

Roland®

STEREO MIXING KEYBOARD AMPLIFIER

KC-500

OWNER'S MANUAL

We'd like to take a moment to thank you for purchasing the Roland KC-500 Stereo Mixing Keyboard Amplifier.



Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3), and "IMPORTANT NOTES" (p. 4). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

Main Features

- * The KC-500 keyboard amplifier is specifically designed to accurately reproduce the high-quality sounds of today's digital keyboards.
- * The 38-cm (15-inch) speaker and horn tweeter provide high-power output of sounds across the sonic spectrum.
- * The KC-500 offers four stereo pairs of input jacks, as well as two stereo pairs (1/4" and XLRs) of line out jacks.
- * The KC-500 provides a STEREO LINK function. This makes it possible to use two KC-500 amplifiers to achieve full stereo output from your keyboard.
- * Input Channel 4 (CH 4) includes a select switch that lets you choose the destination for output. This feature rounds out the monitor functions.
- * All input and output jacks are set at an angle, preventing connecting cables from becoming entangled above the control panel and allowing for easy access to the panel.

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	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, 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.



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 the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
8. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
9. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
10. The product should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the product; or
 - C. The product has been exposed to rain; or
 - D. The product does not appear to operate normally or exhibits a marked change in performance; or
 - E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

For the USA

GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.


This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product — if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
 GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

The product which is equipped with a THREE WIRE GROUNDING TYPE LINE PLUG must be grounded.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The ⓧ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

⚠ WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual.
- Do not open or perform any internal modifications on the unit.
- When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.
- Avoid damaging the power cord. Do not bend it excessively, step on it, place heavy objects on it, etc. A damaged cord can easily become a shock or fire hazard. Never use a power cord after it has been damaged.
- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit.
- Protect the unit from strong impact. (Do not drop it!)
- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.

- Before using the unit in a foreign country, consult with your dealer, or qualified Roland service personnel.

⚠ CAUTION

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from an outlet.
- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.
- Never climb on top of, nor place heavy objects on the unit.
- Never handle the power cord or its plug with wet hands when plugging into, or unplugging from, an outlet.
- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.
- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 4).
- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.
- The unit is very heavy, so care should be taken not to drop it on your feet when moving it.

IMPORTANT NOTES

In addition to the items listed under "IMPORTANT SAFETY INSTRUCTIONS" and "USING THE UNIT SAFELY" on pages 2 and 3, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.

Maintenance

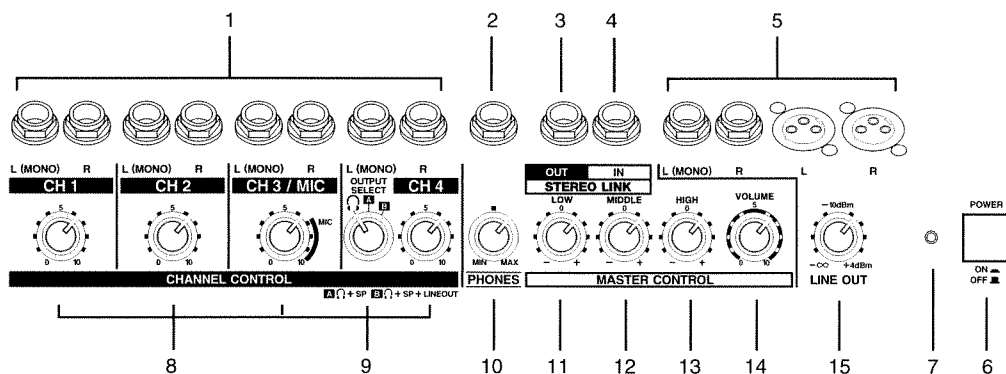
- Caring for the metal parts
Wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Caring for the covering
Clean with a stiff-bristled brush.

- Never use benzene, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.

PANEL DESCRIPTIONS



JACKS

1. Input Jacks

These jacks are for connecting your keyboard(s). For a stereo output, make connections to both the L and R jacks of one pair. For mono output, connect the keyboard to the L (MONO) jack of a pair.

- * The volume of a mono connection will be louder than that of a stereo connection; this is normal.

2. PHONES Jack

Connect a set of stereo headphones to this jack.

- * Before headphones are connected, be sure to set the volume [10] for the PHONES Section to "0."

- * The amplifier's speakers work even when headphones are connected.

3. STEREO LINK OUT Jack

Connect this jack to the STEREO LINK IN jack on a second KC-500 when you wish to have true stereo output.

When a cable is connected to the STEREO LINK OUT jack, the right-channel input signals are output from the internal speakers. The left-channel input signals are output from the OUT jack to the other KC-500.

- * For details on the Stereo Link function, take a look at "CONNECTIONS AND POWERUP" (p. 6).

