

User Guide

AM/FM Stereo Receiver

INSIGNIA™

NS-R2001

Before using your new product, please read these instructions to prevent any damage.



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Insignia NS-R2001 AM/FM Stereo Receiver

Introduction

Congratulations on your purchase of a high-quality Insignia product. Your NS-R2001 represents the state of the art in stereo receiver design and is designed for reliable and trouble-free performance.

Safety information

Electric shock warning



CAUTION
Risk of Electric Shock
Do Not Open



Warning

To reduce the risk of electric shock, do not remove the cover or back. There are no user-serviceable parts inside. Refer servicing to qualified service personnel.



This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within your receiver'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 your receiver.

Warning

To prevent fire or electric shock hazard, do not expose this receiver to rain or moisture.

Caution

Your receiver should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on your receiver.

Ventilation

Caution

Do not block any ventilation openings. Install in accordance with these instructions.

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of your receiver and to protect it from over-heating.

The openings should never be blocked by placing your receiver on a bed, sofa, rug, or other similar surface. This receiver should not be placed in a built-in installation such as a bookcase or rack unless correct ventilation is provided or these instructions have been adhered to.

Power cord

Caution

We recommend that most appliances be placed upon a dedicated circuit—a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this manual for power requirements.

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 your receiver cord, and if its appearance indicates damage or deterioration, unplug it, discontinue use of your receiver, and have the cord replaced with an exact replacement part by an authorized service provider.

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 your receiver.

To disconnect power from the outlet, pull out the plug. When installing your receiver, make sure that the plug is easily accessible.

Important safety instructions

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.

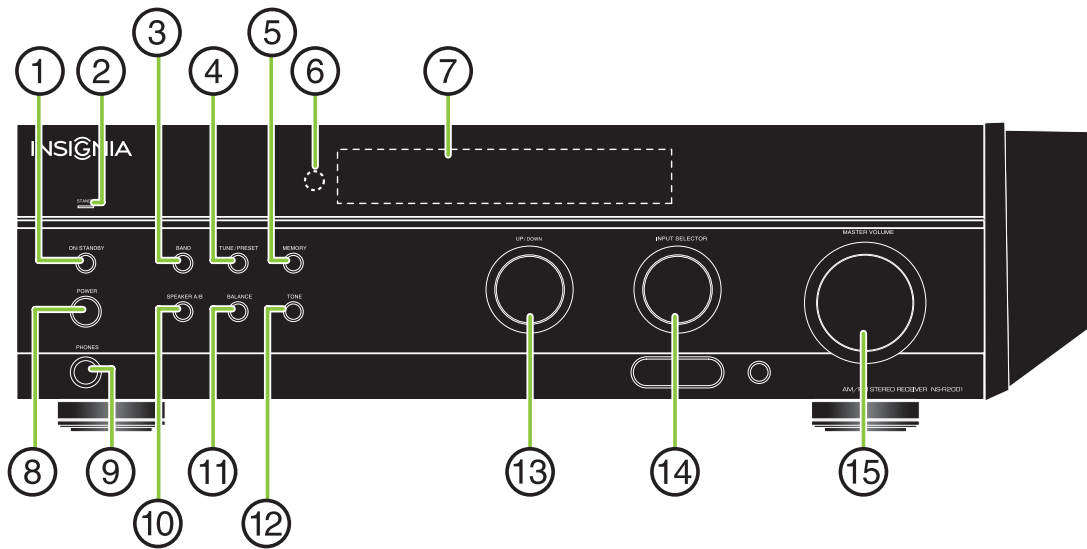
- 12** Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13** Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14** Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



- 15** To reduce the risk of fire or electric shock, do not expose this device to rain, moisture, dripping, or splashing, and no objects filled with liquids, such as vases, shall be placed on it.
- 16** An apparatus with a three-prong, grounding-type plug is a Class I apparatus, which needs to be grounded to prevent possible electric shock. Make sure that you connect this Class I device to a grounding-type, three-prong outlet.
- 17** The wall plug is the disconnecting device. The plug must remain readily operable.
- 18** Batteries should not be exposed to excessive heat such as sunshine, fire, or the like.

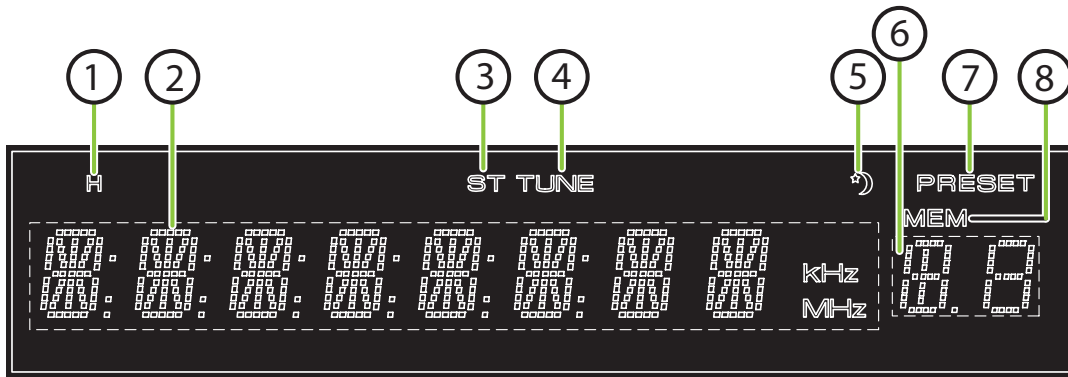
Features

Front controls



Item	Description	Function
1	ON/STANDBY button	Press to turn on your stereo receiver. Press again to put your stereo receiver in standby mode.
2	STANDBY indicator	Lights blue when your stereo receiver is in standby mode.
3	BAND button	Press to toggle between AM and FM.
4	TUNE/PRESET button	Press to toggle between tune and preset mode.
5	MEMORY button	Press to save a station preset. Press and hold to automatically search for FM stations and store them in memory.
6	Remote sensor	Receives the signal from the remote control.
7	Display	Provides information about the receiver.
8	POWER button	Press to power on the stereo receiver putting it into standby mode. Press again to power down the stereo receiver
9	Headphone (PHONES) jack	Plug 1/4" stereo headphones into this jack.
10	SPEAKER A/B button	Press to cycle through the available speaker options. Speakers off > Speaker A on > Speaker B on > Speakers A and B on.
11	BALANCE button	Press to turn the balance mode on.
12	TONE button	Press to turn the tone mode on.
13	UP/DOWN knob	Turn to tune the radio frequency up or down, or to adjust tone, balance, and so on, depending on the receiver mode.
14	INPUT SELECTOR knob	Turn to cycle through the available receiver inputs.
15	MASTER VOLUME control knob	Turn to increase or decrease the volume.

