



# MINI HI-FI SYSTEM OWNER'S MANUAL

**MODEL: FFH-M315 (FFH-M315X, FE-M315E)  
FFH-M515 (FFH-M515X, FE-M515E)**

**Please read this manual carefully before operating your set.  
Retain it for future reference.**

**Designs and specifications are subject to change without  
notice for improvement.**

**The working life of this product is 7 years since the date of  
purchase.**



**MP3**  
CD-R/RW

**COMPACT**  
**disc**  
DIGITAL AUDIO



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



**CAUTION: THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY.**  
TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.



**Caution: The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.**

CLASS 1 LASER PRODUCT  
KLASSE 1 LASER PRODUKT  
LUOKAN 1 LASER LAITE  
KLASS 1 LASER APPARAT  
CLASSE 1 PRODUIT LASER



**CAUTION: This product employs a Laser System.**

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service center.

**Use of controls, adjustments, or the performance of procedures other than those specified herein may result in hazardous radiation exposure.**

**To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when open. DO NOT STARE INTO BEAM.**



**WARNING: Do not install this equipment in a confined space such as a bookcase or similar unit.**

#### CAUTION concerning the Power Cord

**Most appliances recommend they be placed upon a dedicated circuit;**

That is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain.

Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer.

Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.



#### Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

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# 1. Introduction

To ensure proper use of this product, please read this owner's manual carefully and retain for future reference.

This manual provides information on the operation and maintenance of your CD player. Should the unit require service, contact an authorized service location (refer to Chapter 4, Maintenance and Service).

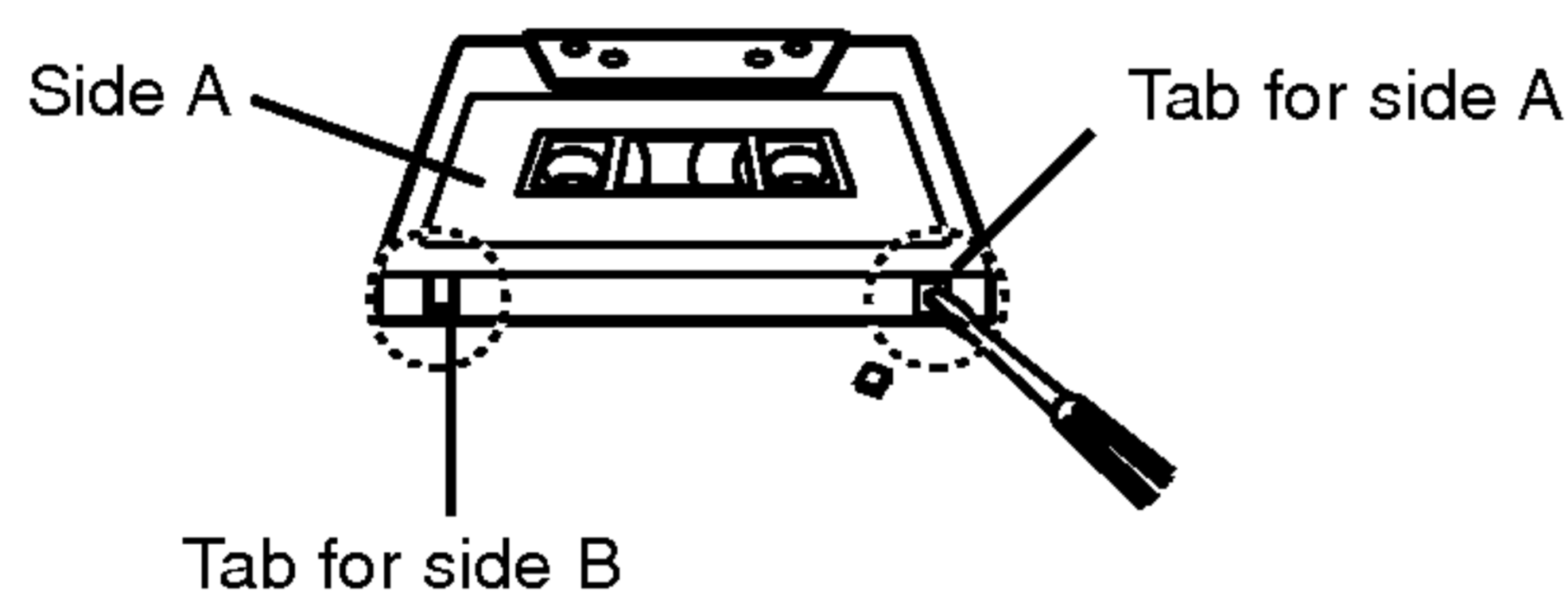
## Symbols Used in this Manual

-  Indicates hazards likely to cause harm to the unit itself or other material damage.
-  Indicates special notes and operating features.

## Notes on Tapes

### Preventing record

Removing the tab(s) of the cassette (with a small screwdriver) will prevent accidental erasure.



To record again, cover the hole of the tab with adhesive tape.



## Notes on Discs

### Handling discs

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints do not get on the surface. Never stick paper or tape on the disc.

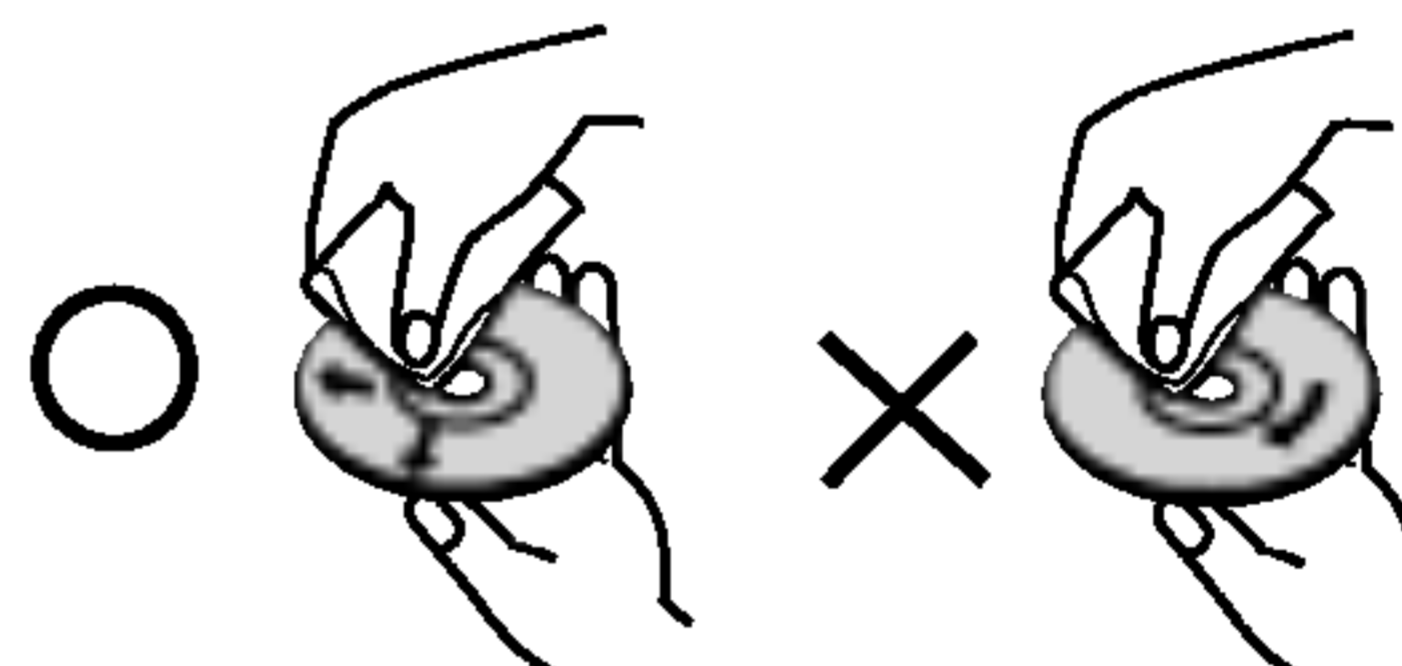


### Storing discs

After playing, store the disc in its case. Do not expose the disc to direct sunlight or sources of heat and never leave it in a parked car exposed to direct sunlight.

