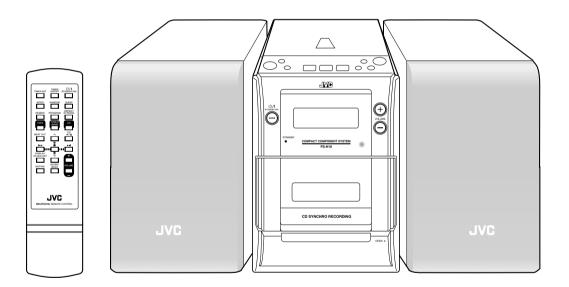


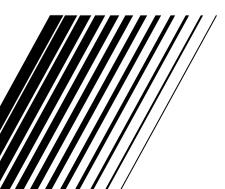


COMPACT COMPONENT SYSTEM

FS-H10 —Consists of CA-FSH10 and SP-FSH10







INSTRUCTIONS

For Customer Use: Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No.

Serial No.





The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION-U/I STANDBY/ON button!

Disconnect the mains plug to shut the power off completely (all lamps and indications go off). The /I 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.

For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND.

For Canada/pour le Canada

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE INTERFER-ENCE-CAUSING EQUIPMENT STANDARD ENTITLED "DIGITAL APPARATUS," ICES-003 OF THE DEPARTMENT OF COMMUNICATIONS. CET APPAREIL NUMERIQUE RESPECTE LES LIMITES DE BRUITS RADIOELECTRIQUES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE B PRESCRITES DANS LA NORME SUR LE MATERIEL BROUILLEUR: "APPAREILS NUMERIQUES", NMB-003 EDICTEE PAR LE MINISTRE DES COMMUNICATIONS.

CAUTION: Proper Ventilation

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

1 Front:

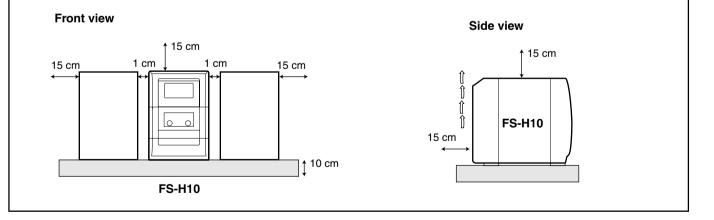
No obstructions and open spacing.

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.



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 "Basic and Common Operations" on pages 8 and 9.
- 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 (41°F) and 35°C (95°F).
- 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.



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.

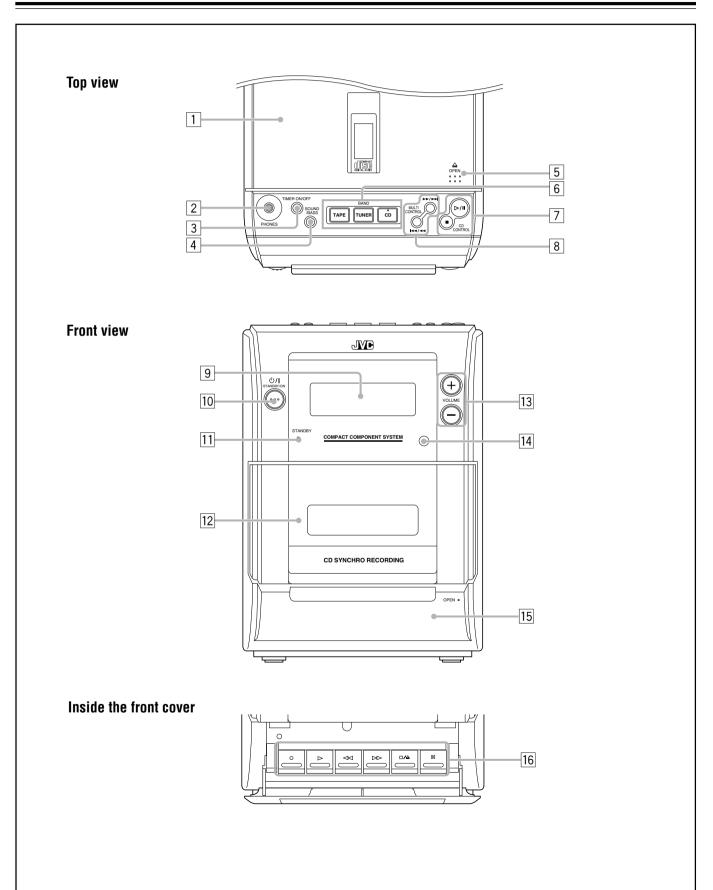
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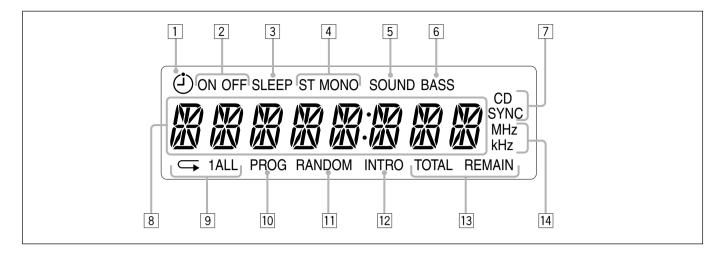
Location of the Buttons and Controls

Become familiar with the buttons and controls on your unit.

Main Unit



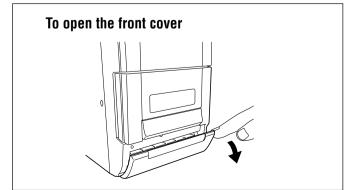
Display window on the front panel



See pages in parentheses for details.

Main unit

- 1 Disc cover (12)
- 2 PHONES jack (9)
- 3 TIMER ON/OFF button (8, 19)
- 4 SOUND/BASS button (9)
- **5** \triangle OPEN (disc cover open) (12, 13)
- 6 Source buttons
 - TAPE, TUNER/BAND, CD Pressing one of these buttons also turns on the unit.
- 7 CD CONTROL buttons (8, 12, 13)
 ▶/Ⅲ. ■
- 8 MULTI CONTROL buttons
- **>>/>>**, |<</
- 9 Display window
- 回 山/I STANDBY/ON button (8, 19)
- 11 STANDBY lamp (8)
- 12 Cassette holder (15)
- 13 VOLUME + / buttons (9)
- 14 Remote sensor (5)
- 15 Front cover (15)
- 16 Tape operation buttons (15 17)
 - O (recording), ▷ (play), <<< (fast backward),
 ▷▷ (fast forward), □/≙ (stop/cassette holder open),
 □□ (pause)

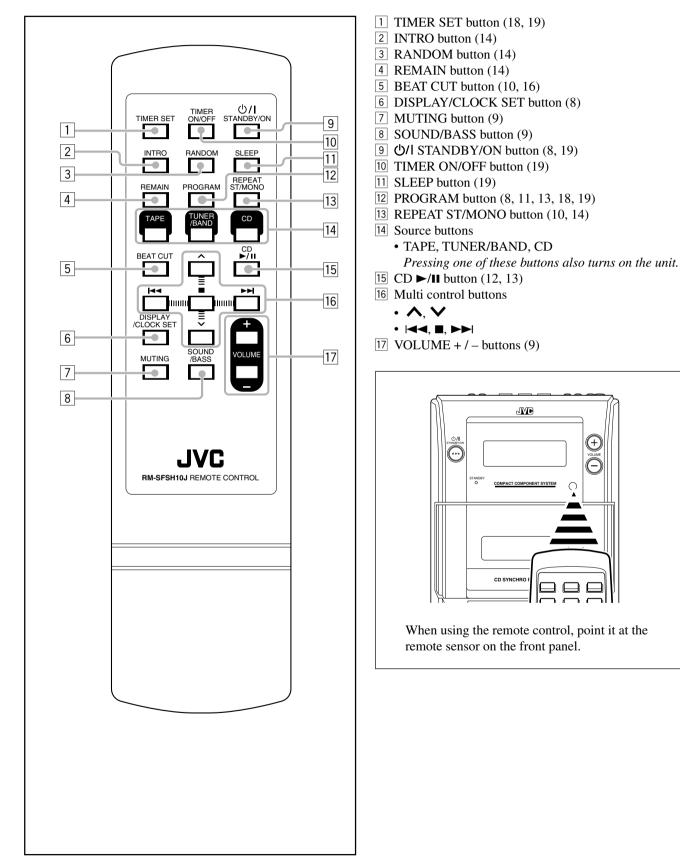


Display window

- $\square (timer)$ indicator
- 2 ON/OFF (timer on-time/off-time) indicators
- 3 SLEEP indicator
- 4 FM mode indicators
- ST (stereo), MONO
- 5 SOUND indicator
- 6 BASS indicator
- 7 CD SYNC (syncro) indicator
- 8 Main display
 - Shows the source name and other information.
- 9 Repeat indicators
 - 🖚, 1, ALL
- 10 PROG (program) indicator
- 11 RANDOM indicator
- 12 INTRO indicator
- 13 Time indicators
- TOTAL, REMAIN
- 14 Frequency indicators
 - MHz, kHz

Remote Control

See pages in parentheses for details.