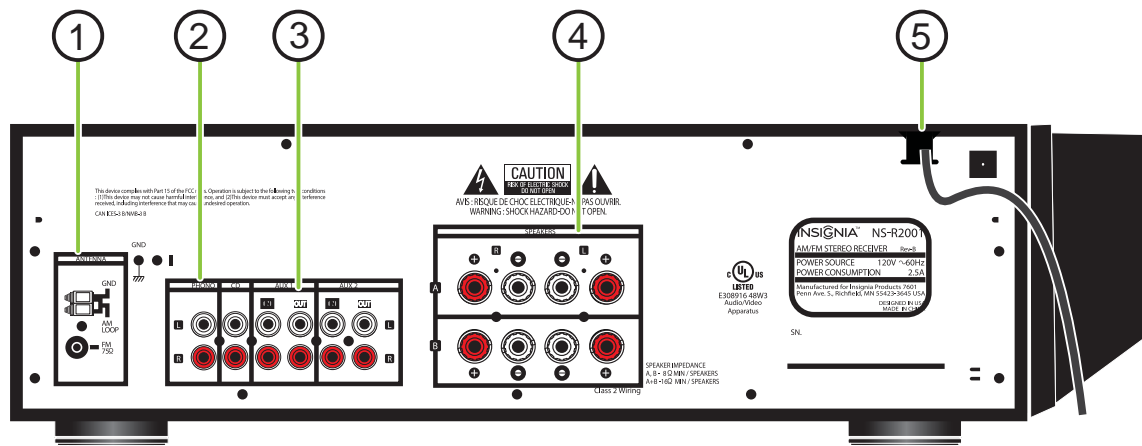
Display



Item	Description	Function
1	Headphone indicator	Lights when in Headphone mode and headphones are connected.
2	Display indicator	Shows input, frequency, volume level, and operating information.
3	STEREO indicator	Lights when in stereo mode.
4	TUNE indicator	Lights when tuned to a radio station.
5	SLEEP indicator	Lights when the sleep timer is active.
6	PRESET/Sleep time indicator	Shows preset number or sleep time remaining.

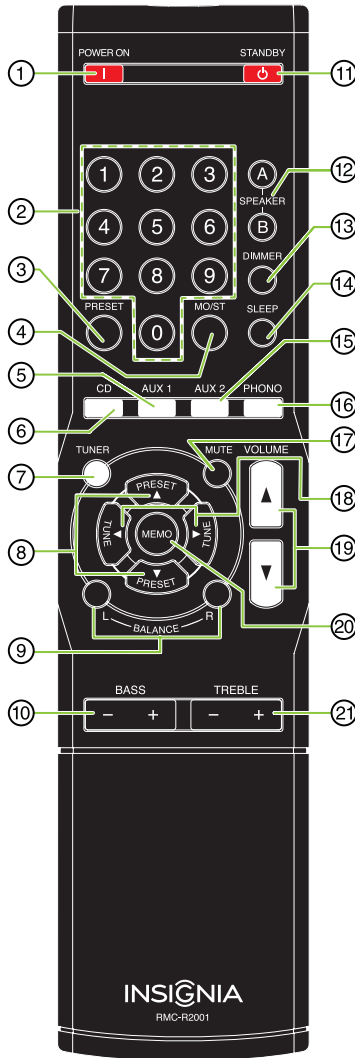
Item	Description	Function
7	PRESET indicator	Lights to indicate that the receiver will scan through preset radio channels when tuning.
8	MEMORY indicator	Lights when setting preset channels.

Back



Item	Description	Function
1	AM and FM antenna jacks	Connect the AM and FM antennas to these jacks.
2	PHONO jacks	Connect a turntable to these jacks.
3	Audio input jacks	Connect audio input devices to these jacks to play their audio through your receiver.
4	Speaker terminals	Connect speakers to these terminals.
5	AC power cord	Plug this cord into an AC power outlet.

Remote control



Item	Description	Function
15	AUX 2 button	Press to select the device connected to the AUX 2 jack as the audio source.
16	PHONO button	Press to select a turntable as the audio source.
17	MUTE button	Press to mute the sound from your receiver. Press again to restore the sound.
18	TUNE ◀/▶ buttons	Press to tune the radio to a lower or higher frequency.
19	VOLUME ▲/▼ buttons	Press to increase or decrease the volume.
20	MEMO button	Press to memorize a preset station.
21	TREBLE -/+ buttons	Press to decrease or increase the treble.

Package contents

- Receiver
- Remote control
- AAA batteries (2)
- Indoor AM antenna
- Indoor FM antenna
- *User Guide*
- *Quick Setup Guide*

Setting up your receiver

Finding a location for your receiver

- Install your receiver on a stable flat surface. Position your receiver so that it can have a direct line of sight to the remote control.
- Do not expose your receiver to extremes of temperature or humidity.
- Avoid placing your receiver on a hot surface such as on top of other hot running equipment. Make sure that there is adequate ventilation to your receiver.

Caution

Do not install this receiver in a confined space such as a bookcase.

Note

Connect the AC cord only after the speakers, antenna, and all optional equipment have been connected. Never make or change any connections with the power turned on.

Connecting devices

Warning

Do not plug the AC cord into the AC outlet until all connections are completed.

Notes

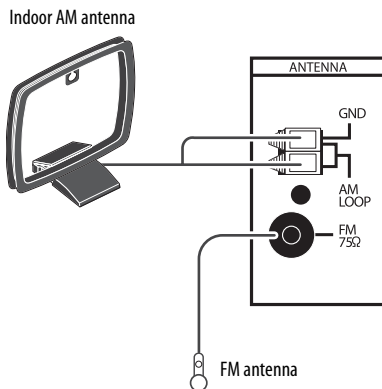
Be sure to observe the color coding when connecting audio and speaker cords. Make connections firmly and correctly. Failure to do this can cause loss of sound, add noise to the sound, or damage your receiver.

Item	Description	Function
1	POWER button	Press to turn the power on to your stereo receiver.
2	Number buttons	Press to enter a preset number.
3	PRESET button	Press to scan preset stations in order. Press again to stop scanning.
4	MO/ST button	Press to switch to mono or stereo mode.
5	AUX 1 button	Press to select the device connected to the AUX 1 jack as the audio source.
6	CD button	Press to select the device connected to the CD jacks as the audio source.
7	TUNER button	Press to select the tuner as the audio source.
8	PRESET ▼/▲ buttons	Press to tune the radio to the previous or next preset station.
9	BALANCE L and R buttons	Press to adjust the balance to the left and right.
10	BASS -/+ buttons	Press to decrease or increase the bass.
11	STANDBY button	Press to set your receiver to standby mode.
12	SPEAKER A and B buttons	Press to switch to speaker A or B.
13	DIMMER button	Press to adjust the brightness of the display (On, DIm, Off).
14	SLEEP button	Press to cycle through the available sleep timer intervals (from 10 to 90 minutes).

Connecting the antennas

To connect the antennas:

- 1 Connect the Indoor FM antenna (included) to the FM jack on the back of the receiver.

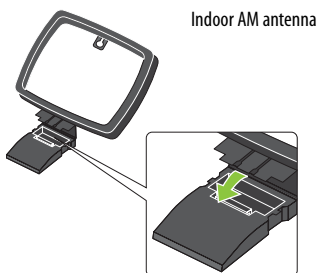


- 2 Move the position of the antenna until you get the best reception of your favorite FM stations.

Note

To improve reception, you may use a 75 Ω outdoor antenna instead of an indoor antenna. Disconnect the indoor antenna before replacing it with an outdoor antenna.

