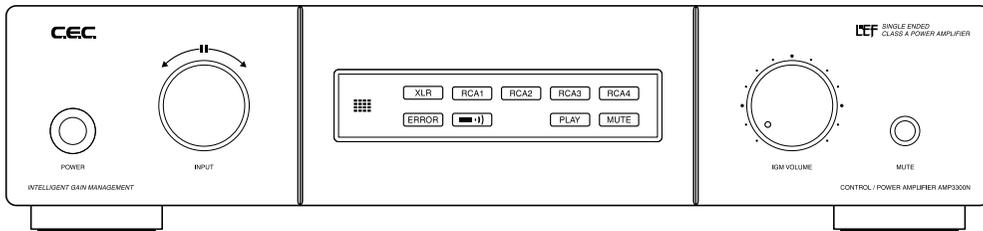


Control / Power Amplifier

AMP3800

Owner's Manual



CEC

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Introduction

Thank you for purchasing AMP3800.

Please read through and refer to this Owner's manual to use your AMP3800 safely and adequately. It is recommended that you keep the unit's packaging available for future transportation needs.

Features

- AMP3800 is a power amplifier with input control, developed for the highest pure sound experience with a design philosophy of minimizing 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 64W / 8Ω) and highest quality sound, widely unaffected by transistor characteristics.
- AMP3800 also features IGM (Intelligent Gain Management). This unique volume control technology controls the amplifier's gain itself without any input signal dilution.
- AMP3800's circuitry is fully balanced, from the input stage to the speaker outputs. This minimizes noise and distortion and increases the speed and resolution of the sound.

Important Safety Instructions



The lighting 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 THE APPLIANCE TO RAIN OR MOISUTRE.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use the unit 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 the unit 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 the unit's power cord from being walked on or pinched, especially around the plugs, convenience receptacles, and where it exists the unit's casing.

11) Only use attachments/accessories specified by the manufacturer.

12) Only use the unit 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 the unit 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 the unit itself, its power-supply cord, or plug has been damaged in any way, when liquids have been spilled onto the unit, when foreign objects have fallen into the unit, when the unit has been exposed to rain or moisture, when the unit does not operate normally, or when the unit has been dropped.



Caution

- Do not expose the unit to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the unit.
- Do not install the unit 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.
- 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 the unit 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

1. Connecting Other Devices

Unplug AMP3800'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 AMP3800's power ON at last, after turning ON the DA converter or CD-player connected to AMP3800.

Turning power OFF: Turn AMP3800's power OFF first, before turning OFF connected units.

3. Handle with Care

Avoid exerting excessive force on the cabinet, the volume and selector knobs and the push switches of AMP3800.

4. Avoid Electrostatic Discharge

Like all complex electronic devices, AMP3800 is sensitive to electrostatic discharge. A discharge may cause malfunction or damage.

5. Installation

Use of an audio rack is recommended to maximize the sound quality and performance of AMP3800. Installation and use of AMP3800 in the locations described below may cause deterioration in sound quality or malfunctions.

- Locations exposed to direct sunlight, such as windowsills, and other exceptionally warm locations, such as near heating appliances (surrounding temperature higher than 35°C), or exceptionally cold locations (surrounding temperature lower than 5°C) may prevent AMP3800 from functioning adequately.
- Damp locations exceeding 90% humidity may cause AMP3800's metal parts to rust, causing the unit to malfunction.
- Dusty locations may cause AMP3800 to malfunction. The accumulation of dust outside and inside the unit may lower the performance of music signal amplification. It may also cause contact failure of the switches and/or noise.
- Otherwise, avoid installing AMP3800 close to other transformers and electrical motors, so as to prevent the pickup of induction hum. Also, avoid mounting AMP3800 on surface that may be affected by vibration.

6. Avoid Lightning Strikes Damages

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

7. Condensation

When AMP3800 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 AMP3800 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.