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.

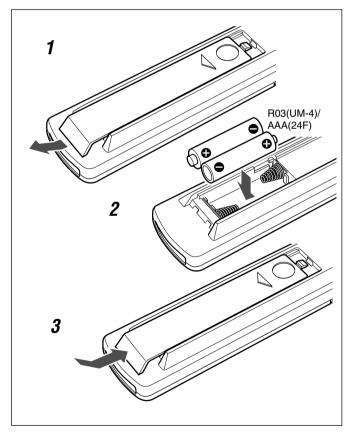
- AM loop antenna (1)
- Remote control (1)
- Batteries (2)

If any item is missing, consult your dealer immediately.

Putting the Batteries into the Remote Control

Insert the batteries—R03(UM-4)/AAA(24F)—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.

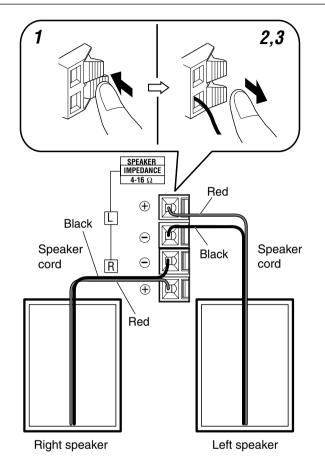


- DO NOT use an old battery together with a new one.
 - DO NOT use different types of batteries together.
 - DO NOT expose batteries to heat or flame.
 - DO NOT leave the batteries in the battery compartment when you are not going to use the remote control for an extended period of time. Otherwise, the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

Connections

To connect speakers

You can connect the speakers using the speaker cords.



1 Hold the clamp of the speaker terminal.

2 Insert the end of the speaker cord into the terminal.

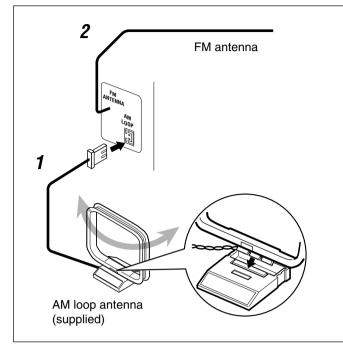
Match the polarity of the speaker terminals: red (\bigoplus) to red (\bigoplus) and black (\bigoplus) to black (\bigoplus) .

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 connect AM and FM antennas



1 Connect the supplied AM loop antenna to the AM LOOP terminal.

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

2 Adjust the position for the FM antenna for the best reception.



For better reception of both FM and AM

- 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.

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.

Setting the Clock

Before operating the unit any further, first set the unit's clock. When you plug in the power cord, "AM12:00" starts flashing on the display.

You can set the clock when the unit is either turned on or in standby mode.

• In the following procedure, the clock is set to 12-hour system.

On the remote control ONLY:

When the unit is in standby mode, press and hold PROGRAM until the hour indication starts flashing.





• When the unit is on, press DISPLAY/CLOCK SET to enter clock mode, then press and hold PROGRAM.

2 Press I ◄ or ►►I to adjust the hour, then press PROGRAM.



When you press and hold I d or
 ►I, the hour indication changes continuously.

The minute indication start flashing.

BM

3 Press | ◄< or ►► | to adjust the minute, then press PROGRAM.

When you press and hold I down or
 ▶I, the minute indication changes continuously.

The built-in clock starts.

RΜ



notes

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

The clock is reset to "AM12:00" right away. If this happens, set the clock again.

• The clock may gain or lose 1 to 2 minutes per month If this happens, reset the clock.

To select 12-hour or 24-hour clock system

You can select 12-hour or 24-hour for the clock system only while the unit is in standby mode.

On the unit ONLY:

To change the clock setting, press TIMER ON/OFF while holding down ■.

• Each time you press TIMER ON/OFF, the clock change alternates between 12-hour and 24-hour system.





To show the clock when the unit is turned on

On the remote control ONLY:

Press DISPLAY/CLOCK SET.

• Each time you press the button, the display changes the clock indication and the normal indication alternately.



To change the clock

Repeat steps 1 to 3 of the procedure "Setting the Clock."

Turning On the Power

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



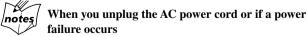
• When you press the source button—TAPE, TUNER/BAND and CD, the unit automatically turns on.

To turn off the unit (standby), press 心川 STANDBY/ON again.

The STANDBY lamp on the unit lights red.

- "AM12:00" 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 on standby.
- 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.



The clock is reset to "AM12:00" right away. If this happens, set the clock again.

Selecting the Source

To select the source, press TAPE, TUNER/BAND, or CD.



• When you select TAPE or CD as the source, playback does not start automatically.

To operate the tuner (FM or AM), see pages 10 and 11. To operate the CD player, see pages 12 - 14.

To operate the tape deck, see page 15.

To record on a tape, see pages 16 and 17.

Adjusting the Volume

You can adjust the volume level only while the unit is turned on. The volume level can be adjusted between "VOL MIN," "VOL 1" – "VOL 39," and "VOL MAX."

• The volume level has no effect on recording.

To increase the volume, press VOLUME +.

To decrease the volume, press VOLUME –.
When you press and hold either button, you can change the volume level continuously.



To turn off the sound temporarily On the remote control ONLY:

Press MUTING.

The volume level turn down and "MUTING" starts flashing on the display.

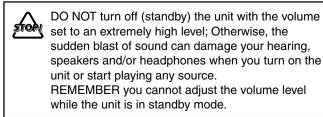
To restore the sound, press MUTING again.

• Adjusting the volume level also cancels the muting.



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.



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.

To select the sound modes, press SOUND/BASS repeatedly.

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





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



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

Reinforcing the Bass Sound

The richness and fullness of the bass sound is clearly maintained regardless of how low you set the volume—Hyper Bass Sound.

- This function also affects the sound from headphones.
- This function only affects the playback sound, and does not affect your recording.

To get the effect, press and hold SOUND/BASS until "HBS ON" appears and the BASS indicator lights up on the display.



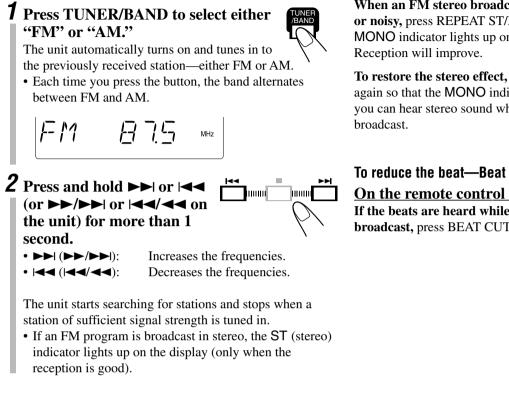
BASS H R G ΠN

• Each time you press and hold the button, the effect alternates on ("HBS ON") and off ("HBS OFF").

To cancel the effect, press and hold SOUND/BASS again until "HBS OFF" appears and the BASS indicator goes off.

Listening to FM and AM Broadcasts

Tuning in to a Station



To stop during searching, press ►►I or I << (or ►►/►►I or



When you repeatedly press **>>**| or |<< (or **>>**/**>>**| or $| \mathbf{A} \mathbf{A} / \mathbf{A} \mathbf{A} |$ 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 REPEAT ST/MONO so that the MONO indicator lights up on the display.



To restore the stereo effect, press REPEAT ST/MONO again so that the MONO indicator goes off. In stereo mode, you can hear stereo sound when a stereo program is

To reduce the beat—Beat Cut

On the remote control ONLY: If the beats are heard while listening a broadcast, press BEAT CUT.



Presetting Stations

You can preset 20 FM and 20 AM 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:

7 Tune in to the station you want to preset.

• See "Tuning in to a Station" on page 10.

2 Press PROGRAM.

The **PROG** (program) indicator and "00" start flashing on the display.



3 Press ∧ or ∨ to select a preset number.



4 Press PROGRAM again.The PROG indicator and the selected

The PROG indicator and the selected preset number stop flashing.



5 To preset more stations, repeat steps **1** to **4** above, allocating a different preset number to each station.

• Storing a new station on an already assigned number erases the previously stored one.



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

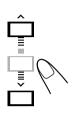
On the remote control ONLY:

1 Press TUNER/BAND to select either"FM" or "AM."

The unit automatically turns on and tunes in to the previously received station—either FM or AM.

• Each time you press the button, the band alternates between FM and AM.

