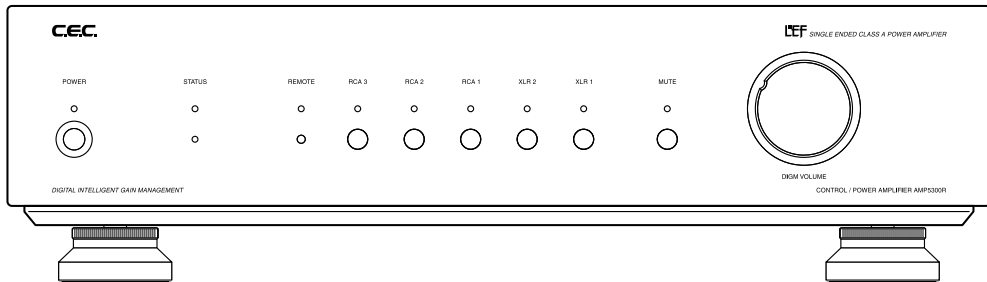


# Control / Power Amplifier

# AMP5300*R*

## Owner's Manual



**CEC.**

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## Introduction

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Thank you for purchasing AMP5300R!

Please refer to this owner's manual for using your AMP5300R safely and in the best way. It is recommended that you keep the carton box and the packing material for eventual future transportation needs.

### Features:

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- AMP5300R is a power amplifier with input control, developed for the highest pure sound experience with a design philosophy of minimising the signal path. It has the newest LEF (Load Effect Free) circuitry avoiding quality degradations instead of correcting afterwards. LEF also provides pure single-ended class-A operation with improved energy efficiency and does not require a sound altering global feedback loop. This results in the successful combination of high power (2 x 120W / 8Ω) and highest quality sound, widely unaffected by transistor characteristics.
- AMP5300R also features DIGM (Digital Intelligent Gain Management). This unique volume control technology digitally controls the amplifier's gain itself without any input signal dilution. The volume potentiometer just indicates the volume position to the DIGM. It does not handle any music signal.
- AMP5300R's circuitry is fully balanced, from the input stage to the speaker outputs. This minimises noise and distortion and increases the speed and resolution of the sound.

## Important Safety Instructions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to potential shock hazards within the product's enclosure.



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

**WARNING : TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions
- 5) Do not use AMP5300R near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install AMP5300R near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) (For USA, Canada: ) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades, with one blade wider than another. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet. (For European Countries: ) Do not defeat the safety purpose of the grounding-type plug. This plug has two poles and a third grounding hole. The third hole is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

- 10) Protect AMP5300R's power cord from being walked on or pinched, especially around the plugs, convenience receptacles, and where it exits the AMP5300R's casing.
  - 11) Only use attachments/accessories specified by the manufacturer.
  - 12) Only use AMP5300R with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the unit. If using a cart, exercise caution when moving the cart unit combination to avoid injury from it tipping over.
  - 13) Unplug AMP5300R during lightning storms or when leaving it unused for extended periods of time.
  - 14) Refer all servicing to qualified service personnel. Servicing is required when AMP5300R itself, its power-supply cord, or plug has been damaged in any way, when liquids have been spilled onto AMP5300R, when foreign objects have fallen into the AMP5300R, when AMP5300R has been exposed to rain or moisture, when AMP5300R does not operate normally, or when the unit has been dropped.
- Do not expose AMP5300R to drips or splashes.
  - Do not place any objects filled with liquids, such as vases, on the unit.
  - Do not install AMP5300R in a confined space, such as within a bookcase or similar piece of furniture.
  - Plug the AC power cord into an easily accessible AC wall outlet, so it can be quickly unplugged in case of emergency.



**Caution:** \_\_\_\_\_

- DO NOT REMOVE THE PROTECTIVE HOUSING WITH A SCREWDRIVER.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
- IF AMP5300R SEEMS TO BE MALFUNCTIONING, CONTACT A QUALIFIED SERVICE STATION. DISCONTINUE USE OF ANY MALFUNCTIONING UNIT.

**For CANADA:**

**AC POWER CORD CONNECTION**

**CAUTION :**

TO PREVENT ELECTRIC SHOCK, MATCH THE BLADE WIDTH OF THE PLUG TO THE SLOT WIDTH. THE PLUG MUST BE FULLY INSERTED TO THE SLOT.

## Handling Precautions

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### 1. Connecting Other Devices

Unplug AMP5300R's AC power cord from the outlet before connecting or disconnecting other devices. Exercise caution when handling the AC power cord. When disconnecting the AC cord from a socket, make sure you pull the plug, and not the cord itself.

