

VK-8M

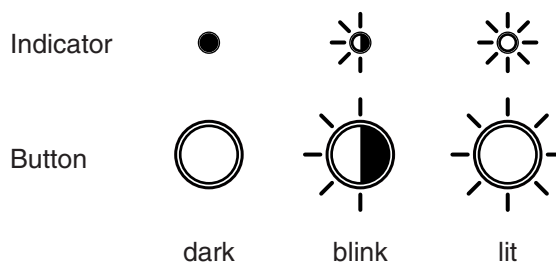
Owner's Manual

Thank you, and congratulations on your choice of the VK-8M organ module.

Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3, 4), 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.

Conventions Used in This Manual

- Button names are enclosed in square brackets; e.g., [REVERB] button.
- Fractional harmonic bars (p. 21) are expressed like this: 1-1/3'; 2-2/3'.
- [1]–[6] means that you should press one of the buttons from [1] through [6].
- The dark/lit/blinking status of an indicator is distinguished as follows.



USING THE UNIT SAFELY

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

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 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.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

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 modify in any way) the unit or its AC adaptor.

- 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.


⚠ WARNING


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 - 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.


- 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.



- Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.


⚠ WARNING


- Use only the attached power-supply cord. 


- 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. 



- Immediately turn the power off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when: 
 - The AC adaptor, the power-supply cord, or the plug has been damaged; or
 - If smoke or unusual odor occurs
 - Objects have fallen into, or liquid has been spilled onto the unit; or
 - The unit has been exposed to rain (or otherwise has become wet); or
 - The unit does not appear to operate normally or exhibits a marked change in performance.


- 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. 


- Do not put anything that contains water (e.g., flower vases) on this unit. Also, avoid the use of insecticides, perfumes, alcohol, nail polish, spray cans, etc., near the unit. Swiftly wipe away any liquid that spills on the unit using a dry, soft cloth. 


⚠ CAUTION


- The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation. 


- Always grasp only the plug on the AC adaptor cord when plugging into, or unplugging from, an outlet or this unit. 


- At regular intervals, you should unplug the AC adaptor and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire. 


- 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 AC adaptor or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit. 

- Before moving the unit, disconnect the AC adaptor and all cords coming from external devices. 

- Before cleaning the unit, turn off the power and unplug the AC adaptor from the outlet (p. 13). 

- Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet. 

- Should you remove screws, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally. 

IMPORTANT NOTES

In addition to the items listed under “USING THE UNIT SAFELY” on page 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).
- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.
- 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.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Also, do not allow lighting devices that normally are used while their light source is very close to the unit (such as a piano light), or powerful spotlights to shine upon the same area of the unit for extended periods of time. Excessive heat can deform or discolor the unit.
- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Do not allow rubber, vinyl, or similar materials to remain on the unit for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.
- Do not paste stickers, decals, or the like to this instrument. Peeling such matter off the instrument may damage the exterior finish.

Maintenance

- To clean the unit, use a dry, soft cloth; or one that is slightly dampened. To remove stubborn dirt of plastic parts, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth. Try to wipe the entire surface using an equal amount of strength, moving the cloth along with the grain of the wood. Rubbing too hard in the same area can damage the finish.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of losing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory in another MIDI device (e.g., a sequencer).
- Unfortunately, it may be impossible to restore the contents of data that was stored in another MIDI device (e.g., a sequencer) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- 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.
- 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 only the specified expression pedal (EV-7; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.

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Main Features

Organ Features

Virtual Tonewheel Sound Generator

The VK-8M features a Virtual Tonewheel sound generator that perfectly simulates the sound-production mechanism of traditional tone wheel organs. This rapid response is especially valuable when you use characteristic organ performance techniques such as glissando. Since all parts — upper, lower, and pedal — are completely polyphonic, notes aren't cut off regardless of your performance technique.

Amp Modeling (COSM)

This technology analyzes the characteristics of the most popular amps and reproduces their warm, tube-like sounds, as well as the unique sonic characteristics of their cabinets. You get four amp types, each with a different sound, allowing you to perform using everything from clean to fat, overdriven sounds.

Rotary Sound

An effect algorithm using Roland's COSM technology creates a faithful rotary speaker simulation that's essential for a great organ sound. Enjoy the realistic rotary sound simply by connecting a keyboard amp (such as the KC series) or powered monitor (such as the DS series).

Integrated Controllers

Controllers such as the HARMONIC bars, [ROTARY SLOW / FAST] button, and OVERDRIVE knob have been brought together with the sound module. No need to hassle with a bunch of connections—just connect your own keyboard and start performing with authentic organ sounds.

Includes Input Jack

The unit includes an audio input jack, allowing you to input sounds from an external keyboard. Using the input mix function, you can output the sounds of both the keyboard and the VK-8M without the need for a separate mixer. The expression pedal function adds expression to the input sound, and the "Active Expression" function further allows you to use the input sound as the Active Expression tone.

New Expression Pedal Function (Active Expression)

The expression pedal is an indispensable function for organ performances. When performing with the input sound layered over the organ sound, the organ volume increases as you press the expression pedal, but when Active Expression is used, the input sound volume makes a sudden jump to near maximum level. Since the expression pedal can be used not only to change the volume, but the tone as well, it lets you enjoy highly expressive performances.

Equipped with D Beam Controller

You can use the D Beam controller to control a total of six specialized effects with your performances, such as switching the rotary speaker rotation speed and braking the tone wheel. The D Beam ON/OFF button relies on new technology that allows for a range of different colors. Now push the envelope even further in your stage performances.

Natural Wood Cabinet

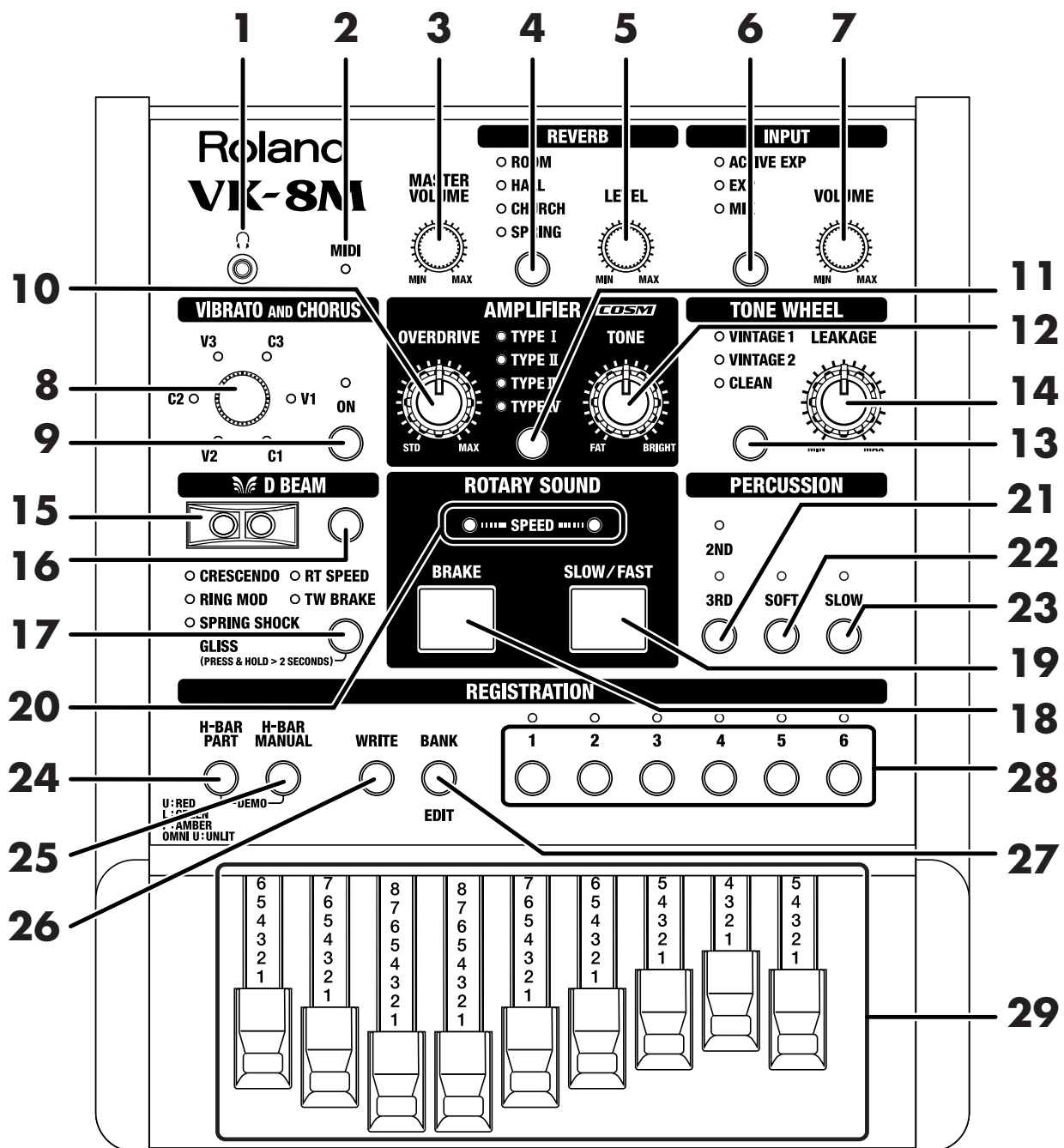
The cabinet is built of wood, echoing the construction of traditional tone wheel organs. The VK-8M feature beautifully finished natural wood that will gain luster with years of use.

Other Features

- MIDI connectors are provided on the rear panel, allowing you to connect a keyboard and pedal keyboard and enjoy two-manual and pedal keyboard playing.
- User Registration memory lets you store 36 different panel settings.

Panel Descriptions

FRONT PANEL



1. [] (Headphone) jack
An optional set of headphones can be connected here (p. 15).
2. MIDI Indicator
The indicator flashes when MIDI data from an external MIDI device is being received.
3. [MASTER VOLUME] knob
Adjust the overall volume (p. 16).
- REVERB
4. [REVERB] button
Select the type of reverb (p. 34).
5. REVERB [LEVEL] knob
Adjust the depth of reverb (p. 34).
- INPUT
6. [INPUT] button
Switch the function for the INPUT jack (p. 35).
7. INPUT [VOLUME] knob
Adjust the volume level of the sound input from the INPUT jack (p. 35).
- VIBRATO AND CHORUS
8. [VIBRATO AND CHORUS] knob
Switches the type of vibrato or chorus effect (p. 28).
9. VIBRATO AND CHORUS [ON] button
Switches the vibrato or chorus effect on/off (p. 28).

■ AMPLIFIER

10. [OVERDRIVE] knob

Adjust the depth of overdrive (p. 30).

11. [AMPLIFIER] button

Switches the frequency response and cabinet resonance of the virtual amp (p. 30).

12. [TONE] knob

Adjust the tonal character of the organ voice (p. 30).

■ TONE WHEEL

13. [TONE WHEEL] button

Select the type of the virtual tonewheel (p. 24).

14. [LEAKAGE] knob

Allows you to independently add leakage noise, separately from the leakage noise selected by the wheel type (p. 24).

■ D BEAM

15. D BEAM controller

You can modify the sound by moving your hand over the D Beam controller (p. 31).

16. D BEAM [ON] button

Switches the D Beam controller on/off (p. 31).

17. D BEAM button

Selects the effect that will be controlled by the D Beam controller (p. 31).

■ ROTARY SOUND

18. [BRAKE] button

This button switches the rotation of the rotary sound. When this is turned on, the rotation will gradually stop. When it is turned off, the rotation will gradually resume (p. 29).

19. [SLOW/FAST] button

This button switches the speed of rotation for the rotary sound (p. 29).

20. SPEED Indicator

The left and right indicators light up alternately, indicating the speed of the rotary speaker (p. 29).

| ROTARY SPEED Indicators | Explanation |
|-------------------------|---------------|
| Rapid blinking | Fast rotation |
| Slow blinking | Slow rotation |

■ PERCUSSION

21. [2ND/3RD] button

This switches the percussion type (p. 25).

| Lit Indicator | Part Affected by Harmonic Bar Settings |
|---------------|--|
| 2ND | This adds second percussion (same pitch as the 4' harmonic bar) to the organ voice. |
| 3RD | This adds third percussion (same pitch as the 2-2/3' harmonic bar) to the organ voice. |

| Lit Indicator | Part Affected by Harmonic Bar Settings |
|--|--|
| 2ND indicator and 3RD indicator are dark | Percussion will not sound. |

22. [SOFT] button

This switches the volume of the percussion (p. 26).

23. [SLOW] button

This switches the decay time of the percussion (p. 27).

■ REGISTRATION

24. [H-BAR PART] button (Harmonic Bar Part)

This button selects the part whose settings the harmonic bars will affect.

| Indicator's color | The part whose settings the harmonic bars will affect | MIDI connector function |
|-------------------|---|-------------------------|
| Red | UPPER Part When the harmonic bars are moved, the sound of the Upper part will change (p. 20). | SEQUENCER MODE |
| Green | LOWER Part When the harmonic bars are moved, the sound of the Lower part will change (p. 20). | SEQUENCER MODE |
| Amber | PEDAL Part When the harmonic bars are moved, the sound of the Pedal part will change (p. 20). | SEQUENCER MODE |
| Dark | UPPER Part When the harmonic bars are moved, the sound of the Upper part will change (p. 20). | SINGLE KEYBOARD MODE |

SEQUENCER MODE

The voices for parts specified with the MIDI transmit channels are played.

SINGLE KEYBOARD MODE

The Upper Part voice is played, regardless of the parts specified with the MIDI transmit channels (OMNI ON).

25. [H-BAR MANUAL] button (Harmonic Bar Manual)

When this function is used, the harmonic bar settings will change from the settings of the registration to the positions (settings) of the harmonic bars on the panel (p. 20).

26. [WRITE] button

Saves the panel settings as a registration (p. 37, 38).

27. [BANK] button

Selects the registration bank (p. 19, 37, 38).

28. [1]–[6] button

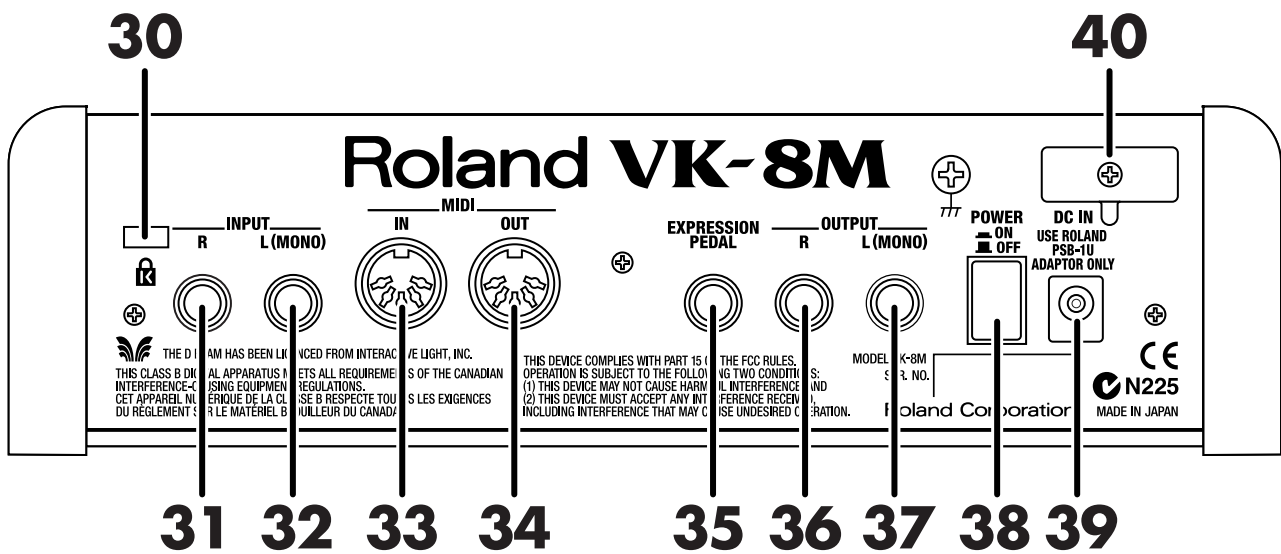
The [1]–[6] buttons will switch registrations.

29. Harmonic Bar

These bars create the sound of the organ voice. You can modify the tone in real time as you play (p. 21).

Panel Descriptions

REAR PANEL



30. Security Slot

<http://www.kensington.com/>

31. INPUT R jack

32. INPUT L (MONO) jack

You can connect an external keyboard and input sounds from it. You can also play the sounds input from the keyboard mixed with the VK-8M's sounds.

33. MIDI IN connector

You can connect an external keyboard to play sounds. You could also connect an external sequencer here, and get the VK-8M to play the music the sequencer sends it (p. 50).

34. MIDI OUT connector

An external MIDI device can be connected here to receive MIDI data transmitted from the VK-8M.

35. EXPRESSION PEDAL jack

An expression pedal (EV-7; sold separately) can be connected here (p. 36).

36. OUTPUT R jack

37. OUTPUT L (MONO) jack

An amp, powered speakers, etc., can be connected here. If outputting in monaural, connect to the L (MONO) jack (p. 15).

38. [POWER] switch

Turn the power on/off (p. 16).

39. DC Inlet

Connect the included AC adapter to this inlet (p. 13).

40. Cord Hook

Use this to fix in place the cord from the supplied AC adaptor (p. 13).

How the VK-8M Works

■ About the Virtual Tonewheel Sound Generator

A traditional tone wheel organ produces the sound by 91 toothed wheels called “tone wheels.” Each tone wheel produces a different pitch. A motor is used to rotate these tone wheels past electromagnetic coils, and as the teeth of each wheel pass by the corresponding electromagnetic coil, an audio signal is generated. The combination of harmonic bars and the notes that are pressed then select the audio signals that are output, producing the sound of the organ.

The virtual tonewheel sound generator of the VK-8M uses digital technology to precisely re-create the sound-production mechanism of a tone wheel organ. The 91 toothed wheels are constantly “rotating” digitally, and are able to produce sound at any time. The sound produced by these virtual tonewheels is determined by the combination of harmonic bars and the state of the notes played on the keyboard—exactly as on traditional tone wheel organs.

■ How the Organ Sound are Created

Tone Wheels

Tone wheels rotate constantly, and will therefore “speak” the instant you play a note. The virtual tonewheel sound generator of the VK-8M is also producing sound constantly, allowing very rapid response when you play a note. This rapid response is especially valuable when you use characteristic organ performance techniques such as glissando.

The organ sound consists of a fundamental and eight harmonics, and these are mixed according to the combination of the harmonic bars. You can use the harmonic bars to modify the tone even while you play, allowing a high degree of expressive flexibility.

Percussion

Tone wheel percussion is used when you want to add an attack to the notes you play, making the sound more crisp. Relative to the pitch of the note you play, you can specify either the second (SECOND) or third (THIRD) partial as the pitch of the percussion sound, and you can decrease the percussion volume (SOFT) or lengthen its decay (SLOW).

The percussion on tone wheel organs is of a type called “single-trigger,” meaning that percussion was not applied to all the notes that were played, but only to the note that was pressed first. If you release the currently-played key(s), percussion will sound for the next-played note. If you play legato (with notes smoothly connected), percussion will be applied only to the first note, and not to subsequent notes. If you play staccato, percussion will be applied to all notes. If you play rapidly when using percussion, the percussion circuit may not keep up with your playing, causing the percussion sound to become softer. However, the VK-8M allows you to adjust the speed of recovery so that it will keep up even with rapid playing (p. 44). On a tone wheel organ, the way in which percussion is applied is a very important element in enhancing the expressiveness of the performance.

On tone wheel organs, the 1' harmonic bar was used to produce the percussion sound. This means that when you add percussion, the sound of the 1' harmonic bar will no longer be heard. Also, percussion will be applied only to the Upper Part.

On tone wheel organs, turning off percussion [SOFT] button would lower the volume of the organ, but the VK-8M allows you to adjust it so the volume of the organ won't change when percussion [SOFT] button is switched on/off (p. 43).

Key Click

The first generations of traditional tone wheel organs produced a “blip” noise (separately from percussion) when a note was pressed or released. Initially, this click noise was considered a problem, but blues and rock musicians came to utilize it in their performances, and the key click became an indispensable part of the organ sound in jazz as well.

On the VK-8M you can independently adjust the volume of the key click for key-on and key-off (p. 43).

How the VK-8M Works

Vibrato and Chorus

Traditional tone wheel organs provided a total of six different effects: three kinds of vibrato (V1, V2, V3) and three kinds of chorus (C1, C2, C3).

Vibrato is an effect that cyclically modulates the pitch, and chorus is an effect that modulates the pitch to produce spaciousness and depth.

Harmonic bars

The harmonic bars of a tone wheel organ are arranged in ascending order of pitch, from left to right.

Borrowing some inspiration from the pipes of a pipe organ, the bars are labeled in “feet,” with 8’ being the fundamental.

There is one exception in the ordering of the harmonic bars, and that is the 5-1/3’ bar located second from the left. According to the pitch order, this should be the third from the left, but since 5-1/3’ is an overtone of 16’, and blends with the 16’ sound, it is placed beside the 16’ bar.

The harmonic bars are color-coded in three colors. The bars whose pitches are in octave relation to 8’ are white, the bars that are not octave harmonics are black, and the lower pitch range is brown.

On tone wheel organs, the highest feet were repeated (“reused”) in the high keyboard range, and the lowest feet were repeated in the low range. This is called “fold-back.”

If an organ had 109 tone wheels, all nine harmonics of the harmonic bars could be sounded by all 61 keys of a tone wheel organ. However, if this were the case, the upper range would be unpleasantly screechy, and the lower range would be excessively low and muddy-sounding.

For this reason, fold-back is used on the VK-8M to produce a well-balanced sound.

Amp Type (Rotary, Overdrive, Tone)

The VK-8M features four different amp types, reproducing everything from warm tube sound to the cabinets’ sonic characteristics.

Even if you are using a keyboard amp or monitor speakers, amp modeling gives you the sound of an actual rotating speaker or a guitar amp sound, allowing you to enjoy performing with a wider variety of sounds.

What’s more, you can make settings for the rotary speaker volume, for the time used in switching between the fast and slow rotation speeds, as well as the fast and slow rotation speeds themselves, and separate tweeter and woofer settings for a greater sense of breadth in the sound.

Reverb

Reverb is an effect that adds reverberation to the sound. Reverb types ROOM, HALL, and CHURCH add the reverberation of differently sized acoustical spaces. The SPRING reverb type simulates a reverb circuit that used springs, and was often found on traditional organs.