2 Press ∧ or ∨ to select a preset number.





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

When playing a CD-R or CD-RW

User-edited CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) can be played only if they are already "finalized."

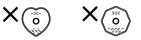
- Usually you can play back your original CD-Rs or CD-RWs recorded in music CD format. However, sometimes they may not play depending on their characteristics or recording conditions.
- Before playing CD-Rs or CD-RWs, read their instructions or cautions carefully.
- Some CD-Rs or CD-RWs may not play 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.

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 trays closed when not in use.

Continued use of irregular shape discs (heart-shape, octagonal, etc.) can damage the unit.



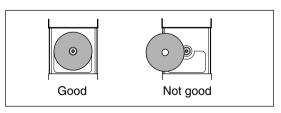
Playing Back the Entire Disc—Normal Play

1 Press \triangleq OPEN on 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.



3 Close the disc cover gently.

4 Press CD.

The unit automatically turns on and the source changes to the CD player. After loading the disc, total track number and total playing time appear on the display.



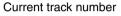
Total track number Total playing time

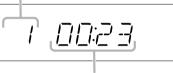


5 Press CD ►/II.

The first track of the disc starts playing.







Elapsed playing time

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

To stop playing, press ■.



To remove the disc, press \triangle OPEN on the unit.



- 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.



DO NOT try to 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 play, press CD ►/II. While pausing, the elapsed playing time flashes on the display.



hunn

To resume playing, press $CD \triangleright / II$ again.

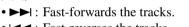
To go to another track

Before or during play, press ►►I or **I** repeatedly.

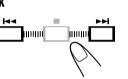
- **>>**: Skips to the beginning of the next or succeeding tracks.
- I Goes back to the beginning of the current or previous tracks.

To locate a particular point in a track

During play, press and hold ►►I or

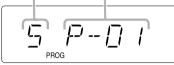


• **I** : Fast-reverses the tracks.



3 Press \rightarrow or \rightarrow to select the track number. then press PROGRAM.

Track number Program step number



PROGRAM	
\square \square	
\sim	
× ×	
· ∖	

......

4 Repeat step **3** to program other tracks you want.

5 Press CD ►/II.

The tracks are played in the order you have programed.





If you try to program a 61st track "FULL" will appear on the display.

To stop playing, press ■.



Programming the Track Playing Order -Program Play

You can arrange the order in which tracks play before you start playing. You can program up to 60 tracks.

On the remote control ONLY:

1 Place a disc.

• If the current source is not the CD player, press CD.

2 Press PROGRAM.

The PROG (program) indicator starts flashing on the display.



• If a program has been stored in memory, the program is called up.

To check the program contents

Press PROGRAM repeatedly in stop mode. The program number and track number are displayed in succession.

To modify the program

Press PROGRAM repeatedly in stop mode to select the number which you want to change the track, then repeat step **3** above.



To clear the program

Press ■ in stop mode.

The PROG indicator disappears from the display.

 Pressing OPEN to open the disc cover will also erase the programed tracks.



Playing at Random—Random Play

You can play the tracks at random.

On the remote control ONLY: Press RANDOM before or during playing. The RANDOM indicator lights up on the display.





To exit from Random Play, press RANDOM again. The RANDOM indicator goes off.

• It is not possible to activate the random play function during Program Play.

Repeating Tracks—Repeat Play

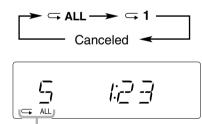
You can have all the tracks, the program or individual track currently playing, repeat as many times as you like.

On the remote control ONLY:

Press REPEAT ST/MONO repeatedly before or during playing.



• Each time you press the button, Repeat Play changes as follows, and the following repeat indicator lights up on the display:



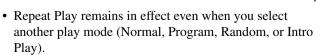
Repeat indicators

ALL: In Normal Play, repeats all the tracks. In Program Play, repeats all the tracks in the program.

In Random Play, repeats all the tracks in random order.

→ 1: Repeats one track.

To cancel Repeat Play, press REPEAT ST/MONO	
repeatedly until the repeat indicator goes off.	



- In Random Play,
 1 cannot be selected. If
 1 has been selected when you press RANDOM, it is canceled.
- If you select 1 in Random Play, Random Play is canceled.

Playing only Introductions—Intro Play

You can play only the introductions of the tracks.

On the remote control ONLY:

Press INTRO.

The INTRO indicator lights up and the first 10second portion of each track is played back in order.





To cancel Intro Play, press INTRO again. The INTRO indicator goes off.

• Intro Play remains in effect even when you select another play mode (Program or Random Play).

Displaying the Remaining Time during Playback

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.

• Each time you press the button, the display changes as follows, and the following indicators light up on the display:



Shows the remaining time of the current
track.
Shows the remaining time and track
number of the disc.
Shows the elapsed time of the disc.
Shows the elapsed time of the current track.

For Tape operations, use buttons inside the front cover on the unit.

Playing Back a Tape

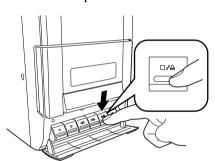
You can play back type I tapes only.

On the unit ONLY:

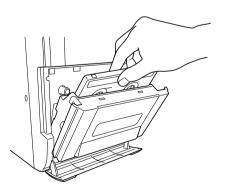
1 Open the front cover.



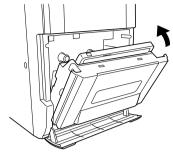
2 Press $\Box \triangleq$ (stop/cassette holder open). The cassette holder opens.



3 Put a cassette in with the exposed part of the tape down.



4 Close the cassette holder gently.



5 Press TAPE.

The unit automatically turns on and the source changes to the tape deck.

• You can select to the tape by pressing TAPE on the remote control.

b Press \triangleright (play).

- The tape starts playing.
- When the end of the tape is reached, playing stops.

To stop playing, press □/≙.

To stop playing for a moment, press 00 (pause). To resume playing, press 00 again.



ТАРЕ

To fast forward or rewind the tape, press $rac{1}{2}$ or $rac{1}{2}$.

• The tape stops at the end of the fast forwarding or rewinding. To release the locked button, press □/≙.

To remove the cassette, press $\Box \triangleq$ while playback is stopped.





- 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.

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.
 - DO NOT turn off the unit while playing back or stori 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.

-U/ 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 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 from the Radio

On the unit ONLY:

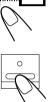
- **1** Put a recordable cassette in with the exposed part of the tape down.
 - See also page 15.
- **2** Close the cassette holder gently.
- **3** Press TUNER/BAND to select either "FM" or "AM."
 - When recording from discs, see "Recording Discs-Disc Synchronized Recording" on page 17.



4 Tune in to the station you want to record.

5 Press \bigcirc (recording).

 \bigcirc and \triangleright lock down, and the recording starts.



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-U notes

- You cannot press \bigcirc in the following cases:
- If no cassette is inserted.
- If a protected tape is inserted.

To stop recording for a moment, press II (pause).

To resume recording, press II again.

To stop recording, press \Box/ \triangleq .



To remove the cassette, press $\Box \triangleq$ while recording is stopped.

To record an AM station—Beat Cut **On the remote control ONLY:**

While recording an AM broadcast, beats may be heard (which are never heard when listening to the broadcast without recording it).

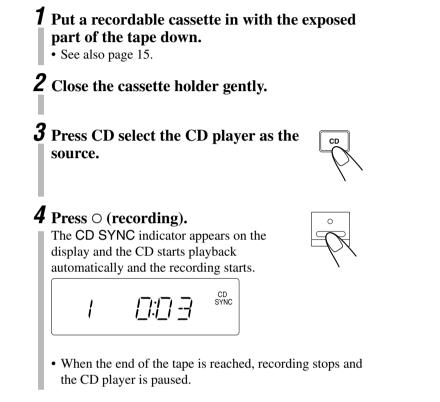
If this occurs, press BEAT CUT repeatedly, while recording, until the beats are reduced.

• Each time you press the button, the display changes alternates "BEAT 01" and "BEAT 02."

Recording Discs Disc Synchronized Recording

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

On the unit ONLY:



• If you press \bigcirc while playing back the CD, the CD player return to the beginning of that track and the track is recorded on the tape.



You cannot press \circ in the following cases:

- If no cassette is inserted.
- If a protected tape is inserted.

To stop recording for a moment, press II. The recording is paused, but the CD playback does not stop.

To resume recording, press II again.



To stop recording, press \Box/ \triangleq . The recording stops and the CD playback is paused.

To remove the cassette, press $\Box \triangleq$ while recording is stopped.



Daily Timer and Sleep Timer are available.

• Before using these timers, make sure the built-in clock is set correctly (see page 8).

Using the Daily Timer

You can set the Daily Timer when the unit is either turned on or in standby mode.

How the Daily Timer actually works

When the on-time comes, the unit automatically turns on and then the off-time comes, the unit automatically turns off (standby).