- 3 Remove the AM antenna from its package (if necessary), uncoil the wire, then fold the two halves of the loop together.
- 4 Fold the base under the loop and press it onto the pins on the bottom of the loop.



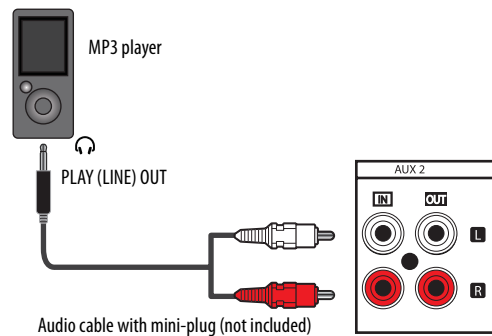
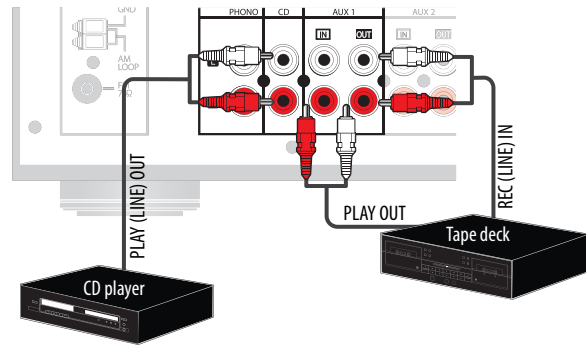
- 5 To connect the Indoor AM antenna, press the GND and AM Loop levers, insert the ends of the wires, then release the levers. Make sure that only the bare, stripped wire is inserted in the jack.

Note

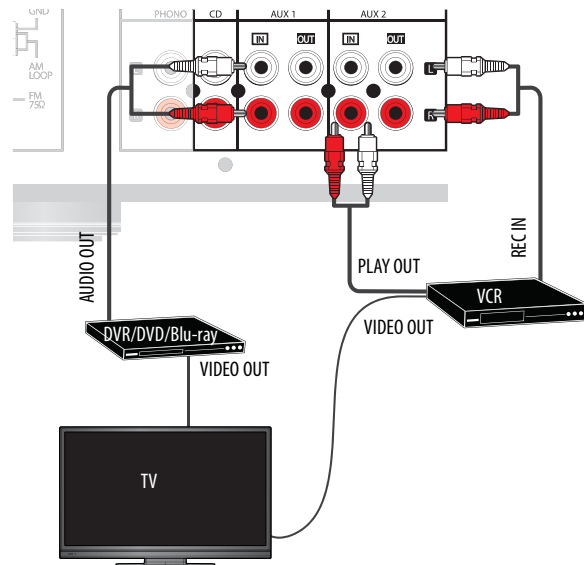
To improve reception, you may use an outdoor AM antenna instead of a loop AM antenna. Disconnect the indoor antenna before replacing it with an outdoor antenna.

- 6 Move the position of the antenna until you get the best reception of your favorite AM stations.

Connecting audio-only devices



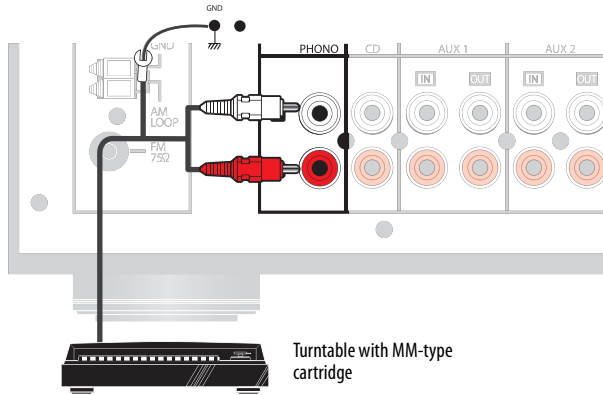
Connecting devices with video



To connect devices with video:

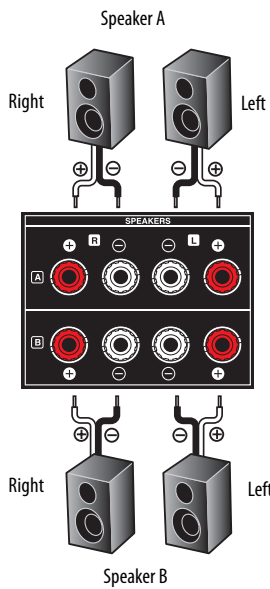
- 1 Connect the cable from the **Audio Out** jack on the audio device to the L/R audio jacks on the receiver.
- 2 Connect the video cables (component, composite, HDMI, DVI, S-Video, or RF) from the output jack on the video device to the appropriate input jack on your TV.

Connecting a turntable



Note
To connect a turntable with an MC type cartridge, use a separate head amplifier or step-up transformer.

Connecting speakers



Caution
We recommend that you use speakers with an impedance of 8 Ohms or more if using only the SPEAKER A or SPEAKER B terminals. Use speakers with an impedance over 16 Ohms or more if using both the SPEAKER A or SPEAKER B terminals.
Do not let the bare speaker wires touch each other or any metal part of this receiver. Doing so may damage the receiver or speaker.

To connect your speakers:

- 1 Turn the terminal cap to loosen it.
- 2 Insert the bare wire into the terminal fully and tighten the terminal cap to securely connect it. Make sure that you strip the wire adequately so that none of the wire insulation is under the terminal.

- 3 Make sure it is fastened firmly by pulling the cable lightly.

Notes
If you have only one pair of speakers, connect them to the SPEAKER A terminals.

Be sure to connect the speakers correctly, according to the channel (left and right) and the polarity (+ and -). If you do not make the connections correctly, you will not hear any sounds from the speakers.

If the sound is unnatural and lacks bass, the speaker polarity is incorrect.

Connecting headphones



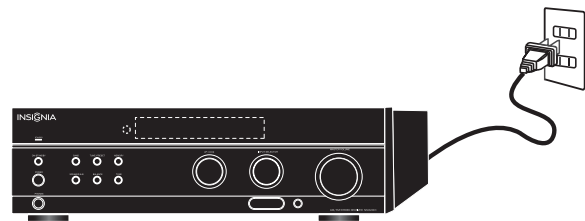
To connect your headphones:

- 1 Insert a 1/4" headphone plug into the headphone jack on the receiver.
- 2 Press the **SPEAKER A** or **SPEAKER B** button on the remote to turn the corresponding speakers off. The corresponding speaker indicator turns off, H appears on the display, and sound is heard from the headphones.

Connecting the power

To connect your receiver to power:

- Plug the power cord into an AC outlet.



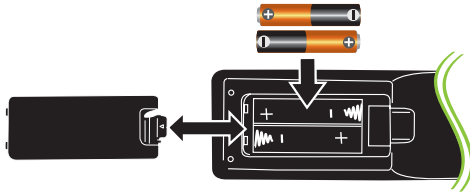
Installing batteries

Caution

Do not use Ni-Cd rechargeable batteries in this remote control.
Remove the batteries if they are not to be used for an extended period of time.