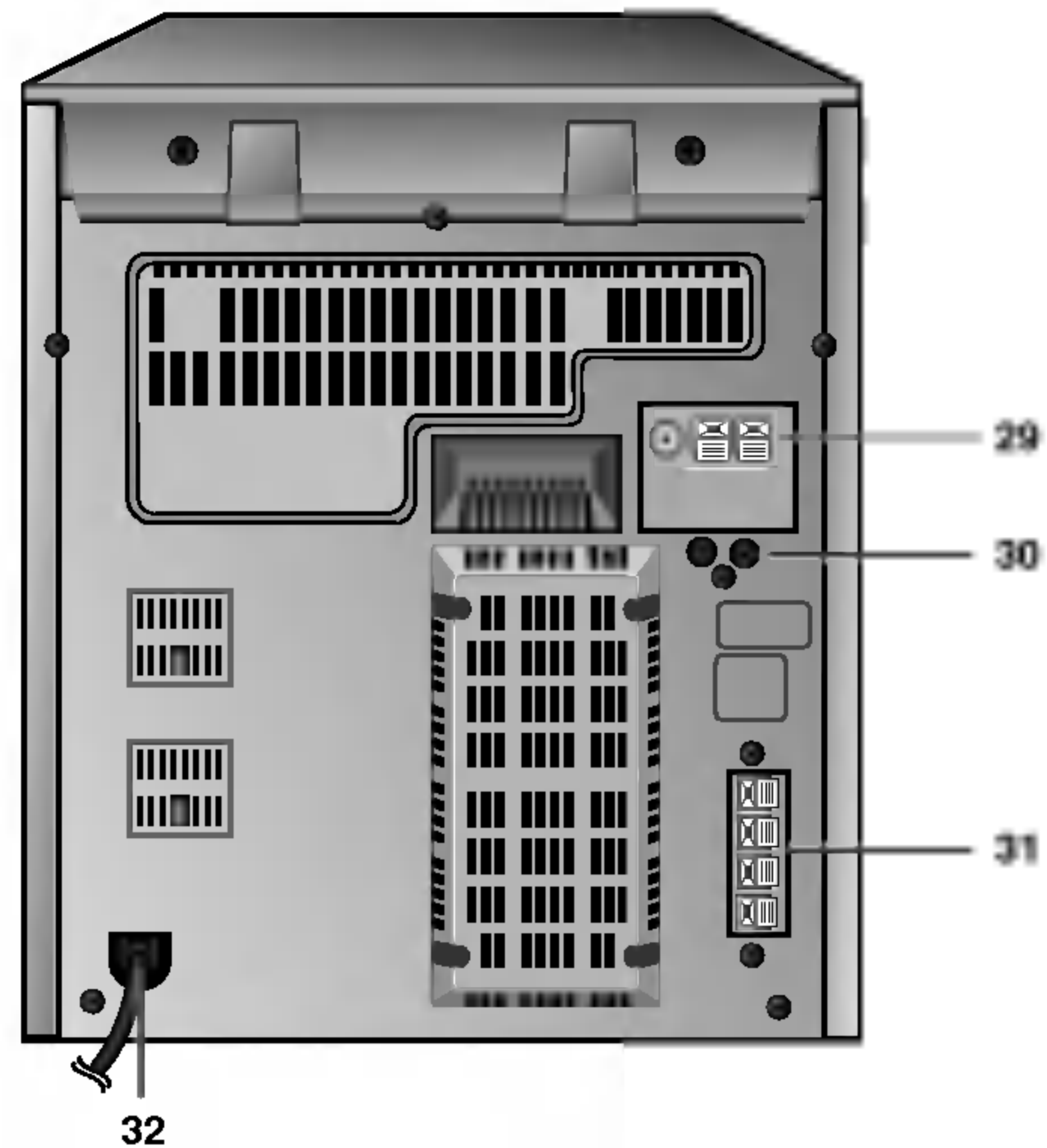
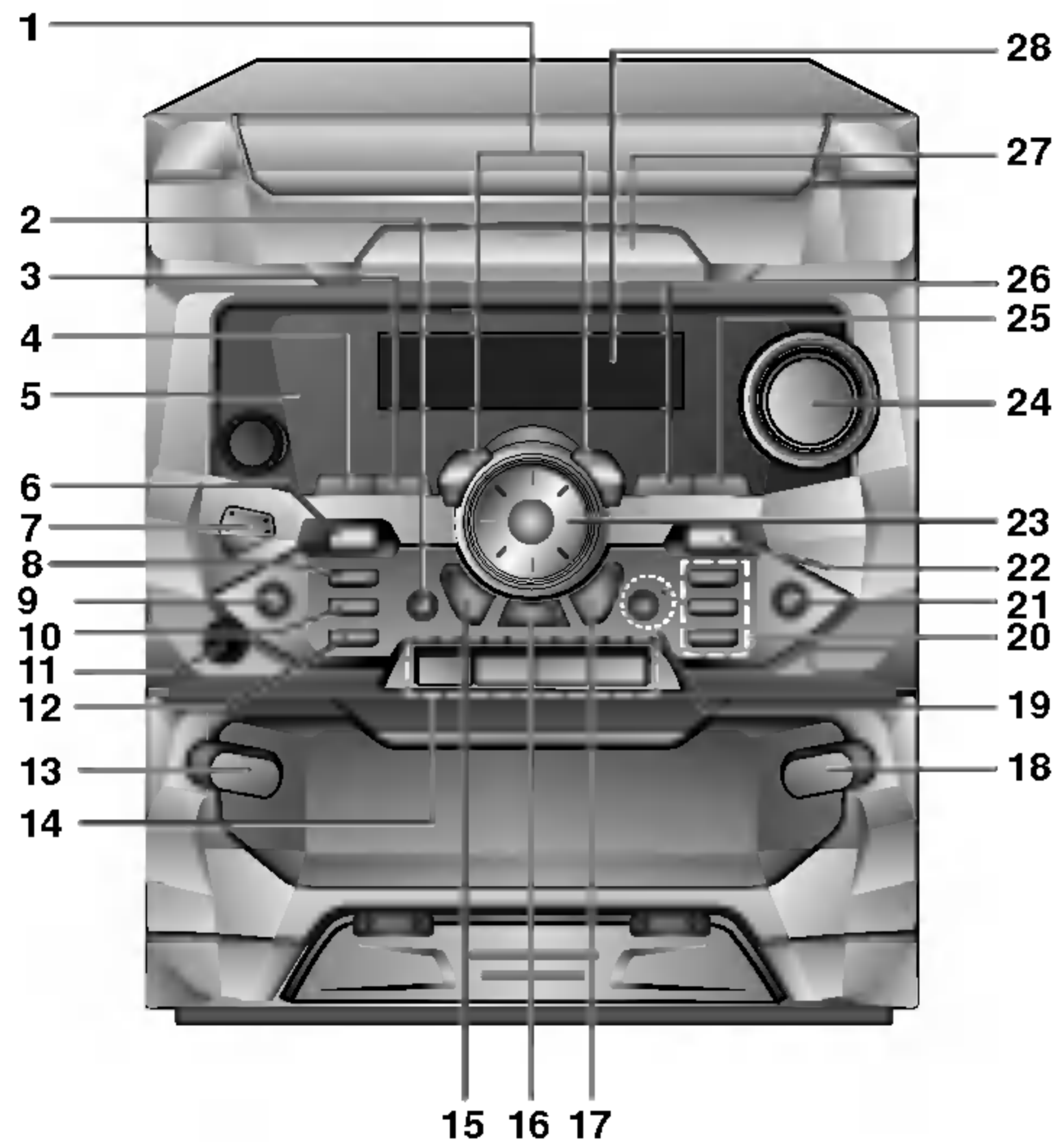
### Cleaning discs

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.