• Once the timer has been set, it will be activated at the same time everyday until the timer is turned off and the timer setting remains in memory until you change it.

Before you start...

When using "TUNER" as the source to play, make sure to select the desired station before turning off the power.

• In the following procedure, the clock is set to 12-hour system.

The 🕘 (timer) and the ON (on-time) indicators

flash and the on-time setting appears on the

• 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 SET.



display. If you does not need to change the on-time setting, go to step **3**.

(-) ON AM 12:00

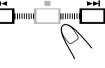
2 Press PROGRAM to set the on-time you want the unit to turn on.

Ŕ

PROGRAM

- The hour indication starts flashing on the display. 1) Press $\rightarrow 1$ or |4| to set the |4|
- hour, then press PROGRAM.
- 2) Press ►►I or I ◄ to set the minute, then press PROGRAM.

(-) ON 日M 7:1717





3 Press TIMER SET.

The \mathfrak{O} (timer) and the OFF (off-time) indicators flash and the off-time setting appears on the display.



If you does not need to change the off-time setting, go to step $\boldsymbol{5}$.

• If you change the on-time setting, the off-time setting changes to "-----" You need to set the off-time setting.



4 Press PROGRAM to set the off-time you want the unit to turn off.

The hour indication starts flashing on the display.

- 1) Press ►►I or I ◄ to set the hour, then press PROGRAM.
- 2) Press ►►I or I to set the minute, then press PROGRAM.

(ľ) OFF 1411 トイ・レイレー



TIMER SET

PROGRAM

......

5 Press TIMER SET.

The O (timer) indicator flashes and the source name appears on the display.

If you does not need to change the source, go to step $\mathbf{7}$.



b Press PROGRAM to select the source to play.

The source name starts flashing on the display.

• Press ►►I or I◄◄ to select "CD" or "TUNER," then press PROGRAM.





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7 Press TIMER SET.

The display changes normal indication and exit the timer setting mode.



8 Press TIMER ON/OFF to activate the daily timer mode.



Each time you press the button, the Daily Timer alternates on and off.

While activating the Daily Timer, the \mathfrak{O} (timer) indicator lights up on the display.

• You can active the Daily Timer by pressing TIMER ON/OFF on the unit.

9 Press ⊕/| STANDBY/ON to turn off the unit if the unit is on.

To deactivate the timer temporarily, press TIMER ON/OFF until the ④ (timer) indicator goes off.



To activate and change the timer, repeat steps **1** to **8** on pages 18 and 19.

• To activate the timer again without changing the setting, press TIMER ON/OFF until the 🕑 (timer) indicator lights up on the display.

The second secon

The timer does not works.



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 set the timer again.

Using the Sleep Timer

With the Sleep Timer, you can fall asleep to your favorite music or radio program.

• You can set the Sleep Timer only when the unit is turned on.

How the Sleep Timer actually works

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

On the remote control ONLY:

1 Press SLEEP.

The SLEEP indicator lights up on the display.





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

$$\begin{array}{c} 90 \neq 80 \neq 70 \neq 60 \neq 50 \\ 0 \\ \hline \end{array}$$

2 Wait for about 5 seconds after specifying the length of time.

To check the remaining time until shut-off time, press SLEEP once. The remaining time until shut-off time appears for about 5 seconds.

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

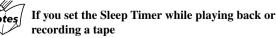
To cancel the setting, press SLEEP repeatedly until "OFF" appears and the SLEEP indicator goes off on the display.

• Turning off the unit also cancels the Sleep Timer.



If you set the Sleep Timer after the Daily Timer starts playing the selected source

The Daily timer is canceled. The unit turns off when the Sleep Timer shut-off time comes.



Do not shut the unit off with the Sleep Timer 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

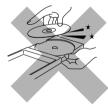
Should be wiped off with a soft cloth. If the unit is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.

- 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.

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

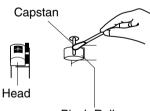
To keep the best recording and playback sound quality

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.



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.	 Check all connections and make corrections. (See pages 6 and 7.) Unplug the headphones from the PHONES jack.
Hard to listen to broadcasts because of noise.	 Antennas are disconnected. The AM loop antenna is too close to the unit. The FM antenna is not properly extended and positioned. 	 Reconnect the antenna correctly and securely. Change the position and direction of the AM loop antenna. Extend FM 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 6.) Signals cannot reach the remote sensor. Move closer to the unit.

Amplifier Section—CA-FSH10

Output Power:

 $\hat{\mathbf{5}}$ W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion.

Speakers/Impedance: $4 \Omega - 16 \Omega$

Tuner

FM tuning range: AM tuning range: 87.5 MHz-108.0 MHz 530 kHz-1 710 kHz

CD player

Dynamic range: Signal-to-noise ratio: Wow and flutter:

60 dB 60 dB Immeasurable

Cassette deck

Frequency response: Normal (type I): Wow and flutter:

General

Power requirement: Power consumption:

AC 120 V \sim , 60 Hz 22 W (at operation) 4.5 W (on standby) Dimensions (W/H/D) (approx.):

2.6 kg (5.8 lbs)

145 mm x 209 mm x 226 mm (5 ³/₄ in. x 8 ¹/₄ in. x 8 ¹⁵/₁₆ in.)

100 Hz—10 000 Hz

0.35 % (WRMS)

Mass (approx.):

Supplied accessories

See page 6.

Speaker Section—SP-FSH10

Туре:	Full range bass-reflex type
Speakers:	10 cm cone x1
Power handling capacity:	5 W
Impedance:	4 Ω
Frequency range:	100 Hz to 15 kHz
Dimensions (W/H/D) (ap	prox.):
	135 mm x 209 mm x 152 mm
	(5 ² / ₈ in. x 8 ¹ / ₄ in. x 6 in.)
Mass (approx.):	1.3 kg (2.9 lbs) each

LIMITED WARRANTY

AUDIO-1

JVC COMPANY OF AMERICA warrants this product and all parts thereof, except as set forth below ONLY TO THE ORIGINAL PURCHASER AT RETAIL to be FREE FROM DEFECTIVE MATERIALS AND WORKMANSHIP from the date of original retail purchase for the period as shown below. ("The Warranty Period") PARTS 1 YR 1 y_R THIS LIMITED WARRANTY IS VALID ONLY IN THE FIFTY (50) UNITED STATES, THE DISTRICT OF COLUMBIA AND IN COMMONWEALTH OF PUERTO RICO. WHAT WE WILL DO: If this product is found to be defective, JVC will repair or replace defective parts at no charge to the original owner. Such repair and replacement services shall be rendered by JVC during normal business hours at JVC authorized service centers. Parts used for replacement are warranted only for the remainder of the Warranty Period. All products and parts thereof may be brought to a JVC authorized service center on a carry-in basis except for Television sets having a screen size 25 inches and above which are covered on an in-home basis. WHAT YOU MUST DO FOR WARRANTY SERVICE: Return your product to a JVC authorized service center with a copy of your bill of sale. For your nearest JVC authorized service center, please call toll free: (800) 537-5722. If service is not available locally, box the product carefully, preferably in the original carton, and ship, insured, with a copy of your bill of sale plus a letter of explanation of the problem to the nearest JVC Factory Service Center, the name and location of which will be given to you by the toll-free number. If you have any questions concerning your JVC Product, please contact our Customer Relations Department. WHAT IS NOT COVERED: This limited warranty provided by JVC does not cover: 1. Products which have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, or if repaired or serviced by anyone other than a service facility authorized by JVC to render such service, or if affixed to any attachment not provided with the products, or if the model number or serial number has been altered, tampered with, defaced or removed; Initial installation and installation and removal for repair; Operational adjustments covered in the Owner's Manual, normal maintenance, video and audio head cleaning; Damage that occurs in shipment, due to act of God, and cosmetic damage; Signal reception problems and failures due to line power surge; 5. Video Pick-up Tubes/CCD Image Sensor, Cartridge, Stylus (Needle) are covered for 90 days from the date of purchase; 6. Accessories 8. Batteries (except that Rechargeable Batteries are covered for 90 days from the date of purchase): There are no express warranties except as listed above. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, IS LIMITED TO THE DURATION OF THE EXPRESS WARRANTY HEREIN. JVC SHALL NOT BE LIABLE FOR THE LOSS OF USE OF THE PRODUCT, INCONVENIENCE, LOSS OR ANY OTHER DAMAGES, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS) RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANT-ABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion of incidental or consequential damages or limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. JVC COMPANY OF AMERICA 1700 Valley Road DIVISION OF JVC AMERICAS CORP. Wayne, NJ 07470 REFURBISHED PRODUCTS CARRY A SEPARATE WARRANTY, THIS WARRANTY DOES NOT APPLY. FOR DETAILS OF REFURBISHED PRODUCT WARRANTY, PLEASE REFER TO THE REFURBISHED PRODUCT WARRANTY INFORMATION PACKAGED WITH EACH REFURBISHED PRODUCT. For customer use:

Enter below the Model No. which is located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No. :

Serial No. :

Purchase data :

Name of dealer :

Authorized Service Centers

QUALITY **JVC**[®] SERVICE HOW TO LOCATE YOUR JVC SERVICE CENTER TOLL FREE: 1 (800) 537-5722 http://www.jvc.com

Dear Customer,

In order to receive the most satisfaction from your purchase, please read the instruction booklet before operating the unit.In the event that repairs are necessary, please call 1 (800)537-5722 for your nearest authorized servicer or visit our website at **www.JVC.com** Remember to retain your Bill of Sale for Warranty Service.

