

# V-Combo

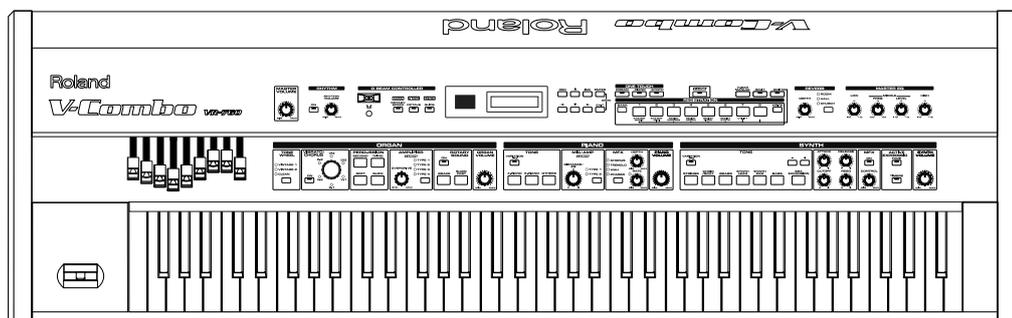
## VR-760

## Owner's Manual

Thank you, and congratulations on your choice of the Roland Performance Keyboard VR-760.

**Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (Owner's manual p. 2), "USING THE UNIT SAFELY" (Owner's manual p. 3), and "IMPORTANT NOTES" (Owner's manual 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.



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



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

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

## IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. Read these instructions.</li> <li>2. Keep these instructions.</li> <li>3. Heed all warnings.</li> <li>4. Follow all instructions.</li> <li>5. Do not use this apparatus near water.</li> <li>6. Clean only with a dry cloth.</li> <li>7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.</li> <li>8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.</li> <li>9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.</li> </ol> | <ol style="list-style-type: none"> <li>10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.</li> <li>11. Only use attachments/accessories specified by the manufacturer.</li> <li>12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.</li> <li>13. Unplug this apparatus during lightning storms or when unused for long periods of time.</li> <li>14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.</li> </ol> |
|---|--|



**For the U.K.**

**WARNING:** THIS APPARATUS MUST BE EARTHED

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

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

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

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

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

# USING THE UNIT SAFELY

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

About  WARNING and  CAUTION Notices

 <b>WARNING</b>	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
 <b>CAUTION</b>	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. 

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- Do not open or perform any internal modifications on the unit. (The only exception would be where this manual provides specific instructions which should be followed in order to put in place user-installable options; see p. 83.) 

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- 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. 

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- 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.

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- This unit should be used only with a rack or stand that is recommended by Roland. 

#### WARNING

- 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. 

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- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit. 

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- Use only the attached power-supply cord. 

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- 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! 

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- 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. 

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- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit.   


**⚠ WARNING**

- Immediately turn the power off, remove the power cord 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 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.
- 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.
- Always turn the unit off and unplug the power cord before attempting installation of the circuit board (model no. SRX Series; p. 83).
- 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 should be located so that its location or position does not interfere with its proper ventilation.
- This (VR-760) for use only with Roland stand KS-12. Use with other stands is capable of resulting in instability causing possible injury.
- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.
- At regular intervals, you should unplug the power plug 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 power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.
- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.
- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (p. 19).
- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.
- Install only the specified circuit board(s) (model no. SRX Series). Remove only the specified screws (p. 83).
- Should you remove Card protector, Card protector’s screws, and screws of the circuit board’s cover and the Music Rest, 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 “IMPORTANT SAFETY INSTRUCTIONS” and “USING THE UNIT SAFELY” on pages 2 and 3, please read and observe the following:

## Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.
- Although the LCD and LEDs are switched off when the POWER switch is switched off, this does not mean that the unit has been completely disconnected from the source of power. If you need to turn off the power completely, first turn off the POWER switch, then unplug the power cord from the power outlet. For this reason, the outlet into which you choose to connect the power cord's plug should be one that is within easy reach.

## 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 allow objects to remain on top of the keyboard. This can be the cause of malfunction, such as keys ceasing to produce sound.
- 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. 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 on a DATA card, or in another MIDI device (e.g., a sequencer).
- Unfortunately, it may be impossible to restore the contents of data that was stored on a DATA card, or 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.
- Never strike or apply strong pressure to the display.
- When connecting / disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use 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.

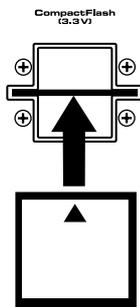
# Before Using Cards

## Using DATA Cards

- The VR-760's memory card slot accepts CompactFlash memory cards. Microdrive storage media by IBM are not compatible.
- CompactFlash and  are trademarks of SanDisk Corporation and licensed by CompactFlash association.
- Roland Corporation is an authorized licensee of the CompactFlash TM and CF logo  trademarks.
- Fugue ©1999-2003 Kyoto Software Research, Inc. All rights reserved.



- CompactFlash cards are constructed using precision components; handle the cards carefully, paying particular note to the following.
  - To prevent damage to the cards from static electricity, be sure to discharge any static electricity from your own body before handling the cards.
  - Do not touch or allow metal to come into contact with the contact portion of the cards.
  - Do not bend, drop, or subject cards to strong shock or vibration.
  - Do not keep cards in direct sunlight, in closed vehicles, or other such locations (storage temperature: -25°-85°).
  - Do not allow cards to become wet.
  - Do not disassemble or modify the cards.
- Never insert or remove a CompactFlash card while the VR-760's power is on. Doing so may corrupt the VR-760's data or the data on the CompactFlash card.
- Carefully insert the CompactFlash card all the way in—until it is firmly in place.



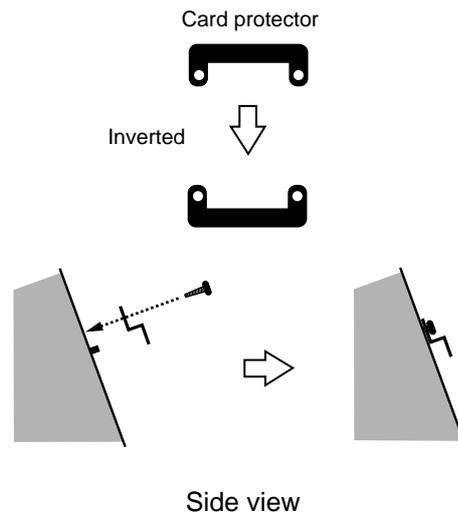
- Never touch the terminals of the CompactFlash card. Also, avoid getting the terminals dirty.

## Installing the card protector

The VR-760 provides a card protector to prevent theft of the memory card. To install the card protector, use the following procedure.

1. Use a screwdriver to remove both screws that are at either side of the memory card slot.

2. Insert the memory card into the memory card slot.
3. Use the screws to fasten the card protector as shown below.



# Main Features

## Emphasis on Basic Keyboard Functions for Stage Use

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### ■ Handles Organ, Piano, and Synthesizer Parts

The VR-760 is a 76-key portable keyboard that integrates extremely high-quality “organ,” “piano,” and “synthesizer” sounds, so important for bands who need to cover organ, piano, and synthesizer parts, all in one unit. The sections for controlling these three instruments, arranged on the VR-760’s panel in an easy-to-understand layout, can all be used simultaneously.

### ■ Organ Section Equipped with Virtual Tonewheel Sound Generator

The VR-760 comes with a “virtual tonewheel” sound generator, which uses digital technology to emulate each and every actual element that took part in creating the traditional organ’s sound. The rapid attack is particularly evident when playing glissandos. The instrument is fully polyphonic, providing ideal performance with no dropouts in the sound. Plus, the Quick Firing keyboard effect reproduces the rapid sounding and rebounding touch of the keys so characteristic of organs.

### ■ Equipped with Dedicated Piano Sound Generator

The piano section features a dedicated modeling sound generator that reproduces the special qualities available only with a piano. The acoustic piano sound simulates the manner in which the damper is not applied to the higher-register range, half damper, and other features, the electric piano includes the sounds produced as a result of the instrument’s construction, including the noises produced when the keys are released and the resonance produced when the keys are played, and even the amp simulation is faithful to the original.

### ■ Synth Sections Includes High-Quality Backing Tones

The VR-760’s synth section comprises a combination of electronic sounds such as analog synth along with realistic string and other acoustic instrument sounds. Centering on ensemble sounds that are easy for bands to use, pad sounds, and synthesizer sounds, all of these luxurious tones have been selected with the utmost care. The VR-760 also features SRX Wave Expansion slots, so you can use these expanded tones to perform in an even wider variety of musical genres.

### ■ Simple, Intuitive Control Panel

The organ, piano, and synth sections each feature a different

specialized control panel for easier operation, and by storing complex combinations of detailed settings from these sections to the registrations, you can call them up very simply later on. In addition, you can immediately switch to the optimal settings for organ, piano, or synth performances, even while performing in various different modes, just by pressing the ONE TOUCH [ORGAN], [PIANO], or [SYNTH] buttons.

### ■ Greater Expressiveness with Active Expression

You can use the synth section’s Active Expression function for more expressive power in layered performances and enhanced expression in held notes.

### ■ More Powerful Performances with the D Beam Controller

Using the D Beam allows the performer to directly infuse their performances with emotional expressiveness. Three functions, specialized for organ, piano, and synth, can be assigned to the D Beam.

### ■ Refined, Attractive Design

With its metallic-colored body and wood side panels, the VR-760 looks stunning onstage. The side panels are made from real wood, so each instrument is one of a kind, and the nicks and scratches that accumulate with use are a natural characteristic, a sort of “badge of honor.” Enjoy pride of ownership with this truly unique instrument.

*\* The real wood used in the side panels scratches easily; use proper care in handling the instrument.*

## Other Features

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### ■ Includes Rhythm Function

This feature allows you to play simple and musical rhythmic performances. Use rhythms as you would phrase loops as a practice aid or employ this function as a creative tool when composing songs.

### ■ Full Polyphony Plus 128 Voices

The organ section is fully polyphonic, while the piano and synth sections combine for a total of 128 voices, providing ample voices for layering and other performance effects.

*\* Some tones may use more than one voice simultaneously, in which case fewer than 128 voices may be audible.*

### ■ Huge 96 MB Wave Memory

The VR-760 is equipped with a massive 96 megabyte (when converted in a linear format) wave memory for the piano and synth sections, as well as for the thirty or so tones in the rhythm section, providing extremely high-quality sound.

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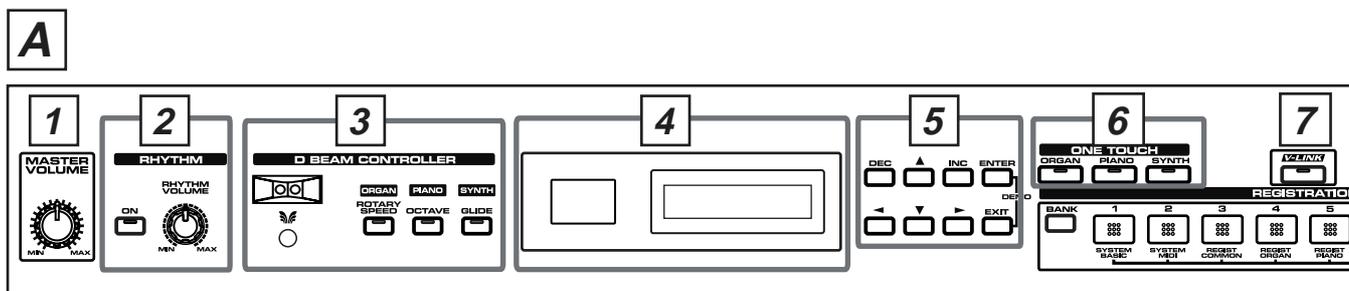
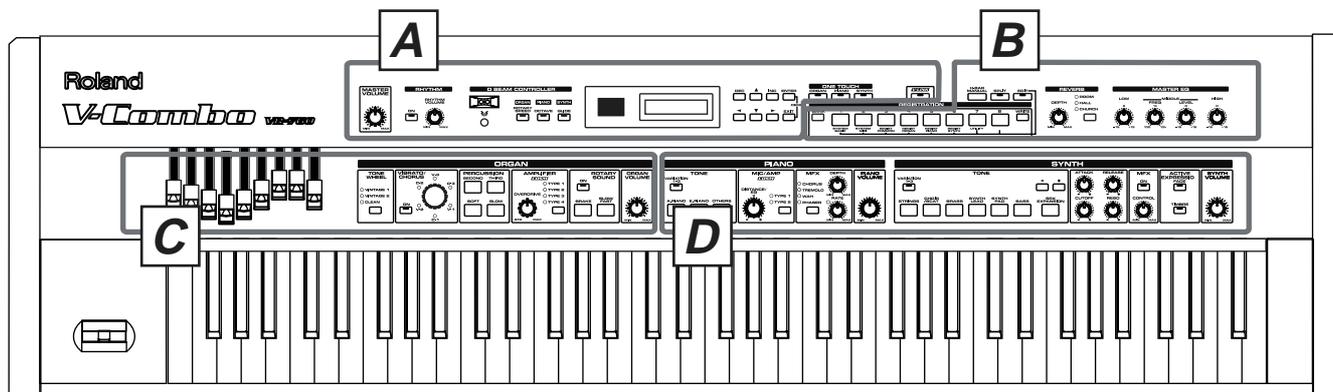
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# Panel Descriptions

## Front Panel



### 1. [MASTER VOLUME] knob

Adjust the overall volume (p. 20).

### 2. RHYTHM

#### RHYTHM [ON] button

Switch the rhythm on/off (p. 53).

#### [RHYTHM VOLUME] knob

Adjusts the volume level of the Rhythm part (p. 53).

### 3. D BEAM

#### D BEAM controller

You can modify the sound by moving your hand over the D Beam controller (p. 49).

Selects one of the following three buttons.

#### [ROTARY SPEED] button

#### [OCTAVE] button

#### [GLIDE] button

### 4. Display

#### LED Display

This shows the temporary Registration number (p. 25).

#### Display

This shows the Tone names and the values of various settings, etc (p. 25).

### 5. CURSOR, etc

#### CURSOR [▲], [▼], [◀], [▶] button

Press these to switch pages and to move the cursor (p. 26).

#### [DEC], [INC] button

This is used to modify values.

#### [ENTER] button

Use to finalize a value or execute an operation.

In addition, you can hold down this button while pressing [EXIT] button to listen demo song (p. 27).

#### [EXIT] button

Press this to cancel operations, to exit from Edit mode, and for other functions.

### 6. ONE TOUCH

This allows you to play only the part for the pressed button (p. 28).

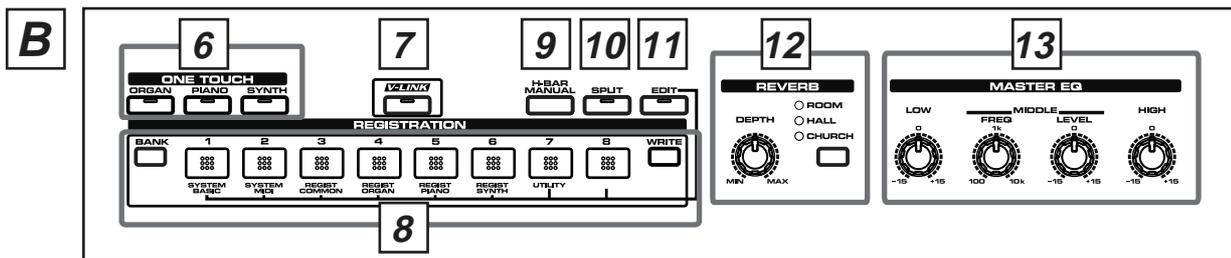
#### [ORGAN] button

#### [PIANO] button

#### [SYNTH] button

### 7. [V-LINK] button

Switches the V-LINK on/off (p. 61).



**8. REGISTRATION**

**[BANK] button**

Press these to select the REGISTRATION banks (p. 29, p. 54).

**[1] - [8] button**

Press these to select the REGISTRATION numbers (p. 29, p. 54).

Additionally, press these to select the Edit menu (p. 65).

**[WRITE] button**

Stores the current settings to the Registration (p. 54).

**9. [H-BAR MANUAL] button**

When this function is used, the harmonic bar settings of will change from the settings of the preset to the positions (settings) of the harmonic bars on the panel (p. 35).

**10. [SPLIT] button**

Divide the keyboard into two halves, and assign a different sound to each area (p. 51).

**11. [EDIT] button**

You can change a variety of settings by holding down this button and pressing the REGISTRATION buttons [1]-[7] (p. 65).

**12. REVERB**

**REVERB [DEPTH] knob**

Adjusts the amount of reverb (p. 30).

**[REVERB TYPE] button**

Switches the type of the Reverb effect (p. 30).

**13. MASTER EQ**

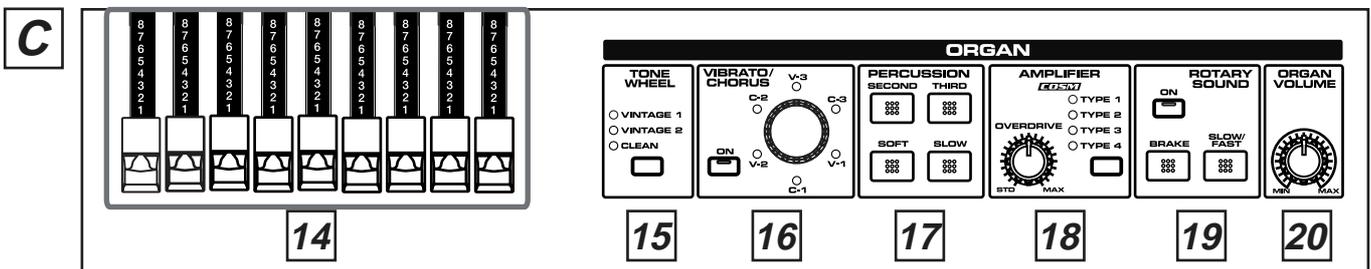
Adjusts the tonal coloration by using the following four knobs (p. 31).

**[LOW] knob**

**[FREQ] knob**

**[LEVEL] knob**

**[HIGH] knob**



**14. Harmonic Bar**

These bars create the sound of the Organ part. You can modify the tone in real time as you play (p. 33).

**Organ Section**

**15. [TONE WHEEL] button**

Select the type of the virtual tonewheel (p. 36).

**16. VIBRATO AND CHORUS**

**VIBRATO AND CHORUS [ON] button**

Switches the vibrato or chorus effect on/off (p. 37).

**[VIBRATO AND CHORUS TYPE] knob**

Switches the type of vibrato or chorus effect (p. 37).

**17. PERCUSSION**

**[SECOND] button**

This adds second percussion (same pitch as the 4' harmonic bar) to the organ voice (p. 38).

**[THIRD] button**

This adds third percussion (same pitch as the 2-2/3' harmonic bar) to the organ voice (p. 38).

**[SOFT] button**

This switches the volume of the percussion (p. 39).

**[SLOW] button**

This switches the decay time of the percussion (p. 40).

**18. AMPLIFIER**

**[OVERDRIVE] knob**

Adjust the depth of overdrive (p. 41).

**[AMP TYPE SELECT] button**

Switches the type of the Amplifier (p. 41).

**19. ROTARY SOUND**

**ROTARY [ON] button**

This button switches the rotary effect on/off for the organ sound (p. 42).

**[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. 42).

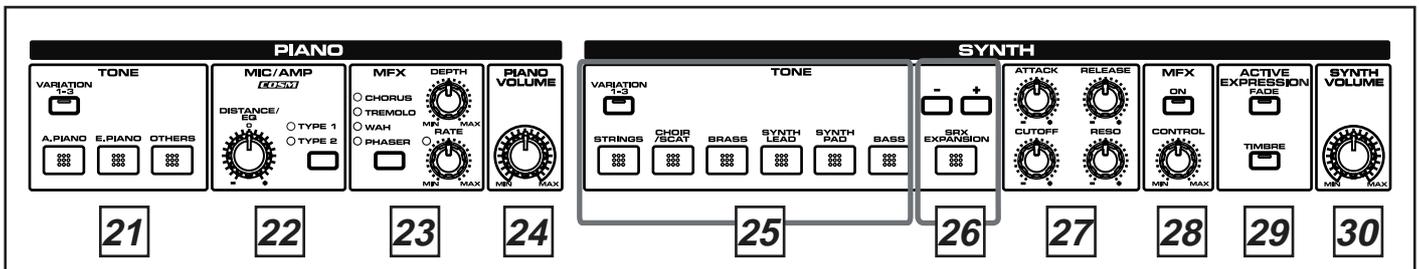
**[SLOW/FAST] button**

This button switches the speed of rotation for the rotary sound (p. 42).

**20. [ORGAN VOLUME] knob**

Adjusts the volume level of the Organ Part (p. 30).

**D**



## Piano Section

### 21. PIANO TONE

#### PIANO [VARIATION] button

You can change the tone variation. Each Tone button holds three different variations; as you switch the variations the button indicators changes, cycling through off, red, and green (p. 43).

#### PIANO TONE buttons

### 22. MIC/AMP

#### [DISTANCE/EQ] knob

This adjusts the characteristics of the MIC/AMP modeling (p. 44).

#### [TYPE] button

Switches the type of the MIC/AMP (p. 44).

### 23. PIANO MFX

#### [MFX TYPE] button

Switches the type of the Piano part's Multi Effects (p. 45).

#### PIANO MFX [DEPTH] knob

#### PIANO MFX [RATE] knob

Adjusts the way that effects are applied (p. 45).

### 24. [PIANO VOLUME] knob

Adjusts the volume level of the Piano Part (p. 30).

## Synth Section

### 25. SYNTH TONE

#### SYNTH [VARIATION] button

You can change the tone variation. Each Tone button holds three different variations; as you switch the variations the button indicators changes, cycling through off, red, and green (p. 46).

#### SYNTH TONE buttons

### 26. WAVE EXPANSION

#### [-] [+] button

This selects the SRX Wave Expansion Board global patch variations (p. 46).

#### [SRX EXPANSION] button

This selects the SRX Wave Expansion Board global patch (p. 46).

### 27. TONE MODIFY

#### [ATTACK] knob

This changes the time it takes for the sound occur after the key is pressed (p. 47).

#### [RELEASE] knob

This changes the time it takes for the sound to disappear after the key is released (p. 47).

#### [CUTOFF] knob

This changes the brightness of the sound (p. 47).

#### [RESO] knob

This adds more presence to the sound (p. 47).

### 28. SYNTH MFX

#### SYNTH MFX [ON] button

Switches the Multi Effects of the Synth Part on/off (p. 47).

#### [CONTROL] knob

This adjusts the multi-effects parameters (p. 47).

### 29. ACTIVE EXPRESSION

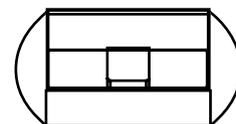
When using the Active Expression function, press one of the two following buttons (p. 48).

#### [FADE] button

#### [TIMBRE] button

### 30. [SYNTH VOLUME] knob

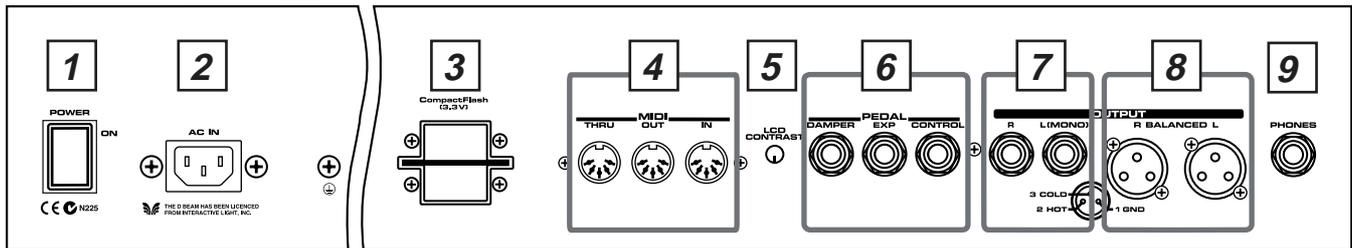
Adjusts the volume level of the Synth Part (p. 30).



#### Pitch Bend/Modulation Lever

This allows you to control pitch bend or apply vibrato (p. 31).

## Rear Panel



### 1. [POWER] Switch

Switch turns the power on/off (p. 19).

### 2. AC Inlet

Connect the included power cable to this inlet (p. 16).

### 3. MEMORY CARD slot

Insert a CompactFlash card here (p. 6, p. 56).

### 4. MIDI Connectors (IN, OUT, THRU)

Used for connecting external MIDI devices and for transmission of MIDI messages (p. 76, p. 79).

### 5. LCD CONTRAST knob

Adjusts the display contrast (p. 21).

### 6. PEDAL Jacks (DAMPER, EXP, CONTROL)

With a pedal switch (optional DP Series) connected to the DAMPER jack, you can use this as a damper pedal (p. 18, p. 32).

With an expression pedal (optional EV-7) connected to the EXP jack, you can use this as an expression pedal (p. 18, p. 32).

With a pedal switch (optional DP Series) connected to the CONTROL jack, a variety of functions can be assigned to the pedal (p. 18, p. 32).

### 7. OUTPUT R/L (MONO) Connectors

Provide output of the audio signals. These are connected to an amp or other device. For monaural output use the L/MONO jack (p. 17).

### 8. OUTPUT BALANCED (R/L) Connectors

Provide balanced output of the audio signals. These are connected to a mixer or other device (p. 17).

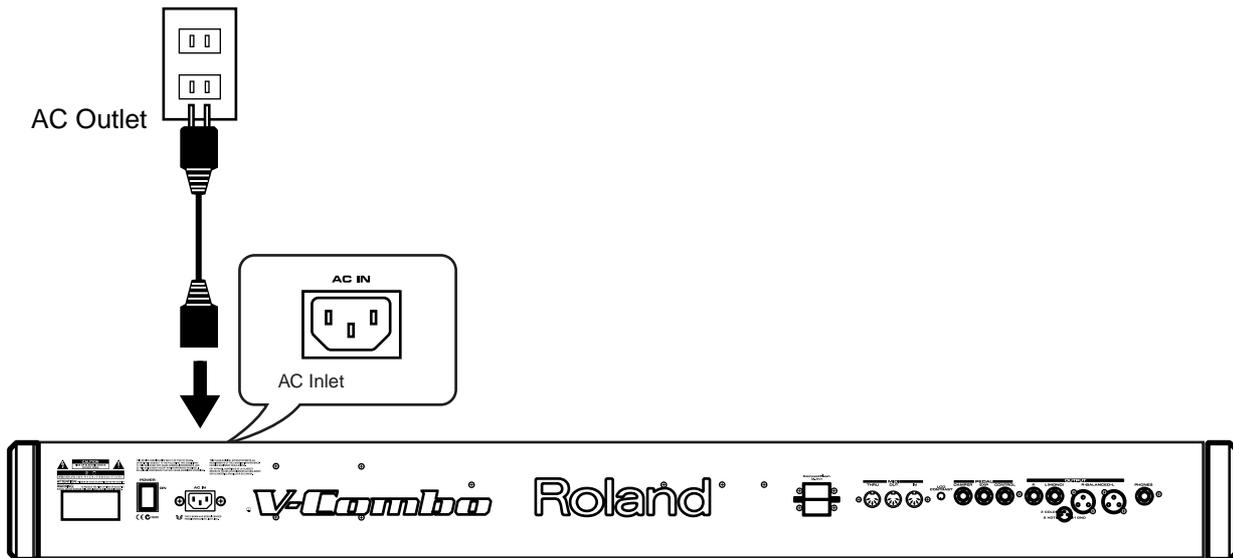
### 9. PHONES Jack

A set of headphones can be connected to this jack (p. 17). Even when headphones are connected, sound will still be output from the output jacks.

# Before You Begin Playing

## Connecting the Power Cord

1. Before making a connection, make sure that the VR-760 is turned off.
2. Connect supplied power cord to the VR-760, and plug the other end into a power outlet.



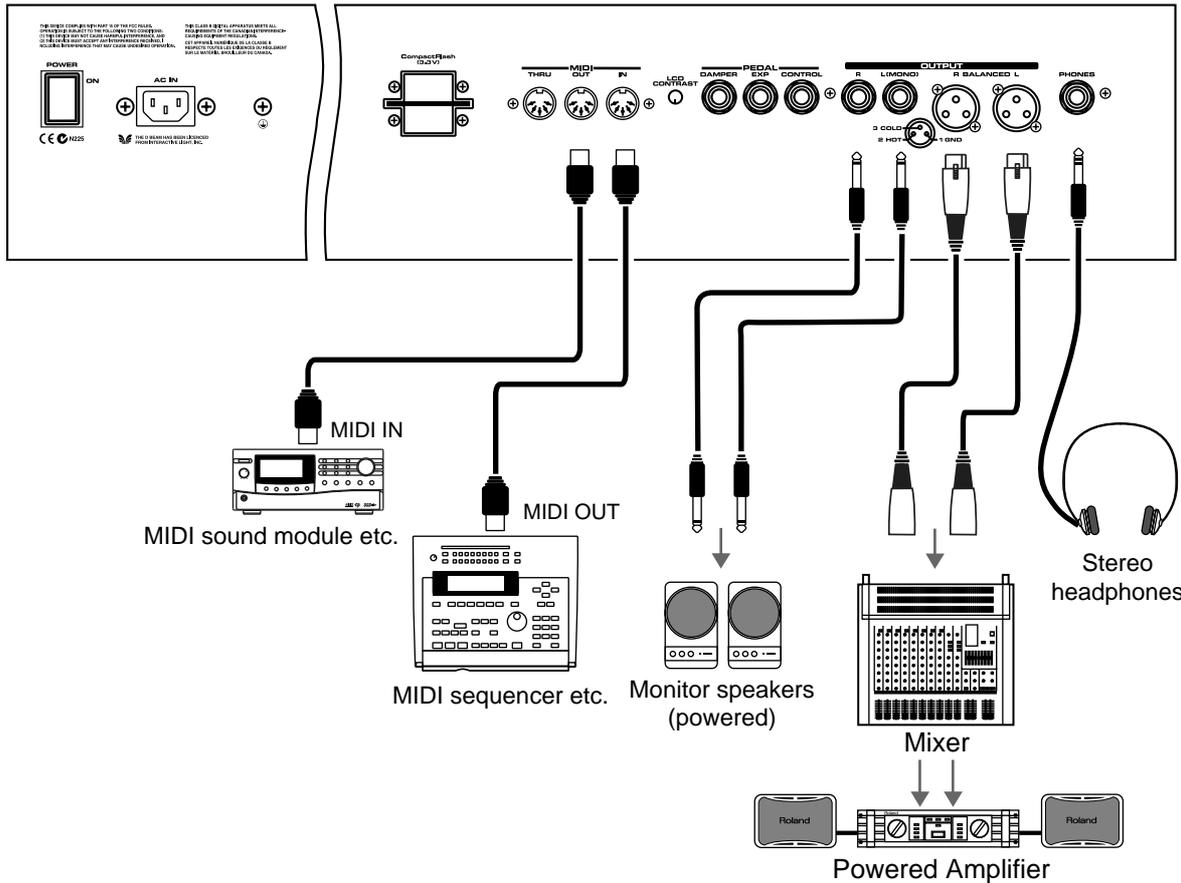
# Connecting the VR-760 to External Equipment

The VR-760 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.

Audio cables, MIDI cables, and headphones are not included. Consult your Roland dealer if you need to purchase accessories such as these.

**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.



**1. Before you begin making connections, confirm the following.**

Is the volume level of the VR-760 or connected amp turned all the way down?

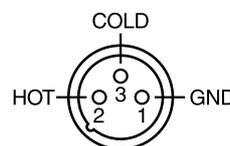
Is the power to the VR-760 or connected amp turned off?

**2. Connect the VR-760 and the external device.**

Use audio cables to connect audio equipment, such as an amp or speakers. Use MIDI cables to connect MIDI devices.

If you are using headphones, plug them into the PHONES jack.

\* This instrument is equipped with balanced (XLR) type input jacks. Wiring diagrams for these jacks are shown below. Make connections after first checking the wiring diagrams of other equipment you intend to connect.



**NOTE**

Use Stereo headphones.

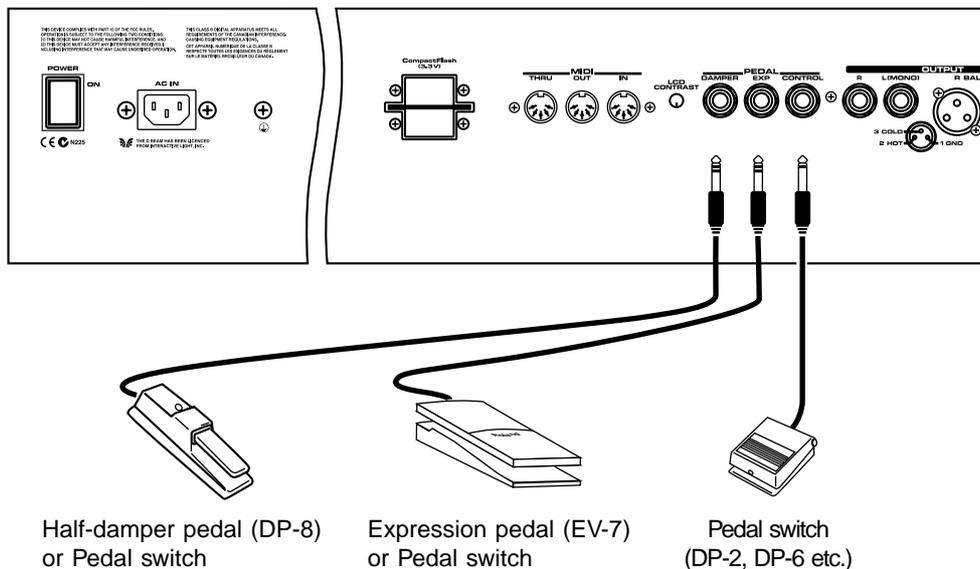
## Before You Begin Playing

### ■ Connecting Pedals

Connect the optional pedal (DP-8, etc) to one of the Pedal jacks.

When connected to the Damper jack, the pedal can be used as a damper pedal.

Connecting the pedal to the CONTROL jack allows you to assign a variety of functions to the pedal (p. 66).



#### NOTE

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

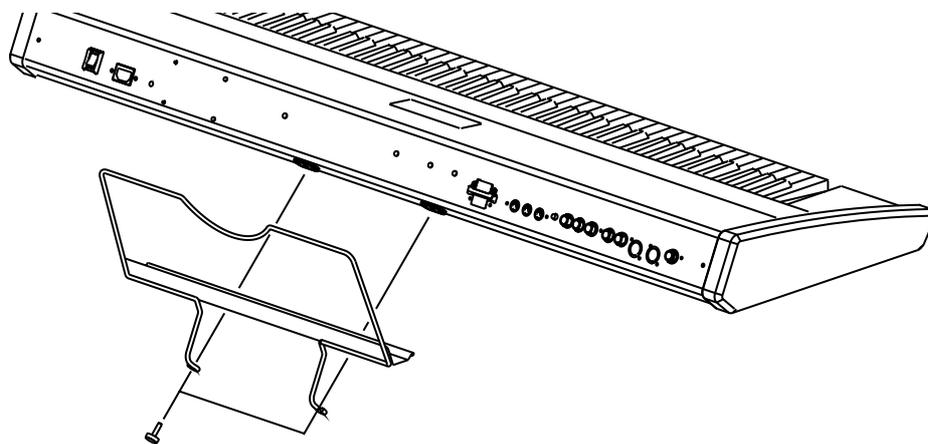
#### NOTE

With the factory settings, the damper effect is not applied to the organ part (p. 65).

#### NOTE

With the factory settings, the expression effect is not applied to the piano part (p. 65).

## Installing the Music Stand



### 1. Using the supplied screws, fasten the music stand to the back of the VR-760 as illustrated.

Be sure to use the supplied screws for attaching the music stand.

Turn the screws clockwise to tighten them.

When attaching the music stand, support it firmly with one hand to make sure that you do not drop it. Be careful, so you do not get your fingers pinched.

### 2. To remove the music stand, support it with one hand while loosening the screws.

#### NOTE

Do not apply excessive force to the installed music stand.

## Turning the Power On and Off

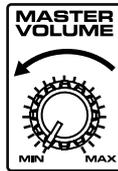
### NOTE

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.

### ■ Turning On the Power

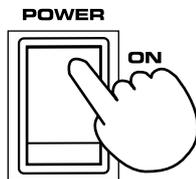
1. Before you switch on the power, turn the volume down all the way by rotating the [MASTER VOLUME knob].