The VK-8M lets you adjust the reverb time (p. 48). Also, by turning the [REVERB] knob you can adjust the volume of the reverb (p. 34).

■ About the Memories

System memory

Settings that affect the entire VK-8M are referred to as “system memory.”

Registration memory

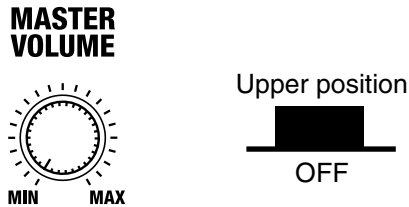
Settings that are stored independently for each registration number, such as harmonic bar and panel settings, are called “registration memory.”

There are a total of 36 registration memories, and each of them can be edited.

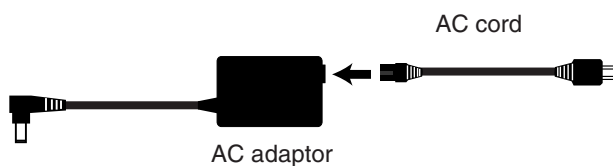
Before You Begin Playing

Connecting the AC Adaptor

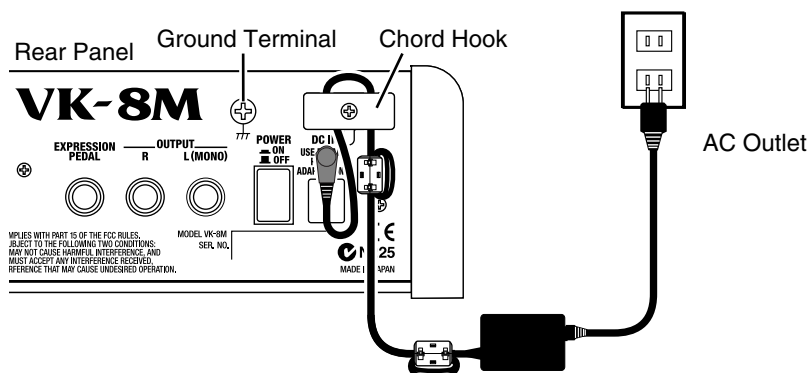
- 1 Before making a connection, make sure that the VK-8M is turned off.



- 2 Connect the supplied AC cable to the supplied AC adaptor.



- 3 Connect supplied power cable to the VK-8M, and plug the other end into a power outlet.



* To prevent the inadvertent disruption of power to your unit (should the plug be pulled out accidentally), and to avoid applying undue stress to the AC adaptor jack, anchor the power cord using the cord hook, as shown in the illustration.

In some cases, depending on the environment in which the unit is installed, the surface of the panel may sometimes feel rough and grainy. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal (see above figure) with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

Unsuitable places for connection

- Water pipes (may result in shock or electrocution)
- Gas pipes (may result in fire or explosion)
- Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

NOTE

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.

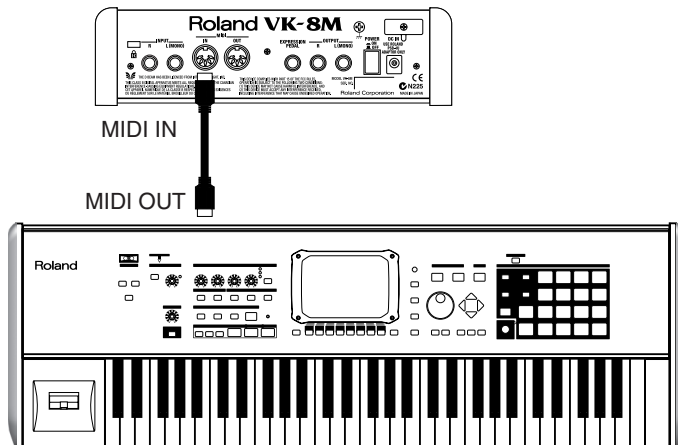
NOTE

Be sure to use the supplied AC cord and AC adaptor.

Connecting an External Keyboard

■ Using an External Keyboard to Play the VK-8M's Sounds

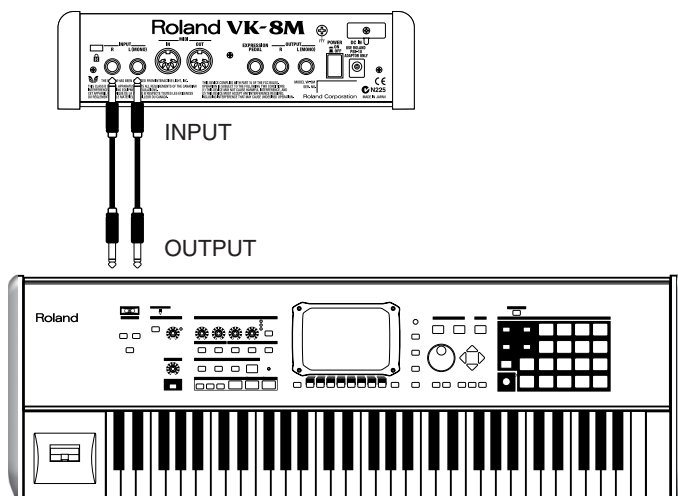
- 1** Before making any connections, make sure that all the devices are turned off.
- 2** Use a commercially available MIDI cable to connect the VK-8M's MIDI IN connector to the MIDI OUT connector of your keyboard.



- 3** Turn on the keyboard.
- 4** Turn on the power of the VK-8M.

■ Mixing the Sound From the External Keyboard With That of the VK-8M

- 1** Before making any connections, make sure that all the devices are turned off.
- 2** Use a commercially available audio cable to connect the VK-8M's INPUT connector to the OUTPUT connector of your keyboard.



- 3** Turn on the keyboard.
- 4** Turn on the power of the VK-8M.

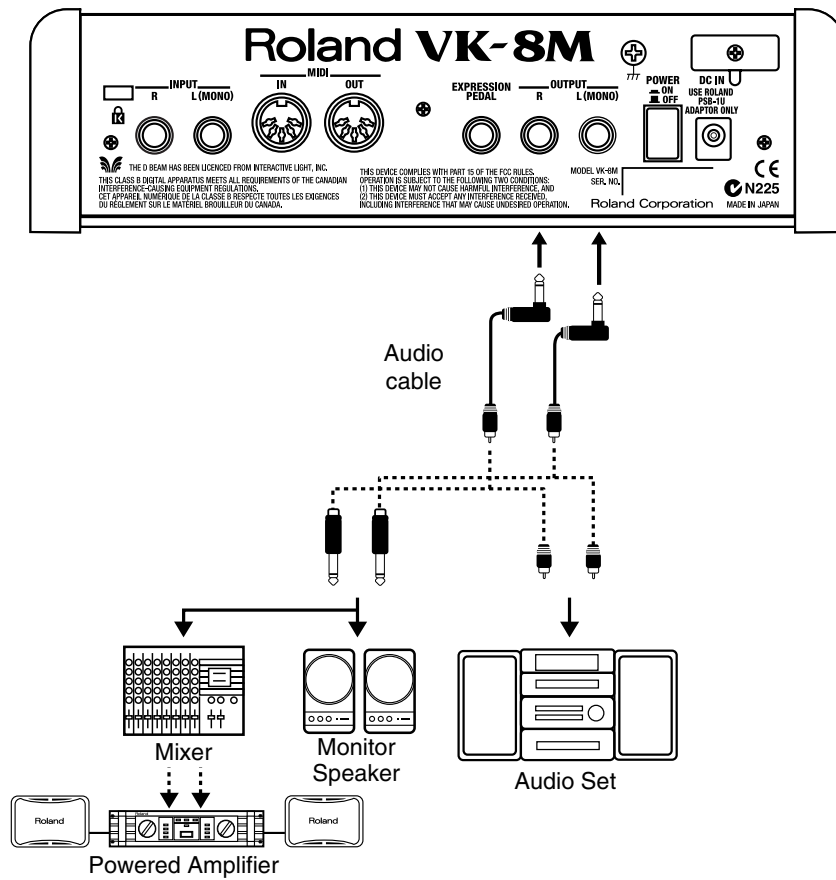
NOTE

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.

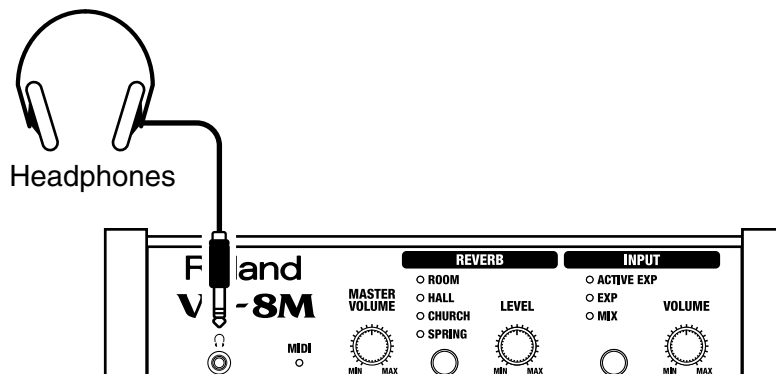
Connecting Your Amp, Speakers, or Headphones

The VK-8M is not equipped with an amplifier or speakers. In order to hear the sound, you will need to connect audio equipment such as a monitor speaker system or stereo set, or use headphones.

- 1 Before making any connections, make sure that all the devices are turned off.
- 2 Connect the VK-8M to your amp/speaker system and headphones as shown in the diagram.



Use audio cables to connect audio equipment, such as an amp or speakers. If you are using headphones, plug them into the PHONES jack.



NOTE

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.

MEMO

In order to take full advantage of the VK-8M's performance, we recommend using a stereo amp/speaker system. If you are using a mono system, make the connections to the OUTPUT L (MONO) jack.

MEMO

Audio cables and headphones are not included. You will need to provide these separately.

Before You Begin Playing

Turning the Power On

- 1** Before turning on the VK-8M's power, make sure that:
 - The VK-8M is correctly connected to the desired peripheral devices.
 - The volume of the VK-8M and any connected audio equipment or speakers is turned to the minimum position.
- 2** Press the [POWER] switch located on the rear panel of the VK-8M to turn on the power.

When the power is on, the indicators for the [REVERB] button and other buttons' indicator on the panel will light.



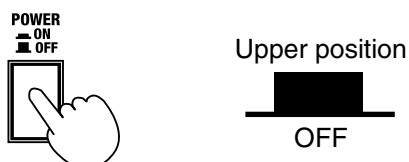
- 3** Turn on the power of the connected amp or audio system.
- 4** Rotate the [MASTER VOLUME] knob clockwise to adjust the volume of the VK-8M.



- 5** Adjust the volume of the device connected to the VK-8M.

■ Turning Off the Power

- 1** Before switching off the power, confirm the following:
 - The volume of the VK-8M and any connected equipment is turned to the minimum position.
 - Any sound data you have created has been saved.
- 2** Turn off the power of the equipment connected to the VK-8M.
- 3** Press the VK-8M's [POWER] switch to turn off the power.



NOTE

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.

NOTE

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.

NOTE

Be careful not to raise the volume excessively. Excessive volume may damage your amp/speaker system/headphones or could cause hearing problems.

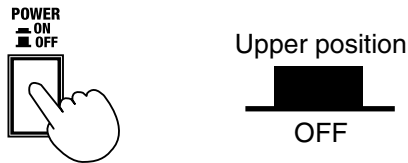
NOTE

If you turn off the power while you are making sound settings, the settings that you are modifying will be lost. If you wish to keep your modified settings, you must save them before turning off the power. For details, refer to "Saving Your Settings (Registration)" (p. 37).

Restoring the Factory Settings (Factory Reset)

This function resets all the VK-8M's settings to their factory default values.

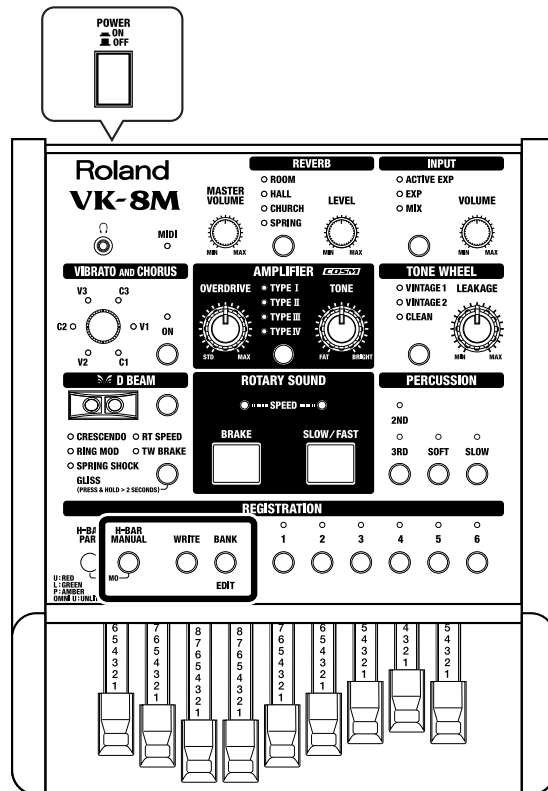
- 1** Make sure that the volume is turned to the minimum position.
- 2** Press the VK-8M's [POWER] switch to turn off the power.



- 3** While holding down the [BANK] button, [WRITE] button and [H-BAR MANUAL] button, press the [POWER] switch to turn on the power.
- 4** Press the [BANK] button, [WRITE] button and [H-BAR MANUAL] button until all of the panel indicators light.

All settings will be restored to what they were when the instrument first left the factory.

Once the Factory Reset has been completed, all panel indicators will light for several seconds.



NOTE

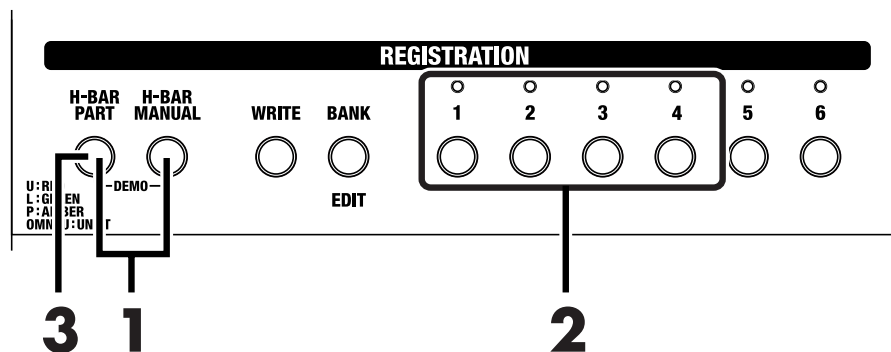
When you perform the Factory Reset operation, all the data you created will be lost from the VK-8M's internal memory. If the VK-8M contains important data that you wish to keep, use the Bulk Dump operation to save the data on an external MIDI sequencer before you perform the Factory Reset operation (p. 51).

NOTE

Never turn off the power while Factory Reset is being performed.

Listening to the Demo Songs

The VK-8M contains four demo songs. Here's how to listen to the demo songs and experience the various organ sounds and effects.



- 1** Press the [H-BAR PART] button and the [H-BAR MANUAL] button at the same time.

Enter Demo mode.

- 2** Press any of the REGISTRATION buttons [1]–[4] to select a demo song.

Chain Play of the demo songs begins from the selected song.

When the selected song is finished, playback continues with the next song in the sequence. When the last song finishes playing, playback will return to the first song and continue.

- 3** Press the [H-BAR PART] button.

Demo song playback will stop.

You will exit Demo mode.

| Demo Song Number | Song Name | Copyright |
|------------------|-------------|---------------------------|
| 1 | Sister Mum | © 2002 Roland Corporation |
| 2 | Blue Forest | © 2002 Roland Corporation |
| 3 | Make Holy | © 2002 Roland Corporation |
| 4 | Sunset Blvd | © 2002 Roland Corporation |

NOTE

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NOTE

No data for the music that is played will be output from MIDI OUT.

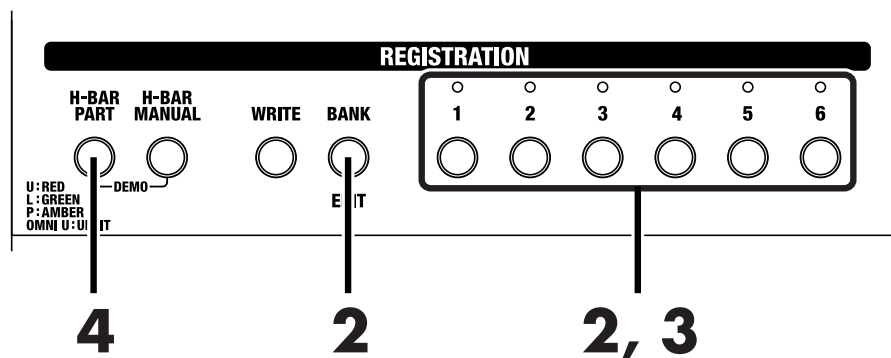
Playing the Organ

Listening to Various Sounds

The VK-8M comes with 36 registrations stored onboard. Here's how to switch registrations to hear the various sounds.

There are six banks of registrations, with six sounds in each bank.

Switch between the registrations to hear the various sounds.



- 1** Connect the external keyboard to the VK-8M (p. 14).
- 2** Hold down the [BANK] button and press one of the buttons from [1] through [6] to select the bank number.
- 3** Press one of the buttons from [1] through [6] to select a registration number.
The indicator of the number button you've selected will light.
- 4** Press the [H-BAR PART] button so its light goes out.
- 5** Play the keyboard to hear the sound you selected.
The Upper Part voice of the selected registration is played.

Example:

- **Switching from registration 11 to registration 16**

Press the [6] button.

- **Switching from registration 11 to registration 35**

Hold down the [BANK] button and press the [3] button. Take your finger off the [BANK] button and [3] button, and press the [5] button.



If you want to select a registration from the same bank, step 2 is not necessary.



While you are pressing the [BANK] button, the indicator of the selected bank will light.

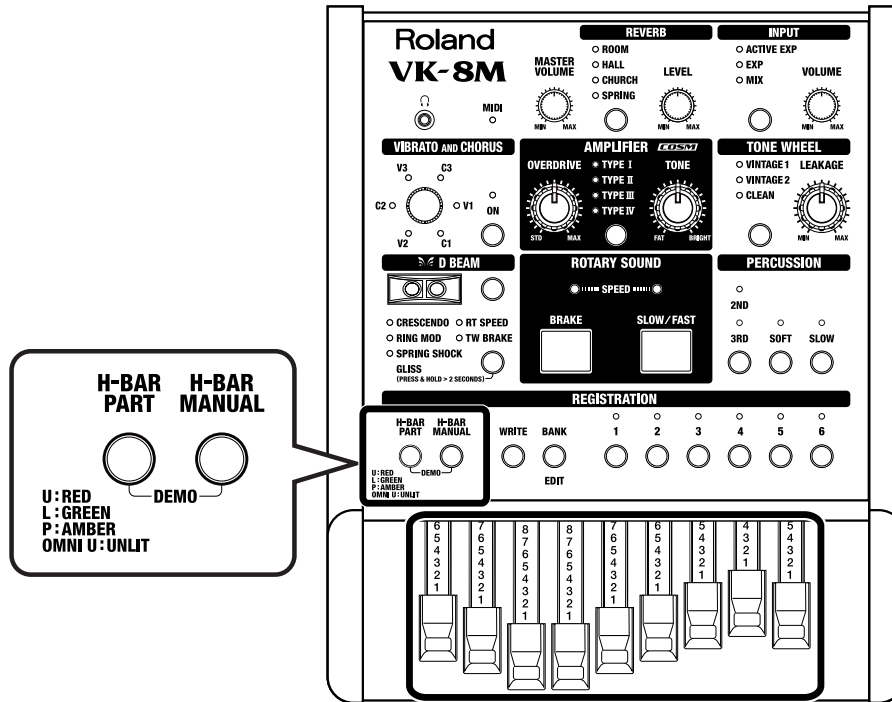


You can set the MIDI channels for the VK-8M and the external keyboard so that the Lower Part and Pedal Part sounds from the external keyboard are played (p. 49).

About the Organ Voice

The organ voice has three parts: “upper,” “lower,” and “pedal.” You can connect an external keyboard to the VK-8M to play the voices for those parts.

The sounds of the Upper, Lower, and Pedal parts of an organ voice can be edited using the harmonic bars.



- 1** Connect the external keyboard to the VK-8M (p. 14).
- 2** Set the MIDI channels for the VK-8M and the external keyboard (p. 46).
- 3** Press the [H-BAR PART] button to select the part whose voice you want to change.

Each time the [H-BAR PART] button is pressed, the button’s color changes.

| [H-BAR PART] Button Color | Part Affected by the Harmonic Bar Settings | MIDI Connector Function (MIDI IN FUNCTION) |
|---------------------------|--|--|
| Red | Upper Part | SEQUENCER MODE |
| Green | Lower Part | SEQUENCER MODE |
| Amber | Pedal Part | SEQUENCER MODE |
| dark | Upper Part | SINGLE KEYBOARD MODE |

SEQUENCER MODE

The voices for parts specified with the MIDI transmit channels are played.

SINGLE KEYBOARD MODE

The Upper Part voice is played, regardless of the parts specified with the MIDI transmit channels (Omni On).

- 4** Press the [H-BAR MANUAL] button to have the harmonic bar settings applied to the voice.
The harmonic bar settings are applied to the voice.
- 5** Move the harmonic bars to edit the sound (p. 21).



For instructions on making the external keyboard’s MIDI channel settings, refer to the owner’s manual for the external keyboard.



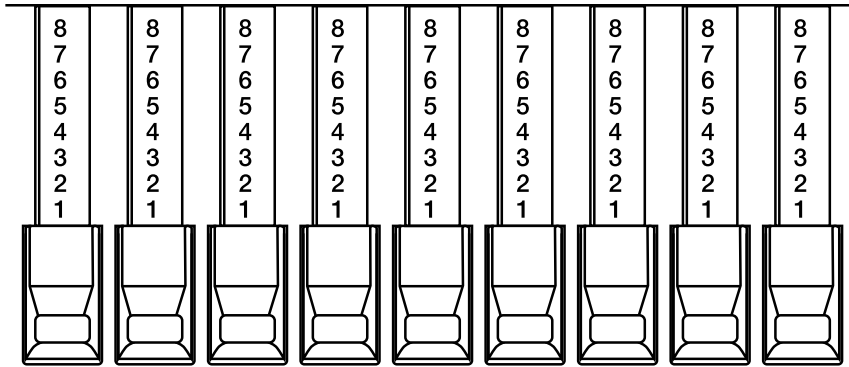
Only the 16’ and 8’ sounds are used in creating the pedal part.