To install the batteries:

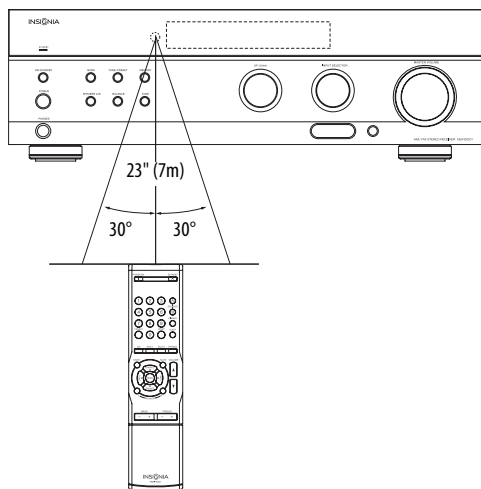
- 1 Remove the cover.



- 2 Insert two AAA batteries into the compartment matching the polarity indicated.
- 3 Replace the cover.

Using the remote control

Use the remote control by pointing it towards the receiver's remote sensor window. Objects between the remote control and sensor window may prevent proper operation.



Use the remote control within about 23 feet (7 meters) of the receiver and within 30 degrees of perpendicular to the front of the receiver.

Cautions

- Do not expose the remote control to shock. In addition, do not expose the remote control to liquids, and do not place in an area with high humidity.
- Do not place the remote control under direct sunlight. The heat may cause deformation of the remote control.
- The remote control may not work properly if the remote sensor window of the receiver is under direct sunlight or strong lighting. In such a case, change the angle of the lighting or receiver, or operate the remote control closer to the remote sensor window.

Using your receiver

Tips

The following settings are stored in memory before the receiver is turned off:

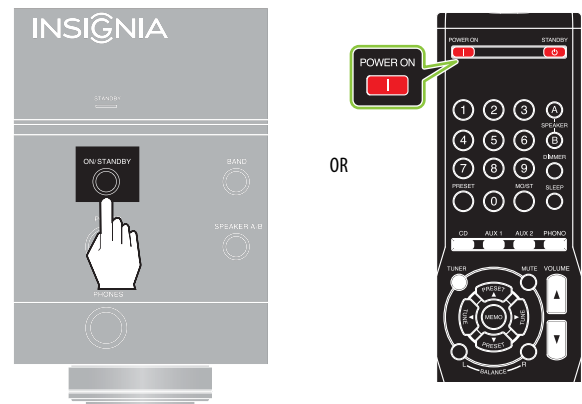
- INPUT SELECTOR settings
- Preset stations.

If the electricity fails or the AC power cord is unplugged for more than a week, your memory is cleared.

Listening to audio on your receiver

To listen to audio on your receiver:

- 1 Press the **POWER ON** button on the receiver. The **STANDBY** indicator lights blue.
- 2 Press the **POWER ON** button on the remote control or the **ON/STANDBY** button on the receiver to turn the receiver on. The Standby indicator turns off.



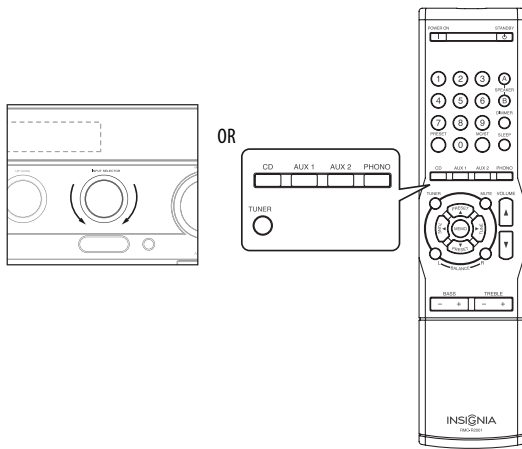
Tip

You can put the receiver in Standby mode by pressing the **STANDBY** button on the remote control when the receiver is on.

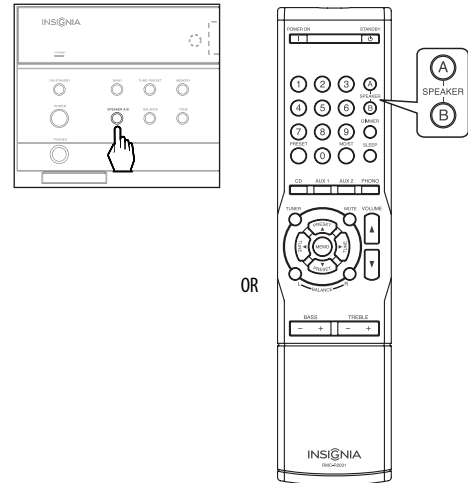
With the receiver in Standby mode, you can also turn the power on by pressing an Input Selector button on the remote control.

- 3 Turn on devices connected to the receiver.
- 4 If you connected a video device, such as a DVD or Blu-ray player:
 - a) Select that device's input on the TV.
 - b) Turn your TV speakers off if you only want the audio to come from your receiver.

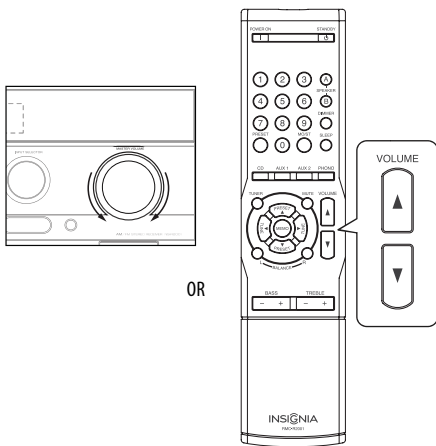
- 5 Rotate the **INPUT SELECTOR** knob or press the input selector button to select the input source.



- 7 Press **SPEAKER A** or **SPEAKER B** on the remote control or the **SPEAKER A/B** button on the receiver to turn the speakers on. **SPK A**, **SPK B**, **SPK AB**, or **SPK OFF** appears on the display and sound is heard from the speakers.



- 6 Turn the **MASTER VOLUME** dial or press **VOLUME ▲/▼** to adjust the sound level.



Adjusting the tone

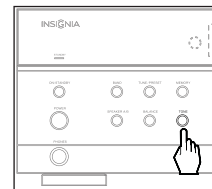
Adjusting the tone lets you increase or decrease the bass and/or treble tones of the music you are listening to. When **TON CTRL** is shown on the display, you can adjust the tone. When **TON DIR** is shown on the display, the tone cannot be adjusted.

To adjust the tone:

- 1 Press the **TONE** button on the receiver, then rotate the **UP/DOWN** knob until **TON CTRL** appears on the display.
- 2 On the remote, press the **TREBLE+/-** or **BASS+/-** buttons to adjust the tone.

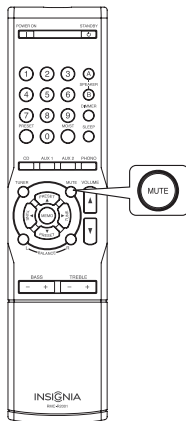
OR

On the receiver, press the **TONE** button repeatedly to cycle through the available tone modes (**BASS**>**TREBLE**>**TON CTRL**). The tone mode is displayed for three seconds.