Also completely turn down the volume of any connected audio device and other equipment.



2. Press the upper portion of the [POWER] switch on the back of the VR-760 to turn on the power.

The unit is powered up, and the display's backlighting comes on.



3. Turn on the power to connected external devices.
4. Adjust the volume of the connected external device.
5. Adjust the VR-760's volume to obtain the proper volume level.

### ■ Turning Off the Power

1. Before you switch on the power, turn the volume down all the way by rotating the [MASTER VOLUME] knob.

Also completely turn down the volume of any connected audio device and other equipment.

2. Turn off the power to connected external devices.
3. Press the lower portion of the [POWER] switch on the back of the VR-760.

The power is switched off.

### NOTE

To prevent incorrect functioning of the Pitch Bend Lever (p. 14), refrain from touching the lever while the power to the VR-760 is turned on.

### 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.

## Adjusting the Volume



### 1. Adjust the volume using the [MASTER VOLUME] knob.

Rotating the knob clockwise to increase the volume; counterclockwise rotation decreases it.

Also adjust the volume of the connected device to an appropriate level.

## Restoring the Factory Settings (Factory Reset)

When using the VR-760 for the first time, start by returning the settings to their factory defaults so that the VR-760 operates as described in the procedures in the owner's manual.

### Notes

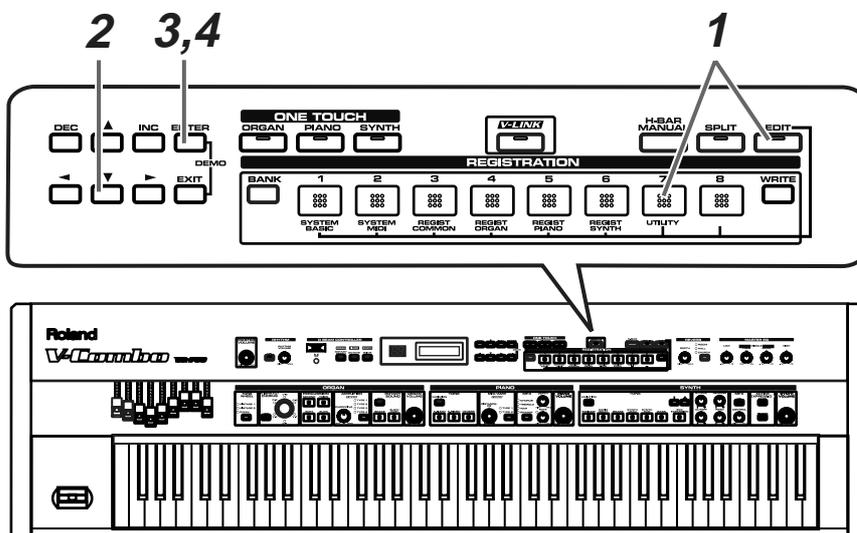


Never turn off the power during Factory Reset (while “Executing...” appears in the display).

Turning off the power while Factory Reset is in progress may result in corrupted internal data and may prevent the power from being turned on again. If you have confirmed that the internal data has been lost, or if a similar problem exists, consult the retailer from whom you purchased the instrument, or the nearest Roland Service Center. Note, however, that Roland assumes no liability, including compensation, for consequences arising from any loss of data.

### NOTE

Executing this operation deletes the Registration settings (p. 54). If you want to keep any internally stored content, use the “Bulk Dump (p. 76)” procedure to save the data to an external sequencer, or store the memory card (p. 58).



1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [▼] button to display the "Factory Reset" screen.

```
Factory Reset  ^
Y:Enter N:Exit
```

To cancel the UTILITY, press the [EXIT] button.

3. Press the [ENTER] button.

The confirmation message appears.

```
Factory Reset
Sure?
```

To cancel the Factory Reset, press [EXIT] button.

4. Press the [ENTER] button once again to start the Factory Reset operation.

During the execution, "Executing... Keep On Power!" appears in the display.

After the Factory Reset operation is finished, a message indicating that it is completed appears in the display, and the basic screen will appear.

## Adjusting the Display Contrast (LCD Contrast)

The characters in the display may be difficult to view immediately after turning on the VR-760's power or after extended use. Your viewing angle or the current lighting conditions can also affect the appearance of the display. In such situations, you can turn the LCD CONTRAST knob (located on the rear panel) to adjust the contrast of the display.

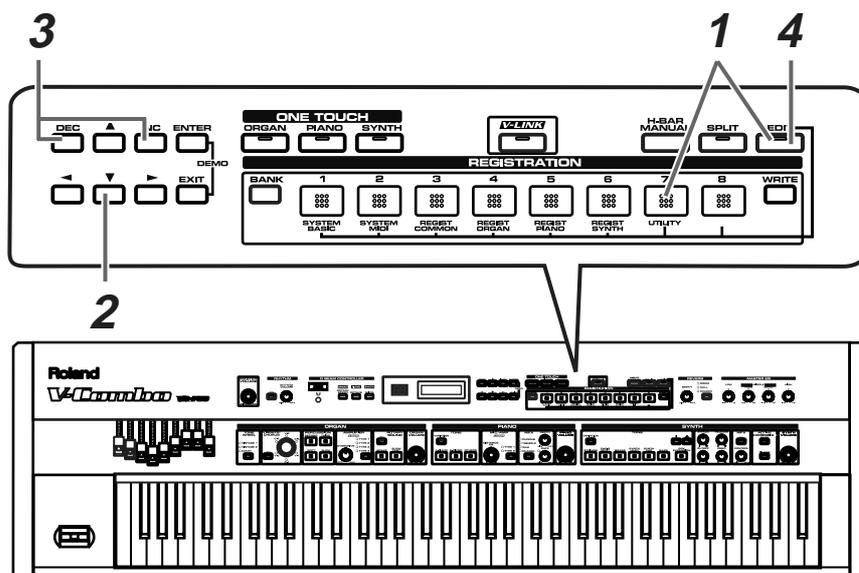
**LCD  
CONTRAST**



## Tuning to Other Instruments' Pitches (Master Tune)

For a cleaner ensemble sound while performing with one or more other instruments, ensure that each instrument's basic pitch is in tune with that of the other instruments. In general, the tuning of an instrument is indicated by the pitch in Hertz (Hz) of the middle "A" note.

This matching of other instruments' basic reference pitches is called "tuning."

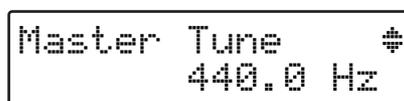


The Master Tune setting is a system setting that is applied to the entire VR-760 (i.e., is a system setting). This setting remains stored in memory even while the power is off.

1. Hold down the [EDIT] button, and press the REGISTRATION [1] (SYSTEM BASIC) button.

The Edit's "SYSTEM BASIC" screen appears.

2. Press CURSOR [▼] button to display the "Master Tune" screen.



3. Press [INC] or [DEC] button to select the value (415.3-440.0-466.2).
4. Press [EDIT] button to make the indicator go dark.

You are returned to the basic screen.



For faster value increases, keep [INC] button pressed down and press [DEC] button. For decreasing value faster, keep [DEC] button pressed down and press [INC] button.

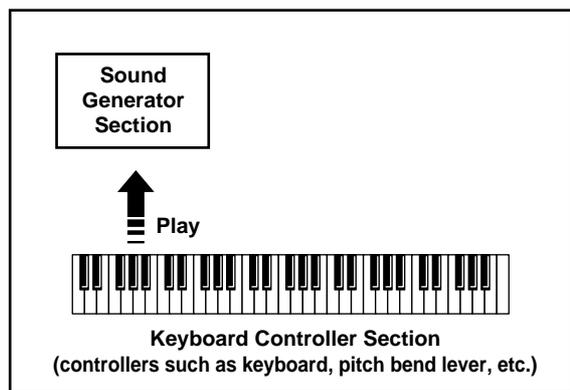


Pressing [INC] and [DEC] buttons at the same time, the value is set to "440.0."

# Overview of the VR-760

## Basic organization of the VR-760

The VR-760 can be divided into three sections: a **keyboard controller section**, a **sound generator section**, and a **effects section**. The three sections are connected internally by means of MIDI.



### ■ Keyboard Controller Section

This section includes the keyboard, the Pitch Bend/Modulation Lever, the aftertouch, the panel knobs, and any pedal connected to the rear panel. Actions such as pressing and releasing of keys on the keyboard, depressing a pedal, and so forth, are converted to MIDI messages and sent to the sound generator section, or to an external MIDI device.

### ■ Sound Generator Section

The sound generator section produces the sound. Here, MIDI messages received from the keyboard controller section or external MIDI device are converted to musical signals, which are then output as analog signals from the OUTPUT and PHONES jacks.

The three sound generators that can be controlled using the VR-760's keyboard are described below.

#### Organ Sound Generator

#### Piano Sound Generator

#### Synth Sound Generator

Not only can you have these sound generators play independently of one another, you can layer them together or even play different sounds on different parts of the keyboard.

### The Difference Between Traditional Organs and the VR-760's Organ Sound Generator

Traditional organs create sound using 91 gears called "Tone wheels." Each wheel has waves corresponding to the various pitches. When rotated at a fixed speed, the Tone wheels

cause audio signals to be produced through an electromagnetic coil, with the audio signals to be output selected according to how the harmonic bars are set and which keys are pressed, creating the organ's special sound.

The VR-760's organ sound generator replaces the traditional organ's whole sound-producing mechanism with digital technology. Instead of 91 Tone wheels, audio signals are produced constantly by means of virtual Tone wheels. The balance of audio signals is controlled by setting the harmonic bars and pressing the keys, which thus creates the organ sound.

### About the Piano Sound Generator

The VR-760's "piano sound generator" is capable of producing both acoustic and electric piano sounds. In addition to high-quality acoustic piano sounds, the instrument also provides a number of important vintage electric piano sounds. When using the electric piano sounds, the amp simulation can be set to reproduce the sounds of "stage" models, which require an external amp and speakers, as well as "suitcase" models, which come with their own amp and speaker. The instrument is also equipped with a number of effects that are often used with electric pianos.

### About the Synth Sound Generator

The VR-760's "synthesizer sound generator" is built upon the same basic principles as Roland's many digital synthesizer models. This arrangement allows you to produce a variety of different tones, and the VR-760's tones have been rigorously selected to enable you to get just the right sound for analog synthesizer and other electronic sounds, string and other acoustic instrument sounds, and other sounds suitable for ensemble and keyboard performances.

On the VR-760, this sound generator is referred to as the "synthesizer sound generator" or simply the "synth." In this Owner's Manual, it is also referred to as the "synth part" or "synth section."

### ■ Effects Section

This is the section used for adding effects to the sounds produced by the sound generators. Adding effects allows you to change the sound in various ways. The VR-760 offers effects geared toward the organ, piano, and synth sections. On top of this, the instrument also provides reverb and equalization that are applied to all three sound generators.

### Composition of the VR-760's Parts

---

The VR-760 uses the following parts.

#### ■ 1. Organ Part

This is the part that controls the organ sound generator. The VR-760 features one organ part, and you can control the tone with the harmonic bars (p. 33).

#### ■ 2. Piano Part

This is the part that controls the piano sound generator. The VR-760 features one piano part, for which a variety of selections, such as acoustic piano or electric piano, can be made (p. 43).

#### ■ 3. Synth Part

This is the part that controls the piano sound generator. The VR-760 features one synth part, and you can play different sounds by switching between settings for string, brass and other backing instrument sounds, and analog synthesizer and other keyboard sounds (p. 46).

#### ■ 4. Rhythm Part

This part can be used to play simple rhythm patterns. It is controlled from the RHYTHM control section found on the panel. It can also be used to play sound using an external MIDI device (p. 52).

### Tones and Memories

---

#### ■ System Memory

Stores the settings that determine the VR-760's operating environment, including settings for the SYSTEM BASIC menu in the Edit mode, as well as those for the SYSTEM MIDI menu. These settings are automatically stored by the VR-760 without any special procedure required. The settings can also be saved to CompactFlash cards.

#### ■ Registration Memories

These are memories where you can store each part's tone and effect setups, the front panel settings, tone combinations, and other such data. There are eight registration memory banks, each containing eight separate registrations, allowing you to store a total of 64 collections of settings within the instrument itself.

You can call up stored data instantly by pressing the REGISTRATION buttons [1]–[8]. Previously stored settings are overwritten when changes to the settings are saved in a registration.

#### ■ Temporary Area

When you select a registration in order to play a sound or edit settings, the settings for the selected registration are called up from the registration memory to a temporary storage area called the "temporary area."

When you edit the settings from a registration, it is not the data actually stored in the registration memory that is changed, but rather the data called up to the temporary area. These edited settings remain in the temporary area until they are saved.



Settings in the temporary area are will be lost when the power is turned off or when you select another registration. To keep the settings you have modified, you must save them in registration (p. 54).

# Basic Operation of the VR-760

## ■ Main Screens

Each of the organ, piano, synth, and rhythm parts features a Basic screen; you can move through the different parts by pressing the CURSOR [ ◀ | ▶ ] button.

The registration name for the organ, piano, and synth parts appear in the first row. In the LED screen, the registration number is displayed.

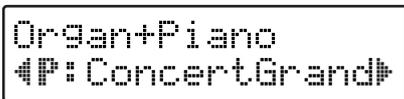
### Organ Screen

The second row shows the harmonic bar settings value for the tone currently called up to the temporary area.



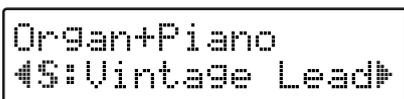
### Piano Screen

The second row shows the tone name of the piano part currently called up to the temporary area.



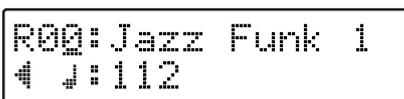
### Synth Screen

The second row shows the tone name of the synth part currently called up to the temporary area.



### Rhythm & Tempo Screen

The name of the rhythm style currently in the temporary area appears in the first row, and the tempo is displayed in the second row.

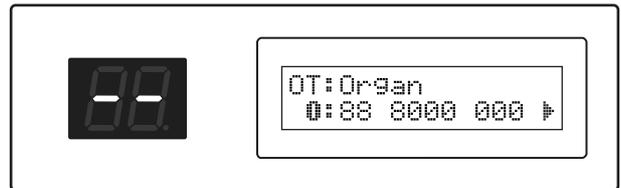


## ■ Basic Screen Rules

- If the synth and piano parts are turned off, “---” appears in the second row.



- When you press the ONE TOUCH button, the first row display appears as shown below. In addition, “--” appears in the LED display at this time.



- If you move the knob or change the EDIT parameters, a dot (the “editing symbol”) lights in the LED display, indicating that the registration’s settings have been changed.



- If you press a button or adjust a knob or other control in any section other than the one for the part in the current screen, the display changes to the Basic screen for the corresponding part in the section in which the operation took place. For example, if the piano screen is up and you adjust a harmonic bar for an organ part, the organ screen is displayed.

# Overview of the VR-760

## About the Controller Section

The easy-to-understand arrangement of VR-760's buttons and knobs is based on the different controls' functions.

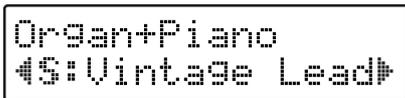
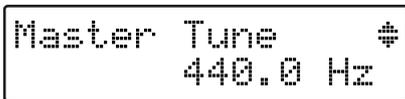
### About the CURSOR Buttons

The CURSOR [▲][▼][◀][▶] buttons are used for switching screens, and for moving to an item whose setting you want to change (by moving the cursor).

### Moving Between Display Pages

When arrow symbols (⊕ ⊖ ⊗ ⊘) appear at the display screen, it indicates that there are additional pages in the directions shown by the arrows.

You can switch screens with CURSOR [▲][▼][◀][▶] buttons.

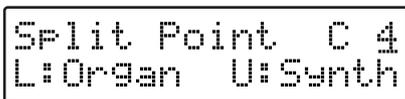


In some screens, you can press [INC] or [DEC] button to change the content of the screen.

### Navigating Among Items To Be Set (CURSOR)

When one screen contains more than one parameter, the value for the setting that is enabled for editing is underlined. This underline is called the cursor.

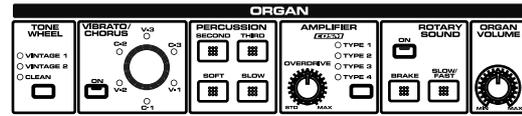
You can move the cursor by pressing the CURSOR [▲][▼][◀][▶] buttons, and then change the values with the [INC] and [DEC] buttons.



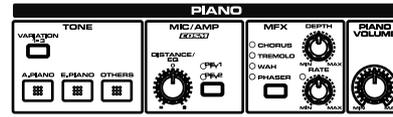
## Controlling Parts and Registrations

The control panels for the organ, piano, and synth parts are found along the lower row of the keyboard panel. In this manual, these are referred to as the "organ section," "piano section," and "synth section," respectively.

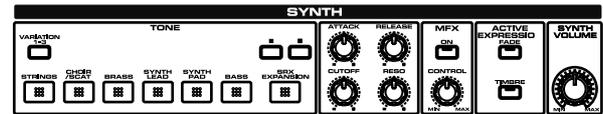
### Organ Section



### Piano Section

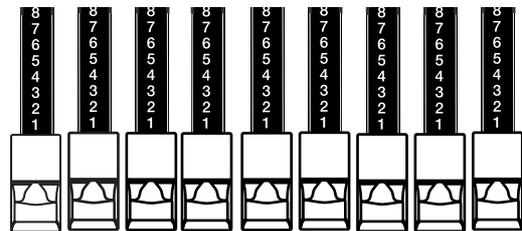


### Synth Section



Sounds for the organ part are created with the nine harmonic bars and the controls in the organ section on the keyboard panel. To turn the organ part off, slide all of the harmonic bars in as far as they will go and turn off the percussion section.

### Harmonic-Bar



Tones for the piano and synth parts are selected with the category and variation buttons in each section's TONE panel. Each category contains three different variations. You can distinguish among variations by observing the status of the button: off, red, or green. To turn off the piano part or organ part, press a lighted category button again, so its light goes out.

### Registration

You can store the tone, on/off status, effects, split, and other settings for each tone all at one time. Furthermore, you can easily call up the settings stored for any part by pressing the REGISTRATION buttons.

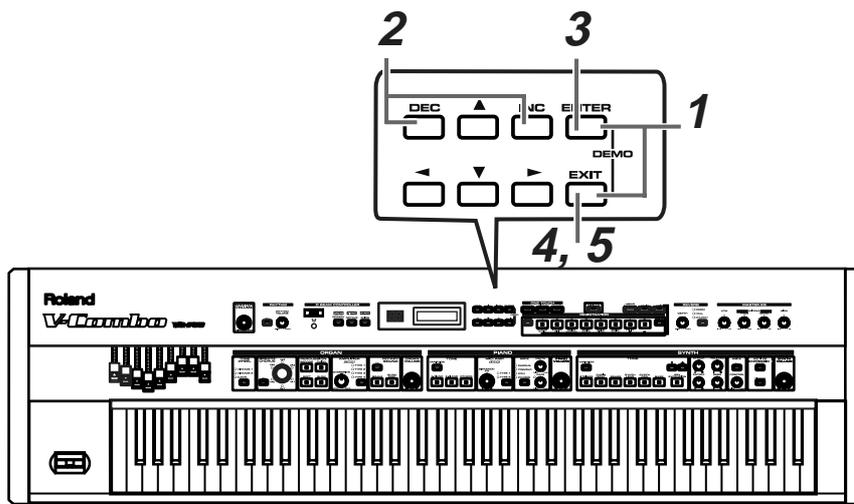
For more on writing data to the registrations, refer to "Saving Settings to Registrations (p. 54)."

# Listening to the Demo Songs

Here's how to listen to the demo songs.

The VR-760 features the internal demo songs that exhibit the special capabilities of the instrument.

Song Name	Composer	Copyright
Take it Home	Scott Tibbs	© 2002 Roland Corporation
RED 318	Kiyomi Otaka	© 2002 Roland Corporation
Dressing Up	Masashi/Kazuko Hirashita	© 2002 Roland Corporation
Sonique	Adrian Scott	© 2002 Roland Corporation
Oh So Sweet	Scott Tibbs	© 2002 Roland Corporation



- 1. Hold down the [ENTER] button, and press the [EXIT] button.**
  - 2. Use [INC] [DEC] buttons to select the song that you wish to hear.**
  - 3. Press the [ENTER] button to start playback of the demo song.**
- When the end of the selected song is reached, playback will continue to the next song.
- 4. Press the [EXIT] button to stop playback.**
  - 5. Press the [EXIT] button while the song is stopped to finish with the Demo Mode.**

The display returns to its previous screen.

## NOTE

All rights reserved.  
Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.

## NOTE

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

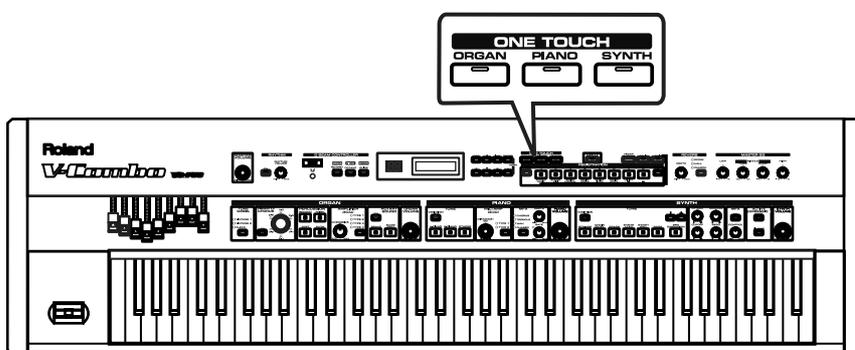
# Performing with the Keyboard

## Performing the Organ, Piano, or Synth Individually (ONE TOUCH)

The VR-760 is normally set to allow you to perform with the organ, piano, and synth parts all playing together (layered).

If you want to play only the organ, piano, or synth part, you will need to mute the other parts. Furthermore, if you are performing with the keyboard divided into separate key ranges (during Split Play, p. 51), you must also turn this off. These operations are difficult to carry out quickly while you are performing.

However, you can remove the split and mute all but the part you want to play simply by pressing one of the ONE TOUCH buttons, [ORGAN], [PIANO], or [SYNTH].



### 1. Press the ONE TOUCH [ORGAN] button.

You can now perform playing only the organ part.

In the same manner, pressing the [PIANO] button or [SYNTH] button allows you to perform playing only the piano part or the synth part.

### 2. To turn the ONE TOUCH function off, either press the ONE TOUCH button with the lit indicator or call up any registration (p. 29).

The tones selected by pressing the ONE TOUCH buttons are described below.

button	tone
ORGAN	You can perform with the harmonic bar values set to "88 8000 000."
PIANO	ConcertGrand
SYNTH	Orch Strings

#### NOTE

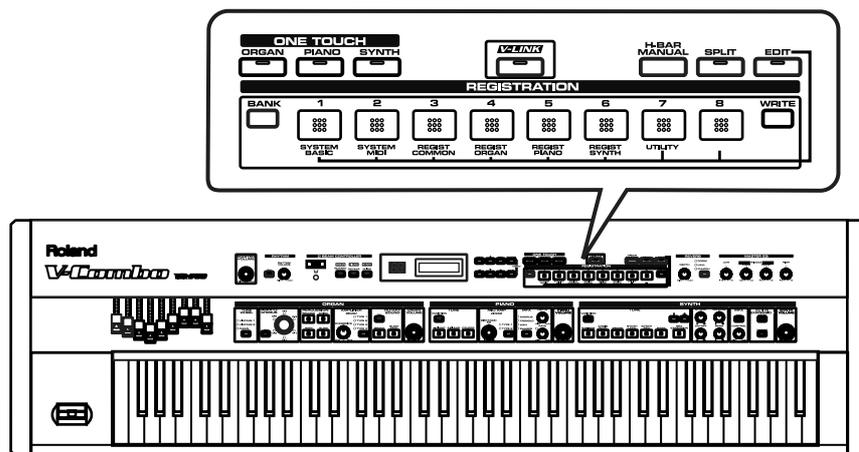
When ONE TOUCH button is pressed, all settings are switched to their status at the time the VR-760's power was turned on. To keep the settings, you must save them in registration (p. 54).

## Performing with a Variety of Tones (REGISTRATION)

The VR-760 comes with settings including organ, piano, and synth settings as well as part combination settings pre-stored in the registrations.

The registrations consist of 64 memories in which you can store different settings, with eight groups (banks) each of which contain eight registrations.

Go ahead and try out the various sounds you can get when you call up different registrations.



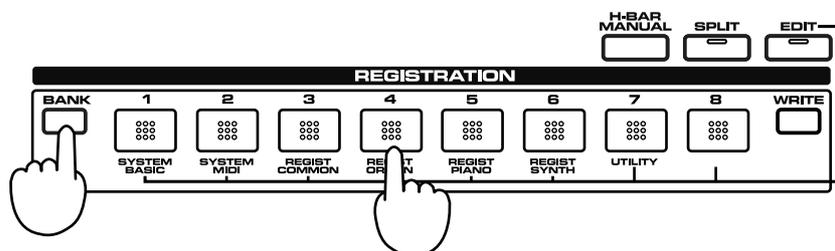
### Example: Call up to REGISTRATION 42

1. Hold down the [BANK] button and press the REGISTRATION [4] button.

When you press the [BANK] button, the indicator for the button corresponding to the currently selected bank then lights up.

If you hold down a [BANK] button and press any of the REGISTRATION buttons, the bank switches to that of the pressed button.

Here is an example of setting Bank “4.”



2. Release the [BANK] button and press the REGISTRATION [2] button.

The registration number is set.



For more on the VR-760's registration, refer to p. 54.



When either the organ basic screen, the piano basic screen, or the synth basic screen is displayed, you can press the [INC] or [DEC] button to switch through the sequence of registrations.



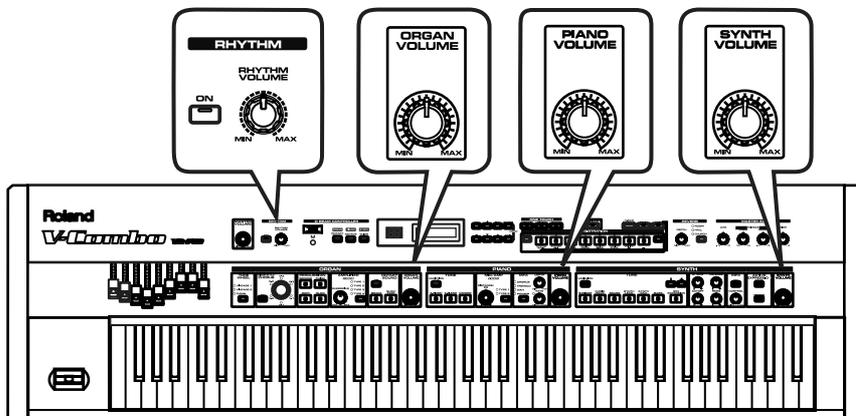
If you want to select a preset from the same bank (ex: switching from preset 41 to preset 42), step 1 and 2 is not necessary.



If you want to save settings, refer to “Saving Settings to Registrations” (p. 54).

## Changing the Volume Level of Each Part

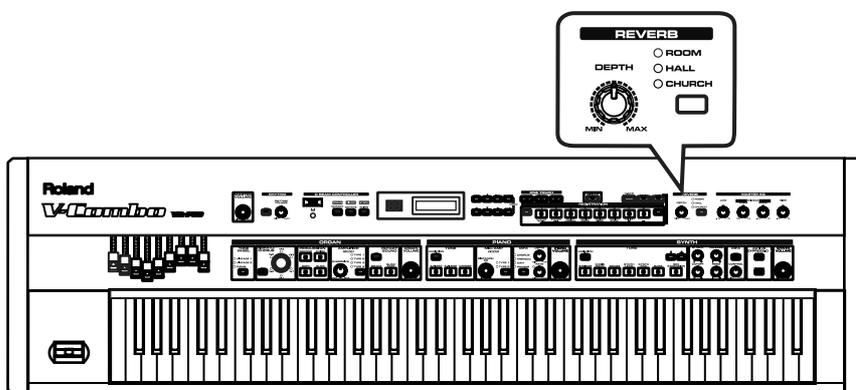
You can change the volume level of Organ, Piano, Synth, and Rhythm parts.



## Adding Reverberation to the Sound

The VR-760 can apply a reverb effect. Applying reverb adds pleasing reverberation to what you play, so it sounds almost as if you were playing in a concert hall.

You can apply the reverb effect to all parts.



### 1. Press the [REVERB TYPE] button to switch the reverb types.

You can select from the following three types.

Value	Explanation
ROOM	Simulates the reverberation of a room.
HALL	Simulates the reverb of a large concert hall.
CHURCH	Simulates the reverberation of a church.

### 2. Turn the [DEPTH] knob to adjust the amount of reverb effect to be applied.

Rotate fully right: Maximum reverberation.

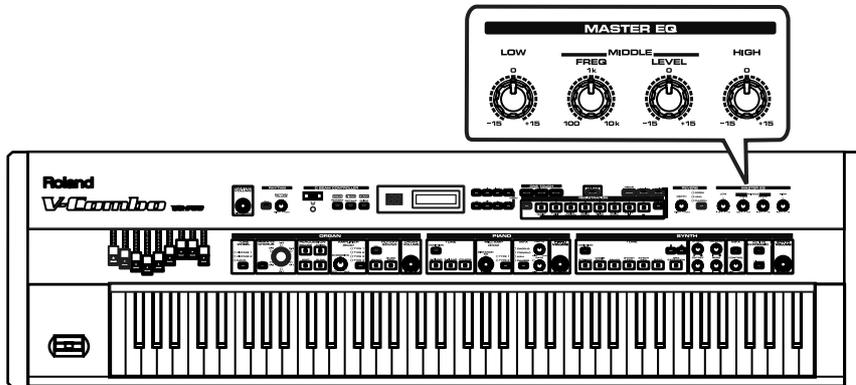
Rotate fully left: No effect.

### MEMO

You can adjust how much of the reverb sound relative to each part is sent (the send level). The smaller this value is, the less audible the effect is when you turn the [REVERB DEPTH] knob.

- Organ's reverb (p. 72)
- Piano's reverb (p. 74)
- Synth's reverb (p. 75)
- Rhythm's reverb (p. 70)

## Changing the Overall Tone Quality (MASTER EQ)



MASTER EQ is equalization that is applied to all of the parts. You can alter the tonal coloration by adjusting the [LOW], [MIDDLE], and [HIGH] knobs. MIDDLE comprises FREQ and LEVEL settings, which allow you to change the degree of change in the midrange as well as the center frequency of the frequencies being changed.

## Using the Controller

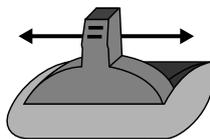
You can use the various controls to add expression to your performances.

### ■ Bender/Modulation Lever

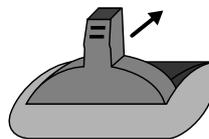
While playing the keyboard, move the lever to the left to lower the pitch, or to the right to raise the pitch. This is known as Pitch Bend.

You can also apply vibrato by manipulating the lever away from you. This is known as Modulation.

You can set the range of Pitch Bend (p. 70)



Pitch Bend



Modulation

\* The modulation effect obtained when you move the lever may differ according to the tone being used. Additionally, the effect applied by moving the lever is predetermined for each tone, and cannot be changed.

\* The modulation effect is not applied to the Organ part.

### NOTE

MASTER EQ settings cannot be stored in the registrations or on CompactFlash cards. The settings are always as they appear on the panel.

### MEMO

You can also make settings that permit you to change the organ's rotary speed with the bender lever (p. 70).

## Performing with the Keyboard

### ■ Aftertouch

You can change the sound by pressing the keys with even greater force. The effect applied is predetermined for each tone, and cannot be changed.

### ■ Damper Pedal

With a damper pedal connected to the DAMPER PEDAL jack on the VR-760's rear panel, you can then add reverberation to the sound.

Even after you release the keys, the sound continues to linger for as long as the damper pedal is pressed.

With an optional DP-8 connected, you can adjust the depth of the reverberation with the pedal. As an example, when used with acoustic piano tones, this allows you to produce a half damper effect.

- \* *With the factory settings, the damper effect is not applied to the organ part. For instructions on assigning the damper effect to the organ part, refer to “**Organ Damper SW (ON/OFF)**” (p. 65).*
- \* *You can set the synth part's damper effect on or off (p. 65).*

### ■ Expression pedal

With a expression pedal connected to the EXP PEDAL jack on the VR-760's rear panel, you can then control the volume level.

Advancing the pedal away from yourself will increase the volume, and returning it toward yourself will decrease the volume.

- \* *With the factory settings, the expression effect is not applied to the piano part. For instructions on assigning the expression effect to the piano part, refer to “**Piano Exp SW (ON/OFF)**” (p. 65).*
- \* *Even with the expression pedal completely released, the organ volume does not go all the way to 0. This is due to the simulation of the traditional organ.*
- \* *The expression effect is not applied to the rhythm part.*

### ■ Control Pedal

By connecting a pedal switch or expression pedal to the rear panel CONTROL PEDAL jack, you can then control a variety of functions. For more details about this function, refer to “**Assigning Functions to Control Pedal**” (p. 66).



You can set the range over which the aftertouch changes (p. 70).



You can also use the switch pedal (DP-2/6; sold separately).



Use only the specified half-damper pedal (DP-8; sold separately). By connecting any other half-damper pedal, you risk causing malfunction and/or damage to the unit.



You can use the Active Expression function to control the strength of the synth part sound (p. 48).



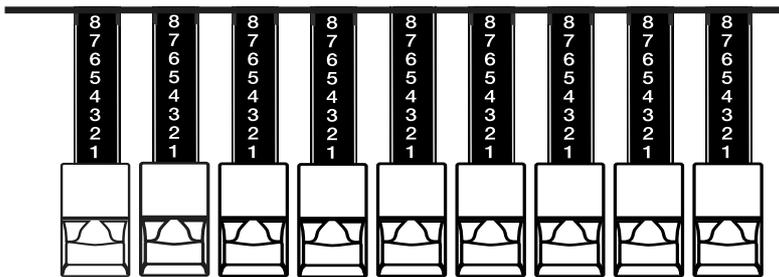
Use only the specified expression pedal (EV-7; sold separately). By connecting any other expression pedal, you risk causing malfunction and/or damage to the unit.

## Basic Operation of the Organ Part

### ■ The “Harmonic Bars” That Change the Composition of the Organ Tone

The harmonic bars are controllers for creating the basic structure of the organ sound.

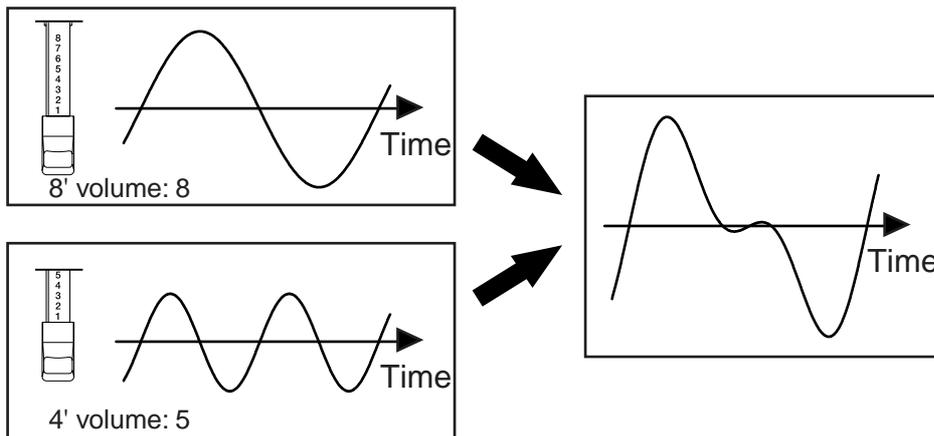
By sliding nine harmonic bars in and out you can create a variety of tonalities.



When percussion is on, the 1' pitch will not be produced (p. 38).

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.



## Performing with the Keyboard

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.**

8 7 6 5 4 3 2 1								
16'	5 1/3'	8'	4'	2 2/3'	2'	1 3/5'	1 1/3'	1'
one octave below	5th	root	8th	12th	15th	17th	19th	22nd

8' =

### 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. 34). 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 VR-760 faithfully simulates this characteristic.