8. Listening Etiquette

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

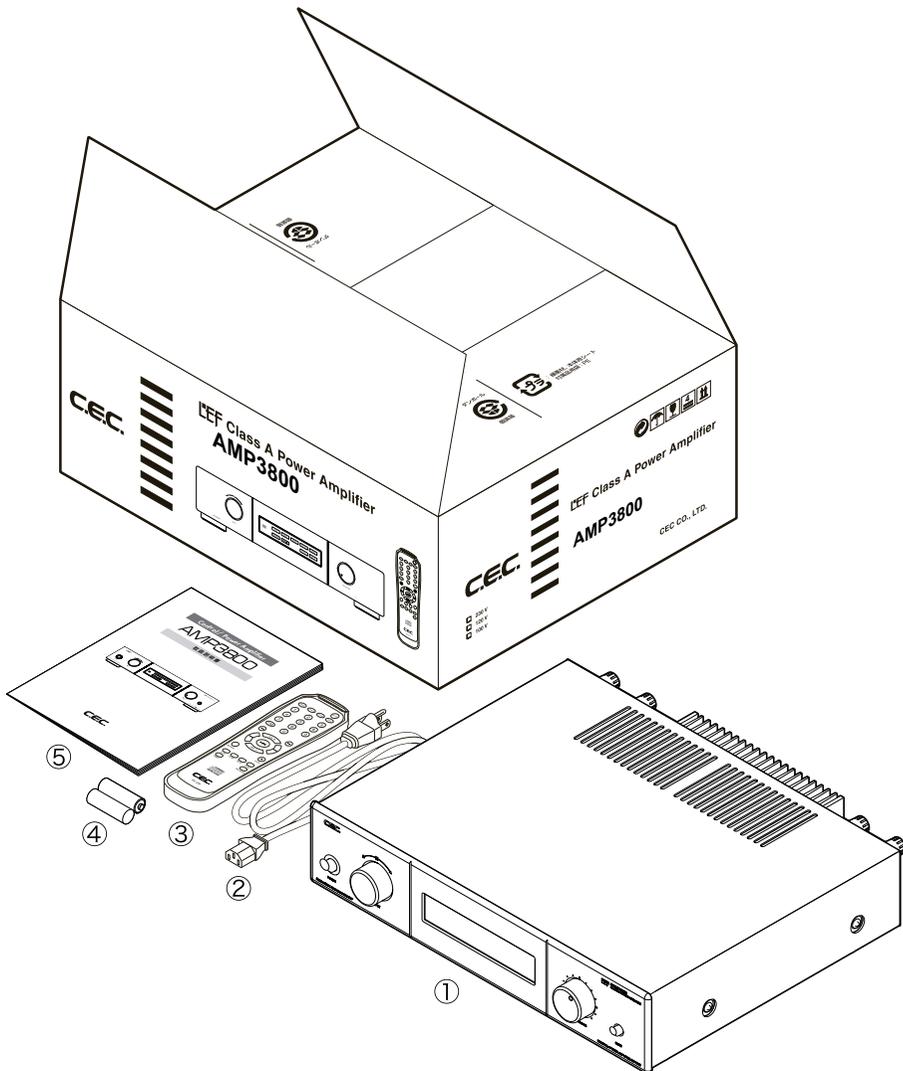
Accessories

The packaging of AMP3800 should contain the following:

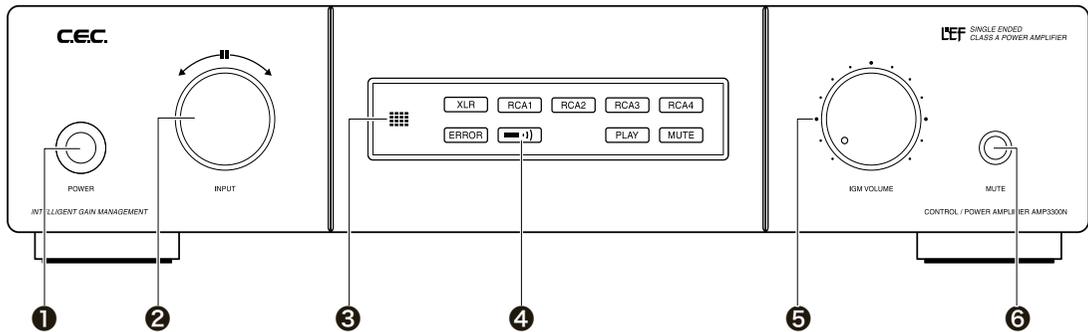
1. AMP3800 unit
2. AC Power Cord
3. Remote Control Unit
4. Two AAA Batteries for the remote control unit
5. Owner's manual

NOTE: Keep the packaging available for future transportation needs.