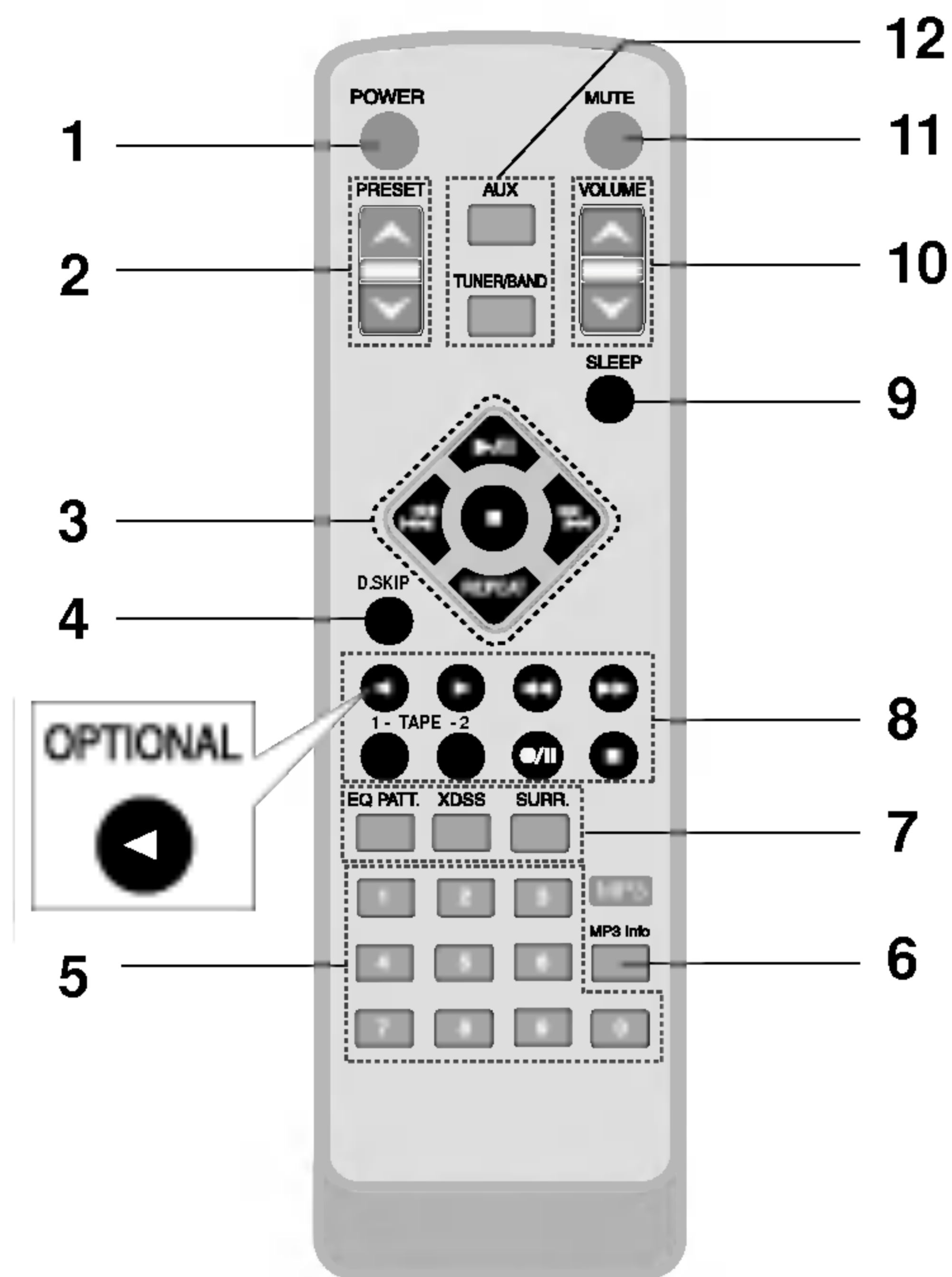
Do not use strong solvents such as alcohol, benzene, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.

## Front / Rear Panel



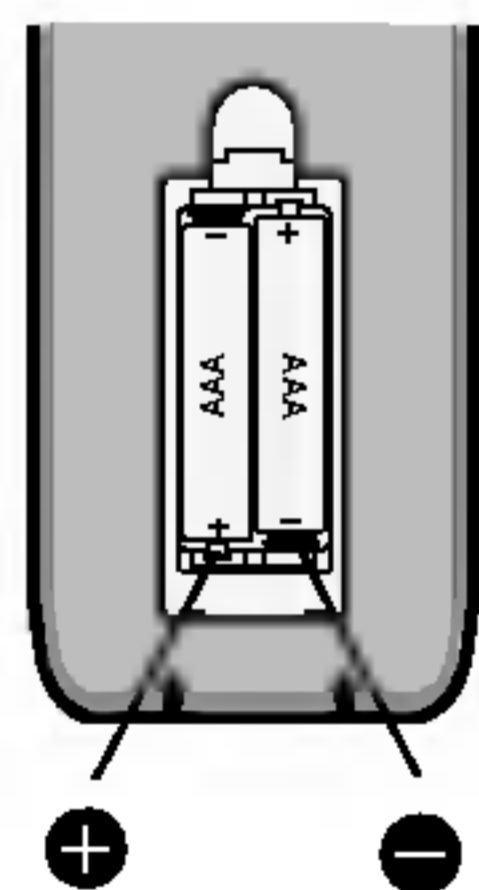
1. • TUNING (-/+) buttons  
• CD SKIP/SEARCH (◀◀ ◀▶ ▶▶ ▶▶) buttons  
• TAPE REWIND/FAST FORWARD (◀◀ ◀▶ ▶▶ ▶▶) buttons
2. RECORD/ RECORD PAUSE button (●REC/||)
3. MEMORY/PROGRAM (MEMORY/PROG.) button
4. MODE/RIF button
5. REMOTE SENSOR
6. XDSS button
7. POWER (⏻STANDBY/ON) button
8. PLAY MODE button
9. SURROUND (SURR.) button
10. • CD SYNC. button  
• NORMAL DUBBING (NORMAL DUBB.) button
11. HEADPHONE SOCKET (🎧 PHONES):  
∅6.3mm
12. HIGH DUBBING (HI-SPEED DUBB.) button
13. ▲ PUSH EJECT position -TAPE1
14. FUNCTION SELECT buttons (TUNER/BAND, CD/MP3, TAPE 1/2,AUX)
15. • PRESET (-) button (TUNER)  
• REVERSE PLAY (◀) button (TAPE): OPTIONAL
16. STOP(■)/CLEAR button
17. • PRESET (+) button (TUNER)  
• PLAY (▶) button (TAPE, CD)
18. ▲ PUSH EJECT position -TAPE2
19. • SET (CLOCK/ TIMER) button  
• CD PAUSE (CD||) button  
• CD PAUSE indicator
20. DISC DIRECT PLAY buttons (DISC1, DISC2, DISC3)
21. DISC SKIP button (D.SKIP)
22. ▲ OPEN/CLOSE button
23. MULTI JOG DIAL- FFH-M515X model only
24. VOLUME CONTROL KNOB
25. ⌚TIMER button
26. CLOCK button
27. CD DOOR
28. DISPLAY WINDOW
29. ANTENNA TERMINAL
30. AUXILIARY INPUT SOCKET
31. SPEAKER TERMINAL
32. POWER CORD