A sound you’ve edited can be saved as a registration (p. 37).

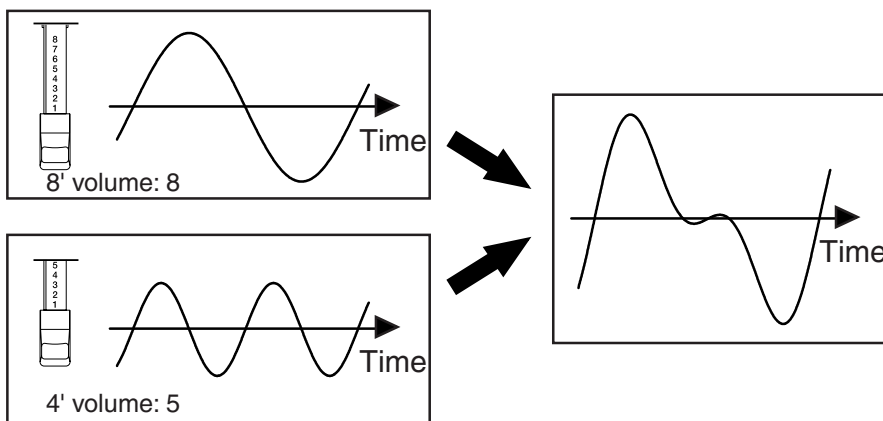
Adjusting the Sound in Real Time (Harmonic Bars)

The harmonic bars are controllers for creating the basic structure of the organ sound. By sliding nine harmonic bars in and out you can create a variety of tonalities.



The numbers appearing on the harmonic bars allow you to rapidly set the bars to the desired setting. If you push a harmonic bar inward until no number is visible, its volume will be "0," and no sound will be heard. If you pull a harmonic bar all the way out, the volume will be at the maximum.

A sine wave (pure tone) of differing pitch is assigned to each of the harmonic bars, and you can create a variety of sounds by mixing these sine waves.



MEMO

When percussion is on, the 1' pitch will not be produced (p. 25).

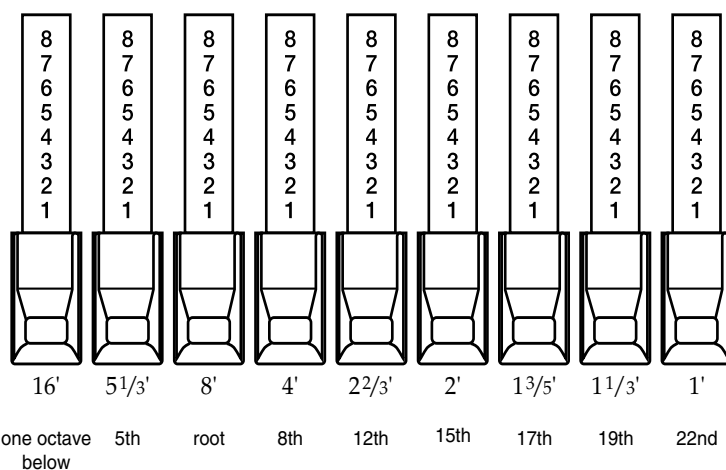
Percussion sounds are applied only to the Upper Part.

Playing the Organ

The numbers (16', 5-1/3', etc.) printed on the knob of each harmonic bar indicate the pitch of that bar in "feet." The pitch of each harmonic bar plays an important role in creating the tone. The 8' pitch is the basic pitch of the sound, and the sound is created based on this 8' pitch.

The pitches of the harmonic bars are related as follows.

When the middle C (C4) note is pressed, each harmonic bar will sound the following notes.



What Are “Feet?”

Historically, the “feet” (“ ’ ” symbol) indications of the harmonic bars originate in the length of the pipes of a pipe organ. The length of pipe used to produce the reference pitch (the fundamental) for the keyboard is eight feet. Reducing the pipe to half its length produces a pitch one octave higher; conversely, doubling the pipe length creates a pitch one octave lower. Therefore, a pipe producing a pitch one octave below that of the reference of 8' (eight feet) would be 16'; for one octave above the reference, the pipe would be 4', and to take the pitch up yet another octave it would be shortened to 2'.

On tone wheel organs, the pitch relationship shown in the diagram does not hold true in a certain region of the keyboard (p. 22). In the high range of the keyboard, high-pitched feet are “wrapped around” one octave down. High footages will be “folded back” for high notes, while low footages will be folded back for low notes. Folding back the high-frequency portion prevents the high-frequency sounds from being unpleasantly shrill, and folding back the low-frequency portion prevents the sound from becoming “muddy.” On the VK-8M faithfully simulates this characteristic.

As you can see from the relation of the pitches, the 5-1/3' pitch is unique in that it is not arranged in order of pitch. The reason is that the 5-1/3' sound blends not with the 8' (fundamental), but with the 16' pitch. Acoustic instruments produce sound consisting of frequencies at integer multiples of the fundamental frequency; double, triple, and so on. These are called “integer harmonics.” Relative to the 8' pitch that is the basic pitch of an organ, the 5-1/3' pitch is not an integer multiple, and does not blend.

However, relative to the 16' pitch (which is one octave lower), 5-1/3' is an integer multiple and therefore does blend. (Starting at 16', the 5-1/3' pitch is three times higher.) Because 5-1/3' blends with 16', these two harmonic bars are colored differently than the other harmonic bars, and are placed together.

Changing the Organ Sound (Wheel Type, Leakage Level)

Tone Wheel and Leakage Noise are important elements in creating tone wheel organ sounds.

Tone Wheel

Tone wheels are the ninety-one metal disks that produce the sound on tone wheel organs. Teeth are cut into the edge of each disk, and sound is generated by rotating the disks past an electrical coil at a fixed speed. The VK-8M digitally simulates the tone wheel mechanism of a tone wheel organ, and thus provides the rapid response and full polyphony that characterize these instruments.

The sounds that are produced by the tone wheels of a tone wheel organ are not precisely pure sine waves, since they are affected by the manufacturing precision of the wheel and by the characteristics of the analog circuitry. However, it is these imperfections in the waveform that give a tone wheel organ its unique character.

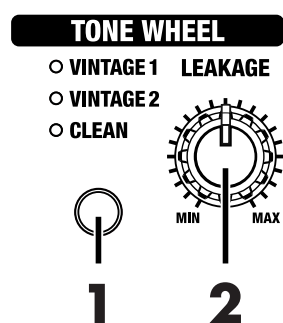
Leakage Noise

On tone wheel organs, the sound of the note that was pressed was slightly “contaminated” by audio signals from tone wheels not related to that note.

Formerly, this was seen as a problem, but today this idiosyncrasy is considered an important element of the distinctive sound of a vintage organ.

Tone Wheel type

Selects the type of tone wheel.



1 Press the [TONE WHEEL] button to select the type of tone wheel.

Each time you press the [TONE WHEEL] button, the tone wheel will switch between the following settings.

| Type | Explanation |
|----------|--|
| VINTAGE1 | A tone wheel that simulates the tone wheel organs of the 70's. |
| VINTAGE2 | A tone wheel that simulates the tone wheel organs of the 60's. |
| CLEAN | A tone wheel with no leakage noise. |

Leakage Noise

Separately from the leakage noise selected by the Tone Wheel Type, you can add leakage noise independently.

2 Turn the [LEAKAGE] knob.

Turning the knob toward the left will decrease the volume of the leakage noise, and turning it toward the right will increase the volume of the leakage noise.

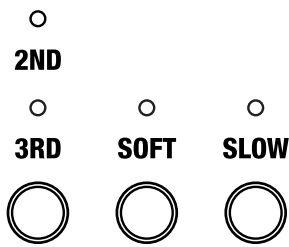
NOTE

If the “VINTAGE1” or “VINTAGE2” wheel type is selected, there will still be some leakage noise even if the [LEAKAGE] knob is turned all the way to the left.

Adding Crispness to the Sound (Percussion)










Percussion adds an attack-type sound to the beginning of the note to give the sound more crispness. When you play legato (smoothly and connectedly), percussion will be added only to the first-played note. When you play staccato (articulating each note separately), percussion will be added to all notes.

PERCUSSION



[2ND/3RD] (Second Percussion/Third Percussion) button

This switches the percussion.

| Indicator | Explanation |
|--|--|
|  2ND  3RD  2ND Indicator Lit | Percussion will sound at the same pitch as the 4' harmonic bar. Third percussion will not sound. |
|  2ND  3RD  3RD Indicator Lit | Percussion will sound at the same pitch as the 2-2/3' harmonic bar. Second percussion will not sound. |
|  2ND  3RD  Dark | Percussion will not sound. |

MEMO

Percussion can be added only to the upper part of organ voices. It cannot be added to the lower part of organ voices, nor to the pedal part.



MEMO

When percussion is on, the 1' pitch will not be produced. Percussion sounds are applied only to the Upper Part.

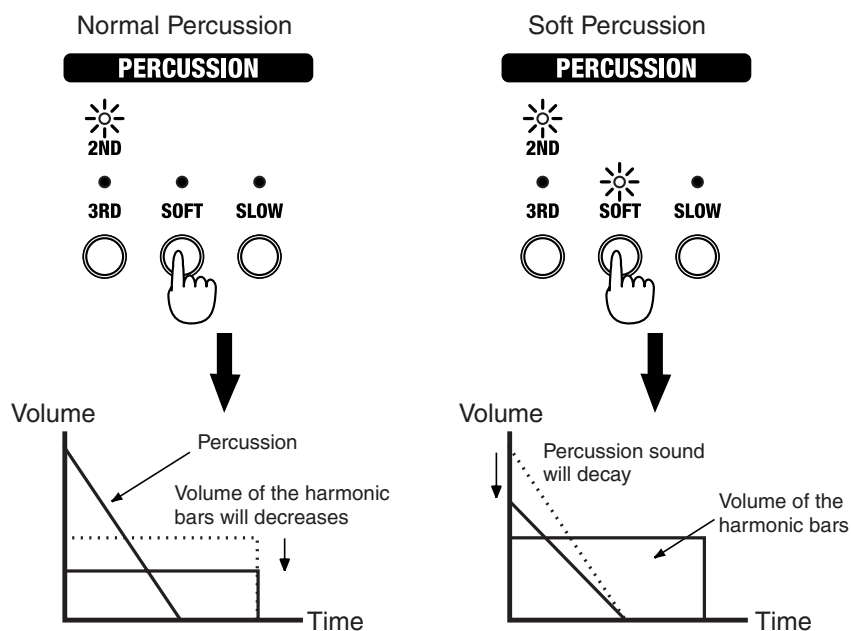
Playing the Organ

[SOFT] (Soft Percussion) button

Switches the volume of the percussion.



| Button | Explanation |
|---|--------------------------------------|
|  <p>SOFT Lit (ON)</p> | The percussion sound will be softer. |
|  <p>SOFT Dark (OFF)</p> | The percussion sound will be normal. |

When you turn the [SOFT] button off to strengthen the percussion sound, the organ sound specified by the harmonic bars will become lower. This reproduces the behavior of tone wheel organs. If the organ volume decreases when you turn the [SOFT] button off, you can make settings (p. 44). You can also specify the percussion volumes that will be selected by the Percussion Normal/Soft settings (p. 43).



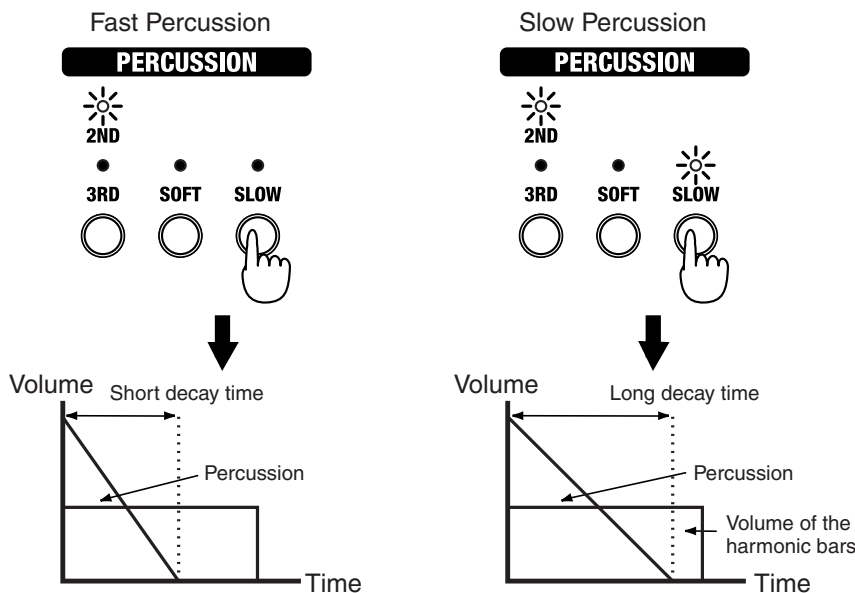
[SLOW] (Slow Percussion) button

Switches the speed at which the percussion sound will decay.

| Button | Explanation |
|---|---|
|  <p>SLOW Lit (ON)</p> | <p>The percussion sound will disappear slowly. The percussion will have a more gentle attack.</p> |
|  <p>SLOW Dark (OFF)</p> | <p>The percussion sound will disappear quickly. The percussion will have a sharper attack.</p> |



You can specify the speed at which the percussion sound decays (p. 43).

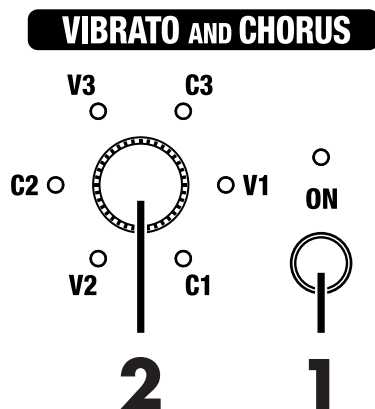


Percussion on a tone wheel organ (Single Trigger Algorithm)

The percussion on tone wheel organs did not apply to all notes that were played. It was applied only to notes which were played simultaneously from a condition where no notes were being played. When notes were played legato (smoothly and connectedly), percussion was applied only to the first-played note. When notes were played staccato (articulating each note separately), percussion was applied to all notes. This method is referred to as single trigger algorithm, and is a very important element in organ performance. On tone wheel organs, percussion was produced by an analog circuit. For this reason, when there was only a very short time interval from when one key was released until the next key was pressed, the percussion circuit was unable to recharge fully, causing the percussion to sound at a lower volume. The VK-8M simulates this behavior, and also allows you to modify the organ voice settings to adjust the recharge time characteristics of the circuit (p. 44).

Adding Modulation to the Sound (Vibrato and Chorus)

The vibrato effect cyclically modulates the pitch of organ voice sounds. The chorus effect mixes the normal sound of the organ with a sound to which vibrato has been applied, adding richness and spaciousness to the sound.



- 1** Press the VIBRATO AND CHORUS [ON] button to make its indicator light.

The vibrato or chorus effect will be applied to the organ voice.

- 2** Turn the [VIBRATO AND CHORUS] knob to switch the type of vibrato or chorus effect.

The indicator of the selected vibrato or chorus effect type will light.

Three types of vibrato and three types of chorus are provided (a total of six types).

V1, V2, V3

This applies vibrato (pitch modulation). Increasing the value will produce a deeper effect.

C1, C2, C3

This applies chorus to add depth and spaciousness to the sound. Increasing the value will produce a deeper effect.

NOTE

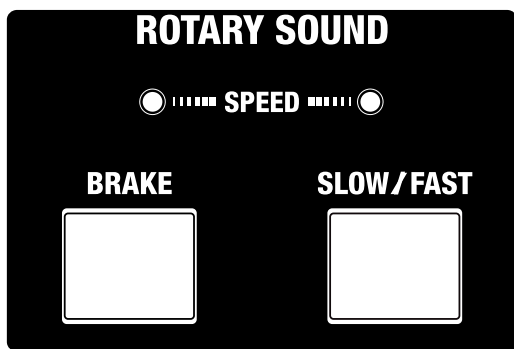
It is not possible to apply both vibrato and chorus simultaneously. Nor is it possible to select different vibrato or chorus types for the upper part and lower part.

NOTE

Vibrato or chorus cannot be applied to percussion.

Using the COSM Rotary Speaker Effect (Rotary Sound)

Rotary Sound is an effect which adds the modulation that is produced when organ voices are used with a rotary speaker. On most rotary speakers, the high-frequency speaker and low-frequency speaker rotate at different speeds. The VK-8M can simulate this type of complex modulation.



[SLOW/FAST] button

Switches the speed of the rotary speaker. FAST and SLOW will alternate each time you press the [SLOW/FAST] button.

When the SPEED indicator is flashing rapidly, it indicates that the rotary effect is in FAST mode; in SLOW mode, this flashes slowly. The change in rotation speed when switching between FAST and SLOW occurs gradually.

[BRAKE] button

This button temporarily halts the rotation of the rotary sound.

| Indicator | Explanation |
|---|--|
| Either the left or right SPEED indicator is lit | The speed of rotation will gradually slow down and then stop. |
| The left and right SPEED indicators are alternately lit | From a stopped condition, the rotation will gradually become faster. |

SPEED Indicator

The left and right indicators light up alternately, indicating the speed of the rotary speaker.

When you press the [BRAKE] button to stop the rotation of the rotary speaker, one of the indicators remains lit.

MEMO

The VK-8M uses an effect algorithm based on COSM technology, and is able to faithfully reproduce the modulation of an actual rotary speaker and the irregularities of its rotation. You can also make sophisticated settings, such as the characteristics of the amplifier (p. 30), the resonance of the speaker cabinet, and the distance of the microphone which picks up the sound of the rotary speaker (p. 42).

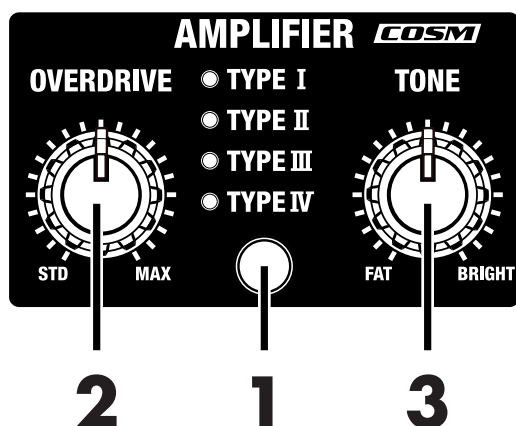
MEMO

You can use a D Beam controller to switch the rotary speaker between fast and slow. For details, refer to "Using the D BEAM Controller to Produce Common Organ Effects" (p. 31).

MEMO

You can have the lighting of the SPEED indicator be synchronized to the rotation speed of the woofer or the tweeter (p. 42).

Changing the Amp Type (Amp Type, Overdrive, Tone)



Changing the virtual amp

Switches the frequency response and cabinet resonance of the virtual amp.

- 1 Press the [AMPLIFIER] button to select the type of virtual amp.

The amp type will change each time you press the [AMPLIFIER] button.

| Type | Explanation |
|----------|--|
| TYPE I | Characteristics of the most frequently used rotary speakers. |
| TYPE II | Characteristics of the large vacuum tube amps that were an indispensable element of the British hard rock of the 70's, and that continue to be favored by many hard rock guitarists. |
| TYPE III | The character of a rotary speaker often used for rock organ. |
| TYPE IV | This adds the characteristic rotary speaker sound used for a wide range of tones, from a clean sound to heavy overdrive. What's more, a new type of system is used that allows you to change the amount of overdrive without causing the volume to change, making level settings a breeze. |

Adding distortion to the sound—Overdrive

Overdrive is an effect which distorts the sound. By distorting the sound, you can create the intense organ sounds that are frequently used in styles, such as hard rock.

- 2 Turn the [OVERDRIVE] knob to adjust the amount of overdrive.

Rotate fully right: The distortion effect will be at maximum.

Rotate fully left: No effect.

Changing Sound Characters

You can adjust the tonal character of the organ voice.

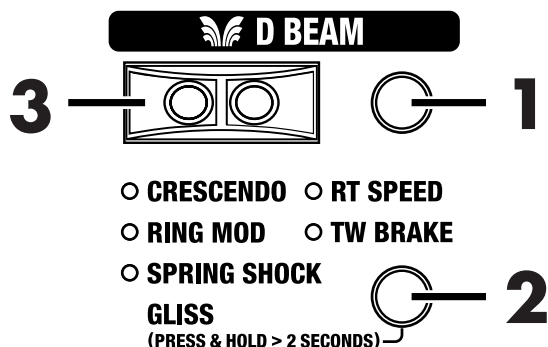
- 3 Turn the [TONE] knob to adjust the tonal character.

Counterclockwise rotation: The organ voice becomes fatter.

Clockwise rotation: The organ voice becomes brighter.

Using the D BEAM Controller to Produce Common Organ Effects

You can apply various effects to the sound only by moving your hand over the D Beam Controller on the VK-8M panel.



1 Press D BEAM [ON] button to make the button light.

The D Beam Controller will be on.

2 Use the [D Beam] button to select the effect that you want to control using the D Beam.

The effect assigned to the D Beam controller will be switched each time you press the [D BEAM] button.

You can select “GLISS” as the D Beam Type by holding down the [D BEAM] button for several seconds until all of the D Beam indicators are lit.

The following effects can be applied using the D Beam controller:

| Effects | Explanation |
|------------------------------------|--|
| CRESCENDO | As you move your hand closer to the D Beam controller, the volume of all harmonic bars will gradually increase. When your hand is closest to the D Beam controller, the harmonic bar volumes will be at maximum, and the rotary will switch to FAST. |
| RT SPEED (ROTARY SPEED) | The rotary effect will switch between slow and fast each time you position your hand over the D Beam controller. |
| RING MOD (RING MODULATOR) | When you position your hand over the D Beam controller, the ring modulator will be applied (p. 32). As you bring your hand closer to the D Beam controller, the ring modulator depth will change. |
| TW BRAKE (TONE WHEEL BRAKE) | Moving your hand near the D Beam controller will turn on the wheel brake. When you take your hand away from the D Beam controller, the wheel brake will be turned off (p. 32). |
| SPRING SHOCK | Moving your hand near the D Beam controller will produce the sound of a spring reverb unit being jarred (p. 32). |
| GLISS (GLISSANDO) | Moving your hand closer to the D Beam creates a glissando effect, from a low to high pitch. |

MEMO

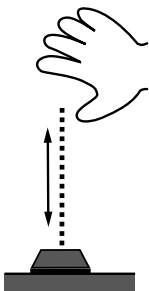
If ROTARY SPEED is assigned to the D Beam, you can move your hand over the D Beam to make the rotary effect change gradually from slow to fast, or from fast to slow (p. 48).