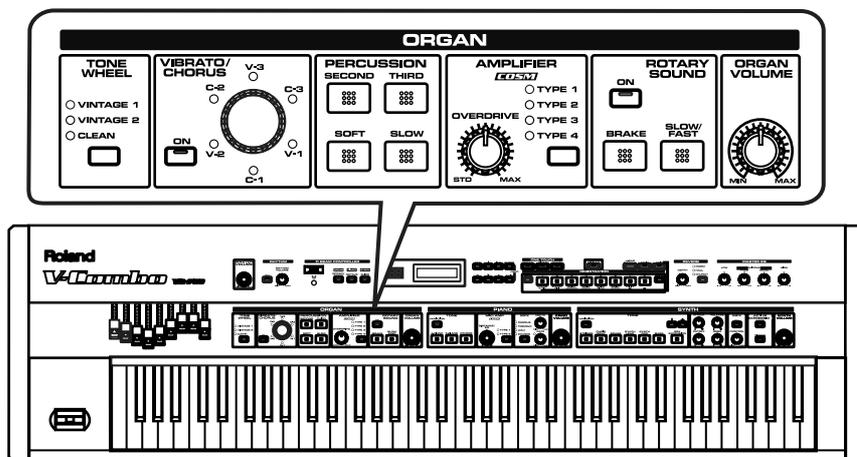
As you can see from the relation of the pitches, the 5-1/3' pitch is unique in that it is not arranged in order of pitch. The reason is that the 5-1/3' sound blends not with the 8' (fundamental), but with the 16' pitch. Acoustic instruments produce sound consisting of frequencies at integer multiples 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.

### ■ [H-Bar Manual] button

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.



# Organ Section



## ■ Changing the Organ Sound (Tone Wheel)

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 VR-760 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.

### Changing the 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

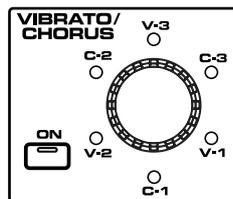
On tone wheel organs, the sound of the note that was pressed was slightly “contaminated” by audio signals from tone wheels not related to that note. Formerly, this was seen as a problem, but today this idiosyncrasy is considered an important element of the distinctive sound of a traditional organ.



You can adjust the Leakage Noise Volume (p. 71).

## ■ 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).

### V-1, V-2, V-3

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

### C-1, C-2, C-3

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.

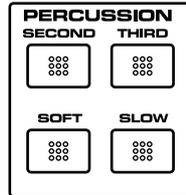
#### NOTE

Vibrato or chorus cannot be applied to percussion.

## Performing with the Keyboard

### ■ 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.



#### **[SECOND] (Second Percussion) button**

This button switches Second Percussion on/off.

Button	Explanation
<p><b>SECOND</b></p> <p>Lit (ON)</p>	Percussion will sound at the same pitch as the 4' harmonic bar.
<p><b>SECOND</b></p> <p>Dark (OFF)</p>	Second percussion will not sound.

#### **[THIRD] (Third Percussion) button**

This button switches Third Percussion on/off.

Button	Explanation
<p><b>THIRD</b></p> <p>Lit (ON)</p>	Percussion will sound at the same pitch as the 2-2/3' harmonic bar.
<p><b>THIRD</b></p> <p>Dark (OFF)</p>	Third percussion will not sound.

#### **NOTE**

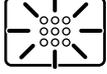
When percussion is on, the 1' pitch will not be produced.

#### **NOTE**

It is not possible to select both [SECOND] and [THIRD] simultaneously.

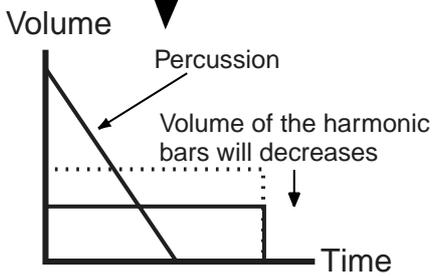
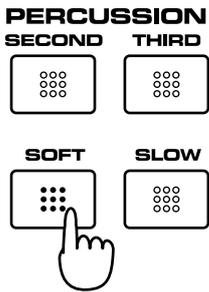
**[SOFT] (Soft Percussion) button**

Switches the volume of the percussion.

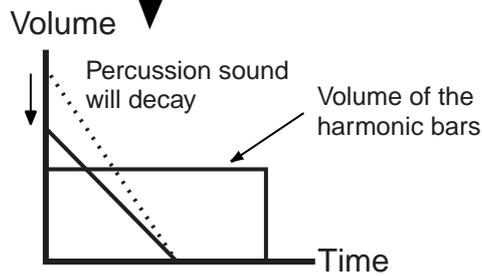
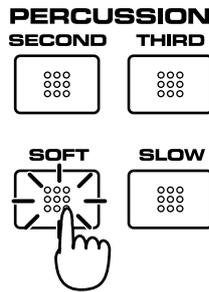
Button	Explanation
<p><b>SOFT</b></p>  <p>Lit (ON)</p>	The percussion sound will be softer.
<p><b>SOFT</b></p>  <p>Dark (OFF)</p>	The percussion sound will be normal.

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. 71). You can also specify the percussion volumes that will be selected by the Percussion Normal/Soft settings (p. 71).

Normal Percussion



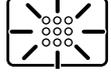
Soft Percussion



## Performing with the Keyboard

### [SLOW] (Slow Percussion) button

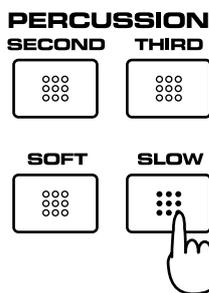
Switches the speed at which the percussion sound will decay.

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

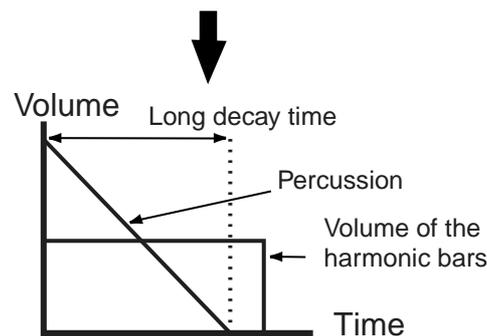
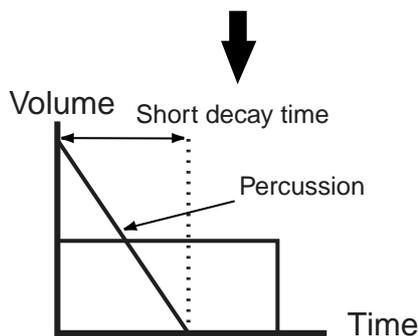
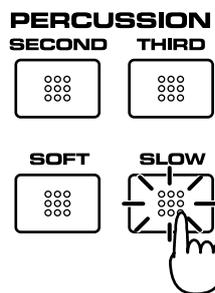
#### NOTE

You can specify the speed at which the percussion sound decays (p. 71).

#### Fast Percussion



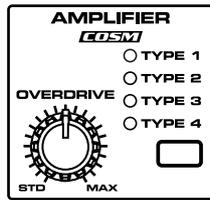
#### Slow Percussion



### 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 VR-760 simulates this behavior, and also allows you to modify the organ voice settings to adjust the recharge time characteristics of the circuit (p. 71).

## ■ Changing the Virtual Amp (Amplifier)



### 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 1	Characteristics of the most frequently used rotary speakers.
TYPE 2	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 3	The character of a rotary speaker often used for rock organ.
TYPE 4	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.

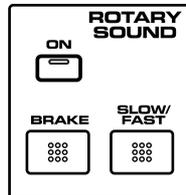
- 2. Turn the [OVERDRIVE] knob to adjust the amount of overdrive.**

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

Rotate fully left: No effect.

### ■ Adding the 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 VR-760 can simulate this type of complex modulation.



#### ROTARY [ON] button

The rotary speaker effect can be switched on/off.

When this effect is applied, the rotary [ON] button's indicator lights up.

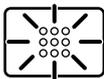
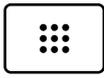
#### [SLOW/FAST] button

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

FAST rotation is selected when the indicator blinks rapidly. SLOW rotation is selected when the indicator blinks slowly. When you change between slow/fast, the speed of rotation will change gradually.

#### [BRAKE] button

This button temporarily halts the rotation of the rotary sound.

Button	Explanation
<p><b>BRAKE</b></p>  <p>Lit (ON)</p>	<p>The speed of rotation will gradually slow down and then stop.</p>
<p><b>BRAKE</b></p>  <p>Dark (OFF)</p>	<p>From a stopped condition, the rotation will gradually become faster.</p>

#### About the Quick Firing Keyboard

The keyboard used for the VR-760 is the product of research into the design and behavior of keyboards used in traditional organs, with modern technology used to reproduce these characteristics. Contacts for traditional organ keys are extremely shallow, meaning that sounds are produced with the slightest touch of the keys. This gives it special qualities that allow glissando and similar performance techniques to be used very effectively.

However, well-known side effects of this characteristic are the howling (feedback) that is produced when the keys are released suddenly, and a type of behavior that undesirably repeats sounds that are played. On the other hand, some performers actively make use of these characteristics to realize a surprising, rapid-fire playing technique.

Since the VR-760's quick-firing keyboard faithfully reproduces these qualities, enabling rapid playing with the organ section sounds, feedback could result; this is normal, and does not indicate a malfunction.

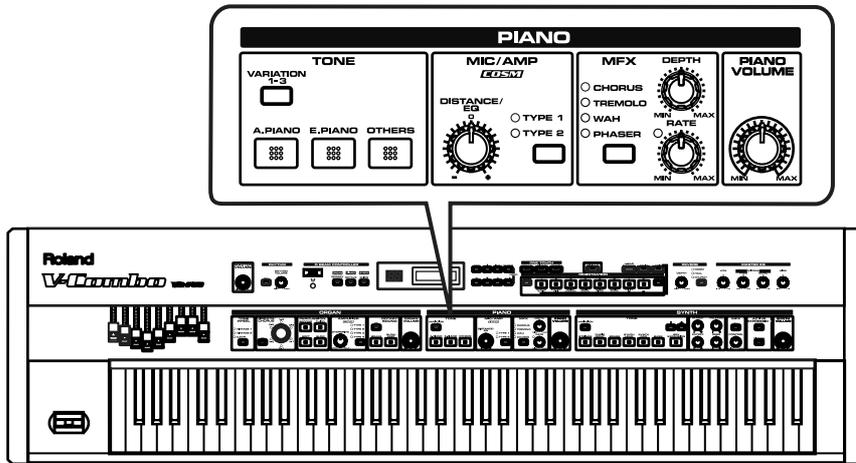


You can use a foot switch or D Beam controller to switch the rotary speaker between fast and slow. For details, refer to “Using the D BEAM Controller to Produce Common Effects” (p. 49) and “Assigning Functions to Control Pedal” (p. 66).



You can turn off the quick firing function (p. 66).

# Basic Operation of the Piano Part



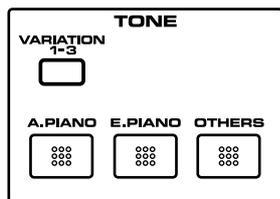
## ■ The “Tones” That Change the Piano Tone

You can switch among nine tones to select the tone you want for the piano part.

The nine tones can be selected from three tones and three variations. You can select the category by pressing either [A.PIANO], [E.PIANO], or [OTHERS] buttons.

Press [VARIATION] button to select the variation.

The [VARIATION] button’s indicator changes each time the button is pressed, cycling through “Off,” “Red,” and “Green,” indicating which variation is currently selected.



	Off	Red	Green
A.PIANO	<b>Concert Grand</b> with rich expressive power.	<b>Classical Pf</b> with mellow resonance.	<b>European Pf</b> Hard piano sound with punch.
E.PIANO	<b>Rhodes Mk 1</b> Vintage type electric piano.	<b>Rhodes Mk 2</b> Popular electric piano sound.	<b>Dyno Rhodes</b> Electric piano modified to produce a brighter sound.
OTHERS	<b>Wurly Piano</b> Piano sound popular in the 60's.	<b>Clav</b> Electric clavichord sound used widely in funk music.	<b>Harpsichord</b> Acoustic harpsichord sound.

Pressing a lit CATEGORY button causes the light to go off, and turns off the piano’s sound generator.

### ■ Changing the Characteristics of the Sound “Mic/Amp”

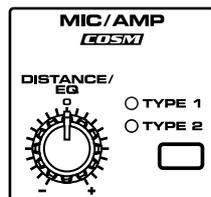
The VR-760 features mic and amp modeling for the piano part, and the most appropriate modeling is selected when a tone is selected. What’s more, you can further adjust the sound with the [TYPE] button and [DISTANCE/EQ] knob.

#### **Mic Modeling:**

This changes the sound of the instrument in a manner similar to that accomplished in recordings of miked acoustic instruments like pianos, where the sound is changed by using mics with different characteristics and changing the mic placement. Mic modeling is a virtual reproduction of these phenomena.

#### **Amp Modeling:**

In the past, the sounds of electric pianos, electric clavichords, and similar instruments were always played through some kind of instrument amp. Amp modeling simulates the sonic characteristics of these instrument amps.



Tone	Acoustic Piano, Harpsichord	E.piano, E.Clavichord
Modeling	Mic Modeling	Amp Modeling
Works of the [TYPE] button	Mic Type	Amp Type
Works of the [DISTANCE/EQ] button	distance of mic	Tone Control

### 1. Press the [TYPE] button to select the type.

Switch to the MIC type for acoustic instrument sounds, or to the AMP type for electrified instrument sounds.

Value	Mic Modeling	Amp Modeling
TYPE 1	This is a simulation of a small condenser mic used for musical instruments. The mic features a very bright high end.	This simulates the amp section of a vintage electric piano featuring a built-in amp.
TYPE 2	This simulates the type of dynamic mic used widely for vocals and instruments.	This simulates a multipurpose guitar amp.

To turn off the modeling, press the [TYPE] button a number of times until the indicator goes out.

#### **NOTE**

Although the [DISTANCE/EQ] knob functions as a tone control when amp modeling is in use, the piano part volume and certain EQ settings may cause an excessive increase in volume and ruin the sound. In such instances, turn down the [DISTANCE/EQ] knob or [PIANO VOLUME] knob, or adjust the MASTER EQ until the sound does not distort.

#### **MEMO**

By changing the Mic/Amp SW in the EDIT menu, you can get the most suitable amp modeling for acoustic instruments as well as the right mic modeling for electrified instruments (p. 73).

**2. Turn the [DISTANCE/EQ] knob to set the type of sound characteristics you like.**

Mic modeling provides an effect simulating the change in distance between the sound source and the mic. Turn the knob in the + direction to get more of an “on-mic” sound; turn the knob in the - direction to get more of an “off-mic” sound.

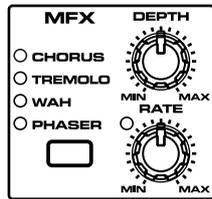
With amp modeling, this functions as a tone control. Turn the knob in the + direction to emphasize the high frequencies; turn the knob in the - direction to boost the low end.

**NOTE**

The [DISTANCE/EQ] knob has no function when the mic or amp type is turned off (when either the TYPE 1 or 2 indicator is unlit).

**■ Applying Effects to the Sound (Multi Effects)**

There may be times when you want to play electric piano sounds through an effects processor. The VR-760’s piano part features a number of effects that sound great with the electric piano sound.



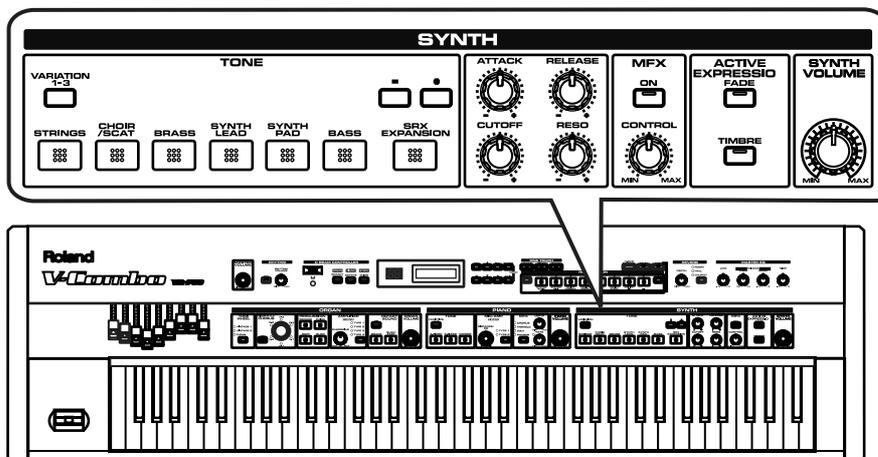
- 1. Press one of the piano section’s [MFX TYPE] buttons to select the multi-effects type; select [CHORUS], [TREMOLO], [WAH], or [PHASER].**
- 2. Turn the [DEPTH] and [RATE] knobs to adjust the amount and character of the effect applied.**

Value	Explanation
CHORUS	This is an effect that combines a pitch-modulated sound with the original sound, giving the sound greater breadth, as if there were more than one sound source playing.
TREMOLO	This effect modulates the volume to produce a wavering sound. The tremolo can be switched between stereo and mono settings (Tremolo Type, p. 73).
WAH	This effect produces a wavering sound by modulating the tone. You can select either modulation wah, for a cyclic modulation; or touch wah, which modulates the wah according to the volume (Wah Type, p. 73). You can also set this to pedal wah, in which modulation is applied with the control pedal (p. 66).
PHASER	This effect produces a wavering sound by modulating the phase.

When a periodic effect that changes the sound in a cyclic fashion is selected, the indicator at the upper left of the [RATE] knob flashes in time with the change in the effect. However, when WAH is selected, the indicator responds as shown below.

- Wah TYPE set to MOD: Flashes
- Wah TYPE set to TOUCH: Lights
- Ctrl Pedal Assign set to PIANO PEDAL WAH: Off

## Basic Operation of the Synth Part



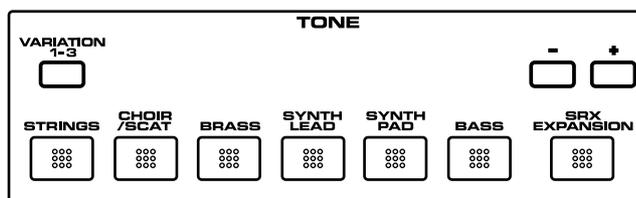
### ■ The “Tones” That Change the Synth Tone

You can switch the synth part to select the tone you prefer from 18 different tones. You can select tones from six categories, each with three variations.

You can select the category by pressing either [STRINGS], [CHOIR/SCAT], [BRASS], [SYNTH LEAD], [SYNTH PAD], or [BASS] buttons.

Press the [VARIATION] button to select the variation.

The [VARIATION] button’s indicator changes each time the button is pressed, cycling through “OFF,” “red,” and “green,” indicating which variation is currently selected.



Pressing a lit CATEGORY button causes the light to go off, and turns off the synth’s sound generator.

### ■ Selecting Wave Expansion Board Tones

If you have an SRX Wave Expansion Board installed, you can press the [SRX EXPANSION] button to select global patches on the expansion board as tones.

#### 1. Press the [-] or [+] button located above the [SRX EXPANSION] button.

If you have two expansion boards installed, you can select from a single list of global patches on the two boards.



For more on the synth part’s tones, refer to the “Tone List” (p. 99).

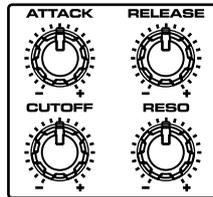


By holding down either the [-] or [+] button, and while holding it down pressing the other button, you can have the values change rapidly in the direction of the button pressed first.

## ■ Making Changes to the Tones (Tone Modify)

You can set the following four elements to make changes to the synth part tone.

This setting is stored in the registrations.



Value	Explanation
ATTACK	This changes the time it takes for the sound to occur after the key is pressed. Turn the knob to the left to decrease the attack time; turn the knob to the right to increase the attack time.
RELEASE	This changes the time it takes for the sound to disappear after the key is released. Turn the knob to the left to decrease the release time; turn the knob to the right to increase the release time.
CUTOFF	This changes the brightness of the sound. Turn the knob to the left to make the sound darker; turn the knob to the right to create a brighter sound.
RESONANCE	This adds more presence to the sound. Turn the knob to the left to reduce the effect; turn the knob to the right to make the effect stronger.

## ■ Applying Effects to the Sound (MULTI EFFECTS)

The VR-760 allows you to apply “multi-effects” to sounds. Multi-effects provides a collection of 40 different effects, such as distortion and franger, from which you can choose.

The factory settings have a suitable effect assigned to each of the tones.

This setting is stored in the registrations. It is not stored to each individual tone.



1. Press MFX [ON] button on the Synth Section, getting its indicator to light.
2. Adjust the amount of multi-effect applied with the [CONTROL] knob.
3. To cancel the multi-effect, press MULTI EFFECTS [ON/OFF] button, the indicator light goes out.

\* Effects are not applied to Tones for which the “Synth MFX Type” (p. 75) in Edit mode are set to “00 THROUGH”.

### NOTE

Making large, sudden changes in the settings values may cause the sound to distort or boost the volume too much.

### NOTE

With some Tones, the effect does not work as intended.

### MEMO

For further details on the onboard effects, see the “Effect/Parameter List” (p. 91).

### MEMO

The parameters that can be adjusted with the [CONTROL] knob vary with the selected effect. For more detailed information, refer to “Synth MFX Ctrl” (p. 75). You can also change the parameters to be adjusted (p. 75).

### MEMO

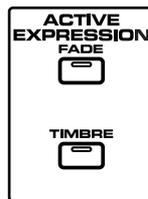
You can change the multi-effects type and make a variety of other changes to the settings. For more detailed information, refer to “Settings Multi-Effect of Synth Part” (p. 75).

### ■ Adding Expression to the Sound “Active Expression”

You can use the expression pedal to add expression to the synth part sound. This feature, called "Active Expression," includes control of two different functions, "FADE" and "TIMBRE."

When "FADE" is selected, the volume of the synth part increases sharply as you depress the expression pedal. This allows you to use a variety of expressive techniques. For example, when playing the synth part in combination with the organ part, you can release your foot from the expression pedal to have only the organ part be played. When you press down on the pedal, the synth is gradually mixed in with the organ part.

When "TIMBRE" is selected, you can use the expression pedal to change the strength, brightness, and fatness of sounds in the synth part. The most suitable effects have been pre-assigned for each tone; these cannot be changed. Moreover, the TIMBRE function is not applied to tones on Wave Expansion Boards.



Value	Explanation
OFF	Key touch can be used to alter the strength of the sound. You can use the expression pedal to adjust the volume.
FADE	Key touch can be used to alter the strength of the sound. Pressing the expression pedal forward allows you to produce sharp increases in volume.
TIMBRE	The strength of the sound does not change rapidly in response to the key touch. The expression pedal changes the strength of the sound.

#### **MEMO**

With the Jazz Scat tone, you can also switch scat variations using the key touch when TIMBRE is selected.

In this case, even when you play using the same key touch, different variations of the scat sound will be played depending on whether the expression pedal is fully depressed or completely released. In other words, you can control sounds using both the key touch and the expression pedal, and play an even greater number of scat variations.

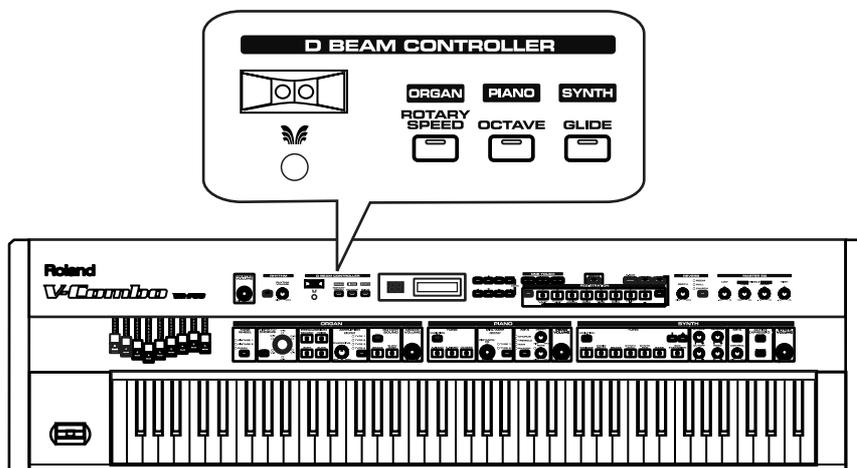
#### **NOTE**

TIMBRE is not functional with Wave Expansion Board tones.

# Using the Advanced Functions

## Using the D BEAM Controller to Produce Common Effects

You can apply various effects to the sound only by moving your hand over the D Beam Controller on the VR-760 panel.



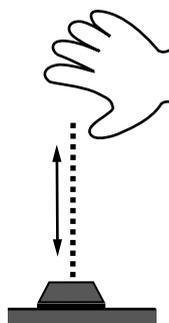
### 1. Press any of the three buttons in the D BEAM CONTROLLER section.

The indicator under the D Beam controller lights up.

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

Effects	Explanation
ROTARY SPEED	The rotary effect will switch between slow and fast each time you position your hand over the D Beam controller.
OCTAVE	When you hold your hand over the beam, piano part sounds one octave higher than those played on the keyboard are layered over the original sounds. When you bring your hand closer to the beam, an additional sound one octave lower than the original is added.
GLIDE	When you play the synth part with your hand held over the controller, the pitch changes slowly and continuously from notes at the low end of the keyboard to the note for the key you are currently playing. When you move your hand away from the controller, the original pitch returns.

### 2. Place your hand over the D Beam controller.



Positioning your hand over the controller causes the pitch currently being played to change.

The color of the indicator below the D Beam controller changes according to the effect or response assigned to the controller.

#### NOTE

With ROTARY SPEED and GLIDE, changes in the VR-760's tone parameters are performed with the D Beam. This means the editing symbol will appear when you place your hand over the D Beam, and does not indicate any malfunction.

### ■ Adjusting the Sensitivity of the D Beam Controller

#### Caution

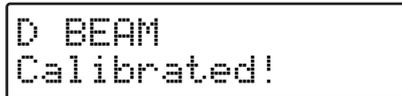
When the VR-760 automatically calibrates the sensitivity of the D Beam controller, make sure no object is placed on the D Beam, and avoid having your hands near it.

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

#### **1. Simultaneously press the D BEAM CONTROLLER [ROTARY SPEED] button and the [ENTER] button.**

The following screen is displayed for approximately two seconds, and the D Beam controller sensitivity is automatically adjusted.

*\* Never turn off the power while the following screen is being displayed.*



```
D BEAM  
Calibrated!
```

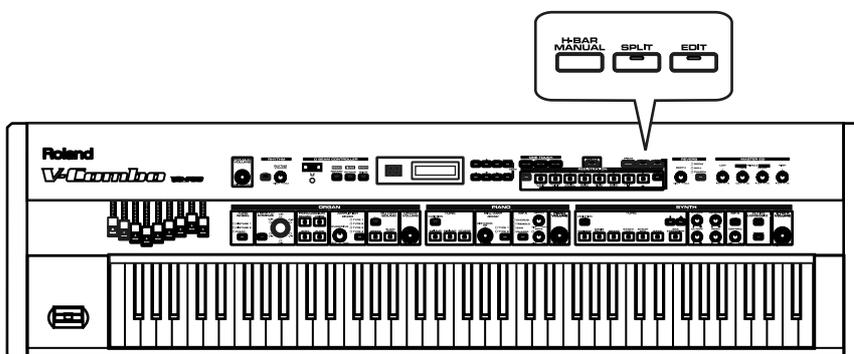
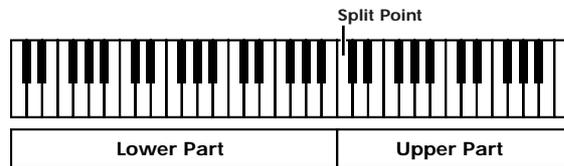
Although the D Beam sensitivity setting is saved within the VR-760 even after the power is turned off, the setting cannot be saved to cards.



You can set the D Beam sensitivity manually. Refer to “Adjusting the Sensitivity of the D Beam (p. 67).”

## Dividing the Keyboard (Split)

You can divide the keyboard into two key ranges and assign a different part to the left and right hand. Dividing the keyboard in two this way is referred to as a “split,” and the point at which the keyboard is split is called the split point. The split point is included in the Upper Part.



### 1. Press the [SPLIT] button to make its indicator light.

A screen like the one shown below appears, and the keyboard will be divided into two zones.

```

Split Point C 4
L:Organ U:Synth
  
```

An example of this screen shows the split point set at C4 (middle C on the keyboard), with the organ part playing in the lower key range (the left-hand part of the keyboard) and the synth part playing in the upper key range (the right-hand part of the keyboard).

Here, you can move the cursor to the split point or to each key range by pressing the CURSOR [▲] [▼] [◀] [▶] button, and change the values with the [INC] or [DEC] button.

When you press the [EXIT] button, the display returns to the screen that appeared before the [SPLIT] button was pressed.

### 2. To cancel the Split, press the [SPLIT] button once again, extinguishing the indicator.



You can freely change the split point by holding down the [SPLIT] button for at least one second, and while continuing to hold the button down, press one of the keys.

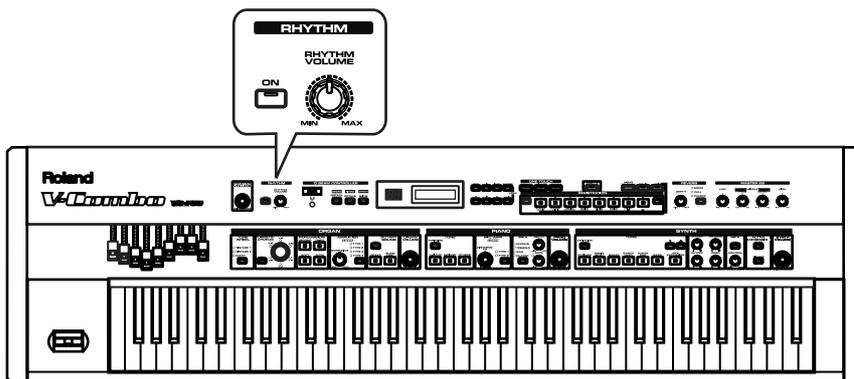
# Playing Rhythm (RHYTHM)

The VR-760 includes a simple rhythm part that can be used for playing drum patterns in a variety of musical styles.

The rhythm part can also be used in place of a metronome when practicing, or can be used for inspiring creativity.

You can select the following sets.

No.	Style	Beat	Measure
00	Jazz Funk 1	4/4	4
01	Jazz Funk 2	4/4	4
02	Jazz Funk 3	4/4	2
03	Acid Jazz	4/4	2
04	8Beat Pop 1	4/4	4
05	8Beat Pop 2	4/4	4
06	16Beat Pop 1	4/4	2
07	16Beat Pop 2	4/4	2
08	4Beat Pop	4/4	2
09	Fusion	4/4	4
10	Pop Ballad	6/8	4
11	Blues 1	4/4	4
12	Blues 2	4/4	2
13	Rock 1	4/4	4
14	Rock 2	4/4	4
15	R&B 1	4/4	4
16	R&B 2	4/4	4
17	R&B 3	4/4	4
18	Swing Jazz	4/4	2
19	Slow Jazz	4/4	4
20	4Beat Jazz	4/4	4
21	5/4Bar Jazz	5/4	2
22	7/8Bar Jazz	7/4	2
23	Latin Jazz	4/4	2



**1. Press the RHYTHM [ON] button.**

The Rhythm begins playing.

The following display is appear.

```
R00:Jazz Funk 1
4 J:112
```

**2. Adjust the volume of the Rhythm with the [RHYTHM VOLUME] knob.**

**3. Press the RHYTHM [ON] button once more; the indicator goes out, and the Rhythm stops playing.**

**■ Changing the Rhythm Pattern and Tempos**

**1. Press CURSOR [▶] button to go to the Rhythm screen.**

The name of the rhythm style currently in the temporary area appears in the first row, and the tempo is displayed in the second row.

```
R00:Jazz Funk 1
4 J:112
```

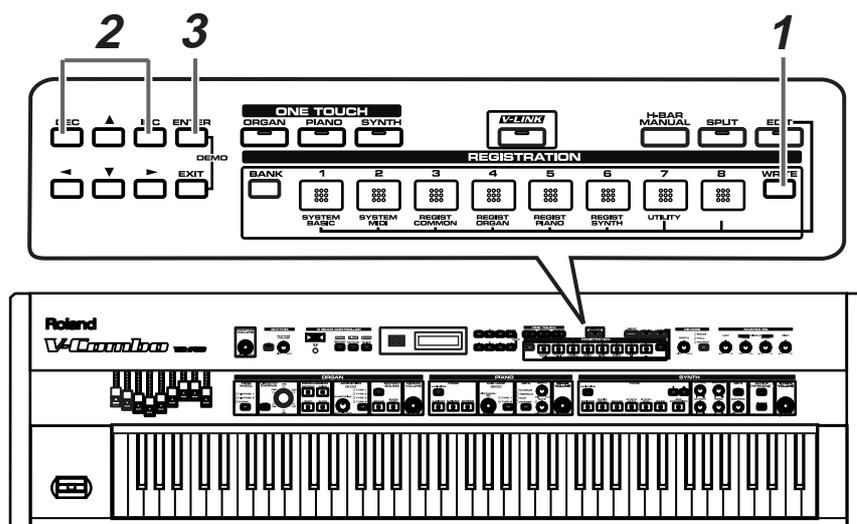
**2. Move the cursor by pressing the CURSOR [▲][▼] buttons, and then change the values with the [INC] and [DEC] buttons.**

The Rhythm are played at the selected pattern and tempo.

# Saving Settings to Registrations

You can store organ, piano, and synth tones, part combinations, and other panel settings as a REGISTRATION. With your favorite settings stored in the form of registrations, you can then call up desired settings simply by pressing the appropriate REGISTRATION button.

The VR-760 features 64 internal registrations. Each of the eight REGISTRATION buttons [1]–[8] can be used to store eight registrations, and each of the groups stored with the buttons is referred to as a “bank.”



The VR-760 comes with 64 different prepared settings already stored in the registrations. When settings are saved, they overwrite whatever settings had been stored in that registration. You can also return the overwritten registrations to the original factory settings (p. 20).



For more detailed information on the settings stored in the registrations, refer to p. 100.

### 1. Press the [WRITE] button.

A screen like the one shown below appears.

```
Write Regist 11?  
[Y:Enter N:Exit]
```

### 2. You can select the REGISTRATION number you want to write the data to by pressing the [INC] or [DEC] buttons.

You can also specify the number by pressing the [BANK] button and one of the REGISTRATION buttons [1]–[8].

```
Write Regist 23?  
[Y:Enter N:Exit]
```

### 3. Press the [ENTER] button.

The save begins, and a message appears in the display.

In the above example, the current settings are stored in Registration 23.

If you do not want to store the settings in a registration, press the [EXIT] button. The Basic screen returns to the display.

When saving to the registration is completed, a message indicating that it is completed appears in the display, and the Basic screen returns to the display.

#### Simple Method for Storing to Registrations

You can store settings quickly by holding down the [WRITE] button and pressing one of the REGISTRATION buttons [1]–[8]. This is convenient when you have already determined the registration number you want to save to.

1. Hold down the [WRITE] button and press the [BANK] button, then press any of the REGISTRATION buttons [1]–[8].

The bank is confirmed.

Continue holding down the [WRITE] button.

2. Press any of the REGISTRATION buttons [1]–[8].

The settings are stored to the specified registration number. When the process is finished, a message indicating that it is completed appears in the display.

3. Release the [WRITE] button.

When saving to a registration in the same bank, use the following procedure to store the settings.

1. Hold down the [WRITE] button and press a REGISTRATION button [1]–[8].

When the save is finished, a message indicating that it is completed appears in the display.

#### NOTE

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

## Using a Control Pedal

You can connect a pedal switch (such as the optional DP-2) to the CONTROL PEDAL jack on the VR-760's rear panel to switch the rotary effect, switch registrations, control the piano soft effect, turn external sequencers on and off, and control other functions (p. 66).

Connecting an expression pedal (the optional EV-7) allows to use the pedal to control the organ overdrive and D Beam functions.

You can set the function assigning to the control pedal (p. 66).

#### MEMO

With certain pedals, the action performed when you press or release the pedal may be reversed. In such instances, switch the control pedal polarity so that the pedal functions properly (p. 65).