### 2. Turning Power On/Off

Your system components should be turned on/off in the following order to avoid generating noise from your speakers and damaging the speakers themselves or other devices: Turning power on: Turn on AMP5300R's power at last, after turning on the DA converter or CD-player connected to AMP5300R. Turning power off: Turn off AMP5300R's power first, before turning off connected units.

### 3. Handle With Care

Avoid exerting excessive force on the cabinet, the volume knob or the tact switches of AMP5300R.

### 4. Installation

Use of an audio rack is recommended to maximise the sound quality and performance of AMP5300R. Installation and use of AMP5300R in the locations described below may cause deterioration in sound quality or malfunction:

- Locations exposed to direct sunlight, such as windowsills, and other exceptionally warm locations, such as near heating appliances (surrounding temperature higher than 35 °C) may prevent AMP5300R from functioning adequately.
- Damp locations exceeding 90% humidity may cause the TL1N's metal parts to rust, causing the unit to malfunction.
- Avoid installing AMP5300R close to other transformers and electrical motors, for preventing pickup of induction hum. Also, avoid mounting the unit on surfaces that may be affected by vibration.

### 5. Avoid Lightning Strike Damages

Disconnect the AC power cord from the AC outlet when there is a thunderstorm in your vicinity.

### 6. Condensation

When AMP5300R has been brought into a warm room when the exterior temperature is cold, or when the room temperature rises sharply from using a heater, condensation may occur from both inside and outside the unit, hampering its performance. If this happens, leave AMP5300R unused in the room for 1 to 2 hours (depending on the amount of condensation), so as to bring the unit's temperature closer to the room temperature. The condensation should go away gradually.

### 7. Listening Etiquette

When adjusting the sound volume level, make sure you do not disturb other people and your neighbourhood.