MEMO

The volume of the spring shock can be adjusted with the [REVERB] knob. The spring shock is particularly effective if “SPRING” is selected as the reverb type (p. 34).

Playing the Organ

- 3 While playing the keyboard to produce sound, place your hand over the D Beam controller.



The timbre will change when you move your hand over the D Beam controller.

About the Effects

Throughout the history of rock organ, a wide range of performers have developed unique effects and used them in their music. The VK-8M can not only simulate several of these unique effects, but also lets you enjoy effects provided by no other instrument.

Giving the sound a metallic character (Ring Modulator)

By changing the frequency of the ring modulator's internal oscillator, you can give the organ voice an unpitched metallic character, like that of a bell.

In hard rock of the past, extreme effects such as ring modulation were sometimes applied to the organ. It appears that organ players tried all sorts of things in an attempt to hold their own against the radical performance techniques used by electric guitarists.

By applying ring modulation, you can create a complex harmonic structure that was not present in the original audio signal. This complex harmonic structure has a certain bell-like character. The term "ring" comes from the fact that when a ring modulation circuit is constructed as analog circuitry, the circuit is shaped like a ring (circle).

Stopping the rotation of the tone wheels (Wheel Brake)

It is possible to stop the rotation of the tone wheels of the organ. This produces an unexpected result, whereby the pitch of the organ voice gradually falls until the sound ceases entirely.

The technique of stopping the tone wheel rotation was occasionally used by performers on tone wheel organs. Since the amp of a tone wheel organ was an analog circuit that used vacuum tubes, the sound was still audible for a time after the power was turned off. However, when the power was turned off, the tone wheels would begin slowing down, and you would hear the pitch continue to fall. Innovative performers used this effect in their music.

Spring Reverb Shock

Organs of the past used spring reverb units to add a reverb effect to the sound. When a physical shock is applied to a spring reverb unit, the springs collide with each other, producing a crashing sound. Some performers even utilized this in their organ sound.

The VK-8 lets you simulate this reverb impact sound.



The color of the D BEAM [ON] button changes while the D Beam controller is in use.



When the "SPRING SHOCK" function is assigned to the D Beam controller, please be aware that raising the reverb level excessively will produce a high-volume impact sound. If you want to reduce the volume of the impact sound, use the REVERB [LEVEL] knob to adjust the reverb level (p. 34).

■ Adjusting the Sensitivity of the D Beam Controller

You can also adjust the sensitivity of the D Beam controller after the power is turned on.

Caution

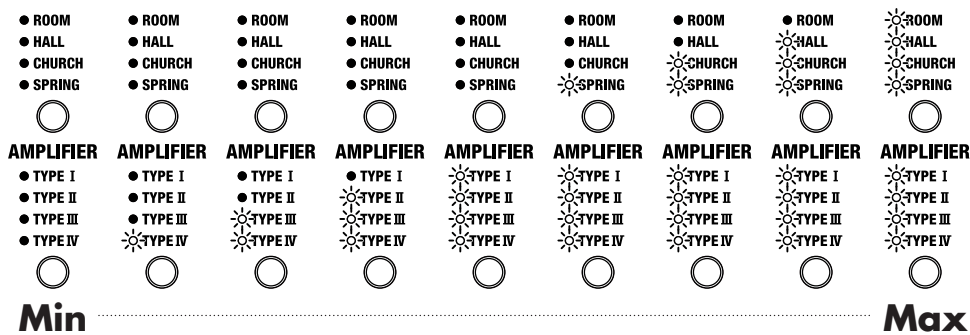
Please be aware that the D Beam will not function in a location where there is a large amount of infrared light.

Automatically adjusting the sensitivity of the D Beam controller

- 1 Holding down the D BEAM [ON] button to make [VIBRATE AND CHORUS] knob's indicators blink, then press the VIBRATO AND CHORUS [ON] button.

The sensitivity of the D Beam controller will be adjusted automatically.

The REVERB and AMPLIFIER indicators indicate the D Beam sensitivity.



The sensitivity of the D Beam controller is saved, after you release your hand from the D BEAM [ON] button.

While the settings are being saved, all of the panel indicators will light.

Manually adjusting the sensitivity of the D Beam controller

- 1 While holding down the D BEAM [ON] button, turn the [VIBRATO AND CHORUS] knob to adjust the sensitivity of the D Beam controller.

The sensitivity of the D Beam controller is saved, after you release your hand from the D BEAM [ON] button.

While the settings are being saved, all of the panel indicators will light.

NOTE

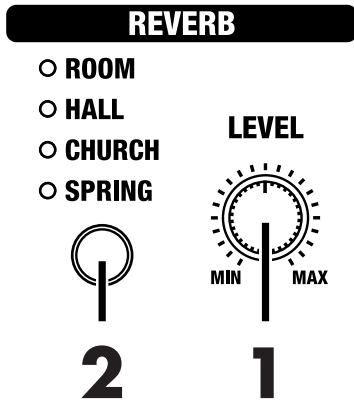
Do not place any objects on the D Beam or cover it with your hand when the sensitivity of the D Beam controller is adjusted automatically.

NOTE

Never turn off the power while the settings are being saved.

Adding Ambience (Reverb)

Reverb is an effect that adds reverberation to the sound.



- 1** Turn the REVERB [LEVEL] knob to adjust the amount of reverb effect to be applied.

Rotate fully right: Maximum reverberation.

Rotate fully left: No effect.

Changing the Reverb Type

By changing the reverberations of the notes, you can enjoy the atmosphere of performance in a wide variety of different locations.

- 2** Press the [REVERB] button to switch the reverb types.

The reverb type will be switched each time you press the [REVERB] button.

| Type | Explanation |
|--------|--|
| ROOM | Simulates the reverberation of a room. |
| HALL | Simulates the reverb of a large concert hall. |
| CHURCH | Simulates the reverberation of a church. |
| SPRING | Simulates the reverberation of a spring reverb unit (p. 32). |

NOTE

When the “SPRING SHOCK” function is assigned to the D Beam controller, please be aware that raising the reverb level excessively will produce a high-volume impact sound (p. 31).

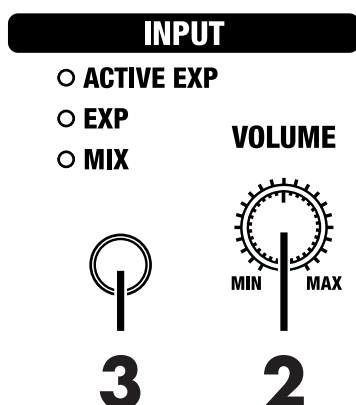
MEMO

If the “SPRING SHOCK” function is assigned to the D Beam controller, be aware that excessively high reverb level settings will produce a high-volume impact sound. To decrease the volume of the impact sound, use the REVERB [LEVEL] knob to adjust the reverb level (p. 31).

Mixing the Keyboard Sound with the Organ Sound

You can play the external keyboard's sounds by connecting the keyboard to the VK-8M's INPUT jack. You can also mix the organ sound and keyboard sound without the use of any separate mixer.

- 1** Connect the keyboard to the INPUT jack of VK-8M (p. 14).
- 2** Turn the INPUT [VOLUME] knob to adjust the volume of the keyboard connected to the INPUT jack.



Lower the keyboard volume by turning the knob towards MIN.

Raise the keyboard volume by turning the knob towards MAX.

■ Using the Active Expression Function

With the VK-8M, you can switch the function of the expression pedal when an external keyboard is connected to the INPUT jack.

- 3** Press the [INPUT] button to switch the function of the expression pedal.

The expression pedal's function switches each time the [INPUT] button is pressed.

| Type | Explanation |
|-------------------|---|
| ACTIVE EXP | You can use the Active Expression function. With this function, the VK-8M's sound (the organ sound) is played when the expression pedal is pressed slightly, while pressing the pedal further adds the input sound as well. |
| EXP | Expression is applied to the VK-8M's sound (the organ sound) and the input sound. |
| MIX | Expression is applied to the VK-8M's sound (the organ sound). Expression is not applied to the input sound. |



You can change the function of the expression pedal (following section).

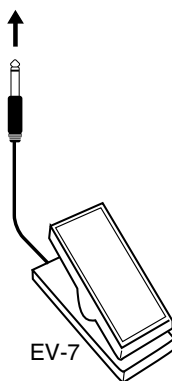
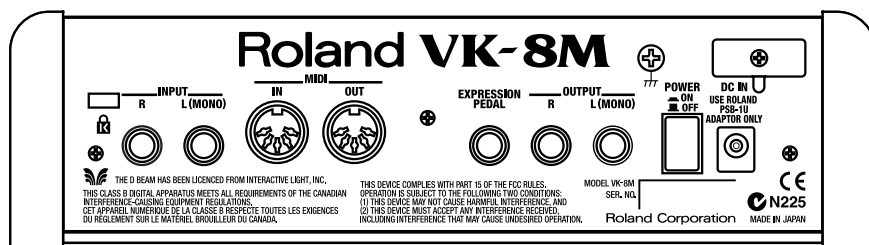


Settings for the Active Expression function can be stored for each registration (p. 37).

Playing the Organ

Using the Expression Pedal

You can connect an expression pedal to the rear panel EXPRESSION PEDAL jack and use it to adjust the volume. Advancing the pedal away from yourself will increase the volume, and returning it toward yourself will decrease the volume.



Even if you return the expression pedal all the way toward yourself, the organ volume will not go to zero.



You can use the Active Expression function (p. 35).

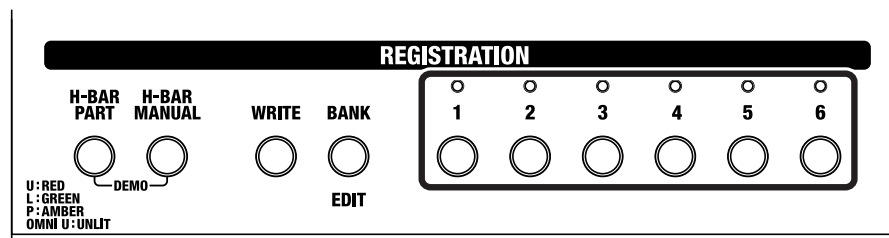
NOTE

Use only the specified expression pedal (EV-7; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.

Saving Your Settings (Registration)

Organ sounds and other panel settings can be saved together to the REGISTRATION [1]–[6] buttons. By saving your favorite settings in a registration, you can easily recall them simply by pressing REGISTRATION [1]–[6] buttons.

The VK-8M contains 36 different registrations. These are organized into six groups, with six registrations in each group.



A registration contains the following settings.

- The sounds of the Upper part, Lower part, and Pedal part of the Harmonic Bar settings.
- ROTARY [BRAKE] button
- ROTARY [SLOW/FAST] button
- [TONE WHEEL] button
- [LEAKAGE] knob
- [AMPLIFIER] button
- [OVERDRIVE] knob
- [TONE] knob
- [REVERB] button
- REVERB [LEVEL] knob
- PERCUSSION [2ND/3RD] button
- PERCUSSION [SOFT] button
- PERCUSSION [SLOW] button
- VIBRATO AND CHORUS [ON] button
- [VIBRATO AND CHORUS] knob
- D BEAM [ON] button
- [D BEAM] button
- [INPUT] button
- Reverb and other settings (p. 48)

MEMO

The VK-8M comes with 36 registrations stored onboard. When you save a registration, the registration data that was previously occupying that memory number will be overwritten. Registrations that you've overwritten can also be restored to the factory settings (p. 17).

Saving Your Settings (Registration)

■ Saving to a Registration in the Same Bank

- 1 Make the panel settings that you want to save in the registration.
- 2 Hold down the [WRITE] button, and press one of the buttons from [1] through [6] to specify the save-destination registration.
While the registration is being saved, the indicator of the selected registration number button will blink. Once the registration has been saved, the indicator will change from blinking to lit.

■ Saving to a Registration in Another Bank

- 1 Make the panel settings that you want to save in the registration.
- 2 Hold down the [WRITE] button, and press the [BANK] button and one of the buttons from [1] through [6].
The save-destination bank will be selected.
- 3 Hold down the [WRITE] button and press one of the buttons from [1] through [6] to specify the save-destination registration.
While the registration is being saved, the indicator of the selected registration number button will blink. When the registration has been saved, the indicator will change from blinking to lit.

■ Copying a Registration

Selecting the copy-source registration

- 1 Hold down the [BANK] button and press one of the buttons from [1] through [6] to select the bank of the copy-source registration.
- 2 Press one of the buttons from [1] through [6] to select the number of the copy-source registration.
The indicator of the number button you selected will light.

Selecting the copy-destination registration

- 3 Hold down the [WRITE] button and [BANK] button, and press one of the buttons from [1] through [6] to specify the bank of the copy-destination registration.
The indicator of the number button you selected will light.
- 4 Hold down the [WRITE] button and press one of the buttons from [1] through [6] to select the copy-destination registration number.
While the registration is being saved, the indicator of the selected registration number will blink. When the registration has been saved, the indicator will change from blinking to lit.

NOTE

Never turn off the power while a registration is being saved. Doing so may damage the unit.

NOTE

Never turn off the power while a registration is being saved. Doing so may damage the unit.

MEMO

The indicator of the selected bank will light while you hold down the [BANK] button.

MEMO

If you want to save the settings in a registration of the same bank, step 3 is not necessary.

NOTE

Never turn off the power while a registration is being saved. Doing so may damage the unit.

Advanced Use

Edit mode allows you to get the most out of the VK-8M's functions by making more detailed settings. This section explains the functions that can be set in Edit mode. In this owner's manual, the process of modifying a setting is referred to as "editing," and the item of data that is modified is referred to as a "parameter."

■ About the Edit Modes

There are two edit modes—one saves settings individually for each registration, while the other stores a single value to be used by the entire system.

System Memory

The parameter that stores things for the entire system deals with the following:

- Organ rotary settings (p. 41)
- Click noise and percussion settings (p. 43)
- MIDI settings (p. 44)
- Equalizer and other settings (p. 47)

Registration Memory

The parameter that stores things on an individual registration basis deals with the following:

- Harmonic bars and other panel settings (p. 37)
- Reverb and other settings (p. 48)

NOTE

In the case of settings that are saved for each registration, you must save the edited settings in a registration. If you turn off the power without saving the edited settings to a registration, your changes will be lost.

■ Basic Procedure

Here is the basic procedure for each edit mode.

→ For details, refer to the explanation for each edit mode.

- 1. Hold down the [BANK] buttons, and press the [***] button.**

The indicators of the [1]–[6] buttons will blink.

MEMO

The [***] button will be a different button depending on the edit mode that you want to set. For details, follow the procedure for each edit mode.

- 2. Press one of the buttons from [1] through [6] to select the parameter that you want to edit.**

If more than six different parameters are involved, press the [H-BAR PART] button. The button's color changes, and you can then select all of the parameters.

- 3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.**

For parameters that are switched ON/OFF, turn the [VIBRATO AND CHORUS] knob toward the right to switch the parameter ON, or toward the left to switch it OFF.

For parameters that have an adjustable value, turn the [VIBRATO AND CHORUS] knob toward the right to increase the value, or toward the left to decrease the value.

At this time, the AMPLIFIER type and REVERB type indicators at this point display the approximate value of a setting (p. 40).

MEMO

If you press the VIBRATO AND CHORUS [ON] button, the setting will return to the initial value.

- 4. If you want to adjust another parameter in the same edit mode, press [H-BAR PART] button and one of the [1]–[6] buttons to select the parameter, and turn the [VIBRATO AND CHORUS] knob to edit the value.**

When you want to stop editing, press the [BANK] button.

- 5. Press the [WRITE] button to finalize the settings of the parameters.**

Parameter settings will be saved.

While the parameters are being saved, the indicators of the [1]–[6] button will blink.

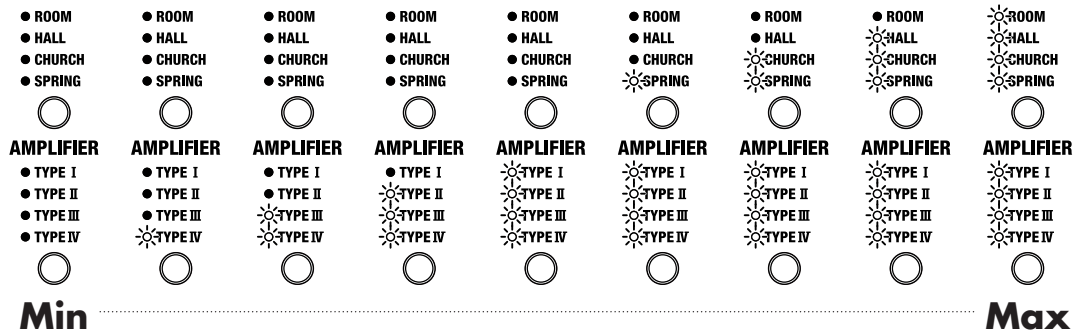
- 6. Parameters that are edited independently for each registration are saved as part of the registration (p. 37).**

Advanced Use

State of the AMPLIFIER type and REVERB type Indicators in Edit Mode

○ When the setting is "0-127," "0-10," "0-15," or "0-31."

When all of the AMPLIFIER type and REVERB type indicators are unlit, it indicates that the setting is at the minimum value (0). When all of the AMPLIFIER type and REVERB type indicators are lit, it means that the setting is set to the maximum value. As you increase the value, the AMPLIFIER indicators will successively light from the bottom.



The setting will increase as you turn the [VIBRATO AND CHORUS] knob clockwise, and will decrease as you turn it counterclockwise.

When you press the VIBRATO AND CHORUS [ON] button, this will return to the default setting.

○ If the setting is an "ON or OFF" switch

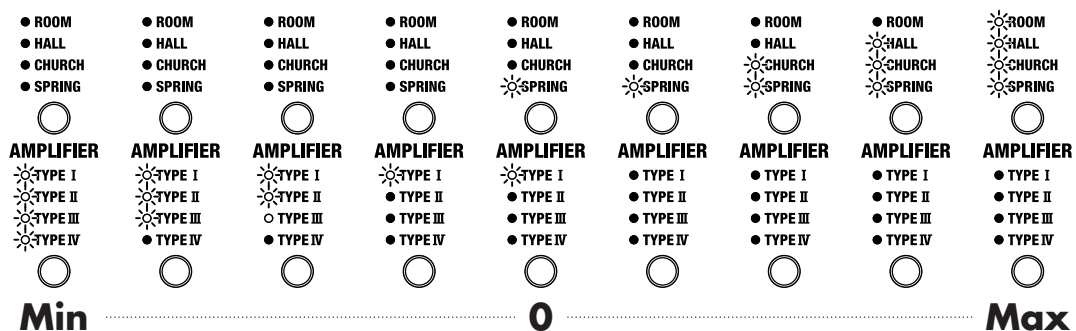
This is "off" (0) when all of the AMPLIFIER type and REVERB type indicators are unlit, and "on" when all of the AMPLIFIER type and REVERB type indicators are lit.



This will be ON when the [VIBRATO AND CHORUS] knob is turned to the right, and OFF when turned to the left. When you press the VIBRATO AND CHORUS [ON] button, this will return to the default setting.

○ When the setting is "-5-0-+5," or "-100-0-+100"

The illumination patterns of the AMPLIFIER type and REVERB type indicators offer an approximate reading of the value of a setting. For example, if a value is set to 0, the SPRING indicator under REVERB type, and the TYPE 1 indicator under AMPLIFIER type will both be lit. The AMPLIFIER type indicators indicate values in the negative direction, while the REVERB type indicators indicate values in the positive direction.



Turn the [VIBRATO AND CHORUS] knob clockwise to increase the value, or counterclockwise to decrease it. When you press VIBRATO AND CHORUS [ON], this will return to the default setting.

Settings That Are Saved for the Entire System

■ Rotary-related Settings

1. Hold down the [BANK] buttons and press the ROTARY [SLOW/FAST] button.

The indicators of the [1]–[6] buttons ([1]–[3] buttons) will blink.

2. Press one of the [1]–[6] buttons ([1]–[3] buttons) to select the parameter that you want to edit.

There are 15 rotary-related parameters. Pressing the [H-BAR PART] button causes the button's color to change and allows you to select all parameters.

The following parameters are assigned to each button.

The [H-BAR PART] button lights up in red.

| Button | Parameter | Page |
|--------|--------------------------|-------|
| [1] | ROTARY WOOFER LEVEL | p. 42 |
| [2] | ROTARY TWEETER LEVEL | p. 42 |
| [3] | ROTARY WOOFER RISE TIME | p. 42 |
| [4] | ROTARY TWEETER RISE TIME | p. 42 |
| [5] | ROTARY WOOFER FALL TIME | p. 42 |
| [6] | ROTARY TWEETER FALL TIME | p. 42 |

The [H-BAR PART] button lights up in green.

| Button | Parameter | Page |
|--------|---------------------------|-------|
| [1] | ROTARY WOOFER SPREAD | p. 42 |
| [2] | ROTARY TWEETER SPREAD | p. 42 |
| [3] | ROTARY WOOFER SPEED SLOW | p. 42 |
| [4] | ROTARY TWEETER SPEED SLOW | p. 42 |
| [5] | ROTARY WOOFER SPEED FAST | p. 42 |
| [6] | ROTARY TWEETER SPEED FAST | p. 42 |

The [H-BAR PART] button lights up in amber.

| Button | Parameter | Page |
|--------|------------------------------|-------|
| [1] | ROTARY MIC DISTANCE | p. 42 |
| [2] | ROTARY RANDOMIZE | p. 42 |
| [3] | ROTARY INDICATOR SYNC SOURCE | p. 42 |

3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.

MEMO

If you press the VIBRATO AND CHORUS [ON] button, the setting will return to the initial value.

4. When setting another parameter, press an [H-BAR PART] button and [1]–[6] button ([1]–[3] button) to select the parameter, then turn the [VIBRATO AND CHORUS] knob to change the setting.

When you want to stop editing, press the [BANK] button.

5. Press the [WRITE] button to finalize the settings of the rotary-related parameters.

Parameter settings will be saved.

While the parameters are being saved, the indicators of the [1]–[6] buttons ([1]–[3] buttons) will blink.

NOTE

Never turn off the power while parameters are being saved.