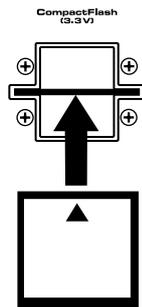
#### NOTE

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 to the Memory Card

With the VR-760, you can take all of the content in the registration and the system settings and save them as a single file to a memory card (CompactFlash).

- \* *When using memory cards, first turn the VR-760's power off, then insert the memory card in the MEMORY CARD SLOT as shown in the figure below.*
- \* *Carefully insert the card in the direction indicated by the arrow.*
- \* *Make sure that the card is fully inserted in the slot.*



- \* *Do not touch or allow metal to come into contact with the contact portion of the cards.*
- \* *Never insert or remove a CompactFlash card while the VR-760's power is on. Doing so may corrupt the VR-760's data or the data on the CompactFlash card.*
- \* *When using cards, make sure they are correctly oriented when inserted.*
- \* *For more information and precautionary notes on handling memory cards, refer to the card manual.*
- \* *Be careful not to damage the contact portion of the cards.*
- \* *Cards are made to be insert in only one way. Do not force the cards into the slot.*
- \* *These cards are precision devices; do not bend or drop them or subject them to strong shock or vibration.*
- \* *The cards cannot be altered or disassembled.*
- \* *These cards are precision devices; handle them carefully, and pay attention to conditions of temperature and humidity. In particular, do not use in conditions where water may condense on the surfaces.*
- \* *To prevent damage to the cards from static electricity, be sure to discharge any static electricity from your own body before touching cards.*
- \* *Do not save data where static electricity or electrical noise is being generated.*
- \* *Do not place a card in any device if the card is dusty or dirty.*
- \* *Always be sure to back up the data on cards.*
- \* *Memory cards require formatting before they are used.*

### NOTE

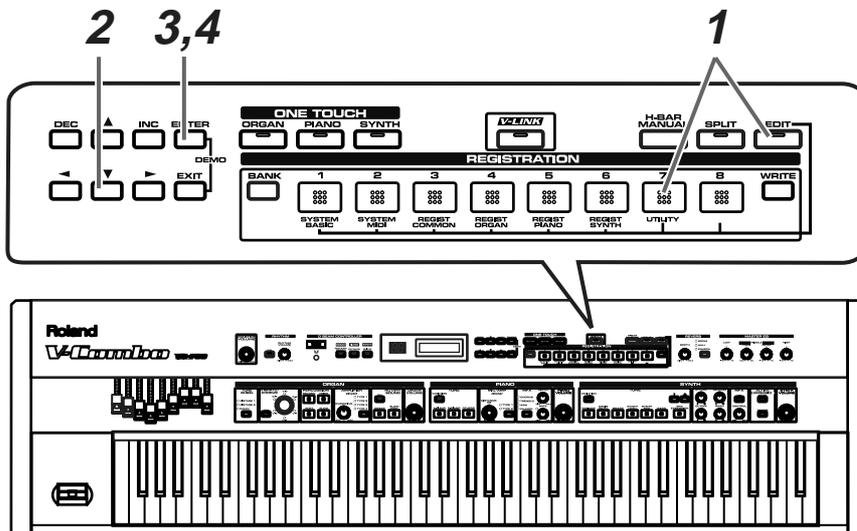
Memory cards require formatting before they are used.

### NOTE

Parameter settings are all saved together in one file. You cannot save or load any one registration individually.

## ■ Formatting the Memory Card for the VR-760 (Format)

This function initializes (formats) a memory card so that VR-760 data can be saved to it. Before a new memory card or a memory card used on another device can be used on the VR-760, it must be formatted on the VR-760.



### NOTE

Please be aware that formatting will erase all the data currently stored on the memory card.

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [▼] button to display the following screen.

```
Format Card  #
Y:Enter N:Exit
```

3. Press the [ENTER] button.

The confirmation message appears.

Pressing the [EXIT] button, return to step 2.

```
Format Card  #
Sure?[Entr/Exit]
```

4. Press the [ENTER] button once more; A screen like the one shown below appears, and start the format.

```
Format Card  #
Formatting...
```

After the format operation is finished, a message indicating that it is completed appears in the display, and the basic screen will appear.

### ■ Saving Data to Memory Card (Save File)

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [ ▼ ] button to display the following screen.

```
Save File      #
Y:Enter N:Exit
```

3. Press the [ENTER] button.

The file name is displayed in the second row, and the cursor appears.

Pressing the [EXIT] button, return to step 2.

4. Move the cursor by using the CURSOR [ ◀ ] [ ▶ ] buttons to the location where you wish to change a character.

5. Change a character with the CURSOR [INC] [DEC] buttons.

Available characters/symbols:

A-Z, 0-9, ! # \$ % & ' ( ) - @ ^ \_ ` { }

When the [ ▲ ] button is pressed, a single-character "A" is inserted; pressing the [ ▼ ] button deletes one character.

6. Repeat steps 4-5 to input the name.

You can use up to eight characters in naming a file.

7. Press the [ENTER] button.

After the saving operation is finished, a message indicating that it is completed appears in the display, and the basic screen will appear.

\* The following message appears if you attempt to save a file with the same name as a file already stored on the card. If you do not mind overwriting the pre-existing file, press [ENTER] button. If you want to change the file name before you save the file, press [EXIT] button to return to Step 4.

```
FILE_001 exists!
Overwrite OK?
```

## ■ Loading a File from Memory Card into the VR-760 (Load File)

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [▼] button to display the following screen.

```
Load File      ⌘
Y:Enter N:Exit
```

3. Press the [ENTER] button.

A screen like the one shown below appears.

```
Select Load File
1:FILE_001    ⌘
```

4. Press CURSOR [▲][▼] button to select file.

5. Press the [ENTER] button to load settings.

After the loading is finished, a message indicating that it is completed appears in the display, and the basic screen will appear.

## ■ Renaming a File Saved to the Memory Card (Rename File)

This function rename file saved to the memory card.

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [▼] button to display the following screen.

```
Rename File    ⌘
Y:Enter N:Exit
```

3. Press the [ENTER] button.

A screen like the one shown below appears.

```
Select Ren File
1:FILE_001    ⌘
```

4. Press the CURSOR [▲][▼] button to select file.

## Using the Advanced Functions

### 5. Press the [ENTER] button.

A screen like the one shown below appears.

```
Input New Name
FILE_001      ⏏
```

The cursor appears at the file name to the lower left of the display.

### 6. Rename file.

Move the cursor by using the CURSOR [◀][▶] buttons to the location where you wish to input a character.

Input a character with the CURSOR [INC] [DEC] buttons.

When the [▲] button is pressed, a single-character “A” is inserted;

pressing the [▼] button deletes one character.

You can use up to 8 characters in naming files.

If you cancel file rename function, press the [EXIT] button to return to step 2.

### 7. Press the [ENTER] button.

The complete message is displayed and return to the basic screen.

## ■ Deleting a File Saved to the Memory Card (Delete File)

### 1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's “UTILITY” screen is displayed.

### 2. Press CURSOR [▼] button to display the following screen.

```
Delete File      ⏏
Y:Enter N:Exit
```

### 3. Press the [ENTER] button.

A screen like the one shown below appears.

```
Select Del File
1:FILE_001      ⏏
```

### 4. Press the CURSOR [▲][▼] buttons to select file.

If you cancel delete file function, press the [EXIT] button to return to step 2.

### 5. Press the [ENTER] button to delete file.

The selected file is deleted.

A message indicating that it is completed appears in the display, and the basic screen returns to the display.

## Controlling an External Video Device (V-LINK)

With the VR-760 connected to an external video device such as the Edirol DV-7PR, you can then use the VR-760 to control the images (V-LINK function).

With the VR-760's V-LINK function, you can use registrations or the keyboard to switch clips on the Edirol DV-7PR.

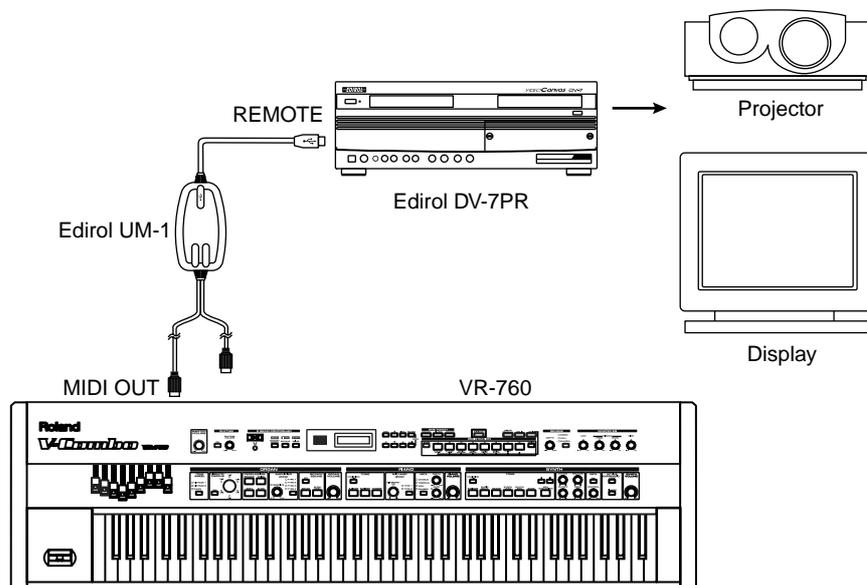
### What is V-LINK?

V-LINK ( **V-LINK** ) is a function that provides for the play of music and visual material. By using V-LINK-compatible video equipment, visual effects can be easily linked to, and made part of the expressive elements of a performance.

### ■ Connection Example (Using the DV-7PR)

Connect the DV-7PR and the VR-760 as shown in the DV-7PR Owner's Manual.

Use a UM-1 to connect the VR-760's MIDI OUT connector to the DV-7PR's remote jack.



#### NOTE

In order to use V-LINK with the VR-760 and Edirol DV-7PR, you will need to make connections using an Edirol UM1/UM-1S (sold separately).

#### 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.

### ■ How to Use the V-LINK Function

1. Turn on the power to the DV-7PR, and start up Presenter.
2. Press the [V-LINK] button so its indicator lights up.

The message “Video link system is ON” appears on the VR-760’s screen, indicating that the video control mode is enabled.

Data for enabling communication (such as information about the channel to be used for transmission), is sent from the VR-760 to the DV-7PR.

### Switching Images with the REGISTRATION Buttons

Pressing the REGISTRATION buttons [1]–[8] switches the images.

When the button is pressed, the Program Change and Bank Select set with the Registration Common’s Send PC and Send Bank MSB (p. 70) are transmitted to the DV-7PR. This switches the image to the clip corresponding to that value.

### Switching Images with the Keyboard

You can use the eight keys at the left end of the keyboard as clip switching buttons.

Pressing one of the keys sends a Program Change from 1 to 8. If using the DV-7PR, you can switch the first eight clips in the currently selected palette.

#### **NOTE**

Images cannot be switched when the Send PC and Send Bank MSB values are set to Off (p. 70, p. 68).

#### **NOTE**

No sound is output when the eight keys at the left end of the keyboard are used for switching clips. You can disable the clip-switching function for individual keys if you want to use these key in a musical performance (**V-Link KBD (ON/OFF)**, p. 66).

# Detailed Settings for Each Function (EDIT)

Edit mode allows you to get the most out of the VR-760'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 Mode Menu

The VR-760's Edit mode can be broadly divided into seven main menus. While some menus have settings that are saved on an individual registration basis, others offer settings that once set, they are applied to the entire system as a whole.

Items in menus with names with "SYSTEM" at the beginning are singular parameters within the system which are saved automatically when their settings are changed.

Items in menus with "REGISTRATION" at the beginning of the menu name are parameters that can be saved to each registration; these need to be saved to a registration when their settings are changed ("Saving Settings to Registrations," p. 54).

## SYSTEM BASIC

This is a group of global parameters that change the settings for the VR-760 overall. The changed settings automatically overwrite the previous settings.

Parameter	Page
Master Tune	p. 65
Key Transpose	p. 65
Key Touch	p. 65
Damper Pedal Polarity	p. 65
Organ Damper Switch	p. 65
Synth Damper Switch	p. 65
Piano Expression Switch	p. 65
Control Pedal Polarity	p. 65
Control Pedal Assign	p. 66
Quick Firing	p. 66
V-Link Keyboard	p. 66
Clock Source	p. 66
D Beam Sensitivity	p. 67

## SYSTEM MIDI

These are the MIDI settings that act on the VR-760 globally.

Parameter	Page
Local Control	p. 67
Device ID	p. 67
MIDI Tx Mode	p. 68
Tx PC Switch	p. 68
Rx PC Switch	p. 68
Control Part MIDI Channel	p. 68
Organ Part MIDI Channel	p. 68
Piano Part MIDI Channel	p. 68
Synth Part MIDI Channel	p. 68
Rhythm Part MIDI Channel	p. 68
External Part MIDI Channel	p. 68
Slow Fast Control Message	p. 68
Brake Control Message	p. 68
Tone wheel Brake Control Message	p. 69
Pedal Wah Control Message	p. 69
Synth MFX Control Message	p. 69
MIDI Sound Controller	p. 69

## REGISTRATION COMMON

These are the settings that are stored to individual registrations.

Parameter	Page
Regist Name	p. 69
External Part Assign	p. 70
Bender Assign	p. 70
Bender Range	p. 70
Aftertouch Sensitivity	p. 70
Reverb Level	p. 70
Rhythm Volume	p. 70
Rhythm Reverb Send Level	p. 70
Send PC	p. 70
Send Bank MSB	p. 70
Send Bank LSB	p. 70

## Detailed Settings for Each Function (EDIT)

### REGISTRATION ORGAN

These are the settings stored to individual registrations that affect the organ part.

Parameter	Page
Organ Volume	p. 71
Organ Octave Shift	p. 71
Organ Fine Tune	p. 71
Leakage Level	p. 71
Key On Click Level	p. 71
Key Off Click Level	p. 71
Percussion Soft Level	p. 71
Percussion Norm Level	p. 71
Percussion Slow Time	p. 71
Percussion Fast Time	p. 71
Percussion Recharge Time	p. 71
Percussion H-Bar Level	p. 71
Overdrive Level	p. 72
Rotary Woofer Spread	p. 72
Rotary Tweeter Spread	p. 72
Rotary Woofer Level	p. 72
Rotary Tweeter Level	p. 72
Rotary Woofer Rise Time	p. 72
Rotary Tweeter Rise Time	p. 72
Rotary Woofer Fall Time	p. 72
Rotary Tweeter Fall Time	p. 72
Rotary Woofer Slow Speed	p. 72
Rotary Tweeter Slow Speed	p. 72
Rotary Woofer Fast Speed	p. 72
Rotary Tweeter Fast Speed	p. 72
Rotary Mic Distance	p. 72
Organ Reverb Send Level	p. 72

### REGISTRATION PIANO

These are the settings stored to individual registrations that affect the piano part.

Parameter	Page
Piano Volume	p. 73
Piano Octave Shift	p. 73
Piano Fine Tune	p. 73
Stereo Width	p. 73
Stretch Tune	p. 73
Decay Time	p. 73
Release Time	p. 73
Mic/Amp Switch	p. 73
Chorus Return Level	p. 73
Tremolo Type	p. 73
Wah Type	p. 73
Wah Resonance	p. 74
Phaser Resonance	p. 74
Piano Reverb Send Level	p. 74

### REGISTRATION SYNTH

These are the settings stored to individual registrations that affect the synth part.

Parameter	Page
Synth Volume	p. 74
Synth Octave Shift	p. 74
Synth Fine Tune	p. 74
Mono Mode	p. 74
Portamento Switch	p. 75
Portamento Time	p. 75
Portamento Mode	p. 75
Portamento Type	p. 75
Synth MFX Type	p. 75
Synth MFX Control	p. 75
Synth MFX Param 1-32 Value (*1)	p. 75
Synth MFX Dry Send	p. 75
Synth MFX Chorus Send	p. 75
Synth Reverb Send Level	p. 75

\* 1: Depending on the MFX Type, there may be up to 32 different parameters. These change according to the selected MFX Type.

### UTILITY

These include file operations and other functions.

Parameter	Page
SRX Info	p. 76
Bulk Dump Temp	p. 77
Bulk Dump All	p. 77
Format Card	p. 78
Save File	p. 78
Load File	p. 78
Rename File	p. 78
Delete File	p. 78
Factory Reset	p. 78

## Basic Procedure

1. Hold down the [EDIT] button, and press the REGISTRATION [1]–[7] button.
2. Press CURSOR [▼] [▲] button to select the parameter.
3. Press the [INC] and [DEC] buttons to change the values.



For faster value increases, keep [INC] button pressed down and press [DEC] button. For decreasing value faster, keep [DEC] button pressed down and press [INC] button.

## Settings Affecting the Overall VR-760 (SYSTEM BASIC)

### Tuning to Other Instruments' Pitches

#### Master Tune (415.3Hz-466.2Hz)

This is a fine adjustment to the pitch of the VR-760. You can adjust the pitch of the entire instrument in 1 cent steps, relative to the pitch of A4 (middle A) = 440.0 Hz.

### Transposing the Keyboard

#### Key Transpose (-6–+5)

This transposes the keyboard. The value is in semitone steps over a range of -6-0+5. With a setting of 0, there will be no transposition.

### Changing the Key Touch

#### Key Touch (LIGHT/MEDIUM/HEAVY)

The setting below allows you to adjust the response you get from the keyboard when you finger the keys.

Value	Explanation
LIGHT	This sets the keyboard to a light touch. You can achieve fortissimo play with a less forceful touch than usual, so the keyboard feels lighter. This setting makes it easy to play, even for children.
MEDIUM	This sets the keyboard to the standard touch. You can play with the most natural touch. This is the closest to the touch of an acoustic piano.
HEAVY	This sets the keyboard to a heavy touch. You have to finger the keyboard more forcefully than usual in order to play fortissimo, so the keyboard touch feels heavier. Dynamic fingering adds even more feeling to what you play.

## Switching the Damper Pedal's Polarity

### Damper Polarity (STANDARD/REVERSE)

Switch the polarity of damper pedals connected to the VR-760.

On some pedals, the electrical signal output by the pedal when it is pressed or released is the opposite of other pedals. If your pedal has an effect opposite of what you expect, set this parameter to REVERSE.

If you are using a Roland pedal (that has no polarity switch), set this parameter to STANDARD.

Although you can connect either a switch-type pedal or half damper-type pedal to the DAMPER PEDAL jack, if you are using a half damper pedal, be sure to use only the specified pedal (DP-8, sold separately). Connecting pedals from other manufacturers may damage the instrument.

## Applying Damper Effect to the Organ Part

### Organ Damper SW (ON/OFF)

With the factory settings, the damper pedal is not applied to the organ part. You can set the VR-760 so that the damper pedal is effect applied to the organ part by setting Organ Damper SW to ON.

## Applying Damper Effect to the Synth Part

### Synth Damper SW (ON/OFF)

You can set the synth part's damper pedal effect on or off. Setting this to OFF, the damper pedal is not applied to the synth part.

## Applying Expression Effect to the Piano Part

### Piano Exp SW (ON/OFF)

With the factory settings, the Expression pedal is not applied to the piano part. You can set the VR-760 so that the Expression pedal is effect applied to the piano part by setting Piano Exp SW to ON.

## Switching the Control Pedal's Polarity

### Control Polarity (STANDARD/REVERSE)

Switch the polarity of control pedals connected to the VR-760.

On some pedals, the electrical signal output by the pedal when it is pressed or released is the opposite of other pedals. If your pedal has an effect opposite of what you expect, set this parameter to REVERSE.

If you are using a Roland pedal (that has no polarity switch), set this parameter to STANDARD.

## Detailed Settings for Each Function (EDIT)

### Assigning Functions to Control Pedal

#### Ctrl Pdl Assign

This setting determines the function of the pedal switches or expression pedals (such as the optional EV-7) that are connected to the CONTROL PEDAL jacks on the rear panel.

Value	Explanation
ROTARY SLW/FST	This switches the organ part's rotary SLOW and FAST settings.
ROTARY SPEED	You can freely set the speed of the organ part's rotary effect to any speed between "slow" and "fast." This works well when you have an expression pedal connected.
ROTARY BRAKE	This has the same effect as switching the organ part rotary effect's [BRAKE] button on or off.
REGIST INC	This switches you through the registrations. The VR-760 goes through the registrations, switching one registration each time the pedal is pressed.
REGIST DEC	This switches you through the registrations. The VR-760 goes back through the registrations, switching one registration each time the pedal is pressed.
ORGAN OVERDRIVE	This controls the depth of the overdrive effect. This works well when you have an expression pedal connected.
ORGAN WHEEL BRK	This turns the organ's wheel brake effect (*1) on. After the pedal is released, the sound gradually returns to normal.
PIANO SOFT	This applies the piano's soft pedal effect.
PIANO SOSTENUTO	This applies the piano's sostenuto pedal effect.
PIANO OCTAVE	This effect has the same function as the D Beam OCTAVE (p. 49). This works well when you have an expression pedal connected.
PIANO PEDAL WAH	This sets Pedal Wah as the wah type used when Wah is selected as the piano's MFX effect. This works well when you have an expression pedal connected.
SYNTH GLIDE	This effect has the same function as the D Beam GLIDE (p. 49).
RHY START-STOP	This controls starting and stopping of the Rhythm.
SEQ START-STOP	When using MIDI, this controls starting and stopping of the connected sequencer.

#### \*1 Stopping the rotation of the tone wheels (Wheel Brake)

Throughout the history of rock organ, a wide range of performers have developed unique effects and used them in their music. The VR-760 features the wheel brake as one of these characteristic effects.

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.

### Setting the Organ's Quick Firing Keyboard Function

#### Quick Firing (ON/OFF)

You can make settings for the organ's Quick Firing function. Setting this to Off cancels Quick Firing. Although this results in poorer performance of glissando and rapid keyboard runs, it prevents mostly the rebounding effect when the keys are released.

### Setting the Keyboard Video Switching During V-LINK

#### V-Link KBD (ON/OFF)

You can set whether the eight lowest keys are used for switching video clips or for producing sounds when the V-LINK function is enabled.

Value	Explanation
ON	The eight lowest keys at the far left are used for switching videos.
OFF	This disables the keys' video switching function. All keys are used for performing.

### Changing the Clock (Timing) Source

#### Clock Source (INT/MIDI)

You can control the tempo from an external MIDI device. Set this to MIDI when synchronizing to the clock (tempo) of an external MIDI device.

Value	Explanation
INT	Synchronized to the internal clock.
MIDI	Synchronized to the external MIDI device's clock. The tempo indication changes to "♩:MIDI" for each screen.



The tempo cannot be set if Clock Source is set to MIDI without there being any external MIDI device connected. This can result in Rhythms (p. 52) not sounding, and may change the manner in which certain effects are applied.

## Adjusting the Sensitivity of the D Beam

### D Beam Sens (0–127)

You can Adjust the Sensitivity of the D Beam. The value is a range of 0–127.

Sensitivity increases as the value is raised.



You can also have the D Beam sensitivity adjusted automatically (p. 50).



The D Beam Sens value is saved within the VR-760, but cannot be saved to memory cards (CompactFlash).

## MIDI Settings that Act on the VR-760 Globally (SYSTEM MIDI)

### Connecting/Disconnecting the Sound Generator and Keyboard

#### Local Control (ON/OFF)

Connects/disconnects the internal link between the VR-760's sound generator and its keyboard and other controller.

Value	Explanation
ON	The sound generator will be internally connected to the keyboard and other controllers. Normally you will use the VR-760 with this setting.
OFF	The sound generator will be internally disconnected from the keyboard and other controllers.



To prevent problems such as failure to sound, the Local Control setting will automatically be turned on each time the VR-760 is powered up.

### Setting the Device ID Number

#### Device ID (17–32)

The Device ID number is an identification number used when transmitting and receiving MIDI Exclusive messages. When transmitting Exclusive messages, the device ID numbers of the corresponding devices must be matched.

## Detailed Settings for Each Function (EDIT)

### Switching the MIDI Data Transmitted

#### MIDI Tx Mode (INTERNAL/EXTERNAL/BOTH)

You can change the type of MIDI data to be transmitted, depending on whether you are recording to an external MIDI sequencer, or controlling an external MIDI device.

When recording to an external MIDI sequencer, the part data required for control of the VR-760's sound generators (control, organ, piano, synth, and rhythm parts) should be output. But when controlling an external MIDI device, the data for parts (external parts) that have no effect on the control of the VR-760's sound generators should be output.

Value	Explanation
INTERNAL	The data required for controlling the organ, piano, and other sound generators is output.
EXTERNAL	External part data for external devices is output.
BOTH	Both the internal and external data is sent.

#### NOTE

When MIDI Tx Mode is set to Both, you must set different MIDI channels for the external parts than the channels used for the organ, piano, synth, rhythm, and other data. Sounds may not play as expected if the same settings are used.

#### NOTE

Because of the rebounding that occurs with the Quick Firing keyboard when the keys are released, along with the fact that the velocity is fixed, the organ part note information is only suitable for controlling external organ sound modules. Set MIDI Tx Mode to External when controlling the sound module for an external device.

### Switching the Tone Change Data Transmission/Reception Switch

#### Tx PC Switch/Rx PC Switch (ON/OFF)

Parameter	Value	Explanation
Tx PC Switch	ON	Program Changes are transmitted.
	OFF	Program Changes are not transmitted.
Rx PC Switch	ON	Program Change messages are disregarded when received.
	OFF	Program Change messages are regarded when received.

### Setting the MIDI Channel for Each Part

#### Ctrl MIDI Ch (1-16)

These set the MIDI transmit and receive channels used for controlling the VR-760. You can switch the registrations on the VR-760 by transmitting tone change messages over these channels.

#### Organ MIDI Ch (1-16)

This sets the MIDI channel for transmitting and receiving messages for the organ part.

#### Piano MIDI Ch (1-16)

This sets the MIDI channel for transmitting and receiving messages for the piano part.

#### Synth MIDI Ch (1-16)

This sets the MIDI channel for transmitting and receiving messages for the synth part.

#### Rhythm MIDI Ch (1-16)

This sets the MIDI channel for transmitting and receiving messages for the rhythm part.

#### Ext MIDI Ch (1-16)

This sets the MIDI channel for transmitting and receiving messages for the external parts used in controlling external devices.

### Switching Rotary Effect Messages

#### SlwFst Ctrl Msg (1-8/SYS-EX)

This determines the message number when transmitting or receiving the rotary effect SLOW/FAST status. You can set any general-purpose controller 1-8, or set this to System Exclusive messages.

#### Brake Ctrl Msg (1-8/SYS-EX)

This determines the message number when transmitting or receiving the rotary effect BRAKE status. You can set any general-purpose controller 1-8, or set this to System Exclusive messages.

#### MEMO

According to MIDI standards, the actions performed when messages from general-purpose controllers are received can differ depending on the device. Therefore, if you are working with more than one MIDI device, the equipment may not operate as expected. In such instances, we recommend that you either change the general-purpose controller numbers or transmit using System Exclusive messages.

## Changing the Tone Wheel Brake Message

### TWBrk Ctrl Msg (1-8)

This determines the number of the message to be used for transmitting and receiving the status of the wheel brake effect produced using the control pedal.

You can set any general-purpose controller 1-8.

## Changing the Pedal Wah Message

### PedalWahCtrlMsg (1-8)

This determines the number of the message to be used for transmitting and receiving the status of the pedal wah effect produced using the control pedal.

You can set any general-purpose controller 1-8.

## Switching Synth MFX Control Messages

### SynthMFXCtrlMsg (1-8)

This determines the message number when transmitting or receiving the status of the synth part's MFX CONTROL knob. You can set any general-purpose controller 1-8.

## Switching Harmonic Bar Messages

### MIDI Snd Ctrl (ON/OFF)

This setting determines whether or not the harmonic bar information is received using the MIDI message sound controller. When set to On, the MIDI message sound controller is used in receiving the harmonic bar information; when set to Off, the sound controller is disregarded.

## Settings of REGISTRATION (REGISTRATION COMMON)

### Renaming a REGISTRATION

#### Regist Name

You can rename a REGISTRATION. You can use up to twelve characters in naming registrations.

1. Select the registration you wish to rename.
2. Hold down the [EDIT] button, and press the REGISTRATION [3] (REGIST COMMON) button.

The Edit's "REGIST COMMON" screen is displayed.

3. Press CURSOR [ ▼ ] button to display the following screen.

```
RegistName  #
Y:Enter N:Exit
```

4. Press the [ENTER] button.

A screen like the one shown below appears.

```
Input New Name
Regist_11  ⏏
```

The cursor appears at the Registration name to the lower left of the display.

5. Rename Registration.

#### Available characters/symbols:

Space, A-Z, a-z, 0-9, ! " # \$ % & ' ( ) \* +, - . / ; : < = > ? @ [ ¥ ] ^ \_ ` { | }

Move the cursor by using the CURSOR [ ◀ ] [ ▶ ] buttons to the location where you wish to change a character.

Change a character with the CURSOR [INC] [DEC] buttons.

When the [ ▲ ] button is pressed, a single-character blank space is inserted; pressing the [ ▼ ] button deletes one character.

If you cancel a Renaming Registration function, press the [EXIT] button to return to step 3.

6. Press the [ENTER] button to set the name.

## Detailed Settings for Each Function (EDIT)

### Determining the MIDI Output Key Range in Split Play

#### External Part Assign (UPPER/LOWER/BOTH)

This sets the key range for which Note messages are output from MIDI OUT when Split Play is used. For example, this might be used when you want the Upper Part to sound the tones of a connected MIDI sound module, while the Lower Part sounds the VR-760's tones.

Value	Explanation
UPPER	Only the Note messages for the Upper Tone are output from the MIDI connector.
LOWER	Only the Note messages for the Lower Tone are output from the MIDI connector.
BOTH	The Note messages of both the Upper Tone and Lower Tone are output from the MIDI connector.

### Changing the Pitch Bender Settings

#### Bender Assign (PITCH BEND/ROTARY SPEED)

This sets the effect assigned to the bender lever.

Value	Explanation
PITCH BEND	The pitch bend effect is applied as the lever is tilted.
ROTARY SLW/FST	Tilting the lever switches the organ part's rotary SLOW and FAST settings.

#### Bender Range (1-12)

This sets the range over which the pitch changes when Bender Assign is set to "PITCH BEND." When set to 1, the pitch can be changed within a range from one semitone below the note to one semitone above it; a setting of 12 sets the range at one octave (12 semitones) above and below the note.

### Changing the Sensitivity of Aftertouch

#### AftTouch Sens (0-10)

This sets the range over which the aftertouch changes. The range increases as the value is raised.

### Changing the Depth of Reverb

#### Reverb Level (0-127)

This sets the depth of reverb. This setting performs the same function as the panel [REVERB] knob.

### Setting of Rhythm

#### Rhythm Volume (0-127)

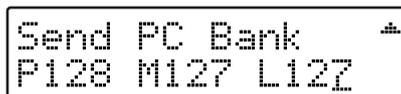
This changes the volume level of the rhythm part. This setting performs the same function as the panel [RHYTHM VOLUME] knob.

#### Rhy Reverb Send (0-127)

This adjusts the amount of the rhythm part that is to be sent to the reverb. With smaller values, the reverb is barely applied even when the [REVERB LEVEL] knob on the panel is turned up.

### Transmitting MIDI Tone Data When Switching Registrations

These settings are displayed in the screen shown below. Move the cursor to the parameter you want to set, then make the setting.



Send PC Bank ▲  
P128 M127 L127

#### Send PC (1-128/OFF)

When switching registrations, you can transmit the Program Change Number over an external part MIDI channel. Set this to OFF when not transmitting this information.

When set to OFF, "P---" appears in the display.

#### Send Bank MSB (0-127/OFF)

When switching registrations, you can transmit the Bank Select Number MSB (Control Number 0) over an external part MIDI channel. Set this to OFF when not transmitting this information.

When set to OFF, "M---" appears in the display.

#### Send Bank LSB (0-127)

When switching registrations, you can transmit the Bank Select Number LSB (Control Number 32) over an external part MIDI channel.

When set to OFF, "L---" appears in the display.



These messages are not transmitted when Tx PC Switch (p. 68) is set to OFF.



The LSB cannot be changed when MSB is set to OFF (when "M---" is displayed).

## Organ Settings for Registrations (REGISTRATION ORGAN)

### Organ Volume (0-127)

This changes the volume level of the organ part. This setting performs the same function as the panel [ORGAN VOLUME] knob.

### Organ Octave Shift (-2-+2)

This changes the pitch of the organ part in octave units.

### Organ Fine Tune (-50-+50)

This adjusts the pitch of the organ part in cent (1/100 semitone) units.

## Setting the Leakage Noise Volume

### Leakage Level (0-127)

This sets the volume of the leakage noise. The volume increases as the value is raised.

#### NOTE

When the wheel type is set to "VINTAGE1, VINTAGE2," the leakage noise is never completely eliminated, even when the value is set to the minimum.

## Setting the Click Sound Level

### Key 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.

### Key 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.

## Setting the Percussion Volume Level

### 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 Norm 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.

## Setting the Percussion Decay Speed

### 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).

### 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.

## Setting the Charge Time of the Percussion

### 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.

#### What is the Percussion Recharge Time?

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 recharge time parameter adjusts this charge time.

## Adjusting the H-Bar Volume Level When Percussion is Normal

### 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.

#### MEMO

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 VR-760 allows you to adjust this change in volume balance.

## Detailed Settings for Each Function (EDIT)

---

### Adjusting the Amount of Overdrive

#### Overdrive Level (0-127)

This adjusts the amount of the overdrive (distortion) effect applied. The sound becomes more distorted more as the value is increased.

### Settings the Spread of the Speaker

#### 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.

### Settings the Speaker Volume Level

#### 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.

### Setting the Rotary Shift Time

#### 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.

### Setting the Rotary Speed

#### Rotary Woofer Slow Speed (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 Slow Speed (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 Fast Speed (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 Fast Speed (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.

### Setting the Distance from the Rotary Speaker to the Mic

#### 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.

### Setting the Reverb Send Level of the Organ Part

#### Organ Reverb Send Level (0-127)

This adjusts the amount of the organ part that is to be sent to the reverb. With smaller values, the reverb is barely applied even when the [REVERB LEVEL] knob on the panel is turned up.

## Piano Settings for Registrations (REGISTRATION PIANO)

### Piano Volume (0-127)

This changes the volume level of the piano part. This setting performs the same function as the panel [PIANO VOLUME] knob.

### Piano Oct Shift (-2--+2)

This changes the pitch of the piano part in octave units.

### Piano Fine Tune (-50--+50)

This adjusts the pitch of the piano part in cent (1/100 semitone) units.

## Changing the Stereo Piano Breadth

### Stereo Width (0-63)

This sets the lateral breadth of the piano part sound. The area in which the sound is played widens as the value is increased.

This changes the way acoustic piano and other stereo sampled sounds are spread out. Even with electric piano sounds, this changes the way the stereo tremolo and chorus sounds spread out.

## Fine Tuning the Sonorities of Piano Chords

### Stretch Tune (OFF/1/2/3)

This determines the pitch settings for a special tuning method for the piano that raises the upper registers even higher, while pulling the lower registers even lower (stretch tuning). Setting this to Off gives the VR-760 equal temperament, while setting a value of 3 stretches the change in pitch in the high and low registers to the maximum degree.

## Adjusting the Piano Attenuation

This sets the decay and release times for the piano part.

### Decay Time (-64--+63)

This adjusts the rate at which the sound is attenuated while the keys are being pressed. The attenuation is lengthened as the value is raised in the positive direction, while negative values hasten the attenuation.

### Release Time (-64--+63)

This adjusts the time it takes for the sounds to stop after the keys are released. The reverberation lengthens the sound more as the value is raised in the positive direction, while negative values give the sound more crispness.

## Changing the Function of the Mic/Amp

### Mic/Amp SW (MIC SIM/AMP SIM)

This changes the function of the MIC/AMP section on the panel.

Value	Explanation
MIC SIM	Selects the Mic Simulation function. This is effective with acoustic sounds.
AMP SIM	Selects the Amp Simulation function. This is effective with electric sounds.

## Settings Multi-Effect of Piano Part

The piano multi-effects includes chorus, tremolo, wah, and phaser effects processors, and with the factory settings, DEPTH and RATE are enabled as parameters for these effects. Using these parameters allows you make even more detailed settings to the effects.

### Chorus Return Level (0-127)

This sets the volume level of the effect signal that is returned when the MFX chorus is selected.