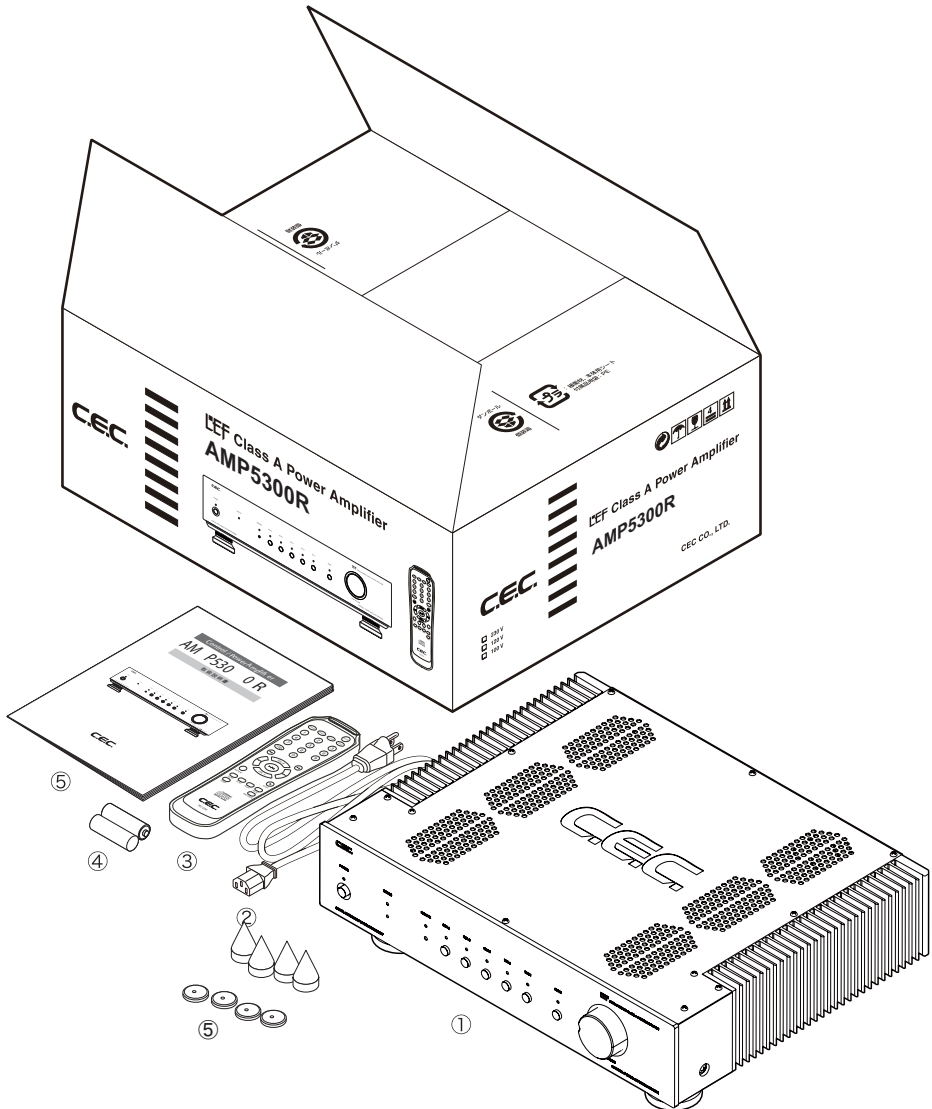


## Accessories

The packaging of AMP5300R should contain the following:

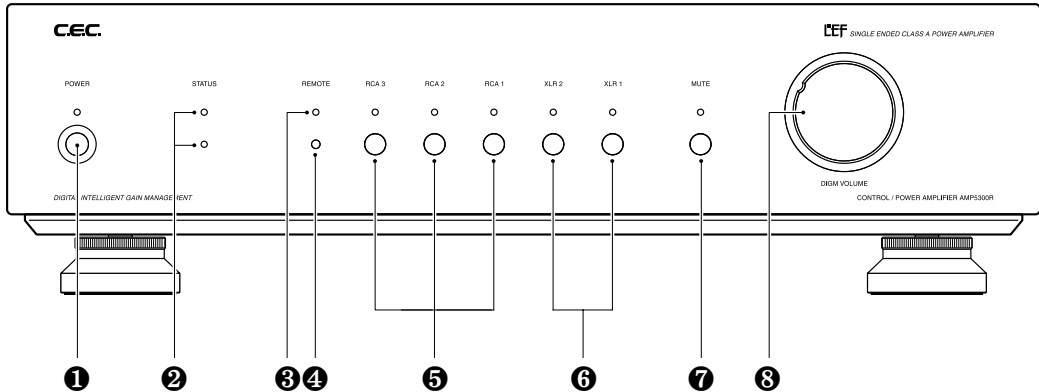
1. AMP5300R unit
2. AC power cord
3. Remote control unit
4. Two AA batteries for the remote control unit
5. Owner's Manual
6. Spike set

Note: Keep the packaging available for future transportation needs.  
The AC power cord is for use with AMP5300R exclusively, and should not be used for other devices.





## Front Panel Functions



### ❶ POWER

Press the POWER button to turn the AMP5300R on respectively off.

The yellow status light indicates that the unit is in starting-up. Once this upper blue light is on the amplifier is ready for use. The whole procedure takes 5 to 16 seconds depending on the previous potentiometer position.

### ❷ STATUS

The lower LED indicates either start-up status (yellow) or an internal error (red).

In case of repeatedly error indication please contact your CEC service centre.

The upper blue LED indicates normal operation mode.

### ❸ REMOTE CONTROL INDICATOR

This indicator shows an incoming valid remote control command.

### ❹ REMOTE CONTROL RECEIVER

When operating the remote control, point it towards the REMOTE CONTROL RECEIVER. Make sure nothing is blocking the AMP5300R's front panel, where the REMOTE CONTROL RECEIVER is located.

### ❺ RCA1 / RCA2 / RCA3 INPUT SELECTOR

Press the RCA1, RCA2 or RCA3 button to select an unbalanced INPUT source. The indicator corresponding to each input will light up to show the current INPUT selection.

### ❻ XLR1/XLR2 INPUT Selectors

Press the XLR1 or XLR2 button to select a balanced INPUT source. The indicator corresponding to each input selector will light up to show the current INPUT selection.

