

KC-1000

STEREO MIXING KEYBOARD AMPLIFIER

Owner's Manual

Thank you, and congratulations on your choice of the Roland KC-1000 stereo keyboard amp. Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3), and "IMPORTANT NOTES" (p. 5). 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, Owner's manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

Features

- The KC-1000 has a dedicated ORGAN jack in order to produce the distinctive sounds of a tone-wheel organ as effectively as possible. It also has an ORCHESTRAL jack for faithfully reproducing the original sounds of a digital piano or synthesizer. This is a high-quality stereo keyboard amp.
- "Cabinet Modeling" technology, made possible through digital processing, is used to simulate the distinctive resonance of a dedicated organ tone cabinet.
- Previously unattainable sound fields can be created by using seven speakers and five amp systems to reproduce digitally processed signals in three-dimensional form.
- The KC-1000 provides three stereo input channels for the stereo outputs of your keyboards, plus a microphone input.
- Stereo line out is provided. You can use the KC-1000 as your keyboard monitor, and send the DSP-processed signal to an external PA system.
- The KC-1000 provides a STEREO LINK function. Two KC-1000 units can be used as a simple PA system.
- 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.

What is Cabinet Modeling?



Cabinet Modeling uses DSP (digital signal processor) technology to faithfully simulate the acoustic reflections that occur within a rotary-type organ speaker cabinet.

The KC-1000 is a keyboard amp designed especially for organ performance.

This is implemented as a combination of Roland's proprietary RSS (p. 8) and COSM (p. 8) technologies. The KC-1000's SOUND TYPE switch lets you select three different types of Cabinet Modeling. Select the type that is most suited to your playing style.

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	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		
<p>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.</p>		



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 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 a damp cloth.
7. Do not block any of the 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. When 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. Never use with a cart, stand, tripod, bracket, or table except as 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.

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.

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.
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.
- Never use or store the unit in places that are:
 - Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
 - Damp (e.g., baths, washrooms, on wet floors); or are
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces.
- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.

⚠ WARNING










- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!
- This unit, 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 immediately stop using the unit, and consult an audiologist.
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.
- 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.

⚠ WARNING

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation. 
- 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. 
- If the unit could become a hazard if it moves, all caster wheels should be locked or fixed in place once the unit has been placed at the place of installation, or has been loaded onto a vehicle. 
- 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. 9). 
- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet. 

IMPORTANT NOTES

In addition to the items listed under “IMPORTANT SAFETY INSTRUCTIONS” and “USING THE UNIT SAFELY” on pages 2, 3 and 4, 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.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.
- To allow heat to dissipate, place the unit at least 30 cm from the wall.

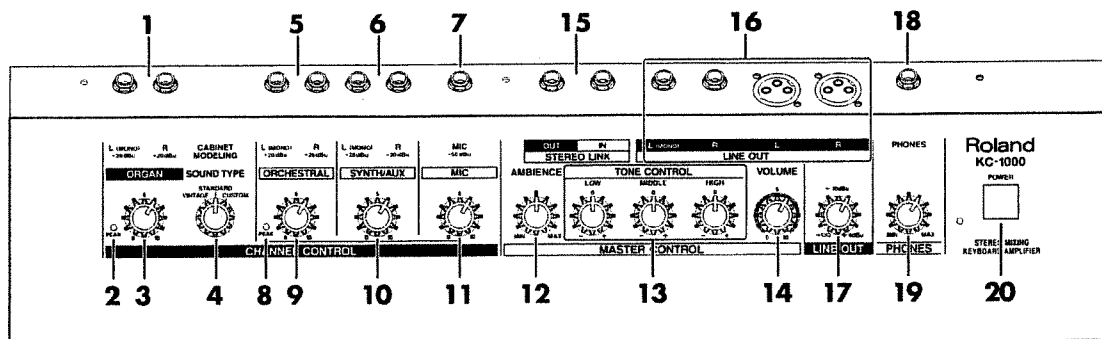
Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with 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 benzine, 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.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
 - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

Panel Descriptions



CHANNEL CONTROL Section

1. ORGAN L (MONO), R (organ input) jacks

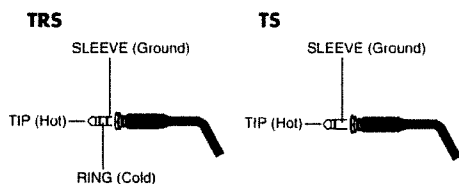
Connect these jacks to the organ output jacks of an organ such as the VK-77 (p. 10). For a stereo output, make connections to both the L and R jacks of one pair. For mono output, connect the keyboard to the L (MONO) jack of a pair.