The AC power cord is for use with AMP3800 exclusively, and should not be used for other devices.



Front Panel Functions



❶ POWER button

Push the POWER button to turn AMP3800 ON respectively OFF.

When AMP3800 is turned ON the switch will light up with a blue color, and the display will indicate the "MUTE" and blink "PLAY" during the unit is in starting-up. Approximately 5 seconds later once the display changes to indicate "PLAY" and a selected input "XLR, RCA1, RCA2, RCA3 or RCA4", AMP3800 is ready for use. "MUTE" will disappear.

Note: When you need to turn the power OFF and back ON again, wait for least 20 seconds after turning the unit OFF to prevent malfunction.



Before turning AMP3800 ON or OFF, turn the volume knob to the minimum to avoid a switching noise or sudden and big sound from the speakers, which may result in damaging the speakers or injuring your ears.

❷ INPUT Selector

Turn the INPUT knob clockwise or counterclockwise to select an input from XLR, RCA1, RCA2, RCA3 and RCA4). The display will indicate the selected input.



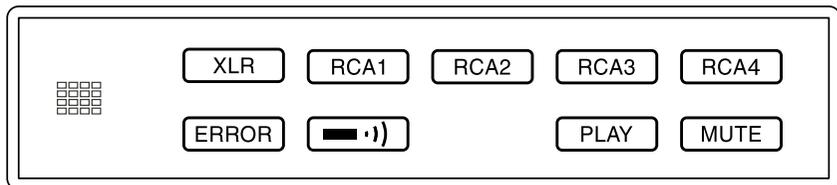
Lower the volume before changing the input to avoid changing noise, sudden big sound, or damage!

③ REMOTE CONTROL RECEIVER

When operating the remote control, point it towards the REMOTE CONTROL RECEIVER. Make sure nothing is blocking the AMP3800's front panel, where the REMOTE CONTROL RECEIVER is located.

④ REMOTE CONTROL INDICATOR

During receiving a valid remote control command, the REMOTE CONTROL INDICATOR lights up with a blue color.

**⑤ IGM VOLUME**

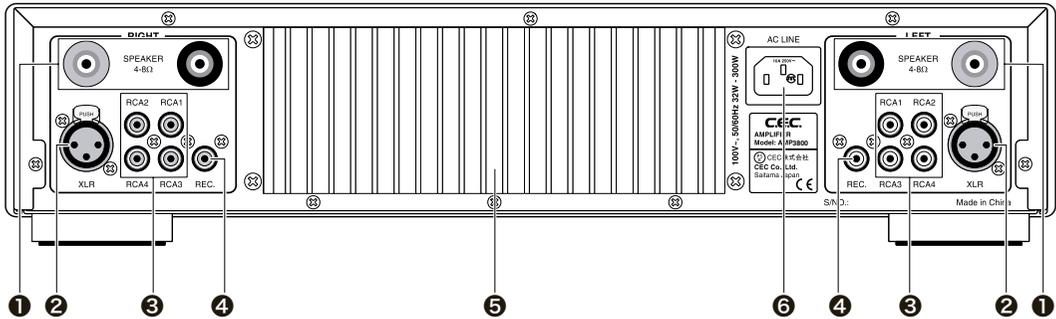
Turn the VOLUME knob clockwise to increase the volume, and counterclockwise to decrease the volume.

Note: Due to the IGM VOLUME property that controls the amplifier gain itself, there is still small sound from the speakers even at the minimum VOLUME position. Stop the playback or press **⑥** MUTE Button to turn the sound off.