## Remote Control



1. POWER button
2. PRESET (▼/▲) buttons
3. CD FUNCTION buttons
  - PLAY/PAUSE (▶/||) button
  - CD STOP (■) button
  - CD SKIP/SEARCH (◀◀ ◀/▶▶ ▶▶) button
  - REPEAT button
4. DISC SKIP button (D.SKIP)
5. NUMBER buttons
6. MP3 file information display (MP3 Info) button
7. • EQUALIZER PATTERN (EQ PATT.) button
  - XDSS button
  - SURROUND (SURR.) button
8. TAPE FUNCTION buttons
  - RECORD/ RECORD PAUSE button (●/||)
  - BACKWARD PLAY button (◀) : OPTIONAL
  - FORWARD PLAY (▶) button
  - TAPE STOP button (■)
  - FAST FORWARD (▶▶) button
  - REWIND (◀◀) button
9. SLEEP button
10. VOLUME CONTROL (▼/▲) buttons
11. MUTE button
12. • TUNER/ BAND button
  - AUX button

## Remote Control battery installation



Detach the battery cover on the rear of the remote control, and insert two R03 (size AAA) batteries with **+** and **-** aligned correctly.

**⚠ Caution:** Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).

## Remote Control Operation Range

Point the remote control at the remote sensor and press the buttons.

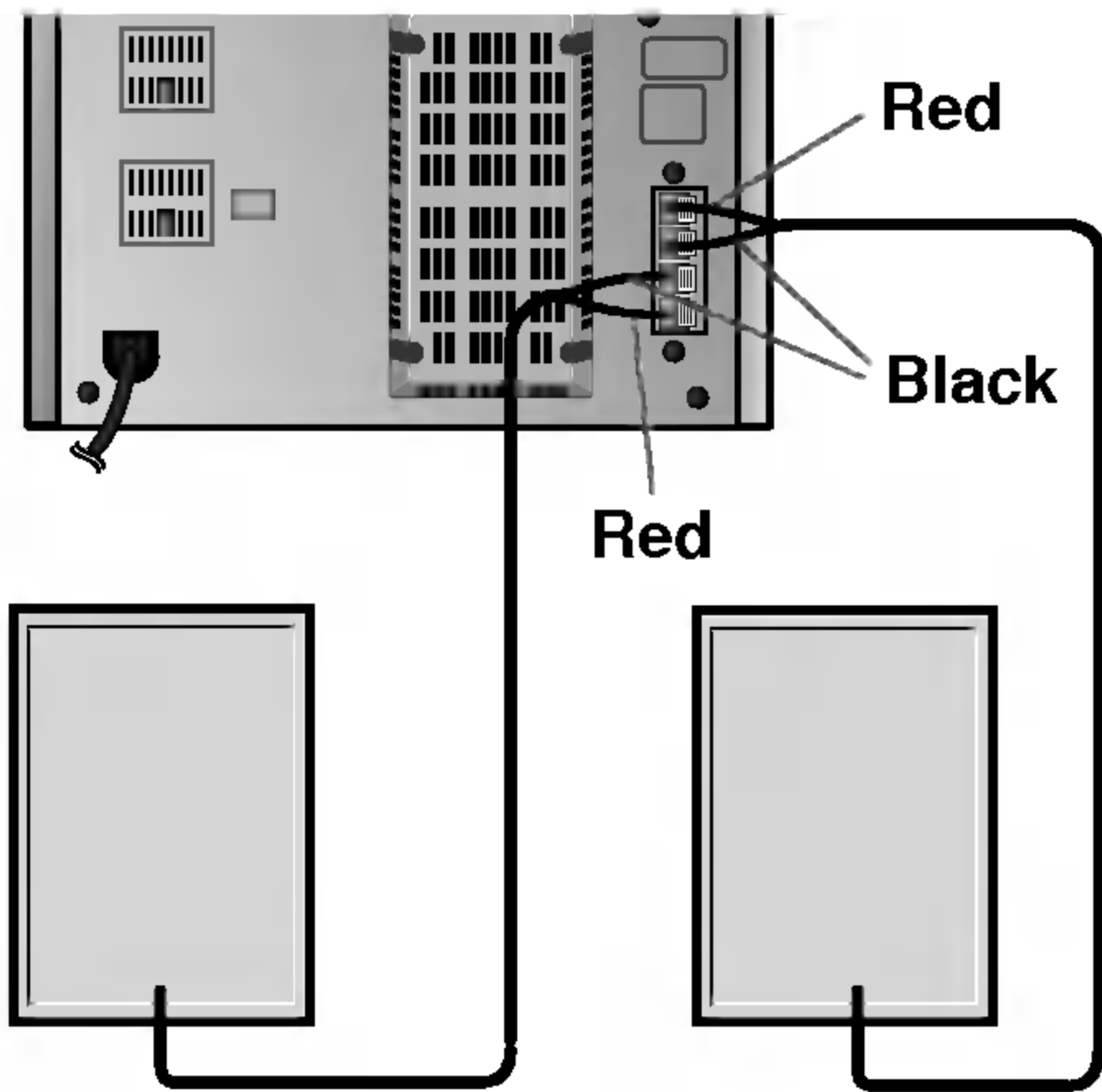
Distance: About 23 ft (7 m) from the front of the remote sensor.

Angle: About 30° in each direction of the front of the remote sensor.

## 2. Installation

### Speaker System Connection

Connect the speaker cords to the speaker terminal.