Sound that's been input through this jack will be heard with the distinctive resonances of a dedicated organ tone cabinet, as produced by Cabinet Modeling technology (p. 1).

These are TRS jacks.

TRS: jacks that use a stereo phone jack to support balanced signals

By using TRS cables to connect TRS-compatible equipment you may be able to improve the signal/noise ratio compared with connections using standard phone cables. When TRS connections are used, the input gain will be doubled, so you will need to turn down the input volume.



2. PEAK (organ input peak) indicator

This indicates peaks of the organ input.

Pay attention to this indicator as you adjust the ORGAN knob (3).

Lit in orange: Indicates that the input level is high.

Lit in red: Indicates that the input level is too high. The sound may distort.

3. ORGAN (organ input) knob

This knob adjusts the volume of the organ input. Rotating a knob clockwise increases the volume.

Pay attention to the PEAK indicator (2) as you adjust this knob.



If the ORGAN knob is raised excessively, the PEAK indicator will light in red, and distortion will occur in the input amp. In this case, the sound will be heavily distorted, and serious damage may occur to the device connected to the LINE OUT jacks (16). If the red indicator lights, turn down the ORGAN knob immediately.

4. CABINET MODELING SOUND TYPE switch

This selects one of the following three types of cabinet modeling (p. 1) that will be applied to the sound that is input via the ORGAN jacks.

TYPE	Description
VINTAGE	This simulates a vintage-style cabinet with a suitable narrow range response, which produces a natural-sounding playback.
STANDARD	This modeling is suitable for wide-range playback of the KC-1000's wide-range sound.
CUSTOM	Based on the STANDARD setting, this approximately doubles the width of the cabinet model, producing a wider sound field than the actual KC-1000.

5. ORCHESTRAL L (MONO), R (orchestral input) jacks

Connect these jacks to the orchestral output jacks of an instrument such as the VK-77 (p. 10), or the output jacks of a synthesizer or digital piano.

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.

Sound that's been input through this jack will be played with a flat frequency response.

These are TRS (p. 6) jacks.

6. SYNTH/AUX L (MONO), R (synth/AUX input) jacks

Connect these jacks to the output jacks of your synthesizer, digital piano, or other keyboard. 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.

These are TRS (p. 6) jacks.

7. MIC (microphone input) jack

This is a monaural input jack only for microphones. It is a TRS (p. 6) jack.



The input gain is raised for use with a microphone. Do not connect any other type of device to this jack.

8. PEAK (orchestral, synth/AUX, mic input peak) indicator

This is a peak indicator for the orchestral, synth/AUX, and mic inputs.

Adjust knobs **9**, **10**, and **11** so that the indicator does not light.

Lit in orange: Indicates that the input level is high.

Lit in red: Indicates that the input level is too high. The sound may distort.

9. ORCHESTRAL (orchestral input) knob

This adjusts the volume of the orchestral input. Rotating a knob clockwise increases the volume. Pay attention to the PEAK indicator (**8**) as you adjust this knob.

10. SYNTH/AUX (synth/AUX input) knob

This adjusts the volume of the synth/AUX input. Rotating a knob clockwise increases the volume.

Pay attention to the PEAK indicator (**8**) as you adjust this knob.

11. MIC knob

This adjusts the volume of the microphone input. Rotating a knob clockwise increases the volume.

Pay attention to the PEAK indicator (**8**) as you adjust this knob.



If the ORCHESTRAL knob, SYNTH/AUX knob, or MIC knob are raised excessively, the PEAK indicator will light in red, and distortion will occur in the input amp. In this case, the sound will be heavily distorted, and serious damage may occur to the device connected to the LINE OUT jacks (**16**). If the red indicator lights, turn down the corresponding knob immediately.

MASTER CONTROL Section**12. AMBIENCE (ambience sensitivity) knob**

This adjusts the ambience that "fattens" your sound.

With this knob at the minimum position, there will be no ambience effect. By turning the knob higher, you can produce the impression of performing in a room that has a longer reverberation time, suitable for organ performance.

AMBIENCE is technology that uses RSS (p. 8). It lets you apply reverberation that is suitable for organ performance.

13. TONE CONTROL**LOW knob**

Adjusts the volume of the low frequency range.