Do not service the television yourself

Caution

To prevent electrical shock, do not open the cabinet. There are no user serviceable parts inside. Please refer to qualified service personnel for repairs.

Accessories

To purchase accessories for your JVC product, please call toll free:1 (800)882-2345 or on the web at **www.JVC.com**



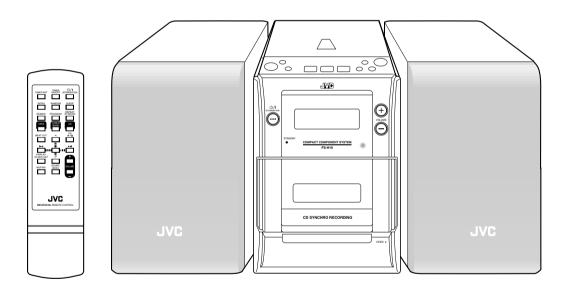




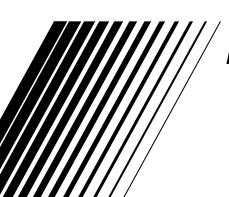


COMPACT COMPONENT SYSTEM SYSTEME DE COMPOSANTS COMPACT

FS-H10 —Consists of CA-FSH10 and SP-FSH10







INSTRUCTIONS MANUEL D'INSTRUCTIONS

For Customer Use:

Enter below the Model No. and Serial No. which are located either on the rear, bottom or side of the cabinet. Retain this information for future reference.

Model No.

Serial No.

Warnings, Cautions and Others Mises en garde, précautions et indications diverses





The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that

to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION-0/| STANDBY/ON button!

Disconnect the mains plug to shut the power off completely (all lamps and indications go off). The $O\!\!\!O\!I$ 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.

ATTENTION—Touche U/I STANDBY/ON

Déconnectez la fiche secteur pour mettre l'appareil complètement hors tension (tous les témoins et toutes les indications s'éteignent). La touche O/I STANDBY/ON dans n'importe quelle position ne déconnecte pas l'appareil du secteur.

- Quand l'appareil est en mode d'attente, le témoin STANDBY est allumé en rouge.
- · Quand l'appareil est sous tension, le témoin STANDBY s'éteint.

L'alimentation ne peut pas être commandée à distance.

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.

ATTENTION

Afin d'éviter tout risque d'électrocution, d'incendie, etc.:

- 1. Ne pas enlever les vis ni les panneaux et ne pas ouvrir le coffret de l'appareil.
- 2. Ne pas exposer l'appareil à la pluie ni à l'humidité.

For Canada/pour le Canada

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQUAU FOND.

For Canada/pour le Canada

THIS DIGITAL APPARATUS DOES NOT EXCEED THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS AS SET OUT IN THE INTERFER-ENCE-CAUSING EQUIPMENT STANDARD ENTITLED "DIGITAL APPARATUS," ICES-003 OF THE DEPARTMENT OF COMMUNICATIONS. CET APPAREIL NUMERIQUE RESPECTE LES LIMITES DE BRUITS RADIOELECTRIQUES APPLICABLES AUX APPAREILS NUMERIQUES DE CLASSE B PRESCRITES DANS LA NORME SUR LE MATERIEL BROUILLEUR: "APPAREILS NUMERIQUES", NMB-003 EDICTEE PAR LE MINISTRE DES COMMUNICATIONS.

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.

ATTENTION: Aération correcte

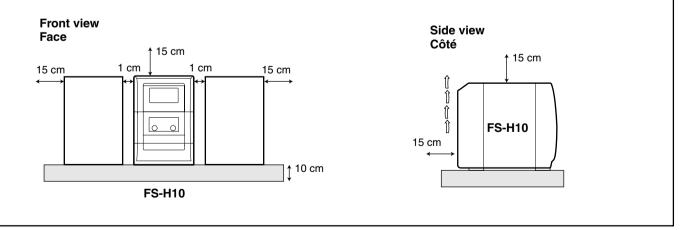
Pour prévenir tout risque de décharge électrique ou d'incendie et éviter toute détérioration, installez l'appareil de la manière suivante:

1 Avant:

- Bien dégagé de tout objet.
- 2 Côtés/dessus/dessous:
- Assurez-vous que rien ne bloque les espaces indiqués sur le schéma ci-dessous.

3 Dessous:

Posez l'appareil sur une surface plane et horizontale. Veillez à ce que sa ventilation correcte puisse se faire en le plaçant sur un support d'au moins dix centimètres de hauteur.



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 "Basic and Common Operations" on pages 8 and 9.
- 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.



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.

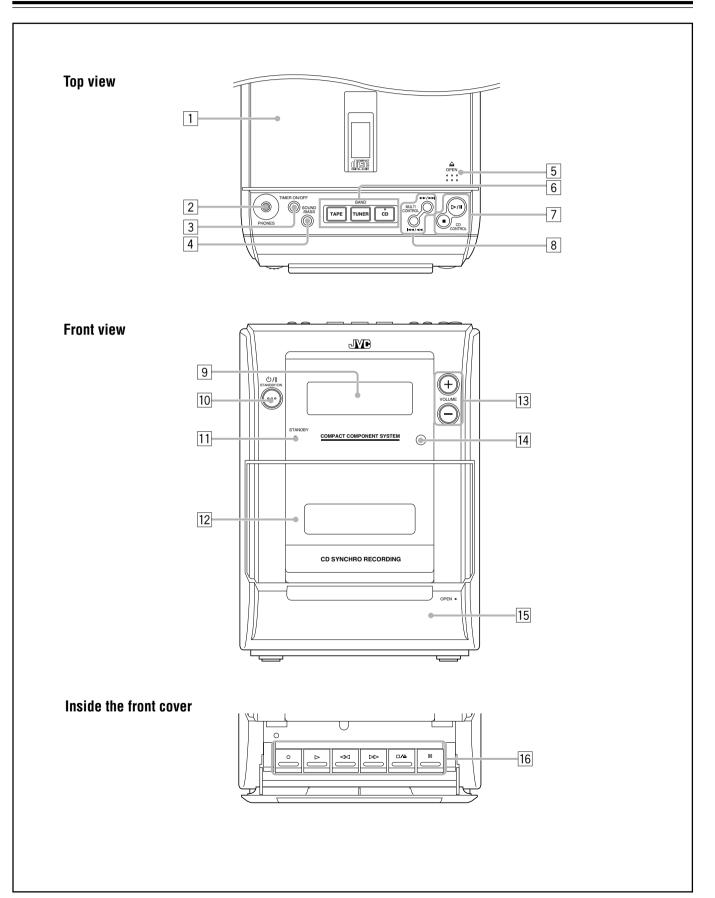
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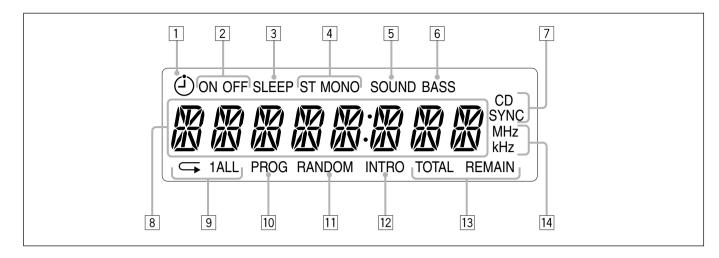
Location of the Buttons and Controls

Become familiar with the buttons and controls on your unit.

Main Unit



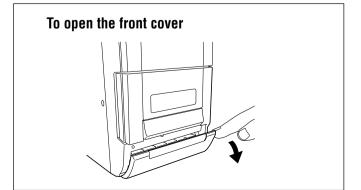
Display window on the front panel



See pages in parentheses for details.

