BASS indicator
7. Timer indicators
   - 🕐, 1, 2, 3, DAILY, WEEKLY
8. Main display
9. DAB indicator
10. RDS indicator
11. (⇆) (reverse mode) indicator
12. ◀ ▶ (tape direction) indicator
13. PRGM (program) indicator
14. EQ. (equalizer) indicator
15. Frequency indicators
   - kHz, MHz
16. RND. (random) indicator
17. A.STANDBY indicator

Remote Control

See pages in parentheses for details.
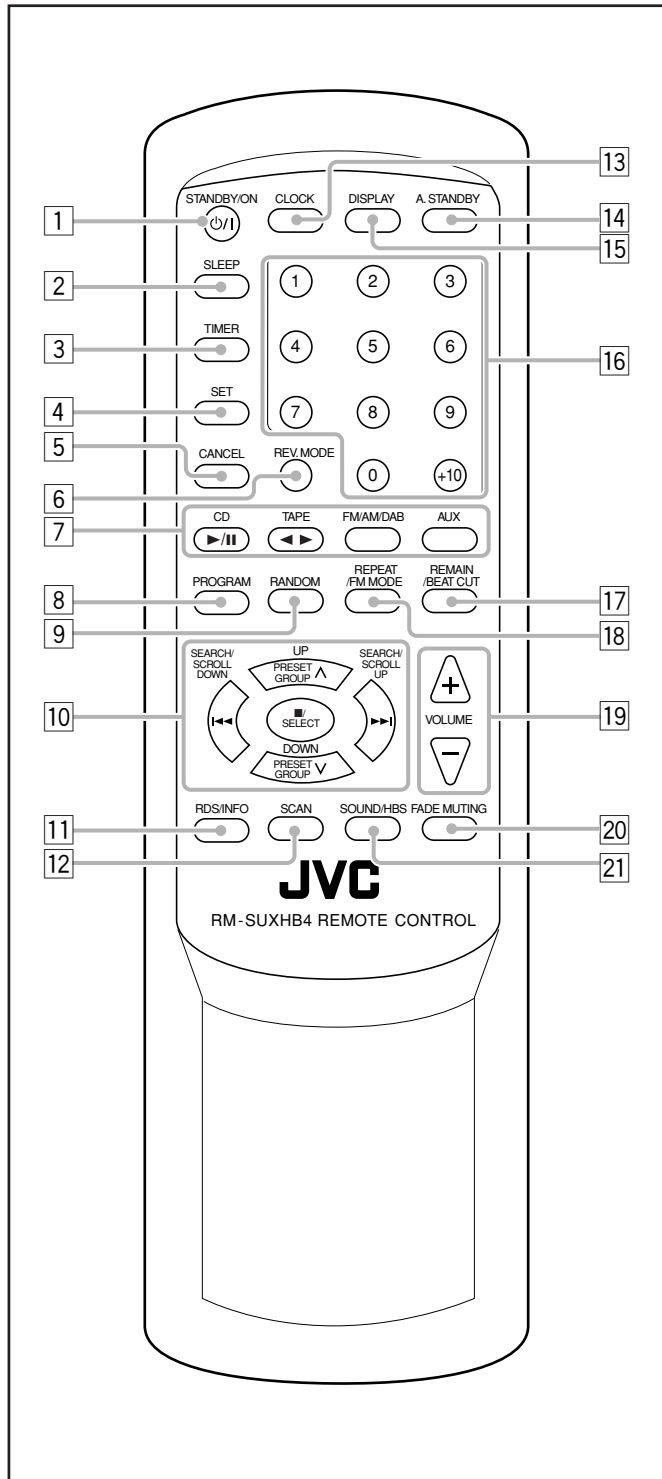
1 STANDBY/ON ⏻/| button (10, 28)
2 SLEEP button (29)
3 TIMER button (27)
4 SET button (9, 27, 28)
5 CANCEL button (27, 28)
6 REV. (reverse) MODE button (16, 25, 26)
7 Source buttons
  • CD ►/**II**, TAPE ◄ ►, FM/AM/DAB, AUX
  Pressing one of these buttons also turns on the unit.
8 PROGRAM button (14, 18, 21)
9 RANDOM button (15)
10 Multi control buttons
  • UP/PRESET GROUP ∧, DOWN/PRESET GROUP ∨
  • SEARCH/SCROLL DOWN, SELECT, SEARCH/
    SCROLL UP
  • I◄◄, ■, ►►I
11 RDS/INFO button (17, 19, 20, 23)
12 SCAN button (20)
13 CLOCK button (9)
14 A. (auto) STANDBY button (10)
15 DISPLAY button (15, 20, 23)
16 Number buttons (13, 14)
17 • REMAIN button (15)
  • BEAT CUT button (26)
18 • REPEAT button (15)
  • FM MODE button (21)
19 VOLUME + / – buttons (10, 28)
20 FADE MUTING button (11)
21 SOUND/HBS button (11)
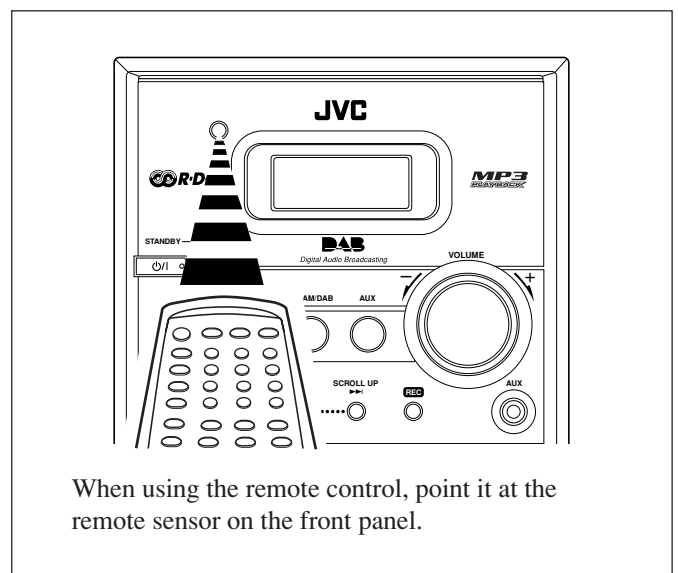
When using the remote control, point it at the remote sensor on the front panel.

Getting Started

Unpacking

After unpacking, check to be sure that you have all the following items.
The number in parentheses indicates the quantity of each piece supplied.
• DAB antenna (1)
• AM (MW) loop antenna (1)
• Remote control (1)
• Batteries (2)
• Antenna cover (1)

If any item is missing, consult your dealer immediately.

Connecting DAB Antenna

1

DAB anntenna (supplied)

Antenna cover (supplied)

2

1 Put the DAB antenna into the antenna cover until the DAB antenna fits in with the projection inside the antenna cover.

2 Connect the DAB antenna to the DAB ANT. terminal.

To adjust the DAB antenna

Fix the antenna to pin up the wire with plastic eyelets vertically.

Eyelets

notes
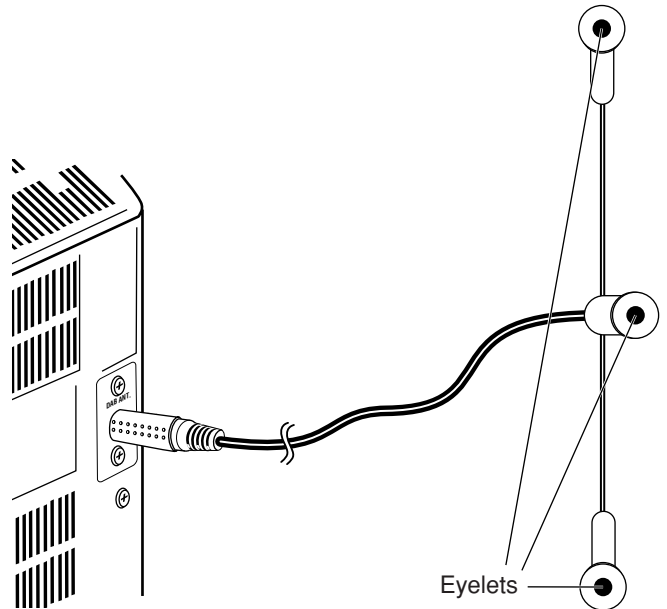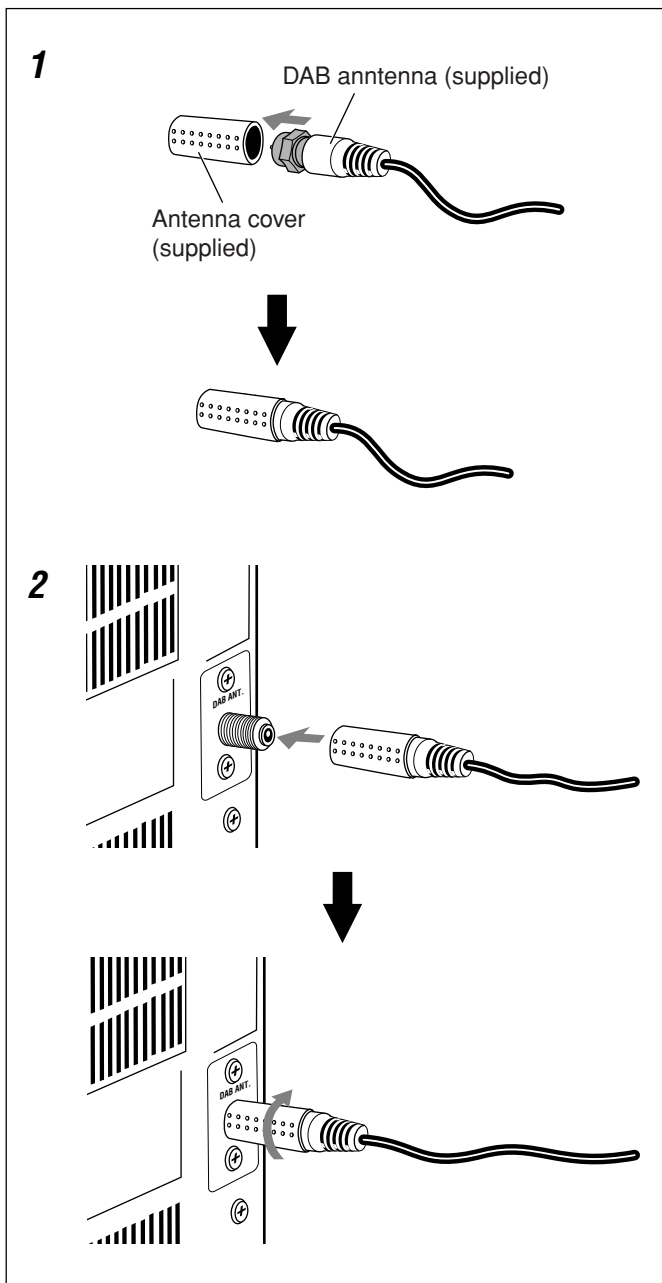
If reception is poor

It is recommended to use the external antenna instead of supplied antenna.

Do not connect the AC power cord until all other connections have been made.

Connecting AM (MW) and FM Antennas

Place the antenna away from the unit and adjust its position for the best reception.