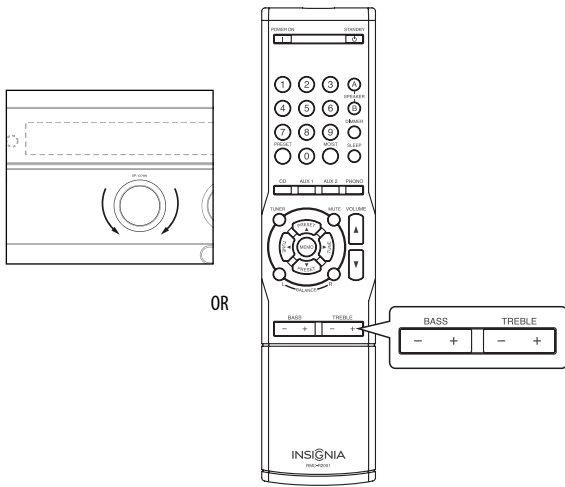


-OR-

Press **MUTE** on the remote control to turn the sound off. "MUTE" flashes on the display. Press **MUTE** again to turn the sound back on.



3 Rotate the **UP/DOWN** knob to adjust the tone.



OR

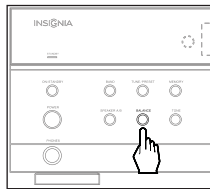
Notes

- If the tone display disappears, start again from step 1.
- Extreme settings at high volume may damage your speakers.
- To cancel the tone direct function, press the **TONE** button again. **TON CTRL** is displayed and **DIR** turns off.

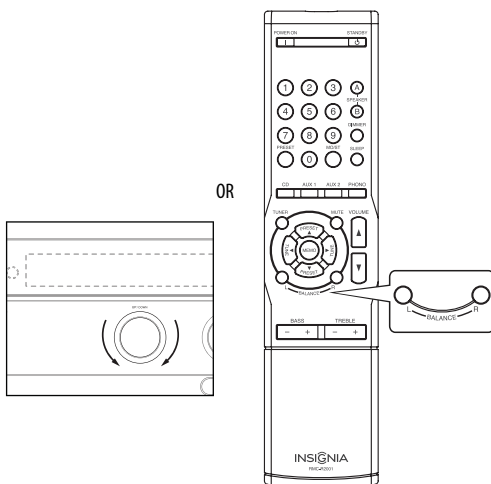
Adjusting the sound volume balance

To adjust the sound volume balance:

1 Press **BALANCE L** or **BALANCE R** on the remote or press **BALANCE** on the receiver. "BAL" and the balance level is displayed for three seconds.



2 Rotate the **UP/DOWN** knob to adjust the balance.



Note

If the balance display disappears, start again from step 1.

Listening to the radio

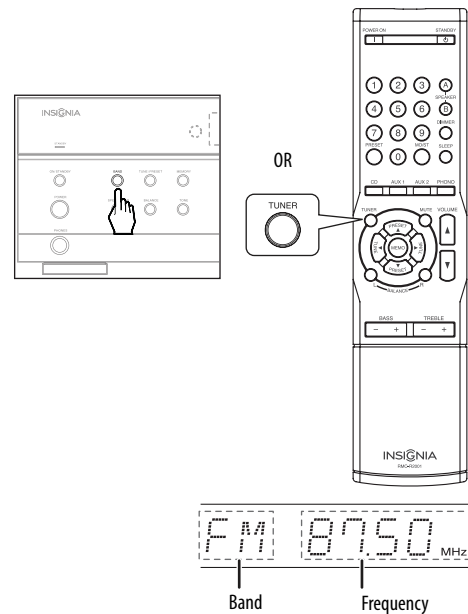
You can have the receiver automatically tune to radio stations, or you can do it manually using the **TUNE/PRESET** button on the receiver or the **TUNER** button on the remote. Each time this button is pressed, the mode changes as follows:

- **TUNE** mode—the **PRESET** indicator turns off and the tuner scans through the available stations.
- **PRESET** mode—the **PRESET** indicator lights up and the tuner only scans through stations saved into the preset memory.

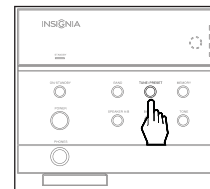
Auto tuning to a radio station

To auto tune a radio station:

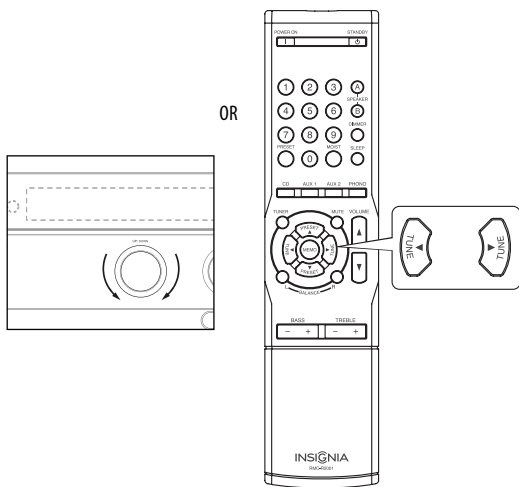
1 Repeatedly press **BAND** on the receiver or **TUNER** on the remote to select AM, FM mono, or FM Stereo.



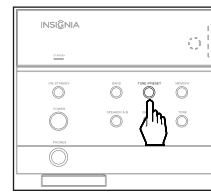
2 Press **TUNE/PRESET** to set the tuning mode to **TUNE**.



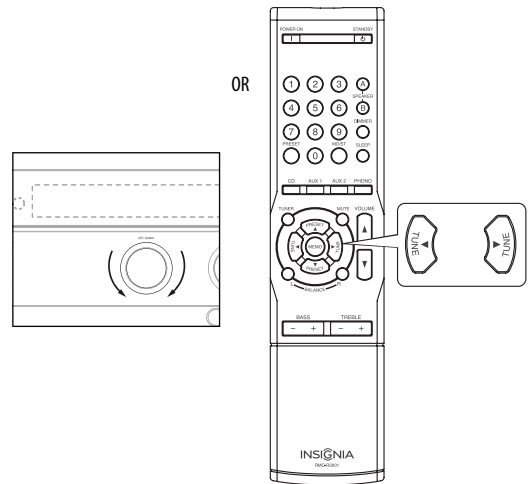
- 3 Rotate the **UP/DOWN** knob quickly or press and hold the **TUNE** ◀/▶ buttons.



- 2 Press **TUNE/PRESET** to set the tuning mode to **TUNE**.



- 3 Rotate the **UP/DOWN** knob one by one slowly or press the **TUNE** ◀/▶ buttons repeatedly until the right frequency has been reached.



The tuner searches until a station of sufficient strength has been found. The display shows the tuned frequency and **TUNE**.