### ❼ MUTE

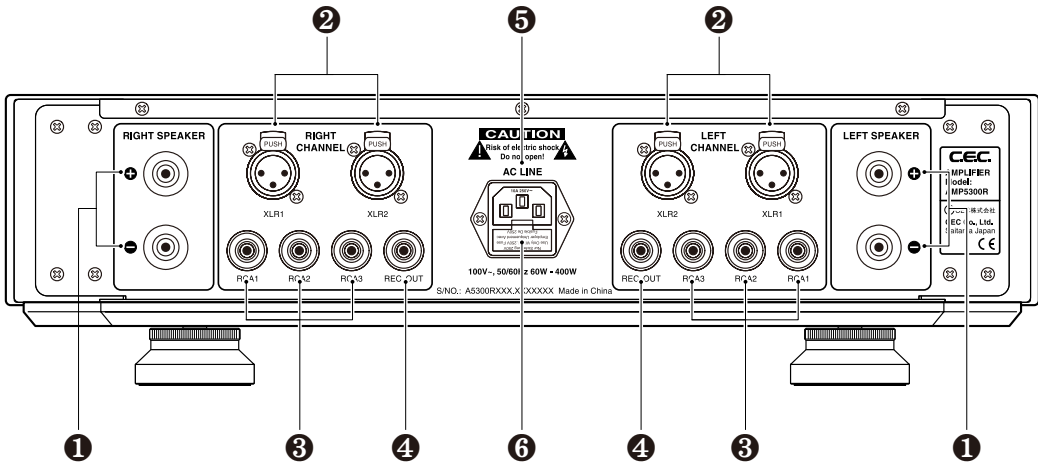
Press the MUTE button whenever you need to temporarily turn the sound off. The indicator above the MUTE button will light up as long as this function is active. To cancel MUTE mode, press the MUTE button again.

NOTE: The MUTE mode will be also cancelled if you turn the VOLUME knob.

### ❽ DIGM VOLUME

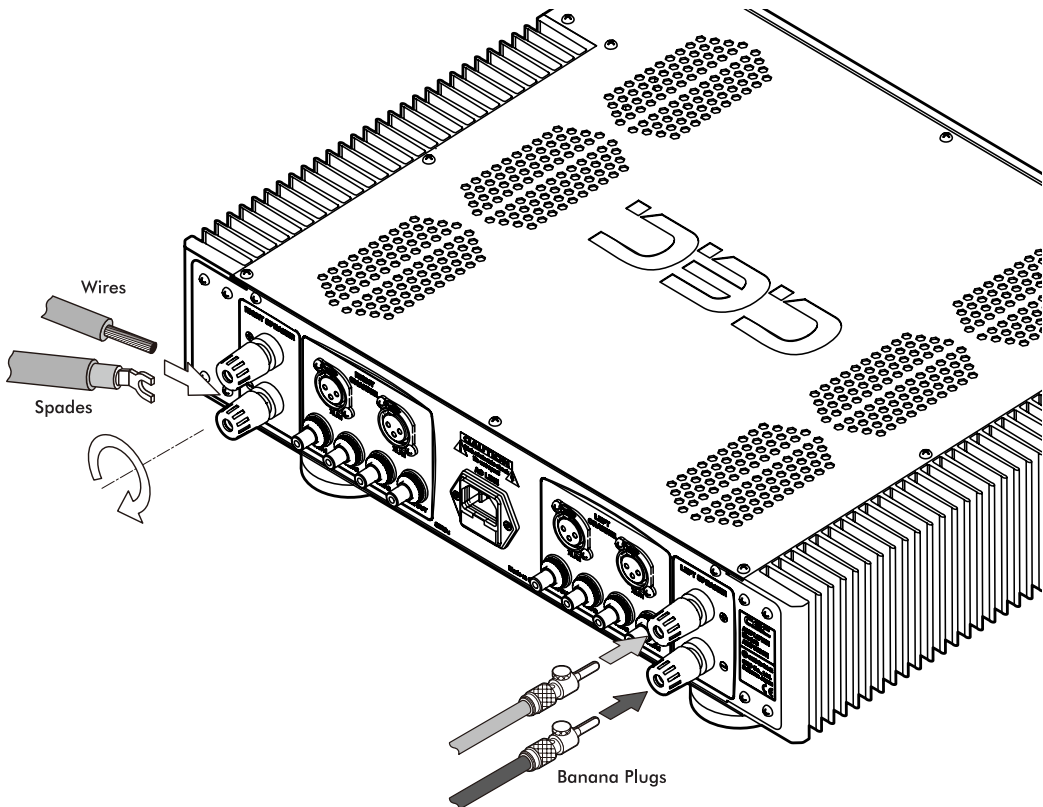
Turn the VOLUME knob clockwise to increase volume and counter-clockwise to decrease volume. Close to the lowest position MUTE will be activated.

