



OPERATING INSTRUCTIONS

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**RX-4209**  
**AM/FM STEREO RECEIVER**

**CE**

# Introduction

## READ THIS BEFORE OPERATING YOUR UNIT

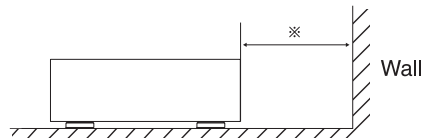
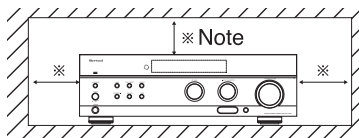
 <b>CAUTION</b> <small>RISK OF ELECTRIC SHOCK DO NOT OPEN</small> 
<b>CAUTION</b> : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

	This symbol 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.
	This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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

### Caution regarding installation

**Note** : For heat dispersal, do not install this unit in a confined space such as a bookcase or similar enclosure. Be sure to leave a space around this unit equal to, or greater than, shown below.  
 Left, right and rear sides : 20 cm, top side : 40 cm



**Do not block ventilation openings or stack other equipment on the top.**

### FOR YOUR SAFETY

<b>EUROPE AUSTRALIA</b>	<b>220 V - 240 V</b>	Units shipped to Australia are designed for operation on 230 V AC only. To ensure safe operation, the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring. Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Improper extension cords are a major cause of fatalities. The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician. <b>PAN-EUROPEAN UNIFIED VOLTAGE</b> All units are suitable for use on supplies 220-240 V AC.
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### CAUTION

- Leave a space around the unit for sufficient ventilation.
- Avoid installation in extremely hot or cold locations, or in an area that is exposed to direct sunlight or heating equipment.
- Keep the unit free from moisture, water, and dust.
- Do not let foreign objects in the unit.
- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the unit.
- Please be care the environmental aspects of battery disposal.
- The unit shall not be exposed to dripping or splashing for use.
- No objects filled with liquids, such as vases, shall be placed on the unit.
- Do not let insecticides, benzene, and thinner come in contact with the set.
- Never disassemble or modify the unit in any way.
- Notes on the AC power cord and the wall outlet.
- The unit is not disconnected from the AC power source(mains) as long as it is connected to the wall outlet, even if the unit has been turned off.
- To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet.
- When setting up this product, make sure that the AC outlet you are using is easily accessible.
- Disconnect the plug from the wall outlet when not using the unit for long periods of time.

### Information for Users on Collection and Disposal of Old Equipment and used Batteries



**Pb**

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

#### [Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

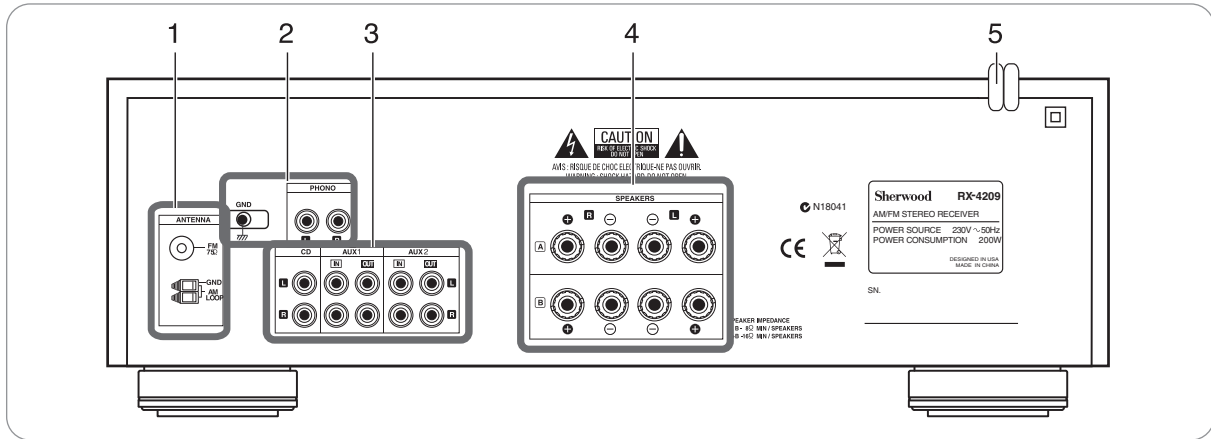
**Note for the battery symbol (bottom two symbol examples):**  
 The sign Pb below the symbol for batteries indicates that this batteries contains lead.

# CONTENTS

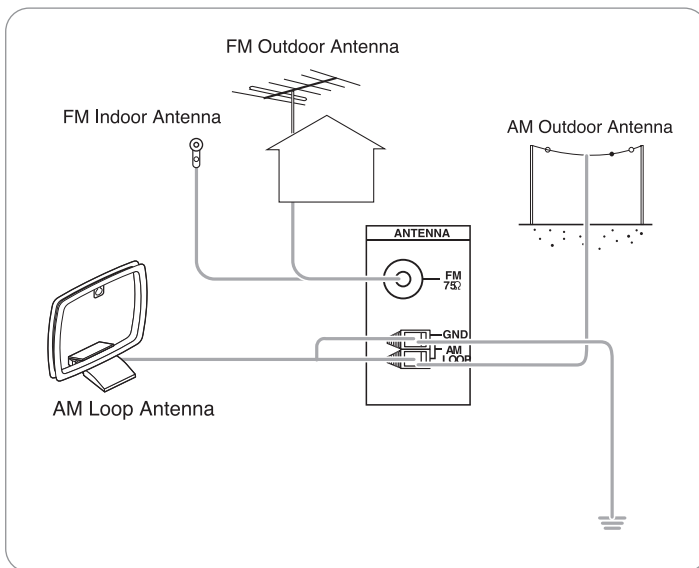
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# System Connections

- Do not plug the AC input cord into the wall AC outlet until all connections are completed.
- Be sure to connect the white RCA pin cords to the L (left) and the red RCA pin cords to the R (right) jacks when making audio connections.
- Make connections firmly and correctly. If not, it can cause loss of sound, noise or damage to the receiver.
- If the electricity fails or the AC input cord is left unplugged for more than a week, the memorized contents will be cleared. Should this happen, memorize them again.