⑥ MUTE Button

Press the MUTE button whenever you need to temporarily turn the sound off. The display will indicate "MUTE" as long as this function is active. Press the MUTE button again or press the VOL+/VOL- buttons on the remote control to cancel the MUTE mode.

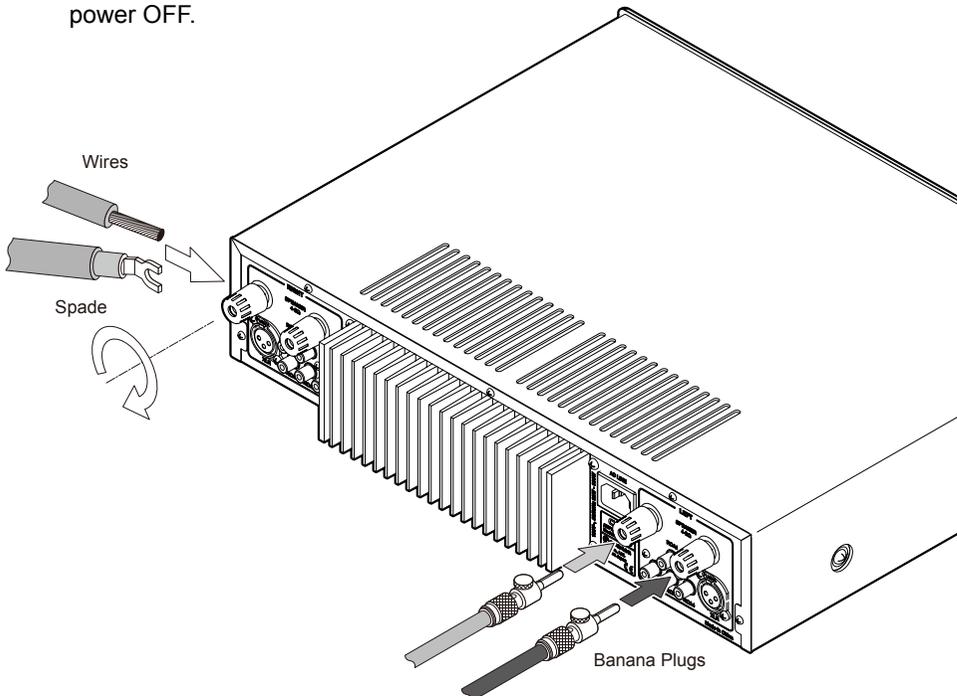
Rear Panel Functions



❶ RIGHT / LEFT SPEAKER

Power amplifier output terminals for the right/left speakers. The red terminal is for (+) the black one is for (-). Speakers with 4 ohm to 8 ohm impedance can be connected by using banana plugs, spades or wires.

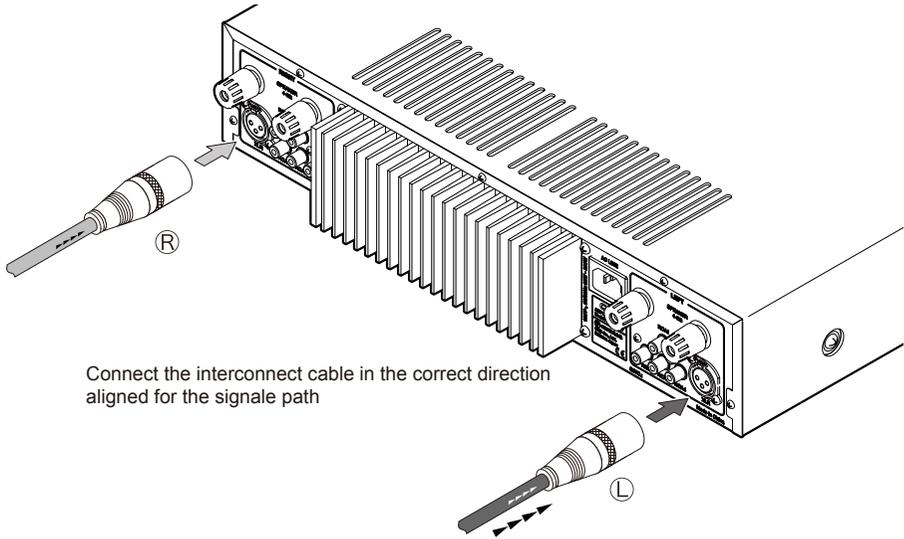
Note: Before connecting or disconnecting speakers turn the AMP3800's power OFF.