## Rear Panel Functions



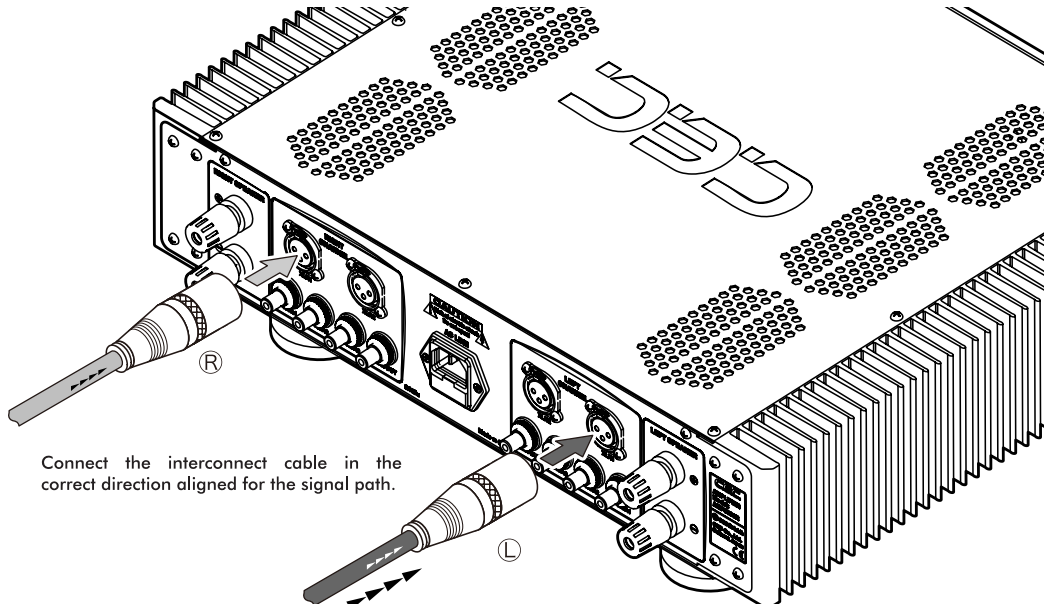
### ❶ RIGHT/LEFT SPEAKER

Power amplifier output terminal for the right/left speaker. The red terminal is for (+) the black one is for (-). Banana plugs, spades and wires can be connected.



### ② XLR inputs (XLR1 & XLR2)

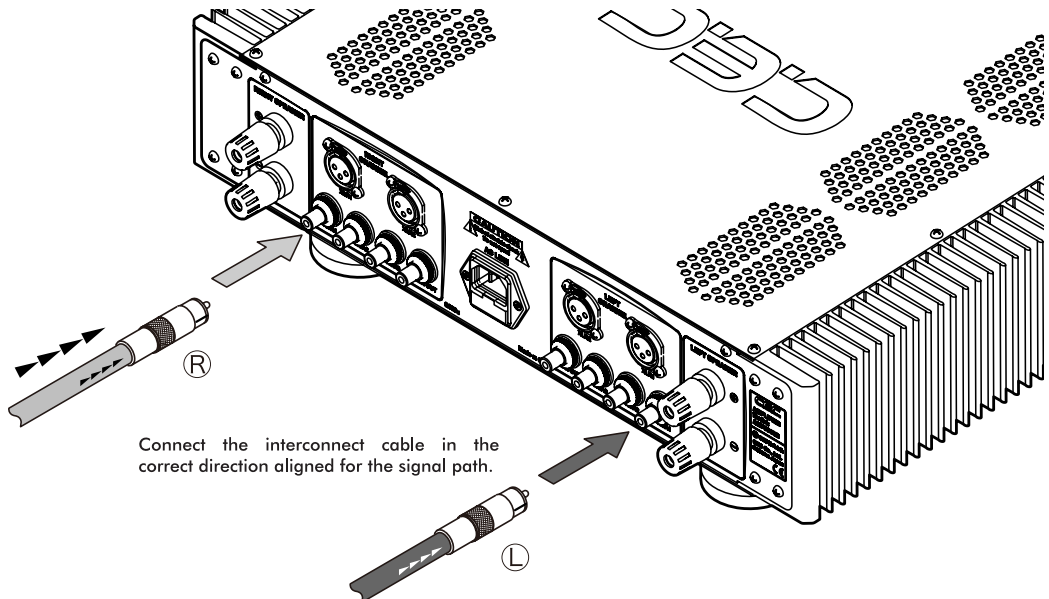
Line in audio signal input jacks equipped with balanced XLR connectors. Use interconnect XLR cables to connect the XLR1/XLR2 inputs to external sources with XLR line outputs, such as CD players or DVD players. (Pinning: 1=Ground, 2=Hot, 3=Cold)