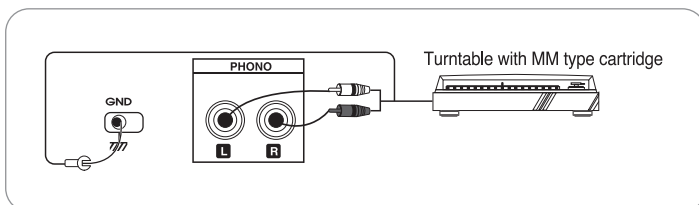


## 1. CONNECTING ANTENNAS



- Change the position of the FM indoor antenna until you get the best reception of your favorite FM stations.
- A 75Ω outdoor FM antenna may be used to further improve the reception. Disconnect the indoor antenna before replacing it with the outdoor one.
- Place the AM loop antenna as far as possible from the receiver, TV set, speaker cords and the AC input cord and set it to a direction for the best reception.
- If the reception is poor with the AM loop antenna, an AM outdoor antenna can be used in place of the AM loop antenna.

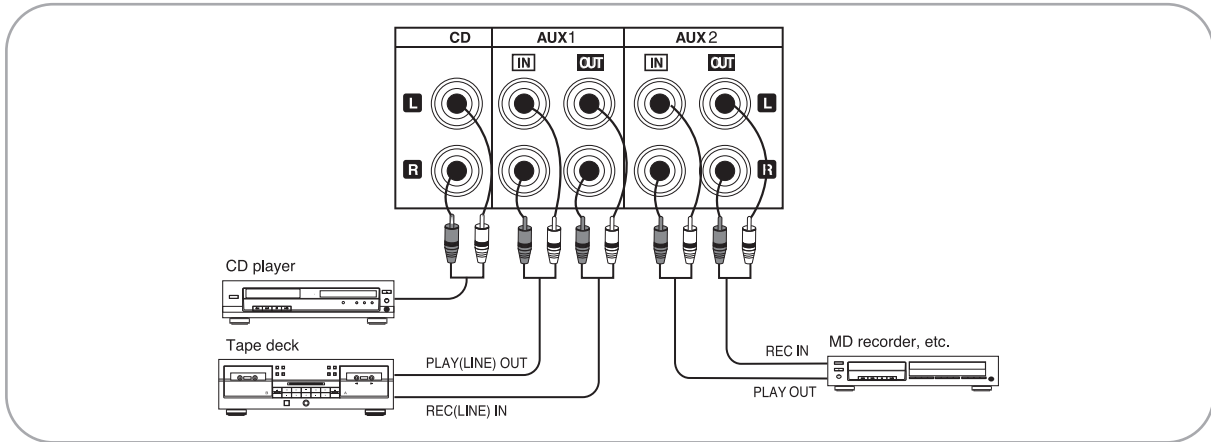
## 2. CONNECTING PHONO



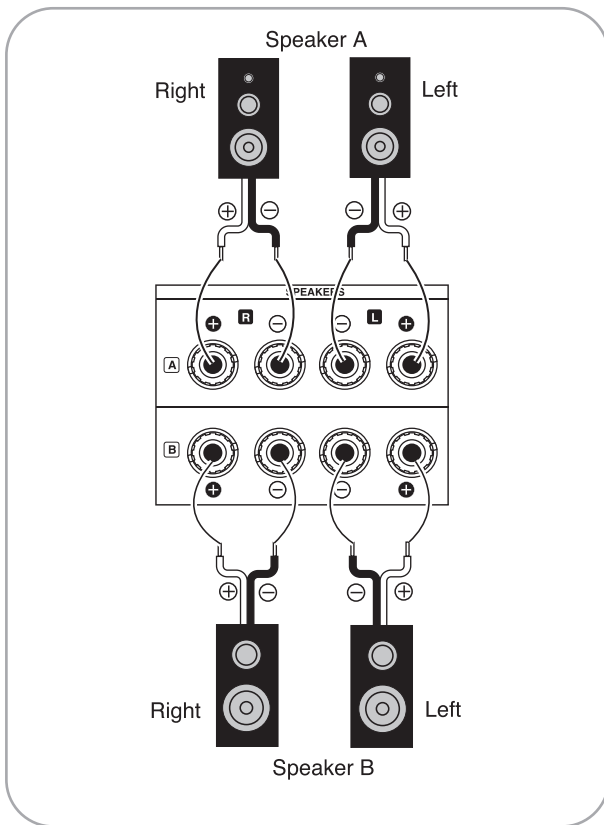
- Note
- Do not connect the turntable with MC type cartridge directly. If so, use a separate head amplifier or step-up transformer.

### 3. CONNECTING AUDIO COMPONENTS

- The AUX1 and AUX2 jacks may also be connected to an additional component such as MD recorder, tape deck, etc.



### 4. CONNECTING SPEAKERS



- Usually SPEAKER A terminals are used for only a pair of speakers. When you have another pair of speakers, SPEAKER B terminals can be used.
- Never short-circuit the + and - speaker cords.
- Be sure to connect speakers firmly and correctly according to the channel (left and right) and the polarity (+ and -).