4. STEREO LINK IN Jack

Connect this jack to the STEREO LINK OUT jack on the main unit (the other KC-500) when a true stereo output is required. Left-channel input signals are output from the internal speakers.

* For details on the Stereo Link function, take a look at "CONNECTIONS AND POWERUP" (p. 6).

5. Line Out Jacks (1/4" and XLRs)

Connect a mixer or recording device to either (or both) of these pairs of outputs.

CONTROL PANEL

6. POWER Switch

This switches the amplifier on and off.

* When turning the power on or off, be sure that the volume levels ([8], [10], [14], and [15]) for all Sections are set to "0."

* This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

7. Pilot Lamp

This indicator lights when the unit is turned on.

CHANNEL CONTROL Section

8. Volume Knobs

Each of the four knobs is used to set the volume for the corresponding channel. Rotating a knob clockwise increases the volume.

* Channel 3 doubles as a microphone input.

9. OUTPUT SELECT Knob

This knob allows you to select the output destination for signals input to Channel 4.

Ω : Select this position when you wish to listen to synchronization signals or a drum machine (for example) through headphones, without output to the internal or any external speakers.

A : Output is through the headphones and the internal speakers. No signals are output to Line Out. This can be a handy function when you want to use the amplifier as a monitor speaker during a live performance.

B : Output is through the headphones, the internal speakers, and Line Out. Select this position when you want to connect a keyboard and use Channel 4 equally with other channels.

PHONES Section

10. Volume Knob

This knob adjusts the headphone volume.

* The four knobs ([11], [12], [13], and [14]) in the MASTER CONTROL Section do not affect the headphone output.

MASTER CONTROL Section

These knobs adjust the output from the internal speakers.

* The signal output is mono.

11. LOW Knob

This knob cuts or boosts the low frequencies. Frequencies in this range are unaffected when the knob is set to "0."

12. MIDDLE Knob

This knob cuts or boosts the midrange frequencies. Frequencies in this range are unaffected when the knob is set to "0."

13. HIGH Knob

This knob cuts or boosts the upper frequencies. Frequencies in this range are unaffected when the knob is set to "0."

14. VOLUME Knob

This knob adjusts the overall volume of the KC-500.

LINE OUT Section

15. Level Knob

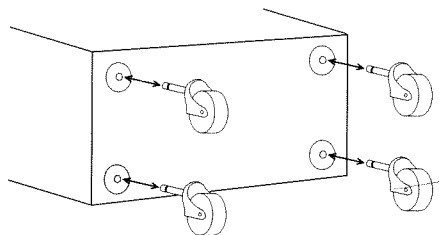
This knob adjusts the Line Out level. Set this knob to the optimum level for the instrument connected to the Line Out jacks (1/4" or XLR).

ATTACHING AND REMOVING THE CASTERS

You can attach or remove casters as shown in the following figure.

! Be sure to remove all casters when accidental movement may be dangerous such as when setting up the KC-500 on stage or when transporting it in a vehicle.

- Attaching all of the casters can make it easier to move the amplifier.
- You can use the KC-500 as a floor monitor by removing the two wheels on the rear-panel side and setting the amplifier at an angle. (Be sure it remains stable when you do so.)

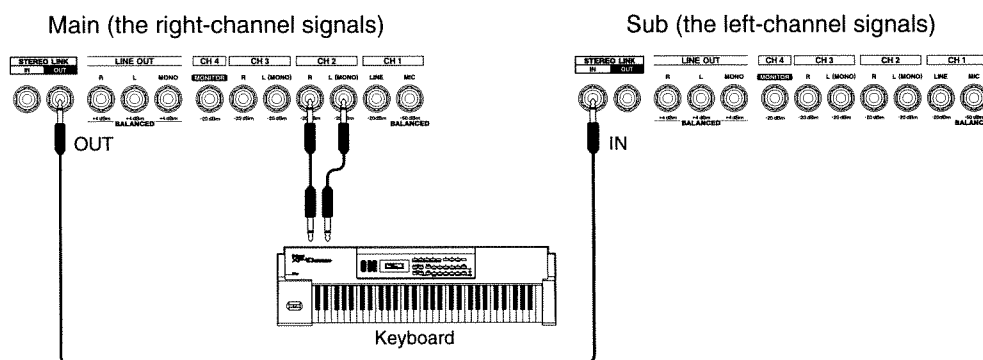


Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

1. Make sure that all volume controls on the KC-300 and connected devices are set to 0.
2. Turn on the keyboard(s) and sequencer (if you're using one).
3. Turn on the KC-300.
4. If a mixer is connected to the LINE OUT jack(s) on the KC-300, turn on the mixer.
5. Adjust the volume levels for the devices.