### ③ RCA inputs (RCA1 / RCA2 / RCA3)

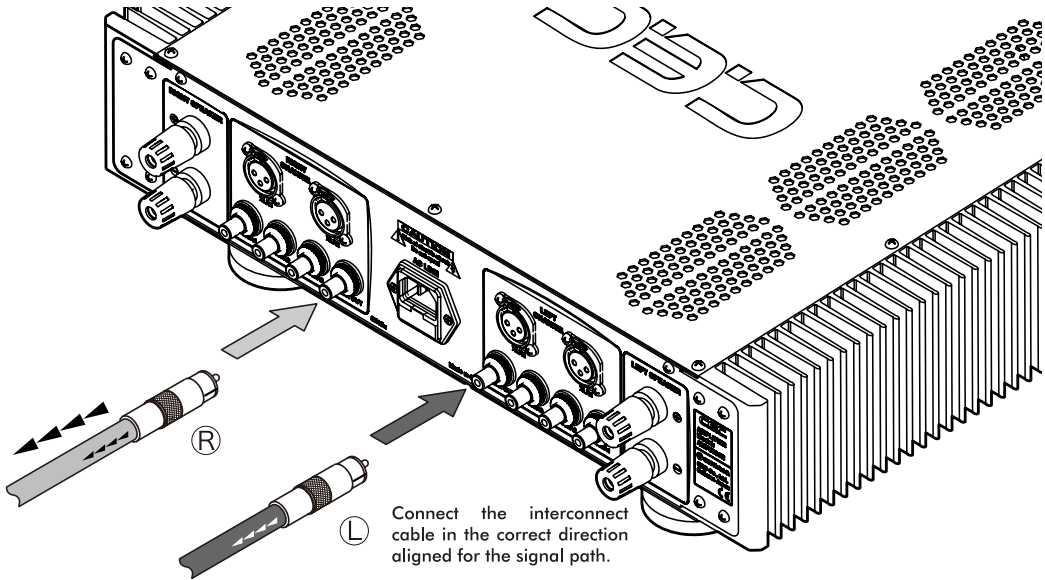
Line in audio signal input jacks equipped with unbalanced RCA connectors. Use interconnect RCA cables to connect the RCA1/RCA2/RCA3 inputs to external sources with RCA line outputs, such as CD players, tuners or tape decks.

\* Phono and digital sources cannot be connected to RCA1, RCA2 or RCA3.



**④ REC. OUT**

Line out audio signal jacks equipped with unbalanced RCA connectors. Use interconnect RCA cables to connect the REC. OUT terminals to an external recording device with an RCA input, such as a CD recorder, MD recorder or tape recorder.

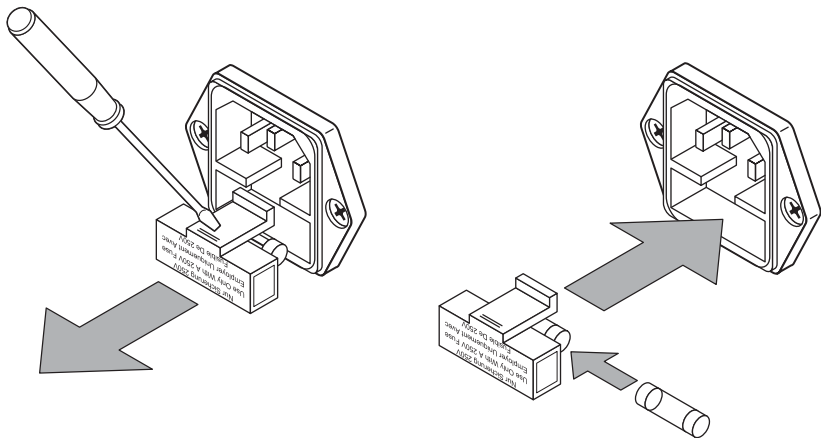


**⑤ AC LINE**

Connect the provided AC power cord to the AC LINE inlet.

**⑥ FUSE**

AMP5300R's FUSE is located inside the FUSE box. If the FUSE is broken, gently extract the box with a small flat screwdriver. Replace the FUSE with a new one and replace the box inside AMP5300R.



T8AL 250V for 120VAC and T6.3AL 250V for 230VAC

## Unit Legs

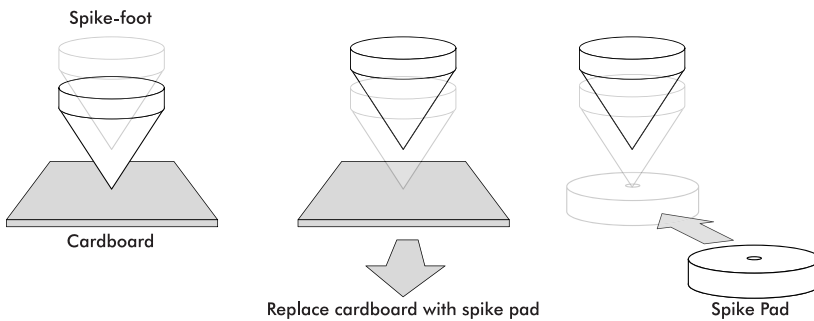
By default AMP5300R is equipped with solid metal feet. These feet have a soft bottom, so any rack or table surface should be damaged when placing the unit onto it. Optionally these feet can be replaced by "spike"-type feet for sound quality tweaking. The feet can be removed by turning counter-clockwise like a normal screw.