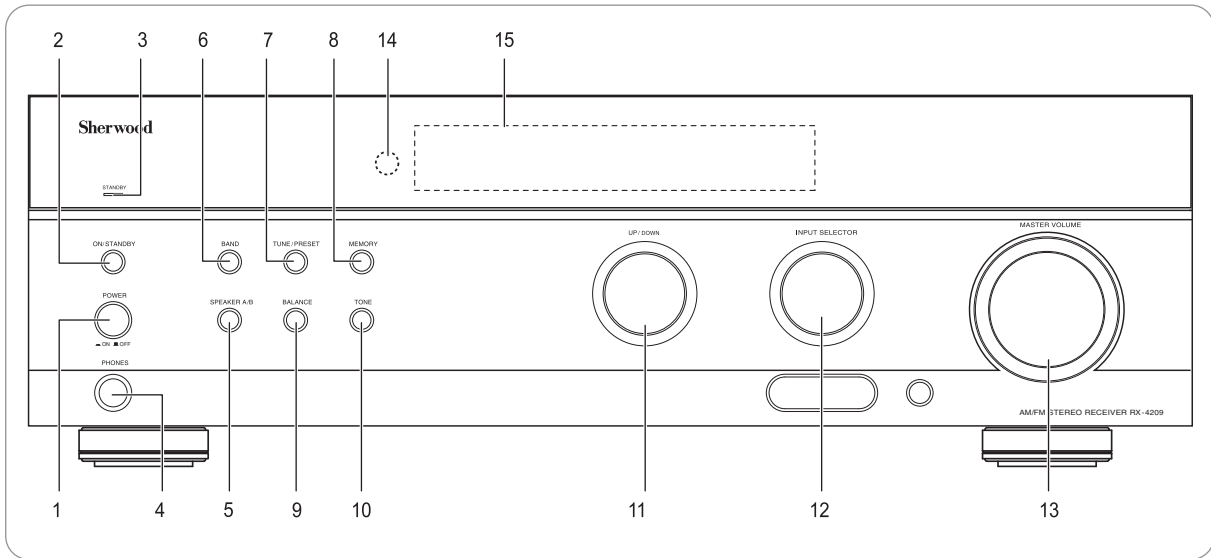
■ **Note**

- For safe amplifier operation, use the speakers with impedance of over  $8\Omega$  when you use only SPEAKER A or B terminals and use the speakers with impedance of over  $16\Omega$  when you use both SPEAKER A and B terminals.

### 5. AC INPUT CORD

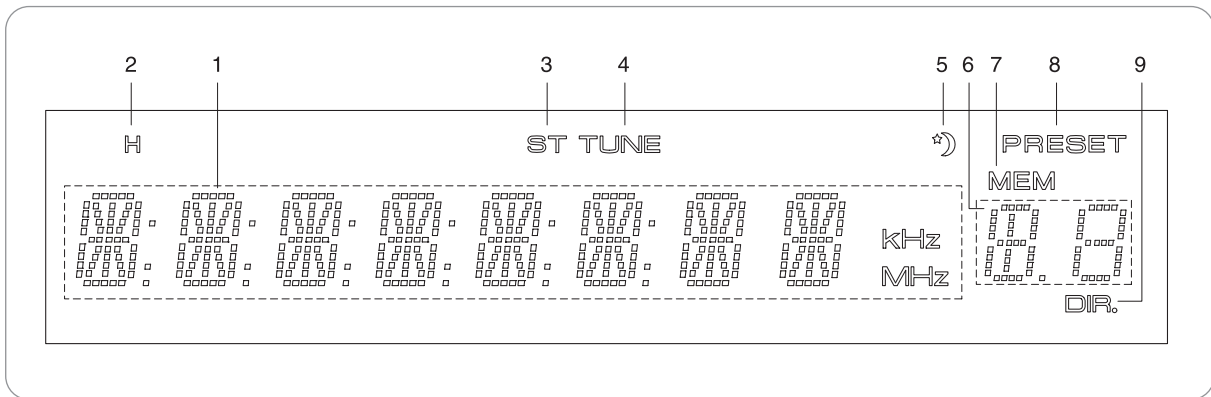
- Plug the cord into a wall AC outlet.