2 XLR input

Line in audio signal input jacks equipped with balanced XLR connectors. Use interconnect XLR cables to connect the XLR input to an external source with XLR line output, such as CD player, DVD player or DA converter. (Pinning: 1=Ground, 2=Hot, 3=Cold)

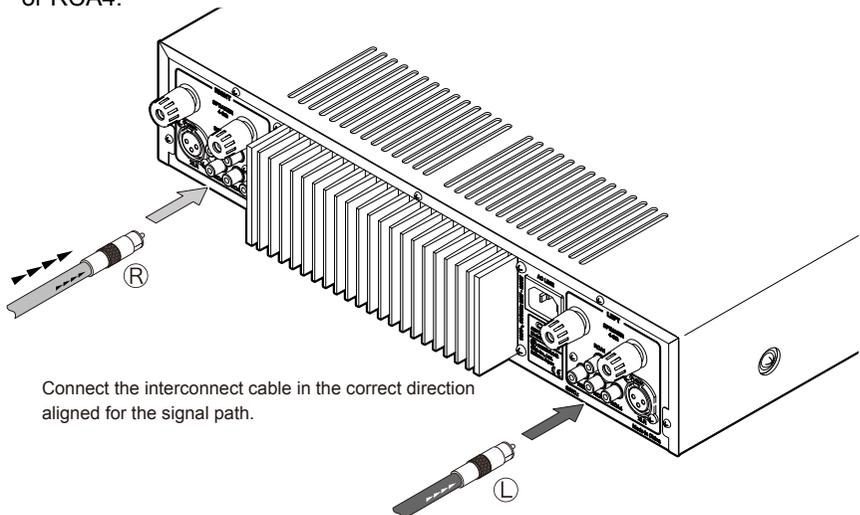
Note: Phono and digital sources cannot be connected to the XLR input.



3 RCA inputs (RCA1 / RCA2 / RCA3 / RCA4)

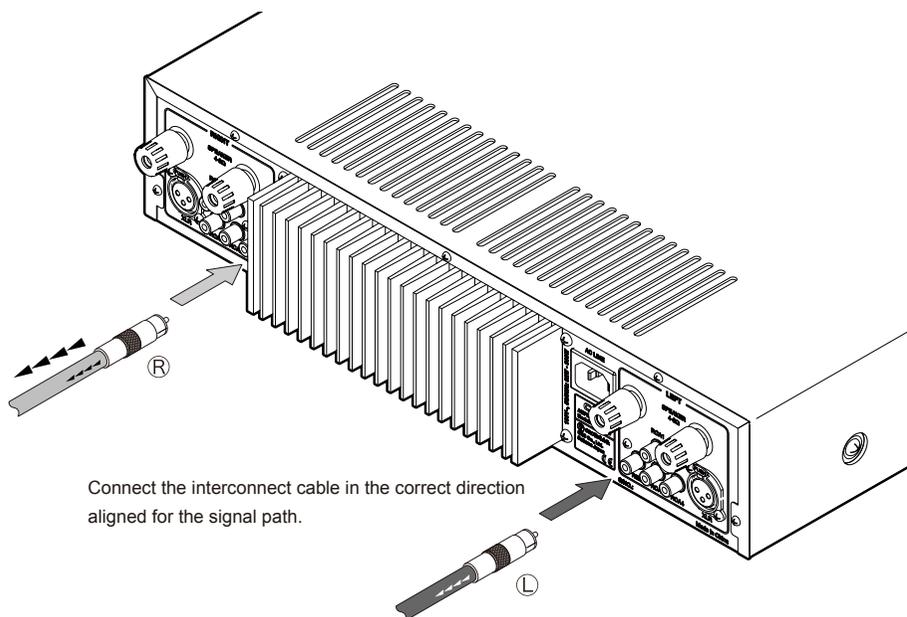
Line in audio signal input jacks equipped with unbalanced RCA connectors. Use interconnect RCA cables to connect the RCA1/RCA2/RCA3/RCA4 inputs to external sources with RCA line outputs, such as CD player, tuners or tape decks.