1 AM (MW) loop antenna (supplied)

2 FM antenna
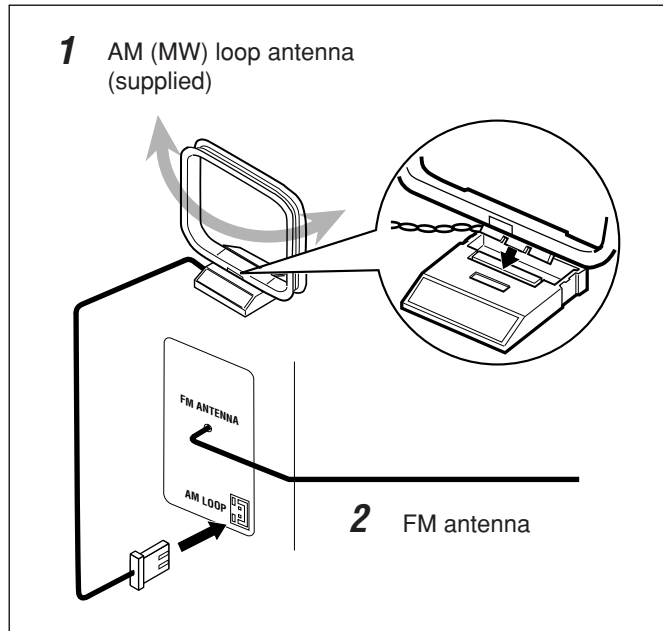
FM ANTENNA

AM LOOP

1 **Adjust the position for the FM antenna for the best reception.**

2 **Connect the supplied AM (MW) loop antenna to the AM LOOP terminal.**

notes

For better reception of both FM and AM (MW)
• Make sure the antenna conductors do not touch any other terminals or connecting cords.
• Keep the antennas away from metallic parts of the unit, connecting cords, and the AC power cord.

Connecting Speakers

You can connect the speakers using the speaker cords.

Red

Black

Red

Speaker cord

Black

Speaker cord

SPEAKERS IMPEDANCE 4 Ω ~ 16 Ω

L

R

Right speaker

Left speaker
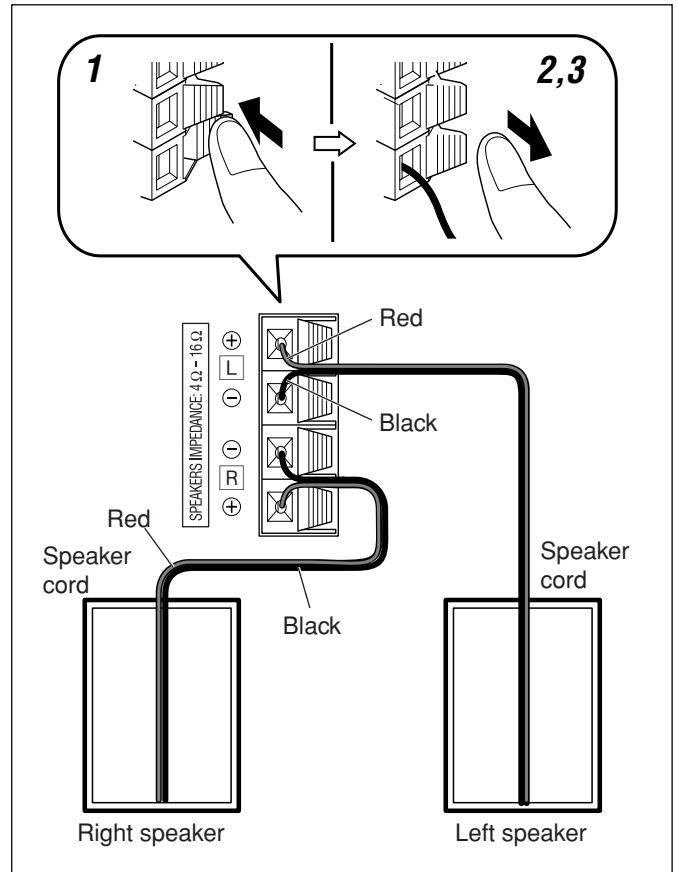
1 **Hold the clamp of the speaker terminal.**

2 **Insert the end of the speaker cord into the terminal.**
Match the polarity of the speaker terminals: red cord to ⊕ and black cord to ⊖.

3 **Release your finger from the clamp.**

IMPORTANT:
• Use only speakers with the same speaker impedance as indicated by the speaker terminals on the rear of the unit.
• DO NOT connect more than one speaker to one speaker terminal.

To remove the speaker grilles

The speaker grilles are removable as the illustration below.

Holes   Projections

Speaker grille

To remove the speaker grille, insert your fingers around the projection at the top of the speaker grille, then pull gently towards you while holding the side.
Do the same for the rest of projections one at a time.

To attach the speaker grille, put the projections of the speaker grille into the holes of the speaker.

Connecting Other Equipment

To connect an audio equipment

You can connect audio equipment—used only as a playback device.
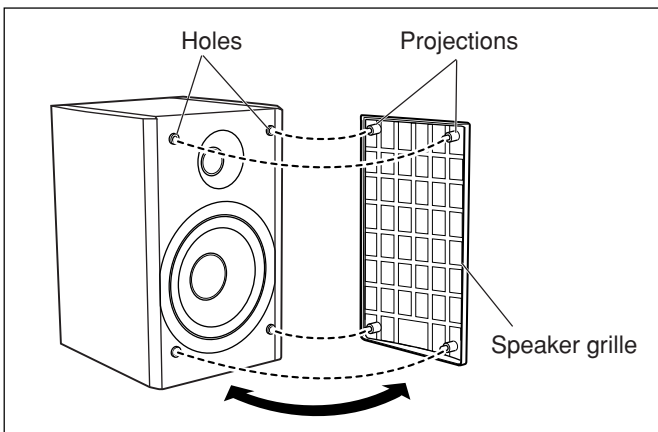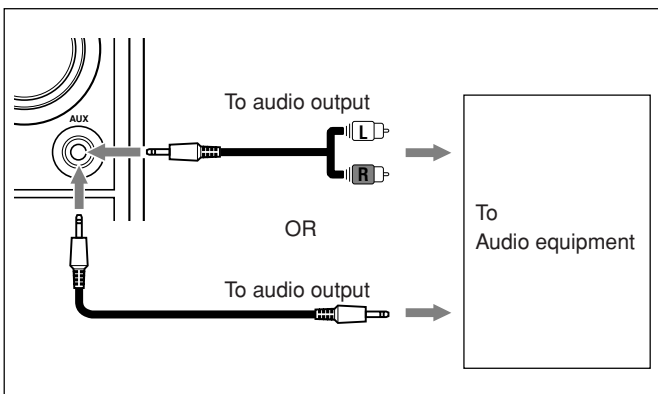
> **STOP!**
> • DO NOT connect any equipment while the power is on.
> • DO NOT plug in any equipment until all connections are complete.

For playing other equipment through this unit,
connect between the audio output jacks on the other equipment and AUX jack by using audio cords with mini plugs (not supplied).

AUX

To audio output

L

R

OR

To
Audio equipment

To audio output

When the audio equipment has pin jacks for audio output:
Be sure that the pin plugs of the audio cords are colored—white plugs and jacks are for left audio signals, and red ones for right audio signals.

Putting the Batteries into the Remote Control

Insert the batteries—AAA/UM-4/R03—into the remote control by matching the polarity (+ and –) on the batteries with the + and – marking on the battery compartment. When the remote control can no longer operate the unit, replace both batteries at the same time.

1

2

AAA/UM-4/R03

3
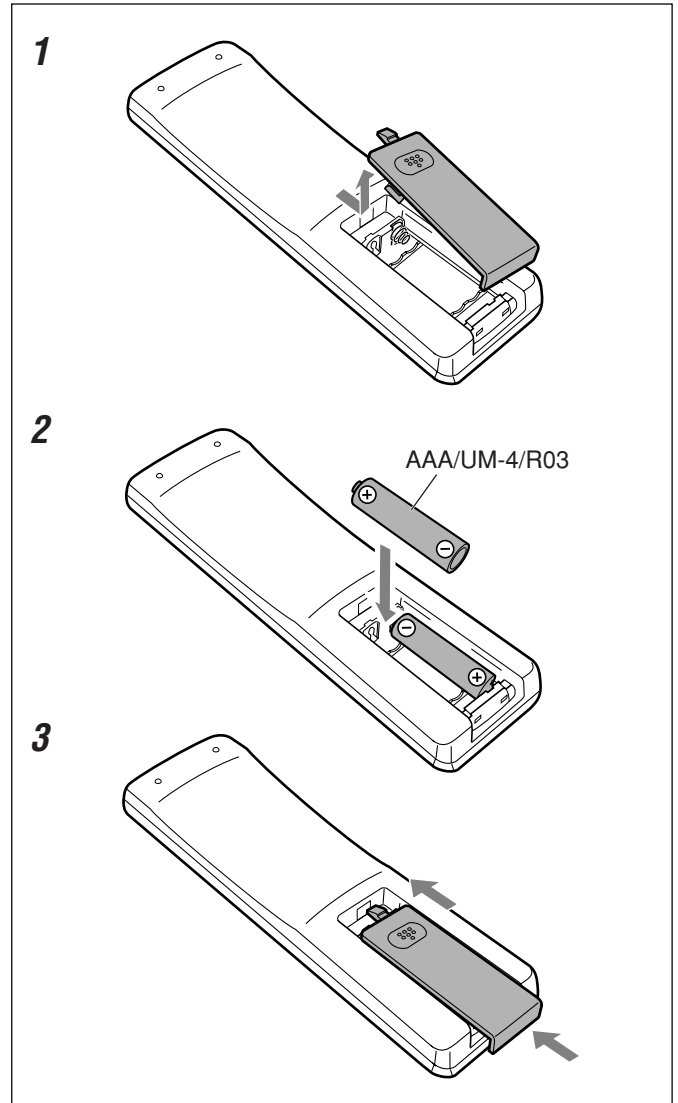
> **STOP!**
> • DO NOT use an old battery together with a new one.
> • DO NOT use different types of batteries together.
> • DO NOT expose batteries to heat or flame.
> • DO NOT leave the batteries in the battery compartment when you are not going to use the remote control for an extended period of time. Otherwise, the remote control will be damaged from battery leakage.

NOW you are ready to plug in the unit.

> **IMPORTANT:**
> Be sure to check that all connections have been made before plugging in the power cord.

8

Common Operations

Setting the Clock

Before operating the unit any further, first set the unit's clock.
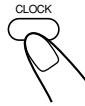When you plug in the power cord, "0:00" starts flashing on the display.
You can set the clock when the unit is in standby mode.

On the remote control ONLY:

**1 Press CLOCK for more than 2 seconds.**
Clock setting appears on the display.

```
Clock Setting
Sync By RDS On
```

2 Press UP or DOWN to select the clock synchronization setting, then press SET.

| On	The unit's clock is adjusted automatically with the FM RDS signal on next time you tune in to an FM station.
Off	The unit's clock is adjusted manually.

The time system indication starts flashing.
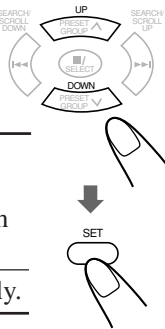
3 Press UP or DOWN to adjust the time system, then press SET.

```
Clock Setting
24H        0:00 Mon
```

| 12H	The hour indication is displayed with a 12-hour system (with "AM" or "PM").
24H	The hour indication is displayed with 24-hour system.

The hour indication starts flashing.
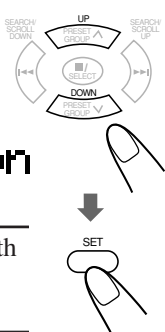
4 Press UP or DOWN to adjust the hour, then press SET.

```
Clock Setting
24H        0:00 Mon
```

• When you press and hold UP or DOWN, the hour indication changes continuously.
• The clock is working even while setting.
The minute indication starts flashing.
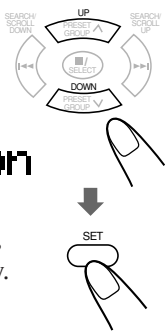
5 Press UP or DOWN to adjust the minute, then press SET.

```
Clock Setting
24H        7:00 Mon
```

• When you press and hold UP or DOWN, the minute indication changes continuously.
The day of the week indication starts flashing.
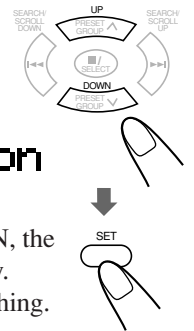
6 Press UP or DOWN to adjust the day of the week, then press SET.

```
Clock Setting
24H        7:25 Mon
```

Display brightness setting when the unit is in standby mode appears on the display.
• If you want to change the time setting, press CANCEL repeatedly to return step **2**.
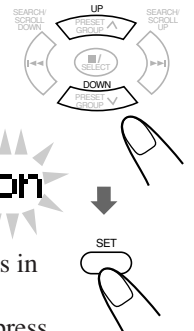
7 Press UP or DOWN to adjust the brightness, then press SET.
The brightness level can be adjusted between "0" (canceled) to "3" (most bright). The greater number you set, the brighter the display is.

```
Brightness At
Standby Mode:  0
```

The unit's clock starts working with the time you adjusted.

notes
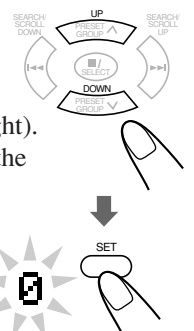
• **When you unplug the AC power cord or if a power failure occurs**
The clock is reset to "0:00." If this happens, set the clock again.
• **The clock may gain or lose 1 to 2 minutes per month (when the clock synchronization is turned off)**
If this happens, set the clock again.