# Front Panel Controls



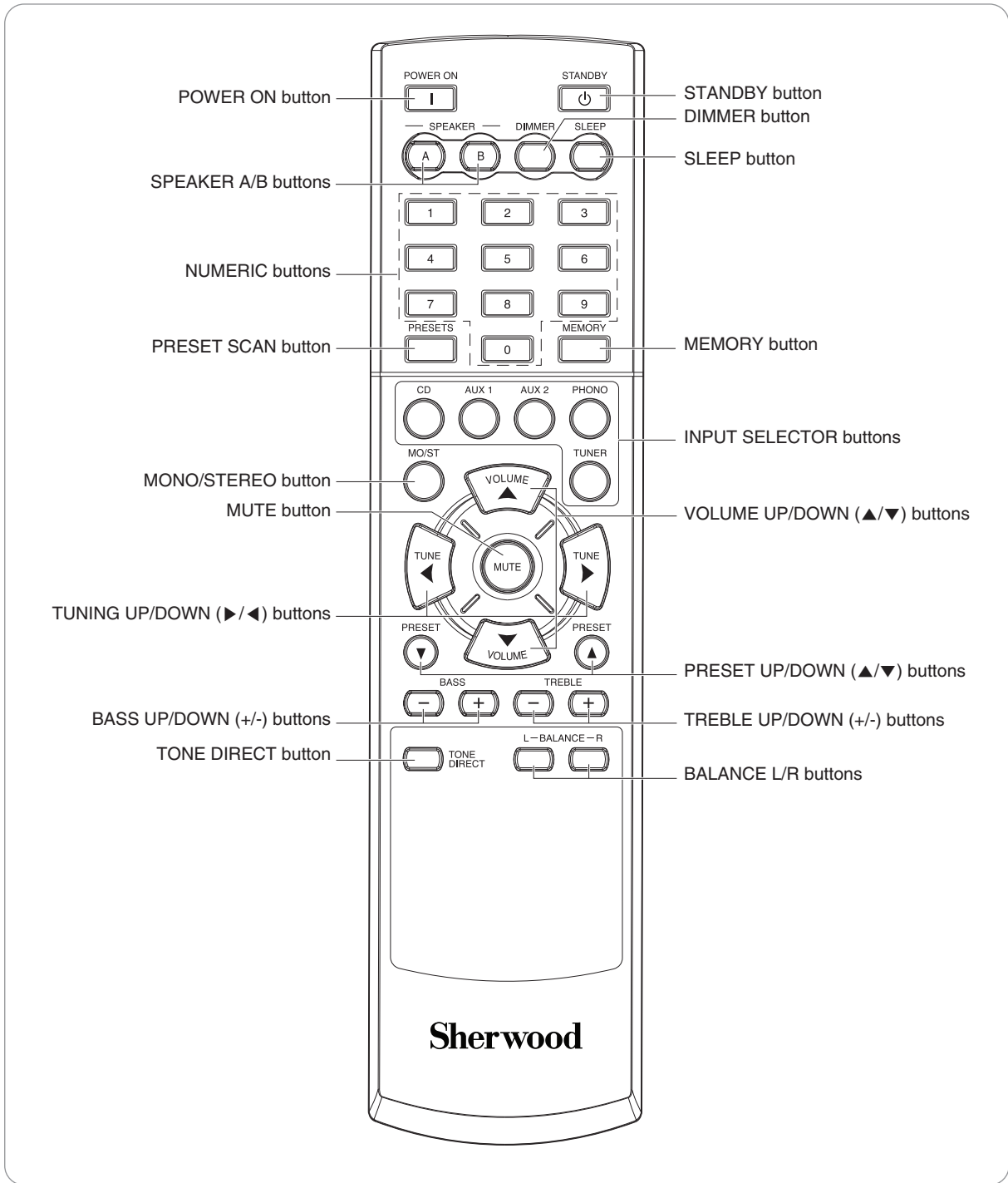
- |                               |                           |
|-------------------------------|---------------------------|
| 1. POWER switch               | 9. BLANCE button          |
| 2. POWER ON / STANDBY button  | 10. TONE MODE button      |
| 3. STANDBY indicator          | 11. ADJUST UP/DOWN button |
| 4. HEADPHONE jack             | 12. INPUT SELECTOR knob   |
| 5. SPEAKER A/B button         | 13. MASTER VOLUME knob    |
| 6. BAND button                | 14. REMOTE SENSOR         |
| 7. TUNING /PRESET MODE button | 15. FLUORESCENT DISPLAY   |
| 8. MEMORY button              |                           |
- For details, see below.

## ■ FLUORESCENT DISPLAY

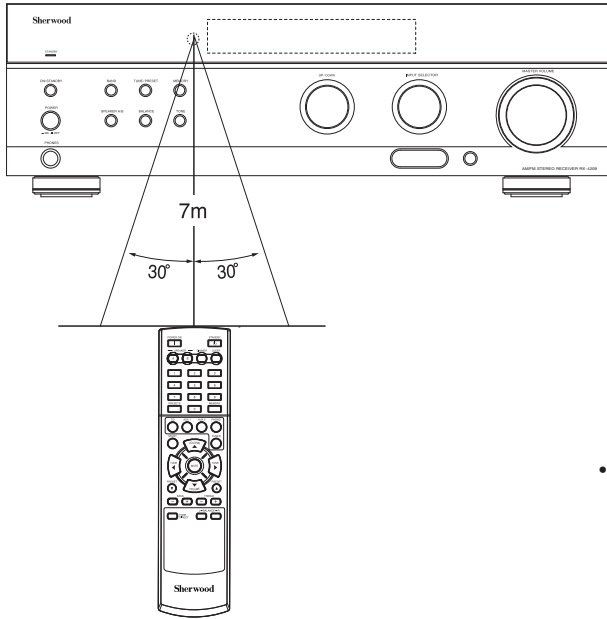


- |  |                                      |
|--|--------------------------------------|
| 1. Input, frequency, volume level, operating information, etc. | 6. Preset number, sleep time display |
| 2. HEADPHONE indicator   | 7. MEMORY indicator                  |
| 3. STEREO indicator  | 8. PRESET indicator                  |
| 4. TUNED indicator   | 9. TONE DIRECT indicator             |
| 5. SLEEP indicator   |                                      |

# Remote Controls



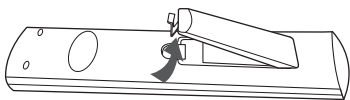
## REMOTE CONTROL OPERATION RANGE



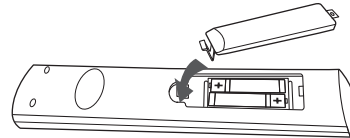
- Use the remote control unit within a range of about 7 meters (23 feet) and angles of up to 30 degrees aiming at the remote sensor.

## LOADING BATTERIES

1. Remove the cover.



2. Load two batteries ("AAA" size, 2x1.5V) matching the polarity.



- Remove the batteries when they are not used for a long time.
- Do not use the rechargeable batteries(Ni-Cd type).

# Operations

## LISTENING TO A PROGRAM SOURCE

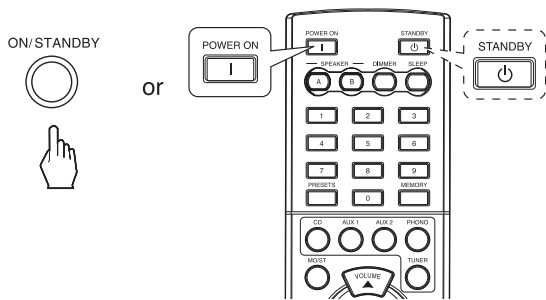
### Before operation

- Push the POWER switch.