### Tremolo Type (MONO/STEREO)

This enables you to select the way the tremolo behaves when tremolo is selected as the MFX.

Value	Explanation
MONO	The volume changes cyclically. This is effective when the VR-760 is being used in mono.
STEREO	The volume level is cyclically distributed to the left and right sides. This is effective when the VR-760 is being used in stereo.

### Wah Type (MOD/TOUCH)

This enables you to select the way the wah behaves when wah is selected as the MFX.

Value	Explanation
MOD	This changes the tone cyclically.
TOUCH	The tone changes in response to the force with which the keys are played.



When SYSTEM BASIC Control Pedal Assign (Ctrl Pdl Assign) is set to PIANO PEDAL WAH, you can also have this function as a pedal wah. Pedal wah is a function that changes the tone in response to how far the external pedal is depressed.



- When Wah Type is set to TOUCH, the panel [RATE] knob functions as a Touch Wah Sens (sensitivity setting that determines the point at which the touch wah starts to function).
- When PIANO PEDAL WAH is set as the SYSTEM BASIC Control Pedal Assign (Ctrl Pdl Assign) value, the pedal value is given priority. Furthermore, the panel [RATE] knobs do not function at this time.

## Detailed Settings for Each Function (EDIT)

---

### Wah Resonance (0-127)

This sets the strength of the effect when wah is selected for MFX. The change becomes easier to detect as the value is raised.

### Phaser Reso (0-127)

This sets the strength of the effect when phaser is selected for MFX. The change becomes easier to detect as the value is raised.

### Piano Revb Send (0-127)

This adjusts the amount of the piano part that is to be sent to the reverb. With smaller values, the reverb is barely applied even when the [REVERB LEVEL] knob on the panel is turned up.

## Synth Settings for Registrations (REGISTRATION SYNTH)

---

### Synth Volume (0-127)

This changes the volume level of the synth part. This setting performs the same function as the panel [SYNTH VOLUME] knob.

### Synth Oct Shift (-2-+2)

This changes the pitch of the synth part in octave units.

### Synth Fine Tune (-50-+50)

This adjusts the pitch of the synth part in cent (1/100 semitone) units.

## Playing Sound Monophonically

### Mono Mode (MONO/POLY/MONO-LEGATO)

Specifies whether the tone will play polyphonically (POLY) or monophonically (MONO).

The MONO setting is effective when playing a solo instrument tone such as SYNTH LEAD.

Additionally, when this is set to MONO/LEGATO, you can have monophonic performances played legato. Legato is a playing style in which the spaces between notes are smoothed, creating a flowing feel with no borders between the notes. This creates a smooth transition between notes, which is effective when you wish to simulate the hammering-on and pulling-off techniques used by a guitarist.

Value	Explanation
MONO	Only the last-played note will sound.
POLY	Two or more notes can be played simultaneously.
MONO-LEGATO	Legato is applied to monophonic performances.

## Creating Smooth Pitch Changes (Portamento)

Portamento is a function that causes the pitch to change smoothly from one note to the next note played.

With the MONO/POLY parameter set to MONO, portamento is especially effective when simulating playing techniques such as a violin glissandos.

### Portamento SW (ON/OFF)

This set the switch of portamento on or off.

### Portamento Time (0-127)

This setting determines the time for the change in pitch when the portamento effect is applied to the sound. Higher settings will cause the pitch change to the next note to take more time.

### Portamento Mode (NORMAL/LEGATO)

This selects the way the Portamento effect is applied.

Value	Explanation
NORMAL	Portamento is applied at all times.
LEGATO	Portamento is applied during legato portions (when a key is played while the previously played key is still being held down).

### Portamento Type (RATE/TIME)

This selects the relationship between the difference in pitch for the keys pressed and the time it takes to change from one pitch to the other.

Value	Explanation
RATE	The time it takes the pitch to change is proportional to the difference in pitch.
TIME	The time it takes the pitch to change is fixed, regardless of the difference in pitches.

## Settings Multi-Effect of Synth Part

The multi-effects are a collection of general-purpose multi-effects that alter the sounds themselves to create entirely different kinds of sounds. You can select from 40 different types to suit your aims. A variety of effects have been prepared, from single, individual effects like distortion and flanger, to effects that have been created by chaining a sequence of different effects. Also included as one type of multi-effect is a reverb that can be used entirely independently of the REVERB found on the VR-760 panel (p. 30).

### Synth MFX Type

This selects the multi-effect type. There are 40 different effects to choose from.

For more parameters that can be set and their values, refer to “Effect/Parameter List” (p. 91).

### Synth MFX Ctrl

You can use the [MFX CONTROL] knob to change the multi-effects parameters in real time. In this case, this determines which parameter is to be changed.

The parameters that can be altered vary according to the multi-effect selected with Synth MFX Type. Refer to “Effect/Parameter List” (p. 91).

### Synth MFX Parameter

Depending on the multi-effect selected with Synth MFX Type, there may be multiple parameters that you can set. For more on the types of parameters that can be set and their values, refer to “Effect/Parameter List” (p. 91).

### MFX Dry Send (0-127)

Adjusts the volume of the sound that has passed through the Multi-effects of the Synth part.

### MFX Chorus Send (0-127)

Adjusts the amount of Chorus/Delay for the sound that passes through Multi-effects of the Synth part.



The chorus type (chorus or delay) is predetermined for each tone, and cannot be changed. Additionally, the effect may differ according to the tone being used.

### Synth Revb Send (0-127)

This adjusts the amount of the synth part that is to be sent to the reverb. With smaller values, the reverb is barely applied even when the [REVERB LEVEL] knob on the panel is turned up.

## Detailed Settings for Each Function (EDIT)

### Convenient Functions (UTILITY)

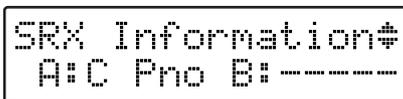
#### ■ Checking the Installed Wave Expansion Boards (SRX Info)

Check to confirm that the installed boards are being recognized correctly.

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [▼] button to display the following screen.



The name of the installed Wave Expansion Board, abbreviated to five characters, appears in the display.

"-----" appears next to the slot name when the slot has no Wave Expansion Board in it.

3. Press the [EXIT] button to exit edit mode.

#### NOTE

If "-----" appears next to the name of the slot in which the board was installed, it may be that the wave expansion board is not being recognized properly. Use the procedure in "Turning Off the Power" (p. 19) to turn the power off, then reinstall the wave expansion board correctly.

#### ■ Transferring the VR-760's Settings to an External MIDI Device (Bulk Dump)

You can transfer the contents of Registrations and the VR-760's system settings to an external MIDI device. This operation is called "bulk dump."

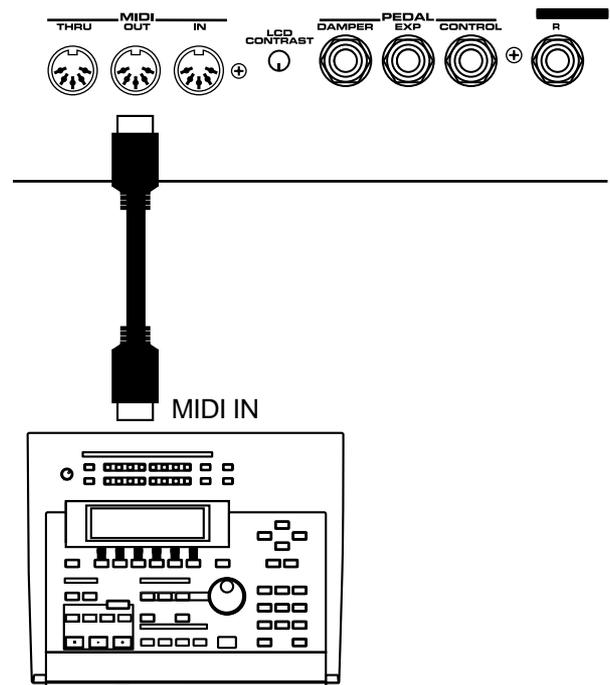
#### Connect the VR-760 to Your Sequencer

1. Make sure that the power of the VR-760 and your sequencer is off.

#### NOTE

Turn off the power of the VR-760 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 VR-760 to your sequencer.



\* Connect the VR-760's MIDI OUT connector to the sequencer's MIDI IN connector

3. Turn on the power of the external sequencer and the VR-760.
4. Turn off the Thru function of your sequencer.

### Bulk Dump Temp

Transmit the contents of the selected Registration.

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [ ▼ ] button to display the following screen.

```
Bulk Dump Temp #
Y:Enter N:Exit
```

Pressing the [EXIT] button, return to the basic screen.

3. Start recording on your sequencer.
4. Press the [ENTER] button to begin saving the settings.

While the settings are being saved, sending message is displayed.

When the save has been completed, a message indicating that it is completed appears in the display, and return to the basic screen.

5. Stop recording on your sequencer.

### Bulk Dump All

This send all settings.

1. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit's "UTILITY" screen is displayed.

2. Press CURSOR [ ▼ ] button to display the following screen.

```
Bulk Dump All #
Y:Enter N:Exit
```

Pressing the [EXIT] button, return to the basic screen.

3. Start recording on your sequencer.
4. Press the [ENTER] button.

A screen like the one shown below appears, and saving the settings is beginning.

```
Bulk Dump All
Sending... [ 17%]
```

After a short while, when transmission is finished, a message indicating that it is completed appears and the basic screen returns to the display.

5. Stop recording on your sequencer.
6. If you press [EXIT] button while transmission is still in progress, the following message appears, and the basic screen returns to the display.

```
Bulk Dump All
Aborted !!
```

## Detailed Settings for Each Function (EDIT)

---

### Loading Back Data That's Been Saved on an External Sequencer

1. **Make sure that the power of the VR-760 and your sequencer is off.**

#### **NOTE**

Turn off the power of the VR-760 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. **Connect the VR-760's MIDI IN connector to the sequencer's MIDI OUT connector**
3. **Turn on the power of the external sequencer and the VR-760.**
4. **Play back your sequencer.**  
The settings saved to the sequencer are loaded by the VR-760.
5. **When the external sequencer has finished playing back, the message is displayed.**

A screen like the one shown then below appears, the VR-760 writes the data to the internal memory.



```
Now Writing...  
Keep On Power!
```

When writing has finished, a message indicating that it is completed appears in the display, and the basic screen will appear.

#### **NOTE**

Be sure never to turn off the power while this data is being written (while following display is showing), damage or malfunctions may occur.

## ■ Using a Memory Card

### Format Card

This function initializes (formats) a memory card so that VR-760 data can be saved to it. Before a new memory card or a memory card used on another device can be used on the VR-760, it must be formatted on the VR-760. For more details, refer to (p. 57).

### Save File

With the VR-760, you can take all of the content in the registration and the system settings and save them as a single file to a memory card. For more details, refer to (p. 58).

### Load File

This function load a File from Memory Card into the VR-760. For more details, refer to (p. 59).

### Rename File

This function rename file saved to the memory card. For more details, refer to (p. 59).

### Delete File

This function delete file saved to the memory card. For more details, refer to (p. 60).

## ■ Factory Reset

The settings stored in the VR-760 can be returned to their factory settings.

For more detailed instructions, refer to (p. 20).

# Connecting External MIDI 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 VR-760.

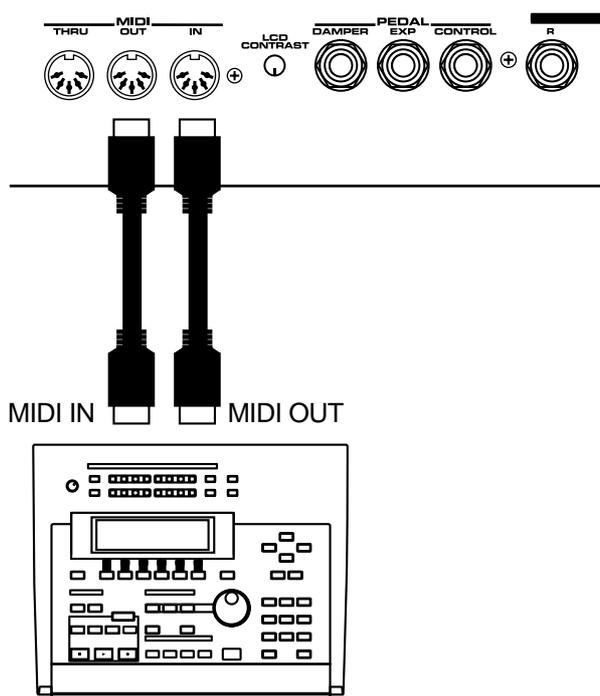
## About MIDI Channel

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.

## Recording VR-760 Performances to an External MIDI Sequencer

You can connect a sequencer to the VR-760 and record your playing.

### ■ Connecting to External Sequencer



### 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.

1. Before starting the connection procedure, make sure that the power to all devices has been turned off.
2. After reading “Connecting the VR-760 to External Equipment” (p. 17), connect an audio device/system or headphones.
3. Connect the external MIDI sound device with the MIDI cable as shown in the figure below.
4. As described in “Turning On the Power” (p. 19), turn on the power of each device.

### ■ Settings for Recording

Before starting the recording, set the VR-760 as following.

1. Hold down the [EDIT] button, and press the REGISTRATION [2] (SYSTEM MIDI) button. The Edit’s “UTILITY” screen is displayed.
2. Press CURSOR [▲] [▼] buttons to select the parameter you want to set.
3. Press the [INC] and [DEC] buttons to change the values.

Parameter	Value
MIDI Tx Mode	INTERNAL
Tx PC Switch	ON
Rx PC Switch	ON
Local Control	OFF
Organ MIDI Ch	1–16 (Make the settings so that channels are not doubled.)
Piano MIDI Ch	
Synth MIDI Ch	
Rhythm MIDI Ch	

→ For details of Local Control, refer to the following section “About Local Control.”

## Connecting External MIDI Devices

### ■ Recording the Performance

Use the following procedure when recording to an external sequencer.

#### 1. Turn on the external sequencer's Thru function.

For details, refer to the following section "About Local Control."

Refer to your sequencer owner's manual for instructions on how to carry out this procedure.

#### 2. Select the Registration for the performance to be recorded.

For instructions on selecting the Registration, refer to p. 29.

#### 3. Make the VR-760's MIDI settings.

Use the procedure described in the previous section "Settings for Recording" (p. 79) to make the settings.

#### 4. Begin recording with the external sequencer.

#### 5. Bulk Dump the Registration.

Using the **Utility Bulk Dump Temporary** in Edit mode, transmit the contents of the selected Registration to the external sequencer.

For instructions on carrying out this operation, refer to "Transferring the VR-760's Settings to an External MIDI Device (Bulk Dump)" (p. 76)

#### 6. Perform on the VR-760.

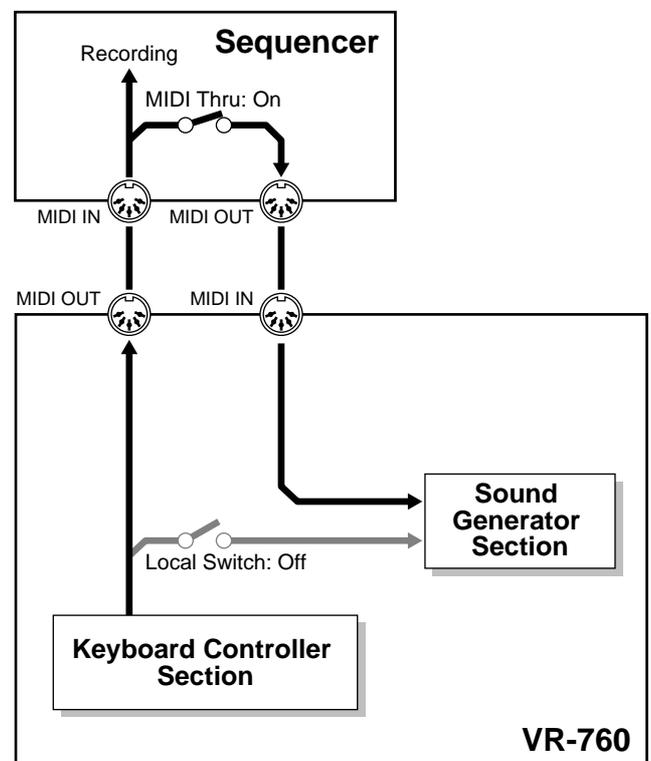
#### 7. When the performance is finished, stop recording with the external sequencer.

You can then listen to the recorded performance by playing it back on the external sequencer.

### ■ About the Local Control

The switch that connects and disconnects the MIDI connection between the keyboard controller section and the sound generator section (p. 23) is called the Local switch. Since essential information describing what is being played on the keyboard won't reach the sound generator if the Local switch is set to OFF, the Local switch should normally be left ON.

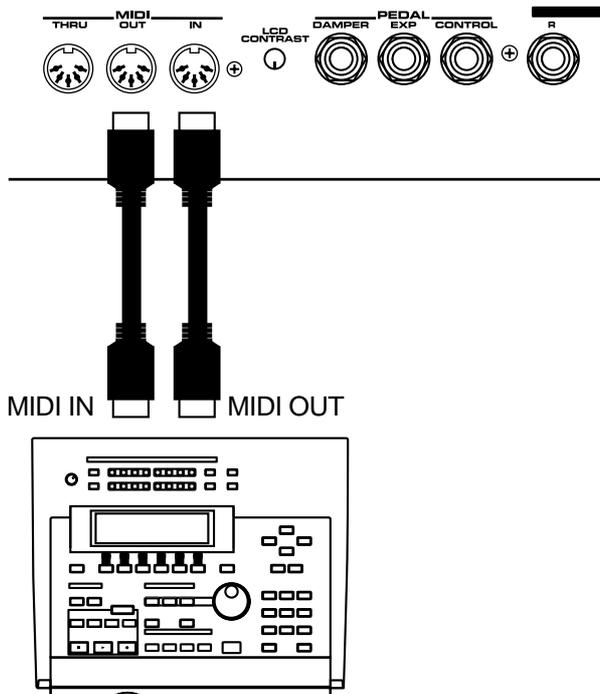
However, if while performing you want to send that performance data to an external sequencer as MIDI messages to be recorded, you then perform with the externally connected MIDI sequencer set to MIDI Thru (whereby data received from MIDI IN is then output from the MIDI OUT with no changes made to the data) and the VR-760 set to Local Switch to off.



In this case, the data sent over two paths, i.e., the data sent directly from the keyboard controller section and the data sent from the keyboard controller section via the external sequencer, ends up being sent to the sound generator section simultaneously. Thus, for example, even when you play a "C" key only once, the note "C" cannot be sounded correctly, as the sound is played by the sound generator section twice.

## Playing the VR-760's Internal Sound Generator from an External MIDI Device

### ■ Making Connections



#### 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.

1. Before starting the connection procedure, make sure that the power to all devices has been turned off.
2. After reading “Connecting the VR-760 to External Equipment” (p. 17), connect an audio device/system or headphones.
3. Connect the external MIDI sound device with the MIDI cable as shown in the figure below.
4. As described in “Turning On the Power” (p. 19), turn on the power of each device.

### ■ Setting the Channels

Set the VR-760's receive channel to match the external MIDI device's transmit channel.

For instructions on setting the VR-760's Receive channel, refer to “Setting the MIDI Channel for Each Part” (p. 68).

When both channels are matched, playing the external MIDI device produces sounds from the VR-760's sound generator.

→ For instructions on how to set the transmit channel of the external MIDI device, refer to the owner's manual for your external MIDI device.

### ■ Selecting VR-760 Sounds from an External MIDI Device

Transmitting Bank Select (Controller Number 0, 32) and Program Change messages from the external MIDI device to the VR-760 allows you to switch Registrations and Tones.

With the factory settings, the MIDI channels are set as shown below.

Part	Channel
Organ	1ch
Piano	4ch
Synth	5ch

### Switching Registrations

The MIDI messages transmitted by the external MIDI device will be received by the VR-760 to select Registrations as shown in the following table.

Registration Number	Bank Select		Program Change Number
	MSB	LSB	
1-64	85	0	1-64

When switching Registrations, you must match the MIDI channel of the transmitting device with the VR-760's Control channel (p. 68).

When switching the tones in each part, match the MIDI channel of the transmitting device with the VR-760's Receive channel. However, when the Control channel and the Receive channel are both set to the same channel, the Control channel takes priority, and Registrations are switched.

## Connecting External MIDI Devices

### Switching Tones

The MIDI messages transmitted by the external MIDI device will be received by the VR-760 to select Tones as shown in the following table.

Group	Bank Select		Program Change Number
	MSB	LSB	
Piano	87	64	1-9
Synth	87	65	1-18
Synth Active Exp Timbre	87	66	1-18

The following shows a breakdown of the different Program Change numbers.

#### Piano Section

PC Variation	[VARIATION] button's indicator		
	Off	Red	Green
A.Piano	1	2	3
E.Piano	4	5	6
Others	7	8	9

#### Synth Section

PC Variation	[VARIATION] button's indicator		
	Off	Red	Green
Strings	1	2	3
Choir/Scat	4	5	6
Brass	7	8	9
Synth Lead	10	11	12
Synth Pad	13	14	15
Bass	16	17	18

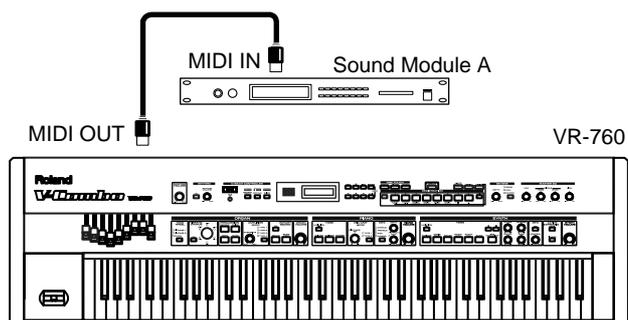
→ For details on the SRX Series, refer to the owner's manual for the SRX Series Wave Expansion Board.

## Controlling External MIDI Devices with the VR-760

You can control external MIDI devices with the VR-760.

You can perform by transmitting note messages and tone switching data to an external MIDI sound module. It is also possible to connect a device such as the Edirol DV-7PR and use tone data and keyboard messages to switch images.

### ■ Making Connections



### 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.

### ■ Settings for Controlling an External MIDI Device

Set the VR-760 as following settings.

#### 1. Hold down the [EDIT] button, and press the REGISTRATION [2] (SYSTEM MIDI) button.

The Edit's "UTILITY" screen is displayed.

#### 2. Press CURSOR [▲] [▼] buttons to select the parameter you want to set.

#### 3. Press the [INC] and [DEC] buttons to change the values.

Parameter	Value
MIDI Tx Mode	EXTERNAL
Tx PC Switch	ON
Ext MIDI Ch	Matching the external device's transmit and receive channels
Ext Part Assign	BOTH

Note messages are transmitted when you play the keyboard, and tone switching messages are transmitted when you press the [REGISTRATION] buttons.

The tone switching messages transmitted here are the REGISTRATION COMMON Send PC, Send Bank MSB, and Send Bank LSB.

### NOTE

A fixed value for the velocity is transmitted with the MIDI note data from the organ part, due to the Quick Firing keyboard. Additionally, because of the organ's characteristic rebounding, which occurs when the keys are released, the organ part's note data is only suitable for controlling the organ sounds of an external sound generating device. We recommend either using the External channel or turning the Quick Firing keyboard function off when controlling an external device.

You can turn the Quick Firing keyboard function off (p. 66).

# Installing the Wave Expansion Board

Up to two optional Wave Expansion Boards (SRX Series) can be installed in the VR-760.

Wave Expansion Boards store Wave data, Patches, and Rhythm Sets, and by equipping the VR-760 with these boards, you can greatly expand your sound palette.

## Cautions When Installing an Wave Expansion Board

- To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the board.
  - Before you touch the board, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
  - When handling the board, grasp it only by its edges. Avoid touching any of the electronic components or connectors.
  - Save the bag in which the board was originally shipped, and put the board back into it whenever you need to store or transport it.
- Use a Philips screwdriver that is suitable for the size of the screw (a number 2 screwdriver). If an unsuitable screwdriver is used, the head of the screw may be stripped.
- To remove a screw, rotate the screwdriver counter-clockwise. To tighten a screw, rotate the screwdriver clockwise.



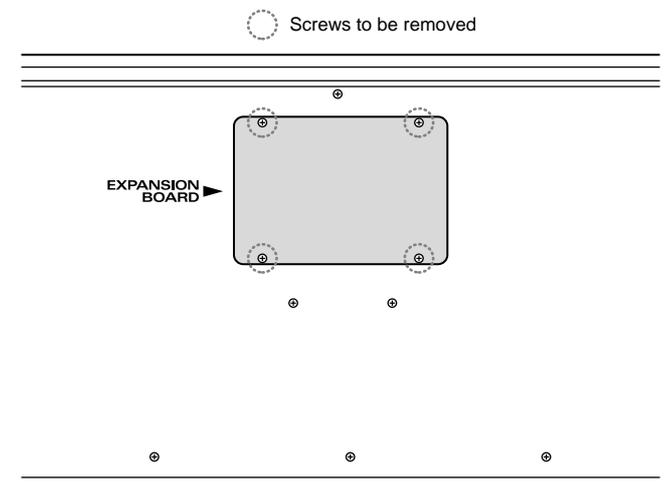
- Be careful that the screws you remove do not drop into the interior of the VR-760.
- Do not leave the rear panel cover removed. After installation of the Wave Expansion Boards is complete, be sure to replace the cover.
- Do not touch any of the printed circuit pathways or connection terminals.
- Be careful not to cut your hand on the edge of the installation bay.
- Never use excessive force when installing a circuit board. If it doesn't fit properly on the first attempt, remove the board and try again.
- When circuit board installation is complete, double-check your work.
- Always turn the unit off and unplug the power cord before attempting installation of the circuit board.
- Install only the specified circuit board(s) (SRX Series). Remove only the specified screws.

Install the Wave Expansion Boards after removing the bottom panel cover.

There are two slots (A and B) into which a board can be installed. Specify which slot's board is to be used by pressing [SRX EXPANSION] and [-][+] buttons on the front panel when using waves, tones, or Rhythm Sets from the wave expansion boards.

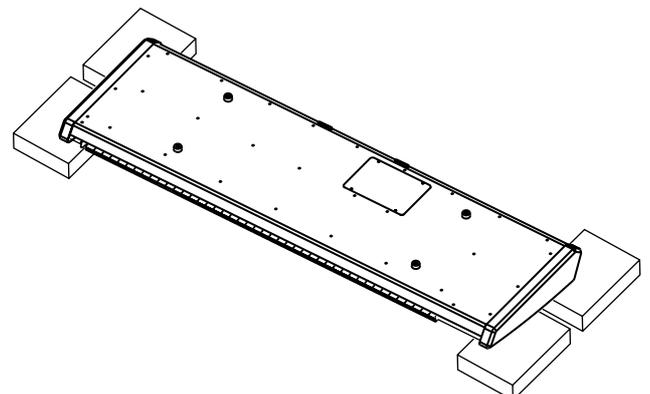
## Installing SRX Series Boards

1. Before installing the Wave Expansion Board, turn off the power of the VR-760 and all connected devices, and disconnect all cables, including the Power cable, from the VR-760.
2. Turn the VR-760 over, remove the four screws indicated in the following diagram, and remove the cover.



### NOTE

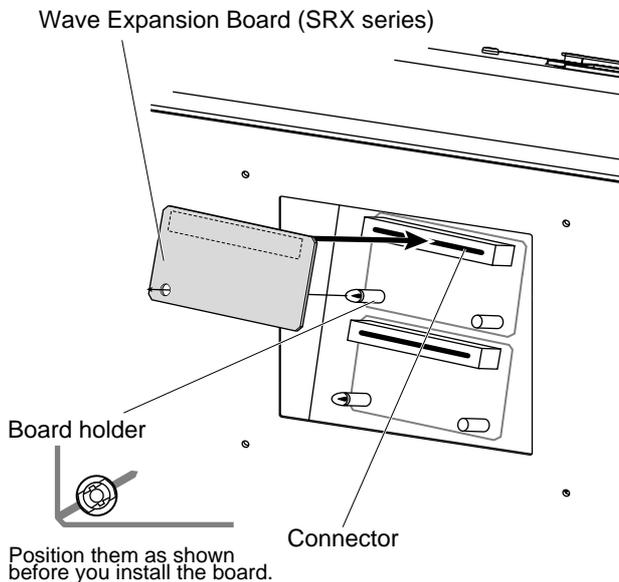
- When turning the unit upside-down, get a bunch of newspapers or magazines, and place them under the four corners or at both ends to prevent damage to the buttons and controls. Also, you should try to orient the unit so no buttons or controls get damaged.



- When turning the unit upside-down, handle with care to avoid dropping it, or allowing it to fall or tip over.

## Installing the Wave Expansion Board

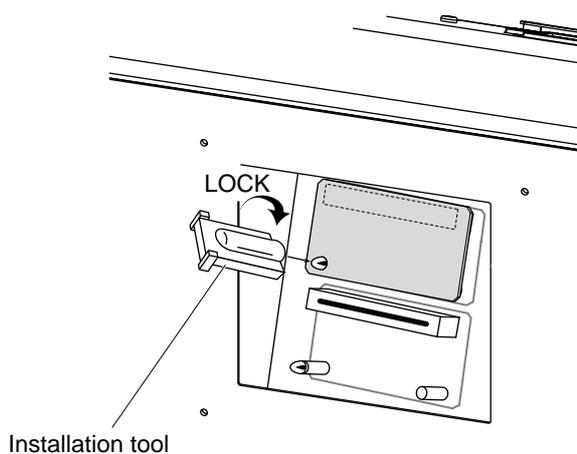
3. Insert the Wave Expansion Board connector into a connector for an SRX Series slot (SRX A or SRX B), while simultaneously inserting the board holders into the holes in the Wave Expansion Board.



### NOTE

If the same type of Wave Expansion Board is installed in the SRX A slot and the SRX B slot, it will only be possible to select data from the Wave Expansion Board that was installed in the SRX A slot.

4. Use the Installation Tool supplied with the Wave Expansion Board to turn the holders in the LOCK direction, so the board will be fastened in place.



5. Use the screws that you removed in step 2 to fasten the cover back in place.

## Checking the Installed Wave Expansion Boards

After installation of the Wave Expansion Boards has been completed, check to confirm that the installed boards are being recognized correctly.

1. Turn on the power, as described in “Turning On the Power” (p. 19).

2. Hold down the [EDIT] button, and press the REGISTRATION [7] (UTILITY) button.

The Edit’s “UTILITY” screen is displayed.

3. Press CURSOR [▼] button to display the following screen.

The name of the installed Wave Expansion Board, abbreviated to five characters, appears in the display.

The example here depicts what you would see if the SRX-02 “Concert Piano” Wave Expansion Board were installed in the SRX A slot.

```
SRX Information#
A:C Pno B:-----
```

By releasing the button, you go back to the previous screen.

4. Press the [EXIT] button to exit edit mode.

### MEMO

For instructions on selecting Wave Expansion Board Tones, refer to p. 46.

### NOTE

If “-----” appears next to the name of the slot in which the board was installed, it may be that the wave expansion board is not being recognized properly. Use the procedure in “Turning Off the Power” (p. 19) to turn the power off, then reinstall the wave expansion board correctly.

### Installation de la carte d'extension Wave

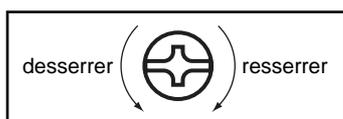
(French language for Canadian Safety Standard)

Vous pouvez installer jusqu'à 2 cartes d'extension optionnelles dans le VR-760.

Ces cartes d'extension mémorisant des données Wave, des morceaux et des ensembles rythmiques, elles vous permettront d'augmenter considérablement le timbre.

### Precautions lors de l'installation de la carte d'extension Wave

- Veuillez suivre attentivement les instructions suivantes quand vous manipulez la carte afin d'éviter tout risque d'endommagement des pièces internes par l'électricité statique.
  - Toujours toucher un objet métallique relié à la terre (comme un tuyau par exemple) avant de manipuler la carte pour vous décharger de l'électricité statique que vous auriez pu accumuler.
  - Lorsque vous manipulez la carte, la tenir par les côtés. Évitez de toucher aux composants ou aux connecteurs.
  - Conservez le sachet d'origine dans lequel était la carte lors de l'envoi et remettez la carte dedans si vous devez la ranger ou la transporter.
- Utiliser un tournevis cruciforme correspondant à la taille de la vis (un tournevis numéro 2). En cas d'utilisation d'un tournevis inapproprié, la tête de la vis pourrait être endommagée.
- Pour enlever les vis, tourner le tournevis dans le sens contraire des aiguilles d'une montre. Pour resserrer, tourner dans le sens des aiguilles d'une montre.
- Veillez à ne pas laisser tomber de vis dans le châssis du VR-700.
- Ne pas laisser la plaque arrière détachée. Après avoir installé la ou les carte(s) d'extension, bien remettre la plaque en place.
- Ne pas toucher aux circuits imprimés ou aux connecteurs.
- Veillez à ne pas vous couper les doigts sur le bord de l'ouverture d'installation.
- Ne jamais forcer lors de l'installation de la carte de circuits imprimés. Si la carte s'ajuste mal au premier essai, enlevez la carte et recommencez l'installation.
- Quand l'installation de la carte de circuits imprimés est terminée, revérifiez si tout est bien installé.
- Toujours éteindre et débrancher l'appareil avant de commencer l'installation de la carte.

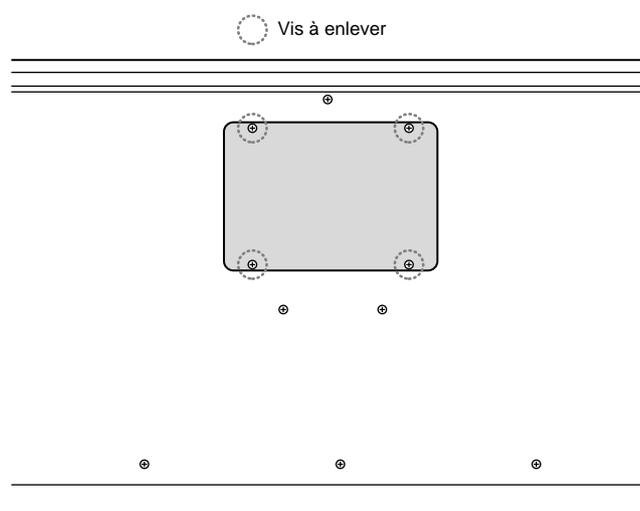


- N'installez que les cartes de circuits imprimés spécifiées (SRX Series). Enlevez seulement les vis indiquées.

Installer les cartes d'extension après avoir enlevé la plaque arrière.

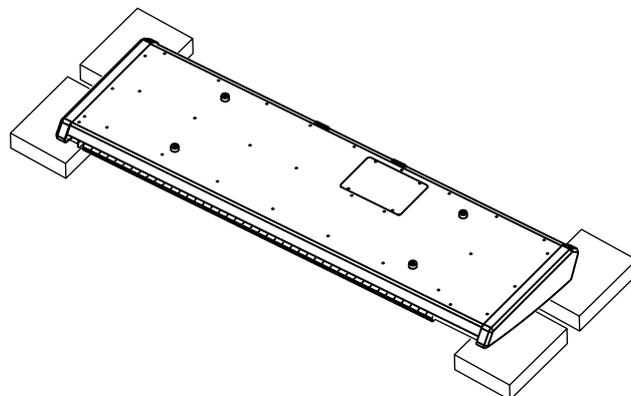
### Installation d'une carte d'expansion Wave

1. Avant d'installer la carte d'expansion Wave, coupez l'alimentation du Fantom et de tous les appareils branchés, et débranchez tous les câbles du Fantom, y compris le câble d'alimentation.
2. Placez le Fantom à l'envers, retirez les quatre vis indiquées dans le schéma ci-dessous et retirez le couvercle.