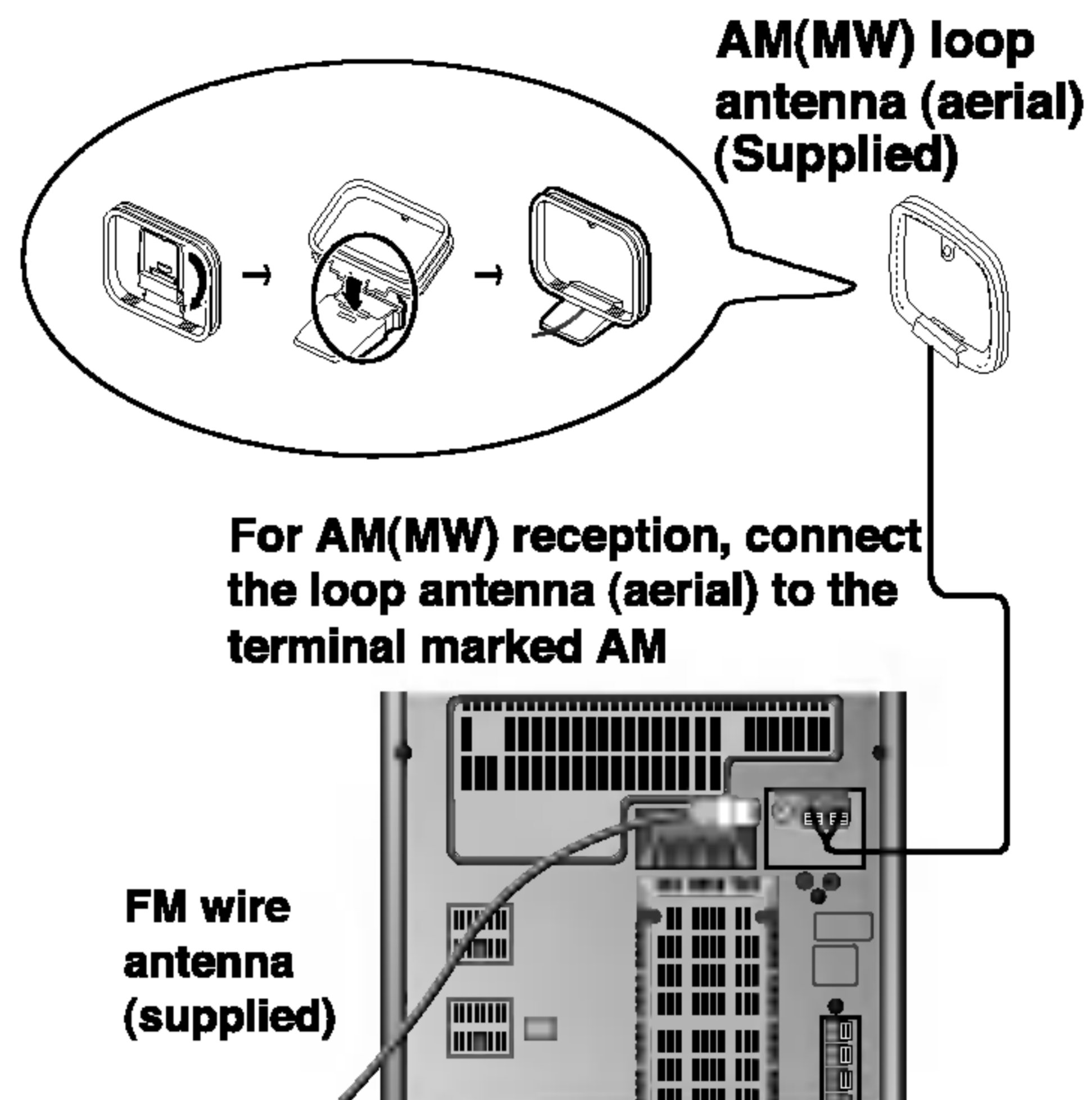


#### Notes

- Be sure to match the speaker cord to the appropriate terminal on the components: + to + and - to -. If the cords are reversed, the sound will be distorted and will lack base.
- Do not disassemble the front cover of supplied speaker.

### Antenna (Aerial) Connections

Connect the supplied FM/AM antennas for listening to the radio.



#### Notes

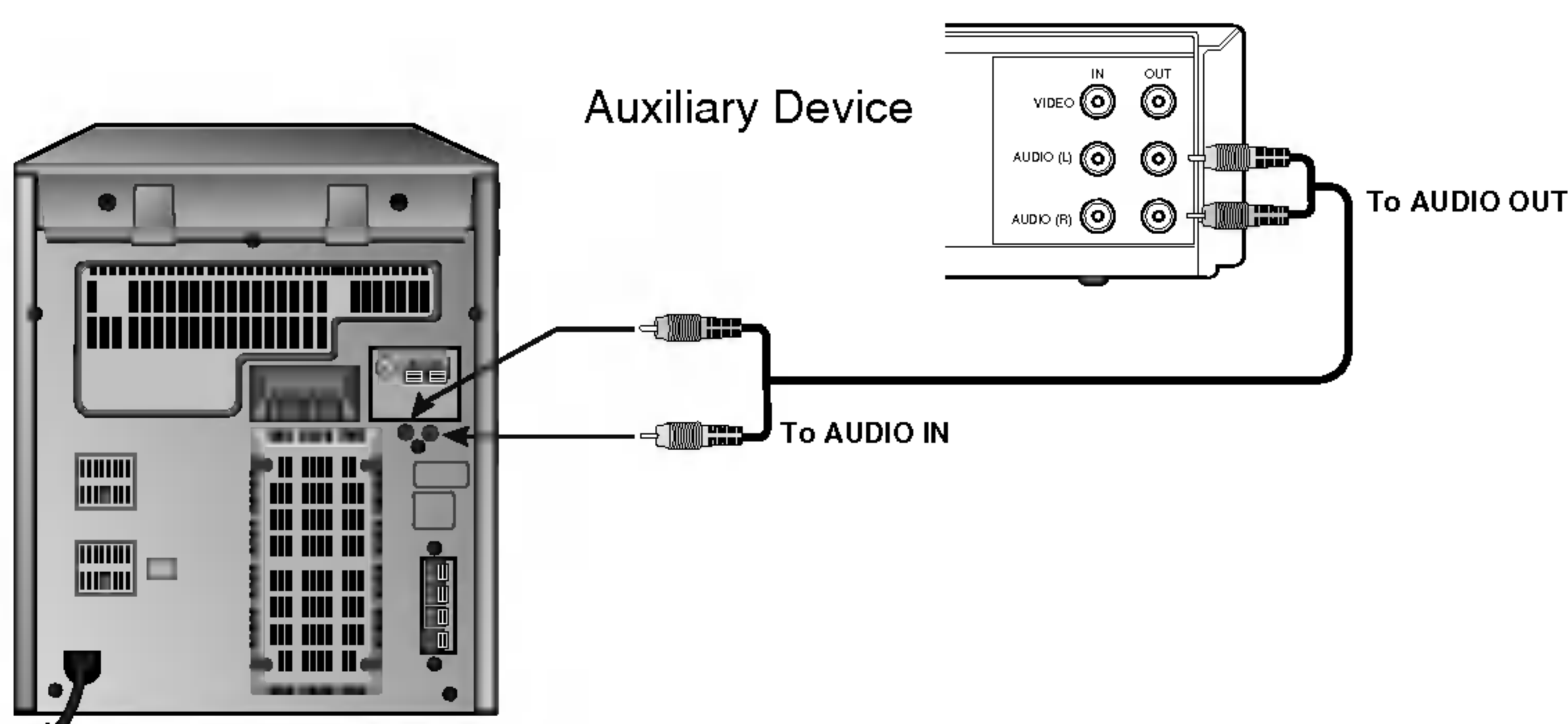
- To prevent noise pickup, keep the AM loop antenna away from the unit and other components.
- Be sure to fully extend the FM wire antenna.
- After connecting the FM wire antenna, keep it as horizontal as possible.

### Auxiliary Devices

Connect an auxiliary device such as a TV or VCR via the rear mounted AUX sockets and press AUX.

#### Note

You can also record from the auxiliary input source, (see the recording section).



## 3.Operation

### Audio Adjustment


#### Volume Adjustment

- Turn the VOLUME CONTROL KNOB clockwise to increase the sound level, or counterclockwise to decrease it.
- Using the remote control, press VOLUME CONTROL (▲) to increase the sound level, or (▼) to decrease it.

#### Headphone Socket

Connect a stereo headphone plug (∅6.3mm) into the headphone jack to listen to the sound through headphones. The speakers are automatically disconnected when you plug in the headphones (not supplied).

#### MUTE

Press **MUTE** to temporarily stop the sound such as when you answer the telephone. The “

#### Sound Quality Adjustment

You can select a desired sound mode by using **EQ PATT.** button on the remote control. When a sound mode passes by with the left side from the right, press EQ PATT.  
FLAT → ROCK → POP → CLASSIC → FLAT ...

#### SURROUND

Press **SURR.** on the front panel or the remote control to reinforce surround effect. “SURROUND ON” or “SURROUND OFF” indicator lights on the display window. When “SURROUND ON” or “SURROUND OFF” indicator passes by with the left side from the right, press SURR..

#### XDSS (Extreme Dynamic Sound System)

Press **XDSS** to reinforce treble, bass and the surround effect. The “XDSS ON” or “XDSS OFF” indicator lights. To cancel, press XDSS again.