Advanced Use

○ **ROTARY WOOFER LEVEL (0-127)**

Specifies the volume of the low-range speaker (woofer).
The rotary speaker effect consists of a low range and a high range, and you can independently adjust the volume of the low-range speaker (woofer) and the high-range speaker (tweeter) to set as desired.

○ **ROTARY TWEETER LEVEL (0-127)**

Specifies the volume of the high-range speaker (tweeter).
The rotary speaker effect consists of a low range and a high range, and you can independently adjust the volume of the low-range speaker (woofer) and the high-range speaker (tweeter) to set as desired.

○ **ROTARY WOOFER RISE TIME (0-127)**

This specifies the speed at which the rotary speaker effect for the low-range (woofer) will shift from slow to fast. The change will occur more rapidly as this value is increased.

○ **ROTARY TWEETER RISE TIME (0-127)**

This specifies the speed at which the rotary speaker effect for the high-range (tweeter) will shift from slow to fast. The change will occur more rapidly as this value is increased.

○ **ROTARY WOOFER FALL TIME (0-127)**

Specifies the rate at which the low-range speaker (woofer) will change from the fast to the slow speed.
The change will occur more rapidly as this value is increased.

○ **ROTARY TWEETER FALL TIME (0-127)**

Specifies the rate at which the high-range speaker (tweeter) will change from the fast to the slow speed.
The change will occur more rapidly as this value is increased.



The ROTARY RISE TIME / ROTARY FALL TIME parameters affect not only the change produced by the [SLOW/FAST] button, but also the rate at which the [BRAKE] button will stop or resume rotation.

○ **ROTARY WOOFER SPREAD (0-10)**

Specify the spaciousness of the low-range speaker (woofer).
Specifies the left/right spread of the rotary speaker. Increasing this value will increase the sense of stereo.

○ **ROTARY TWEETER SPREAD (0-10)**

Specify the spaciousness of the high-range speaker (tweeter).
Specifies the left/right spread of the rotary speaker. Increasing this value will increase the sense of stereo.

○ **ROTARY WOOFER SPEED SLOW (0-127)**

Specifies the rotational speed for the Slow setting of the rotary speaker. Specifies the rotational speed for the low-range speaker (woofer). Increasing the value raises the speed.

○ **ROTARY TWEETER SPEED SLOW (0-127)**

Specifies the rotational speed for the Slow setting of the rotary speaker. Specifies the rotational speed for the high-range speaker (tweeter). Increasing the value raises the speed.

○ **ROTARY WOOFER SPEED FAST (0-127)**

Specifies the rotational speed for the Fast setting of the rotary speaker. Specifies the rotational speed for the low-range speaker (woofer).
Increasing the value raises the speed.

○ **ROTARY TWEETER SPEED FAST (0-127)**

Specifies the rotational speed for the Fast setting of the rotary speaker. Specifies the rotational speed for the high-range speaker (tweeter).
Increasing the value raises the speed.

○ **ROTARY MIC DISTANCE (0-10)**

Specifies the distance from the rotary speaker to the mic. As this value is increased, the mic and speaker will be located further apart, and the volume will be modulated less.

○ **ROTARY RANDOMIZE (0-10)**

Adjusts the irregularity in the rotation of the rotary speaker. Increasing this value will produce more irregularity in the rotation.

○ **ROTARY INDICATOR SYNC SOURCE (TWEETER: OFF, WOOFER: ON)**

This selects whether the timing of the ROTARY SPEED indicator is to be synchronized to the speed of the high-frequency range speaker (tweeter: OFF), or to the low-frequency range speaker (woofer: ON), of the rotary speakers.

■ Click Noise and Percussion Settings

1. Hold down the [BANK] buttons and press the PERCUSSION [2ND/3RD] button.

The indicators of [1]-[2] buttons ([1]-[6] buttons) will blink.

2. Press one of the [1]-[2] buttons ([1]-[6] buttons) to select the parameter that you want to edit.

There are eight parameters related to Click Noise and Percussion.

Pressing the [H-BAR PART] button causes the button's color to change and allows you to select all parameters.

The following parameters are assigned to each button.

The [H-BAR PART] button lights up in red.

| Button | Parameter | Page |
|--------|-----------------|-------|
| [1] | ON CLICK LEVEL | p. 43 |
| [2] | OFF CLICK LEVEL | p. 43 |

The [H-BAR PART] button lights up in green.

| Button | Parameter | Page |
|--------|--------------------------|-------|
| [1] | PERCUSSION SOFT LEVEL | p. 43 |
| [2] | PERCUSSION NORMAL LEVEL | p. 43 |
| [3] | PERCUSSION SLOW TIME | p. 43 |
| [4] | PERCUSSION FAST TIME | p. 43 |
| [5] | PERCUSSION RECHARGE TIME | p. 44 |
| [6] | PERCUSSION H-BAR LEVEL | p. 44 |

3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.



If you press the VIBRATO AND CHORUS [ON] button, the setting will return to its initial value.

4. When setting another parameter, press an [H-BAR PART] button and [1]-[2] buttons ([1]-[6] buttons) to select the parameter, then turn the [VIBRATO AND CHORUS] knob to change the setting.

When you want to stop editing, press the [BANK] button.

5. Press the [WRITE] button to finalize the settings of the click noise and percussion parameters.

Parameter settings will be saved.

While the parameters are being saved, the [1]-[2] buttons ([1]-[6] buttons) will blink.

NOTE

Never turn off the power while parameters are being saved.

○ ON CLICK LEVEL (0-31)

Specifies the level of the click sound that occurs when a key is pressed (On). Increasing this value will increase the volume.

○ OFF CLICK LEVEL (0-31)

Specifies the level of the click sound that occurs when a key is released (Off). Increasing this value will increase the volume.

○ PERCUSSION SOFT LEVEL (0-15)

Sets the percussion volume when percussion is set to Soft (the [SOFT] button's indicator is lit). Increasing this value will increase the volume of percussion.

○ PERCUSSION NORMAL LEVEL (0-15)

Sets the percussion volume when percussion is set to Normal (the [SOFT] button's indicator is dark). Increasing this value will increase the volume of percussion.

○ PERCUSSION SLOW TIME (0-127)

Sets the speed at which the percussion sound will decay when percussion is set to Slow (the [SLOW] button's indicator is lit). Increasing this value causes the percussion to decay more slowly.

○ PERCUSSION FAST TIME (0-127)

Sets the speed at which the percussion sound will decay when percussion is set to Fast (the [SLOW] button's indicator is dark). Increasing this value causes the percussion to decay more slowly.

○ PERCUSSION RECHARGE TIME (0–10)

Specifies the percussion charge time that determines the time from when the keys are released until percussion is recharged. Increasing this value will increase the time necessary for percussion to recharge, causing the percussion sound to be smaller for rapidly repeated notes.

On tone wheel organs, percussion was produced by an analog circuit. This meant that if only a very short time elapsed from when the keys were released until the next key was pressed, the percussion circuit was unable to recharge fully, and the percussion sound that was added would therefore be lower in volume. This also meant that even if legato was broken during a rapid trill, etc., an appropriate amount of percussion was added. The percussion charge time parameter adjusts this charge time.

○ PERCUSSION H-BAR LEVEL (0–127)

Adjusts the volume of the harmonic bars when percussion is normal (the [SOFT] button's indicator is dark). As this value is increased, the sound of the harmonic bars will be less affected by the percussion.

On tone wheel organs, turning the percussion on would lower the overall volume specified by the harmonic bars. This is because the percussion on tone wheel organs was designed not to impair the volume balance of the entire organ. The VK-8M allows you to adjust this change in volume balance.

■ MIDI-related Settings

○ When setting things other than the MIDI channel

1. Hold down the [BANK] buttons and press the [TONE WHEEL] button.

The indicators of [1]–[6] buttons ([1]–[3] buttons) will blink.

2. Press one of the [1]–[6] buttons ([1]–[3] buttons) to select the parameter that you want to edit.

There are nine MIDI-related parameters.

Pressing the [H-BAR PART] button causes the button's color to change and allows you to select all parameters.

The following parameters are assigned to each button.

The [H-BAR PART] button lights up in red.

| Button | Parameter | Page |
|--------|--|-------|
| [1] | MIDI THRU | p. 45 |
| [2] | CONTROL MIDI CH. (Control MIDI Channel) | p. 46 |
| [3] | UPPER ORGAN MIDI CH. (Upper Organ MIDI Channel) | p. 46 |
| [4] | LOWER ORGAN MIDI CH. (Lower Organ MIDI Channel) | p. 46 |
| [5] | PEDAL ORAGN MIDI CH. (Pedal Organ MIDI Channel) | p. 46 |
| [6] | SPRING SHOCK MIDI CH. (Spring Shock MIDI Channel) | p. 46 |

The [H-BAR PART] button lights up in green.

| Button | Parameter | Page |
|--------|-------------------------------------|-------|
| [1] | MIDI SOUND CONTROLLERS SWITCH | p. 45 |
| [2] | MIDI GENERAL CONTOROLLERS SWITCH | p. 45 |
| [3] | MIDI PROGRAM CHANGE SWITCH | p. 45 |

3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.



If you press the VIBRATO AND CHORUS [ON] button, the setting will return to its initial value.

4. If you want to edit another parameter, press the appropriate [1]–[6] button ([1]–[3] buttons) to select the parameter, and turn the [VIBRATO AND CHORUS] knob to adjust the setting.

When you want to stop editing, press the [BANK] button.

5. Press the [WRITE] button to finalize the settings of the MIDI-related parameters.

Parameter settings will be saved.

While the parameters are being saved, the [1]–[6] buttons ([1]–[3] buttons) will blink.

NOTE

Never turn off the power while parameters are being saved.

Adding MIDI THRU functionality to the MIDI OUT connector

○ MIDI THRU (ON/OFF)

This is a function by which the data received at the MIDI IN connector is re-transmitted from the MIDI OUT connector. Data received at the VK-8M's MIDI IN connector will be merged, and transmitted from the MIDI OUT connector.

The MIDI Thru setting will automatically be turned off each time the VK-8M is powered up.

| Setting | Explanation |
|---------|--|
| ON | All data received at the MIDI IN connector will be re-transmitted from the MIDI OUT connector. |
| OFF | The MIDI Thru function will be turned off. |

NOTE

If the VK-8M receives a large amount of MIDI data or exclusive data, it may not be able to receive all of the MIDI data correctly. If this occurs, reduce the amount of MIDI data that is being transmitted from the external device, or break up the exclusive data into smaller units.

○ MIDI SOUND CONTROLLERS SWITCH (ON/OFF)

This specifies whether Harmonic Bar data will be received using sound controller MIDI messages. Turn the [VIBRATO AND CHORUS] knob to the right to turn this on, or to the left to turn it off. At the factory settings, this is turned on.

| Setting | Explanation |
|---------|--|
| ON | Harmonic bar data can be received using sound controller MIDI messages. |
| OFF | Harmonic bar data will not be received using sound controller MIDI messages. |

○ MIDI GENERAL CONTROLLERS SWITCH (ON/OFF)

This specifies whether Wheel Brake, Rotary Speed, and Rotary Brake data will be transmitted and received using MIDI general purpose controller messages.

Turn the [VIBRATO AND CHORUS] knob to the right to turn this on, or to the left to turn it off.

At the factory settings, this is turned on.

| Setting | Explanation |
|---------|--|
| ON | Wheel Brake, Rotary Speed, and Rotary Brake data will be transmitted and received using MIDI general purpose controller messages. |
| OFF | Wheel Brake, Rotary Speed, and Rotary Brake data will not be transmitted or received using MIDI general purpose controller messages. |

○ MIDI PROGRAM CHANGE SWITCH (ON/OFF)

This specifies whether registration selection data will be transmitted and received.

Turn the [VIBRATO AND CHORUS] knob to the right to turn this on, or to the left to turn this off.

At the factory settings, this is turned off.

| Setting | Explanation |
|---------|--|
| ON | Registration selection data will be transmitted and received. |
| OFF | Registration selection data will not be transmitted or received. |

Advanced Use

○ When making MIDI channel settings

MIDI uses sixteen MIDI channels (1–16). If you want to play a connected external device, there will be no sound unless the MIDI channels of the transmitting and receiving devices match.

When setting the VK-8M's MIDI channel, connect the VK-8M to an external keyboard with a MIDI cable, then use the keyboard to change the setting.



For information on the MIDI transmit/receive channels in effect after factory reset, refer to "MIDI Implementation" (p. 57).

1. Make sure to have the keyboard connected before you start (p. 14).
2. Hold down the [BANK] buttons and press the [TONE WHEEL] button.
The indicators of buttons [1]–[6] will blink.
3. Use the [1]–[6] buttons to select the part whose MIDI channel you want to change.

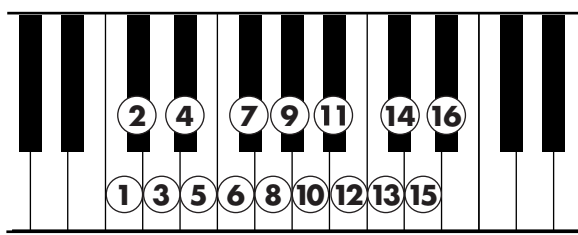
There are 9 MIDI-related parameters.

Pressing the [H-BAR PART] button causes the button's color to change and allows you to select all parameters. There are five parameters that change the MIDI channel.



For the parameter that is assigned to each button, refer to page 44.

4. Press the C2–D#3 keys on the external keyboard to set the MIDI channels.



5. Press the [WRITE] button to finalize the settings of the MIDI channel.



Never turn off the power while parameters are being saved.

○ CONTROL MIDI CH. (Control MIDI Channel) (1–16) (Initial setting: 1 ch.)

Select the MIDI channel that will be used to transmit and receive MIDI messages to control the VK-8M. This channel can be used to select registrations on the VK-8M, and to control the expression of the organ voice, etc.

○ UPPER ORGAN MIDI CH. (Upper Organ MIDI Channel) (1–16) (Initial setting: 1 ch.)

Sets the MIDI channel on which data will be transmitted and received for the upper organ voice.

○ LOWER ORGAN MIDI CH. (Lower Organ MIDI Channel) (1–16) (Initial setting: 3 ch.)

Sets the MIDI channel on which data will be transmitted and received for the lower organ voice.

○ PEDAL ORGN MIDI CH. (Pedal Organ MIDI Channel) (1–16) (Initial setting: 2 ch.)

Sets the MIDI channel on which data will be transmitted and received for the pedal organ voice.

○ SPRING SHOCK MIDI CH. (Spring Shock MIDI Channel) (Initial setting: 9 ch.)

Specifies the MIDI channel on which Spring Reverb Shock data will be received and transmitted.



Assign the Upper, Lower, Pedal, and Spring Shock to different MIDI channels. You cannot select the same MIDI channel for the different types of data. You also cannot select a MIDI channel that has already been assigned.



Different channels are used for Control MIDI and Spring Shock. You cannot set these to the same MIDI channel. Neither can you select a MIDI channel that has already been set.

MIDI Channel Setting Shortcuts

When connecting to Roland's "Atelier Series" and "VK Series" organs or Rodgers organs, you can easily set the MIDI channel for the VK-8M and the connected instrument.

| Connected Instrument | Procedure | MIDI Channel |
|----------------------|--|-------------------------------------|
| Atelier Series | [BANK] + [H-BAR PART] → PERCUSSION [SOFT] | UPPER: 13 LOWER: 12 PEDAL: 14 |
| VK Series | [BANK] + [H-BAR PART] → PERCUSSION [2ND/3RD] | UPPER: 1 LOWER: 3 PEDAL: 2 |
| Rodgers Organs | [BANK] + [H-BAR PART] → PERCUSSION [SLOW] | UPPER: 2 LOWER: 1 PEDAL: 3 |



If you want to change the MIDI channel setting of the connected instrument, do so by directly changing the MIDI channel setting on the connected instrument.

■ Equalizer and Other Settings

1. Hold down the [BANK] buttons and press the [AMPLIFIER] button.

The indicators of buttons [1]–[6] will blink.

2. Press one of the buttons from [1] through [6] to select the parameter that you want to edit.

There are six parameters related to equalizer and other settings.

The following parameters are assigned to each button.

| Button | Parameter | Page |
|--------|-----------------|-------|
| [1] | EQ BASS | p. 47 |
| [2] | EQ MIDDLE | p. 47 |
| [3] | EQ TREBLE | p. 47 |
| [4] | MASTER TUNE | p. 47 |
| [5] | LIGHT MODE | p. 47 |
| [6] | AUTO COLOR MODE | p. 47 |

3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.

MEMO

If you press the VIBRATO AND CHORUS [ON] button, the setting will return to its initial value.

4. If you want to edit another parameter, press the appropriate button from [1] through [6] to select the parameter, and turn the [VIBRATO AND CHORUS] knob to adjust the setting.

When you want to stop editing, press the [BANK] button.

5. Press the [WRITE] button to finalize the settings of these parameters.

Parameter settings will be saved.

While the parameters are being saved, the [1]–[6] buttons will blink.

NOTE

Never turn off the power while parameters are being saved.

○ EQ BASS (-5-0-+5)

Adjusts the tone quality of the organ voice's lower range. Turning the [VIBRATO AND CHORUS] knob toward the right will emphasize the lower range of frequencies, while turning it toward the left will reduce the volume of the lower range.

○ EQ MIDDLE (-5-0-+5)

Adjusts the tone quality of the organ voice's midrange. Turning the [VIBRATO AND CHORUS] knob toward the right will emphasize the midrange frequencies, while turning it toward the left will reduce the volume of the midrange.

○ EQ TREBLE (-5-0-+5)

Adjusts the tone quality of the organ voice's upper range. Turning the [VIBRATO AND CHORUS] knob toward the right will emphasize the upper range of frequencies, while turning it toward the left will reduce the volume of the upper range.

Adjusting the pitch to match another instrument

○ MASTER TUNE (-100cent-0-+100cent)

This is a fine adjustment to the pitch of the VK-8M. You can adjust the pitch of the entire instrument in 1 cent steps, relative to the pitch of A4 (middle A) = 440.0 Hz. 100 cents equals one semitone.

○ LIGHT MODE (NORMAL, MULTI)

This changes how the [D BEAM] button lights.

| Setting | Explanation |
|---------------|--|
| NORMAL | The [D BEAM] button lights the same way, regardless of the D Beam type. The color changes each time your hand is placed over the D-Beam. |
| MULTI | The manner in which the [D BEAM] button lights changes according to the D Beam type. Depending on the D Beam type, the color may change continuously, or the color may switch each time your hand is placed over the D-Beam. |

○ AUTO COLOR MODE (OFF, 1-10)

You can set the instrument so the color of the [D BEAM] button begins changing automatically after a predetermined period elapses, throughout which no buttons or knobs have been operated, even though the [D BEAM] button has been on.

Settings Values: OFF, 1 (20 seconds), 2–10 (1 minute–9 minutes)

Parameters That Are Stored in a Registration

■ Reverb and Other Settings

1. Hold down the [BANK] buttons, and press the [D BEAM] button.

The indicators of buttons [1]–[2] will blink.

2. Press one of the [1]–[2] buttons to select the parameter that you want to edit.

There are two effect-related parameters.

The following parameters are assigned to each button.

| Button | Parameter | Page |
|--------|--------------------------|-------|
| [1] | REVERB TIME | p. 48 |
| [2] | D BEAM ROTARY SPEED MODE | p. 48 |

3. Turn the [VIBRATO AND CHORUS] knob to adjust the setting.

MEMO

If you press the VIBRATO AND CHORUS [ON] button, the setting will return to its initial value.

4. If you want to edit another parameter, press the appropriate button from [1] through [2] to select the parameter, and turn the [VIBRATO AND CHORUS] knob to adjust the setting.

When you want to stop editing, press the [BANK] button.

5. Press the [WRITE] button to finalize the settings of the effect-related parameters.

6. Save the finalized parameter settings in a registration (p. 37).

NOTE

Never turn off the power while registration are being saved.

○ REVERB TIME (0–127)

Adjusts the length of the Reverb time. Higher values result in longer reverberation.

○ D BEAM ROTARY SPEED MODE (SLOW/FAST, CONTINUOUS)

Specify the D Beam function when ROTARY SPEED is assigned to the D Beam.

Turn the [VIBRATO AND CHORUS] knob to the left to select SLOW/FAST, or to the right to select CONTINUOUS.

| Setting | Explanation |
|------------|--|
| SLOW/FAST | The rotary effect is toggled between slow and fast each time you move your hand over the D Beam controller. |
| CONTINUOUS | The rotary effect will change gradually from slow to fast or fast to slow as you move your hand closer to the D Beam controller. |

NOTE

Never turn off the power while registration are being saved.

Connecting the VK-8M to External Devices

About MIDI

MIDI (Musical Instrument Digital Interface) is a worldwide standard for exchanging music data among electronic musical instruments and computers. MIDI does not send audio signals, but instead converts performance data and commands into digital data for transmission. The digital data handled by MIDI is collectively referred to as MIDI messages. Any device with a MIDI connector can be connected via a MIDI cable to another MIDI device, to allow data to be exchanged regardless of the manufacturer or model of the device.

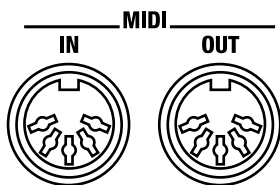
MIDI IN connector: Receives MIDI messages from an external MIDI device.

MIDI OUT connector: Transmits MIDI messages from the VK-8M.

About MIDI Channel

MIDI is able to transmit or receive a large number of messages over a single cable. In order to do so, it uses a concept called "channels" (analogous to the channels used in TV broadcasting), so that MIDI messages are received only when the channel of the receiving device matches the channel of the transmitting device.

If you connect an external keyboard or pedal keyboard, you will be able to play the Upper Part, Lower Part or Pedal Part. The VK-8M has three MIDI connectors.