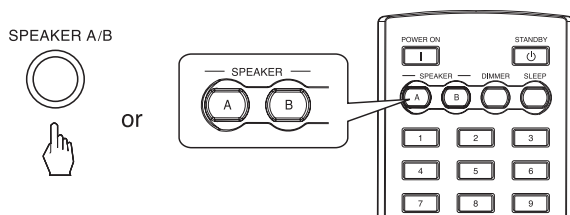
- This unit enters the standby mode and the STANDBY indicator lights up blue. The lighting of STANDBY indicator means that the receiver is not disconnected from the AC mains and a small amount of current is retained to support the memorized contents and operation readiness.
- To switch the power off, push the POWER switch again. Then the power is cut off and the STANDBY indicator goes off.

### 1. In the standby mode, turn the power on.



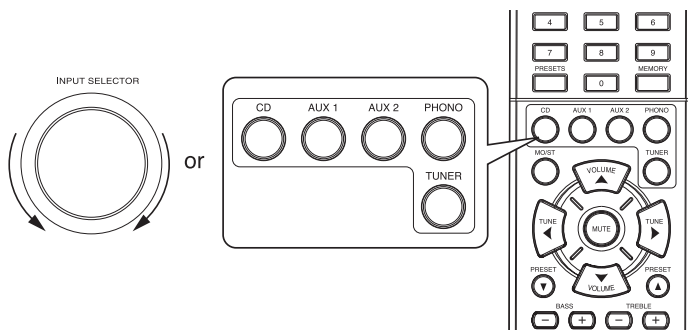
- When the POWER ON button on the remote control or the ON/STANDBY button on the front panel is pressed, this unit is turned on to enter the operating mode.
- In the standby mode, if an INPUT SELECTOR button on the remote control is pressed, the unit is turned on automatically and the desired input is selected.
- In the operating mode, when the STANDBY button on the remote control or ON/STANDBY button on the front panel is pressed, then it enters the standby mode.

### 2. Switch the desired speakers on.



- Then the corresponding speaker indication ("SPK A (or/and) B") is displayed and the sound can be heard from the speakers connected to the selected speaker terminals.
- When using the headphones for private listening, press the corresponding SPEAKER button to switch off both A and B speakers ("H" indicator lights up).

### 3. Select the desired input source.



- Each time the INPUT SELECTOR knob is rotated, the input source changes as follows :

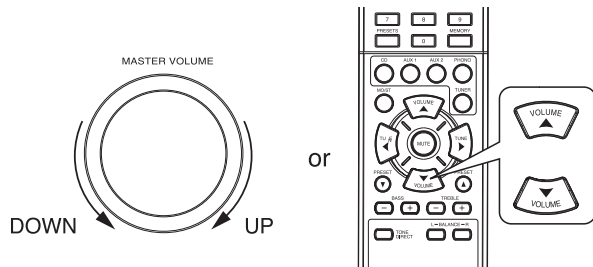
→ Tuner ↔ CD ↔ AUX2 ↔ AUX1 ↔ PHONO (Frequency display)

4. Operate the selected component for playback.

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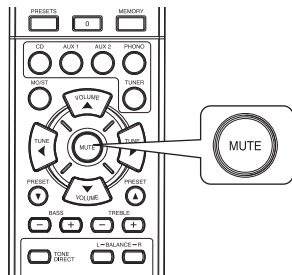
5. Adjust the volume to a comfortable listening level.

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6. To mute the sound.

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- “MUTE” flickers.
- To resume the previous sound level, press this button again.
- When adjusting the volume, the mutting effect is turned off.

7. To listen with the headphones.

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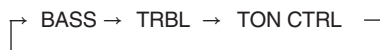
- Be sure to switch off both A and B speakers.
- Note :  
• Be careful not to set the volume too high when using headphone.

## Adjusting the tone(bass and treble)

### 8. Enter the tone mode.

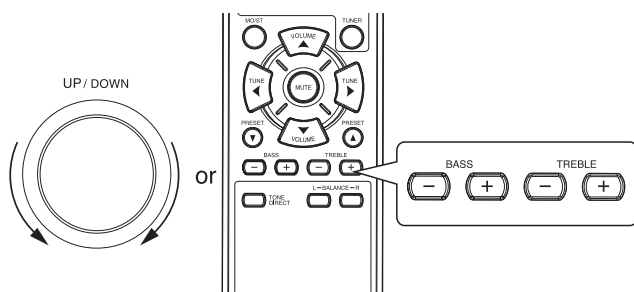


- Each time this button is pressed, the corresponding tone mode is selected and shown for 3 seconds as follows:



- Note:
- When the tone direct function is activated, the tone mode cannot be entered and "TON DIR" flickers for 3 seconds.

### 9. At the desired tone mode, adjust the tone as desired.



- If the tone display disappears, start from the step 8 again.
- When pressing the TREBLE UP/DOWN (+/-) or BASS UP/DOWN (+/-) buttons, you need not select the desired tone mode on the step 8.
- The tone level can be adjusted within the range of -10 ~ +10 dB.
- While displaying "TON CTRL", if the ADJUST UP/DOWN knob is rotated, "TON DIR" will be displayed, and vice versa.

- Notes:
- Extreme settings at high volume may damage your speakers.
- In general, the bass and treble levels are adjusted to 0 dB.

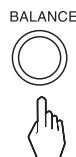
### 10. To listen to a program source without the tone effect.



- "TON DIR" is displayed, "DIR" lights up and the sound that bypasses the tone circuitry will be heard.
- To cancel the tone direct function, press this button again to display "TON CTRL", and then "DIR" goes off.