#### NOTE

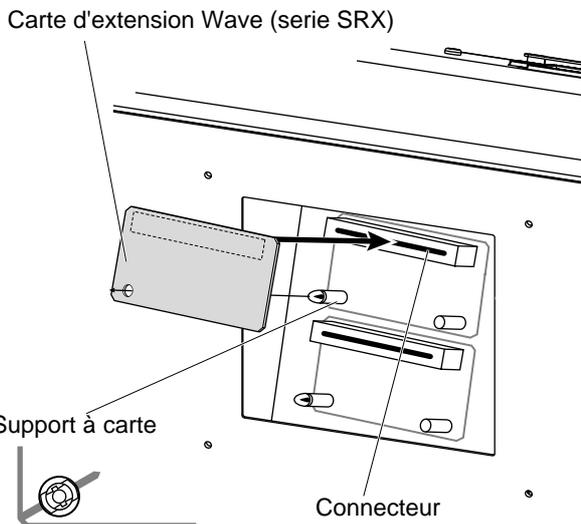
- Lorsque vous déposez le Fantom face vers le bas, placez des piles de journaux ou de magazines sous les quatre coins (ou des deux côtés) pour le soutenir. Ainsi, les boutons, manettes et autres pièces ne seront pas endommagés.



- En plaçant l'appareil sens dessus dessous, manipulez-le avec soin pour éviter de l'échapper, de le laisser tomber ou de se renverser.

## Installing the Wave Expansion Board

3. Insérer le connecteur de la carte dans un des créneaux pour la série SRX (SRX A, SRX B) tout en enfonçant les supports à carte dans les trous de celle-ci.

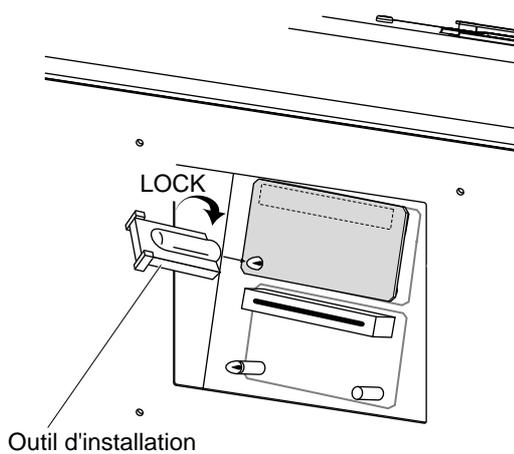


Avant l'installation, orienter les supports à carte tel qu'indiqué sur le schéma.

### NOTE

Si la même sorte de carte d'extension Wave est installée dans les créneaux SRX A et SRX B, il ne sera possible de sélectionner que les données de la carte d'extension Wave installée dans le créneau SRX A.

4. Pour tourner les supports en position LOCK (verrouillé), utilisez l'outil d'installation de la carte d'extension fournie à cet effet. De cette façon, la carte sera bien fixée à sa place.



5. Reposez le couvercle en remettant les vis enlevées (comme spécifié) à l'étape 2.

## Vérification des cartes d'extension audio après installation

Lorsque l'installation des cartes d'extension audio est terminée, procéder à une vérification pour s'assurer que l'ordinateur les identifie correctement.

1. Mettre sous tension de la façon décrite sous "Turning On the Power" (p. 19).
2. Tenez le bouton [EDIT] enfoncé et appuyez sur le bouton REGISTRATION [7] (UTILITY).  
L'écran d'édition «UTILITY» s'affiche.
3. Appuyez sur le bouton CURSOR [▼] pour afficher l'écran suivant.

Le nom de la carte d'extension Wave installée, abrégé à cinq caractères, s'affiche.

Cet exemple montre ce qu'il vous verriez si la carte d'extension Wave «Concert Piano» était installée dans la fente SRX A.

```
SRX Information#
A:C Pho B:-----
```

Si vous relâchez le bouton, vous serez ramené à l'écran précédent.

4. Appuyez sur le bouton [EXIT] pour quitter le mode édition.

### MEMO

Pour les instructions sur la sélection des tons de la carte d'extension Wave, reportez-vous à la p. 46.

### NOTE

Si "-----" est affiché à côté du nom de la fente dans laquelle la carte est installée, il est possible que la carte d'extension audio installée ne soit pas reconnue correctement. Mettre hors tension de la façon décrite sous "Turning Off the Power" (p. 19) et réinstaller correctement la carte d'extension audio.

# Troubleshooting

If the VR-760 does not function in the way you expect, first check the following points. If this does not resolve the problem, consult your dealer or a nearby Roland Service Station.

\* If certain messages appear in the display during operation, please refer to “**Messages and Error Messages**” (p. 90).

Problem	Check	Solution	Page
No power	The power cable is not connected to the VR-760 or to the power outlet.	Confirm that the power cable is properly connected.	p. 16
No sound/Low volume	The power to the connected device is not turned on.	Turn on the power to the amp, mixer, or other connected device.	p. 19
	The amp, mixer, or other external device is not properly connected.	Use an optional audio cable to properly connect the amp, mixer, or other device to the VR-760.	p. 17
	The VR-760's volume level is low.	Turn the [MASTER VOLUME] knob to the right (clockwise) to raise the volume.	p. 20
	The volume level for the connected amp or mixer is low.	Raise the volume on the amp, mixer, or other connected device.	p. 19
	A part's volume level is low.	Turn the [ORGAN VOLUME], [PIANO VOLUME], or [SYNTH VOLUME] knob to the right (clockwise) to raise the volume of the corresponding part.	p. 30
	The expression pedal has not been depressed.	Depress the pedal completely while carefully monitoring the volume level.	p. 32
	(When sounds are heard from the headphones)	If sounds are audible from the headphones, the problem may be a short in the cable connecting the amp or mixer, or the amp or mixer may be damaged or malfunctioning. Check the cable connections and the other devices again.	p. 17
		Local Control is set to OFF.	Set Local Control to ON.
No organ part sound	All of the harmonic bars are completely pushed in.	Pull out one or more of the harmonic bars.	p. 33
	The wheel brake is audible.	Press the foot switch to release the wheel brake.	p. 66
	The organ volume is turned down.	Turn the [ORGAN VOLUME] knob to the right (clockwise) to raise the volume of the organ part.	p. 30
Sounds play again when the keys are released	To enable glissandos and rapidly repeated notes with the organ part, sounds are produced with a shallow stroke (Quick Firing keyboard). This results in the keys rebounding when they are released quickly, causing the notes to be played a second time. However, this is characteristic of traditional organs, and does not indicate a malfunction.	You can turn off the Quick Firing function. When using MIDI to play sounds from an external sound generator, we recommend using the external part.	p. 66 p. 82
Hold pedal does not work on the organ part	Organ Damper SW is set to OFF.	You can have the hold pedal applied to the organ part by setting Organ Damper SW to ON.	p. 65
Overdrive not being applied to organ	The expression pedal is tilted all the way back.	Press the pedal forward while carefully monitoring the volume level.	p. 32
No sound from the 1' harmonic bar	PERCUSSION is turned on. Sounds from the 1' harmonic bar are not played when PERCUSSION is on.	This is not a malfunction.	p. 38

## Troubleshooting

Problem	Check	Solution	Page
Clicking is audible when the keys are pressed/released	With tone wheel organs, noises called “clicks” are generated when the keys are pressed and released. Although originally seen as a drawback, sounds with this noise mixed in have come to be used in a variety of different kinds of music, and now it is recognized as a characteristic of the organ sound. The VR-760 faithfully reproduces the tone wheel organ’s click sound.	You can use the “On Click Level” and “Off Click Level” settings to adjust the click volume.	p. 71
No piano part sound	The piano volume is turned down.	Turn the [PIANO VOLUME] knob to the right (clockwise) to raise the volume of the piano part.	p. 30
	Piano tone not selected.	Press one of the [PIANO TONE] buttons to select a tone.	p. 43
Expression pedal does not work on the piano part	Piano Expression SW is set to OFF.	You can have the expression pedal applied to the piano part by setting Piano Expression SW to ON.	p. 65
Piano wah effect not functioning	PIANO PEDAL WAH is selected for the control pedal.	Modulation wah and touch wah are not operational when pedal wah is assigned without any foot switch or control pedal connected to the CONTROL PEDAL jack. Either connect a foot switch or control pedal to the CONTROL PEDAL jack, or assign a function other than pedal wah to the control pedal.	p. 18 p. 66
No synth part sound	The synth volume is turned down.	Turn the [SYNTH VOLUME] knob to the right (clockwise) to raise the volume of the synth part.	p. 30
	Synth tone not selected.	Press one of the [SYNTH TONE] buttons to select a tone.	p. 46
	Expression pedal tilted back.	Press the pedal forward while carefully monitoring the volume level.	p. 32
Active Expression TIMBRE function not working	SRX expansion tone is selected.	TIMBRE is not applied to the SRX expansion tones.	p. 48
Sound is distorted	Certain equalizer, effect, and part volume settings may cause the sound to become distorted.	Try adjusting the following parameters.	p. 30
		- Part volume (ORGAN VOLUME, PIANO VOLUME, SYNTH VOLUME)	p. 44
		- PIANO MIC/AMP (when using amp simulation)	p. 31
		- Adjust the MASTER EQ	p. 47
Pitch is off	Tuning is off.	- SYNTH MFX effect level	
		Adjust the Master Tune and Key Transpose.	p. 22 p. 65
		Adjust the Octave Shift and Fine Tune settings.	p. 71 to p. 74
		The organ, piano, and synth Octave Shift and Fine Tune settings are not set to the same values.	
The wheel brake is assigned to the control pedal. Pitches may go out of tune when the wheel brake is assigned without any foot switch or control pedal connected to the CONTROL PEDAL jack.	The glide function is assigned to the control pedal. Pitches may go out of tune when the glide function is assigned without any foot switch or control pedal connected to the CONTROL PEDAL jack.	Either connect a foot switch or control pedal to the CONTROL PEDAL jack, or assign a function other than the wheel brake to the control pedal.	p. 18 p. 66
		Either connect a foot switch or control pedal to the CONTROL PEDAL jack, or assign a function other than glide to the control pedal.	p. 18 p. 66

<b>Problem</b>	<b>Check</b>	<b>Solution</b>	<b>Page</b>
Hold pedal and control pedal functions are reversed	The control pedal polarity is reversed.	With certain pedals, the action performed when you press or release the pedal may be reversed. In such instances, switch the Damper Polarity or CtlPdI Polarity to correct the polarity.	p. 65
D Beam sensitivity poor/malfunctioning	The D Beam sensitivity setting has gone out of adjustment.	Readjust the D Beam sensitivity setting.	p. 50 p. 67
	There is an excessive amount of infrared light present at the place where the instrument is being used.	The D Beam does not function properly in locations with high amounts of infrared light.	p. 50
No sound from the low end of the keyboard	V-LINK is on.	When V-LINK is on, the eight lowest keys of the keyboard function as switches for changing video clips, and so do not output sounds. Either turn off the V-LINK or set VLinkKBD to OFF.	p. 66
No rhythm sounds	Clock Source is set to MIDI.	You cannot set the tempo with the VR-760 when Clock Source is set to MIDI. Therefore, when no external MIDI device is connected, no rhythm sounds are played unless the tempo is set.	p. 66

# Messages and Error Messages

This section lists the messages (error messages) that the VR-760 produces and explains the meaning of each message, giving you to appropriate action to take.

Message	Meaning	Action
BULK: Check Sum Error	The checksum value of a system exclusive message was incorrect.	Correct the checksum value.
Sending...	Transmission of bulk data is in progress.	—
BULK: Receive Data Error	The bulk data could not be received correctly.	If after repeated attempts this message still appears, the problem may lie with the MIDI data.
Canceled	Processing has been cancelled.	—
Completed !!	Processing is completed.	—
Damaged Card !!	Formatting of the memory card failed. The memory card may be corrupted.	Reformat the memory card. If this does not resolve the issue, use a different memory card.
Executing.... Keep On Power!	The VR-760 is restoring the factory settings. Do not turn the power off.	—
Format Card Formatting...	Formatting of the memory card is in progress.	—
Illegal File Name!	A file name has not been assigned.	Assign a file name.
Memory Card Error!	There is a problem with the memory card.	Use a different memory card.
Memory Card is Full!	Saving is not possible because there is insufficient space in the memory card.	Delete unneeded data.
Memory Card is Unusual!	The memory card may be corrupted.	Use a different memory card.
MIDI Buffer Full !!	Due to an inordinate volume of MIDI messages received, the VR-760 has failed to process them properly.	Reduce the amount of MIDI messages to be transmitted.
MIDI Communication Error!	It is possible that the power has been turned off for the MIDI device connected to the VR-760's MIDI IN connector.	Check the power of the connected MIDI device.
	It is possible that a MIDI cable has been pulled out or has a short.	Check the MIDI cable.
No Card !!	A memory card is not inserted in the slot.	Insert a memory card into the slot.
No File !!	There are no files.	—
Now, Writing. .. Keep On Power!	The VR-760 is writing data into memory. Do not turn the power off.	—
The Card Pulled Out!	The memory card is pulled out.	Insert the disk, and try the operation once again.
Unknown File !!	This file cannot be handled by the VR-760.	—
Unknown Format!!	This memory card has not been formatted for the VR-760.	Please format the memory card for the VR-760.
Unsupported Memory Card!	This memory card is not compatible.	Use a memory card compatible with the VR-760.
User Memory Damaged!	The User memory is corrupted; carry out Factory Reset.	If the problem remains even after carrying out Factory Reset, consult your dealer or your nearest Roland Service.

# Effects/Parameter List

The multi-effects feature 40 different kinds of effects. Some of the effects consist of two different effects connected in series or in parallel.

Parameters marked with a sharp “#” can be controlled using the MFX [CONTROL] knob on the Synth section (Two setting items will change simultaneously for “#1” and “#2”).

- 1: STEREO EQ (p. 91)
- 2: OVERDRIVE (p. 91)
- 3: DISTORTION (p. 91)
- 4: PHASER (p. 91)
- 5: SPECTRUM (p. 91)
- 6: ENHANCER (p. 92)
- 7: AUTO WAH (p. 92)
- 8: ROTARY (p. 92)
- 9: COMPRESSOR (p. 92)
- 10: LIMITER (p. 92)
- 11: HEXA-CHORUS (p. 92)
- 12: TREMOLO CHO (p. 92)
- 13: SPACE-D (p. 93)
- 14: STEREO CHORUS (p. 93)
- 15: ST.FLANGER (p. 93)
- 16: STEP FLANGER (p. 93)
- 17: STEREO DELAY (p. 93)
- 18: MOD DELAY (p. 94)
- 19: TRI TAP DLY (p. 94)
- 20: QUAD TAP DLY (p. 94)
- 21: TIME CTRL DLY (p. 95)
- 22: 2V PCH SHIFT (p. 95)
- 23: FBK PCH SHIFT (p. 95)
- 24: REVERB (p. 95)
- 25: GATED REVERB (p. 96)
- 26: OD -> CHORUS (p. 96)
- 27: OD -> FLANGER (p. 96)
- 28: OD -> DELAY (p. 96)
- 29: DIST -> CHORUS (p. 96)
- 30: DIST -> FLANGER (p. 97)
- 31: DIST -> DELAY (p. 97)
- 32: ENHAN -> CHORUS (p. 97)
- 33: ENHAN -> FLANGER (p. 97)
- 34: ENHANCER -> DELAY (p. 97)
- 35: CHORUS -> DELAY (p. 97)
- 36: FLANGER -> DELAY (p. 98)
- 37: CHORUS -> FLANGR (p. 98)
- 38: CHORUS/DELAY (p. 98)
- 39: FLANGER/DELAY (p. 98)
- 40: CHORUS/FLANGER (p. 98)

## 1: STEREO EQ (Stereo Equalizer)

This is a four-band stereo equalizer (low, mid x 2, high).

Parameter	Value	Explanation
Low Freq	200, 400 Hz	Frequency of the low range
Low Gain	-15--+15 dB	Gain of the low range
High Freq	2000, 4000, 8000 Hz	Frequency of the high range
High Gain	-15--+15 dB	Gain of the high range
Mid1 Freq	200-8000 Hz	Frequency of the middle range 1
Mid1 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.
Mid1 Gain	-15--+15 dB	Gain of the middle range 1
Mid2 Freq	200-8000 Hz	Frequency of the middle range 2
Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected.
Mid2 Gain	-15--+15 dB	Gain of the middle range 2
Level #	0-127	Output Level

## 2: OVERDRIVE

Creates a soft distortion similar to that produced by vacuum tube amplifiers.

Parameter	Value	Explanation
Drive #	0-127	Degree of distortion Also changes the volume.
Level	0-127	Output Level
Low Gain	-15--+15 dB	Gain of the low range
High Gain	-15--+15 dB	Gain of the high range
Amp Type	SMALL, BUILT-IN, 2-STACK, 3-STACK	Type of guitar amp <b>SMALL</b> : small amp <b>BUILT-IN</b> : single-unit type amp <b>2-STACK</b> : large double stack amp <b>3-STACK</b> : large triple stack amp
Pan #	L64-63R	Stereo location of the output sound

## 3: DISTORTION

Produces a more intense distortion than Overdrive. The parameters are the same as for “2: OVERDRIVE.”

## 4: PHASER

Adds a phase-shifted sound to the original sound, producing a twisting modulation that creates spaciousness and depth.

Parameter	Value	Explanation
Manual #	100-8000 Hz	Adjusts the basic frequency from which the sound will be modulated.
Rate #	0.05-10.00 Hz	Frequency of modulation
Depth	0-127	Depth of modulation
Resonance	0-127	Amount of feedback
Mix	0-127	Level of the phase-shifted sound
Pan	L64-63R	Stereo location of the output sound
Level	0-127	Output Level

## 5: SPECTRUM

This is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies. It is similar to an equalizer, but has 8 frequency points fixed at locations most suitable for adding character to the sound.

Parameter	Value	Explanation
Band1 (250Hz)	-15--+15 dB	Gain of each frequency band
Band2 (500Hz)		
Band3 (1000Hz)		
Band4 (1250Hz)		
Band5 (2000Hz)		
Band6 (3150Hz)		
Band7 (4000Hz)		
Band8 (8000Hz)		
Q	0.5, 1.0, 2.0, 4.0, 8.0	Simultaneously adjusts the width of the adjusted ranges for all the frequency bands.
Pan #	L64-63R	Stereo location of the output sound
Level #	0-127	Output Level

## Effects/Parameter List

### 6: ENHANCER

Controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.

Parameter	Value	Explanation
Sens #	0-127	Sensitivity of the enhancer
Mix #	0-127	Level of the overtones generated by the enhancer
Low Gain	-15+15 dB	Gain of the low range
High Gain	-15+15 dB	Gain of the high range
Level	0-127	Output Level

### 7: AUTO WAH

Cyclically controls a filter to create cyclic change in timbre.

Parameter	Value	Explanation
Filter	LPF, BPF	Type of filter <b>LPF:</b> The wah effect will be applied over a wide frequency range. <b>BPF:</b> The wah effect will be applied over a narrow frequency range
Sens	0-127	Adjusts the sensitivity with which the filter is controlled.
Manual #	0-127	Adjusts the center frequency at which the effect is applied.
Peak	0-127	Adjusts the amount of the wah effect that will occur in the range of the center frequency. Set a higher value for Q to narrow the range to be affected.
Rate #	0.05-10.00 Hz	Frequency of modulation
Depth	0-127	Depth of modulation
Level	0-127	Output Level

### 8: ROTARY

The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely. This effect is most suitable for electric organ Patches.

Parameter	Value	Explanation
Low Slow	0.05-10.00 Hz	Slow speed (SLOW) of the low frequency rotor
Low Fast	0.05-10.00 Hz	Fast speed (FAST) of the low frequency rotor
Low Accel	0-15	Adjusts the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
Low Level	0-127	Volume of the low frequency rotor
Hi Slow	0.05-10.00 Hz	Settings of the high frequency rotor The parameters are the same as for the low frequency rotor
Hi Fast	0.05-10.00 Hz	
Hi Accel	0-15	
Hi Level	0-127	
Separate	0-127	Spatial dispersion of the sound
Speed #	SLOW, FAST	Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor. <b>SLOW:</b> Slows down the rotation to the Slow Rate. <b>FAST:</b> Speeds up the rotation to the Fast Rate.
Level #	0-127	Output Level

### 9: COMPRESSOR

Flattens out high levels and boosts low levels, smoothing out unevenness in volume.

Parameter	Value	Explanation
Attack	0-127	Attack time of an input sound
Sustain	0-127	Adjusts the time over which low level sounds are boosted until they reach the specified volume.
Post Gain	0, +6, +12, +18 dB	Adjusts the output gain.
Low Gain	-15+15 dB	Gain of the low range
High Gain	-15+15 dB	Gain of the high range
Pan #	L64-63R	Stereo location of the output sound
Level #	0-127	Output Level

### 10: LIMITER

Compresses signals that exceed a specified volume level, preventing distortion from occurring.

Parameter	Value	Explanation
Threshold	0-127	Adjusts the volume at which compression will begin.
Ratio	1.5:1, 2:1, 4:1, 100:1	Compression ratio
Release	0-127	Adjusts the time from when the volume falls below the Threshold Level until compression is no longer applied.
Post Gain	0, +6, +12, +18 dB	Adjusts the output gain.
Low Gain	-15+15 dB	Gain of the low range
High Gain	-15+15 dB	Gain of the high range
Pan #	L64-63R	Stereo location of the output sound
Level #	0-127	Output Level

### 11: HEXA-CHORUS

Uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.

Parameter	Value	Explanation
Pre Delay	0.0-100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate #	0.05-10.00 Hz	Frequency of modulation
Depth	0-127	Depth of modulation
Delay Dev	0-20	Adjusts the differences in Pre Delay between each chorus sound.
Depth Dev	-20+20	Adjusts the difference in modulation depth between each chorus sound.
Pan Dev	0-20	Adjusts the difference in stereo location between each chorus sound. <b>0:</b> All chorus sounds will be in the center. <b>20:</b> Each chorus sound will be spaced at 60 degree intervals relative to the center.
Balance #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0-127	Output Level

### 12: TREMOLO CHO (Tremolo Chorus)

This is a chorus effect with added Tremolo (cyclic modulation of volume).

Parameter	Value	Explanation
Pre Delay	0.0-100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Cho Rate	0.05-10.00 Hz	Modulation frequency of the chorus effect
Cho Depth	0-127	Modulation depth of the chorus effect
Phase	0-180°	Spread of the tremolo effect
Trem Rate #	0.05-10.00 Hz	Modulation frequency of the tremolo effect
Trem Sep	0-127	Spread of the tremolo effect
Balance #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the tremolo chorus sound (W)
Level	0-127	Output Level

### 13: SPACE-D

This is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.

Parameter	Value	Explanation
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate #	0.05–10.00 Hz	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180°	Spatial spread of the sound
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

### 14: STEREO CHORUS

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.

Parameter	Value	Explanation
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Rate #	0.05–10.00 Hz	Frequency of modulation
Depth	0–127	Depth of modulation
Phase	0–180°	Spatial spread of the sound
Filter	OFF, LPF, HPF	Type of filter <b>OFF:</b> no filter is used <b>LPF:</b> cuts the frequency range above the Cutoff Freq <b>HPF:</b> cuts the frequency range below the Cutoff Freq
Cutoff	200–8000 Hz	Basic frequency of the filter
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Level	0–127	Output Level

### 15: ST.FLANGER (Stereo Flanger)

This is a stereo flanger. (The LFO has the same phase for left and right.) It produces a metallic resonance that rises and falls like a jet airplane taking off or landing. A filter is provided so that you can adjust the timbre of the flanged sound.

Parameter	Value	Explanation
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate #	0.05–10.00 Hz	Frequency of modulation
Depth	0–127	Depth of modulation
Feedback #	-98–+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Phase	0–180°	Spatial spread of the sound
Filter	OFF, LPF, HPF	Type of filter <b>OFF:</b> no filter is used <b>LPF:</b> cuts the frequency range above the Cutoff Freq <b>HPF:</b> cuts the frequency range below the Cutoff Freq
Cutoff	200–8000 Hz	Basic frequency of the filter
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

### 16: STEP FLANGER

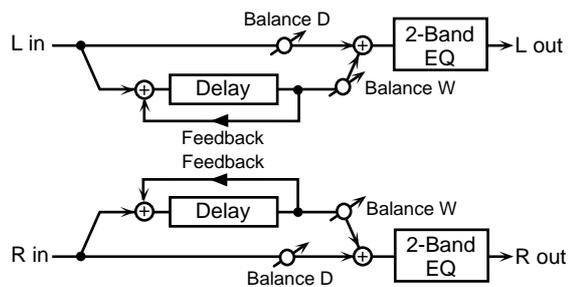
This is a flanger in which the flanger pitch changes in steps. The speed at which the pitch changes can also be specified in terms of a note-value of a specified tempo.

Parameter	Value	Explanation
Pre Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Rate	0.05–10.00 Hz	Frequency of modulation
Depth	0–127	Depth of modulation
Feedback #	-98–+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Phase	0–180°	Spatial spread of the sound
Step Rate #	0.10–20.00 Hz, note	Rate (period) of pitch change
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
Level	0–127	Output Level

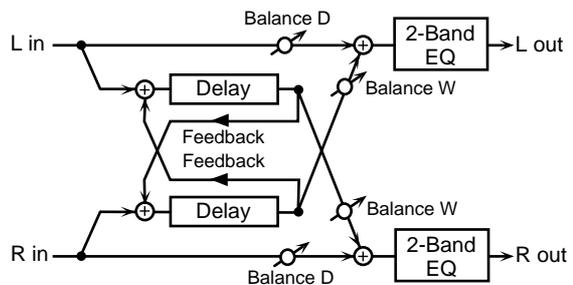
### 17: STEREO DELAY

This is a stereo delay.

When Mode is NORMAL:



When Mode is CROSS:

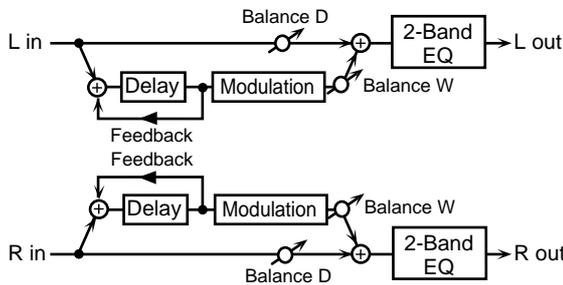


Parameter	Value	Explanation
Delay L	0.0–500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay R		
Feedback #	-98–+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Mode	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect. (See the figures above.)
Phase L	NORMAL, INVERT	Phase of the delay sound
Phase R		
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

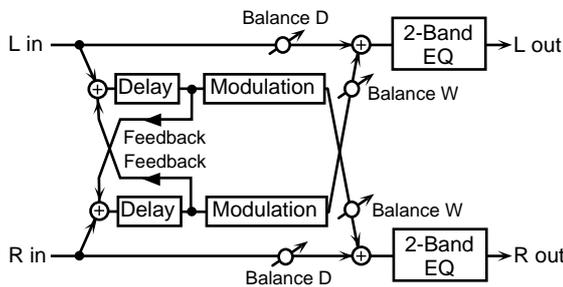
### 18: MOD DELAY (Modulation Delay)

Adds modulation to the delayed sound, producing an effect similar to a flanger.

When Mode is **NORMAL**:



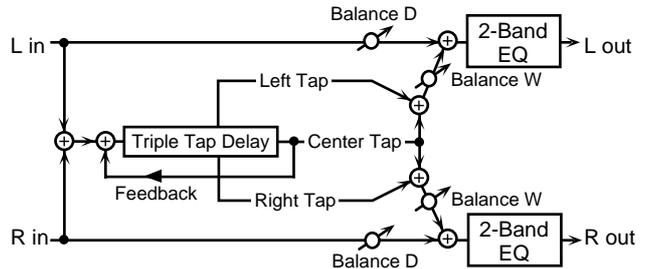
When Mode is **CROSS**:



Parameter	Value	Explanation
Delay L	0.0-500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay R		
Feedback	-98-+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Mode	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect (See the figures above.)
Rate #	0.05-10.00 Hz	Frequency of modulation
Depth	0-127	Depth of modulation
Phase	0-180°	Spatial spread of the sound
HF Damp	200-8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Low Gain	-15-+15 dB	Gain of the low range
High Gain	-15-+15 dB	Gain of the high range
Balance #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0-127	Output Level

### 19: TRI TAP DLY (Triple Tap Delay)

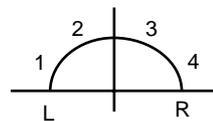
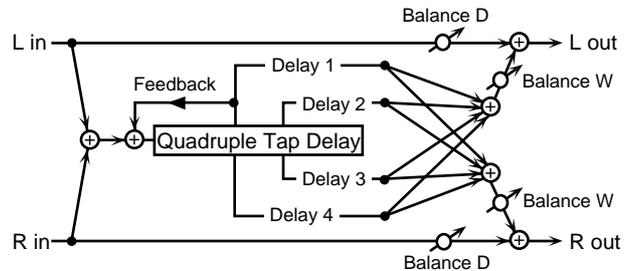
Produces three delay sounds; center, left and right.



Parameter	Value	Explanation
Delay C	200-1000 ms, note	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay L		
Delay R		
Feedback #	-98-+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Level C	0-127	Volume of each delay sound
Level L		
Level R		
HF Damp	200-8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Low Gain	-15-+15 dB	Gain of the low range
High Gain	-15-+15 dB	Gain of the high range
Balance #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0-127	Output Level

### 20: QUAD TAP DLY (Quadruple Tap Delay)

This effect has four delays.



Stereo location of each delay sound

Parameter	Value	Explanation
Delay 1-4	200-1000 ms, note	Adjusts the delay time from the direct sound until the delay sound is heard.
Level 1-4		
Feedback #		
HF Damp		
HF Damp	200-8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Balance #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0-127	Output Level

## 21: TIME CTRL DLY (Time Control Delay)

This effect allows you to use the MFx [CONTROL] knob on the Synth section to control the delay time and pitch in realtime. Lengthening the delay will lower the pitch, and shortening it will raise the pitch.

Parameter	Value	Explanation
Delay #	200–1000 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Accel	0–15	Adjusts the time over which the Delay Time will change from the current setting to a newly specified setting. The rate of change for the Delay Time directly affects the rate of pitch change.
Feedback #	-98–+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Pan	L64–63R	Stereo location of the delay sound
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the delay sound (W)
Level	0–127	Output Level

## 22: 2V PCH SHIFT (2-voice Pitch Shifter)

Shifts the pitch of the original sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the original sound.

Parameter	Value	Explanation
Coarse A #1	-24–+12 semi	Adjusts the pitch of Pitch Shift A in semitone steps.
Fine A #1	-100–+100 cent	Adjusts the pitch of Pitch Shift A in 2-cent steps.
Pan A	L64–63R	Stereo location of the Pitch Shift A sound
PreDelayA	0.0–500 ms	Adjusts the delay time from the direct sound until the Pitch Shift A sound is heard.
Coarse B #2	-24–+12 semi	Settings of the Pitch Shift B sound The parameters are the same as for the Pitch Shift A sound.
Fine B #2	-100–+100 cent	
Pan B	L64–63R	
PreDelayB	0.0–500.0 ms	
Mode	1, 2, 3, 4, 5	Setting a higher value for this parameter will result in slower response, but steadier pitch.
Level Bal	A100:0B–A0:100B	Volume balance between the Pitch Shift A and Pitch Shift B sounds
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

## 23: FBK PCH SHIFT (Feedback Pitch Shifter)

This allows the pitch shifted sound to be fed back into the effect.

Parameter	Value	Explanation
Coarse #1	-24–+12 semi	Adjusts the pitch of the pitch shifted sound in semitone steps.
Fine #1	-100–+100 cent	Adjusts the pitch of the pitch shifted sound in 2-cent steps.
Feedback #	-98–+98%	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
Pre Delay	0.0–500.0 ms	Adjusts the delay time from the direct sound until the pitch shifted sound is heard.
Mode	1, 2, 3, 4, 5	Setting a higher value for this parameter will result in slower response, but steadier pitch.
Pan	L64–63R	Stereo location of the pitch shifted sound
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
Level	0–127	Output Level

## 24: REVERB

Adds reverberation to the sound, simulating an acoustic space.

Parameter	Value	Explanation
Type	ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2	Type of reverb <b>ROOM1</b> : dense reverb with short decay <b>ROOM2</b> : sparse reverb with short decay <b>STAGE1</b> : reverb with greater late reverberation <b>STAGE2</b> : reverb with strong early reflections <b>HALL1</b> : reverb with clear reverberance <b>HALL2</b> : reverb with rich reverberance
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the reverb sound is heard.
Time #	0–127	Time length of reverberation
HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the reverb sound (W)
Level	0–127	Output Level

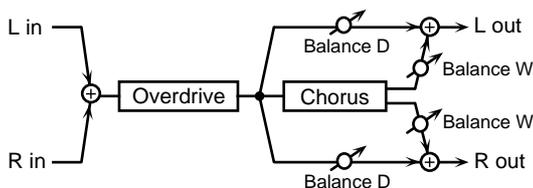
## Effects/Parameter List

### 25: GATED REVERB

This is a special type of reverb in which the reverberant sound is cut off before its natural length.

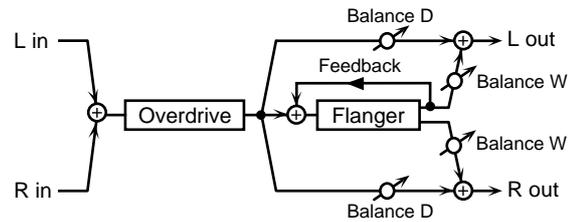
Parameter	Value	Explanation
Type	NORMAL, REVERSE, SWEEP1, SWEEP2	Type of reverb <b>NORMAL</b> : conventional gated reverb <b>REVERSE</b> : backwards reverb <b>SWEEP1</b> : the reverberant sound moves from right to left <b>SWEEP2</b> : the reverberant sound moves from left to right
Pre Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the reverb sound is heard.
Gate Time	5–500 ms	Adjusts the time from when the reverb is heard until it disappears.
Low Gain	-15–+15 dB	Gain of the low range
High Gain	-15–+15 dB	Gain of the high range
Balance #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the reverb sound (W)
Level #	0–127	Output Level

### 26: OD -> CHORUS (Overdrive -> Chorus)



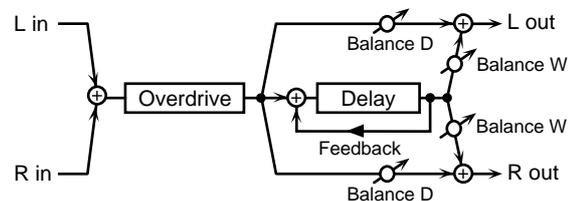
Parameter	Value	Explanation
OD Drive	0–127	Degree of distortion Also changes the volume.
OD Pan #	L64–63R	Stereo location of the overdrive sound
Cho Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Cho Rate	0.05–10.00 Hz	Frequency of modulation
Cho Depth	0–127	Depth of modulation
Cho Bal #	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
Level	0–127	Output Level

### 27: OD -> FLANGER (Overdrive -> Flanger)



Parameter	Value	Explanation
OD Drive	0–127	Degree of distortion Also changes the volume.
OD Pan #	L64–63R	Stereo location of the overdrive sound
Flg Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Rate	0.05–10.00 Hz	Frequency of modulation
Flg Depth	0–127	Depth of modulation
Flg Fbk	-98–+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal #	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

### 28: OD -> DELAY (Overdrive -> Delay)



Parameter	Value	Explanation
OD Drive	0–127	Degree of distortion Also changes the volume.
OD Pan #	L64–63R	Stereo location of the overdrive sound
Dly Time	0.0–500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay Fbk	-98–+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Dly HFDmp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal #	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

### 29: DIST -> CHORUS (Distortion -> Chorus)

The parameters are essentially the same as in “26: OD -> CHORUS,” with the exception of the following two.