MIDDLE knob

Adjusts the volume of the mid range.

HIGH knob

Adjusts the volume of the high frequency range.

14. VOLUME (Master Volume) knob

Adjusts the volume of the KC-1000.

Depending on the volume of the input, the sound may be distorted when the VOLUME knob is at the maximum position. If distortion occurs, it can be eliminated by turning the knob approximately two gradations lower than the maximum.

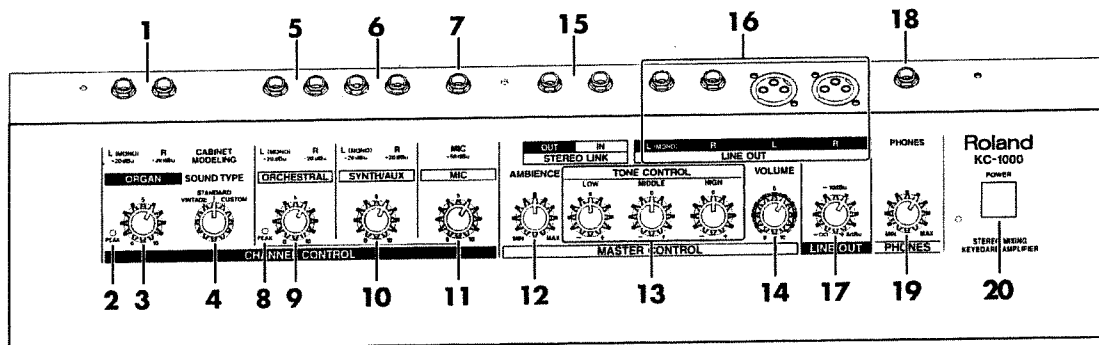
15. STEREO LINK OUT, IN (Stereo Link input/output) jacks

Use these jacks when you wish to connect two KC-1000 units to form a simple PA system.



For details on the Stereo Link function, take a look at **Connecting Two KC-1000 Units (Stereo Link)** (p. 11).

Panel Descriptions



LINE OUT Section

16.LINE OUT L (MONO), R jacks

If you wish to output the sound of the KC-1000 to an external PA system, connect these LINE OUT jacks to your PA system. You can also connect them to an MTR or other recording device and record the sound of the KC-1000.

Make connections to either the XLR or phone jacks.

If you wish to use an XLR type, use two cables to make connections in stereo. It is not possible to make connections in monaural.

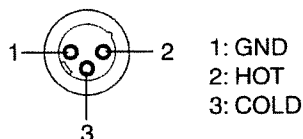


You may not simultaneously use both the XLR type and phone type LINE OUT jacks. Depending on the device that is connected, using both types simultaneously may cause malfunction.

XLR

The pin assignment for the XLR connectors is as shown below.

Before making any connections, make sure that this pin assignment is compatible with that of all your other devices.



17.LINE OUT knob

Adjust the volume of the line output. Set this knob to the optimum level for the instrument connected to the LINE OUT jacks (1/4" or XLR).

PHONES Section

18.PHONES jack

A set of headphones can be connected here.

19.PHONES knob

Adjusts the headphone volume.



Before connecting headphones, you must turn the PHONES knob down to 0.



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

20. POWER switch

Switches the power to the KC-1000 on and off.

When this switch is on, the indicator will light.



Before turning the power switch on/off, you must turn down the input/output knobs (all knobs other than **12** and **13**) down to the minimum position.

What is RSS (Roland Sound System)?

This is proprietary Roland effect technology for three-dimensional localization of a sound source via a conventional stereo system. It allows the perceived location of a sound source to be placed not only in front of, or to the side of the listener, but also above, below, behind, or at a near or far distance away.