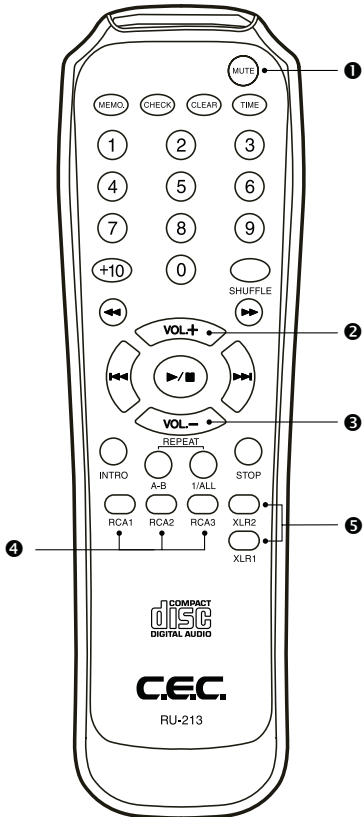
### Caution!

#### • Handling of the optional Spike-Feet

AMP5300R features optional tapered "spike"-type feet on its base for improved sound quality. These can cause injury unless handled with care. When you install AMP5300R, use pieces of cardboard temporarily to protect the surface in contact with the spike-feet while adjusting the unit's placement. Replace them with the provided spike pads when the unit is in place.



## Remote Control



### ❶ MUTE

Press the MUTE button to mute the AMP5300R.

The "MUTE"-LED will light up. To cancel MUTE mode, press the MUTE button again.

NOTE: The MUTE mode will be also cancelled as soon as you press any volume button.

### ❷ VOL.+

Press the VOL.+ button to increase the volume level in 1dB increments.

Press and hold the VOL.+ button to increase the volume level continuously.

Note: Beware of high volume levels!

### ❸ VOL.-

Press the VOL.- button to decrease the volume level in 1dB decrements.

Press and hold the VOL.- button to decrease the volume level continuously.

### ❹ RCA1/RCA2/RCA3

Press the RCA1 / RCA2 / RCA3 button to select an unbalanced INPUT source. The indicator corresponding to each input selector will light up showing the current INPUT selection.

### ❺ XLR1/XLR2

Press the XLR1 / XLR2 button to select a balanced INPUT source. The indicator corresponding to each input selector will light up to show the current INPUT selection.

\* The other buttons on the provided remote control unit will work with CEC's line of CD players (such as TL51XR), but are not used for AMP5300R

### Precautions when using the remote control unit

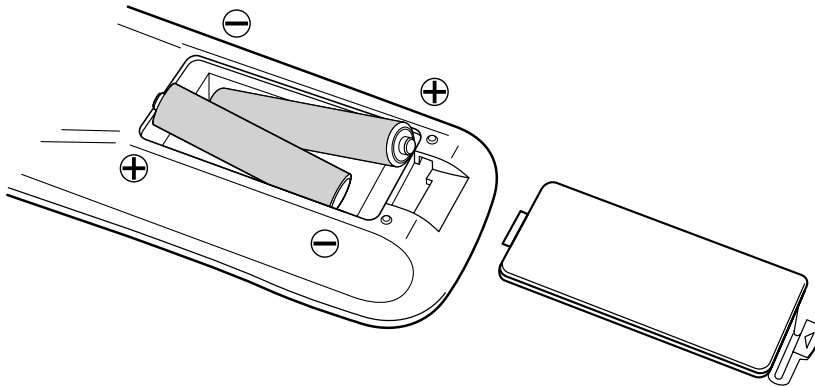
- Avoid exposing the remote control receiver on AMP5300R's front panel to direct sunlight or other light sources, as such exposure can cause malfunction.
- When operating the remote control, point it towards the remote control receiver.
- Make sure nothing is blocking AMP5300R's front panel, where the remote control receiver is located.
- Battery drain may cause the remote control unit to malfunction. Change the batteries to new ones of the same type (AA) if this happens.
- This manual only explains how to use the remote control unit with the AMP5300R, but this unit can be used with other CEC products (CD players, etc.).
- The remote control unit should be handled with care. Dropping it on can result in damage.