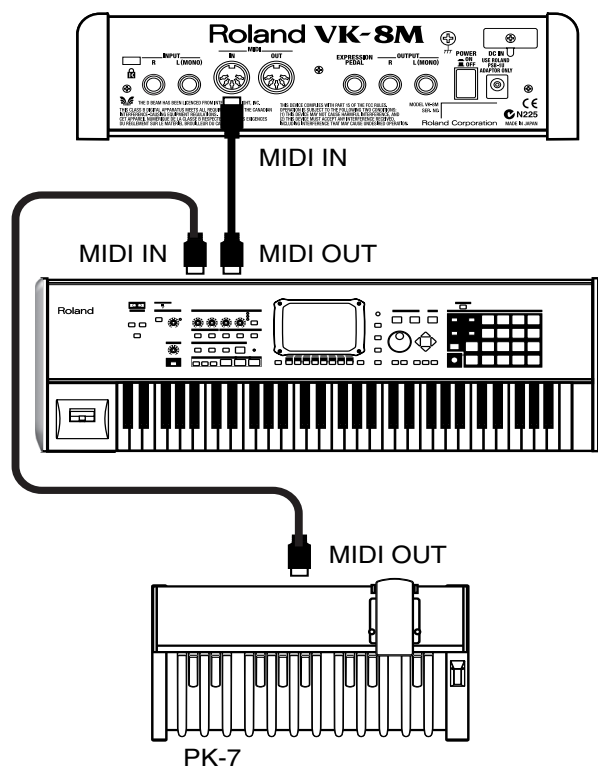
Connecting the External Keyboard and Pedal Keyboard

You can connect an external keyboard and play the sound of the VK-8M from the external keyboard.

NOTE

Turn off the power of the VK-8M and the other device before making connections. If you connect an external device when the power is turned on, damage or malfunctions may occur.

1. Use a commercially available MIDI cable to connect the MIDI OUT connector of your external keyboard to the MIDI IN connector of the VK-8M.
2. Use a commercially available MIDI cable to connect the MIDI IN connector of your external keyboard to the MIDI OUT connector of the pedal keyboard.



NOTE

When using a PK-7 expression pedal, use a commercially available stereo 1/4" phone cable to connect the PK-7's Expression jack to the VK-8M's EXPRESSION PEDAL jack.

3. Turn on the power of the pedal keyboard and the external keyboard.
4. Turn on the power of the VK-8M.
5. Select the MIDI channel of external keyboard and pedal keyboard.

NOTE

For information on setting the MIDI channel of an external keyboard, refer to the owner's manual that came with the keyboard.

The organ voice will sound when you play the VK-8M.

Connecting the VK-8M to External Devices

Using an External Sequencer to Record and Play Back

You can connect a sequencer to the VK-8M and record your playing. The sequencer will store your performance on the VK-8M as various types of MIDI data. MIDI data that is received can be sent from the sequencer back to the VK-8M to reproduce your performance.

→ Some sequencers are able to record settings such as the VK-8M's registrations and system settings.

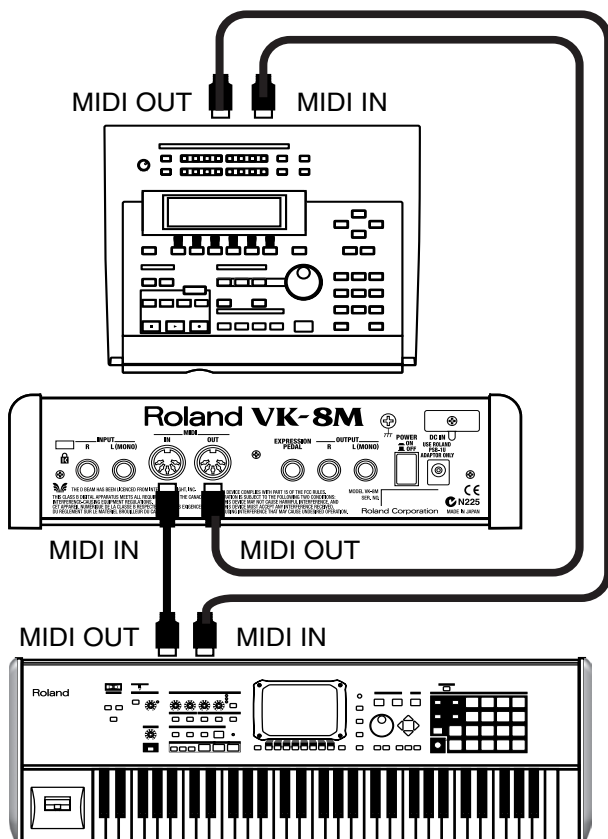
Making preparations for recording

1. Make sure that the power of the VK-8M and your sequencer is turned off.

NOTE

Turn off the power of the VK-8M and the other device before making connections. If you connect an external device when the power is turned on, damage or malfunctions may occur.

2. Use commercially-available MIDI cables to connect the VK-8M to external keyboard.
3. Use commercially-available MIDI cables to connect the VK-8M to your sequencer.
4. Use commercially-available MIDI cables to connect the external keyboard to your sequencer.



- Connect the VK-8M's MIDI IN connector to the external keyboard's MIDI OUT connector
- Connect the VK-8M's MIDI OUT connector to the sequencer's MIDI IN connector
- Connect the external keyboard's MIDI IN connector to the sequencer's MIDI OUT connector

5. Turn on the power of the external keyboard, sequencer and the VK-8M.

6. Turn off the Thru function of your sequencer.

This allows you to listen to the sound while you record.

Turn off Thru function so every note doesn't get sounded twice—once as the result of the performance data that directly conveys keyboard information to the organ voice or other tone, and a second time by the performance data returned via the Thru function of your sequencer.

NOTE

For details on setting the Thru function of your sequencer, refer to the owner's manual of your sequencer.

7. Turn on the Thru function of the external keyboard.

NOTE

For details on setting the Thru function of the external keyboard, refer to the owner's manual of your sequencer.

8. Turn on the MIDI Thru function of the VK-8M.

Carry out the recording

When you have finished making preparations for recording, start recording on your sequencer and record your performance.

9. Start recording on your sequencer.
10. Adjust the harmonic bars or select tones if desired, and play the organ.
11. When you are finished playing, stop recording on your sequencer.

Play back your performance

12. Play back your sequencer, and your performance will be played back.

Saving VK-8M Settings on an External Sequencer (Bulk Dump)

You can connect the VK-8M to an external sequencer, then save VK-8M registrations, and system settings on it. This function is called “bulk dump.”

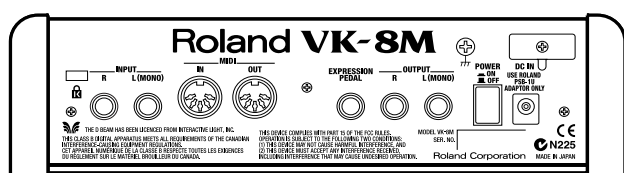
Connect the VK-8M to your sequencer

1. Make sure that the power of the VK-8M and your sequencer is off.

NOTE

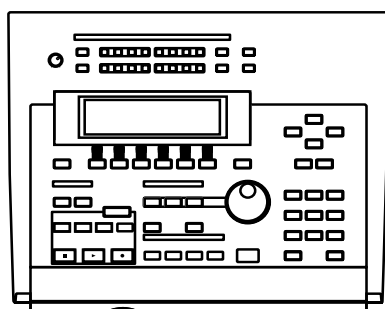
Turn off the power of the VK-8M and the other device before making connections. If you connect an external device when the power is turned on, damage or malfunctions may occur.

2. Use commercially-available MIDI cables to connect the VK-8M to your sequencer.



MIDI OUT

MIDI IN



- Connect the VK-8M’s MIDI OUT connector to the sequencer’s MIDI IN connector
3. Turn on the power of the external sequencer and the VK-8M.
 4. Turn off the Thru function of your sequencer.

Save the settings

5. Hold down the [BANK] buttons, and press the D BEAM [ON] button.

The [VIBRATO AND CHORUS] button’s indicator will blink.

6. Start recording on your sequencer.
7. Press the VIBRATO AND CHORUS [ON] button to begin saving the settings.

When the save is completed, all of the AMPLIFIER type and REVERB type indicators flash.

When the save has been completed, all indicators of the D Beam Type will blink.

8. Press the D BEAM [ON] button.
9. Stop recording on your sequencer.

Loading Back Data That’s Been Saved on an External Sequencer

1. Make sure that the power of the VK-8M and your sequencer is off.

NOTE

Turn off the power of the VK-8M and the other device before making connections. If you connect an external device when the power is turned on, damage or malfunctions may occur.

2. Use commercially-available MIDI cables to connect the VK-8M to your sequencer.

Connect the VK-8M’s MIDI IN connector to the sequencer’s MIDI OUT connector

3. Turn on the power of your sequencer and VK-8M.
4. Play back your sequencer.

When the playback has been completed, all indicators of the VIBRATO AND CHORUS [ON] button and VIBRATO AND CHORUS [ON] button will blink.

5. When the external sequencer has finished playing back, press the VIBRATO AND CHORUS [ON] button.

The data from the external sequencer has thus been loaded into the VK-8M.

Troubleshooting

If the VK-8M does not function in the way you expect, first check the following chart. If this does not resolve the problem, consult your dealer or a nearby Roland service station.

| Problem | Check | Solution | Page |
|---|---|---|-------|
| Power does not turn on | AC adapter is not connected correctly. | Connect the AC adapter correctly. | p. 13 |
| No sound/insufficient volume | Power of connected device is not turned on. | Turn on the power of the connected amp or mixer. | p. 15 |
| | The volume of the connected amp or mixer is turned down. | Raise the volume of the connected amp or mixer. | p. 15 |
| | Volume of the VK-8M is too low. | Turn the [Master Volume] knob toward "Max." | p. 16 |
| | Volume of the connected keyboard, amp or speaker has been turned down. | Raise the volume of the connected keyboard, amp or mixer. | p. 15 |
| | The expression pedal is not depressed. | While carefully monitoring the volume, depress the toe of the expression pedal. | p. 36 |
| | If there is sound in the headphones, it is possible that a cable connecting the VK-8M to your amp/mixer is broken, or that your amp/mixer is malfunctioning. | Check your cables and amp/mixer system once again. | p. 15 |
| Organ sound not playing | All harmonic bars are pushed all the way inward. | Pull out the harmonic bars. | p. 21 |
| | The wheel brake is activated. | Release the wheel brake using the foot switch, D Beam. | p. 31 |
| Input sound not playing | The input sound level is low. | While continuing to monitor the volume level, turn the INPUT [VOLUME] knob to increase the level. | p. 35 |
| | The setting of the [INPUT] button is "Active Exp," and the expression pedal is not depressed. | While carefully monitoring the volume, depress the toe of the expression pedal. | p. 36 |
| The volume level of the instrument connected to VK-8M is too low | You use a connection cable that contains a resistor. | Use a connection cable that does not contain a resistor. | --- |
| Harmonic bars do not work | The part that reflects the harmonic bar settings is not selected correctly. | Press the [H-BAR PART] button to select the part that will reflect the settings of the harmonic bars. | p. 20 |
| Click is heard when you press/release a key | On a tone wheel organ, a slight "blip" noise is heard when you press or release a key. Initially, this was considered a defect, but as organs with this characteristic came to be used in a wide range of music, it grew to be considered part of the sound. The VK-8M faithfully simulates this key click noise, which is characteristic of tone wheel organs. | The volume of the click can be adjusted with "ON CLICK LEVEL" and "OFF CLICK LEVEL." | p. 43 |
| Pitch is incorrect | Tuning is incorrect. | Adjust the reference pitch. | p. 47 |
| | Ring Modulator is applied to the organ voice. | Operate the D Beam to defeat the ring modulator. | p. 31 |

| Problem | Check | Solution | Page |
|--|--|--|-------|
| Overdrive is not applied | Overdrive level is too low. | Turn the [OVERDRIVE] knob to adjust the depth of overdrive. | p. 30 |
| | The expression pedal has been rocked toward the front. | While carefully monitoring the volume, depress the toe of the pedal. | p. 36 |
| Reverb is not applied | Reverb level is too low. | Turn the REVERB [LEVEL] knob clockwise to adjust the reverb level. | p. 34 |
| Rotary effect is not applied | The [BRAKE] button is pressed, stopping the rotation (the SPEED LED has stopped). | Press the [BRAKE] button or the [SLOW/FAST] button to release the brake and apply the rotary effect. | p. 29 |
| Can't set the MIDI channel | This is already specified as the MIDI channel of another part. | Either select a different channel for the other part that is using that channel and then make the desired setting, or select a MIDI channel that no other part is using. | p. 46 |
| MIDI messages are not transmitted/receive correctly | The MIDI channel of each part is not set correctly. | Set the MIDI channels correctly. | p. 46 |
| | The Control MIDI Channel is not set correctly. | Make sure that the VK-8M's program changes and expression data are being transmitted on the correct MIDI channel. | p. 46 |
| | The sequencer playback tempo is not set correctly. | Have the sequencer play back the data at the same tempo that was used when the exclusive data was recorded. | p. 50 |
| Can't hear the 1' harmonic bar | PERCUSSION is turned on. If PERCUSSION is on, the sound of the 1' harmonic bar will not be heard. | This is not malfunction. | p. 25 |
| Rotary changes to FAST unintentionally | D Beam is assigned to "CRESCENDO." If the D Beam is assigned to "CRESCENDO" when the [SLOW/FAST] button is in the SLOW state, and you place your hand very close to the D Beam, the rotary will switch to FAST. | Moving your hand away from the D Beam will cause the rotary to return to SLOW. | p. 31 |
| D Beam sensitivity is incorrect | D Beam sensitivity is incorrect. | Readjust the sensitivity of the D Beam. | p. 33 |
| | The instrument is placed in a location where there is a large amount of infrared light. | The D Beam will not function correctly in a location where there is a large amount of infrared light. | p. 33 |
| Registration memory contents are lost | The power was turned off while data was being written into registration memory. | Never turn off the power while data is being written into registration memory. | --- |

■ Error Indications

When an incorrect operation is performed, or when an operation cannot be carried out correctly, the VK-8M will light all of its indicators for a few seconds. Errors are divided into two categories—those that show up at power-up, and those that occur during normal operation. Please read the following explanations carefully, and take the appropriate action.

When you turn on the power

All indicators light for several seconds

Cause: The content of backup memory has been returned to the condition it was in originally, when the unit left the factory. In most cases, this occurs when the power was turned off while data was being written into memory.

During normal operation

All indicators light for several seconds

Cause 1: A MIDI cable was disconnected or broken.

Action: Make sure that the MIDI cable is connected correctly.

Cause 2: A large amount of MIDI data was received all at once.

Action: Reduce the amount of MIDI data that is being transmitted to the VK-8M.

Cause 3: System exclusive data was not received correctly.

Action: Check the settings of the transmitting device, or the data that is being transmitted.

Registration List

| REGIS-TRATION Number | UPPER PART | LOWER PART | PEDAL PART | PERCUSSION | VIBRATO AND CHORUS | ROTARY |
|----------------------|-------------|-------------|------------|-----------------|--------------------|--------|
| 1-1 | 88 8000 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | OFF | SLOW |
| 1-2 | 88 8800 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C3 | SLOW |
| 1-3 | 88 8800 000 | 00 8800 000 | 84 | 3RD, NORM, FAST | OFF | SLOW |
| 1-4 | 88 8008 008 | 83 8000 000 | 82 | 3RD, SOFT, SLOW | OFF | SLOW |
| 1-5 | 88 8000 678 | 87 8600 000 | 84 | OFF | C3 | SLOW |
| 1-6 | 00 7373 430 | 00 8800 000 | 84 | OFF | OFF | BRAKE |
| 2-1 | 88 8000 000 | 00 8888 000 | 73 | 2ND, SOFT, SLOW | OFF | SLOW |
| 2-2 | 88 8008 008 | 83 8000 000 | 82 | 3RD, SOFT, SLOW | OFF | FAST |
| 2-3 | 88 8800 000 | 00 8800 000 | 84 | 2ND, SOFT, FAST | OFF | SLOW |
| 2-4 | 80 0888 888 | 83 8000 000 | 82 | 3RD, NORM, FAST | C3 | FAST |
| 2-5 | 88 8000 000 | 00 8600 000 | 82 | 3RD, NORM, FAST | OFF | SLOW |
| 2-6 | 88 8080 880 | 00 8600 000 | 82 | OFF | OFF | BRAKE |
| 3-1 | 88 8000 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C3 | SLOW |
| 3-2 | 88 8800 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C1 | SLOW |
| 3-3 | 80 0000 888 | 83 8000 000 | 82 | OFF | C3 | FAST |
| 3-4 | 81 8151 608 | 00 0503 000 | 82 | OFF | C2 | SLOW |
| 3-5 | 84 8500 008 | 00 0806 000 | 82 | OFF | OFF | SLOW |
| 3-6 | 80 7050 404 | 00 8500 000 | 54 | OFF | V3 | SLOW |
| 4-1 | 88 8000 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | OFF | SLOW |
| 4-2 | 88 8800 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C3 | SLOW |
| 4-3 | 88 8800 000 | 00 8800 000 | 84 | 3RD, NORM, FAST | OFF | SLOW |
| 4-4 | 88 8008 008 | 83 8000 000 | 82 | 3RD, SOFT, SLOW | OFF | SLOW |
| 4-5 | 88 8000 678 | 87 8600 000 | 84 | OFF | C3 | SLOW |
| 4-6 | 00 7373 430 | 00 8800 000 | 84 | OFF | OFF | BRAKE |
| 5-1 | 88 8000 000 | 00 8888 000 | 73 | 2ND, SOFT, SLOW | OFF | SLOW |
| 5-2 | 88 8008 008 | 83 8000 000 | 82 | 3RD, SOFT, SLOW | OFF | FAST |
| 5-3 | 88 8800 000 | 00 8800 000 | 84 | 2ND, SOFT, FAST | OFF | SLOW |
| 5-4 | 80 0888 888 | 83 8000 000 | 82 | 3RD, NORM, FAST | C3 | FAST |
| 5-5 | 88 8000 000 | 00 8600 000 | 82 | 3RD, NORM, FAST | OFF | SLOW |
| 5-6 | 88 8080 880 | 00 8600 000 | 82 | OFF | OFF | BRAKE |
| 6-1 | 88 8000 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C3 | SLOW |
| 6-2 | 88 8800 000 | 83 8000 000 | 82 | 3RD, SOFT, FAST | C1 | SLOW |
| 6-3 | 80 0000 888 | 83 8000 000 | 82 | OFF | C3 | FAST |
| 6-4 | 81 8151 608 | 00 0503 000 | 82 | OFF | C2 | SLOW |
| 6-5 | 84 8500 008 | 00 0806 000 | 82 | OFF | OFF | SLOW |
| 6-6 | 80 7050 404 | 00 8500 000 | 54 | OFF | V3 | SLOW |

* Registration 4-1-6-6 have the same contents as 1-1-3-6.

Edit Parameters

Settings that are saved for the entire System

- Rotary-related settings
 - ROTARY WOOFER LEVEL
 - ROTARY TWEETER LEVEL
 - ROTARY WOOFER RISE TIME
 - ROTARY TWEETER RISE TIME
 - ROTARY WOOFER FALL TIME
 - ROTARY TWEETER FALL TIME
 - ROTARY WOOFER SPREAD
 - ROTARY TWEETER SPREAD
 - ROTARY WOOFER SPEED SLOW
 - ROTARY TWEETER SPEED SLOW
 - ROTARY WOOFER SPEED FAST
 - ROTARY TWEETER SPEED FAST
 - ROTARY MIC DISTANCE
 - ROTARY RANDOMIZE
 - ROTARY INDICATOR SYNC SOURCE
- Click Noise and Percussion settings
 - ON CLICK LEVEL
 - OFF CLICK LEVEL
 - PERCUSSION SOFT LEVEL
 - PERCUSSION NORMAL LEVEL
 - PERCUSSION SLOW TIME
 - PERCUSSION FAST TIME
 - PERCUSSION RECHARGE TIME
 - PERCUSSION H-BAR LEVEL
- MIDI-related settings
 - MIDI THRU
 - CONTROL MIDI CH.
 - UPPER ORGAN MIDI CH.
 - LOWER ORGAN MIDI CH.
 - PEDAL ORAGN MIDI CH.
 - SPRING SHOCK MIDI CH.
 - MIDI SOUND CONTROLLERS SWITCH
 - MIDI GENERL CONTROLLERS SWITCH
 - MIDI PROGRAM CHANGE SWITCH
- Equalizer and other settings
 - EQ BASS
 - EQ MIDDLE
 - EQ TREBLE
 - MASTER TUNE
 - LIGHT MODE
 - AUTO COLOR MODE

Parameters that are stored in a registration

- Reverb and other setting
 - REVERB TIME
 - D BEAM ROTARY SPEED MODE
- Panel settings.
 - The sounds of the Upper part, Lower part, and Pedal part of the Harmonic Bar settings.
 - ROTARY [BRAKE] button
 - ROTARY [SLOW/FAST] button
 - [TONE WHEEL] button
 - [LEAKAGE] knob
 - [AMPLIFIER] button
 - [OVERDRIVE] knob
 - [TONE] knob
 - [REVERB] button
 - REVERB [LEVEL] knob
 - PERCUSSION [2ND/3RD] button
 - PERCUSSION [SOFT] button
 - PERCUSSION [SLOW] button
 - VIBRATO AND CHORUS [ON] button
 - [VIBRATO AND CHORUS] knob
 - D BEAM [ON] button
 - [D BEAM] button
 - [INPUT] button

MIDI Implementation

Model: VK-8M (Combo Organ)
 Date: Dec. 1, 2001
 Version: 1.00

1. Receive data

- * If the MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), messages input to MIDI IN will be received as messages for the Upper part, regardless of their channel number (Omni On).
- * When the MIDI IN FUNCTION is set to SEQUENCER MODE (p. 20), MIDI messages will control each part according to their MIDI channel number (Omni Off). At the factory settings, each part is set to the following transmit/receive channels.

| Part | Channel |
|--------------|---------|
| CONTROL | 1ch |
| UPPER ORGAN | 1ch |
| LOWER ORGAN | 3ch |
| PEDAL ORGAN | 2ch |
| SPRING SHOCK | 9ch |

Channel Voice Messages

Note off

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| 8nH | kkH | vvH |
| 9nH | kkH | 00H |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 kk = note number: 00H - 7FH (0 - 127)
 vv = note off velocity: 00H - 7FH (0 - 127)

- * When the MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), the input to the MIDI IN will be handled as messages for the UPPER PART.

Note on

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| 9nH | kkH | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 kk = note number: 00H - 7FH (0 - 127)
 vv = note on velocity: 00H - 7FH (0 - 127)

- * When the MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), the input to the MIDI IN will be handled as messages for the UPPER PART.

Control Change

General Purpose Controller 2 (Controller number 11)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 0BH | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = expression: 00H - 7FH (0 - 127)

- * If you want to control all of the Organ Parts, transmit data on the channel specified by the CONTROL MIDI CH. setting (factory setting: channel 1). It is not possible to separately control each part of the Organ Part.
- * When the MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), this has the same function as an expression pedal connected to the VK-8M's EXPRESSION PEDAL jack.