OD Drive -> Dst Drive, OD Pan -> Dist Pan

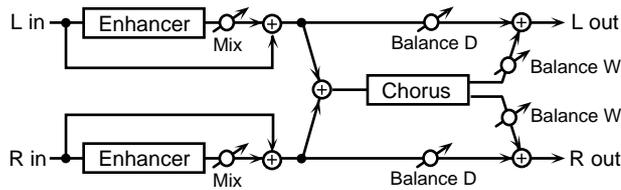
### 30: DIST -> FLANGER (Distortion -> Flanger)

The parameters are essentially the same as in "27: OD -> FLANGER," with the exception of the following two.  
OD Drive -> Dst Drive, OD Pan -> Dist Pan

### 31: DIST -> DELAY (Distortion -> Delay)

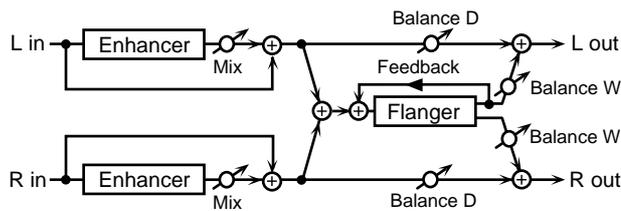
The parameters are essentially the same as in "28: OD -> DELAY," with the exception of the following two.  
OD Drive -> Dst Drive, OD Pan -> Dist Pan

### 32: ENHAN -> CHORUS (Enhancer -> Chorus)



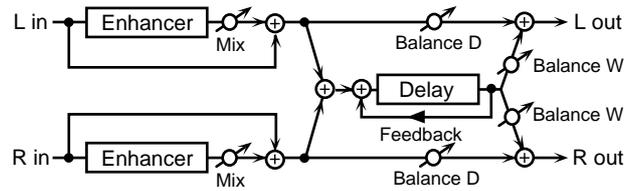
Parameter	Value	Explanation
Enh Sens #	0-127	Sensitivity of the enhancer
Enh Mix	0-127	Level of the overtones generated by the enhancer
Cho Delay	0.0-100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Cho Rate	0.05-10.00 Hz	Frequency of modulation
Cho Depth	0-127	Depth of modulation
Cho Bal #	D100:0W-D0:100W	Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D).
Level	0-127	Output Level

### 33: ENHAN -> FLANGER (Enhancer -> Flanger)



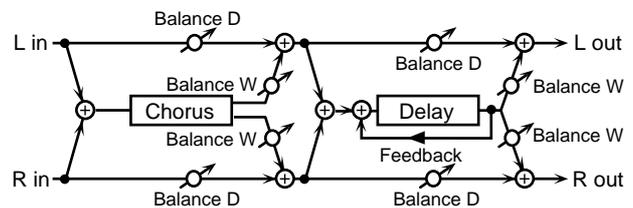
Parameter	Value	Explanation
Enh Sens #	0-127	Sensitivity of the enhancer
Enh Mix	0-127	Level of the overtones generated by the enhancer
Flg Delay	0.0-100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Rate	0.05-10.00 Hz	Frequency of modulation
Flg Depth	0-127	Depth of modulation
Flg Fbk	-98-+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal #	D100:0W-D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0-127	Output Level

### 34: ENHANCER -> DELAY (Enhancer -> Delay)



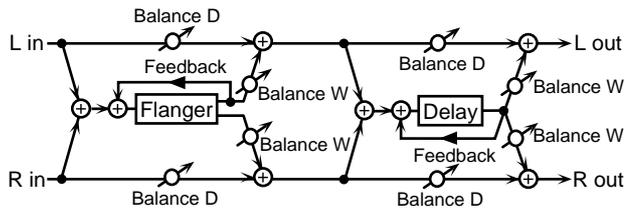
Parameter	Value	Explanation
Enh Sens #	0-127	Sensitivity of the enhancer
Enh Mix	0-127	Level of the overtones generated by the enhancer
DelayTime	0.0-500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay Fbk	-98-+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Dly HFDmp	200-8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal #	D100:0W-D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0-127	Output Level

### 35: CHORUS -> DELAY



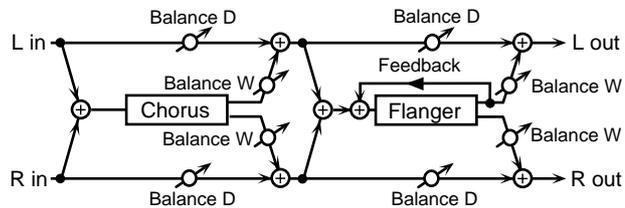
Parameter	Value	Explanation
Cho Rate	0.05-10.00 Hz	Frequency of modulation
Cho Depth	0-127	Depth of modulation
Cho Delay	0.0-100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Cho Bal #	D100:0W-D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
DelayTime	0.0-500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay Fbk	-98-+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Dly HFDmp	200-8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal #	D100:0W-D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0-127	Output Level

**36: FLANGER -> DELAY**



Parameter	Value	Explanation
Flg Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Rate	0.05–10.00 Hz	Frequency of modulation
Flg Depth	0–127	Depth of modulation
Flg Fbk	-98–+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
DelayTime	0.0–500.0 ms	Adjusts the delay time from the direct sound until the delay sound is heard.
Delay Fbk	-98–+98%	Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.
Dly HFDmp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.
Delay Bal #	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).
Level	0–127	Output Level

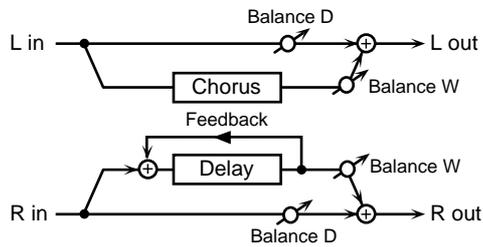
**37: CHORUS -> FLANGR (Chorus -> Flanger)**



Parameter	Value	Explanation
Cho Delay	0.0–100.0 ms	Adjusts the delay time from the direct sound until the chorus sound is heard.
Cho Rate	0.05–10.00 Hz	Modulation frequency of the chorus effect
Cho Depth	0–127	Modulation depth of the chorus effect
Cho Bal #	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
Flg Delay	0.0–100.0 ms	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
Flg Rate	0.05–10.00 Hz	Modulation frequency of the flanger effect
Flg Depth	0–127	Modulation depth of the flanger effect
Flg Fbk	-98–+98%	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
Flg Bal #	D100:0W–D0:100W	Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D).
Level	0–127	Output Level

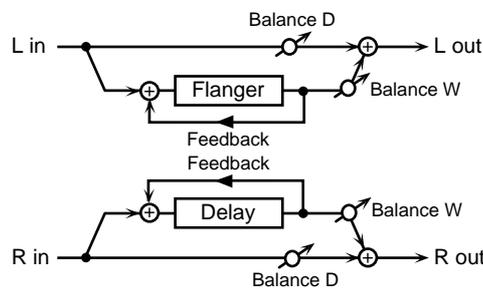
**38: CHORUS/DELAY**

The parameters are the same as for “35: CHORUS -> DELAY.” However, the Delay Balance parameter adjusts the volume balance between the direct sound and the delay sound.



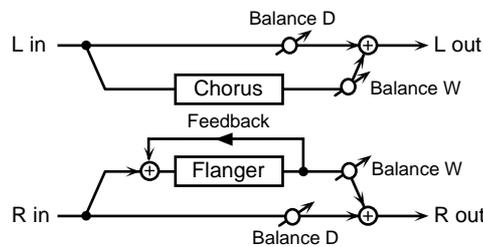
**39: FLANGER/DELAY**

The parameters are the same as for “36: FLANGER -> DELAY.” However, the Delay Balance parameter adjusts the volume balance between the direct sound and the delay sound.



**40: CHORUS/FLANGR**

The parameters are the same as for “37: CHORUS -> FLANGR.” However, the Flanger Balance parameter adjusts the volume balance between the direct sound and the flanger sound.



# Tone List

## Piano Tone

### [Acoustic Piano]

No.	PatchName
1	ConcertGrand
2	Classical Pf
3	European Pf

### [Electric Piano]

No.	PatchName
1	Rhodes Mark 1
2	Rhodes Mark 2
3	Dyno Rhodes

### [Other Piano]

No.	PatchName
1	Wurlly Piano
2	Clav
3	Harpsichord

## Synth Tone

### [Strings]

No.	PatchName
1	Orch Strings
2	European Str
3	Jupiter8 Str

### [Choir]

No.	PatchName
1	Real Choir
2	Female Vox
3	Jazz Scat

### [Brass]

No.	PatchName
1	BrassSection
2	Concert Brass
3	Ob Fat Brass

### [Synth Lead]

No.	PatchName
1	Vintage Lead
2	Dual Lead
3	Retro Lead

### [Synth Pad]

No.	PatchName
1	OB Pad
2	2.3 Pad
3	Glassy Pad

### [Bass]

No.	PatchName
1	Ac Bass
2	FretlessBass
3	Hefty Bass

# Rhythm Set List

	pc1. VR Pops Kit	pc2. VR Rock Kit	pc3. VR R&Bs Kit	pc4. VR Jazz Kit
27	Metronome 2	Metronome 2	Metronome 2	Metronome 2
28	R8 Click	R8 Click	R8 Click	R8 Click
29	Metronome 1	Metronome 1	Metronome 1	Metronome 1
30	Rock Kick	Rock Kick	Rock Kick	Rock Kick
31	Pop Kick	Pop Kick	Pop Kick	Pop Kick
32	R&B kick	R&B kick	R&B kick	R&B kick
33	Rock Rim	Rock Rim	Rock Rim	Rock Rim
34	Pops Snare	Pops Snare	Pops Snare	Pops Snare
35	Studio Kick	Studio Kick	Studio Kick	Studio Kick
C2 36	Pop Kick	Rock Kick	R&B kick	Jazz Kick
37	Rock Gst	Rock Gst	Rock Gst	Rock Gst
38	Pops Snare	Rock Rim	R&B snare	BrshSwshSlap
39	Hand Claps	Hand Claps	Hand Claps	Jazz Swish
40	Studio Snare	Studio Snare	Studio Snare	BrshSwshSlap
41	Rock TomL1	Rock TomL1	Rock TomL1	Jazz Tom L
42	StudioH cl1	Rock CIHH2	R&B HiHat	Jazz CIHH2
43	Rock Flm L1	Rock Flm L1	Rock Flm L1	Jazz Tom L
44	StudioH cl1	Rock CIHH1	R&B HiHat	Jazz CIHH1
45	Rock Tom M	Rock Tom M	Rock Tom M	Jazz Tom M
46	StudioH op	Rock OpHH	R&B OpenHat	Jazz OpHH
47	Rock Flm M	Rock Flm M	Rock Flm M	Jazz Tom M
C3 48	Rock Tom H	Rock Tom H	Rock Tom H	Jazz Tom H
49	Rock CrCym1	Rock CrCym1	Rock CrCym1	Rock CrCym1
50	Rock Flm H	Rock Flm H	Rock Flm H	Jazz Tom H
51	Jazz RdCym	Jazz RdCym	Jazz RdCym	Jazz RdCym
52	China Cym	China Cym	China Cym	China Cym
53	Crash 1	Crash 1	Crash 1	Crash 1

# Settings You Can Alter and Store

## Settings Stored to the System

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- Master Tune
- Key Transpose
- Key Touch
- Damper Polarity
- Organ Damper SW
- Synth Damper SW
- Piano Expression SW
- Control Pedal Polarity
- Control Pedal Assign
- Quick Firing
- V-Link KBD
- Clock Source
- D Beam Sensitivity  
(This cannot be stored to memory cards.)
- Local Control  
(Always ON at power-up.)
- Device ID
- MIDI Tx Mode
- Tx PC Switch
- Rx PC Switch
- Control Part MIDI ch
- Organ Part MIDI ch
- Piano Part MIDI ch
- Synth Part MIDI ch
- Rhythm Part MIDI ch
- External Part MIDI ch
- Slow Fast Control Message
- Brake Control Message
- Tone Wheel Brake Control Message
- Pedal Wah Control Message
- Synth MFX Control Message
- MIDI Sound Controller
- V-LINK

## Settings Stored to the Registration

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\* Settings with an asterisk (“\*”) are set using the panel controls (with the exception of some, they do not appear in the Edit menu).

- Regist Name
- Split On/Off \*
- Split Point \*
- Split Lower Part \*
- Split Upper Part \*
- External Part Assign
- Bender Assign
- Bender Range
- Aftertouch Assign
- Aftertouch Sens
- D Beam Assign \*
- Reverb Type \*
- Reverb Level \*
- Rhythm Volume \*
- Rhythm On/Off is not stored)
- Rhythm Reverb Send Level
- Rhythm Type \*
- Tempo \*
- Send PC
- Send Bank MSB
- Send Bank LSB
- Organ Volume \*
- Organ Octave Shift
- Organ Fine Tune
- Leakage Level
- Key Click Level
- Percussion Level
- Percussion Time
- Percussion Recharge Time
- Percussion H-Bar Level
- Rotary Spread
- Rotary Level
- Rotary Rise Time
- Rotary Fall Time
- Rotary Speed Slow
- Rotary Speed Fast
- Rotary Mic Distance
- Organ Reverb Send Level
- Harmonic Bar 16' - 1' \*
- Wheel Type \*
- Vibrato and Chorus Switch \*
- V/C Type \*
- Percussion 2nd/3rd \*
- Percussion Soft/Normal \*
- Percussion Slow/Fast \*
- Organ Amplifier Type \*
- Overdrive Level \*
- Rotary On/Off \*
- Rotary Slow/Fast \*
- Rotary Brake \*
- Piano Volume \*
- Piano Octave Shift
- Piano Fine Tune
- Piano Tone \*
- Stereo Width
- Stretch Tune
- Decay Time
- Mic/Amp Switch
- (Mic/Amp) Type \*
- (Mic/Amp) Distance/EQ \*
- Release Time
- Chorus Return Level
- Piano MFX Type \*
- Piano MFX Depth \*
- Piano MFX Rate \*
- Tremolo Type
- Wah Type
- Wah Resonance
- Phaser Resonance
- Piano Reverb Send Level
- Synth Volume \*
- Synth Octave Shift
- Synth Fine Tune
- Synth Tone \*
- Synth Attack \*
- Synth Release \*
- Synth Cutoff \*
- Synth Resonance \*
- Mono Mode
- Portamento Switch
- Portamento Time
- Portamento Mode
- Portamento Type
- Synth MFX Switch \*
- Synth MFX Type
- Synth MFX Control
- Synth MFX Parameter Value
- Active Expression \*
- Synth MFX Dry Send
- Synth MFX Chorus Send
- Synth Reverb Send Level

# Shortcut List

[EDIT] + Bender	Bender Assign screen
[EDIT] + Aftertouch	Aftertouch Assign screen
[EDIT] + Damper	Organ Damper SW screen
[EDIT] + Expression	Piano Exp SW screen
[EDIT] + CTRL Pedal	Control Pedal Assign screen
[EDIT] + [SPLIT]	Split screen (Same as pressing only the [SPLIT] button.)
[EDIT] + [V-LINK]	V-Link KBD screen
[EDIT] + [REVERB] knob	Reverb Level (SYSTEM) screen
[EDIT] + [REVERB TYPE]	Organ Reverb Send screen
[EDIT] + [RHYTHM]	Rhy Reverb Send screen
[EDIT] + [RHYTHM] knob	Rhythm Volume screen
[EDIT] + one of the [D BEAM] button	D Beam Sensitivity screen
[EDIT] + one of the REGISTRATION [1]-[8]	You will enter Edit mode.
[EDIT] + [ORGAN VOLUME] knob	Organ Volume screen
[EDIT] + [PERC.SOFT]	Percussion Soft/Norm Level screen
[EDIT] + [PERC.SLOW]	Percussion Slow/Fast Time screen
[EDIT] + [PERC.2ND] or [3RD]	Leakage Level screen
[EDIT] + [OVERDRIVE] knob	Overdrive Level screen
[EDIT] + [ROTARY ON]	Rotary Wf/Tw Level screen
[EDIT] + [ROTARY SLOW/FAST] or [EDIT] + [ROTARY BRAKE]	Rotary Wf/Tw Rise Time screen
[EDIT] + [PIANO VOLUME] knob	Piano Volume screen
[EDIT] + [CHARACTER TYPE]	Character SW screen
[EDIT] + [SOUND] knob	Character SW screen
[EDIT] + [Ac.PIANO]	Stereo Width screen
[EDIT] + [PIANO MFX TYPE]	Chorus Return screen
[EDIT] + [SYNTH VOLUME] knob	Synth Volume screen
[EDIT] + [SYNTH MFX ON] button	Synth MFX Type screen
[EDIT] + [SYNTH MFX CONTROL] knob	Synth MFX Control screen

# MIDI Implementation

Model: VR-760 (Performance Keyboard)  
 Date: Nov. 1, 2002  
 Version: 1.00

## 1. Receive data

### ■ Channel Voice Messages

#### ● Note off

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
8nH	kkH	vvH
9nH	kkH	00H
n = MIDI channel number:	0H - FH (ch.1 - 16)	
kk = note number:	00H - 7FH (0 - 127)	
vv = note off velocity:	00H - 7FH (0 - 127)	

\* Some instruments are not received in Rhythm set.

#### ● Note on

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
9nH	kkH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
kk = note number:	00H - 7FH (0 - 127)	
vv = note on velocity:	01H - 7FH (1 - 127)	

\* Not received by the Organ Part.

#### ● Control Change

##### ○ Bank Select (Controller number 0, 32)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm, ll = Bank number:	00 00H - 7F 7FH (bank.1 - bank.16384)	

\* The Registration, Rhythms, and Tones corresponding to each Bank Select are as follows.  
 \* The SRX series corresponding to each Bank Select are to see the SRX series owner's manual.

BANK MSB	SELECT LSB	PROGRAM NUMBER	GROUP	NUMBER
085	000	001 - 064	Registration	001 - 064
	064	001 - 003	One Touch Regist.	001 - 003
	064	001 - 004	Rhythm Set	001 - 004
087	064	001 - 009	Tone (Piano)	001 - 009
	065	001 - 018	Tone (Synth)	001 - 018
	066	001 - 018	Tone (Synth Timbre)	001 - 018
092	000 -	001 -	SRX Rhythm	001 -
	:	:	:	:
	:	:	:	:
093	000 -	001 -	SRX Patch	001 -
	:	:	:	:
	:	:	:	:

##### ○ Modulation (Controller number 1)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	01H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Modulation depth:	00H - 7FH (0 - 127)	

\* Not received by the Organ Part.

##### ○ Portamento Time (Controller number 5)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	05H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Portamento Time:	00H - 7FH (0 - 127)	

\* Not received by the Organ Part.

##### ○ Data Entry (Controller number 6, 38)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	06H	mmH
BnH	26H	llH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm, ll = the value of the parameter specified by RPN/NRPN		
mm = MSB, ll = LSB		

\* Not received by the Organ Part.

##### ○ Volume (Controller number 7)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	07H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Volume:	00H - 7FH (0 - 127)	

##### ○ Panpot (Controller number 10)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	0AH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Panpot:	00H - 40H - 7FH (Left - Center - Right)	

\* Not received by the Organ Part.

##### ○ Expression (Controller number 11)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	0BH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Expression:	00H - 7FH (0 - 127)	

\* Not received by the Piano Part when the Piano Exp Sw (EDIT: System Basic: Piano Exp Sw) is OFF.

##### ○ General Purpose Controller 1 (Controller number 16)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	10H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

##### ○ General Purpose Controller 2 (Controller number 17)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	11H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

##### ○ General Purpose Controller 3 (Controller number 18)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	12H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

##### ○ General Purpose Controller 4 (Controller number 19)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	13H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

##### ○ Hold 1 (Controller number 64)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	40H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

\* Not received by the Organ Part when the Organ Damper SW (EDIT: System Basic: Organ Damper SW) is OFF.

##### ○ Portamento (Controller number 65)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	41H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

\* Not received by the Organ Part.

##### ○ Sostenuto (Controller number 66)

<u>Status</u>	<u>2nd byte</u>	<u>3rd byte</u>
BnH	42H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

\* Not received by the Organ Part.

## ○Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

\* Only received by the Piano Part.

## ○Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Resonance value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* Not received by the Organ Part.

## Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Release Time value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* Not received by the Organ Part.

## ○Attack time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Attack time value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* Not received by the Organ Part.

## ○Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Cutoff value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* Not received by the Organ Part.

## ○Sound Controller 1-9 (Controller number 70-78)

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) 0-63 = OFF,64-127 = ON	

\* Receives harmonic var value.

\* Received by the Organ Part.

\* Not received when MIDI SOUND CONTROLS SWITCH (Edit: System MIDI: MIDI Snd Ctrl) 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)

Status	2nd byte	3rd byte
BnH	50H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 6 (Controller number 81)

Status	2nd byte	3rd byte
BnH	51H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 7 (Controller number 82)

Status	2nd byte	3rd byte
BnH	52H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 8 (Controller number 83)

Status	2nd byte	3rd byte
BnH	53H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○Portamento Control (Controller number 84)

Status	2nd byte	3rd byte
BnH	54H	kkH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
kk = source note number:	00H - 7FH (0 - 127)	

\* A Note-on received immediately after a Portamento Control message will change continuously in pitch, starting from the pitch of the Source Note Number.

\* If a voice is already sounding for a note number identical to the Source Note Number, this voice will continue sounding (i.e., legato) and will, when the next Note-on is received, smoothly change to the pitch of that Note-on.

\* The rate of the pitch change caused by Portamento Control is determined by the Portamento Time value.

\* Not received by the Organ Part.

## ○Effect 1 (Reverb Send Level) (Controller number 91)

Status	2nd byte	3rd byte
BnH	5BH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Reverb Send Level:	00H - 7FH (0 - 127)	

\* Not received by the Organ and Piano Part.

## ○Effect 3 (Chorus Send Level) (Controller number 93)

Status	2nd byte	3rd byte
BnH	5DH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Chorus Send Level:	00H - 7FH (0 - 127)	

\* Not received by the Organ and Piano Part.

# MIDI Implementation

## ○RPN MSB/LSB (Controller number 100, 101)

Status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm = upper byte (MSB) of parameter number specified by RPN		
ll = lower byte (LSB) of parameter number specified by RPN		

<<< RPN >>>

Control Changes include RPN (Registered Parameter Numbers), which are extended.

When using RPNs, first RPN (Controller numbers 100 and 101; they can be sent in any order) should be sent in order to select the parameter, then Data Entry (Controller numbers 6 and 38) should be sent to set the value. Once RPN messages are received, Data Entry messages that is received at the same MIDI channel after that are recognized as changing toward the value of the RPN messages. In order not to make any mistakes, transmitting RPN Null is recommended after setting parameters you need.

This device receives the following RPNs.

RPN	Data entry	Notes
<u>MSB_LSB</u> 00H, 00H	<u>MSB_LSB</u> mmH, llH	Pitch Bend Sensitivity mm: 00H - 18H (0 - 24 semitones) ll: ignored (processed as 00H) Up to 2 octave can be specified in semitone steps.
00H, 01H	mmH, llH	Channel Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-4096 x 100 / 8192 - 0 - +4096 x 100 / 8192 cent) * Not received by the Organ Part.
00H, 02H	mmH, llH	Channel Coarse Tuning mm: 10H - 40H - 70H (-48 - 0 - +48 semitones) ll: ignored (processed as 00H) * Not received by the Organ Part.
7FH, 7FH	---, ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent Parameter values that were previously set will not change. mm, ll: ignored

## ●Program Change

Status	2nd byte
CnH	ppH
n = MIDI channel number:	0H - FH (ch.1 - 16)
pp = Program number:	00H - 3FH (prog.1 - prog.64)

- \* Not received when the Rx PC Switch (Edit: System MIDI: Rx PC Switch) is OFF.
- \* Not received by the Organ Part.

## ●Channel Pressure

Status	2nd byte
DnH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)
vv = Channel Pressure:	00H - 7FH (0 - 127)

- \* The effect is vary depending on the tone.
- \* Not received by the Organ Part.

## ●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm, ll = Pitch Bend value:	00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)	

## ■Channel Mode Messages

### ●All Sounds Off (Controller number 120)

Status	2nd byte	3rd byte
BnH	78H	00H
n = MIDI channel number:	0H - FH (ch.1 - 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 - 16)	

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

Controller	Reset value
Pitch Bend Change	+/-0 (center)
Channel Pressure	0 (off)
Modulation	0 (off)
Breath Type	0 (min)
Expression	127 (max)
Hold 1	0 (off)
Sostenuto	0 (off)
Soft	0 (off)
Hold 2	0 (off)
RPN	unset; previously set data will not change
NRPN	unset; previously set data will not change

### ●All Notes Off (Controller number 123)

Status	2nd byte	3rd byte
BnH	7BH	00H
n = MIDI channel number:	0H - FH (ch.1 - 16)	

- \* When All Notes Off is received, all notes on the corresponding channel will be turned off. However, if Hold 1 or Sostenuto is ON, the sound will be continued until these are turned off.

### ●OMNI OFF (Controller number 124)

Status	2nd byte	3rd byte
BnH	7CH	00H
n = MIDI channel number:	0H - FH (ch.1 - 16)	

- \* The same processing will be carried out as when All Notes Off is received.

### ●OMNI ON (Controller number 125)

Status	2nd byte	3rd byte
BnH	7DH	00H
n = MIDI channel number:	0H - FH (ch.1 - 16)	

- \* The same processing will be carried out as when All Notes Off is received. OMNI ON will not be turned on.

### ●MONO (Controller number 126)

Status	2nd byte	3rd byte
BnH	7EH	mmH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm = mono number:	00H - 10H (0 - 16)	

- \* The same processing will be carried out as when All Notes Off is received.

### ●POLY (Controller number 127)

Status	2nd byte	3rd byte
BnH	7FH	00H
n = MIDI channel number:	0H - FH (ch.1 - 16)	

- \* The same processing will be carried out as when All Notes Off is received.

## ■ System Realtime Message

### ● Timing Clock

Status  
F8H

\* This message will be received if the Clock Source parameter (Edit: System Basic: Clock Source) is MIDI.

### ● Active Sensing

Status  
FEH

\* When Active Sensing is received, the unit will begin monitoring the intervals of all further messages. While monitoring, if the interval between messages exceeds 420 ms, the same processing will be carried out as when All Sounds Off, All Notes Off and Reset All Controllers are received, and message interval monitoring will be halted.

## ■ System Exclusive Message

Status	Data byte	Status
F0H	iiH, ddH, ....., eeH	F7H

F0H: System Exclusive Message status  
 ii = ID number: an ID number (manufacturer ID) to indicate the manufacturer whose Exclusive message this is. Roland's manufacturer ID is 41H. ID numbers 7EH and 7FH are extensions of the MIDI standard; Universal Non-realtime Messages (7EH) and Universal Realtime Messages (7FH).  
 dd, ..., ee = data: 00H - 7FH (0 - 127)  
 F7H: EOX (End Of Exclusive)

Of the System Exclusive messages received by this device, the Universal Non-realtime messages and the Universal Realtime messages and the Data Request (RQ1) messages and the Data Set (DT1) messages will be set automatically.

## ● Universal Non-realtime System Exclusive Messages

### ○ Identity Request Message

Status	Data byte	Status
F0H	7EH, dev, 06H, 01H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime Message)
dev	Device ID (dev: 00H - 1FH (1 - 32), the initial value is 10H (17).)
06H	Sub ID#1 (General Information)
01H	Sub ID#2 (Identity Request)
F7H	EOX (End Of Exclusive)

\* When this message is received, Identity Reply message (p. 108) will be transmitted.

## ● Universal Realtime System Exclusive Messages

### ○ Master Fine Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 03H, llH, mmHF7H	

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
03H	Sub ID#2 (Master Fine Tuning)
llH	Master Fine Tuning LSB
mmH	Master Fine Tuning MSB
F7H	EOX (End Of Exclusive)

mm, ll: 00 00H - 40 00H - 7F 7FH (-100 - 0 - +99.9 [cents])

### ○ Master Coarse Tuning

Status	Data byte	Status
F0H	7FH, 7FH, 04H, 04H, llH, mmH	F7H

Byte	Explanation
F0H	Exclusive status
7FH	ID number (universal realtime message)
7FH	Device ID (Broadcast)
04H	Sub ID#1 (Device Control)
04H	Sub ID#2 (Master Coarse Tuning)
llH	Master Coarse Tuning LSB
mmH	Master Coarse Tuning MSB
F7H	EOX (End Of Exclusive)

ll: ignored (processed as 00H)  
 mm: 28H - 40H - 58H (-24 - 0 - +24 [semitones])  
 \* Not received by the Organ Part.

## ● Data Transmission

This instrument can use exclusive messages to exchange many varieties of internal settings with other devices.  
 The model ID of the exclusive messages used by this instrument is 00H 5FH.

### ○ Data Request 1 RQ1 (11H)

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.

Status	Data byte	Status
F0H	41H, dev, 00H, 5FH, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 10H - 1FH, 7FH)
00H	Model ID #1 (VR-760)
5FH	Model ID #2 (VR-760)
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 size of data that can be transmitted at one time is fixed for each type of data. And data requests must be made with a fixed starting address and size. Refer to the address and size given in "Parameter Address Map" (p. 109).  
 \* For the checksum, refer to p. 112.

# MIDI Implementation

## ○Data set 1 DT1

This is the message that actually performs data transmission, and is used when you wish to transmit the data.

Status	Data byte	Status
F0H	41H, dev, 00H, 5FH, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H
Byte	Explanation	
F0H	Exclusive status	
41H	ID number (Roland)	
dev	Device ID (dev: 00H - 1FH, 7FH, Initial value is 10H)	
00H	Model ID #1 (VR-760)	
5FH	Model ID #2 (VR-760)	
12H	Command ID (DT1)	
aaH	Address MSB: upper byte of the starting address of the data to be sent	
bbH	Address: upper middle byte of the starting address of the data to be sent	
ccH	Address: lower middle byte of the starting address of the data to be sent	
ddH	Address LSB: lower byte of the starting address of the data to be sent	
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.	
:	:	
ffH	Data	
sum	Checksum	
F7H	EOX (End Of Exclusive)	

- \* The amount of data that 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" (p. 109).
- \* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.
- \* Regarding the checksum, please refer to p. 112.

## 2. Data Transmission

### ■Channel Voice Messages

#### ●Note off

Status	2nd byte	3rd byte
8nH	kkH	40H
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note off velocity:		01H - 7FH (1 - 127)

- \* Note off message on the Organ Part is sent out with the velocity of 40H.

#### ●Note on

Status	2nd byte	3rd byte
9nH	kkH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
kk = note number:		00H - 7FH (0 - 127)
vv = note on velocity:		01H - 7FH (1 - 127)

- \* Note on message on the Organ Part is sent out with the velocity of 64H.

#### ●Control Change

##### ○Bank Select (Controller number 0, 32)

Status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH
n = MIDI channel number:		0H - FH (ch.1 - 16)
mm, ll = Bank number:		00 00H - 7F 7FH (bank.1 - bank.16384)

##### ○Modulation (Controller number 1)

Status	2nd byte	3rd byte
BnH	01H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Modulation depth:		00H - 7FH (0 - 127)

##### ○Portamento Time (Controller number 5)

Status	2nd byte	3rd byte
BnH	05H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Portamento Time:		00H - 7FH (0 - 127)

##### ○Volume (Controller number 7)

Status	2nd byte	3rd byte
BnH	07H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Volume:		00H - 7FH (0 - 127)

##### ○Expression (Controller number 11)

Status	2nd byte	3rd byte
BnH	0BH	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Expression:		00H - 7FH (0 - 127)

- \* These messages are transmitted when the Piano Exp Sw (EDIT: System Basic: Piano Exp Sw) is ON.

##### ○General Purpose Controller 1 (Controller number 16)

Status	2nd byte	3rd byte
BnH	10H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127)

- \* Depending on the Control Message settings (Edit: System MIDI: Control Message).

##### ○General Purpose Controller 2 (Controller number 17)

Status	2nd byte	3rd byte
BnH	11H	vvH
n = MIDI channel number:		0H - FH (ch.1 - 16)
vv = Control value:		00H - 7FH (0 - 127)

- \* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 3 (Controller number 18)

Status	2nd byte	3rd byte
BnH	12H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 4 (Controller number 19)

Status	2nd byte	3rd byte
BnH	13H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○Hold 1 (Controller number 64)

Status	2nd byte	3rd byte
BnH	40H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

\* These messages are transmitted when the Organ Damper Sw (EDIT: System Basic: Organ Damper Sw) is ON.

## ○Portamento (Controller number 65)

Status	2nd byte	3rd byte
BnH	41H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

## ○Sostenuto (Controller number 66)

Status	2nd byte	3rd byte
BnH	42H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

## ○Soft (Controller number 67)

Status	2nd byte	3rd byte
BnH	43H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127) 0 - 63 = OFF, 64 - 127 = ON	

## ○Resonance (Controller number 71)

Status	2nd byte	3rd byte
BnH	47H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Resonance value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* These parameters are transmitted by the Synth Part.

## ○Release Time (Controller number 72)

Status	2nd byte	3rd byte
BnH	48H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Release Time value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* These parameters are transmitted by the Synth Part.

## ○Attack time (Controller number 73)

Status	2nd byte	3rd byte
BnH	49H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Attack time value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* These parameters are transmitted by the Synth Part.

## ○Cutoff (Controller number 74)

Status	2nd byte	3rd byte
BnH	4AH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Cutoff value (relative change):	00H - 7FH (-64 - 0 - +63)	

\* These parameters are transmitted by the Synth Part.

## ○Portamento Control (Controller number 84)

Status	2nd byte	3rd byte
BnH	54H	kkH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
kk = source note number:	00H - 7FH (0 - 127)	

## ○General Purpose Controller 5 (Controller number 80)

Status	2nd byte	3rd byte
BnH	50H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 6 (Controller number 81)

Status	2nd byte	3rd byte
BnH	51H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 7 (Controller number 82)

Status	2nd byte	3rd byte
BnH	52H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ○General Purpose Controller 8 (Controller number 83)

Status	2nd byte	3rd byte
BnH	53H	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
vv = Control value:	00H - 7FH (0 - 127)	

\* Depending on the Control Message settings (Edit: System MIDI: Control Message).

## ●Program Change

Status	2nd byte
CnH	ppH
n = MIDI channel number:	0H - FH (ch.1 - 16)
pp = Program number:	00H - 7FH (prog.1 - prog.128)

\* These messages are transmitted when Tx PC Switch (Edit: System MIDI: Tx PC Switch) is ON.

## ●Channel Pressure

Status	2nd byte
DnH	vvH
n = MIDI channel number:	0H - FH (ch.1 - 16)
vv = Channel Pressure:	00H - 7FH (0 - 127)

## ●Pitch Bend Change

Status	2nd byte	3rd byte
EnH	llH	mmH
n = MIDI channel number:	0H - FH (ch.1 - 16)	
mm, ll = Pitch Bend value:	00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)	

## ■System Realtime Messages

### ●Start

Status
FAH

\* This message is sent on START operation when START/STOP function is selected on Foot Controller.

### ●Stop

Status
FCH

\* This message is sent on STOP operation when START/STOP function is selected on Foot Controller.

# MIDI Implementation

## ●Active Sensing

Status  
FEH

\* This message is transmitted at intervals of approximately 250 msec.

## ■System Exclusive Messages

Universal Non-realtime System Exclusive Message™ and Data Set 1 (DT1) are the only System Exclusive messages transmitted by the VR-760.

## ●Universal Non-realtime System Exclusive Message

### ○Identity Reply Message

Receiving Identity Request Message, the VR-760 send this message.

<u>Status</u>	<u>Data byte</u>	<u>Status</u>
F0H	7EH, dev, 06H, 02H, 41H, 5FH, 01H, 00H, 00H, 00H, 01H, 00H, 00H	F7H

<u>Byte</u>	<u>Explanation</u>
F0H	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)
5FH 01H	Device family code (VR-760)
00H 00H	Device family number code (VR-760)
00H 01H	00H 00H Software revision level
F7H	EOX (End of Exclusive)

## ●Data Transmission

### ○Data set 1 DT1 (12H)

<u>Status</u>	<u>Data byte</u>	<u>Status</u>
F0H	41H, dev, 00H, 5FH, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

<u>Byte</u>	<u>Explanation</u>
F0H	Exclusive status
41H	ID number (Roland)
dev	Device ID (dev: 00H - 1FH, Initial value is 10H)
00H	Model ID #1 (VR-760)
5FH	Model ID #2 (VR-760)
12H	Command ID (DT1)
aaH	Address MSB: upper byte of the starting address of the data to be sent
bbH	Address: upper middle byte of the starting address of the data to be sent
ccH	Address: lower middle byte of the starting address of the data to be sent
ddH	Address LSB: lower byte of the starting address of the data to be sent.
eeH	Data: the actual data to be sent. Multiple bytes of data are transmitted in order starting from the address.
:	:
ffH	Data
sum	Checksum
F7H	EOX (End Of Exclusive)

\* The amount of data that 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" (p. 109).

\* Data larger than 256 bytes will be divided into packets of 256 bytes or less, and each packet will be sent at an interval of about 20 ms.