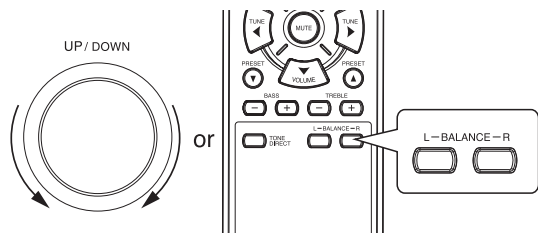
## Adjusting the sound volume balance

### 11. Enter the balance mode.



- "BAL" and the balance level is displayed for 3 seconds.

### 12. Adjust the sound volume balance between the left and right speakers.



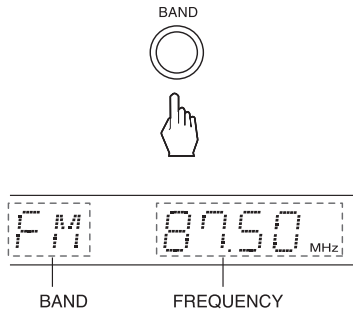
- If the balance display disappears, start from the step 11 again.
- When pressing the BALANCE L/R buttons, you need not select the balance mode on the step 11.
- The balance level can be adjusted within the range of L10 ~ R10 dB.

- Note:
- In general, the balance level is set to 0 dB.

## LISTENING TO RADIO BROADCASTS

### Auto tuning

1. Select the tuner and then the desired band.



- Each time the BAND button is pressed, the tuner is selected and then the band changes as follows :

→ FM ST → FM MONO → AM  
(Frequency display)

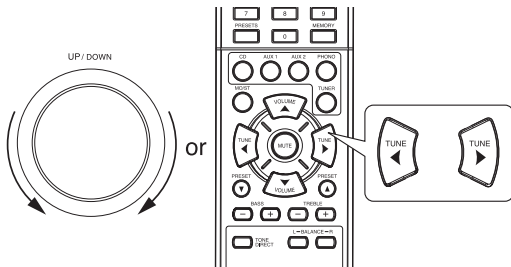
2. Select the tuning mode.



- Each time this button is pressed, the mode changes as follows:

↪ Tuning mode : "PRESET" goes off. ↪  
↪ Preset mode : "PRESET" lights up. ↪

3. Rotate the ADJUST UP/DOWN knob over several steps once or press the TUNING UP/DOWN (▶/◀) buttons for 0.5 second.



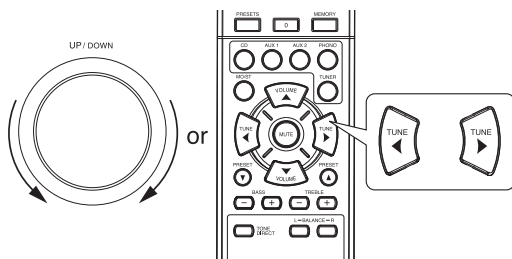
- The tuner will now search until a station of sufficient strength has been found. The display shows the tuned frequency and "TUNE".
- When pressing the TUNING UP/DOWN (▶/◀) buttons, you don't need to select the tuning mode on the step2.
- If the station found is not the desired one, simply repeat this operation.
- Weak stations are skipped during auto tuning.

### Manual tuning

- Manual tuning is useful when you already know the frequency of the desired station.

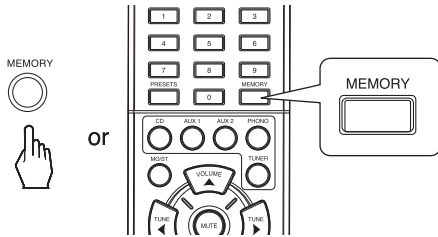
1. Perform the steps 1 and 2 in "Auto tuning" procedure.

2. Rotate the ADJUST UP/DOWN knob one by one slowly or press the TUNING UP/DOWN (▶/◀) buttons repeatedly until the right frequency has been reached.



## Auto presetting

- Auto presetting function automatically searches for FM stations only and store them in the memory.
- While listening to radio broadcasts, press and hold down the MEMORY button for more than 2 seconds.



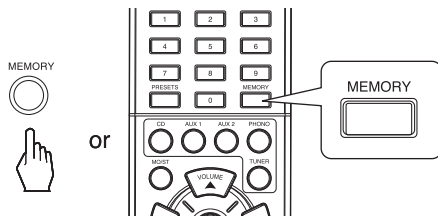
- Then "AUTO MEM" flickers and this receiver starts auto presetting.
- To stop auto presetting, press this button again.
- Up to 30 FM stations can be stored.
- Notes:
  - FM stations of weak strength cannot be memorized.
  - To memorize AM stations or weak stations, perform "Manual presetting" procedure with using "Manual tuning" operation.

## Manual presetting

- You can store up to 30 preferred stations in the memory.

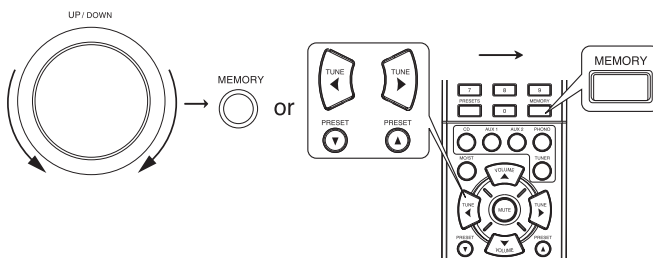
1. Tune in the desired station with auto or manual tuning.

2. Press the MEMORY button.



- "MEM" is flickering for 5 seconds.

3. Select the desired preset number (1~30) and press the MEMORY button.



- When using the NUMERIC buttons on the remote control.