Main unit

- 1 Disc cover (12)
- 2 PHONES jack (9)
- **3** TIMER ON/OFF button (8, 19)
- 4 SOUND/BASS button (9)
- **5** \triangle OPEN (disc cover open) (12, 13)
- 6 Source buttons
 - TAPE, TUNER/BAND, CD Pressing one of these buttons also turns on the unit.
- 7 CD CONTROL buttons (8, 12, 13)
 - ⊳/Ⅲ, ■
- 8 MULTI CONTROL buttons
- • • / • |, | • / •
- 9 Display window
- 10 **小**/ STANDBY/ON button (8, 19)
- 11 STANDBY lamp (8)
- 12 Cassette holder (15)
- 13 VOLUME + / buttons (9)
- 14 Remote sensor (5)
- **15** Front cover (15)
- 16 Tape operation buttons (15 17)
 - O (recording), ▷ (play), ⊲⊲ (fast backward),
 ▷▷ (fast forward), □/≙ (stop/cassette holder open),
 □□ (pause)

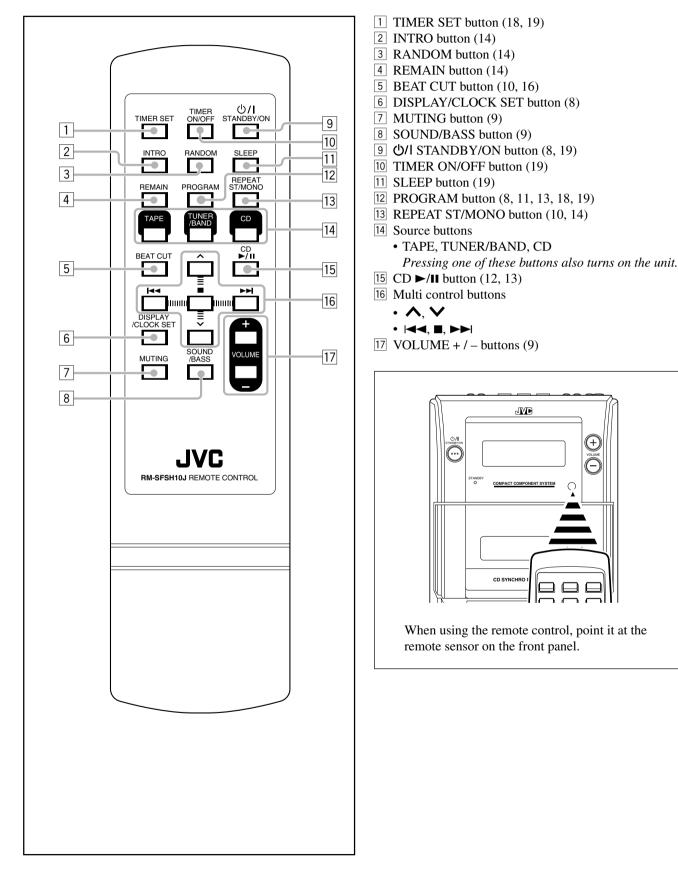


Display window

- $1 \odot$ (timer) indicator
- 2 ON/OFF (timer on-time/off-time) indicators
- 3 SLEEP indicator
- 4 FM mode indicators
- ST (stereo), MONO
- 5 SOUND indicator
- 6 BASS indicator
- 7 CD SYNC (syncro) indicator
- 8 Main display
 - Shows the source name and other information.
- 9 Repeat indicators
 - 🖚, 1, ALL
- 10 PROG (program) indicator
- 11 RANDOM indicator
- 12 INTRO indicator
- 13 Time indicators
- TOTAL, REMAIN
- 14 Frequency indicators
 - MHz, kHz

Remote Control

See pages in parentheses for details.



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.

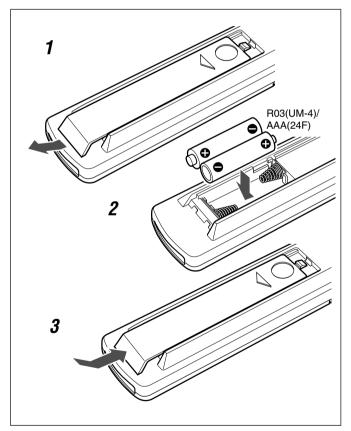
- AM loop antenna (1)
- Remote control (1)
- Batteries (2)

If any item is missing, consult your dealer immediately.

Putting the Batteries into the Remote Control

Insert the batteries—R03(UM-4)/AAA(24F)—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.

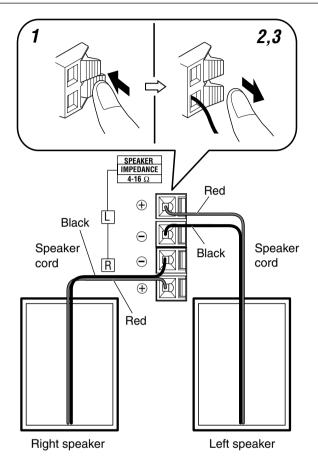


- DO NOT use an old battery together with a new one.
 - DO NOT use different types of batteries together.
 - DO NOT expose batteries to heat or flame.
 - DO NOT leave the batteries in the battery compartment when you are not going to use the remote control for an extended period of time. Otherwise, the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

Connections

To connect speakers

You can connect the speakers using the speaker cords.



1 Hold the clamp of the speaker terminal.

2 Insert the end of the speaker cord into the terminal.

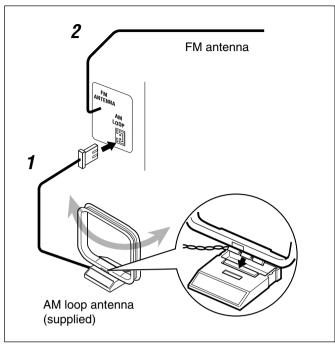
Match the polarity of the speaker terminals: red (\bigoplus) to red (\bigoplus) and black (\bigoplus) to black (\bigoplus) .

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 connect AM and FM antennas



1 Connect the supplied AM loop antenna to the AM LOOP terminal.

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

2 Adjust the position for the FM antenna for the best reception.



For better reception of both FM and AM

- 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.

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.

Setting the Clock

Before operating the unit any further, first set the unit's clock. When you plug in the power cord, "AM12:00" starts flashing on the display.

You can set the clock when the unit is either turned on or in standby mode.

• In the following procedure, the clock is set to 12-hour system.

On the remote control ONLY:

1 When the unit is in standby mode, press and hold PROGRAM until the hour indication starts flashing.





• When the unit is on, press DISPLAY/CLOCK SET to enter clock mode, then press and hold PROGRAM.

2 Press $| \blacktriangleleft \triangleleft$ or $\triangleright \triangleright |$ to adjust the hour, then press **PROGRAM.**



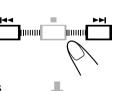
When you press and hold I ►►, the hour indication changes continuously.

The minute indication start flashing.

BM

Press | << or >> | to adjust

the minute, then press



PROGRAM. • When you press and hold I ►►I, the minute indication changes continuously.

The built-in clock starts.

BM



notes

3

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

The clock is reset to "AM12:00" right away. If this happens, set the clock again.

The clock may gain or lose 1 to 2 minutes per month If this happens, reset the clock.

To select 12-hour or 24-hour clock system

You can select 12-hour or 24-hour for the clock system only while the unit is in standby mode.

On the unit ONLY:

To change the clock setting, press TIMER ON/OFF while holding down ■.

• Each time you press TIMER ON/OFF, the clock change alternates between 12-hour and 24-hour system.





To show the clock when the unit is turned on

On the remote control ONLY:

Press DISPLAY/CLOCK SET.

• Each time you press the button, the display changes the clock indication and the normal indication alternately.



To change the clock

Repeat steps 1 to 3 of the procedure "Setting the Clock."

Turning On the Power

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



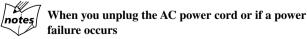
• When you press the source button-TAPE, TUNER/BAND and CD, the unit automatically turns on.

To turn off the unit (standby), press Ψ/I STANDBY/ON again.

The STANDBY lamp on the unit lights red.

- "AM12:00" 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 on standby.
- 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.



The clock is reset to "AM12:00" right away. If this happens, set the clock again.

Selecting the Source

To select the source, press TAPE, TUNER/BAND, or CD.



• When you select TAPE or CD as the source, playback does not start automatically.

To operate the tuner (FM or AM), see pages 10 and 11. To operate the CD player, see pages 12 - 14. To operate the tape deck, see page 15.

To record on a tape, see pages 16 and 17.

Adjusting the Volume

You can adjust the volume level only while the unit is turned on. The volume level can be adjusted between "VOL MIN," "VOL 1" – "VOL 39," and "VOL MAX."

• The volume level has no effect on recording.

To increase the volume, press VOLUME +.

To decrease the volume, press VOLUME –.
When you press and hold either button, you can change the volume level continuously.



To turn off the sound temporarily On the remote control ONLY:

Press MUTING.