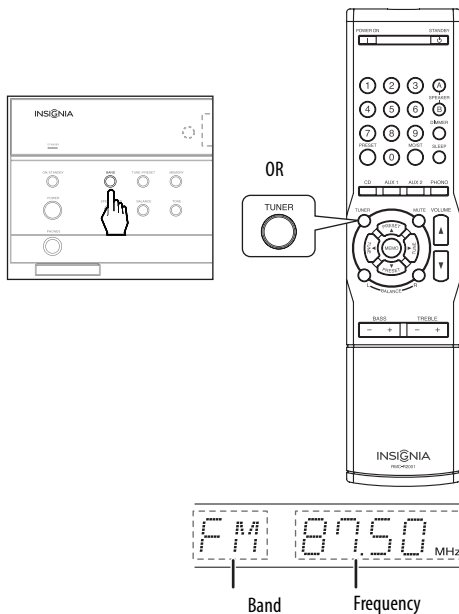
Weak stations are skipped during auto tuning.

Manually tuning a radio station

Manual tuning is useful when you already know the frequency of the station you want to listen to.

To manually tune a radio station:

- 1 Repeatedly press **BAND** on the receiver or **TUNER** on the remote control to select AM, FM Mono, or FM Stereo.

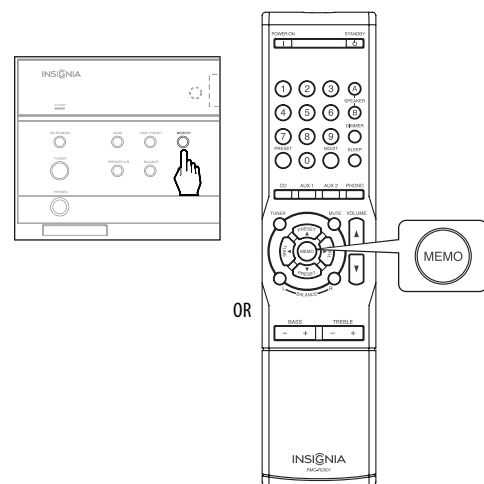


Presetting radio stations

You can automatically or manually store as many as 30 preset stations in memory.

To automatically preset radio stations:

- 1 Press and hold the **MEMO** button on the remote or the **MEMORY** button on the receiver for more than two seconds.



AUTO MEM blinks on the display and the receiver automatically searches for and presets as many as 30 FM stations.

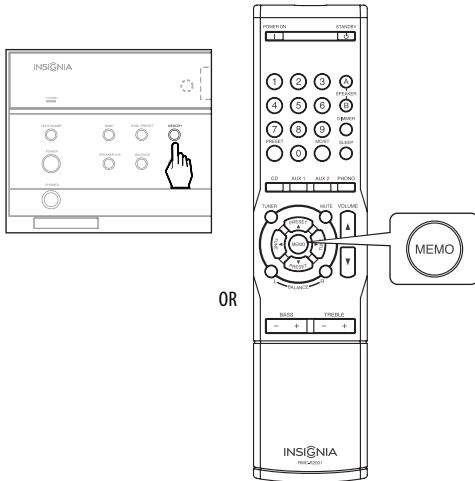
- To stop automatically presetting stations, press **MEMO/MEMORY** again.

Notes

- Weak FM stations cannot be memorized
- You can manually preset AM stations or weak stations.

To manually preset a radio station:

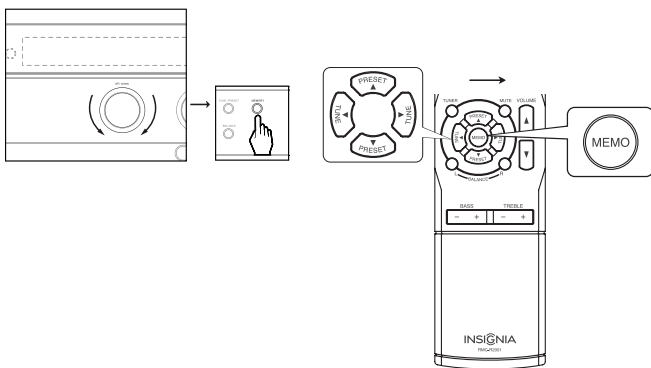
- Press **TUNE/PRESET** until **PRESET** is not displayed.
- Tune to the station.
- Press the **MEMO** button on the remote or the **MEMORY** button on the receiver. **MEM** blinks for five seconds.



- Select a preset number between 1 and 30 by turning the **UP/DOWN** knob, or by pressing the **PRESET ▲/▼** buttons, then pressing the **MEMO** button again.

- OR -

Enter a preset number between 1 and 30 by using the numeric keys.



Notes

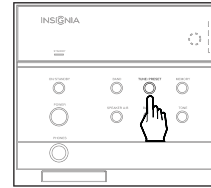
- When using the numeric keypad on the remote control, if your number is greater than nine, enter the first digit, then enter the second digit within two seconds.
- When using the numeric keypad, the station is stored automatically without pressing the **MEMO** button.
- A stored frequency is erased from memory by storing another frequency in its place.
- If MEM goes off, start again from step 3.

- Repeat this procedure to memorize additional stations.

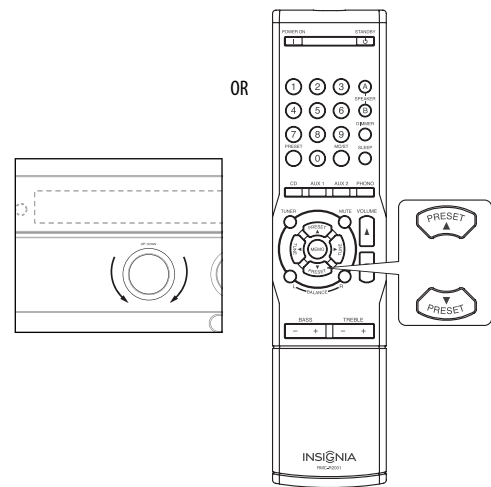
Tuning to preset stations

To tune to a preset station:

- Select the tuner as the input source.
- Press **TUNE/PRESET** to select the preset mode. **PRESET** lights up.



- Rotate the **UP/DOWN** knob or press the **PRESET ▲/▼** buttons on the remote control.



-OR-

Enter the preset number using the numeric keypad.

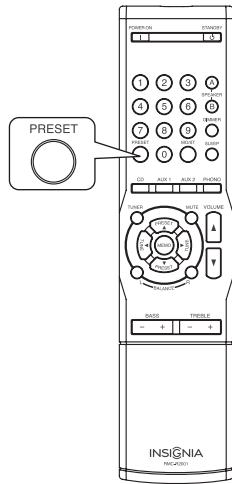
Note

When using the numeric keypad on the remote control, if your number is greater than nine, enter the first digit, then enter the second digit within two seconds.

Scanning preset stations in sequence

To scan preset stations:

- 1 Press the **PRESET** button on the remote control.



The receiver starts scanning the stations in the preset sequence. Each station is sampled for five seconds.

Note

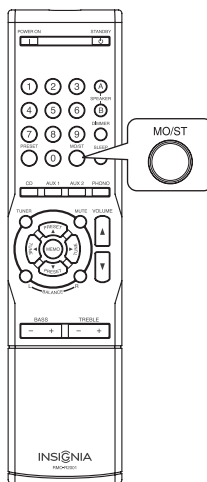
Stations with weak signals will not be scanned, and will therefore not be sampled.

- 2 Press the **PRESET** button again to stop scanning.