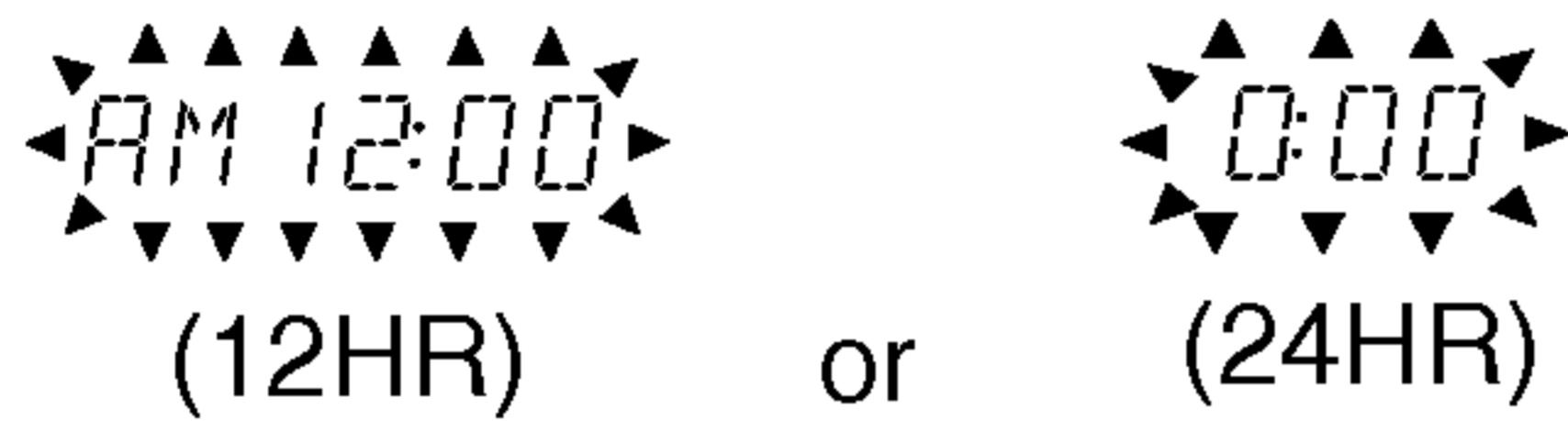


## Auto Function Selection

- If you press PLAY/PAUSE (▶/||) on the remote control during radio receiving or CASSETTE play, CD will be operated automatically.
- If you press TUNER/BAND on the front panel or the remote control during CD or CASSETTE play, radio function will be operated.

## Setting the Clock

1. Press CLOCK.  
(If the clock requires setting, press and hold CLOCK for more than 2 seconds.)
2. Select a 24 hour cycle or 12 hour cycle by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL



3. Press SET to confirm the selected hour cycle.
4. Use PRESET (-)/(+) to set the correct hours.  
In case of FFH-M515X model, you can also use MULTI JOG DIAL
5. Press SET.
6. Use PRESET (-)/(+) to set the correct minutes.  
In case of FFH-M515X model, you can also use MULTI JOG DIAL
7. Press SET and the correct time is shown on the display.
8. Press CLOCK at any time to display the time for about 5 seconds.

## Using the Sleep Function

When the sleep timer is used, the power is automatically turned off after the specified time has elapsed.

1. To specify the time delay before the power is turned off, press SLEEP.  
In the display window you see *SLEEP 90* for about 5 seconds. This means that the system turns off automatically after 90 minutes.

Press SLEEP until the desired time is displayed.

Note: Each time the button is pressed the time interval is reduced by 10 minutes. i.e. 80...70... etc.

2. To check the remaining time until the power is turned off, press SLEEP while the sleep function is active. The time remaining is displayed for about 5 seconds.

### Note

If you press SLEEP while the sleep time is displayed, the SLEEP time is reset.

3. To cancel the sleep timer mode, press the SLEEP button repeatedly until "SLEEP 10" appears, and then press SLEEP once again while "SLEEP 10" indicator is displayed.

## Timer

With the TIMER function you can have the radio reception and recording, CD play, tape play turned on and off at the time desired.

1. Press CLOCK to check the current time.  
(If you don't set clock, timer function doesn't work.)
2. Press  $\odot$ TIMER to enter the timer setting mode.  
(If you want to correct the previous memorized TIMER setting, press and hold the TIMER button more than 2 seconds.  
- The previous memorized timer on time and TIMER indicator appears in the display window.)
3. Each function (TUNER → CD → TAPE) flashes in the display window in turn. Press SET when the desired function is flashing.
4.
  1. a. When you select the TUNER function, "PLAY" and "REC" indicator flash in the display window alternately for about 3 seconds.  
"PLAY" indicator : TUNER play only  
"REC" indicator : TUNER play and recording
  - b. Press SET when the desired function is flashing.
  - c. Select the previous memorized preset number with PRESET (-)/(+) button and press SET.  
- "ON TIME" indicator appears for about 0.5 seconds in the display window and then disappears.
  2. When you select the CD or TAPE function,  
- "ON TIME" indicator appears for about 0.5 seconds in the display window and then disappears.
5. Set the hour to switch on by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL.
6. Press SET to confirm the hour to switch on.
7. Set the minute to switch on by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL.
8. Press SET to confirm the minute to switch on.  
- "OFF TIME" indicator appears for about 0.5 seconds in the display window and then disappears.
9. Set the hour to switch off by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL.
10. Press SET to confirm the hour to switch off.
11. Set the minute to switch off by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL.
12. Press SET.
13. Adjust the volume level by pressing PRESET (-)/(+).  
In case of FFH-M515X model, you can also use MULTI JOG DIAL.
14. Press SET.  
"⊙" appears in the display window and the timer setting has been completed.
15. Switch the system off.  
The selected function is automatically switched on and off at the time set.

### To cancel or check the timer

Each time the  $\odot$ TIMER button is pressed you can select the timer set or cancel. You can also check the timer setting status.

To activate or check the timer, press the  $\odot$ TIMER button so that "⊙" appears in the display window.

To cancel the TIMER, press the  $\odot$ TIMER button so that "⊙" disappears in the display window.

## Presetting the Radio Stations

You can preset 50 stations for FM and AM. Before tuning, make sure that you have turned down the volume to the minimum.

1. Press TUNER/BAND on the front panel or the remote control to select the frequency (AM or FM) you want.
2. Select a station you want by pressing TUNING (-)/(+) buttons.
 

**Tuning in automatically**

  - Press TUNING (-)/(+) for more than 0.5 second. Scanning stops when the unit tunes in a stations.

**Tuning in manually**

  - Press TUNING (-)/(+) briefly and repeatedly. In case of FFH-M515X model, you can also use MULTI JOG DIAL.
3. Press MEMORY/PROG. on the front panel. A preset number will flash in the display window.
4. Press PRESET (-)/(+) (or PRESET (▼/▲) on the remote control) to select the preset number you want.
5. Press MEMORY/PROG. again. The station is stored.
6. Repeat steps 1 (or 2) to 5 to store other stations.

### To delete all the memorized stations

Press and hold MEMORY/PROG. on the front panel for about two seconds, "CLEAR" appears in the display window and then STOP(■)/CLEAR on the front panel again, the stations are deleted.

### For your reference

If all stations have already been entered, FULL message will appear in the display window for a moment and then a preset number will flash. To change the preset number, follow the steps 4-5.

### To recall presets

Press and hold PRESET (-)/(+) (or PRESET (▼/▲) on the remote control) until the desired preset number appears or press it repeatedly.

## Listening to the Radio

1. Press TUNER/BAND on the front panel or the remote control to select the frequency (AM or FM) you want. The last received station is tuned in.
2. Press PRESET (-)/(+) (or PRESET (▼/▲) on the remote control) repeatedly to select the preset station you want.
  - Each time you press the button, the unit tunes in one preset station at a time.
3. Adjust the volume by rotating VOLUME CONTROL KNOB (or pressing VOLUME (▼/▲) on the remote control) repeatedly.