To adjust the clock

On the remote control ONLY:

1 Press CLOCK for more than 2 seconds when the unit is in standby mode.
Clock setting appears on the display.
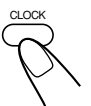
2 Repeat steps 2 to 7 of "Setting the Clock" procedure.

Turning On the Power

To turn on the unit, press STANDBY/ON ⏻/Ⅰ.
The STANDBY lamp on the unit goes off.

STANDBY/ON
⏻/Ⅰ

• When you press the source button—CD ►/ⅠⅠ,
TAPE ◄ ►, FM/AM/DAB, and AUX, the unit
automatically turns on.

To turn off the unit (on standby), press STANDBY/ON ⏻/Ⅰ
again.
The STANDBY lamp on the unit lights red.

• The clock flashes on the display until you set the built-in
clock. After setting the clock, the clock time will appear on
the display while the unit is in standby mode.
• A little power is always consumed even while the unit is in
standby mode.

To switch off the power supply completely, unplug the AC
power cord from the AC outlet.

Turning Off the Unit Automatically (Auto Standby)

Using Auto Standby, the unit automatically turns itself off (on
standby) about 3 minutes after playing back a disc or a tape.

• You can also turn off the unit automatically by using the
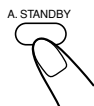Sleep Timer. (See page 29.)

On the remote control ONLY:

To activate Auto Standby, press A.STANDBY.
The A.STANDBY indicator appears on the display.

A. STANDBY

• When the playback is stopped, the A.STANDBY
indicator starts flashing on the display.

To deactivate Auto Standby, press A.STANDBY again.
The A.STANDBY indicator goes off.

Selecting the Source

To select the source, press CD ►/ⅠⅠ, TAPE ◄ ►, FM/AM/
DAB, or AUX.

• When you select CD or TAPE as the source, playback starts
automatically.

To operate the CD player, see pages 12 to 15.
To operate the tape deck, see page 16.
To operate the tuner (FM, AM (MW) or DAB), see pages 17
to 24.
To record on a tape, see pages 25 and 26.
To use an external equipment, see page 24.

Adjusting the Volume

You can adjust the volume level only while the unit is turned
on. The volume level can be adjusted between "Volume
MIN," "Volume 1" – "Volume 31," and "Volume MAX."

• The volume level has no effect on recording.

To increase the volume, press VOLUME + (or
turn VOLUME control clockwise on the unit).
To decrease the volume, press VOLUME – (or
turn VOLUME control counterclockwise on the
unit).
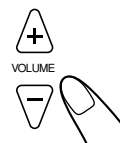
+
VOLUME
–

• When you press and hold either button, you can change the
volume level continuously.

Volume   10
▷▷▷▷▷

notes **For private listening**
Connect a pair of headphones to the PHONES jack. No sound
comes out of the speakers. Be sure to turn down the volume before
connecting or putting on the headphones.

notes **When you turn off the unit with the volume level is
over "Volume 20."**
The volume level is automatically set to "Volume 20" next time you
turn on the unit.

STOP! DO NOT turn off (on standby) the unit with the
volume set to an extremely high level; Otherwise,
the sudden blast of sound can damage your
hearing, speakers and/or headphones when you
turn on the unit or start playing any source.
REMEMBER you cannot adjust the volume level
while the unit is in standby mode.

10

Fade-Out Muting (FADE MUTING)

On the remote control ONLY:

Press FADE MUTING.
The volume level decreases to the minimum level, and "Muting" flashes on the display.

To release muting, press FADE MUTING again. The volume level resumes to the previous level.

Selecting the Sound Modes

You can select one of the 4 sound modes.
• This function also affects the sound from headphones.
• This function only affects the playback sound, and does not affect your recording.

On the remote control ONLY:

To select the sound modes, press SOUND/HBS repeatedly.
• Each time you press the button, the sound mode changes as follows:

```
   ┌─► ROCK ──► POP ──► CLASSIC ─┐
   └─ FLAT ◄──── JAZZ ◄──┘
     (Canceled)
```

ROCK: Powerful sound emphasizing treble and bass.
POP: More presence in the vocals and midrange.
CLASSIC: Enriched sound with fine treble and ample bass.
JAZZ: Accented lower frequencies for jazz-type music.
FLAT: Equalizer effect is canceled.

EQ. ROCK

When the sound mode is activated, the **EQ.** indicator lights up on the display.

Reinforcing the Bass Sound

You can boost the bass sound.
• This function only affects the playback sound, and does not affect your recording.

On the remote control ONLY:

Press and hold SOUND/HBS.
• Each time you press and hold the button, HBS turns on and off.

BASS

HBS ON

When the HBS is activated, the **BASS** indicator lights up on the display.

Checking the Clock Time During Play

On the remote control ONLY:

Press CLOCK.
• Each time you press the button, the display changes the clock indication and the normal indication alternately. After changing the display to the clock indication, operating any button or control also changes the display to the normal indication.

Playing Back Discs
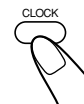
This unit has been designed to play back the following discs—CD, CD-R, and CD-RW.

You can play back the discs containing the tracks in music CD format or MP3 files in ISO 9660 format.

• In this instruction, we call a disc recorded MP3 files "MP3 disc," a folder contains MP3 files "group," and an MP3 file "track."

When playing CD-Rs or CD-RWs

• Before playing CD-Rs or CD-RWs, read their instructions or cautions carefully.
• User-edited CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) can be played only if they are already "**finalized**."
• This unit does not support "multi-session" discs.
• This unit cannot play "packet write" discs.
• Some CD-Rs or CD-RWs may not be played back on this 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 because the reflectance of CD-RWs is lower than for regular discs.

Notes for MP3 files

• The player can only recognize files with ".MP3" or ".mp3" as the extensions, which can be in any combination of upper and lower case. The file name needs to be up to 32 characters.
• This unit recognizes files and folders on a disc in the following conditions:
  – up to 640 MP3 files.
  – up to 99 folders (including the root folder).
  – up to 8th layers (including the root folder).
• It is recommended that you record your material at a 44.1 kHz sampling rate, using the 128 kbps data transfer rate.
• Some MP3 files or discs may not be played back because of their characteristics or recording conditions.
• MP3 discs requires a longer readout time than normal discs because of the complexity of the folder/file configuration.
• MP3i and MP3 Pro are not available.

General notes

In general, you will have the best performance by keeping your discs and the mechanism clean.
• Store discs in their cases, and keep them in cabinets or on shelves.
• Keep the unit's disc cover closed when not in use.
• Continued use of irregular shape discs (heart-shape, octagonal, etc.) can damage the unit.
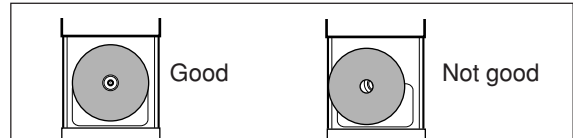
Playing Back the Entire Disc—Normal Play

1 Press ⏏ OPEN on top of the unit.
The disc cover opens.
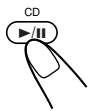• You can insert a disc while listening to another source.

2 Place a disc correctly with its label side up.

Good   Not good

3 Close the disc cover gently.

4 Press CD ▶/❚❚.
The unit automatically turns on and the source changes to the CD player.

When playing audio CD:
After loading the disc, the first track of the disc starts playing.

Current track number   Elapsed playing time

```
1  00:36
CD Audio
Play
```

When playing MP3 disc:
After loading the disc, total number of group and track on the disc appear for a few seconds.

MP3 indicator   Current track number in the selected group   Elapsed playing time

```
MP3
       1  00:36
[1]
COME TOGETHER
```

Current group name   Current track name
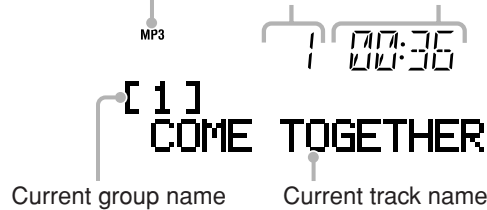
• The disc automatically stops when the last track has finished playing.

notes **While "Reading Disc Please Wait..." appears on the display**
You cannot make any operation until the unit finishes reading the disc.
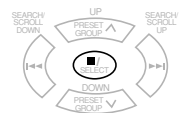
notes **While playing back an MP3 disc**
• ID3 Tag information (the name of the title, artist, and album up to 30 characters) will be shown on the display. When the name is too long to be displayed at once, it is scrolled.
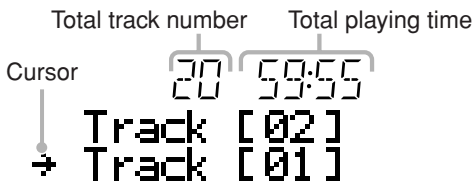• When a file does not belong in any folder, "ROOT" appears.

To stop playing, press ■.
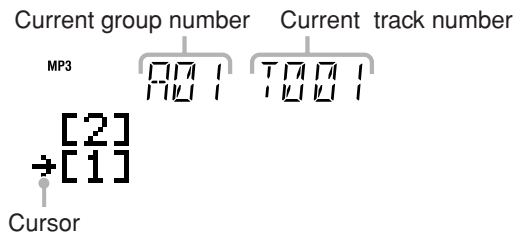"CD Stop" appears on the display.
The total track (or group) number and total playing time appear on the display.

When stop playing audio CD:

Total track number   Total playing time

Cursor

```
   20  59:55
  Track [02]
→ Track [01]
```

When stop playing MP3 disc:

Current group number   Current track number

```
MP3  A01  T001
     [2]
  →  [1]
```

Cursor

- Total playing time does not appear when MP3 disc is loaded.

To remove the disc, press ⏏ OPEN on the unit, then take out the disc by holding it at the edges while pressing the unit's pivot lightly.

- **If the disc cannot be read correctly (because it is scratched, for example) or an unreadable CD-R or CD-RW is inserted**
  Playback will not start.
- **If no disc is inserted**
  "No Disc" appears on the display.

STOP! DO NOT open the disc cover by hand as it will be damaged.

Basic Disc Operations

While playing a disc, you can do the following operations.

To stop playing for a moment

During playback, press CD ►/Ⅱ.
While pausing, "Pause" appears and elapsed playing time flashes on the display.

To resume playing, press CD ►/Ⅱ again.
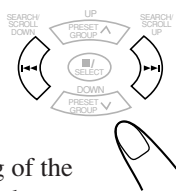
For Audio CD:

To go to another track

During playback, press ►►| or |◄◄ (or SCROLL UP ►►| or SCROLL DOWN |◄◄ on the unit) repeatedly.

- ►►| (SCROLL UP ►►|):
  Skips to the beginning of the next or succeeding tracks.
- |◄◄ (SCROLL DOWN |◄◄):
  Goes back to the beginning of the current or previous tracks.

Before or after playback, press CD ►/Ⅱ to start playback after selecting the track to play back by pressing ►►| or |◄◄.

To go to another track directly using the number buttons

<u>On the remote control ONLY:</u>

Pressing the number button(s) before or during play allows you to start playing the track number you want.