Listening to FM stereo broadcasts

To listen to FM stereo broadcasts:

- While listening to an FM broadcast, press the **MO/ST** button. Each time this button is pressed, the FM mode changes as follows:
 - **Stereo** mode—**ST** lights up.
 - **Mono** mode—**ST** turns off.



Recording

Use your stereo receiver as a switch to connect your audio sources to the audio recording device that is connected to **AUX 1 OUT** (for example, a tape deck). You can record audio from your CD, Phono, or AUX 2 device to the audio recording device. You can also record a CD, Phono, or AUX 1 audio source if your audio recording device is connected to **AUX 2 OUT**.

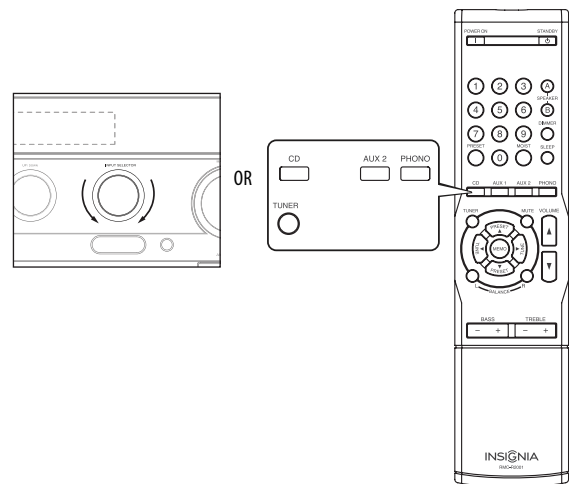
Notes

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

Recording on AUX 1

To record on AUX 1:

- 1 Select the recording input source (this cannot be **AUX 1**).

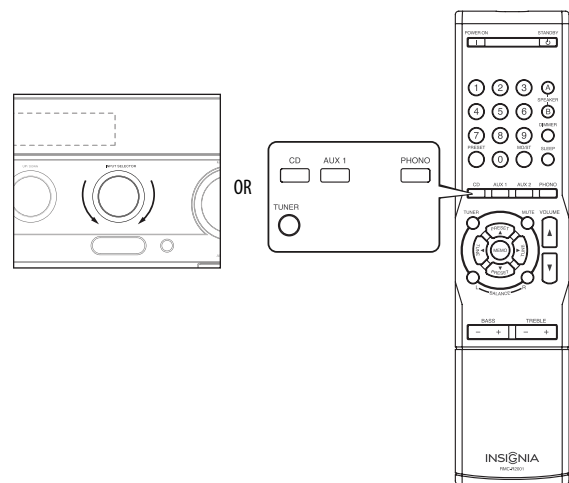


- 2 Start recording on the **AUX 1** device.
- 3 Start play on your input device to provide the audio signal to record.

Recording on AUX 2

To record on AUX 2:

- 1 Select the recording input source (this cannot be **AUX 2**).



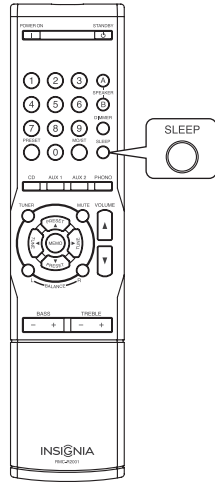
- 2 Start recording on the **AUX 2** device.
- 3 Start play on your input device to provide the audio signal to record.

Using the sleep timer

The sleep timer automatically turns the receiver off after a specified period of time.

To use the sleep timer:

- Press the **SLEEP** button to specify the amount of time you want the receiver to play.



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

- ON
- Dim
- OFF

Note

If the display is off, pressing any button turns the display on.

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

- 10 minutes
- 20 minutes
- 30 minutes
- 60 minutes
- 90 minutes
- OFF

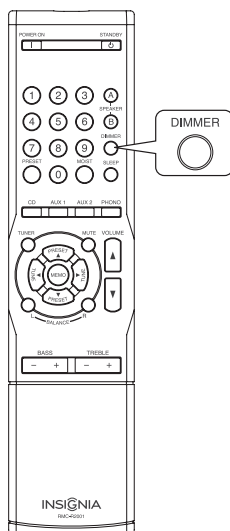
Note

While operating the sleep timer, the **SLEEP** lights up.

Adjusting the display brightness

To adjust the display brightness:

- Press the **DIMMER** button to set the brightness of the display.



Maintaining

To clean this receiver, wipe with a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth dipped in a soap and water solution or a weak detergent solution.

- Never use alcohol, paint thinner, or benzine to clean this receiver.
- Before using a chemically treated cloth, read the instructions that came with the cloth carefully.

Troubleshooting

If a problem occurs, run through the table below before contacting Insignia.

If the problem persists, attempt to solve it by switching the receiver off and on again. If this fails to resolve the problem, contact Insignia. Under no circumstances should you attempt to repair the receiver yourself as this could void the warranty.

Category	Problem	Possible Solution
No power.	<ul style="list-style-type: none"> • The AC power cord is disconnected. • Poor connection at AC wall outlet or the outlet is inactive. 	<ul style="list-style-type: none"> • Connect the cord securely. • Check the outlet using a lamp or another appliance.
No sound.	<ul style="list-style-type: none"> • The speaker cords are loose or disconnected. • The volume is adjusted too low. • The MUTE button on the remote control is pressed to ON. • Speakers are not switched on. • Incorrect selection of the input source. • Incorrect connections between the components. • The correct speaker is not selected. 	<ul style="list-style-type: none"> • Check the speaker connections. • Adjust the volume. • Press the MUTE button to cancel the muting effect. • Turn on one or both speakers. • Select the desired input source correctly. • Make connections correctly. • Press SPEAKER A or B to select the correct speakers.
Stations cannot be received.	<ul style="list-style-type: none"> • No antenna is connected. • The desired station frequency is not tuned in. • The antenna is in wrong position. 	<ul style="list-style-type: none"> • Connect an antenna. • Tune in the desired station frequency. • Move the antenna and retry tuning.
Preset stations cannot be received.	<ul style="list-style-type: none"> • An incorrect station frequency has been memorized. • The memorized stations are cleared. • No antenna is connected. • The antenna is not positioned for the best reception. • The receiver is not in PRESET mode. 	<ul style="list-style-type: none"> • Memorize the correct station frequency. • Memorize the stations again. • Connect an antenna. • Change the position of the antenna. • Press TUNE/PRESET until the PRESET indicator lights.
Poor FM reception.	<ul style="list-style-type: none"> • No antenna is connected. • The antenna is not positioned for the best reception. • The antenna connection may not be secure. • You may not be fully tuned to the correct frequency. 	<ul style="list-style-type: none"> • Connect an antenna. • Change the position of the antenna. • Make sure that the antenna is properly secured. • Make sure that you are tuned to the correct frequency. • Try using an outdoor antenna.