Examples) For "3" :   
 For "15" :  within 2 seconds   
 For "30" :  within 2 seconds

- The station has now been stored in the memory.
- When using the NUMERIC buttons, the station is stored automatically without pressing the MEMORY button.
- A stored frequency is erased from the memory by storing another frequency in its place.
- If "MEM" goes off, start again from the above step 2.

4. Repeat the above steps 1 to 3 to memorize other stations.

### ■ MEMORY BACKUP FUNCTION

The following items, set before the receiver is turned off, are memorized.

- INPUT SELECTOR settings
- Preset stations, etc.

### ■ Note

- If the electricity fails or the AC input cord is disconnected for more than a week, they are all cleared. So you should memorize them again.

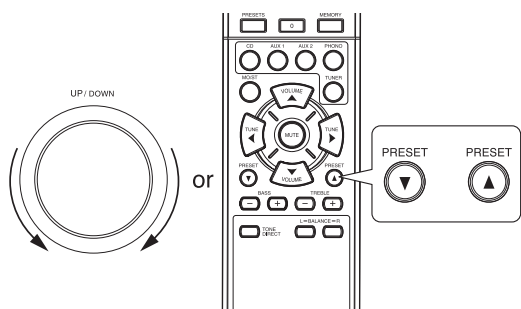
## Tuning to preset stations

1. After selecting the tuner as an input source, select the preset mode.



- Then "PRESET" lights up.

2. Select the desired preset number.

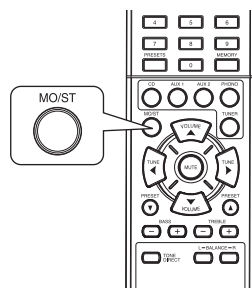


- When using the NUMERIC buttons on the remote control.

Examples) For "3" :   
 For "15" :  within 2 seconds →   
 For "30" :  within 2 seconds →

- When selecting the desired preset number with the NUMERIC buttons, the desired preset station will be tuned to automatically without selecting the preset mode.
- When pressing the PRESET UP/DOWN (▲/▼) buttons, you don't need to select the preset mode on the step 1.

## Listening to FM stereo broadcasts

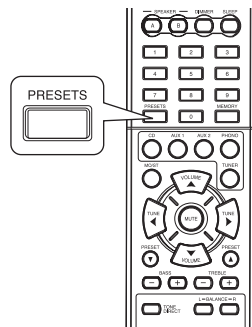


- While listening to FM broadcasts, press the MONO/STEREO button.
- Each time this button is pressed, the FM mode changes as follows:

→ Stereo mode : "FM ST" lights up. ↻  
 ↻ Mono mode : "FM MONO" lights up. →

- When FM stereo broadcasts are poor because of weak broadcast signals, select the FM mono mode to reduce the noise, then FM broadcasts are reproduced in monaural sound.

## Scanning preset stations in sequence



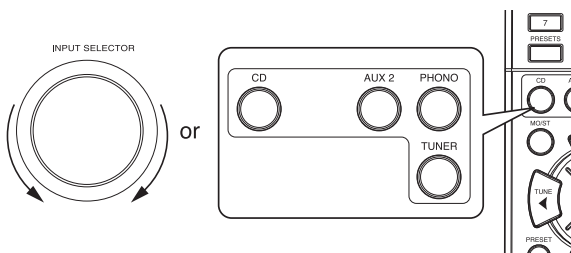
- The "PRESET" flickers and then receiver will start scanning the stations in the preset sequence and the tuned stations are received for 5 seconds respectively and other stations are skipped.
- At the desired station, press this button again to stop scanning.

## RECORDING

- The volume, tone(bass, treble) and balance settings have no effect on the recording signals.
- When you select tuner, CD or PHONO as a recording source, recording may be made on AUX 1 or AUX 2, or both simultaneously.

### Recording with AUX 1

1. Select the desired input as a recording source except for AUX 1.

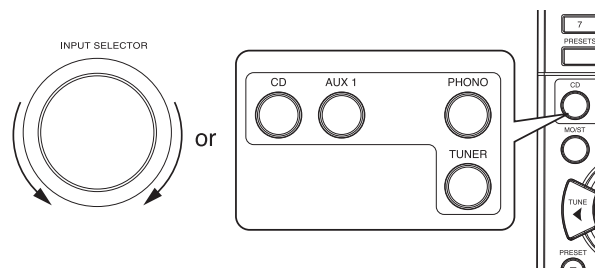


2. Start recording on the AUX 1.

3. Start play on the desired input.

### Recording with AUX 2

1. Select the desired input as a recording source except for AUX 2.



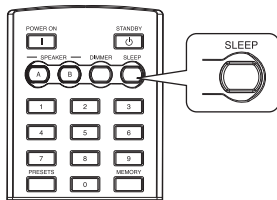
2. Start recording on the AUX 2.

3. Start play on the desired input.

## OTHER FUNCTIONS

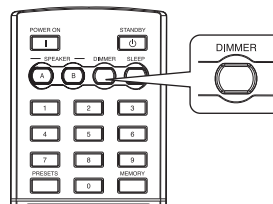
### Operating the sleep timer

- The sleep timer allows the system to continue to operate for a specified period of time before automatically shutting off.
- To set the receiver to automatically turn off after the specified period of time.



- Each time this button is pressed, the sleep time changes as follows:  
 → 10 → 20 → 30 → 60 → 90 → OFF  
 Unit : minutes
- While operating the sleep timer, "★" lights up.
- When the sleep time is selected, the fluorescent display is dimly lit.

### Adjusting the brightness of the fluorescent display



- Each time this button is pressed, the brightness of the fluorescent display changes as follows:  
 → ON → dimmer → OFF
- In the display OFF mode, pressing any button will restore the display ON mode.