Ex.: For track number 5, press 5.
For track number 15, press +10, then press 5.
For track number 20, press +10 twice, then press 0.
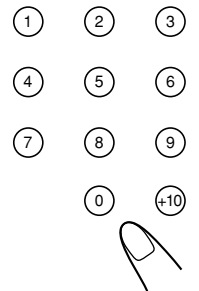
To locate a particular point in a track

During play, press and hold ►►| or |◄◄
(or SCROLL UP ►►| or SCROLL DOWN |◄◄ on the unit).

- ►►| (SCROLL UP ►►|):
  Fast-forwards the tracks.
- |◄◄ (SCROLL DOWN |◄◄):
  Fast-reverses the tracks.
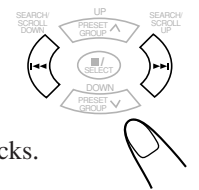
For MP3 disc:

To go to another track

To select a track within a same group, press ►►| or |◄◄ (or SCROLL UP ►►| or SCROLL DOWN |◄◄ on the unit) repeatedly, then press CD ►/Ⅱ.
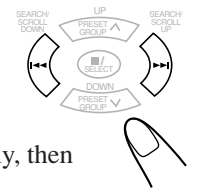
To select a track from a different group

1 **Press PRESET GROUP ∧ or PRESET GROUP ∨ to select a group number.**
As you press the button, group number changes.

Selected group number

```
MP3  A01  T001
     [2]
  →  [1]
```
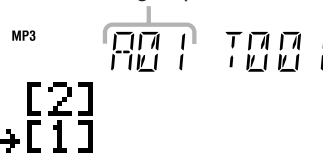
2 **Press ►►| or |◄◄ (or SCROLL UP ►►| or SCROLL DOWN |◄◄ on the unit) to select a track number.**
As you press the button, track number changes.
- The track names also appear.

Selected track number

```
MP3  A01  T001
   ANIMAL CRACKER
 → COME TOGETHER
```

3 **Press CD ►/Ⅱ.**

13
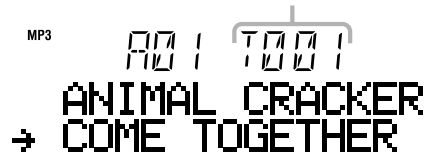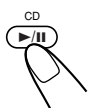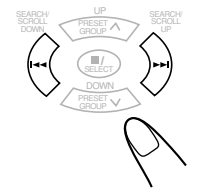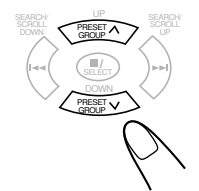
To go to another track directly using the number buttons

You can select a track only within a same group.

On the remote control ONLY:

Pressing the number button(s) before or during play allows you to start playing the track number you want.

Ex.: For track number 5, press 5.
For track number 15, press +10, then press 5.
For track number 20, press +10 twice, then press 0.

notes **If you select a track number does not exist in a group**
The display for selecting a group number appears. In this case, perform the same procedure to select a track as it is described on page 13.

Programming the Track Playing Order —Program Play

You can arrange the order in which tracks to play before you start playing. You can program up to 99 tracks.

On the remote control ONLY:

1 Place a disc.
• If the current source is not the CD player, press CD ►/ǁ, then ■ before going to the next step.

2 Press PROGRAM.
The PRGM (program) indicator and the program step number appear and flash on the display.

```
      PROG 01
PRGM
Track [02]
→ Track [01]
```

3 Press ►►ǀ or ǀ◄◄ to select the track number, then press PROGRAM.
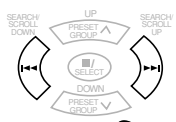
```
PRGM
Program 01:
[Track 01]Stored
```

You can also use the number button(s) to select a track number.
• For the operation of the number buttons, see "To go to another track directly using the number buttons" on page 13.
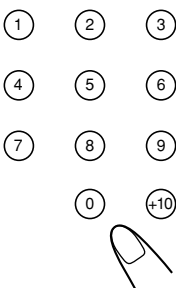
When you are programming from MP3 disc
Pressing PRESET GROUP ∧ or PRESET GROUP ∨ selects the first track of each group.
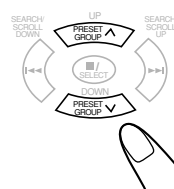
4 Repeat step 3 to program other tracks you want.

5 Press ■.
"Program Finish" appears and the PRGM indicator remains lit on the display. The program is stored in the memory.
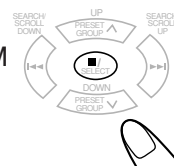
6 Press CD ►/ǁ.
The tracks are played in the order you have programed.

notes **If you try to program a 100th track**
"Program Full" will appear on the display.

To stop playing, press ■.
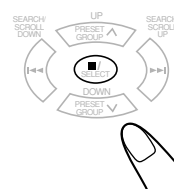
To check the program contents
While the PRGM indicator is lit on the display, you can check the program contents by pressing ►►ǀ or ǀ◄◄ repeatedly before or after playback.
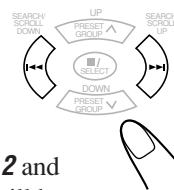
To add tracks in the program, repeat steps **2** and **3** of the programming procedure. The track will be added on the last step.

To clear the program
Press ■ before or after playback when the PRGM indicator is lit on the display.
"Clear Program" appears and the PRGM indicator disappears from the display. All the memory contents will be erased (resumes to Normal Play).
• The programmed tracks are also erased in the following cases:
  – Pressing ⏏ OPEN to open the disc cover
  – Turning off the unit
  – Changing the source
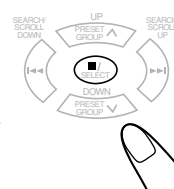
notes **During Program Play**
Auto Standby function does not take effect.

14

Repeating Tracks—Repeat Play

You can have all the tracks, the program or individual track currently playing, repeat as many times as you like.

On the remote control ONLY:

Press REPEAT.

REPEAT
/FM MODE

- Each time you press the button, Repeat Play changes as follows, and the following repeat indicators light up on the display:

Repeat indicators

⟲ALL

I 00:36
CD Audio
Play

When playing back audio CD:

⟲ → ⟲ALL → Canceled (loop)

⟲ : Repeats one track.
⟲ALL: Repeats all the tracks.
In Program Play, repeats all the tracks in the program.

When playing back MP3 disc:

⟲ → ⟲GR. → ⟲ALL → Canceled (loop)

⟲ : Repeats one track.
In Random Play, this function is not available.
⟲GR.: Repeats all the tracks in a group.
In Program Play and Random Play, this function is not available.
⟲ALL: Repeats all the tracks.
In Program Play, repeats all the tracks in the program.
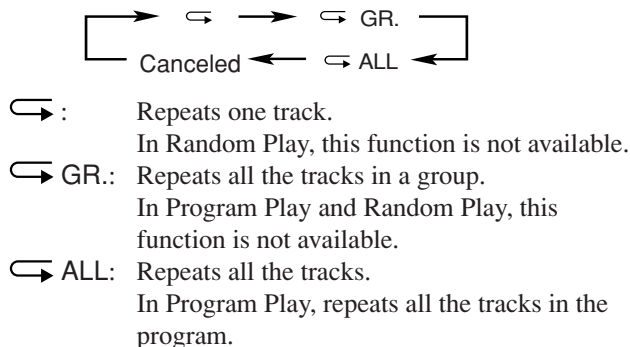
To cancel Repeat Play, press REPEAT repeatedly until the repeat indicator goes off.

REPEAT
/FM MODE

Playing at Random—Random Play

You can play the tracks at random.

On the remote control ONLY:

Press RANDOM.

RANDOM

The RND. indicator lights up on the display.

RND. indicator

7 00:26 RND.
CD Audio
Play

To exit from Random Play, press ■ or RANDOM.
The RND. indicator goes off.
- You cannot activate the Random Play function during Program Play.
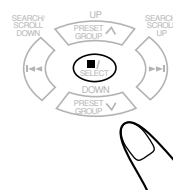
Displaying the Remaining Time during Playback (for Audio CD)

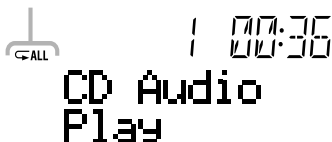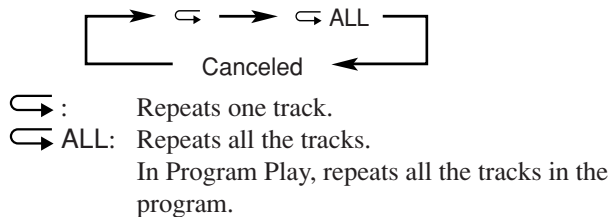When playing back audio CD, you can display the remaining time of the current track/disc and the elapsed time of the current track/disc during playing.

On the remote control ONLY:

Press REMAIN repeatedly.

REMAIN
/BEAT CUT

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

Track Rem. Play → Disc Time Play → Disc Rem. Play → Normal indication (loop)
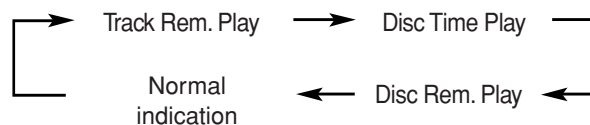
Track Rem. Play: Shows the remaining time of the current track.
Disc Time Play: Shows the remaining time of the disc.
Disc Rem. Play: Shows the elapsed time of the disc.
Normal indication: Shows the elapsed time of the current track.

Displaying the Tag Information (for MP3 disc)

You can display the ID3 Tag information of the MP3 disc.

On the remote control ONLY:

Press Display during MP3 playback.

DISPLAY

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

Title → Artist → Album → Normal indication (loop)
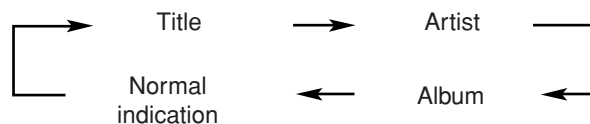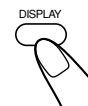
Title: Shows name of the track.
Artist: Shows name of the artist.
Album: Shows name of the album.
Normal indication: Shows the group name and track name currently played back.
- If the file does not have any information, the second line will be displayed in blank.

15

Playing Back Tapes

Playing Back a Tape

You can play back type I tapes only.

1 Press PUSH OPEN.

The cassette holder opens.
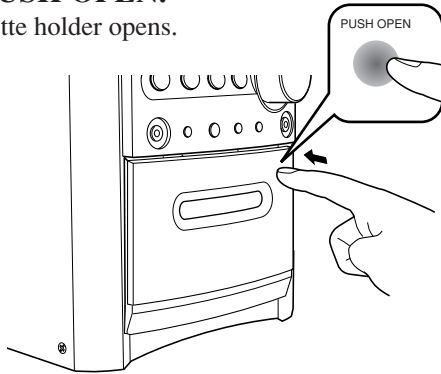
2 Put a cassette in with the exposed part of the tape down.
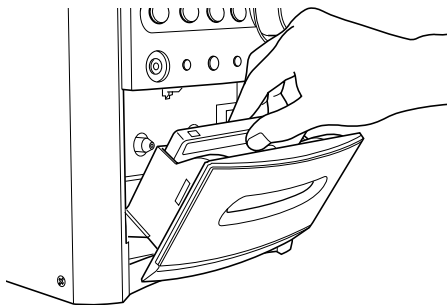
3 Close the cassette holder gently.
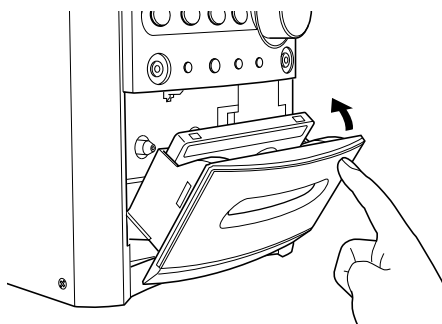
- When a tape is inside of the cassette holder, the tape direction indicator (►) lights up on the display.