Category	Problem	Possible Solution
Continuous hissing noise during FM reception, especially when a stereo broadcast is received.	<ul style="list-style-type: none"> • Weak signals. • The antenna connection may not be secure. • You may not be fully tuned to the correct frequency. • The receiver may be too close to a TV or another appliance. 	<ul style="list-style-type: none"> • Change the position of the antenna. • Install an outdoor FM antenna. • Make sure that the antenna is properly secured. • Make sure that you are tuned to the correct frequency. • Move the devices or turn them off. • Try using an outdoor antenna.
Continuous or intermittent hissing noise during AM reception, especially at night.	Noise is caused by motors, fluorescent lamps, or lightning.	<ul style="list-style-type: none"> • Keep the receiver away from noise sources. • Install an outdoor AM antenna.
No recording.	<ul style="list-style-type: none"> • Incorrect selection between the components. • Incorrect operation of each component for playback and recording. 	<ul style="list-style-type: none"> • Make connections correctly. • Operate each component correctly.
There is noise or a humming sound.	• The receiver may be too close to a TV or another appliance.	<ul style="list-style-type: none"> • Connect the turntable's ground cord to the PHONO GND terminal. • Move the devices or turn them off.
The sound lacks bass.	• The speaker polarity (+/-) might be reversed.	• Check all speakers for correct polarity.
The volume of SPEAKER A is different from that of SPEAKER B.	• The volume and sound quality may differ depending on the speaker's size, etc.	• Connect the same type of speakers to the SPEAKERS A and B terminals if you want to use SPEAKERS A and B at the same time with the same volume.
I can hear the audio, but I can't see the video on my TV.	• The correct video input on the TV is not selected.	• Select the input source that matches the device connected to the TV.
Remote control unit does not operate.	<ul style="list-style-type: none"> • Batteries are not installed or are dead. • The remote sensor is obstructed. 	<ul style="list-style-type: none"> • Replace the batteries. • Remove the obstacle.

Specifications

Notes

- Design and specifications are subject to change without notice.
- Weight and dimensions shown are approximate.
- Specifications and external appearance may be changed for the sake of improvement.

Amplifier	Power output, stereo mode, 8 Ohms (Ω), THD 1%, 40 Hz~20 kHz: 2×100 W	
	Total harmonic distortion, 8 Ohms (Ω), 100 W, 40 Hz~20 kHz: 0.04%	
	Intermodulation distortion, 60 Hz:7 kHz= 4:1 SMPTE, 8 Ohms (Ω), 100 W: 0.02 %	
	Input sensitivity, 47 k Ω , Phono (MM):	2.5 mV
	Input sensitivity, 47 k Ω , Line (CD, AUX1, AUX2):	420 mV
	Signal to noise ratio, IHF "A" weighted, Phono (MM):	70 dB
	Signal to noise ratio, IHF "A" weighted, Line (CD, AUX1, AUX2):	95 dB
	Frequency response Phono (MM), RIAA, 30 Hz~20 kHz:	+/- 3 dB
	Frequency response Line (CD, AUX1, AUX2), 20 Hz~100 kHz:	+/- 3 dB
	Output level AUX1, AUX2 OUT, 2.2 k Ω :	200 mV
Bass/Treble control, 100 Hz/10 kHz:	±10 dB	
FM Tuner	Tuning frequency range:	87.5~107.9 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, 20 Hz~14 kHz:	+/- 3 dB
	Stereo separation, 1 kHz:	40 dB
	Capture ratio:	4 dB
IF rejection ratio:	80 dB	
AM Tuner	Tuning frequency range:	530~1710 kHz
	Usable sensitivity:	800 μ V/m
	Signal to noise ratio:	40 dB
	Selectivity:	25 dB
General	Power supply:	120 V ~ 60 Hz
	Power consumption:	2.5 A
	Dimensions (W×H×D, including protruding parts):	17.3 × 5.6 × 14.9 inches (44 × 14.1 × 37.8 cm)
	Weight (Net):	17.4 lbs (7.9 kg)

Legal notices

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation

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 measure

- 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: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

DHHS and FDA safety certification

This product is made and tested to meet safety standards of the FCC, requirements and compliance with safety performance of the U.S. Department of Health and Human Services, and also with FDA Radiation Performance Standards 21 CFR Subchapter J.

Canadian Notice

This Class B digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

This device complies with Industry license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Ce dispositif est conforme à la norme de l'industrie RSS exempts de licence (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences et (2) cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.

One-year limited warranty

Insignia Products ("Insignia") warrants to you, the original purchaser of this new product ("Product"), that the Product shall be free of defects in the original manufacture of the material or workmanship for a period of one (1) year from the date of your purchase of the Product ("Warranty Period"). This Product must be purchased from an authorized dealer of Insignia brand products and packaged with this warranty statement. This warranty does not cover refurbished Product. If you notify Insignia during the Warranty Period of a defect covered by this warranty that requires service, terms of this warranty apply.

How long does the coverage last?

The Warranty Period lasts for 1 year (365 days) from the date you purchased the Product. The purchase date is printed on the receipt you received with the Product.

What does this warranty cover?

During the Warranty Period, if the original manufacture of the material or workmanship of the Product is determined to be defective by an authorized Insignia repair center or store personnel, Insignia will (at its sole option): (1) repair the Product with new or rebuilt parts; or (2) replace the Product at no charge with new or rebuilt comparable products or parts. Products and parts replaced under this warranty become the property of Insignia and are not returned to you. If service of Products or parts are required after the Warranty Period expires, you must pay all labor and parts charges. This warranty lasts as long as you own your Insignia Product during the Warranty Period. Warranty coverage terminates if you sell or otherwise transfer the Product.

How to obtain warranty service?

If you purchased the Product at a retail store location, take your original receipt and the Product to the store you purchased it from. Make sure that you place the Product in its original packaging or packaging that provides the same amount of protection as the original packaging. If you purchased the Product from an online web site, mail your original receipt and the Product to the address listed on the web site. Make sure that you put the Product in its original packaging or packaging that provides the same amount of protection as the original packaging.

Where is the warranty valid?

This warranty is valid only in the United States and Canada at Best Buy or Future Shop branded retail stores or websites to the original purchaser of the product in the county where the original purchase was made.

What does the warranty not cover?

This warranty does not cover:

- Customer instruction
- Installation
- Set up adjustments
- Cosmetic damage
- Damage due to acts of God, such as lightning strikes
- Accident
- Misuse
- Abuse
- Negligence
- Commercial use
- Modification of any part of the Product, including the antenna
- Plasma display panel damaged by static (non-moving) images applied for lengthy periods (burn-in).

This warranty also does not cover:

- Damage due to incorrect operation or maintenance
- Connection to an incorrect voltage supply
- Attempted repair by anyone other than a facility authorized by Insignia to service the Product
- Products sold as is or with all faults
- Consumables, such as fuses or batteries
- Products where the factory applied serial number has been altered or removed

REPAIR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. INSIGNIA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR THE BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT, INCLUDING, BUT NOT LIMITED TO, LOST DATA, LOSS OF USE OF YOUR PRODUCT, LOST BUSINESS OR LOST PROFITS. INSIGNIA PRODUCTS MAKES NO OTHER EXPRESS WARRANTIES WITH RESPECT TO THE PRODUCT, ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE WARRANTY PERIOD. SOME STATES, PROVINCES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION 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 OR PROVINCE TO PROVINCE.

Contact Insignia:

For customer service please call 1-877-467-4289 (U.S. and Canada) or 01-800-926-3000 (Mexico)

www.insigniaproducts.com

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