General Purpose Controller 2 (Controller number 17) (Wheel Brake)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 11H | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = control value: 00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

- * When MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), this is received on the channel specified for CONTROL MIDI CH. (p. 46) (factory setting: channel 1).
- * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

Hold 1 (Controller number 64)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 40H | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = control value: 00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

Sound Controller 1-9 (Controller number 70-78) (Harmonic Bars)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | ccH | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 cc = control change number: 46H - 4EH (70-78)
 vv = control value: 00H - 7FH (0 - 127)

- * Receives harmonic bar values.
- * When the MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20), the input to the MIDI IN will be handled as messages for the UPPER PART.
- * Not received when MIDI SOUND CONTROLLERS SWITCH (p. 45) is OFF.

| cc | H.Bar Feet |
|-----|------------|
| 46H | 16' |
| 47H | 5 1/3' |
| 48H | 8' |
| 49H | 4' |
| 4AH | 2 1/3' |
| 4BH | 2' |
| 4CH | 1 3/5' |
| 4DH | 1 1/3' |
| 4EH | 1' |

- * Control values and harmonic bars are related as follows.

| vv | H.Bar Level |
|-----------|-------------|
| 00H - 0EH | 0 |
| 0FH - 1CH | 1 |
| 1DH - 2AH | 2 |
| 2BH - 38H | 3 |
| 39H - 47H | 4 |
| 48H - 55H | 5 |
| 56H - 63H | 6 |
| 64H - 71H | 7 |
| 72H - 7FH | 8 |

General Purpose Controller 5 (Controller number 80) (Rotary Speed)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 50H | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = control value: 00H - 7FH (0 - 127)

- * When MIDI IN FUNCTION is SINGLE KEYBOARD MODE (p. 20), this is received on the channel specified for CONTROL MIDI CH. (p. 46) (factory setting: channel 1).
- * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

General Purpose Controller 6 (Controller number 81) (Rotary Brake)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 51H | vvH |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = control value: 00H - 7FH (0 - 127) 0-63 = SPIN, 64-127 = BRAKE

- * When MIDI IN FUNCTION is SINGLE KEYBOARD MODE (p. 20), this is received on the channel specified for CONTROL MIDI CH. (p. 46) (factory setting: channel 1).
- * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

Program Change

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| CnH | ppH | |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 pp = program number: 00H - 05H (prog.1 - prog.6) (Registration)
 08H - 0DH (prog.9 - prog.14)
 10H - 15H (prog.17 - prog.22)
 18H - 1DH (prog.25 - prog.30)
 20H - 25H (prog.33 - prog.38)
 28H - 2DH (prog.41 - prog.46)

- * Not received when MIDI PROGRAM CHANGE SWITCH is OFF (p. 45) (factory setting: OFF).
- * Registrations are received on the channel specified by CONTROL MIDI CH. (p. 46) (factory setting: channel 1).
- * Regardless of the MIDI channel, Registration numbers will be switched when MIDI IN FUNCTION is set to SINGLE KEYBOARD MODE (p. 20).

Channel Mode messages

All Sound Off (Controller number 120)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 78H | 00H |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

- * When this message is received, all notes currently sounding on the corresponding channel will be turned off.

Reset All Controllers (Controller number 121)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 79H | 00H |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

- * When this message is received, the following controllers will be set to their reset values.

| Controller | Reset value |
|------------|-------------|
| Hold 1 | 0 (off) |

All Note Off (Controller number 123)

| Status | 2nd byte | 3rd byte |
|--------|----------|----------|
| BnH | 7BH | 00H |

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

- * When All Note Off is received, all currently sounding notes of the corresponding channel will be turned off. However if Hold 1 is on, the sound will be held until these are turned off.

MIDI Implementation

System Realtime Messages

Active Sensing

Status

FEH

- * When an Active Sensing message is received, the unit will begin monitoring the interval at which MIDI messages are received. During monitoring, if more than 420 ms passes without a message being received, the same processing will be done as when All Sound Off, All Note Off, and Reset All Controllers messages are received. Then monitoring will be halted.

System Exclusive Messages

Status

F0H iiH, ddH,, eeH F7H

F0H: System Exclusive message status

ii = ID number: This is the ID number (manufacturer ID) that specifies the manufacturer whose exclusive message this is. Roland's manufacturer ID is 41H. ID numbers 7EH and 7FH are defined in an expansion of the MIDI standard as Universal Non-realtime messages (7EH) and Universal Realtime Messages (7FH).

dd, ..., ee = data: 00H - 7FH (0 - 127)

F7H: EOX (End Of Exclusive) This is the last status of system exclusive message.

The System Exclusive Messages received by VK-8M are; messages related to mode settings, Universal Realtime System Exclusive messages, Data Requests (RQ1), and Data Set (DT1).

Universal Non-Realtime System Exclusive Messages

Identity Request Message

Status

F0H 7EH, dev, 06H, 01H F7H

Byte

FOH: Exclusive status

7EH: ID number (universal non-realtime message)

dev: Device ID (dev: 10H (17) fixed)

06H: Sub ID#1 (General Information)

01H: Sub ID#2 (Identity Request)

F7H: EOX (End Of Exclusive)

- * The "dev" is own device number or 7FH (Broadcast)

Data Request 1 RQ1

This message requests the other device to transmit data. The address and size indicate the type and amount of data that is requested. When a Data Request message is received, if the device is in a state in which it is able to transmit data, and if the address and size are appropriate, the requested data is transmitted as a Data Set 1 (DT1) message. If the conditions are not met, nothing is transmitted. The model ID of the exclusive messages used by this instrument is 00 4DH.

Status

F0H 41H, dev, 00H, 4DH, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum

Status

F7H

Byte

F0H: Exclusive status

41H: ID number (Roland)

dev: device ID (dev: 10H fixed)

00H: model ID

4DH: model ID (VK-8M)

11H: command ID (RQ1)

aaH: address MSB

bbH: address

ccH: address

ddH: address LSB

ssH: size MSB

ttH: size

uuH: size

vvH: size LSB

sum: checksum

F7H: EOX (End Of Exclusive)

- * The amount of data can be transmitted at one time depends on the type of data, and data will be transmitted from the specified starting address and size. Refer to the address and size given in "Parameter address map (MODEL ID = 00 4DH)" (p. 59).

- * For the address, size, and checksum, refer to "Examples of System Exclusive Messages and Calculating the Checksum" (p. 61).

- * Regarding the checksum, please refer to page 61.

Data Set 1 DT1

This message transmits the actual data, and is used when you wish to set the data of the receiving device.

Status

F0H 41H, dev, 00H, 4DH, 12H, aaH, bbH, ccH, ddH, eeH, ... fFH, sum

Status

F7H

Byte

F0H: Exclusive status

41H: ID number (Roland)

dev: device ID (dev: 10H fixed)

00H: model ID

4DH: model ID (VK-8, VK-8M)

12H: command ID (DT1)

aaH: address MSB

bbH: address

ccH: address

ddH: address LSB

eeH: data: The actual data to be transmitted. Multi-byte data is transmitted in the order of the address.

: :

fFH: data

sum: checksum

F7H: EOX (End Of Exclusive)

- * For the address, size, and checksum, refer to "Parameter address map (MODEL ID = 00 4DH)" (p. 59).

- * Data whose size is greater than 128 bytes should be divided into packets of 128 bytes or less and transmitted. Successive "Data Set 1" messages should have at least 40 ms of time interval between them.

- * Regarding the checksum, please refer to page 61.

2. Transmitted Data

- * Messages that affect the system or the entire organ part are transmitted on the channel specified by CONTROL MIDI CH. (p. 46).

- * Messages related to individual Organ parts are transmitted on the channels specified by UPPER/LOWER/PEDAL ORGAN MIDI CH. (p. 46).

Channel Voice Messages

Note off

Status

8nH kkH vvH

n = MIDI channel number: 0H-FH (ch.1-ch.16)

kk = note number: 40H (64) (SPRING SHOCK)

vv = note off velocity: 40H (64) (SPRING SHOCK)

Note on

Status

9nH kkH vvH

n = MIDI channel number: 0H-FH (ch.1-ch.16)

kk = note number: 40H (64) (SPRING SHOCK)

vv = note on velocity: 01H-7FH (1-127) (SPRING SHOCK)

Control Change

Expression (Controller number 11)

Status

BnH 0BH vvH

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

vv = expression: 10H - 7FH (10 - 127) (Organ Part)

- * Transmitted when the expression pedal is operated, on the channel specified by CONTROL MIDI CH. (p. 46).

General Purpose Controller 2 (Controller number 17) (Wheel Brake)

Status

BnH 11H vvH

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

vv = control value: 00H - 7FH (0 - 127) 0-63 = OFF, 64-127 = ON

- * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

General Purpose Controller 5 (Controller number 80) (Rotary Speed)

Status

BnH 50H vvH

n = MIDI channel number: 0H - FH (ch.1 - ch.16)

vv = control value: 00H - 7FH (0 - 127)

- * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

○ General Purpose Controller 6 (Controller number 81) (Rotary Brake)

Status 2nd byte 3rd byte
 BnH 51H vvH
 n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 vv = control value: 00H - 7FH (0 - 127) 0-63 = SPIN, 64-127 = BRAKE
 * Not received when MIDI GENERAL CONTROLLERS SWITCH (p. 45) is OFF.

● Program Change

Status 2nd byte
 CnH ppH
 n = MIDI channel number: 0H - FH (ch.1 - ch.16)
 pp = program number: 00H - 05H (prog.1 - prog.6) (Registration)
 08H - 0DH (prog.9 - prog.14)
 10H - 15H (prog.17 - prog.22)
 18H - 1DH (prog.25 - prog.30)
 20H - 25H (prog.33 - prog.38)
 28H - 2DH (prog.41 - prog.46)

* Not received when MIDI PROGRAM CHANGE SWITCH is OFF (p. 45) (factory setting: OFF).

■ System Realtime Message

Active sensing

Status

FEH

* This will be transmitted constantly at intervals of approximately 250 ms.

■ System Exclusive Messages

“Identity Reply” and “Data Set 1 (DT1)” are the only System Exclusive messages transmitted by VK-8M.

When an appropriate “Identity Request Message” and “Data Request 1 (RQ1)” message are received, the requested internal data will be transmitted.

● Identity Reply

Status Data byte
 F0H 7EH, dev, 06H, 02H, 41H, 4DH, 01H, 00H, 01H, 00H, 00H, 00H, 00H

Status

F7H

| Byte | Explanation |
|------|---|
| FOH | Exclusive status |
| 7EH | ID number (universal non-realtime message) |
| dev | Device ID (use the same as the device ID of Roland) |
| 06H | Sub ID#1 (General Information) |
| 02H | Sub ID#2 (Identity Reply) |
| 41H | ID number (Roland) |
| 4DH | Device family code (LSB) |
| 01H | Device family code (MSB) |
| 00H | Device family number code (LSB) |
| 01H | Device family number code (MSB) |
| 00H | Software revision level |
| 00H | Software revision level |
| 00H | Software revision level |
| 00H | Software revision level |
| F7H | EOX (End of Exclusive) |

* Reply the message by the unique device ID (dev) when the device has received the “Identity Request Message” in the Broadcast.

● Data Set1 DT1

Status data byte
 F0H 41H, dev, 00H, 4DH, 12H, aaH, bbH, ccH, ddH, eeH... ffH, sum

Status

F7H

| Byte | Remarks |
|------|---|
| F0H | Exclusive status |
| 41H | ID number (Roland) |
| dev | device ID (dev: 10H fixed) |
| 00H | model ID |
| 4DH | model ID (VK-8M) |
| 12H | command ID (DT1) |
| aaH | address MSB |
| bbH | address |
| ccH | address |
| ddH | address LSB |
| eeH | data: The actual data to be transmitted. Multi-byte data is transmitted in the address order. |
| : | : |
| ffH | data |

sum checksum
 F7H EOX (End Of Exclusive)

- * For the address, size, and checksum, refer to “Parameter address map (MODEL ID = 00 4DH)” (p. 59).
- * Large amounts of data must be divided into packets of 128 bytes or less, and transmitted at intervals of approximately 40 ms.
- * Regarding the checksum, please refer to page 61.

3. Parameter address map (MODEL ID = 00 4DH)

Transmission of “#” marked address is divided to some packets. For example, ABH in hexadecimal notation will be divided to 0AH and 0BH, and is sent/received in this order. It is shown that the description (VK-8) and (VK-8M) in the map is a parameter peculiar to each model.

| Start Address | Description |
|---------------|-------------------------|
| 00 00 00 00 | System |
| 10 00 00 00 | Temporary Registration |
| 20 00 00 00 | User Registration (1-1) |
| 20 01 00 00 | User Registration (1-2) |
| 20 05 00 00 | User Registration (1-6) |
| 20 08 00 00 | User Registration (2-1) |
| 20 0D 00 00 | User Registration (2-6) |
| 20 10 00 00 | User Registration (3-1) |
| 20 15 00 00 | User Registration (3-6) |
| 20 18 00 00 | User Registration (4-1) |
| 20 1D 00 00 | User Registration (4-6) |
| 20 20 00 00 | User Registration (5-1) |
| 20 25 00 00 | User Registration (5-6) |
| 20 28 00 00 | User Registration (6-1) |
| 20 2D 00 00 | User Registration (6-6) |

* System

| Offset Address | Description |
|----------------|---------------|
| 00 00 00 | System Common |
| 00 01 00 | System MIDI |
| 00 02 00 | System Organ |
| 00 03 00 | System FX |

* Registration

| Offset Address | Description |
|----------------|---------------------|
| 00 00 00 | Registration Common |
| 00 10 00 | Registration Organ |
| 00 20 00 | Registration FX |

* System Common

| Offset Address | Description |
|----------------|---|
| # 00 00 | 0000 aaaa 0000 bbbb 0000 cccc 0000 dddd Master Tune (24 - 2024) -100.0 - 100.0 [cent] |
| 00 04 | 0000 aaaa Key Transpose (VK-8) (58 - 69) -6 - +5 |
| 00 05 | 0000 aaaa Foot Control Assign (VK-8) (0 - 11) ROTARY SLOW/FAST, ROTARY SPEED, ROTARY BRAKE ON/OFF, OTHER TONES GLIDE, PRESET UP, OVERDRIVE, OTHER TONES EXPRESSION, D-BEAM SYNC, CRESCENDO, RING MODULATION, TONE WHEEL BRAKE, SPRING SHOCK |
| 00 06 | 0000 000a Foot Control Polarity (VK-8) (0 - 1) STANDARD, REVERSE |
| 00 07 | 0000 000a Hold Pedal Polarity (VK-8) (0 - 1) STANDARD, REVERSE |
| 00 08 | 0000 000a Light Mode (VK-8M) (0 - 1) |
| 00 09 | 0000 aaaa Auto Color Mode (VK-8M) (0 - 10) NORMAL, MULTI OFF, 1 - 10 |
| 00 00 00 0A | Total Size |

MIDI Implementation

* System MIDI

| Offset Address | Description | |
|----------------|-------------|--|
| 00 00 | 0000 aaaa | Control Channel (0 - 15) 1 - 16 |
| 00 01 | 0000 aaaa | Upper Channel (0 - 15) 1 - 16 |
| 00 02 | 0000 aaaa | Lower Channel (0 - 15) 1 - 16 |
| 00 03 | 0000 aaaa | Pedal Channel (0 - 15) 1 - 16 |
| 00 04 | 0000 aaaa | Other Tones Channel (VK-8) (0 - 15) 1 - 16 |
| 00 05 | 0000 aaaa | Drums Channel (VK-8) (0 - 15) 1 - 16 |
| 00 06 | 0000 aaaa | Spring Shock Channel (0 - 15) 1 - 16 |
| 00 07 | 0000 000a | Sound Controllers Switch (0 - 1) OFF, ON |
| 00 08 | 0000 000a | General Controllers Switch (0 - 1) OFF, ON |
| 00 09 | 0000 000a | Program Change Switch (0 - 1) OFF, ON |
| 00 0A | 0000 000a | MIDI In Function (VK-8M) (0 - 1) SEQUENCER MODE, SINGLE KEYBOARD MODE |
| 00 00 00 0B | Total Size | |

* System Organ

| Offset Address | Description | |
|----------------|-------------|-----------------------------------|
| 00 00 | 000a aaaa | On Click Level (0 - 31) |
| 00 01 | 000a aaaa | Off Click Level (0 - 31) |
| 00 02 | 0000 aaaa | Percussion Soft Level (0 - 15) |
| 00 03 | 0000 aaaa | Percussion Norm Level (0 - 15) |
| 00 04 | 0aaa aaaa | Percussion Slow Time (0 - 127) |
| 00 05 | 0aaa aaaa | Percussion Fast Time (0 - 127) |
| 00 06 | 0000 aaaa | Percussion Recharge Time (0 - 10) |
| 00 07 | 0aaa aaaa | Percussion H.Bar Level (0 - 127) |
| 00 08 | 0aaa aaaa | D-Beam Crescendo (0 - 127) |
| 00 09 | 0aaa aaaa | Organ Crescendo (VK-8) (0 - 127) |
| 00 00 00 0A | Total Size | |

* System FX

| Offset Address | Description | |
|----------------|-------------|---|
| 00 00 | 0aaa aaaa | Rotary Woofer Level (0 - 127) |
| 00 01 | 0aaa aaaa | Rotary Tweeter Level (0 - 127) |
| 00 02 | 0aaa aaaa | Rotary Woofer Rise Time (0 - 127) |
| 00 03 | 0aaa aaaa | Rotary Tweeter Rise Time (0 - 127) |
| 00 04 | 0aaa aaaa | Rotary Woofer Fall Time (0 - 127) |
| 00 05 | 0aaa aaaa | Rotary Tweeter Fall Time (0 - 127) |
| 00 06 | 0aaa aaaa | Rotary Woofer Speed Fast (0 - 127) |
| 00 07 | 0aaa aaaa | Rotary Tweeter Speed Fast (0 - 127) |
| 00 08 | 0aaa aaaa | Rotary Woofer Speed Slow (0 - 127) |
| 00 09 | 0aaa aaaa | Rotary Tweeter Speed Slow (0 - 127) |
| 00 0A | 0000 aaaa | Rotary Woofer Spread (0 - 10) |
| 00 0B | 0000 aaaa | Rotary Tweeter Spread (0 - 10) |
| 00 0C | 0000 aaaa | Rotary Mic Distance (0 - 10) |
| 00 0D | 0000 aaaa | Rotary Randomize (0 - 10) |
| 00 0E | 0000 aaaa | EQ Bass (59 - 69) -5 - +5 |
| 00 0F | 0000 aaaa | EQ Middle (59 - 69) -5 - +5 |
| 00 10 | 0000 aaaa | EQ Treble (59 - 69) -5 - +5 |
| 00 11 | 0000 000a | Rotary Indicator Sync Source (VK-8M) (0 - 1) Tweeter, Woofer |
| 00 00 00 12 | Total Size | |

* Registration Common

| Offset Address | Description | |
|----------------|-------------|---|
| 00 00 | 0000 000a | Keyboard Split Switch (VK-8) (0 - 1) OFF, ON |
| 00 01 | 0aaa aaaa | Keyboard Split Point (VK-8) (0 - 127) C-1 - G9 |
| 00 02 | 0000 000a | Hold Pedal Assign (VK-8) (0 - 1) ORGAN & OTHER TONES, OTHER TONES |
| 00 03 | 0000 000a | D-Beam Switch (0 - 1) OFF, ON |
| 00 04 | 0000 0aaa | D-Beam Assign (0 - 5) CRESCENDO, ROTARY SPEED, RING MODULATION, TONE WHEEL BRAKE, SPRING SHOCK, GLIS (VK-8M) |
| 00 05 | 0000 000a | D-Beam Rotary Speed Mode (0 - 1) SLOW/FAST, COTINUOUS |
| 00 06 | 0000 000a | Rotary Fast/Slow Status (0 - 1) SLOW, FAST |
| 00 07 | 0000 00aa | Expression Mode (VK-8) (0 - 2) NORMAL, OTHER TONES CRESCENDO, ORGAN CRESCENDO |
| 00 08 | 0000 000a | Other Tones Switch (VK-8) (0 - 1) OFF, ON |
| 00 09 | 0000 0aaa | Other Tones PC Number (VK-8) (0 - 7) |

| | | |
|-------------|------------|---|
| 00 0A | 0aaa aaaa | Other Tones Level (VK-8) (0 - 127) 1 - 8 |
| 00 0B | 0000 0aaa | Other Tones Octave Shift (VK-8) (61 - 67) -3 - +3 |
| 00 0C | 0000 00aa | Other Tones Assign (VK-8) (0 - 2) UPPER, LOWER, PEDAL |
| 00 0D | 0000 000a | Keyboard Split Mode (VK-8) (0 - 1) UPPER/LOWER, UPPER/PEDAL |
| 00 0E | 0000 00aa | Expression Pedal Select (VK-8M) (0 - 2) ACTIVE EXP, EXP, MIX |
| 00 00 00 0F | Total Size | |

* Registration Organ

| Offset Address | Description | |
|----------------|-------------|---|
| 00 00 | 0000 aaaa | Upper Harmonic Bar 16' (0 - 8) |
| 00 01 | 0000 aaaa | Upper Harmonic Bar 5-1/3' (0 - 8) |
| 00 02 | 0000 aaaa | Upper Harmonic Bar 8' (0 - 8) |
| 00 03 | 0000 aaaa | Upper Harmonic Bar 4' (0 - 8) |
| 00 04 | 0000 aaaa | Upper Harmonic Bar 2-2/3' (0 - 8) |
| 00 05 | 0000 aaaa | Upper Harmonic Bar 2' (0 - 8) |
| 00 06 | 0000 aaaa | Upper Harmonic Bar 1-3/5' (0 - 8) |
| 00 07 | 0000 aaaa | Upper Harmonic Bar 1-1/3' (0 - 8) |
| 00 08 | 0000 aaaa | Upper Harmonic Bar 1' (0 - 8) |
| 00 09 | 0000 aaaa | Lower Harmonic Bar 16' (0 - 8) |
| 00 0A | 0000 aaaa | Lower Harmonic Bar 5-1/3' (0 - 8) |
| 00 0B | 0000 aaaa | Lower Harmonic Bar 8' (0 - 8) |
| 00 0C | 0000 aaaa | Lower Harmonic Bar 4' (0 - 8) |
| 00 0D | 0000 aaaa | Lower Harmonic Bar 2-2/3' (0 - 8) |
| 00 0E | 0000 aaaa | Lower Harmonic Bar 2' (0 - 8) |
| 00 0F | 0000 aaaa | Lower Harmonic Bar 1-3/5' (0 - 8) |
| 00 10 | 0000 aaaa | Lower Harmonic Bar 1-1/3' (0 - 8) |
| 00 11 | 0000 aaaa | Lower Harmonic Bar 1' (0 - 8) |
| 00 12 | 0000 aaaa | Pedal Harmonic Bar 16' (0 - 8) |
| 00 13 | 0000 aaaa | Pedal Harmonic Bar 8' (0 - 8) |
| 00 14 | 0000 000a | Percussion Switch (0 - 1) OFF, ON |
| 00 15 | 0000 000a | Percussion Harmonic (0 - 1) 2ND, 3RD |
| 00 16 | 0000 000a | Percussion Soft (0 - 1) NORM, SOFT |
| 00 17 | 0000 000a | Percussion Slow (0 - 1) FAST, SLOW |
| 00 18 | 0000 00aa | Wheel Type (0 - 3) VINTAGE 1, VINTAGE 2, CLEAN |
| 00 19 | 0aaa aaaa | Leakage Level (0 - 127) |
| 00 00 00 1A | Total Size | |

* Registration FX

| Offset Address | Description | |
|----------------|-------------|---|
| 00 00 | 0000 000a | Vibrato Chorus Switch (0 - 1) OFF, ON |
| 00 01 | 0000 0aaa | Vibrato Chorus Type (0 - 5) V-1, V-2, V-3, C-1, C-2, C-3 |
| 00 02 | 0000 00aa | Vibrato Chorus Vintage (0 - 2) '50, '60, '70 |
| 00 03 | 0aaa aaaa | Rotary Speed (0 - 127) |
| 00 04 | 0000 000a | Rotary Brake (0 - 1) OFF, ON |
| 00 05 | 0000 000a | Rotary Bypass (0 - 1) OFF, ON |
| 00 06 | 0000 00aa | Amp & Speaker (0 - 3) TYPE I, TYPE II, TYPE III, TYPE IV |
| 00 07 | 0aaa aaaa | Overdrive (0 - 127) OFF, 1 - 127 |
| 00 08 | 0aaa aaaa | Tone (1 - 127) -63 - +63 |
| 00 09 | 0000 000a | Ring Modulator Switch (0 - 1) OFF, ON |
| 00 0A | 0aaa aaaa | Ring Modulator Frequency (0 - 127) |
| 00 0B | 0000 00aa | Reverb Type (0 - 3) ROOM, HALL, CHURCH, SPRING |
| 00 0C | 0aaa aaaa | Reverb Level (0 - 127) |
| 00 0D | 0aaa aaaa | Reverb Time (0 - 127) |
| 00 0E | 0aaa aaaa | Chorus Level (VK-8) (0 - 127) |
| 00 00 00 0F | Total Size | |

4. Supplementary material

Decimal/Hexadecimal Table

MIDI uses 7-bit hexadecimal values to indicate data values and the address and size of exclusive messages. The following table shows the correspondence between decimal and hexadecimal numbers.