4 Press TAPE ◁ ▷.

Playback starts (if the unit has been on standby, the unit automatically turns on).
"TAPE Play" appears and the tape direction indicator (► or ◄) starts flashing slowly on the display.
- Each time you press the button, the tape direction changes:
  ►: plays the front side.
  ◄: plays the reverse side.
When the tape plays to the end, the deck automatically stops if the Reverse Mode is set to ⊐) or ⊐ . (See "To play both sides—Reverse Mode.")

---

notes **If no cassette is inserted when you press TAPE ◁ ▷** "No TAPE" appears on the display.

To stop playing, press ■.

To fast-wind to the left or to the right, press ►►| or |◄◄ (or ►►| or |◄◄ on the unit).
"Fast Wind" appears and the tape direction indicator (►► or ◄◄) scrolls on the display.

To remove the cassette, press PUSH OPEN on the unit while playback is stopped.

To play both sides—Reverse Mode

You can set the deck to play just one side of a tape, both sides once, or both sides continuously.

On the remote control ONLY:

Press REV. MODE (Reverse Mode).

- Each time you press the button, the Reverse Mode changes as follows:

$$\rightarrow \text{⊐)} \rightarrow \text{(⊐)} \rightarrow \text{⊐} \rightarrow$$
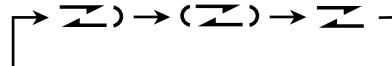
⊐): The deck automatically stops after playing both sides of the tape.
(⊐): The deck continues to play both sides of the tape 10 times, then stops playback automatically.
⊐: The deck automatically stops after playing one side of the tape.

STOP!
- DO NOT turn off the unit while playing back or recording a tape. The cassette deck or tapes may be damaged.
- The use of C-120 or longer tape is not recommended, since characteristic deterioration may occur and this tape easily jams in the pinch rollers and the capstans.
- This unit is not compatible with type II and type IV tapes.

16
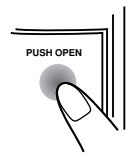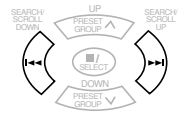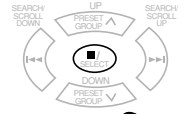
Listening to DAB Broadcast

What is DAB?

Digital Audio Broadcasting (DAB) is a radio which carries information in digital format enabling near CD-quality audio sound. Also DAB enables broadcasters to transmit additional data along with the audio.

DAB structure
DAB is broadcast as groups of data called "ensembles." Each ensembles can contain a number of stations (services) and each station contains services.

Ensembles

(Primary) service

Secondary service
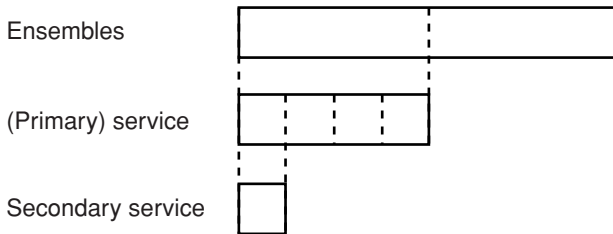
The unit can receive ensembles in frequency band III (174.928 – 239.200 MHz) and store their services in each ensemble. The number of ensemble you receive varies depending on your location. Band III is divided into 41 channels identified as 5A to 13F. Each channel can contain one ensemble. Channels allocated to the United Kingdom are in the range 11B to 12D.

Ensembles and stations have labels (names) which are used to identify them. Instead of memorizing a particular frequency to listen to a program you like, you can simply select a program by the station name.

About the display symbol
While tuning in to a station, the following symbols may appear by the side of the station names:

♥	The tuned station is sorted as one of your ten favorite stations. (See page 19 for details.)
?	The tuned station is not available or not active.
>>	The tuned station is a primary station with secondary services.
<<	The tuned station is a secondary station.

Initial Scanning

When you change the source to DAB for the first time, the unit performs the initial scanning to search for the available stations.

Press FM/AM/DAB repeatedly to select "DAB."
"Welcome To Digital Radio" scrolls and the initial scanning starts.

DAB indicator

Welcome To Digit
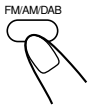
Progress bar

When the progress bar reaches to the right side, the initial scanning finishes.
• Once the scanning is completed, all the available stations are listed by numerical, then alphabetical order and stored in the memory.
  The unit will tune in to the first listed station.

If you stop the scanning by pressing any button,
no station is listed. In this case, do the local or full scan (see page 19).

When there is no available station,
"Station Not Available" appears. The unit enters to the manual scanning mode (see below).

Manual tuning
If the scanning does not go successfully, you can perform the manual tuning.

On the remote control ONLY:

1 **Press RDS/INFO.**

2 **Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select "Manual Tune."**
• Each time you press the button, the option changes as follows:

Manual Tune

Service Order * ⟷ DRC Value *
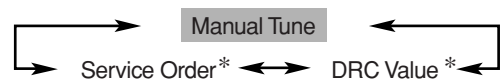
* See page 19 for details.

3 **Press SELECT.**
A station with frequency appears.
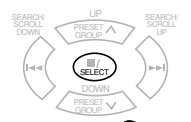
4 **Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select a station.**
- Each time you press the button, the station changes step by step.
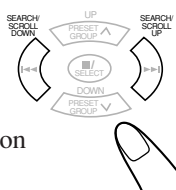
5 **Press SELECT.**
Signal reception indicator and the current signal strength level appear (filled blocks across from left to right).

Signal reception indicator   Signal strength level

```
11B   218.64MHz
```
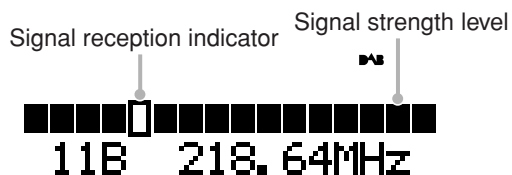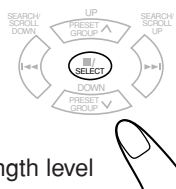
- If the signal strength level does not reach to the signal reception indicator, you cannot listen to the station well. In this case, adjust the position of the antenna.

6 **Press SELECT again.**
A station is tuned in.

Station name   Channel and frequency

```
11B 218.64MHz
POP RADIO
Pop Music
```
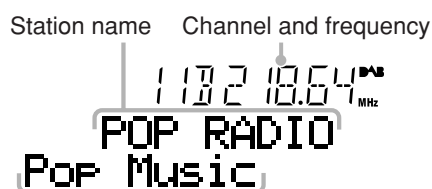
Information sent from the station (Ex. program type)

- For the description of information sent from the station, see page 20.

Tuning in to a Station

1 **Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select a station.**
The list of the station appears.
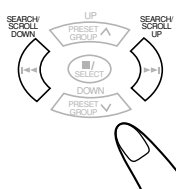
2 **Press SELECT to tune in to the selected station.**
- The unit does not tune in to the station until you press SELECT.
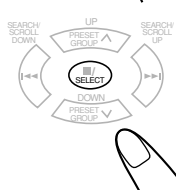
Presetting Stations

You can preset 10 DAB stations manually.

- There is a time limit in doing the following steps. If the setting is canceled before you finish, start again from step **2**.

On the remote control ONLY:

1 **Tune in to the station you want to preset.**

2 **Press PROGRAM.**
An available preset number starts flashing on the display.
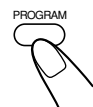
3 **Press PRESET GROUP ∧ or PRESET GROUP ∨ to select a preset number, then press PROGRAM.**
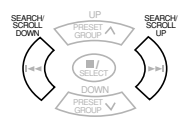The preset station is stored in memory.
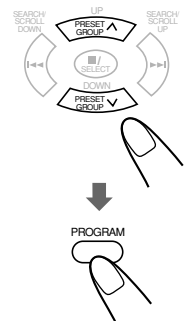
4 **To preset more stations, repeat steps 1 to 3 above, allocating a different preset number to each station.**
- Storing a new station on an already assigned number erases the previously stored one.

notes **When you unplug the AC power cord or if a power failure occurs**
The preset stations will remain in the unit.

Tuning in to a Preset Station

On the remote control ONLY:

1 **Press FM/AM/DAB to select "DAB."**
The unit automatically turns on and tunes in to the previously received DAB station.

2 **Press PRESET GROUP ∧ or PRESET GROUP ∨ repeatedly to select a preset number.**
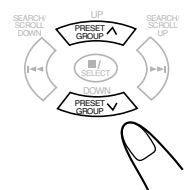
To tune in to a preset station directly using the number buttons

On the remote control ONLY:

Pressing the number button(s) allows you to select the preset number you want.

Ex.: For preset number 5, press 5.
For preset number 10, press +10, then press 0.
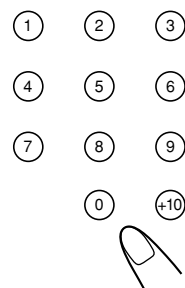
notes **When you press a number with no preset station**
"Empty Preset" appears on the display.

Arranging and Sorting the Station List

You can arrange or sort the station list which appears on the display when you browse to look for a station.

On the remote control ONLY:

1 Press RDS/INFO.

RDS/INFO

2 Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select "Service Order."

- Each time you press the button, the option changes as follows:

```
        ┌──────→ Manual Tune * ←──────┐
        └→ Service Order ←──→ DRC Value ** ←┘
```
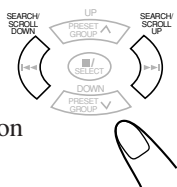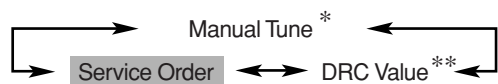
* See page 17 for details.
** See the right column for details.

3 Press SELECT.

An option appears on the display.
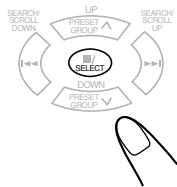
4 Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select a desired option.
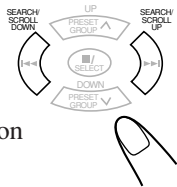
- Each time you press the button, the option changes as follows:

```
Fav(Favorite) Station          ♥ → Presets

Alphanumeric                   Prune Station

Active Station                 Ensemble
```
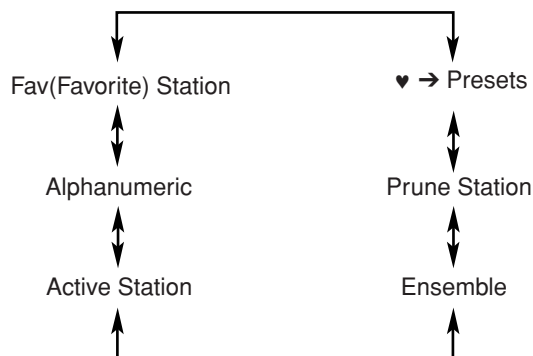
Fav(Favorite) Station:
The DAB tuner makes a list of the 10 stations you most listened to as your favorite station. The 1st station you listened to most comes first. After selecting this option, "♥" appears after the name of your favorite station.

Alphanumeric: The order is arranged by the station name. The name begins with numerical characters comes first, then with alphabetical characters comes second. (Initial setting)

Active Station: The order is arranged by the activity of stations. All the active stations can be received come top of the list. The stations cannot be received sends to the bottom of the list.

Ensemble: The order is arranged by the ensemble name of stations.

Prune Station: The DAB tuner removes the stations from the list which do not have service in your area.

♥ → Presets: You can select this option only after you made a list by selecting "Fav Station." The DAB tuner allocates your 10 favorite stations to preset channels 1 to 10.
The 1st station you listened to most is preset to preset channel 1, and the 2nd station is preset to preset channel 2, etc,.

5 Press SELECT.
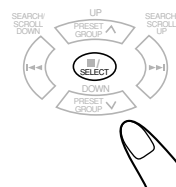
Changing the Dynamic Range Control level (DRC)

You can change the dynamic range control level to compensate the compression difference between stations.

On the remote control ONLY:

1 Press RDS/INFO.

RDS/INFO

2 Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select "DRC Value."