## Troubleshooting Guide

If a fault occurs, run through the table below before taking your receiver for repair.

If the fault persists, attempt to solve it by switching the receiver off and on again. If this fails to resolve the situation, consult with your dealer. Under no circumstances should you repair the receiver yourself as this could invalidate the warranty.

PROBLEM	POSSIBLE CAUSE	REMEDY
No power	<ul style="list-style-type: none"> <li>The AC input cord is disconnected.</li> <li>Poor connection at AC wall outlet or the outlet is inactive.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the cord securely.</li> <li>Check the outlet using a lamp or another appliance.</li> </ul>
No sound	<ul style="list-style-type: none"> <li>The speaker cords are disconnected.</li> <li>The volume is adjusted too low.</li> <li>The MUTE button is pressed to ON.</li> <li>Speakers are not switched on.</li> <li>Incorrect selection of the input source.</li> <li>Incorrect connections between the components.</li> </ul>	<ul style="list-style-type: none"> <li>Check the speaker connections.</li> <li>Adjust the volume.</li> <li>Press the MUTE button to cancel the muting effect.</li> <li>Switch on the speakers.</li> <li>Select the desired input source correctly.</li> <li>Make connections correctly.</li> </ul>
Stations cannot be received	<ul style="list-style-type: none"> <li>No antenna is connected.</li> <li>The desired station frequency is not tuned in.</li> <li>The antenna is in wrong position.</li> </ul>	<ul style="list-style-type: none"> <li>Connect an antenna.</li> <li>Tune in the desired station frequency.</li> <li>Move the antenna and retry tuning.</li> </ul>
Preset stations cannot be received	<ul style="list-style-type: none"> <li>An incorrect station frequency has been memorized.</li> <li>The memorized stations are cleared.</li> </ul>	<ul style="list-style-type: none"> <li>Memorize the correct station frequency.</li> <li>Memorize the stations again.</li> </ul>
Poor FM reception	<ul style="list-style-type: none"> <li>No antenna is connected.</li> <li>The antenna is not positioned for the best reception.</li> </ul>	<ul style="list-style-type: none"> <li>Connect an antenna.</li> <li>Change the position of the antenna.</li> </ul>
Continuous hissing noise during FM reception, especially when a stereo broadcast is received.	<ul style="list-style-type: none"> <li>Weak signals.</li> </ul>	<ul style="list-style-type: none"> <li>Change the position of the antenna.</li> <li>Install an outdoor antenna.</li> </ul>
Continuous or intermittent hissing noise during AM reception, especially at night.	<ul style="list-style-type: none"> <li>Noise is caused by motors, fluorescent lamps or lightning, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Keep the receiver away from noise sources.</li> <li>Install an outdoor AM antenna.</li> </ul>
No recording	<ul style="list-style-type: none"> <li>Incorrect selection between the components.</li> <li>Incorrect operation of each component for playback and recording.</li> </ul>	<ul style="list-style-type: none"> <li>Make connections correctly.</li> <li>Operate each component correctly.</li> </ul>
Remote control unit does not operate.	<ul style="list-style-type: none"> <li>Batteries are not loaded or exhausted.</li> <li>The remote sensor is obstructed.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the batteries.</li> <li>Remove the obstacle.</li> </ul>

# Specifications

## ■ AMPLIFIER SECTION

- Power output, stereo mode, 8  $\Omega$ , THD 1 %, 40 Hz~20 kHz ..... 2X100 W
- Total harmonic distortion, 8  $\Omega$ , 100 W, 40 Hz~20 kHz ..... 0.04 %
- Intermodulation distortion  
60 Hz : 7 kHz= 4 : 1 SMPTE, 8  $\Omega$ , 100 W ..... 0.02 %
- Input sensitivity, 47 k $\Omega$   
Phono(MM) ..... 2.5 mV  
Line(CD, AUX 1, AUX 2) ..... 200 mV
- Signal to noise ratio, IHF "A" weighted  
Phono(MM) ..... 70 dB  
Line(CD, AUX 1, AUX 2) ..... 95 dB
- Frequency response  
Phono(MM), RIAA, 30 Hz~20 kHz .....  $\pm$  3 dB  
Line(CD, AUX 1, AUX 2), 20 Hz~100 kHz .....  $\pm$  3 dB
- Output level  
AUX 1, AUX 2 OUT, 2.2 k $\Omega$  ..... 200 mV
- Bass/Treble control, 100 Hz/10 kHz .....  $\pm$  10 dB

## ■ FM TUNER SECTION

- Tuning frequency range ..... 87.5~108.0 MHz
- Usable sensitivity, THD 3%, S/N 30 dB ..... 15 dBf
- 50 dB quieting sensitivity, mono/stereo ..... 25.2/45.2 dBf
- Signal to noise ratio, 65 dBf, mono/stereo ..... 68/65 dB
- Total harmonic distortion, 65 dBf, 1 kHz, mono/stereo ..... 0.5/0.8%
- Frequency response, 50 Hz~8 kHz .....  $\pm$  3 dB
- Stereo separation, 1 kHz ..... 40 dB
- IF rejection ratio ..... 80 dB

## ■ AM TUNER SECTION

- Tuning frequency range ..... 522~1611 kHz
- Usable sensitivity, SN 20 dB ..... 45  $\mu$ V/m
- Signal to noise ratio ..... 40 dB
- Selectivity ..... 25 dB

## ■ GENERAL

- Power supply ..... 230 V~ 50 Hz
- Power consumption ..... 200 W
- Dimensions (W $\times$  H $\times$  D, including protruding parts) ..... 440 x 141 x 381 mm
- Weight (Net) ..... 7.9 kg

Note: Design and specifications are subject to change without notice for improvements.

**RX-4209**  
**AM/FM STEREO RECEIVER**

 **Sherwood**