Note: Phono and digital sources cannot be connected to RCA1, RCA2, RCA3 or RCA4.



④ REC output

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



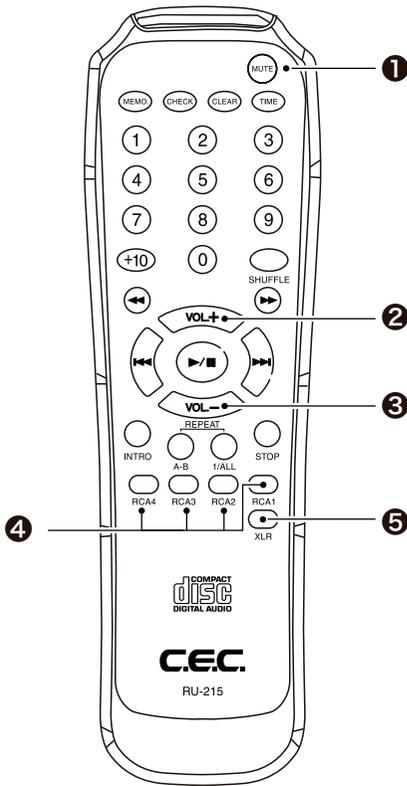
⑤ HEATSINK

Make sure to leave enough space open around the HEATSINK for keeping the air circulating and then keeping the temperature in the optimal range.

⑥ AC LINE

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

Remote Control Unit



❶ MUTE button

Press the MUTE button to mute AMP3800. The display will indicate “MUTE”. To cancel MUTE mode, press the MUTE button again.

❷ VOL.+ button

Press the VOL.+ button to increase the volume level. Press and hold the VOL.+ button to increase the volume level continuously. Note: Beware of high volume settings.

❸ VOL.- button

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

❹ RCA1/RCA2/RCA3/RCA4 input button

Press the RAC1 / RCA2 / RCA3 / RCA4 button to select an unbalanced INPUT source. The display will indicate the selected INPUT.

❺ XLR input button

Press the XLR button to select the balanced INPUT source. The XLR indicator will be displayed.

NOTE: During receiving a valid remote control command, the REMOTE CONTROL INDICATOR on the front panel blinks with a blue color.

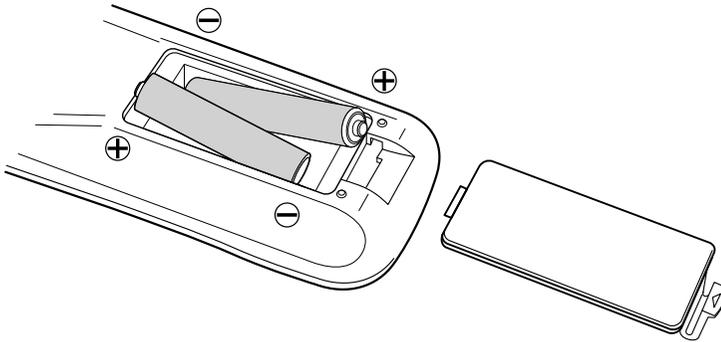
NOTE: The other buttons on the remote control unit work for CEC CD3800 but not for AMP3800.

Precautions on Using the Remote Control Unit

- Avoid exposing the remote control sensor on AMP3800’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 sensor.
- Make sure nothing is blocking AMP3800’s front panel, where the remote control sensor is located.
- Battery drain may cause the remote control unit to malfunction. Change the batteries to new ones of the same type (AAA) if this happens.
- The remote control unit should be handled with care. Dropping it on can result in damage.
- This manual only explains how to use the remote control unit with AMP3800, but this unit can be used CD3800.