- Each time you press the button, the option changes as follows:

```
        ┌──────→ Manual Tune * ←──────┐
        └→ Service Order ** ←──→ DRC Value ←┘
```
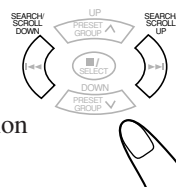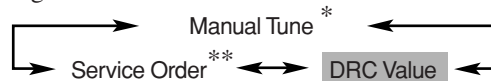
* See page 17 for details.
** See the left column for details.

3 Press SELECT.

The DRC level setting appears on the display.

Current level

```
  1172 1864 MHz

 DRC 1
→DRC 0           ▶
```
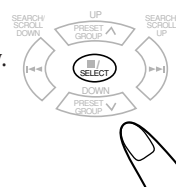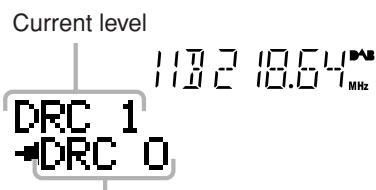
Available adjustment level

4 **Press SEARCH/SCROLL UP or SEARCH/SCROLL DOWN to select a desired compression level.**

- Each time you press the button, the DRC level changes as follows:

```
            →  DRC 0  ←
  ┌─────────                   ─────────┐
  └→  DRC 1  ←→  DRC 1/2  ←─────────┘
```
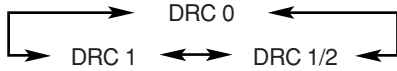
DRC 0: The DRC level adjustment is canceled.

DRC 1/2: Medium level of compression is applied.

DRC 1: Maximum level of compression is applied. (Initial setting)
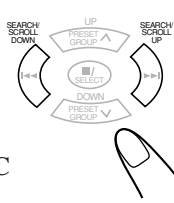
5 **Press SELECT.**
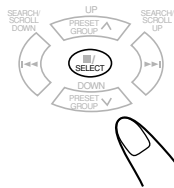
Changing the Display Information

You can change the information appears on the display.

On the remote control ONLY:

Press DISPLAY.

- Each time you press the button, the information changes as follows:

```
        DLS  ←─────────  Sig.(Signal) Quality
         ↓                        ↑
    Program Type            Signal Information
         ↓                        ↑
      Ensemble          Channel and Frequency
         ↓                        ↑
    Time and Date  ─────────────┘
```
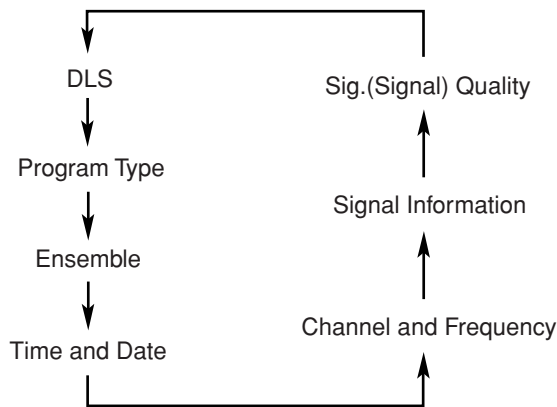
DLS (Dynamic Label Segment):
Text messages sent from the station (Initial Setting)

Program Type: Types of broadcast programs

Ensemble: Type of ensemble

Time and Date: Time and day sent from the station

Channel and Frequency:
Channel number and transmission frequency

Signal Information:
Digital bit rate (kbps) and signal mode (stereo or mono)

Sig.(Signal) Quality:
Reception measurement sent from the station (100 is the best reception)
- When the value is below 100, adjust the position of the antenna for the better reception.

Refreshing the Station List

For tuning in to the new available DAB stations, you need to refresh the station list.
There are two ways for searching stations:
- Local search: Performs the search for stations on band III in the United Kingdom.
- Full search: Performs the wider search for stations than local search. When you bring this unit outside of the United Kingdom, use this search. This search is used mainly for the use of outside of the United Kingdom.

For local search:

Press SCAN briefly.
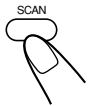
For full search:

Press and hold SCAN for more than 2 seconds.

The search begins.
The number of found stations is counted as the search is being proceeded.

```
Local Search      0
■■■■■■
```
Progress bar   Number of the found stations

When the progress bar reaches to the right side of the display, the search finishes. After the search, the unit tunes in to the previously tuned station.

To clear the stored memory, press RDS/INFO for more than 2 seconds. Then, press SELECT after the message appears on the display.
The DAB tuner starts the initial scanning.

```
  11321064 MHz
Press SELECT To
Confirm Reset...
```
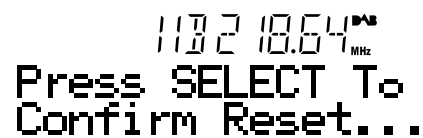
Listening to FM and AM (MW) Broadcasts

Tuning in to a Station

You can search for the station by either automatically or manually.

Auto Tuning

1 Press FM/AM/DAB repeatedly to select either "FM" or "AM (MW)."

The unit automatically turns on and tunes in to the previously received station.

92.15 MHz

FM Band

• If the station previously selected is stored in a preset number, the preset number will also appear.

2 Press and hold ▶▶| or |◀◀ (or SCROLL UP ▶▶| or SCROLL DOWN |◀◀ on the unit) for about 2 seconds until "Search.." appears on the display.
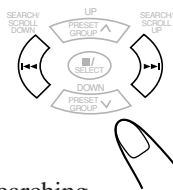
"Searching.." appears and the unit starts searching for stations.

Searching..

• ▶▶| (SCROLL UP ▶▶|):   Increases the frequencies.
• |◀◀ (SCROLL DOWN |◀◀): Decreases the frequencies.

The search stops when a station of sufficient signal strength is tuned in.

• If an FM program is broadcast in stereo, the ST (stereo) indicator lights up on the display (only when the reception is good).

To stop during searching, press ▶▶| or |◀◀ (or SCROLL UP ▶▶| or SCROLL DOWN |◀◀ on the unit).

Manual Tuning

1 Press FM/AM/DAB repeatedly to select either "FM" or "AM (MW)."

2 Press and hold ▶▶| or |◀◀ (or UP ▶▶| or DOWN |◀◀ on the unit) for more than 3 seconds.
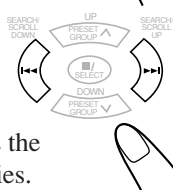
• ▶▶| (SCROLL UP ▶▶|):   Increases the frequencies.
• |◀◀ (SCROLL DOWN |◀◀): Decreases the frequencies.

The frequency keeps changing quickly.

To stop during searching, release the button.

notes **When you repeatedly press ▶▶| or |◀◀ (or SCROLL UP ▶▶| or SCROLL DOWN |◀◀ on the unit)**
The frequency changes step by step.

To change the FM reception mode
On the remote control ONLY:

When an FM stereo broadcast is hard to receive or noisy, press FM MODE so that the "Mono" appears on the display. Reception will improve.

To restore the stereo effect, press FM MODE again so that "Stereo" appears and the ST (stereo) indicator lights up on the display. In stereo mode, you can hear stereo sound when a stereo program is broadcast.
The stereo effect also restores when:
• changing the band (AM (MW), or DAB).
• changing the station frequency.
• changing the playing source.
• turning off (or on) the unit.

Presetting Stations

You can preset 20 FM and 10 AM (MW) stations manually.

In some cases, test frequencies have been already stored for the tuner since the factory examined the tuner preset function before shipment. This is not a malfunction. You can preset the stations you want into memory by following the presetting method.

• There is a time limit in doing the following steps. If the setting is canceled before you finish, start again from step *2*.

On the remote control ONLY:

1 Tune in to the station you want to preset.
• See "Tuning in to a Station" on the left column.

2 Press PROGRAM.
An available preset number starts flashing on the display.

92.15 MHz

PRGM

01 92.15MHz

3 Press PRESET GROUP ∧ or PRESET GROUP ∨ to select a preset number, then press PROGRAM.

"Station Stored" appears and the preset station is stored in memory.
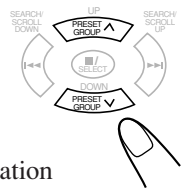
1 92.15 MHz

Station Stored

4 **To preset more stations, repeat steps *1* to *3* above, allocating a different preset number to each station.**
- Storing a new station on an already assigned number erases the previously stored one.

The preset stations will remain in the unit.

Tuning in to a Preset Station

On the remote control ONLY:

1 **Press FM/AM/DAB to select either "FM" or "AM (MW)."**
The unit automatically turns on and tunes in to the previously received station.

**2** **Press PRESET GROUP ∧ or PRESET GROUP ∨ repeatedly to select a preset number.**
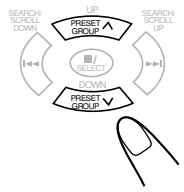
To tune in to a preset station directly using the number buttons

On the remote control ONLY:

Pressing the number button(s) allows you to select the preset number you want.
Ex.: For preset number 5, press 5.
　　　For preset number 15, press +10, then press 5.
　　　For preset number 20, press +10 twice, then press 0.
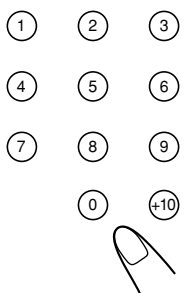
Receiving FM Stations with RDS

RDS (Radio Data System) allows FM stations to send an additional signal along with their regular program 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.
With the unit, you can receive the following types of RDS signals.

Radio Text:
　Text messages sent from the station

Program Type:
　Types of broadcast programs.

RDS Time:
　Time and day of the week sent from the station

PI (Program Identification) Code:
　Identification number of a program.

notes **More about RDS**
- Some FM stations do not provide RDS signals.
- RDS services vary among FM RDS stations. For details on RDS services in your area, check with local radio stations.
- RDS may not work correctly if the received station is not transmitting the signals properly or if the signal strength is weak.

Changing the RDS Information

You can see RDS information on the display while listening to an FM station.

On the remote control ONLY:

Press DISPLAY.

DISPLAY

- Each time you press the button, the display changes to show the following information:

```
Radio Text  ──►  PI Code
    │              ▲
    ▼              │
Program Type  ──► RDS Time
```

notes
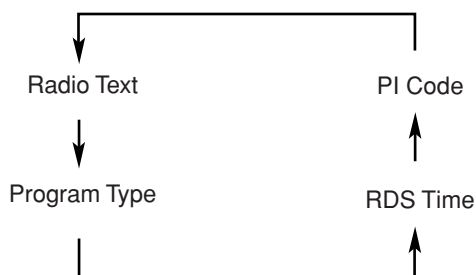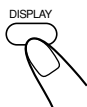
- **If no RDS signals are sent by a station**
  "No RDS signal" appears on the display.

- **On the characters displayed**
  The display cannot show accented letters; for example, "A" may represent accented "A's" like "Á, Â, Ã, À, Ä and Å."

Searching for Programs by PTY Codes (PTY Search)

One of the advantages of RDS is that you can locate a particular kind of program by specifying the PTY codes.

- For details on the PTY codes, see "Description of the PTY codes" on the next page.
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start over from step *1*.

On the remote control ONLY:

1 **Press RDS/INFO.**

RDS/INFO

PTY code setting appears.

```
     1    92.15 MHz
PTY Set Or Scan
     None
```
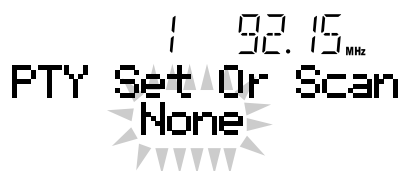
2 **Press UP or DOWN repeatedly until the PTY code you want appears on the display.**

- Each time you press the buttons, the PTY codes change as follows:
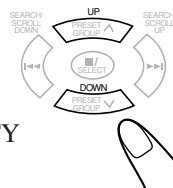
None ⟷ News ⟷ Current Affairs ⟷
Information ⟷ Sport ⟷ Education ⟷ Drama ⟷
Cultures ⟷ Science ⟷ Varied Speech ⟷
Pop Music ⟷ Rock Music ⟷ Easy Listening ⟷
Light Classic M ⟷ Serious Classic ⟷
Other Music ⟷ Weather & Metr ⟷ Finance ⟷
Children's progs ⟷ Social Affairs ⟷ Religion ⟷
Phone In ⟷ Travel & Touring ⟷
Leisure & Hobby ⟷ Jazz Music ⟷
Country Music ⟷ Nation Music ⟷ Oldies Music ⟷
Folk Music ⟷ Documentary ⟷ Alarm Test ⟷
Alarm – Alarm! ⟷ (back to the beginning)

3 **Press SEARCH/SCROLL UP or SEARCH/SCROLL UP (or SCROLL UP or SCROLL DOWN on the unit).**

The unit starts searching for the program.