Stereo Link

If two KC-300 units are used, you can easily make connections for stereo output. This function is called "Stereo Link." The right-channel signals are output from the speakers in the main unit, while the left-channel signals are output from the speakers in the sub unit (the other KC-300).



Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

1. Make sure that all volume controls on the KC-300 and connected devices are set to 0.
2. Turn on the keyboard(s).
3. Turn on the main KC-300 amplifier.
4. Turn on the sub KC-300 amplifier.
5. Adjust the volume levels on all devices.

Before switching off the power, lower the volume on each of the devices in your system and then TURN OFF the devices in the reverse order to which they were switched on.

The jacks and knobs on the main amplifier work just like they do during normal use, but the right-channel signals are output from the internal speakers.

USING A SPEAKER STAND

The KC-300 can be mounted on a commercially available speaker stand. If a speaker stand is used, the KC-300 can be placed at a height ideal for monitoring, and can also be used as a simple PA system. If two KC-300 units are placed on speaker stands and used with Stereo Link, they can function as a simple 100 W + 100 W stereo PA system.

Before switching off the power, lower the volume on each of the devices in your system and then TURN OFF the devices in the reverse order to which they were switched on.

Howling could be produced depending on the location of microphone relative to speakers. This can be remedied by:

1. Changing the orientation of the microphone.
2. Relocating microphone at a greater distance from speakers.
3. Lowering volume levels.

Follow the procedure described below to connect two amplifiers with a single audio cable (1/4" phone type).

* Before making the connections, be sure that the volume setting of the MASTER CONTROL Section for both KC-300 amplifiers is set to "0."

The volume knobs for the different channels affect both the main and sub amplifiers.

On the sub amplifier, you can use only the STEREO LINK IN jack and the three knobs in the MASTER CONTROL Section.

If you're using the Stereo Link function, make the adjustments described below.

1. Use the Volume knobs in the CHANNEL CONTROL Section of the main amplifier to adjust the volume balance for each channel.
2. Use the three knobs in the MASTER CONTROL Section of both amplifiers to adjust the main and sub volume and tone quality.

Once the connections have been completed, turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.

1. Turn on the keyboard(s).
2. Turn on the main KC-500 amplifier.
3. Turn on the sub KC-500 amplifier.
4. Adjust the volume levels on all devices.

Before switching off the power, lower the volume on each of the devices in your system and then TURN OFF the devices in the reverse order to which they were switched on.

The jacks and knobs on the main amplifier work just like they do during normal use, but the right-channel signals are output from the internal speakers.

The volume knobs ([8]) for the different channels affect both the main and sub amplifiers.

SPECIFICATIONS

Rated Power Output

Speaker Out	150 W
Phone Out	90 mW + 90 mW (both channels 100 ohm loaded)

Nominal Input Level

INPUT	
Channel 1,2,4	-20 dBm
Channel 3	-50 dBm
STEREO LINK IN	0 dBm

Nominal Output Level

STEREO LINK OUT	0 dBm
LINE OUT	+4 dBm

0 dBm = 0.775 Vrms

Speakers

38 cm (15 inches) x 1 + Horn Tweeter x 1

Controls

Channel 1 Volume Knob
Channel 2 Volume Knob
Channel 3 Volume Knob
Channel 4 Volume Knob
Output Select Knob (Channel 4)
Phones Volume Knob
Low Knob
Middle Knob
High Knob
Volume Knob
Line Out Level Knob

On the sub amplifier, you can use only the STEREO LINK IN jack and the four knobs ([11], [12], [13], and [14]) in the MASTER CONTROL Section.

If you're using the Stereo Link function, make the adjustments described below.

1. Use the Volume knobs in the CHANNEL CONTROL Section of the main amplifier to adjust the volume balance for each channel.
2. Use the four knobs in the MASTER CONTROL Section of both amplifiers to adjust the main and sub volume and tone quality.

Connectors

Channel 1 Input Jacks (L/MONO, R)
Channel 2 Input Jacks (L/MONO, R)
Channel 3 Input Jacks (L/MONO, R)
Channel 4 Input Jacks (L/MONO, R)
Phones Out Jack
STEREO LINK Out Jack
STEREO LINK In Jack
Line Out Jacks
(XLR type balanced L, R, 1/4 inch phone type unbalanced L/MONO, R)

Power Supply

AC 117 V, 230 V or 240 V

Power Consumption

125 W

Dimensions

590 (W) x 448 (D) x 591 (H) mm
23-1/4 (W) x 17-11/16 (D) x 23-5/16 (H) inches

Weight

31.5 kg/ 69 lbs 8 oz

Accessories

Owner's Manual

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.



This product complies with the requirements of European Directives EMC 89/336/EEC and LVD 73/23/EEC.

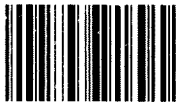
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