### To listen to non-preset radio stations

- For manual tuning, see "Tuning in manually" in step 2 on left.
- For automatic tuning, see "Tuning in automatically" in step 2 on left.

### To turn off the radio

Press POWER (⏻ STANDBY/ON) to turn the unit off or select another function mode (CD/MP3, AUX, TAPE).

### For your reference

- If an FM program is noisy  
Press MODE/RIF so that "(●)" disappears in the display window. There will be no stereo effect, but the reception will improve. Press MODE/RIF again to restore the stereo effect.
- To improve reception  
Reposition the supplied antennas.




### Notes

- Use MODE/RIF (Radio Interference Filter) function to switch to mono reception if stereo reception is distorted by noise.
- When recording the MW(AM) broadcast, beat noises may occur. If it does, press MODE/RIF once.

## Tape Playback

Use only normal tapes.







### Basic Playback

1. Press TAPE 1/2 on the front panel to select tape function.  
("NO TAPE" appears in the display window.)
2. Open the cassette door by pushing  PUSH EJECT position.
3. Insert a cassette with the tape side to the upside and then close deck.
4. Press PLAY ( or : OPTIONAL).

### To Stop Play

Press STOP () during playback.

### To Play Rewind or Fast Forward




After pressing    on the front panel or   on the remote control during playback or stop, press PLAY () at the point you want.

### AUTO STOP DECK (TAPE 1/2)

- After auto stop deck plays only front side, the unit stops automatically.

### AUTO REVERSE DECK (TAPE 2)

- You can select direction of the cassette you want by pressing PLAY MODE.

Display	Function
	After the cassette plays front or reverse (backward play) side, stops automatically.
	After the cassette plays front and reverse side, stops automatically.
	After the cassette plays six times repeatedly front and reverse side, stops automatically.

## Dubbing

This function shows how to copy from one tape to another.

1. Press TAPE 1/2 on the front panel to select tape function.
2. Insert the a playback tape and a blank tape.
  - TAPE 1- Insert the playback tape to dub.
  - TAPE 2- Insert a blank tape to copy on.
3. Press NORMAL DUBB. or HI-SPEED DUBB. on the front panel.

Pressing	Display	Function
NORMAL DUBB.	<i>NOR DUBB</i>	Normal speed copying.
HI-SPEED DUBB.	<i>HI DUBB</i>	Double speed copying.

To stop recording, press STOP ()

## Tape Recording

Wind the tape to the point recording starts.  
Use only normal tapes.

### Basic Setting

1. Select a function you want to record except tape function.
2. Open the cassette TAPE2 and insert a blank cassette into the the tape tray.

**To set the recording direction :OPTIONAL**  
Press PLAY MODE repeatedly to set the recording direction.

### General Recording

1. Press ●REC/|| on the front panel or ●|| on the remote control.  
- “●REC” flashes and holds the cassette in pause mode.
2. Press ●REC/||, ●|| or PLAY(▶) on the front panel or the remote control.  
The recording begins.

### To pause recording

Press ●REC/|| or ●|| during recording.  
- “●REC” flashes in display window.

### To stop recording

Press TAPE STOP(■).

## CD- Synchro recording

This feature is a convenient to record tracks from CD to cassette.

1. Select the CD function and load a CD to be recorded.  
You may wish to program a selection of tracks for recording.
2. Open the cassette TAPE2 and insert a blank cassette into the the tape tray.

### To set the recording direction

Press PLAY MODE repeatedly to set the recording direction.

3. Press CD SYNC. in stop mode.  
“●REC” flashes and “CD SYNC” indicator lights.
4. The synchronized recording is started automatically after about 7 seconds.

### Notes

- If you wish to record from the desired track, select the desired track with I◀◀ ◀◀/▶▶ ▶▶I before commencing CD synchro recording.
- A function change is not possible during recording.

## CD Playback

### Basic Playback

1. Press CD/MP3 on the front panel to select CD/MP3 function.  
If no disc is loaded then "NO DISC" is displayed.
2. Press ▲ OPEN/ CLOSE and place the disc into the disc tray.  
The disc on the left (DISC 1) is played first.



#### Note

To load an 8cm (3 inch) disc, put it onto the inner circle of the tray.

3. Press ▲ OPEN/ CLOSE to close the disc compartment.  
Audio CD: "READING" appears in the display window, and then the total number of tracks and the playing time are displayed.  
MP3 CD: "READING" appears in the display window, and then the total number of files is displayed.
4. Press PLAY (▶) on the front panel or PLAY/ PAUSE (▶||) on the remote control.  
In addition, you can also play an Audio CD or MP3 CD using the NUMBER buttons.

### Pause Playback

Press CD PAUSE (CD||) or PLAY/ PAUSE (▶||) on the remote control during playback.  
Press this button again it to resume play.

### Stop Playback

Press STOP (■) on the front panel or CD STOP (■) on the remote control during playback.

### Skipping a Track

- Press the ▶▶▶▶ button to go to the next track.
- When the ◀◀◀◀ button is pressed once midway through a track, the player returns to the start of that track. When it is pressed again, a track is skipped each time the button is pressed.
- In case of FFH-M515X model, you can also use MULTI JOG DIAL.

### Searching a Track

After pressing and holding ◀◀◀◀/▶▶▶▶ button on the remote control during playback, then release at the point you want.

#### Note

This function is not available to play a MP3 file.

### To move to the next discs

Press D.SKIP on the front panel or remote control during playing or stopping.

### To select a disc directly

Press DISC 1, DISC 2 or DISC 3 during playing or stopping.

When you press DISC 1-3 before playing a disc, the unit will automatically start playing the selected disc.

### To Exchange discs during playback

You can open the disc tray while playing a disc to check what discs are to be played next and exchange discs, without interrupting playback of the current disc.

1. Press **▲** OPEN/ CLOSE.  
The disc tray is opened. Two disc compartments appear. Even if the unit is playing a disc, it doesn't stop playing.
2. Replace discs in the compartments with other ones.  
The unit plays the disc in the left compartment after the current disc, and then the one in the right compartment.
3. Press **▲** OPEN/ CLOSE.  
The CD door closes.


#### Notes

- Do not place more than one compact disc on one disc tray at the same time.
- Do not push on the disc tray to close CD door, you may damage the unit.

### Program Play

You can arrange the order of the tracks on the discs and create your own program. The program can contain up to 20 tracks.

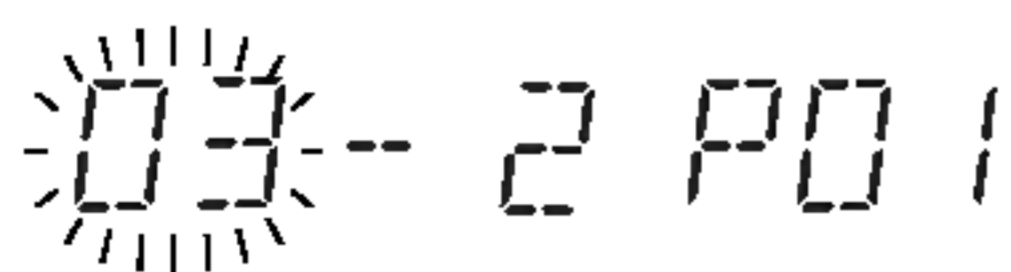
1. Press MEMORY/PROG. on the front panel on the stop mode.

Track Number    Program Order  
  
Disc Number

2. Press D.SKIP button or DISC DIRECT PLAY buttons (DISC1, DISC2, DISC3) to select the disc.



3. Press **◀◀** **▶▶** or turn MULTI JOG DIAL to select the track.  
In case of using NUMBER (0~9) button, press "0" and "3".