- If no program is found, "The PTY No Found" appears on the display and the unit returns to the last received station.
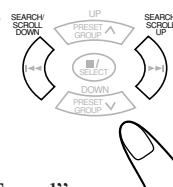
To stop searching any time during the process, press RDS/INFO while searching.

notes **If you preset a station while PTY Search is being carried out**

PTY Search may not stop. If this happens, press RDS/INFO to stop searching.

Description of the PTY codes

News	News.
Current Affairs	Topical program expanding or enlarging upon the news—debate, or analysis.
Information	Program the purpose of which is to impart advice in the widest sense.
Sport	Program concerned with any aspect of sports.
Education	Educational programs.
Drama	All radio plays and serials.
Cultures	Programs concerning any aspect of national or regional culture, including language, theater, etc.
Science	Programs about natural sciences and technology.
Varied Speech	Used for mainly speech-based programs such as quizzes, panel games and personality interviews.
Pop Music	Commercial music of current popular appeal.
Rock Music	Rock music.
Easy Listening	Current contemporary music considered to be "easy-listening."
Light Classic M	Instrumental music, and vocal or choral works.
Serious Classic	Performances of major orchestral works, symphonies, chamber music, etc.
Other Music	Music not fitting into any of the other categories.
Weather & Metr	Weather reports and forecasts.
Finance	Stock Market reports, commerce, trading etc.
Children's progs	Programs targeted at a young audience.

Social Affairs	Programs about sociology, history, geography, psychology and society.
Religion	Religious programs.
Phone In	Involving members of the public expressing their views either by phone or at a public forum.
Travel & Touring	Travel information.
Leisure & Hobby	Programs about recreational activities.
Jazz Music	Jazz music.
Country Music	Songs which originate from, or continue the musical tradition of the American Southern States.
Nation Music	Current popular music of the nation or region in that country's language.
Oldies Music	Music from the so-called "golden age" of popular music.
Folk Music	Music which has its roots in the musical culture of a particular nation.
Documentary	Program concerning factual matters, presented in an investigative style.
Alarm Test	Broadcasts for testing emergency broadcast equipment or receiver.
Alarm – Alarm!	Emergency announcement.
None	No program type, undefined program, or difficult to categorize into particular types.

> **Classification of the PTY codes for some FM stations may be different from the above list on this page.**

Using an External Equipment

Listening to the External Equipment

You can listen to the external equipment such as MD recorder, cassette deck, or other auxiliary.
- First, make sure that the external equipment is properly connected to the unit. (See page 8.)

1 Set the volume level to the minimum position.

2 Press AUX.
"AUX" appears on the display.
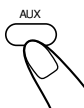
3 Start playing the external equipment.

4 Adjust the volume level to the level you want to listen to.

To exit AUX mode, select other source.

notes

For operation of the external equipment
Refer to its instructions.

Recording

IMPORTANT:

- **It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable program and in any literary, dramatic, musical, or artistic embodied therein.**
- The recording level is automatically set correctly, so it is not affected by the other sound settings. Thus, during recording you can adjust the sound you are actually listening to without affecting the recording level.
- If recordings you have made have excessive noise or static, the unit may be too close to a TV. Increase the distance between the TV and the unit.
- You can only use type I tape for recording.

STOP!
- DO NOT turn off the unit while playing back or recording a tape. The cassette deck or tapes may be damaged.
- DO NOT use type II and type IV tapes since the unit is not compatible with such tapes.
- The use of C-120 or longer tape is not recommended, since characteristic deterioration may occur and this tape easily jams in the pinch rollers and the capstans.

---

notes

At the start and end of cassette tapes

There is leader tape which cannot be recorded onto. Thus, when recording from discs, FM/AM (MW)/DAB broadcasts, or external equipment, wind the leader tape first to ensure that the recording will be made without losing any music.

To protect your recordings

Cassettes have two small tabs on the back to protect against unexpected erasure or re-recording.
To protect your recording, remove these tabs.
To re-record on a protected tape, cover the holes with adhesive tape.
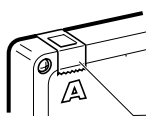
Adhesive tape

Recording on a Tape

On the unit ONLY:

1 Put a recordable cassette in with the exposed part of the tape down.
- See also page 16.

2 Close the cassette holder gently.

---

3 Start playing the source—FM, AM (MW), DAB or auxiliary equipment connected to AUX jack.
- When the source is FM, AM (MW), or DAB, tune in to the station you want to record.
- When recording from discs, see "Recording Discs— Disc Synchronized Recording" on page 26.

4 Press REC (recording).
- The REC indicator appears and ▶ indicator lights up on the display.

REC   I   92.15ₘₕz   ⋮

FM Band

5 Press TAPE ◁ ▷.
▶ indicator starts flashing and the recording starts.

notes

- **If no cassette is inserted when you press REC** "No TAPE" appears on the display.
- **If a protected tape is inserted when you press REC** "TAPE Protect" appears on the display.

To stop recording for a moment, press REC. The recording is paused. To resume recording, press TAPE ◁ ▷.

To stop recording, press ■. The recording stops.

SCROLL DOWN SELECT SCROLL UP
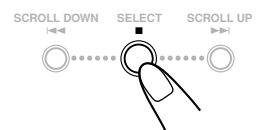
To remove the cassette, press PUSH OPEN while recording is stopped.

PUSH OPEN
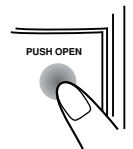
To record on both sides—Reverse Mode

On the remote control ONLY:

Press REV. MODE (reverse mode) until ⊃ or ⊂ is lit on the display.
- When using the Reverse Mode for recording, ⊃ lights up and start recording in the forward (▶) direction first.

REV. MODE

To cancel the Reverse Mode, press REV.MODE repeatedly until ⊃ is lit on the display.

To reduce the beat—Beat Cut
On the remote control ONLY:

If the beats are heard while recording an AM (MW) broadcast, press BEAT CUT repeatedly until the beats are reduced.

REMAIN
BEAT CUT

- Each time you press the button, the display alternates between "Beat Cut – 1" and "Beat Cut – 2."

Recording Discs
—Disc Synchronized Recording

You can start disc play and recording at the same time.

On the unit ONLY:

1 Put a recordable cassette in with the exposed part of the tape down.
- See also page 16.

2 Close the cassette holder gently.

3 Press CD ▷/❚❚ to select the CD player as the source.

CD
▷/❚❚

4 Press ■ to stop the disc playback.

SCROLL DOWN   SELECT   SCROLL UP
I◀◀   ■   ▶▶I

- You can make a program (see page 14) if you want.
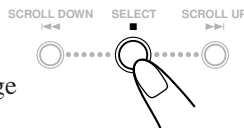
5 Press REC (recording).

REC

► indicator lights up on the display.

REC   _20 59:55_   ⇉

Track [02]
→ Track [01]

6 Press TAPE ◁ ▷.

TAPE
◁ ▷

"Sync. Record" appears and ► indicator starts flashing slowly on the display.
Disc playback and tape recording starts automatically.

REC   _20 59:55_   ⇉

Sync. Record

notes

- **If no cassette is inserted when you press REC**
  "No Tape" appears on the display.

- **If a protected tape is inserted when you press REC**
 "Protect" appears on the display.

To stop recording for a moment, press REC. Both the disc playback and tape recording are paused. To resume recording, press TAPE ◁ ▷.
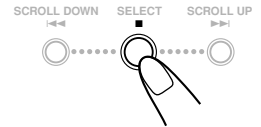
REC

To stop recording, press ■. The recording stops and the disc playback is paused.

SCROLL DOWN   SELECT   SCROLL UP
I◀◀   ■   ▶▶I

To record on both sides—Reverse Mode
On the remote control ONLY:

Press REV. MODE (reverse mode) repeatedly until ⇄) or (⇄) is lit on the display.

REV. MODE

- When using the Reverse Mode for Disc Synchronized Recording, ⇄) lights up and the recording starts in the forward (►) direction first. When the tape reaches its end, the disc playback is paused until the tape recording changes to the reverse direction, then the recording continues.

To cancel the Reverse Mode, press REV. MODE repeatedly until ⇄ is lit on the display.

notes   **When making Sleep Timer settings while doing Disc Direct Recording**

Set enough time to allow for the disc to finish playing; otherwise, the power will go off before recording is completed.

Using the Timers

There are four timers available—Daily Timer (Just Once, Every Day, Weekly), Recording Timer, Snooze Timer, and Sleep Timer.
- Before using these timers, make sure the built-in clock is set correctly (see page 9).

Using Daily Timer and Recording Timer

You can set the timer whether the unit is on or off.

How the Timer actually works

When the on-time comes, the unit automatically turns on (the ⏲ [timer] indicator flashes and continues flashing while the timer is operating). Then, when the off-time comes, the unit automatically turns off (standby). The timer setting remains in memory until you change it.
- When the ⏲ (timer) and 1, 2, 3, or with DAILY or WEEKLY indicators are lit on the display, the timer acts as the Daily Timer. Once the timer has been set, it will be activated at the same time on the selected day and automatically turns off (standby) after 60 minutes everyday until the timer is deactivated.
- When the ⏲ (timer) and the REC indicators are lit on the display, the timer acts as the Recording Timer. After the timer-recording finishes, the details of the setting remain stored but the timer is turned off.
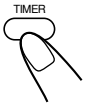
Before you start…

When using "TUNER" as the source to play, make sure to select the desired station before turning off the power.
- There is a time limit in doing the following steps. If the setting is canceled before you finish, start again from step *1*.
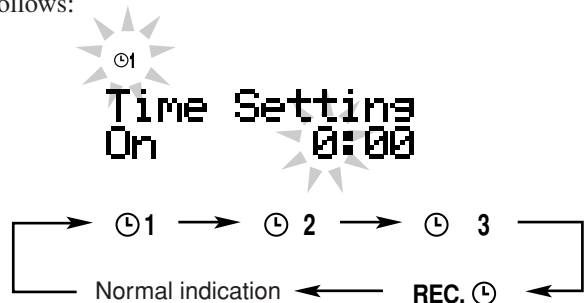
On the remote control ONLY:

1 **Press TIMER repeatedly to select the timer you want to adjust and activate — 1, 2, 3, or Rec.**

The timer setting indicator and hour indication start flashing on the display.
Each time you press the button, the display changes as follows:

```
⏲1
Time Setting
On        0:00
```

⏲1 → ⏲2 → ⏲3
Normal indication ← REC. ⏲ ←

2 **Set the on-time you want the unit to turn on.**

(1) Press UP or DOWN to set the hour, then press SET.
(2) Press UP or DOWN to set the minute, then press SET.
If you want to change the time setting, press CANCEL.
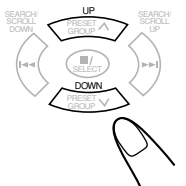
- If you are setting the Daily Timer, the mode setting appears on the display.
  ➡ Go to step *4*.
- If you are setting the Recording Timer, the off-time setting appears on the display.

3 **For the Recording Timer ONLY:**
Set the off-time you want the unit to turn off.

```
REC ⏲
Time Setting
Off       0:00
```

(1) Press UP or DOWN to set the hour, then press SET.
(2) Press UP or DOWN to set the minute, then press SET.
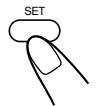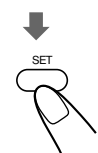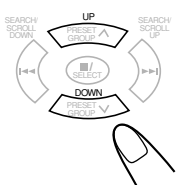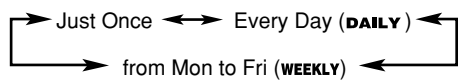If you want to change the time setting, press CANCEL.
➡ Go to step *5*.