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.



Battery Replacement

If the distance at which the remote control unit can be used to operate AMP3800 seems to be decreasing, the batteries may need to be replaced.



Cautions on handling batteries

- Never use different types of batteries together. Both rechargeable and 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

- Never connect the speaker output terminals to any ground. Both speaker terminals carry an active signal due to the full balanced circuit design of AMP3800.
- Be careful when connecting active subwoofers or similar devices to the speaker terminals. A short circuit to the ground may result in damage to AMP3800 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 open space around AMP3800 (at least 15cm) for keeping the air circulating. Make sure you never cover the heatsink and air vents on the top cover, which could result in an overheating. It is recommended to use AMP3800 in a low-dust environment.
- In case of overheating (over approx. 70 °C) AMP3800 will cut off the operating power automatically. In this case it is suggested to put the main power switch to “OFF” position. Otherwise AMP3800 will power ON again after cooling down.

Maintenance

- AMP3800 requires no periodic maintenance and contains no user-serviceable parts. Contact your dealer or an authorized CEC service center for inspection and repairs in case of malfunction.
- If the surface of the AMP3800 enclosure is soiled, wipe with a soft cloth or use diluted neutral cleaning liquid. Be sure to remove any fluid completely. Do not use thinner, benzene, alcohol, chemical cloths or bleaching agents as these may damage the surface of the AMP3800 enclosure. Also avoid using aerosol insecticides near the unit.
- If dust should have accumulated on the unit, remove it with stick tape (e.g. Scotch tape). Make sure not to touch the enclosure with any tools or other hard parts.

Troubleshooting

If you suspect a malfunction of 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.

No sound

- Check the connection from the external source, e.g. CD player.
- Check the operation of the external source, e.g. CD player.
- Check the connection to the speakers.
- Check whether the matching input is selected.
- Check mute is off.

ERROR indicator is on

- Turn AMP3800 off and unplug the AC power cord from the outlet. Wait for a minute, plug the AC power cord back in and turn AMP3800 on again. Check all plugs on the rear panel are properly connected.

Humming noise

- Check all pin plugs are connected adequately.

Unresponsive to remote control

- Point the remote control towards the remote control sensor on the front panel.
- Remove any objects blocking the sensor.
- Use the remote control at a shorter distance from AMP3800.
- Replace the batteries in the remote control unit with new ones.

NOTE: AMP3800 contains a microcomputer that can malfunction due to external noise or interference. If this seems to be the case, turn the unit OFF and wait for a short while before turning it back on and trying again.

Service Contact Preparations

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

- Model name and serial number
- Purchase date
- Dealer name and contact information
- Description of the unit's problem

Specifications

Rated power:	2 x 64W (8Ω), 2 x 85W(4Ω)
Frequency Response:	20Hz – 20kHz, +0/-0.07dB (1W)
Frequency Range:	5Hz - 185kHz, +0/-3dB (1W)
S/N Ratio:	-105dB (A-weighted, 1W)
THD:	XLR IN: 0.004%, RCA IN: 0.01% (1W)
Damping factor:	250 (1kHz, 1W)
Input terminals:	1 x balanced XLR, 4 x unbalanced RCA
Output terminals:	1 x balanced speaker, 1 x REC out (RCA)
AC power Line:	AC120V/230V, 50/60Hz (Specified on rear panel)
Power consumption:	Min. 38W, Max. 300W
Dimensions:	Approx. 435(W) x 378(D) x 102(H) mm (Incl. knobs, terminals and legs)
Weight:	Approx. 10.3kg
Accessories:	AC power cord, Remote control unit, Two AAA type batteries, Owner's manual
Color:	Silver / Black

NOTE: Design and specifications are subject to change without notice.

NOTE: Illustrations on the owner's manual may deviate from the actual unit due to design improvements.

CEC

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