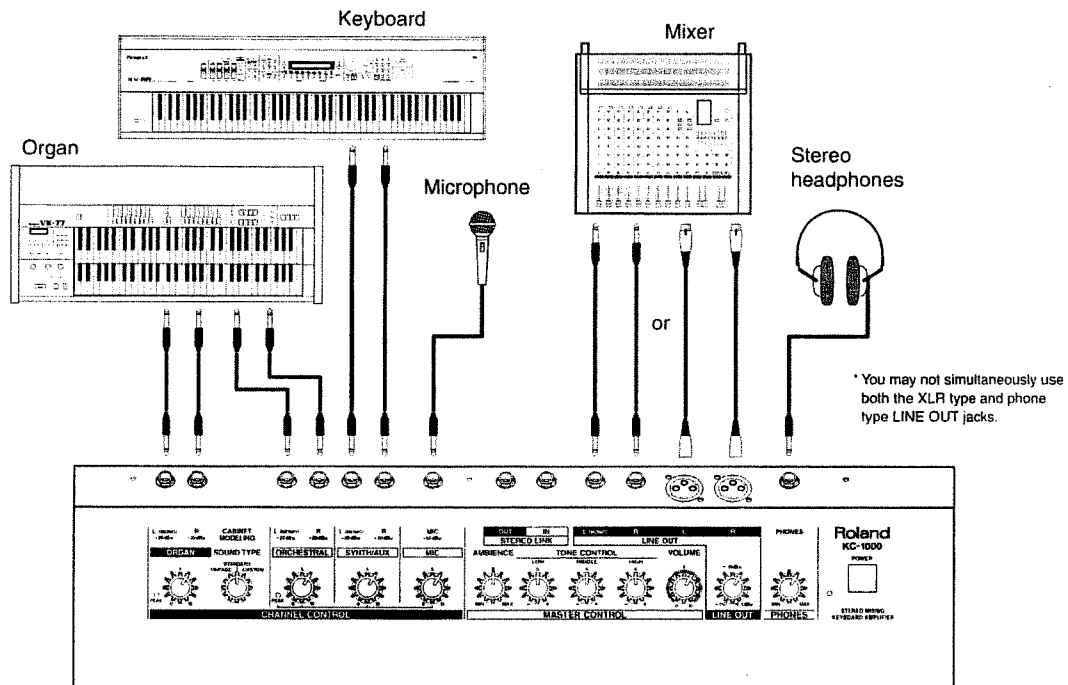
What is COSM (Composite Object Sound Modeling)?

Technology that virtually reconstructs an actually existing structure or material using a different means is called "modeling" technology. COSM is proprietary Roland technology that creates new sounds by combining various sound modeling technologies

Making the Connections and Powering Up



To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections. Turn all input/output knobs of the KC-1000 (all knobs other than AMBIENCE and TONE CONTROL) to the minimum position.



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 power of the connected organ and/or keyboard(s).
2. Turn on the KC-1000.
3. Turn on the power of other connected devices.
4. Adjust the volume levels for the 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.



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.



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

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

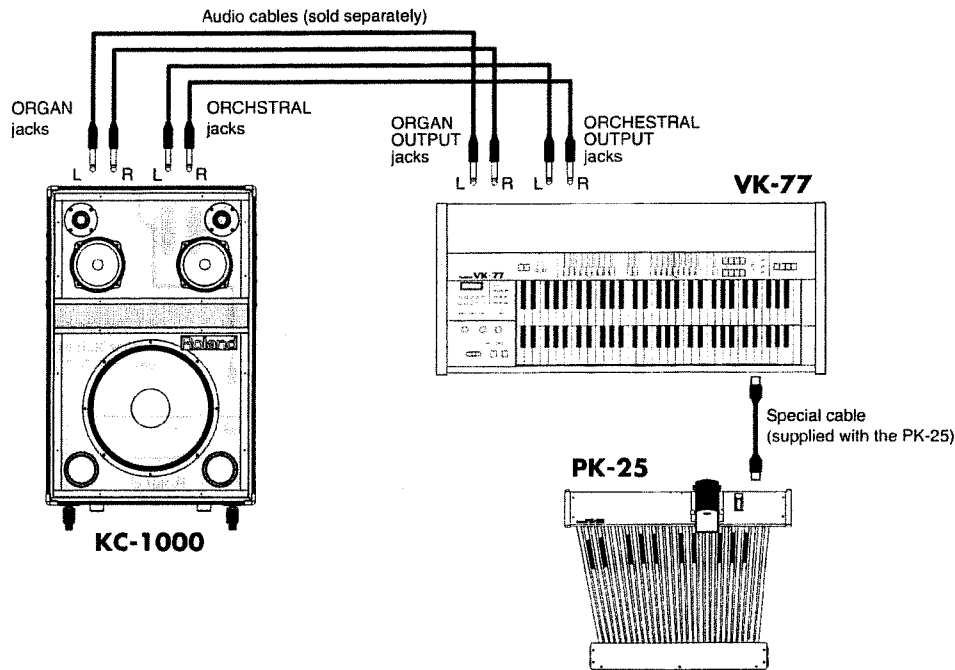


To connect the input jacks, use a connection cable that does not contain a resistor. If you use a connection cable that contains a resistor the volume level of the instrument is too low.