4 **For the Daily Timer ONLY:**
Select the timer repeat mode.

Press UP or DOWN to select the mode setting, then press SET.

```
⏲1
Mode Setting
Just Once
```

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

Just Once ⟷ Every Day (**DAILY**)
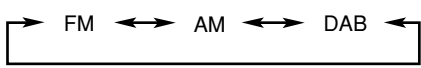from Mon to Fri (**WEEKLY**)

- If you select "Every Day" or "from Mon to Fri," the indicator corresponding to the selected mode lights up on the display.
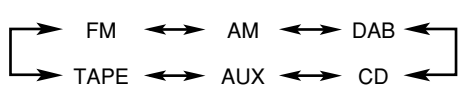
5 **Press UP or DOWN to select the source to play.**

⏱1
Source Setting
CD
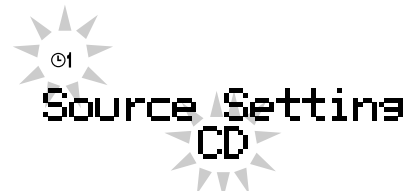
Each time you press the button, the source changes as follows:

For Recording Timer:

FM ⟷ AM ⟷ DAB

For Daily Timer:
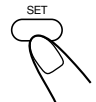
FM ⟷ AM ⟷ DAB
TAPE ⟷ AUX ⟷ CD

- Make sure the playing source (either a cassette tape or a disc) is inside when you select "TAPE" or "CD" for Daily Timer.

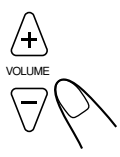If you want to change the time setting, press CANCEL repeatedly to return step **2**.

6 **Press SET.**

The display returns to the normal indication.

SET

7 **Press VOLUME +/– to adjust the volume for the on-time.**

- Even if you set the volume level to over "Volume 20," the volume level is automatically set to "Volume 20" when the timer on-time comes.

VOLUME

8 **Press STANDBY/ON ⏻/| to turn off the unit if you have set the timer with the unit turned on.**
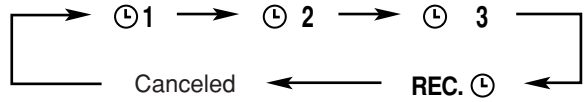
STANDBY/ON

On the unit ONLY:

To activate the timer, press and hold DAILY TIMER/SNOOZE on the unit repeatedly to select the timer number you want.

DAILY TIMER/SNOOZE

To deactivate the timer, press and hold DAILY TIMER/SNOOZE.

DAILY TIMER/SNOOZE

- Each time you press and hold the button, the timer setting changes as follows:

⏱1 → ⏱2 → ⏱3
Canceled ⟵ REC. ⏱

To change the timer, repeat steps **1** to **6** on pages 27 and this page.

- To activate the Daily Timer again without changing the setting, press DAILY TIMER/SNOOZE on the unit repeatedly to select the timer number you want.

To cancel the timer while it is working, press STANDBY/ ON ⏻/|.

notes **If the unit is already turned on when the timer on-time comes**

The timer does not work.

notes **When you unplug the AC power cord or if a power failure occurs**

The timer setting remains. Set the built-in clock and activate the timer again.

Using Snooze Timer

The Snooze Timer turns off the unit (standby) only for 5 minutes while Daily Timer is in operation.

- You can set the Snooze Timer only while the Daily Timer is in operation.

On the unit ONLY:

Press DAILY TIMER/ SNOOZE while Daily Timer is in operation.

DAILY TIMER/SNOOZE

The unit turns off (standby) and the "Snooze" with countdown timer appear on the display.
After 5 minutes, the unit automatically turns on with the source you selected in step **4** on page 27.

notes **If the unit is turned on when the Snooze Timer is working**

Both Snooze Timer and Daily Timer will be canceled.

notes **If you set the Snooze Timer when there is less than 5 minutes until the Daily Timer off-time**

The unit will not turn on even when 5 minutes passed.

notes **When you unplug the AC power cord or if a power failure occurs**

The timer will be canceled. You need to set the clock first, then the timer again.

Using Sleep Timer

With Sleep Timer, you can fall asleep to your favorite music or radio program.
• You can set Sleep Timer only when the unit is turned on.
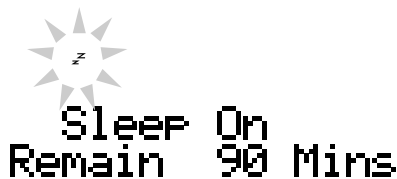• You can also turn off the unit automatically by using Auto Standby. (See page 10.)

How the Sleep Timer actually works

The unit automatically turns off after the specified length of time passes.

<u>**On the remote control ONLY:**</u>

1 **Press SLEEP.**

The z indicator starts flashing on the display.

SLEEP

Sleep On
Remain 90 Mins

• Each time you press the button, the length of time changes as follows:

10 → 20 → 30 → 60
Off ← 120 ← 90
(canceled)
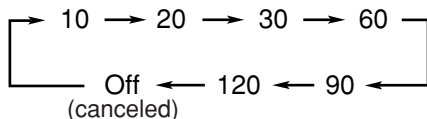
2 **Wait for about 5 seconds after specifying the length of time.**

The z indicator flashes slowly on the display.

To check the remaining time until shut-off time, press SLEEP once. The remaining time until shut-off time appears for about 3 seconds.

To change the shut-off time, press SLEEP repeatedly until the length of time you want appears.

To cancel the setting, press SLEEP repeatedly until the SLEEP indicator goes off and display returns to the normal indication.
• Turning off the unit also cancels the Sleep Timer.

notes **When you set the Sleep Timer after the Daily Timer starts playing the selected source**

The unit turns off with either timer having an earlier shut-off time.

notes **If you set the Sleep Timer while playing back or recording a tape**

Set the Sleep Timer not to shut the unit off while a tape is running. If the unit turns off while playing back or recording a tape, the cassette deck or tapes may be damaged.

Maintenance

To get the best performance of the unit, keep your discs, tapes and mechanism clean.

General Notes
In general, you will have the best performance by keeping your discs, tapes and the mechanism clean.
• Store discs and tapes in their cases, and keep them in cabinets or on shelves.

Cleaning the unit
• **Stains on the unit**
  Should be wiped off with a soft cloth. If the unit is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.
• **Since the unit may deteriorate in quality, become damaged or have its paint peel off, be careful about the following:**
  – DO NOT wipe it with a rough cloth.
  – DO NOT wipe it too vigorously.
  – DO NOT wipe it with thinner or benzine.
  – DO NOT apply any volatile substance such as an insecticide to it.
 – DO NOT allow any rubber or plastic to remain in contact with it for a long time.

Handling discs

• Remove the disc from its case by holding it at the edge while pressing the center hole lightly.
• Do not touch the shiny surface of the disc, or bend the disc.
• Put the disc back in its case after use to prevent warping.
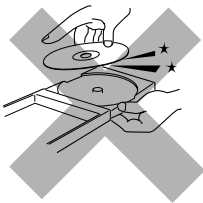
• Be careful not to scratch the surface of the disc when placing it back in its case.
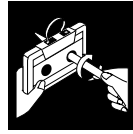• Avoid exposure to direct sunlight, temperature extremes, and moisture.
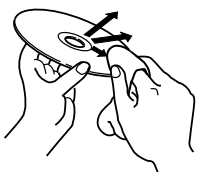
To clean the disc
Wipe the disc with a soft cloth in a straight line from center to edge.

> ⚠ **STOP!** DO NOT use any solvent—such as conventional record cleaner, spray, thinner, or benzine—to clean the disc.

Handling cassette tapes

• If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
• If the tape is loose, it may get stretched, cut, or caught in the cassette.

• Be careful not to touch the tape surface.

• Avoid storing tapes in any of the following places:
  – In dusty places
  – In direct sunlight or heat
  – In moist areas
  – On a TV or speaker
  – Near a magnet

To keep the best recording and playback sound quality
You need to clean the heads.
• Clean the heads after every 10 hours of use with a wet-type head cleaning tape (available at electronic and audio shops).
  When the head becomes dirty, the following symptoms will occur:
  – Sound quality is reduced.
  – Sound level decreases.
  – Sound drops out.
• Do not play dirty or dusty tapes.
• Do not touch the highly-polished head with any metallic or magnetic tools.

Capstan

Head

Pinch Roller
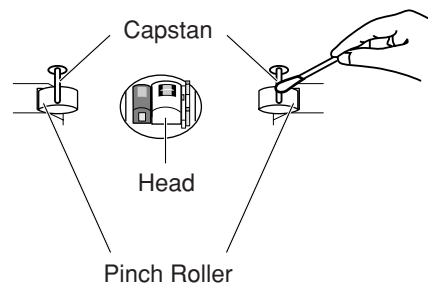
To demagnetize the head
Turn off the unit, and use a head demagnetizer (available at electronic and audio shops).

Troubleshooting

If you are having a problem with your unit, check this list for a possible solution before calling for service.
If you cannot solve the problem from the hints given here, or the unit has been physically damaged, call a qualified person, such as your dealer for service.

Symptom	Possible Cause	Action
Power does not come on.	The power cord is not connected to an AC outlet.	Insert the plug into the socket.
No sound is heard.	• Connections are incorrect or loose. • A pair of headphones is connected. • MP3 disc is recorded with "packet writing."	• Check all connections and make corrections. (See pages 6 to 8.) • Unplug the headphones from the PHONES jack. • It cannot be played. Replace the disc.
Hard to listen to broadcasts because of noise.	• Antennas are disconnected. • For AM (MW): The AM (MW) loop antenna is too close to the unit. • For DAB and FM: The antenna is not properly extended and positioned.	• Reconnect the antenna correctly and securely. • Change the position and direction of the AM (MW) loop antenna. • Extend antenna and orient to the best reception position.
The disc does not play.	The disc is upside down.	Put the disc in with the label side up.
Impossible to record.	Small tabs on the back of the cassette are removed.	Cover the holes with adhesive tape.
Operations are disabled.	The built-in microprocessor has malfunctioned due to external electrical interference.	Unplug the AC power cord then plug it back in.
Unable to operate the unit by the remote control.	• The path between the remote control and the remote sensor on the unit is blocked. • The batteries are exhausted. • You are using the remote control too far from the unit.	• Remove the obstruction. • Replace the batteries. (See page 8.) • Signals cannot reach the remote sensor. Move closer to the unit.

Specifications

Design and specifications are subject to change without notice.

Amplifier Section

Output Power:
15 W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion. (IEC268-3)

Audio input sensitivity/Impedance (at 1 kHz)
AUX: 500 mV/50 kΩ

Speakers Impedance: 4 Ω – 16 Ω

Tuner

DAB tuning range: Band III
174.928 MHz – 239.200 MHz
FM tuning range: 87.50 MHz – 108.00 MHz
AM (MW) tuning range: 522 kHz – 1 629 kHz

CD player

Dynamic range: 85 dB
Signal-to-noise ratio: 85 dB
Wow and flutter: Immeasurable

Cassette deck

Frequency response:
Normal (type I):   100 Hz—10 000 Hz
Wow and flutter: 0.35% (WRMS)

General

Power requirement: AC 230 V ∼, 50 Hz
Power consumption: 40 W (at operation)
2 W (on standby)
Dimensions (W/H/D) (approx.):
152 mm x 233 mm x 297 mm
Mass (approx.):   4.0 kg

Supplied accessories

Speaker Section

Type: Full range, bass-reflex type
Speakers: 10 cm cone x1
Power handling capacity: 15 W
Impedance: 4 Ω
Frequency range: 100 Hz—15 kHz
Dimensions (W/H/D) (approx.):
147 mm x 233 mm x 189 mm
Mass (approx.):   1.9 kg each

JVC

EN

0804AIMMDWORI