**Battery Replacement**

If the distance at which the remote control unit can be used to operate AMP5300R seems to be decreasing, the batteries may need to be replaced.

**Battery Installation**

Remove the cover of the battery compartment. Insert the provided two AAA batteries into the compartment. Make sure that the batteries are inserted with their positive (+) and negative (-) poles positioned correctly, and put the cover back on.



- Never use different types of batteries together. Both rechargeable or non-rechargeable batteries can be used, but the two should not be used together.
- If you will not be using the remote control unit for an extended period of time (more than a month), remove the batteries to prevent leakage.
- If the batteries leak, use a cloth to wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries, and never dispose of old batteries by throwing them in a fire. Dispose of batteries following laws in the local area.

## Cautions Regarding Handling

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- Never connect the speaker output terminals to any ground. Both speaker terminals carry an active signal due to the full balanced circuit design of AMP5300R.
- Be careful when connecting active sub-woofers or similar devices the speaker terminals. A short circuit to ground may result in a damage of AMP5300R or a broken fuse.
- The DC voltage at the speaker terminals is not 0 when measuring related to ground. However, the differential DC voltage from (+) to (-) speaker terminal is nearly 0 and thus harmless to speakers.
- Audiophile amplifiers produce heat! Make sure to leave enough space open around AMP5300 (at least 15cm) for keeping the air circulating. Make sure you never cover the heat-sinks, which could result in an overheating. It is recommended to use AMP5300 in a low-dust environment.
- In case of overheating AMP5300R will cut off the operating power automatically. In this case it is suggested to put the main power switch to "off" position. Otherwise AMP5300R will power on again after cooling down.

## Maintenance

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- AMP5300R requires no periodic maintenance and contains no user-serviceable parts.
- If the surface of AMP5300R's enclosure is soiled, wipe with a soft cloth or use diluted neutral cleaning liquid. Make sure the fluid is removed completely. Do not use thinner, benzene or alcohol as these may damage the surface of AMP5300R's enclosure.
- AMP5300R's primary fuse is contained under the AC INLET on the rear panel and is replaceable by the user in case of malfunction. Pull the fuse box and replace the fuse by a new one with the same specifications. If the new fuse continues to blow after replacement, there might be a defect of AMP5300R's circuitry. In this case, please contact the store where you purchased AMP5300R, or an authorised CEC service centre and arrange repair service.



## Troubleshooting

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If you suspect a malfunction in the unit, please check the following chart before calling your dealer.

### No power

Check the connection at the both ends of the AC power cord.

Make sure there is power at the wall outlet.

Check the power switch position.

Check the fuse is not broken.

### No sound

Check the connection from the external source, e.g. the CD player.

Check the operation of the external source, e.g. the CD player.

Check the speaker connections.

Check whether the matching input is selected.

Check mute is off.

### Red Error LED is on

Turn AMP5300R off and unplug the AC power cord from the outlet. Wait for a minute, plug the AC power cord back in and turn AMP5300R on again.

Check all plugs on the rear panel are properly connected.

### Unresponsive to remote control

Point the remote control towards the remote control receiver on the front panel.

Remove any objects blocking the receiver.

Use the remote control unit at a shorter distance from AMP5300R.

Replace the batteries in the remote control unit with new ones.

## Service Contact Preparations

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In case you need to contact the service centre please prepare the following information

1. Model name and serial number
2. Purchase date
3. Dealer name and contact information
4. Description of the unit's problem



## Specifications

Output Power	120W + 120W (8 Ω), 135W + 135W (4 Ω)
Frequency Response	20Hz - 20kHz / -0.08dB / 1W
Signal / Noise Ratio	99dB (A-weighted, 1W)
THD	0.035% (1W)
Damping Factor	250 (8 Ω, 10W)
Input Terminals	Balanced x 2 (XLR), unbalanced x 3 (RCA)
Output Terminals	Balanced speaker, REC OUT (RCA)
Power Line Voltage	AC230V 50Hz
Exterior Dimensions	435mm (W) x 375mm (D) x 123mm (H) (Dimensions including spikes)
Power Consumption	Min. 65W, max. 450W
Weight (approx.)	14.3kg
Accessories	AC power cord, remote control unit, 2 batteries for remote control unit and owners' manual.
Colour	Silver

\* Design and specifications are subject to change without notice.

\* Illustrations inside the owner's manual may differ slightly from the original product due to design improvements.

**CEC**

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**CEC Co., Ltd. Japan**  
<http://www.cec-web.co.jp>

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