Connecting the KC-1000 and the VK-77

Connect the KC-1000 and VK-77 using the following procedure.

With these connections, you can take full advantage of the VK-77's potential, since the tone-wheel organ sounds will have the appropriate unique resonances, and the orchestral sounds will be played back with a flat frequency response.



- 1. Connect the VK-77's ORGAN OUTPUT jacks to the KC-1000's ORGAN jacks, L to L, and R to R.**
- 2. Connect the VK-77's ORCHESTRAL OUTPUT jacks to the KC-1000's ORCHESTRAL jacks, L to L, and R to R.**
- 3. Connect the VK-77 and PK-25.**

For details refer to the manual of the PK-25 or VK-77.

When you have finished making connections, turn on the power according to the procedure given on page 8.



Separately sold items such as the following are available for use when the KC-1000 and VK-77 are connected and played together. If you wish to purchase these items, please contact your dealer.

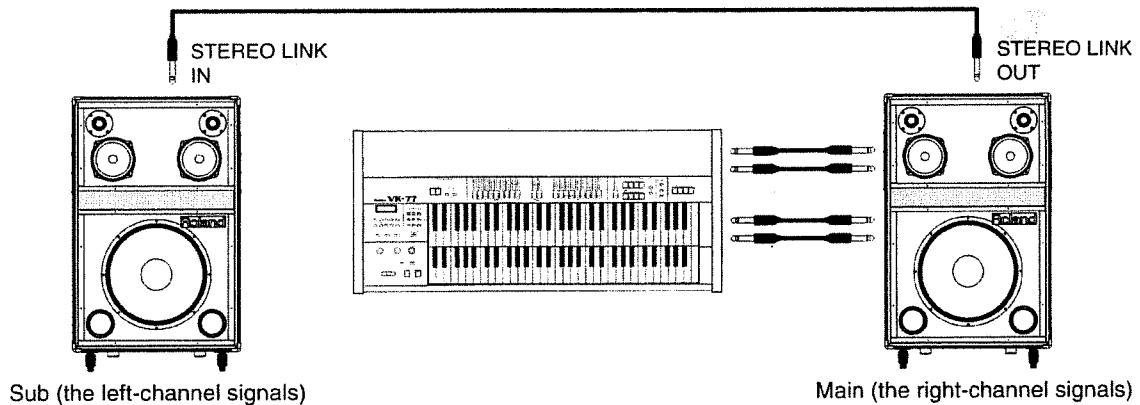
- | | |
|-------------------------|--------|
| • Roland Combo Organ | VK-77 |
| • Roland Pedal Keyboard | PK-25 |
| • Stand for VK-77 | KS-77 |
| • Organ Bench for PK-25 | BNC-25 |

Connecting Two KC-1000 Units (Stereo Link)

By linking two KC-1000 units you can use them as a simple PA system.

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-1000).

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



Before making connections, you must turn the VOLUME knob of both units to the minimum position.

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-1000 amplifier.
3. Turn on the sub KC-1000 amplifier.
4. Adjust the volume levels for the 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.

Functions of the main unit and sub unit

- Except for adjustment of the sub unit's volume, all operations are performed from the main unit.
- **Main unit**
Use the main unit as normally.
The SOUND TYPE, AMBIENCE, and TONE CONTROL are adjusted from the main unit.
Only the R signal will be output from the built-in speakers.
 - **Sub unit**
Use only STEREO LINK IN jack and the VOLUME knob.
Do not make connections to any jacks other than

STEREO LINK IN. All knobs other than the VOLUME knob must be turned to the minimum position.

The built-in speakers will output only the L signal.

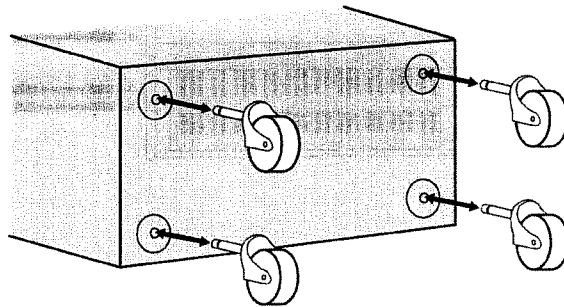
* If you wish to output the L signal from the main unit, reverse L and R of the input jacks (ORGAN, ORCHESTRAL, SYNTH/AUX) for the signals sent from the external devices to the main unit.