The volume level turn down and "MUTING" starts flashing on the display.

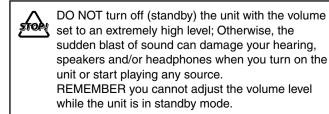
To restore the sound, press MUTING again.

• Adjusting the volume level also cancels the muting.



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.



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.

To select the sound modes, press SOUND/BASS repeatedly.

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





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



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

Reinforcing the Bass Sound

The richness and fullness of the bass sound is clearly maintained regardless of how low you set the volume—Hyper Bass Sound.

- This function also affects the sound from headphones.
- This function only affects the playback sound, and does not affect your recording.

To get the effect, press and hold SOUND/BASS until "HBS ON" appears and the BASS indicator lights up on the display.



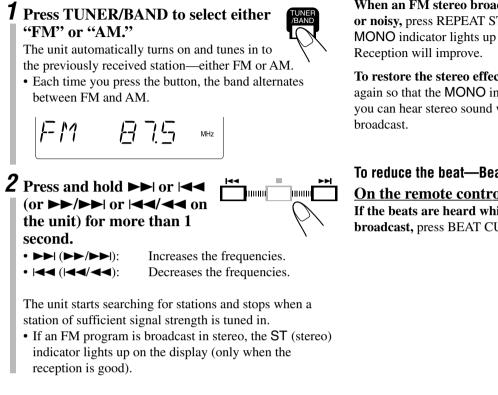
BASS H H G ΠN

• Each time you press and hold the button, the effect alternates on ("HBS ON") and off ("HBS OFF").

To cancel the effect, press and hold SOUND/BASS again until "HBS OFF" appears and the BASS indicator goes off.

Listening to FM and AM Broadcasts

Tuning in to a Station



To stop during searching, press ►►I or I<< (or ►►/►►I or



When you repeatedly press **>>**| or |<< (or **>>**/**>>**| or $| \mathbf{A} \mathbf{A} / \mathbf{A} \mathbf{A} |$ 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 REPEAT ST/MONO so that the MONO indicator lights up on the display.



To restore the stereo effect, press REPEAT ST/MONO again so that the MONO indicator goes off. In stereo mode, you can hear stereo sound when a stereo program is

To reduce the beat—Beat Cut

On the remote control ONLY: If the beats are heard while listening a broadcast, press BEAT CUT.



Presetting Stations

You can preset 20 FM and 20 AM 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:

7 Tune in to the station you want to preset.

• See "Tuning in to a Station" on page 10.

2 Press PROGRAM.

The **PROG** (program) indicator and "00" start flashing on the display.





3 Press ∧ or ∨ to select a preset number.



4 Press PROGRAM again.

The PROG indicator and the selected preset number stop flashing.



5 To preset more stations, repeat steps **1** to **4** above, allocating a different preset number to each station.

• Storing a new station on an already assigned number erases the previously stored one.



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

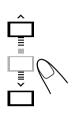
On the remote control ONLY:

Press TUNER/BAND to select either"FM" or "AM."

The unit automatically turns on and tunes in to the previously received station—either FM or AM.

• Each time you press the button, the band alternates between FM and AM.

2 Press ∧ or ∨ to select a preset number.



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

When playing a CD-R or CD-RW

User-edited CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) can be played only if they are already "finalized."

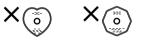
- Usually you can play back your original CD-Rs or CD-RWs recorded in music CD format. However, sometimes they may not play depending on their characteristics or recording conditions.
- Before playing CD-Rs or CD-RWs, read their instructions or cautions carefully.
- Some CD-Rs or CD-RWs may not play 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.

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 trays closed when not in use.

Continued use of irregular shape discs (heart-shape, octagonal, etc.) can damage the unit.



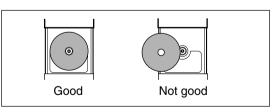
Playing Back the Entire Disc—Normal Play

1 Press \triangleq OPEN on 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.



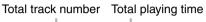
3 Close the disc cover gently.

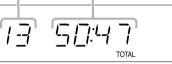
4 Press CD.

The unit automatically turns on and the source changes to the CD player. After loading the disc, total track number



After loading the disc, total track number and total playing time appear on the display.

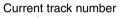


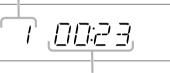


5 Press CD ►/II.

The first track of the disc starts playing.







Elapsed playing time

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

To stop playing, press ■.



To remove the disc, press \triangle OPEN on the unit.



- 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.



DO NOT try to 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 play, press CD ►/II. While pausing, the elapsed playing time flashes on the display.



hunn

To resume playing, press $CD \triangleright / II$ again.

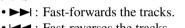
To go to another track

Before or during play, press ►►I or **I** repeatedly.

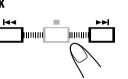
- **>>**: Skips to the beginning of the next or succeeding tracks.
- I Goes back to the beginning of the current or previous tracks.

To locate a particular point in a track

During play, press and hold ►►I or



• **I** : Fast-reverses the tracks.



0000

3 Press \rightarrow or \rightarrow to select the track number. then press PROGRAM.

Track number Program step number

ROGRAM	
\mathcal{V}	
\	

......

4 Repeat step **3** to program other tracks you want.

5 Press CD ►/II.

The tracks are played in the order you have programed.





If you try to program a 61st track "FULL" will appear on the display.

To stop playing, press ■.



Programming the Track Playing Order -Program Play

You can arrange the order in which tracks play before you start playing. You can program up to 60 tracks.

On the remote control ONLY:

1 Place a disc.

• If the current source is not the CD player, press CD.

2 Press PROGRAM.

The PROG (program) indicator starts flashing on the display.



• If a program has been stored in memory, the program is called up.

To check the program contents

Press PROGRAM repeatedly in stop mode. The program number and track number are displayed in succession.

To modify the program

Press PROGRAM repeatedly in stop mode to select the number which you want to change the track, then repeat step **3** above.



To clear the program

Press ■ in stop mode.

The PROG indicator disappears from the display.

 Pressing OPEN to open the disc cover will also erase the programed tracks.

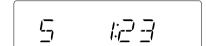


Playing at Random—Random Play

You can play the tracks at random.

On the remote control ONLY: Press RANDOM before or during playing. The RANDOM indicator lights up on the display.





To exit from Random Play, press RANDOM again. The RANDOM indicator goes off.

• It is not possible to activate the random play function during Program Play.

Repeating Tracks—Repeat Play

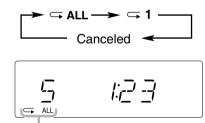
You can have all the tracks, the program or individual track currently playing, repeat as many times as you like.

On the remote control ONLY:

Press REPEAT ST/MONO repeatedly before or during playing.



• Each time you press the button, Repeat Play changes as follows, and the following repeat indicator lights up on the display:



Repeat indicators

ALL: In Normal Play, repeats all the tracks. In Program Play, repeats all the tracks in the program.

In Random Play, repeats all the tracks in random order.

 \frown 1: Repeats one track.

To cancel Repeat Play, press REPEAT ST/MONO	
repeatedly until the repeat indicator goes off.	



- Repeat Play remains in effect even when you select another play mode (Normal, Program, Random, or Intro Play).
- In Random Play,
 1 cannot be selected. If
 1 has been selected when you press RANDOM, it is canceled.
- If you select 1 in Random Play, Random Play is canceled.

Playing only Introductions—Intro Play

You can play only the introductions of the tracks.

On the remote control ONLY:

Press INTRO.

The INTRO indicator lights up and the first 10second portion of each track is played back in order.



To cancel Intro Play, press INTRO again. The INTRO indicator goes off.

• Intro Play remains in effect even when you select another play mode (Program or Random Play).

Displaying the Remaining Time during Playback

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.

• Each time you press the button, the display changes as follows, and the following indicators light up on the display:



REMAIN:	Shows the remaining time of the current
	track.
TOTAL REMAIN	: Shows the remaining time and track
	number of the disc.
TOTAL:	Shows the elapsed time of the disc.
No indication:	Shows the elapsed time of the current
	track.

For Tape operations, use buttons inside the front cover on the unit.

Playing Back a Tape

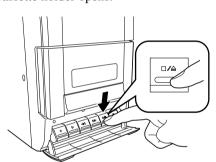
You can play back type I tapes only.

On the unit ONLY:

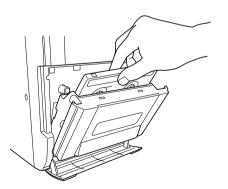
1 Open the front cover.



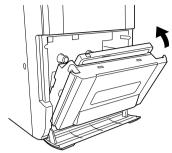
2 Press $\Box \triangleq$ (stop/cassette holder open). The cassette holder opens.



3 Put a cassette in with the exposed part of the tape down.



4 Close the cassette holder gently.



5 Press TAPE.

The unit automatically turns on and the source changes to the tape deck.