4. Press MEMORY/PROG. on the front panel.
5. Repeat steps 1~4 to select additional discs and tracks.
6. Press PLAY (**▶**) on the front panel or PLAY/ PAUSE (**▶||**) on the remote control.  
"PROGRAM PLAY" passes by with the left side from the right in the display window.

#### To check program contents

Press MEMORY/PROG. on the front panel on the stop mode.

- A disc, track and program number will be displayed.

#### To clear program contents

Press MEMORY/PROG. on the front panel on the stop mode. And then press CD STOP (**■**) on the remote control.

#### To add program contents

1. Press MEMORY/PROG. on the front panel repeatedly on the program stop mode until until Disc Number blinks.
2. Repeat steps 2~5.

#### To modify program contents

1. Press MEMORY/PROG. on the front panel to display program number you want to modify.
2. Repeat steps 2~5.

## Repeat

### To play one track repeatedly

Press REPEAT once during playback.

- "1" appears in the display window.

### To play one disc repeatedly

Press REPEAT again during playback.

- "1 DISC" appears in the display window.

### To play all track on the all disc repeatedly

Press REPEAT once more during playback.

- "ALL DISC" appears in the display window.

### To cancel repeat play

Press REPEAT several times until repeat indicator disappears.

### Program repeat play

- Press REPEAT once during program play.

- "1" appears on the display window.  
(One track repeat)

- Press REPEAT again during program play.

- "ALL DISC" appears on the display window.  
(All program repeat)

### To check MP3 file information

Press the MP3 Info button during MP3 file playback.

- The information (Title, Artist or Album) of the MP3 file will be shown in the display window.

- If there is no the information of the MP3 file, "NO ID3 TAG" indicator will be shown in the display window.

### Note

This unit can play a CD-R or CD-RW that contains audio titles or MP3 files.

## About MP3

### MP3

- An MP3 file is audio data compressed by using the MPEG1 audio layer-3 file-coding scheme. We call files that have the ".mp3" file extension "MP3 files".
- The unit can not read an MP3 file that has not ".mp3" file extension.

### MP3 Disc compatibility with this unit is limited as follows:

1. Sampling Frequency / 8 - 48kHz
2. Bit rate / 8 - 320kbps
3. CD-R physical format should be "ISO 9660"
4. If you record MP3 files using the software which cannot create a FILE SYSTEM, for example "Direct-CD" etc., it is impossible to playback MP3 files. We recommend that you use "Easy-CD Creator", which creates an ISO9660 file system.
5. File names should be named using 30 letters or less and must incorporate ".mp3" extension  
e.g. "\*\*\*\*\*.MP3".
6. Even if the total number of files on the disc have more than 1000, it will only be shown up to 999.

### About MULTI SESSION

- This function recognizes the multi session disc according to a disc of CD-ROM type.

ex) If there are MP3 files in the first session, the MP3 file in the first session is only played.  
If there are only MP3 files in the whole session, all of the MP3 files in the session are played.

If there is Audio CD in the first session, only the Audio CD in the first session is played.



## 4. Maintenance and Service

### Shipping the Unit

The original shipping carton and packing materials can come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory if you need to ship it.

### Cleaning the Unit

Use a soft, dry cloth when cleaning the player. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution.

Never use strong solvents, such as alcohol, benzine, or paint thinner. These might damage the surface of the unit.

Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber or plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

### Service

Use the table on the next page to solve any problems before calling for service.

## Troubleshooting

Symptom	Cause	Correction
No power.	<ul style="list-style-type: none"> <li>The power cord is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>Plug the power cord into the wall outlet securely.</li> </ul>
No sound.	<ul style="list-style-type: none"> <li>The power of the external source equipment is switched off.</li> </ul>	<ul style="list-style-type: none"> <li>Switch on the external source equipment.</li> </ul>
The unit does not start playback.	<ul style="list-style-type: none"> <li>No disc or tape is inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Insert a disc or tape.</li> </ul>
	<ul style="list-style-type: none"> <li>An unplayable disc or tape is inserted.</li> </ul>	<ul style="list-style-type: none"> <li>Insert a playable disc or tape.</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is placed upside down.</li> </ul>	<ul style="list-style-type: none"> <li>Place the disc with the playback side down.</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is not placed within the guide.</li> </ul>	<ul style="list-style-type: none"> <li>Place the disc on the disc tray correctly inside the guide.</li> </ul>
	<ul style="list-style-type: none"> <li>The disc is dirty.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the disc.</li> </ul>
The remote control does not work properly.	<ul style="list-style-type: none"> <li>The remote control is not pointed at the remote sensor of the unit.</li> </ul>	<ul style="list-style-type: none"> <li>Point the remote control at the remote sensor of the unit.</li> </ul>
	<ul style="list-style-type: none"> <li>The remote control is too far from the unit.</li> </ul>	<ul style="list-style-type: none"> <li>Operate the remote control within about 23 ft (7 m).</li> </ul>
	<ul style="list-style-type: none"> <li>There is an obstacle in the path of the remote control and the unit.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the obstacle.</li> </ul>
	<ul style="list-style-type: none"> <li>The batteries in the remote control are exhausted.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the batteries with new ones.</li> </ul>

## 5. Reference

### Specifications

SECTION		MODEL	FFH-M315X	FFH-M515X
		[General]	Power supply	Refer to the back panel of the unit.
Power consumption	55W		90W	
Mass	6.5kg		7.4kg	
External dimensions (WxHxD)	273 X 330 X 360mm			
[CD]	Frequency response	40 - 18000 Hz		
	Signal-to-noise ratio	70 dB		
	Dynamic range	70 dB		
[Tuner]	FM	Tuning Range	87.5 - 108.0 MHz or 65 - 74 MHz, 87.5 - 108.0 MHz	
		Intermediate Frequency	10.7 MHz	
		Signal to Noise Ratio	62/58 dB (STEREO) , 55/50 dB (MONO)	
		Frequency Response	60 - 10000 Hz	
	AM (MW)	Tuning Range	522 - 1611 kHz or 530 - 1610 kHz or 530 - 1720 kHz	
		Intermediate Frequency	450 kHz	
		Signal to Noise Ratio	35 dB	
		Frequency Response	100 - 1800 Hz	
[Amp]	Output Power	20W + 20W	50W + 50W	
	T.H.D	0.2%		
	Frequency Response	40 - 25000 Hz		
	Signal-to-noise ratio	80 dB		
[TAPE]	Tape Speed	3000 ± 50 (MTT-111. NORMAL-SPEED)		
	Wow Flutter	0.25% (MTT -111, JIS-WTD)		
	F.F/REW Time	120sec (C-60)		
	Frequency Response	250 - 8000Hz		
	Signal to Noise Ratio	43dB(P/B)/43dB(R/P)		
	Channel Separation	50dB(P/B)/45dB(R/P)		
	Erase Ratio	55dB (MTT-5511)		
[Speakers]		<b>FE-M315E</b>	<b>FE-M515E</b>	
	Type	2 Way 2 Speaker	2 Way 2 Speaker	
	Impedance	6 Ω	6 Ω	
	Frequency Response	60 - 20000 Hz	50 - 20000 Hz	
	Sound Pressure Level	86 dB/W (1m)	85 dB/W (1m)	
	Rated Input Power	30 W	50 W	
	Max. Input Power	60 W	100 W	
	Net Dimensions (WxHxD)	200x325x206mm	200x325x249mm	
	Net Weight (1EA)	2.3kg	3.7kg	

Designs and specifications are subject to change without notice.



P/NO : 3834RH0079Q