* When stereo link is used, each KC-1000 will operate in monaural. For this reason, the sound of each unit will be output more loudly than when used by itself.

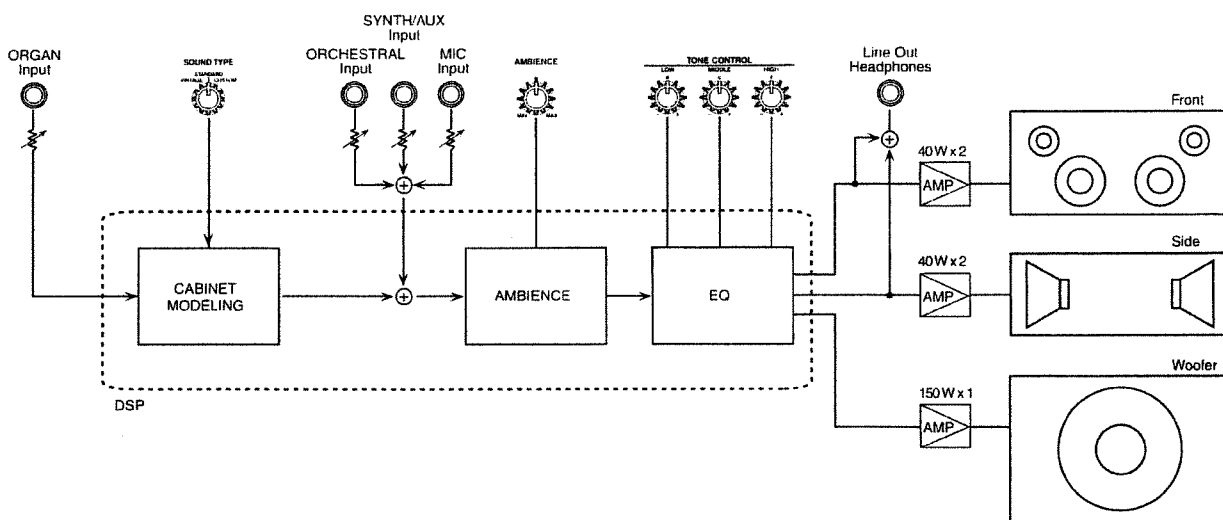
Attaching and Removing the Casters

The casters can be attached and removed as shown in the following diagram.

- ! Be sure to remove all casters when accidental movement may be dangerous such as when setting up the KC-1000 on stage or when transporting it in a vehicle.
- ! If you use the KC-1000 with the casters connected, be sure to place it on a stable and level surface.
- ! Removal of the casters must be performed by two or more people.



Block Diagram



Main Specifications

Rated Power Output

Speaker Out 310 W

Nominal Input Level

Input
ORGAN -20 dBu
ORCHESTRAL -20 dBu
SYNTH/AUX -20 dBu
MIC -50 dBu
STEREO LINK IN 0 dBu

Nominal Output Level

STEREO LINK OUT 0 dBu
LINE OUT +4 dBu

* 0 dBu = 0.775 Vrms

Speakers

38 cm (15 inches) x 1
16 cm (6.3 inches) x 4
2.5 cm (1 inch) x 2

Controls

Organ Volume Knob
Cabinet Modeling Sound Type Switch
Orchestral Volume Knob
Synth/AUX Volume Knob
Mic Volume Knob
Ambience Volume Knob
Tone Control Low Knob
Tone Control Middle Knob
Tone Control High Knob
Master Volume Knob
Line Out Volume Knob
Phones Volume Knob

Connectors

ORGAN Input Jacks (L/MONO, R)
ORCHESTRAL Input Jacks (L/MONO, R)
SYNTH/AUX Input Jacks (L/MONO, R)
MIC Input Jack (MONO)
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)
PHONES Jack

Power Supply

AC 117 V / 230 V / 240 V

Power Consumption

225 W

Dimensions

595 (W) x 535 (D) x 970 (H) mm
23-7/16 (W) x 21-1/16 (D) x 38-3/16 (H) inches
(included the casters)

Weight

64 kg / 141 lbs 2 oz

Accessories

Owner's Manual
Casters (x 4)

* 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.

For EU Countries

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

For the USA

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 measures:

- 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.

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.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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