• You can select to the tape by pressing TAPE on the remote control.

b Press \triangleright (play).

- The tape starts playing.
- When the end of the tape is reached, playing stops.

To stop playing, press □/≙.

To stop playing for a moment, press II (pause). To resume playing, press II again.

ТАРЕ

To fast forward or rewind the tape, press $rac{1}{2}$ or $rac{1}{2}$.

• The tape stops at the end of the fast forwarding or rewinding. To release the locked button, press □/≙.

To remove the cassette, press $\Box \triangleq$ while playback is stopped.





- 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.



IMPORTANT:

- It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.
- 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.



 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.



At the start and end of cassette tapes

There is leader tape which cannot be recorded onto. Thus, when recording from discs, FM/AM 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 from the Radio

On the unit ONLY:

- **7** Put a recordable cassette in with the exposed part of the tape down.
 - See also page 15.
- **2** Close the cassette holder gently.
- **3** Press TUNER/BAND to select either "FM" or "AM."
 - When recording from discs, see "Recording Discs-Disc Synchronized Recording" on page 17.



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4 Tune in to the station you want to record.

5 Press \bigcirc (recording).

 \bigcirc and \triangleright lock down, and the recording starts.



-U notes

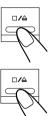
- You cannot press \bigcirc in the following cases:
- If no cassette is inserted.
- If a protected tape is inserted.

To stop recording for a moment, press II (pause).

To resume recording, press II again.

To stop recording, press \Box/ \triangleq .





To remove the cassette, press $\Box \triangleq$ while recording is stopped.

To record an AM station—Beat Cut **On the remote control ONLY:**

While recording an AM broadcast, beats may be heard (which are never heard when listening to the broadcast without recording it).

If this occurs, press BEAT CUT repeatedly, while recording, until the beats are reduced.

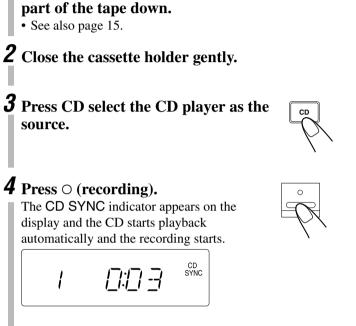
• Each time you press the button, the display changes alternates "BEAT 01" and "BEAT 02."

Recording Discs -Disc Synchronized Recording

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

1 Put a recordable cassette in with the exposed

On the unit ONLY:



- When the end of the tape is reached, recording stops and the CD player is paused.
- If you press \bigcirc while playing back the CD, the CD player return to the beginning of that track and the track is recorded on the tape.



You cannot press \circ in the following cases:

- If no cassette is inserted.
- If a protected tape is inserted.

To stop recording for a moment, press II. The recording is paused, but the CD playback does not stop.

To resume recording, press II again.



To stop recording, press \Box/ \triangleq . The recording stops and the CD playback is paused.

To remove the cassette, press $\Box \triangleq$ while recording is stopped.



TIMER SET

Daily Timer and Sleep Timer are available.

• Before using these timers, make sure the built-in clock is set correctly (see page 8).

Using the Daily Timer

You can set the Daily Timer when the unit is either turned on or in standby mode.

How the Daily Timer actually works

When the on-time comes, the unit automatically turns on and then the off-time comes, the unit automatically turns off (standby).

• Once the timer has been set, it will be activated at the same time everyday until the timer is turned off and the timer setting remains in memory until you change it.

Before you start...

When using "TUNER" as the source to play, make sure to select the desired station before turning off the power.

- In the following procedure, the clock is set to 12-hour system.
- 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 SET. The ② (timer) and the ON (on-time) indicators



PROGRAM

ROGRAM

display. If you does not need to change the on-time setting, go to step **3**.

(-) ON AM 12:00

flash and the on-time setting appears on the

2 Press PROGRAM to set the on-time you want the unit to turn on.

The hour indication starts flashing on the display.

- 1) Press ►►I or I◄◄ to set the hour, then press PROGRAM.
- 2) Press ►►I or I ◄ to set the minute, then press PROGRAM.

(-) ON 日M 7:1717





3 Press TIMER SET.

The O (timer) and the OFF (off-time) indicators flash and the off-time setting appears on the display.

If you does not need to change the off-time setting, go to step **5**.

• If you change the on-time setting, the off-time setting changes to "-----" You need to set the off-time setting.



4 Press PROGRAM to set the off-time you want the unit to turn off.

The hour indication starts flashing on the display.

- 1) Press ►►I or I ◄ to set the hour, then press PROGRAM.
- 2) Press ►►I or I ◄ to set the minute, then press PROGRAM.

(ľ) OFF 1411 トイ・レイレー



TIMER SET

PROGRAM

......

5 Press TIMER SET.

The \mathfrak{O} (timer) indicator flashes and the source name appears on the display.

If you does not need to change the source, go to step **7**.



b Press PROGRAM to select the source to play.

The source name starts flashing on the display.

• Press ►►I or I◄◄ to select "CD" or "TUNER," then press PROGRAM.

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7 Press TIMER SET.

The display changes normal indication and exit the timer setting mode.







Each time you press the button, the Daily Timer alternates on and off.

While activating the Daily Timer, the \mathfrak{O} (timer) indicator lights up on the display.

• You can active the Daily Timer by pressing TIMER ON/OFF on the unit.

9 Press ()/| STANDBY/ON to turn off the unit if the unit is on.

To deactivate the timer temporarily, press TIMER ON/OFF until the O (timer) indicator goes off.



To activate and change the timer, repeat steps **1** to **8** on pages 18 and 19.

• To activate the timer again without changing the setting, press TIMER ON/OFF until the 🕑 (timer) indicator lights up on the display.

The second secon

The timer does not works.



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 set the timer again.

Using the Sleep Timer

With the Sleep Timer, you can fall asleep to your favorite music or radio program.

• You can set the Sleep Timer only when the unit is turned on.

How the Sleep Timer actually works

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

On the remote control ONLY:

1 Press SLEEP.

The SLEEP indicator lights up on the display.





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

$$\begin{array}{c} 90 \neq 80 \neq 70 \neq 60 \neq 50 \\ \hline \\ 0 \text{ FF} \neq 10 \neq 20 \neq 30 \neq 40 \end{array}$$

2 Wait for about 5 seconds after specifying the length of time.

To check the remaining time until shut-off time, press SLEEP once. The remaining time until shut-off time appears for about 5 seconds.

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

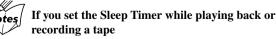
To cancel the setting, press SLEEP repeatedly until "OFF" appears and the SLEEP indicator goes off on the display.

• Turning off the unit also cancels the Sleep Timer.



If you set the Sleep Timer after the Daily Timer starts playing the selected source

The Daily timer is canceled. The unit turns off when the Sleep Timer shut-off time comes.



Do not shut the unit off with the Sleep Timer 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

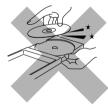
Should be wiped off with a soft cloth. If the unit is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.

- 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.

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

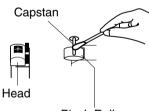
To keep the best recording and playback sound quality

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.



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.	 Check all connections and make corrections. (See pages 6 and 7.) Unplug the headphones from the PHONES jack.
Hard to listen to broadcasts because of noise.	 Antennas are disconnected. The AM loop antenna is too close to the unit. The FM antenna is not properly 	 Reconnect the antenna correctly and securely. Change the position and direction of the AM loop antenna. Extend FM antenna and orient to the
The disc does not play.	- extended and positioned. The disc is upside down.	best reception position. 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 6.) Signals cannot reach the remote sensor. Move closer to the unit.

Amplifier Section—CA-FSH10

Output Power:

 $\overline{5}$ W per channel, min. RMS, driven into 4 Ω at 1 kHz with no more than 10% total harmonic distortion.

Speakers/Impedance: $4 \Omega - 16 \Omega$

Tuner

FM tuning range: AM tuning range: 87.5 MHz—108.0 MHz 530 kHz—1 710 kHz

CD player

Dynamic range: Signal-to-noise ratio: Wow and flutter: 60 dB 60 dB Immeasurable

Cassette deck

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

General

Power requirement:AC 120 V \sim , 60 HzPower consumption:22 W (at operation)4.5 W (on standby)Dimensions (W/H/D) (approx.):145 mm x 209 mm x 226 mmMass (approx.):2.6 kg

Supplied accessories

See page 6.

Speaker Section—SP-FSH10

Type:Full range bass-reflex typeSpeakers:10 cm cone x1Power handling capacity:5 WImpedance:4 Ω Frequency range:100 Hz to 15 kHzDimensions (W/H/D) (approx.):135 mm x 209 mm x 152 mmMass (approx.):1.3 kg each