* Hexadecimal values are indicated by a following 'H.'

| D | H | D | H | D | H | D | H |
|----|-----|----|-----|----|-----|-----|-----|
| 0 | 00H | 32 | 20H | 64 | 40H | 96 | 60H |
| 1 | 01H | 33 | 21H | 65 | 41H | 97 | 61H |
| 2 | 02H | 34 | 22H | 66 | 42H | 98 | 62H |
| 3 | 03H | 35 | 23H | 67 | 43H | 99 | 63H |
| 4 | 04H | 36 | 24H | 68 | 44H | 100 | 64H |
| 5 | 05H | 37 | 25H | 69 | 45H | 101 | 65H |
| 6 | 06H | 38 | 26H | 70 | 46H | 102 | 66H |
| 7 | 07H | 39 | 27H | 71 | 47H | 103 | 67H |
| 8 | 08H | 40 | 28H | 72 | 48H | 104 | 68H |
| 9 | 09H | 41 | 29H | 73 | 49H | 105 | 69H |
| 10 | 0AH | 42 | 2AH | 74 | 4AH | 106 | 6AH |
| 11 | 0BH | 43 | 2BH | 75 | 4BH | 107 | 6BH |
| 12 | 0CH | 44 | 2CH | 76 | 4CH | 108 | 6CH |
| 13 | 0DH | 45 | 2DH | 77 | 4DH | 109 | 6DH |
| 14 | 0EH | 46 | 2EH | 78 | 4EH | 110 | 6EH |
| 15 | 0FH | 47 | 2FH | 79 | 4FH | 111 | 6FH |
| 16 | 10H | 48 | 30H | 80 | 50H | 112 | 70H |
| 17 | 11H | 49 | 31H | 81 | 51H | 113 | 71H |
| 18 | 12H | 50 | 32H | 82 | 52H | 114 | 72H |
| 19 | 13H | 51 | 33H | 83 | 53H | 115 | 73H |
| 20 | 14H | 52 | 34H | 84 | 54H | 116 | 74H |
| 21 | 15H | 53 | 35H | 85 | 55H | 117 | 75H |
| 22 | 16H | 54 | 36H | 86 | 56H | 118 | 76H |
| 23 | 17H | 55 | 37H | 87 | 57H | 119 | 77H |
| 24 | 18H | 56 | 38H | 88 | 58H | 120 | 78H |
| 25 | 19H | 57 | 39H | 89 | 59H | 121 | 79H |
| 26 | 1AH | 58 | 3AH | 90 | 5AH | 122 | 7AH |
| 27 | 1BH | 59 | 3BH | 91 | 5BH | 123 | 7BH |
| 28 | 1CH | 60 | 3CH | 92 | 5CH | 124 | 7CH |
| 29 | 1DH | 61 | 3DH | 93 | 5DH | 125 | 7DH |
| 30 | 1EH | 62 | 3EH | 94 | 5EH | 126 | 7EH |
| 31 | 1FH | 63 | 3FH | 95 | 5FH | 127 | 7FH |

D: decimal

H: hexadecimal

* Decimal expressions such as used for MIDI channel, Bank Select, and Program Change will be the value 1 greater than the decimal value given in the above table.

* Since each MIDI byte carries 7 significant data bits, each byte can express a maximum of 128 different values. Data for which higher resolution is required must be transmitted using two or more bytes. For example a value indicated as a two-byte value of aa bbH would have a value of $aa \times 128 + bb$.

* For a signed number (\pm), 00H = -64, 40H = ± 0 , and 7FH = +63. I.e., the decimal equivalent will be 64 less than the decimal value given in the above table. For a two-byte signed number, 00 00H = -8192, 40 00H = ± 0 , and 7F 7FH = +8191. For example the decimal expression of aa bbH would be $aa \text{ bbH} - 40 \text{ 00H} = aa \times 128 + bb - 64 \times 128$.

<Example1> What is the decimal equivalent of 5AH?

From the above table, 5AH = 90.

<Example2> What is the decimal equivalent of the 7-bit hexadecimal values 12 34H?

From the above table, 12H = 18 and 34H = 52
Thus, $18 \times 128 + 52 = 2356$

Examples of Actual MIDI Messages

<Example1> 92 3E 64

9n is the Note On status and 'n' is the MIDI channel number. Since 2H = 2, 3EH = 62, and 64H = 100, this is a Note On message of MIDI CH = 3, note number 62 (note name D4) and velocity 100.

<Example2> C0 15

CnH is the Program Change status and 'n' is the MIDI channel number. Since 0H = 0, and 15H = 21, this is a Program Change message of MIDI CH = 1, Program number 22.

Examples of System Exclusive Messages and Calculating the Checksum

Roland exclusive messages (RQ1, DT1) are transmitted with a checksum at the end of the data (before F7) to check that the data was received correctly. The value of the checksum is determined by the address and data (or size) of the exclusive message.

How to calculate the checksum

The checksum consists of a value whose lower 7 bits are 0 when the address, size and checksum itself are added. The following formula shows how to calculate the checksum when the exclusive message to be transmitted has an address of aa bb cc ddH, and data or size of ee ffH.

$$aa + bb + cc + dd + ee + ff = \text{total}$$

$$\text{total} \div 128 = \text{quotient} \dots \text{remainder}$$

$$128 - \text{remainder} = \text{checksum}$$

<Example1> Turn the Temporary Registration Organ percussion switch ON (DT1).

The "Parameter address map (MODEL ID = 00 4DH)" (p. 59) indicates that the starting address of the Temporary Registration is 10 00 00 00H, that the Registration Organ Parameter offset address is 10 00H, and that the "PERCUSSION SWITCH" address is 00 14H. Thus, the address is:

$$\begin{array}{r} 10 \ 00 \ 00 \ 00\text{H} \\ \quad \quad \quad 10 \ 00\text{H} \\ +) \quad \quad \quad 00 \ 14\text{H} \\ \hline 10 \ 00 \ 10 \ 14\text{H} \end{array}$$

Since "ON" is parameter value 01H,

F0 41 10 00 4D 12 10 00 10 14 01 ?? F7
(1) (2) (3) (4) (5) address data checksum (6)

- (1) Exclusive status
- (2) ID number (Roland)
- (3) device ID(17)
- (4) model ID (VK-8, VK-8M)
- (5) command ID (DT1)
- (6) EOX

Next we calculate the checksum.

$$10\text{H} + 00\text{H} + 10\text{H} + 14\text{H} + 01\text{H} = 16 + 0 + 16 + 20 + 1 = 53 \text{ (sum)}$$

$$53 \text{ (total)} \div 128 = 0 \text{ (quotient)} \dots 53 \text{ (remainder)}$$

$$\text{checksum} = 128 - 53 \text{ (quotient)} = 75 = 4\text{BH}$$

This means that the message transmitted will be F0 41 10 00 4D 12 10 00 10 14 01 4B F7.

<Example2> Obtain preset organ parameter data for User Registration: 02 (RQ1).

The "Parameter address map (MODEL ID = 00 4DH)" (p. 59) indicates that the starting address of USER: 02 is 20 01 00 00H, and that the offset address of Organ Parameter is 10 00H. Thus, the address is:

$$\begin{array}{r} 20 \ 01 \ 00 \ 00\text{H} \\ \quad \quad \quad 10 \ 00\text{H} \\ +) \quad \quad \quad 00 \ 00\text{H} \\ \hline 20 \ 01 \ 10 \ 00\text{H} \end{array}$$

Since the size of the Performance Part is 00 00 00 1AH,

F0 41 10 00 4D 11 20 01 10 00 00 00 00 1A ?? F7
(1) (2) (3) (4) (5) address data checksum (6)

- (1) Exclusive status
- (2) ID number (Roland)
- (3) Device ID (17)
- (4) Model ID (VK-8, VK-8M)
- (5) Command ID (RQ1)
- (6) EOX

Next we calculate the checksum.

$$20\text{H} + 01\text{H} + 10\text{H} + 00\text{H} + 00\text{H} + 00\text{H} + 00\text{H} + 1\text{AH} =$$

$$32 + 1 + 16 + 0 + 0 + 0 + 0 + 26 = 75 \text{ (sum)}$$

$$75 \text{ (total)} \div 128 = 0 \text{ (product)} \dots 75 \text{ (remainder)}$$

$$\text{checksum} = 128 - 75 \text{ (remainder)} = 53 = 35\text{H}$$

Thus, a message of F0 41 10 00 4D 11 20 01 10 00 00 00 00 1A 35 F7 would be transmitted.

MIDI Implementation Chart

| Function... | | Transmitted | Recognized | | Remarks |
|------------------|--|--|---|-------------------------------------|--|
| | | | SEQUENCER MODE | SINGLE KEYBOARD MODE | |
| Basic Channel | Default Changed | 1-16 1-16 | 1-16 1-16 | 1-16 X | |
| Mode | Default Messages Altered | Mode 3 X ***** | Mode 3 X | Mode 1 X | |
| Note Number : | True Voice | 64 (SPRING SHOCK) ***** | 0-127 36-96 (UPPER/LOWER) 36-61 (PEDAL) | 0-127 36-96 36-61 | *1 |
| Velocity | Note On Note Off | O X | O O | O O | *2 |
| After Touch | Key's Channel's | X X | X X | X X | |
| Pitch Bend | | X | X | X | |
| Control Change | 11 17 70-78 64 80 81 | O *3 O *3, *5 X X O *3, *7 O *3, *8 | O *3 O *3, *5 O *3, *6 O O *3, *7 O *3, *8 | O *4 O *5 O *6 O O O | Expression General purpose controller 2 Sound controller Hold 1 General purpose controller 5 General purpose controller 6 |
| Program Change : | True Number | 0-35 ***** | O 0-5, 8-13, 16-21, 24-29, 32-37, 40-45 | O *9 | Program No. 1-6, 9-14, 17-22, 25-30, 33-38, 41-46 |
| System Exclusive | | O | O | O | |
| System Common | : Song Position : Song Select : Tune Request | X X X | X X X | X X X | Processed as 0 |
| System Real Time | : Clock : Commands | X X | X X | X X | |
| Aux Messages | : All Sound Off : Reset All Controllers : All Notes Off : Active Sensing : System Reset | O X X O X | O O O O X | X X X O X | |
| Notes | *1 The messages will be received as messages for upper part, regardless of their channel number. *2 Velocity for organ parts is fixed. *3 The Messages will be received on the channel specified by Control MIDI Channel. *4 Received Data will be handled in the same way as the EXPRESSION PEDAL jack of the VK-8M itself. *5 Wheel Brake *6 Harmonic Bar *7 Rotary Speed *8 Rotary Brake *9 Registration will be switched by received MIDI message. | | | | |

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

Main Specification

VK-8M: Organ Module

● Sound Generator

Virtual Tonewheel Method

● Part

3 Parts (Upper, Lower, Pedal)

● Maximum Polyphony

Full Polyphony

● Organ

Tone Wheel

VINTAGE 1, VINTAGE 2, CLEAN

Leakage Level

Vibrato and Chorus

V1, V2, V3, C1, C2, C3

Percussion

SECOND, THIRD, SOFT, SLOW

AMP Simulator

TYPE I, TYPE II, TYPE III, TYPE IV

Overdrive

Tone

Reverb

ROOM, HALL, CHURCH, SPRING

Reverb Level

D BEAM

CRESCENDO, ROTARY SPEED, RING MODULATOR,
TONE WHEEL BRAKE, SPRING SHOCK, GLISSANDO

● Internal Memory

Registration memory: 36 (User Memory)

● Control

Harmonic Bar

16', 5-1/3', 8', 4', 2-2/3', 2', 1-3/5', 1-1/3', 1'

● TONE WHEEL

[LEAKAGE] knob, [TONE WHEEL] button

● VIBRATO AND CHORUS

VIBRATO AND CHORUS [ON] button,
[VIBRATO AND CHORUS] rotary knob

● D BEAM

D BEAM Controller, D BEAM [ON] button,
[D BEAM] button

● AMPLIFIER

[OVERDRIVE] knob, [AMPLIFIER] button, [TONE] knob

● REVERB

[REVERB] button, REVERB [LEVEL] knob

● PERCUSSION

[2ND/3RD] button, [SOFT] button, [SLOW] button

● ROTARY SOUND

[BRAKE] button, [SLOW/FAST] button

REGISTRATION

[H-BAR PART] button, [H-BAR MANUAL] button,
[WRITE] button, [BANK] button, [1]–[6] buttons

INPUT

[INPUT] button, INPUT [VOLUME] knob

[MASTER VOLUME] knob

● Connectors

OUTPUT Jacks (L (MONO), R): 1/4 inch phone type

INPUT Jacks (L (MONO), R): 1/4 inch phone type

PHONES Jack: Stereo miniature phone type

EXPRESSION PEDAL Jack

MIDI Connectors (IN, OUT)

AC ADAPTOR Jack (DC 9V)

● Power Supply

AC Adaptor (PSB-1U)

● Current Draw

700 mA

● Finish

Side Panel: Natural Wood Walnut Finish

● Dimensions

233 (W) x 275 (D) x 77 (H) mm

9-3/16 (W) x 10-7/8 (D) x 3-1/16 (H) inches

● Weight

1.7 kg / 3 lbs 12 oz

● Accessories

Owner's Manual, Edit Mode Quick Reference, AC adaptor,
AC Cord

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

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Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

AFRICA

EGYPT

Al Fanny Trading Office
9, EBN Hagar A1 Askalany Street,
ARD E1 Golf, Heliopolis,
Cairo 11341, EGYPT
TEL: 20-2-417-1828

REUNION

Maison FO - YAM Marcel
25 Rue Jules Hermann,
Chaudron - BP79 97 491
Ste Clotilde Cedex,
REUNION ISLAND
TEL: (0262) 218-429

SOUTH AFRICA

**That Other Music Shop
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Johannesbourg, SOUTH AFRICA
P.O.Box 32918, Braamfontein 2017
Johannesbourg, SOUTH AFRICA
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17 Werdmuller Centre,
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Chaoyang District, Beijing 100011
CHINA
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Co., Ltd.**

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Xiang, Wu Yang Xin Cheng,
Guangzhou 510600, CHINA
Tel: (020) 8736-0428

HONG KONG

Tom Lee Music Co., Ltd.

Service Division
22-32 Pun Shan Street, Tsuen
Wan, New Territories,
HONG KONG
TEL: 2415 0911

Parsons Music Ltd.

8th Floor, Railway Plaza, 39
Chatham Road South, T.S.T,
Kowloon, HONG KONG
TEL: 2333 1863

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Flats Compound Off. Dr. Edwin
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INDONESIA

PT Citra IntiRama
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Jakarta Pusat
INDONESIA
TEL: (021) 6324170

KOREA

Cosmos Corporation
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Seocho Ku, Seoul, KOREA
TEL: (02) 3486-8855

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BENTLEY MUSIC SDN BHD
140 & 142, Jalan Bukit Bintang
55100 Kuala Lumpur, MALAYSIA
TEL: (03) 2144-3333

PHILIPPINES

G.A. Yupangco & Co. Inc.
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Makati, Metro Manila 1200,
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SINGAPORE 387381
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#02-2148, SINGAPORE 489980
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ENTERPRISE CO., LTD.**

Room 5, 9fl. No. 112 Chung Shan
N.Road Sec.2, Taipei, TAIWAN,
R.O.C.
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THAILAND

Theera Music Co., Ltd.
330 Verg NakornKasem, Soi 2,
Bangkok 10100, THAILAND
TEL: (02) 2248821

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Saigon Music
Suite DP-8
40 Ba Huyen Thanh Quan Street
Hochiminh City, VIETNAM
Tel: (08) 930-1969

AUSTRALIA/ NEW ZEALAND

AUSTRALIA

Roland Corporation

Australia Pty., Ltd.
38 Campbell Avenue
Dee Why West. NSW 2099
AUSTRALIA
TEL: (02) 9982 8266

NEW ZEALAND

Roland Corporation Ltd.
32 Shaddock Street, Mount Eden,
Auckland, NEW ZEALAND
TEL: (09) 3098 715

CENTRAL/LATIN AMERICA

ARGENTINA

Instrumentos Musicales S.A.
Av.Santa Fe 2055
(1123) Buenos Aires
ARGENTINA
TEL: (011) 4508-2700

BRAZIL

Roland Brasil Ltda
Rua San Jose, 780 Sala B
Parque Industrial San Jose
Cotia - Sao Paulo - SP, BRAZIL
TEL: (011) 4615 5666

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Instrumentos Musicales**
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San Jose, COSTA RICA
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Nataniel Cox #739, 4th Floor
Santiago - Centro, CHILE
TEL: (02) 688-9540

EL SALVADOR

OMNI MUSIC
75 Avenida Norte y Final
Alameda Juan Pablo II,
Edificio No.4010 San Salvador,
EL SALVADOR
TEL: 262-0788

MEXICO

Casa Veerkamp, s.a. de c.v.
Av. Toluca No. 323, Col. Olivar
de los Padres 01780 Mexico D.F.
MEXICO
TEL: (55) 5668-6699

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SUPRO MUNDIAL, S.A.
Boulevard Andrews, Albrook,
Panama City, REP. DE PANAMA
TEL: 315-0101

PARAGUAY

**Distribuidora De
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J.E. Olear y ESQ. Manduvira
Asuncion PARAGUAY
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Francisco Acuna de Figueroa 1771
C.P.: 11.800
Montevideo, URUGUAY
TEL: (02) 924-2335

VENEZUELA

Musicland Digital C.A.
Av. Francisco de Miranda,
Centro Parque de Cristal, Nivel
C2 Local 20 Caracas
VENEZUELA
TEL: (212) 285-8586

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A-6063 RUM, AUSTRIA
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K-AUDIO
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CZ-198 00 Praha 9,
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**Roland Elektronische
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MIDDLE EAST

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Radex Sound Equipment Ltd.
17, Diagorou Street, Nicosia,
CYPRUS
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MOCO, INC.
No.41 Nike St., Dr.Shariyati Ave.,
Roberoye Cerahe Mirdamad
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**Halilit P. Greenspoon &
Sons Ltd.**
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AMMAN Trading Agency
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TEL: 243-6399

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Chahine S.A.L.
Gerge Zeidan St., Chahine Bldg.,
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Beirut, LEBANON
TEL: (01) 20-1441

QATAR

**Al Emadi Co. (Badie Studio
& Stores)**
P.O. Box 62, Doha, QATAR
TEL: 4423-554

SAUDI ARABIA

**aDawlah Universal
Electronics APL**
Corniche Road, Aldossary Bldg.,
1st Floor, Alkhobar,
SAUDI ARABIA

P.O.Box 2154, Alkhobar 31952
SAUDI ARABIA
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SYRIA

**Technical Light & Sound
Center**
Rawda, Abdul Qader Jazairi St.
Bldg. No. 21, P.O.Box 13520,
Damascus, SYRIA
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TURKEY

**Ant Muzik Aletleri Ithalat
Ve Ihracat Ltd Sti**
Siraselvililer Caddesi Siraselvililer
Pasaji No:74/20
Taksim - Istanbul, TURKEY
TEL: (0212) 2449624

U.A.E.

**Zak Electronics & Musical
Instruments Co. L.L.C.**
Zabeel Road, Al Sherooq Bldg.,
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Roland Corporation U.S.
5100 S. Eastern Avenue
Los Angeles, CA 90040-2938,
U. S. A.
TEL: (323) 890 3700

As of April 1, 2004 (Roland)



This product complies with the requirements of European Directive 89/336/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.

This owner's manual is printed on recycled paper.

Roland Corporation

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