### ○V-LINK ON

<u>Status</u>	<u>Data byte</u>	<u>Status</u>
F0H	41H, dev, 00H, 51H, 12H, 10H, 00H, 00H 01H, CPM, CLM, sum	F7H

<u>Byte</u>	<u>Explanation</u>
F0H	Exclusive status
41H	ID number (Roland)
7FH	Device ID (universal)
00H	Model ID #1 (DV-7PR)
51H	Model ID #2 (DV-7PR)
12H	Command ID (DT1)
10H	Address MSB
00H	Address
00H	Address LSB

01H	Data (V-LINK ON)
CPM	Data (Clip Ctrl Rx MIDI ch : External Part Channel)
CLM	Data (Color Ctrl Rx MIDI ch)
sum	Checksum
F7H	EOX (End Of Exclusive)

### ○V-LINK OFF

<u>Status</u>	<u>Data byte</u>	<u>Status</u>
F0H	41H, dev, 00H, 51H, 12H, 10H, 00H, 00H 00H, sum	F7H

<u>Byte</u>	<u>Explanation</u>
F0H	Exclusive status
41H	ID number (Roland)
7FH	Device ID (universal)
00H	Model ID #1 (DV-7PR)
51H	Model ID #2 (DV-7PR)
12H	Command ID (DT1)
10H	Address MSB
00H	Address
00H	Address LSB
00H	Data (V-LINK OFF)
sum	Checksum
F7H	EOX (End Of Exclusive)

## 3. Parameter Address Map

\* 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.

VR-760 (Model ID = 00H 5FH)

Start Address	Description
00 00 00 00	System
10 00 00 00	Temporary Registration
20 00 00 00	User Registration (01)
20 01 00 00	User Registration (02)
:	:
20 3F 00 00	User Registration (64)

### System

Offset Address	Description
00 00 00	System Basic
00 01 00	System MIDI

### Registration

Offset Address	Description
00 00 00	Registration Common
00 02 00	Registration Organ
00 04 00	Registration Piano
00 06 00	Registration Synth

### System Basic

Offset Address	Description
# 00 00	0000 aaaa Master Tune (24 - 2024) 0000 bbbb 0000 cccc 0000 dddd
00 04	0000 aaaa Key Transpose -100.0 - 100.0 [cent] (58 - 69) -6 - +5
00 05	0000 00aa Key Touch (0 - 2)
00 06	0000 000a Quick Piring LIGHT, MEDIUM, HEAVY (0 - 1)
00 07	0000 000a Damper Pedal Polarity OFF, ON (0 - 1)
00 08	0000 000a Organ Damper Switch STANDARD, REVERSE (0 - 1)
00 09	0000 000a Piano Expression Switch OFF, ON (0 - 1)
00 0A	0000 000a Control Pedal Polarity OFF, ON (0 - 1)
00 0B	0000 aaaa Control Pedal Assign STANDARD, REVERSE (0 - 13) ROTARY SLOW/FAST, ROTARY SPEED, ROTARY BRAKE, REGIST INC, REGIST DEC, ORGAN OVERDRIVE, ORGAN WHEEL BRK, PIANO SOFT, PIANO SOSTENUTO, PIANO OCTAVE, PIANO PEDAL WAH, SYNTH GLIDE, RHY STA-STOP, SEQ START-STOP
00 0C	0000 000a V-Link Switch (0 - 1)
00 0D	0000 000a V-Link Keyboard Switch OFF, ON (0 - 1)
00 0E	0000 000a System Clock Source (0 - 1)
00 0F	0000 000a Synth Damper Switch INT, MIDI (0 - 1)
00 00 00 10	Total Size

### System MIDI

Offset Address	Description
00 00	0000 00aa MIDI Tx Mode (0 - 2) INTERNAL, EXTERNAL, BOTH
00 01	0000 000a Tx PC Switch (0 - 1)
00 02	0000 000a Rx PC Switch (0 - 1)
00 03	0000 aaaa Control MIDI Channel (0 - 15)
00 04	0000 aaaa Organ Part MIDI Channel (0 - 15)
00 05	0000 aaaa Piano Part MIDI Channel (0 - 15)
00 06	0000 aaaa Synth Part MIDI Channel (0 - 15)
00 07	0000 aaaa Rhythm Part MIDI Channel (0 - 15)
00 08	0000 aaaa External Part MIDI Channel (0 - 15)
00 09	0000 aaaa Rotary Slow Fast Control Message (0 - 8)
00 0A	0000 aaaa Rotary Brake Control Message 1 - 8, SysEx (0 - 8)
00 0B	0000 aaaa Tone Wheel Brake Control Message 1 - 8, SysEx (0 - 8)
00 0C	0000 aaaa Pedal Wah Control Message 1 - 8, SysEx (0 - 8)
00 0D	0000 0aaa Synth MFX Control Message (0 - 7)
00 0E	0000 000a MIDI Sound Controller (0 - 1)
00 00 00 0F	Total Size

### Registration Common

Offset Address	Description
00 00	0aaa aaaa Registration Name 1 (32 - 127) 32 - 127 [ASCII]

00 01	0aaa aaaa	Registration Name 2	(32 - 127) 32 - 127 [ASCII]
00 02	0aaa aaaa	Registration Name 3	(32 - 127) 32 - 127 [ASCII]
00 03	0aaa aaaa	Registration Name 4	(32 - 127) 32 - 127 [ASCII]
00 04	0aaa aaaa	Registration Name 5	(32 - 127) 32 - 127 [ASCII]
00 05	0aaa aaaa	Registration Name 6	(32 - 127) 32 - 127 [ASCII]
00 06	0aaa aaaa	Registration Name 7	(32 - 127) 32 - 127 [ASCII]
00 07	0aaa aaaa	Registration Name 8	(32 - 127) 32 - 127 [ASCII]
00 08	0aaa aaaa	Registration Name 9	(32 - 127) 32 - 127 [ASCII]
00 09	0aaa aaaa	Registration Name 10	(32 - 127) 32 - 127 [ASCII]
00 0A	0aaa aaaa	Registration Name 11	(32 - 127) 32 - 127 [ASCII]
00 0B	0aaa aaaa	Registration Name 12	(32 - 127) 32 - 127 [ASCII]
00 0C	0000 000a	Keyboard Split Switch	(0 - 1) OFF, ON
00 0D	0aaa aaaa	Keyboard Split Point	(28 - 103) C-1 - G9
00 0E	0000 00aa	Keyboard Split Lower Part	(0 - 3) ORGAN, PIANO, SYNTH, OFF
00 0F	0000 00aa	Keyboard Split Lower Part	(0 - 3) ORGAN, PIANO, SYNTH, OFF
00 10	0000 00aa	External Part Assign	(0 - 2) UPPER, LOWER, BOTH
00 11	0000 000a	Bender Assign	(0 - 1) PITCH BEND, ROTARY SLW/FAST
00 12	0000 aaaa	Bender Range	(1 - 12)
00 13	0000 0000	(RESERVED)	
00 14	0000 00aa	Aftertouch Assign	(0 - 2) SYNTH PLFO, SYNTH CUTOFF, PIANO PITCH
00 15	0000 aaaa	Aftertouch Sens	(0 - 10)
00 16	0000 0aaa	D-Beam Assign	(0 - 3) OFF, ROTARY SPEED, PIANO OCTAVE, SYNTH GLIDE
# 00 17	0000 aaaa	External Bank Select MSB (CC# 0)	0 - 128
# 00 19	0aaa aaaa	External Bank Select LSB (CC# 32)	0 - 127, OFF
# 00 1A	0000 aaaa	External Program Change (PC)	(0 - 128) 0 - 127, OFF
00 1C	0aaa aaaa	Rhythm Type	(0 - 127)
00 1D	0aaa aaaa	Rhythm Volume	(0 - 127)
00 1E	0aaa aaaa	Rhythm Reverb Send Level	(0 - 127)
# 00 1F	0000 aaaa	Rhythm Tempo	(20 - 250)
00 21	0000 00aa	Reverb Type	(0 - 2) ROOM, HALL, CHURCH
00 22	0aaa aaaa	Reverb Level	(0 - 127)
00 00 00 23		Total Size	

### Registration Organ

Offset Address	Description
00 00	0000 aaaa Harmonic Bar 16' (0 - 8)
00 01	0000 aaaa Harmonic Bar 5-1/3' (0 - 8)
00 02	0000 aaaa Harmonic Bar 8' (0 - 8)
00 03	0000 aaaa Harmonic Bar 4' (0 - 8)
00 04	0000 aaaa Harmonic Bar 2-2/3' (0 - 8)
00 05	0000 aaaa Harmonic Bar 2' (0 - 8)
00 06	0000 aaaa Harmonic Bar 1-3/5' (0 - 8)
00 07	0000 aaaa Harmonic Bar 1-1/3' (0 - 8)
00 08	0000 aaaa Harmonic Bar 1' (0 - 8)
00 09	0000 000a Percussion Switch (0 - 1) OFF, ON
00 0A	0000 000a Percussion Harmonic (0 - 1) 2ND, 3RD
00 0B	0000 000a Percussion Soft (0 - 1) NORM, SOFT
00 0C	0000 000a Percussion Slow (0 - 1) FAST, SLOW
00 0D	0000 000a Rotary Sound (0 - 1) OFF, ON
00 0E	0aaa aaaa Rotary Speed (0 - 127)
00 0F	0000 000a Rotary Brake (0 - 1) OFF, ON
00 10	0000 00aa Wheel Type (0 - 2) VINTAGE 1, VINTAGE 2, CLEAN
00 11	0aaa aaaa Organ Volume (0 - 127)
00 12	0000 0aaa Organ Octave Shift (62 - 66) -2 - +2
00 13	0aaa aaaa Organ Fine Tune (14 - 114) -50 - +50
00 14	0aaa aaaa Leakage Level (0 - 127)
00 15	000a aaaa Key On Click Level (0 - 31)
00 16	000a aaaa Key Off Click Level (0 - 31)
00 17	0000 aaaa Percussion Soft Level (0 - 15)
00 18	0000 aaaa Percussion Norm Level (0 - 15)
00 19	0aaa aaaa Percussion Slow Time (0 - 127)
00 1A	0aaa aaaa Percussion Fast Time (0 - 127)
00 1B	0000 aaaa Percussion Recharge Time (0 - 10)
00 1C	0aaa aaaa Percussion H.Bar Level (0 - 127)
00 1D	0000 000a Vibrato Chorus Switch (0 - 1) OFF, ON
00 1E	0000 0aaa Vibrato Chorus Type (0 - 5) V-1, V-2, V-3, C-1, C-2, C-3
00 1F	0000 00aa Vibrato Chorus Vintage (0 - 2) '50, '60, '70
00 20	0000 00aa Amp & Speaker (0 - 3) TYPE I, TYPE II, TYPE III, TYPE IV
00 21	0aaa aaaa Overdrive (0 - 127) OFF, 1 - 127
00 22	0000 aaaa Rotary Woofer Spread (0 - 10)
00 23	0000 aaaa Rotary Tweeter Spread (0 - 10)
00 24	0aaa aaaa Rotary Woofer Level (0 - 127)
00 25	0aaa aaaa Rotary Tweeter Level (0 - 127)
00 26	0aaa aaaa Rotary Woofer Rise Time (0 - 127)
00 27	0aaa aaaa Rotary Tweeter Rise Time (0 - 127)
00 28	0aaa aaaa Rotary Woofer Fall Time (0 - 127)
00 29	0aaa aaaa Rotary Tweeter Fall Time (0 - 127)
00 2A	0aaa aaaa Rotary Woofer Speed Slow (0 - 127)
00 2B	0aaa aaaa Rotary Woofer Speed Fast (0 - 127)
00 2C	0aaa aaaa Rotary Tweeter Speed Slow (0 - 127)
00 2D	0aaa aaaa Rotary Tweeter Speed Fast (0 - 127)
00 2E	0000 aaaa Rotary Mic Distance (0 - 10)
00 2F	0aaa aaaa Organ Reverb Send Level (0 - 127)

# MIDI Implementation

00 00 00 30 | Total Size

## Registration Piano

Offset Address	Description	
00 00	0000 000a	Part Switch (0 - 1) OFF, ON
00 01	0aaa aaaa	Bank Select MSB (CC# 0) (0 - 127)
00 02	0aaa aaaa	Bank Select LSB (CC# 32) (0 - 127)
00 03	0aaa aaaa	Program Number (PC) (0 - 127) 1 - 128
00 04	0aaa aaaa	Piano Volume (0 - 127)
00 05	0000 0aaa	Piano Octave Shift (62 - 66) -2 - +2
00 06	0aaa aaaa	Piano Fine Tune (14 - 114) -50 - +50
00 07	00aa aaaa	Stereo Width (0 - 63)
00 08	0000 00aa	Stretch Tune (0 - 3) OFF, 1 - 3
00 09	0aaa aaaa	Decay Time (0 - 127)
00 0A	0aaa aaaa	Release Time (-64 - +63) (0 - 127)
00 0B	0000 000a	Mic/Amp Switch (0 - 1)
00 0C	0000 00aa	Mic/Amp Type (0 - 2) MIC SIM, AMP SIM
00 0D	0aaa aaaa	Distance/EQ (0 - 127)
00 0E	0000 0aaa	MFX Type (0 - 4) OFF, CHORUS, TREMOLO, WAH, PHASER
00 0F	0aaa aaaa	MFX Depth (0 - 127)
00 10	0aaa aaaa	MFX Rate (0 - 127)
00 11	0aaa aaaa	Chorus Return (0 - 127)
00 12	0000 000a	Tremolo Type (0 - 1) MONO, STEREO
00 13	0000 000a	Wah Type (0 - 1) MOD, TOUCH
00 14	0aaa aaaa	Wah Resonance (0 - 127)
00 15	0aaa aaaa	Phaser Resonance (0 - 127)
00 16	0aaa aaaa	Piano Reverb Send Level (0 - 127)
00 00 00 17	Total Size	

## Registration Synth

Offset Address	Description	
00 00	0000 000a	Part Switch (0 - 1) OFF, ON
00 01	0aaa aaaa	Bank Select MSB (CC# 0) (0 - 127)
00 02	0aaa aaaa	Bank Select LSB (CC# 32) (0 - 127)
00 03	0aaa aaaa	Program Number (PC) (0 - 127) 1 - 128
00 04	0aaa aaaa	SRX Bank Select MSB (CC# 0) (92 - 93) 92, 93
00 05	0aaa aaaa	SRX Bank Select LSB (CC# 32) (0 - 127)
00 06	0aaa aaaa	SRX Program Number (PC) (0 - 127) 1 - 128
00 07	0aaa aaaa	Synth Volume (0 - 127)
00 08	0000 0aaa	Synth Octave Shift (62 - 66) -2 - +2
00 09	0aaa aaaa	Synth Fine Tune (14 - 114) -50 - +50
00 0A	0aaa aaaa	Attack Time Offset (0 - 127) -64 - +63
00 0B	0aaa aaaa	Release Time Offset (0 - 127) -64 - +63
00 0C	0aaa aaaa	Cutoff Offset (0 - 127) -64 - +63
00 0D	0aaa aaaa	Resonance Offset (0 - 127) -64 - +63
00 0E	0000 00aa	Mono Mode (0 - 2) MONO, POLY, MONO-LEGATO
00 0F	0000 000a	Portamento Switch (CC# 65) (0 - 1) OFF, ON
00 10	0aaa aaaa	Portamento Time (CC# 5) (0 - 127)
00 11	0000 000a	Portament Mode (0 - 1) NORMAL, LEGATO
00 12	0000 000a	Portamento Type (0 - 1) RATE, TIME
00 13	0000 000a	MFX Switch (0 - 1) OFF, ON
00 14	0aaa aaaa	MFX Type (0 - 40)
00 15	0aaa aaaa	MFX Dry Send Level (0 - 127)
00 16	0aaa aaaa	MFX Chorus Send Level (0 - 127)
00 17	000a aaaa	MFX Control Assign 1 (0 - 16) OFF, 1 - 16
00 18	000a aaaa	MFX Control Assign 2 (0 - 16) OFF, 1 - 16
00 19	000a aaaa	MFX Control Assign 3 (0 - 16) OFF, 1 - 16
00 1A	000a aaaa	MFX Control Assign 4 (0 - 16) OFF, 1 - 16
# 00 1B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 1 (12768 - 52768) -20000 - +20000
# 00 1F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 2 (12768 - 52768) -20000 - +20000
# 00 23	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 3 (12768 - 52768) -20000 - +20000
# 00 27	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 4 (12768 - 52768) -20000 - +20000
# 00 2B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 5 (12768 - 52768) -20000 - +20000
# 00 2F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 6 (12768 - 52768) -20000 - +20000
# 00 33	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 7 (12768 - 52768) -20000 - +20000
# 00 37	0000 aaaa 0000 bbbb 0000 cccc	

# 00 3B	0000 dddd 0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 8 (12768 - 52768) -20000 - +20000
# 00 3F	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 9 (12768 - 52768) -20000 - +20000
# 00 43	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 10 (12768 - 52768) -20000 - +20000
# 00 47	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 11 (12768 - 52768) -20000 - +20000
# 00 4B	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 12 (12768 - 52768) -20000 - +20000
# 00 4E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 13 (12768 - 52768) -20000 - +20000
# 00 52	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 14 (12768 - 52768) -20000 - +20000
# 00 56	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 15 (12768 - 52768) -20000 - +20000
# 00 5A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 16 (12768 - 52768) -20000 - +20000
# 00 5E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 17 (12768 - 52768) -20000 - +20000
# 00 62	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 18 (12768 - 52768) -20000 - +20000
# 00 66	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 19 (12768 - 52768) -20000 - +20000
# 00 6A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 20 (12768 - 52768) -20000 - +20000
# 00 6E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 21 (12768 - 52768) -20000 - +20000
# 00 72	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 22 (12768 - 52768) -20000 - +20000
# 00 76	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 23 (12768 - 52768) -20000 - +20000
# 00 7A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 24 (12768 - 52768) -20000 - +20000
# 00 7E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 25 (12768 - 52768) -20000 - +20000
# 01 02	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 26 (12768 - 52768) -20000 - +20000
# 01 06	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 27 (12768 - 52768) -20000 - +20000
# 01 0A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 28 (12768 - 52768) -20000 - +20000
# 01 0E	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 29 (12768 - 52768) -20000 - +20000
# 01 12	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 30 (12768 - 52768) -20000 - +20000
# 01 16	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 31 (12768 - 52768) -20000 - +20000
# 01 1A	0000 aaaa 0000 bbbb 0000 cccc 0000 dddd	MFX Parameter 32 (12768 - 52768) -20000 - +20000
01 1B	0000 00aa	Active Expression (0 - 2) NORMAL, FADE, TIMBRE
01 1C	0aaa aaaa	Synth Reverb Send Level (0 - 127)
00 00 01 1D	Total Size	

## Decimal and Hexadecimal Table

(An "H" is appended to the end of numbers in hexadecimal notation.)  
 In MIDI documentation, data values and addresses/sizes of Exclusive messages, etc. are expressed as hexadecimal values for each 7 bits.  
 The following table shows how these correspond to decimal numbers.

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 values such as MIDI channel and program change are listed as one greater than the values given in the above table.
- \* A 7-bit byte can express data in the range of 128 steps. For data where greater precision is required, we must use two or more bytes. For example, two hexadecimal numbers aa bbH expressing two 7-bit bytes would indicate a value of aa x 128 + bb.
- \* In the case of values which have a ± sign, 00H = -64, 40H = ±0, and 7FH = +63, so that the decimal expression would be 64 less than the value given in the above chart. In the case of two types, 00 00H = -8192, 40 00H = ±, and 7F 7FH = +8191. For example, if aa bbH were expressed as decimal, this would be aa bbH - 40 00H = aa x 128 + bb - 64 x 128.
- \* Data marked "Use nibbled data" is expressed in hexadecimal in 4-bit units. A value expressed as a 2-byte nibble 0a 0bH has the value of a x 16 + b.

### <Example1> What is the decimal expression of 5AH?

From the preceding table, 5AH = 90

### <Example2> What is the decimal expression of the value 12 34H given as hexadecimal for each 7 bits?

From the preceding table, since 12H = 18 and 34H = 52  
 18 x 128 + 52 = 2356

### <Example3> What is the decimal expression of the nibbled value 0A 03 09 0D?

From the preceding table, since 0AH = 10, 03H = 3, 09H = 9, 0DH = 13  
 ((10 x 16 + 3) x 16 + 9) x 16 + 13 = 41885

### <Example4> What is the nibbled expression of the decimal value 1258?

```

16 ) 1258
   ) 78 ...10
   ) 4 ...14
   ) 0 ... 4
    
```

Since from the preceding table, 0 = 00H, 4 = 04H, 14 = 0EH, 10 = 0AH, the result is: 00 04 0E 0AH.

## Examples of Actual MIDI Messages

### <Example1> 93 3E 5F

9n is the Note-on status, and n is the MIDI channel number. Since 3H = 3, 3EH = 62, and 5FH = 95, this is a Note-on message with MIDI CH = 4, note number 62 (note name is D4), and velocity 95.

### <Example2> CE 49

CnH is the Program Change status, and n is the MIDI channel number. Since EH = 14 and 49H = 73, this is a Program Change message with MIDI CH = 15, program number 74 (Flute in GS).

### <Example3> E4 00 28

EnH is the Pitch Bend Change status, and n is the MIDI channel number. The 2nd byte (00H = 0) is the LSB and the 3rd byte (28H = 40) is the MSB, but Pitch Bend Value is a signed number in which 40 00H (= 64 x 12 + 80 = 8192) is 0, so this Pitch Bend Value is 28 00H - 40 00H = 40 x 12 + 80 - (64 x 12 + 80) = 5120 - 8192 = -3072  
 If the Pitch Bend Sensitivity is set to 2 semitones, -8192 (00 00H) will cause the pitch to change -200 cents, so in this case -200 x (-3072) ÷ (-8192) = -75 cents of Pitch Bend is being applied to MIDI channel 5.

### <Example4> B4 64 00 65 00 06 0C 26 00 64 7F 65 7F

BnH is the Control Change status, and n is the MIDI channel number. For Control Changes, the 2nd byte is the control number, and the 3rd byte is the value. In a case in which two or more messages consecutive messages have the same status, MIDI has a provision called "running status" which allows the status byte of the second and following messages to be omitted. Thus, the above messages have the following meaning.

B4	64 00	MIDI ch.5, lower byte of RPN parameter number:	00H
(B4)	65 00	(MIDI ch.5) upper byte of RPN parameter number:	00H
(B4)	06 0C	(MIDI ch.5) upper byte of parameter value:	0CH
(B4)	26 00	(MIDI ch.5) lower byte of parameter value:	00H
(B4)	64 7F	(MIDI ch.5) lower byte of RPN parameter number:	7FH
(B4)	65 7F	(MIDI ch.5) upper byte of RPN parameter number:	7FH

In other words, the above messages specify a value of 0C 00H for RPN parameter number 00 00H on MIDI channel 5, and then set the RPN parameter number to 7F 7FH.

RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the value indicates semitone units, so a value of 0CH = 12 sets the maximum pitch bend range to 12 semitones (1 octave). (On GS sound generators the LSB of Pitch Bend Sensitivity is ignored, but the LSB should be transmitted anyway (with a value of 0) so that operation will be correct on any device.)

Once the parameter number has been specified for RPN or NRPN, all Data Entry messages transmitted on that same channel will be valid, so after the desired value has been transmitted, it is a good idea to set the parameter number to 7F 7FH to prevent accidents. This is the reason for the (B4) 64 7F (B4) 65 7F at the end.

It is not desirable for Performance data (such as Standard MIDI File data) to contain many events with running status as given in <Example 4>. This is because if playback is halted during the song and then rewound or fast-forwarded, the sequencer may not be able to transmit the correct status, and the sound generator will then misinterpret the data. Take care to give each event its own status.

It is also necessary that the RPN or NRPN parameter number setting and the value setting be done in the proper order. On some sequencers, events occurring in the same (or consecutive) clock may be transmitted in an order different than the order in which they were received. For this reason it is a good idea to slightly skew the time of each event (about 1 tick for TPQN = 96, and about 5 ticks for TPQN = 480).

\* TPQN: Ticks Per Quarter Note

# MIDI Implementation

## Example of an Exclusive Message and Calculating a Checksum

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

### How to calculate the checksum

(hexadecimal numbers are indicated by "H")

The checksum is a value derived by adding the address, size, and checksum itself and inverting the lower 7 bits.

Here's an example of how the check sum is calculated. We will assume that in the Exclusive message we are transmitting, the address is aa bb cc ddH and the data or size is ee ffH.

```
aa + bb + cc + dd + ee + ff = sum
sum + 128 = quotient ... remainder
128 - remainder = checksum
```

### <Example1> Setting PERCUSSION SWITCH to ON (DT1)

According to the "Parameter Address Map" (p. 109), the start address of "Temporary Registration" is 10 00 00 00H, the offset address of "Registration Organ" parameter is 00 02 00H, and the address of "Percussion Switch" is 00 09H. Therefore the address of "Percussion Switch" of Registration is;

```
10 00 00 00H
00 02 00H
+) 00 09H
10 00 02 09H
```

ON has the value of 01H.

So the system exclusive message should be sent is;

```
F0 41 10 00 5F 12 10 00 02 09 01 ?? F7
(1) (2) (3) (4) (5) address data checksum (6)
```

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)  
 (4) Model ID (VR-760) (5) Command ID (DT1) (6) End of Exclusive

Then calculate the checksum.

```
10H + 00H + 02H + 09H + 01H = 16 + 0 + 2 + 9 + 1 = 28 (sum)
28 (sum) + 128 = 0 (quotient) ... 28 (remainder)
checksum = 128 - 28 (remainder) = 100 = 64H
```

This means that F0 41 10 00 5F 12 10 00 02 09 01 64 F7 is the message should be sent.

### <Example2> Getting Temporary Performance data (RQ1)

cf.) This operation is the same as Bulk Dump Temporary function in Utility.

According to the "Parameter Address Map" (p. 109), the start address of Temporary Registration is assigned as following;

```
10 00 00 00H Temporary Registration
:
00 00 00H Registrartion Common
:
00 02 00H Registration Organ
:
00 04 00H Registration Piano
:
00 06 00H Registration Synth
:
10 00 ?? ??H End of Temporary Registration
```

As the data size of "Registration Synth" is 00 00 01 1DH, summation of the size and the start address of "Registration Synth" at "Temporary Registration" will be;

```
10 00 06 00H
+) 00 00 01 1DH
10 00 07 1DH
```

And the size that have to be got should be;

```
10 00 07 1DH
-) 10 00 00 00H
00 00 07 1DH
```

Therefore the system exclusive message should be sent is;

```
F0 41 10 00 5F 11 10 00 00 00 00 00 07 1D ?? F7
(1) (2) (3) (4) (5) address data checksum (6)
```

(1) Exclusive Status (2) ID (Roland) (3) Device ID (17)  
 (4) Model ID (VR-760) (5) Command ID (RQ1) (6) End of Exclusive

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 5F 11 10 00 00 00 00 07 1D 4C to be transmitted.

## ASCII Code Table

Registration Name of MIDI data are described the ASCII code in the table below.

D	H	Char	D	H	Char	D	H	Char
32	20H	SP	64	40H	@	96	60H	`
33	21H	!	65	41H	A	97	61H	a
34	22H	"	66	42H	B	98	62H	b
35	23H	#	67	43H	C	99	63H	c
36	24H	\$	68	44H	D	100	64H	d
37	25H	%	69	45H	E	101	65H	e
38	26H	&	70	46H	F	102	66H	f
39	27H	'	71	47H	G	103	67H	g
40	28H	(	72	48H	H	104	68H	h
41	29H	)	73	49H	I	105	69H	i
42	2AH	*	74	4AH	J	106	6AH	j
43	2BH	+	75	4BH	K	107	6BH	k
44	2CH	,	76	4CH	L	108	6CH	l
45	2DH	-	77	4DH	M	109	6DH	m
46	2EH	.	78	4EH	N	110	6EH	n
47	2FH	/	79	4FH	O	111	6FH	o
48	30H	0	80	50H	P	112	70H	p
49	31H	1	81	51H	Q	113	71H	q
50	32H	2	82	52H	R	114	72H	r
51	33H	3	83	53H	S	115	73H	s
52	34H	4	84	54H	T	116	74H	t
53	35H	5	85	55H	U	117	75H	u
54	36H	6	86	56H	V	118	76H	v
55	37H	7	87	57H	W	119	77H	w
56	38H	8	88	58H	X	120	78H	x
57	39H	9	89	59H	Y	121	79H	y
58	3AH	:	90	5AH	Z	122	7AH	z
59	3BH	;	91	5BH	[	123	7BH	{
60	3CH	<	92	5CH	\	124	7CH	}
61	3DH	=	93	5DH	]	125	7DH	}
62	3EH	>	94	5EH	^			
63	3FH	?	95	5FH	_			

D: decimal

H: hexadecimal

"SP" is space.



# Specifications

VR-760: Performance Keyboard

<b>Keyboard</b>	Waterfall 76 keys (with velocity and aftertouch)		
<b>Sound Generator</b>	Organ	Virtual ToneWheel	
	Piano, Synth, Rhythm	PCM	
<b>Part</b>	Organ, Piano, Synth, Rhythm		
<b>Maximum Polyphony</b>	Organ	Full Polyphony	
	Piano, Synth, Rhythm	128 voices	
<b>Wave Memory</b>	96 M bytes (16-bit linear equivalent)		
<b>Organ Section</b>	Harmonic Bar	16', 5-1/3', 8', 4', 2-2/3', 2', 1-3/5', 1-1/3', 1'	
	Tone Wheel	VINTAGE 1, VINTAGE 2, CLEAN	
	Vibrato and Chorus	V-1, V-2, V-3, C-1, C-2, C-3	
	Percussion	SECOND, THIRD, SOFT, SLOW	
	Amplifier	TYPE 1, TYPE 2, TYPE 3, TYPE 4	
		OVERDRIVE	
<b>Piano Section</b>	Rotary	SLOW/FAST, BRAKE	
	Tones	9 (3 variations by each A.PIANO, E.PIANO, OTHERS categories)	
	Mic/Amp	TYPE 1, TYPE 2	
		DISTANCE/EQ	
Piano MFX	CHORUS, TREMOLO, WAH, PHASER		
	DEPTH, RATE		
<b>Synth Section</b>	Tones	18 (3 variations by each STRINGS, CHOIR/SCAT, BRASS, SYNTH LEAD, SYNTH PAD, BASS categories)	
	SRX EXPANSION		
	Tone Modifier	ATTACK, RELEASE, CUTOFF, RESO	
	Synth MFX	ON/OFF, CONTROL	
<b>Rhythm Section</b>	Active Expression	FADE, TIMBRE	
	Rhythm Pattern	24	
<b>Internal Memory</b>	Registration	64	
<b>D Beam</b>	ORGAN	ROTARY SLOW/FAST	
	PIANO	OCTAVE	
	SYNTH	GLIDE	
<b>Reverb</b>	ROOM, HALL, CHURCH		
	DEPTH		
<b>Master EQ</b>	LOW, MIDDLE (FREQ, LEVEL), HIGH		
<b>Expansion Slot</b>	Wave Expansion Board SRX series: 2 slots		
<b>External Memory</b>	CompactFlash Memory		
<b>Other Functions</b>	V-LINK, ONE TOUCH, SPLIT, H-BAR MANUAL		
<b>Display</b>	16 characters, 2 lines (Backlit LCD)		
	7 segments, 2 characters LED		
<b>Connectors</b>	Output Jacks	L/MONO, R	
	Output Jacks	XLR type	
	Phones Jack		
	Expression Pedal Jack		
	Damper Pedal Jack		
	Control Pedal Jack		
	MIDI Connectors (IN, OUT, THRU)		
AC Inlet			
<b>Power Supply</b>	AC 117 V, AC 230 V, AC 240 V		
<b>Power Consumption</b>	20 W		
<b>Dimensions</b>	1291 (W) x 400 (D) x 121 (H) mm		
	50-7/8 (W) x 15-3/4 (D) x 4-13/16 (H) inches		
<b>Weight</b>	17 kg / 37 lbs 8 oz		
<b>Accessories</b>	Music Rest, Owner's Manual, Power Cord		
<b>Options</b>	Wave Expansion Board	SRX Series	
	Expression Pedal	EV-7, EV-5, FV-300L (BOSS)	
	Damper Pedal	DP-2, DP-6, DP-8, FS-5U (BOSS)	
	Stand	KS-12	

\* 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 El 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  
(PTY) Ltd.**  
11 Melle St., Braamfontein,  
Johannesbourg, SOUTH AFRICA

P.O.Box 32918, Braamfontein 2017  
Johannesbourg, SOUTH AFRICA  
TEL: (011) 403 4105

**Paul Bothner (PTY) Ltd.**  
17 Werdmuller Centre,  
Main Road, Claremont 7708  
SOUTH AFRICA

P.O.Box 23032, Claremont 7735,  
SOUTH AFRICA  
TEL: (021) 674 4030

## ASIA

### CHINA

**Roland Shanghai Electronics  
Co.,Ltd.**  
5F, No.1500 Pingliang Road  
Shanghai, CHINA  
TEL: (021) 5580-0800

**Roland Shanghai Electronics  
Co.,Ltd.  
(BEIJING OFFICE)**  
10F, No.18 Anhuaxili  
Chaoyang District, Beijing,  
CHINA  
TEL: (010) 6426-5050

### HONG KONG

**Tom Lee Music Co., Ltd.  
Service Division**  
22-32 Pun Shan Street, Tsuen  
Wan, New Territories,  
HONG KONG  
TEL: 2415 0911

### INDIA

**Rivera Digitec (India) Pvt. Ltd.**  
409, Nirman Kendra Mahalaxmi  
Flats Compound Off. Dr. Edwin  
Moses Road, Mumbai-400011,  
INDIA  
TEL: (022) 2493 9051

### INDONESIA

**PT Citra IntiRama**  
J1. Cideng Timur No. 15J-150  
Jakarta Pusat  
INDONESIA  
TEL: (021) 6324170

### KOREA

**Cosmos Corporation**  
1461-9, Seocho-Dong,  
Seocho Ku, Seoul, KOREA  
TEL: (02) 3486-8855

### MALAYSIA

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

### PHILIPPINES

**G.A. Yupangco & Co. Inc.**  
339 Gil J. Puyat Avenue  
Makati, Metro Manila 1200,  
PHILIPPINES  
TEL: (02) 899 9801

### SINGAPORE

**Swee Lee Company**  
150 Sims Drive,  
SINGAPORE 387381  
TEL: 6846-3676

### CRISTOFORI MUSIC PTE LTD

Blk 3014, Bedok Industrial Park E,  
#02-2148, SINGAPORE 489980  
TEL: 6243-9555

### TAIWAN

**ROLAND TAIWAN  
ENTERPRISE CO., LTD.**  
Room 5, 9fl. No. 112 Chung Shan  
N.Road Sec.2, Taipei, TAIWAN,  
R.O.C.  
TEL: (02) 2561 3339

### THAILAND

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

### VIETNAM

**Saigon Music**  
138 Tran Quang Khai St.,  
District 1  
Ho Chi Minh City  
VIETNAM  
TEL: (08) 844-4068

## 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

### COSTA RICA

**JUAN Bansch**  
**Instrumentos Musicales**  
Ave.1. Calle 11, Apartado 10237,  
San Jose, COSTA RICA  
TEL: 258-0211

### CHILE

**Comercial Fancy II S.A.**  
Rut.: 96.919.420-1  
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

### PANAMA

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

### PARAGUAY

**Distribuidora De  
Instrumentos Musicales**  
J.E. Olear y ESQ. Manduivira  
Asuncion PARAGUAY  
TEL: (021) 492-124

### URUGUAY

**Todo Musica S.A.**  
Francisco Acuna de Figueroa 1771  
C.P.: 11.800  
Montevideo, URUGUAY  
TEL: (02) 924-2335

### VENEZUELA

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

## EUROPE

### AUSTRIA

**Roland Austria GES.M.B.H.**  
Siemensstrasse 4, P.O. Box 74,  
A-6063 RUM, AUSTRIA  
TEL: (0512) 26 44 260

### BELGIUM/HOLLAND/ LUXEMBOURG

**Roland Benelux N. V.**  
Houtstraat 3, B-2260, Oevel  
(Westerlo) BELGIUM  
TEL: (014) 575811

### DENMARK

**Roland Scandinavia A/S**  
Nordhavnsvej 7, Postbox 880,  
DK-2100 Copenhagen  
DENMARK  
TEL: 3916 6200

### FRANCE

**Roland France SA**  
4, Rue Paul Henri SPAAK,  
Parc de l'Esplanade, F 77 462 St.  
Thibault, Lagny Cedex FRANCE  
TEL: 01 600 73 500

### FINLAND

**Roland Scandinavia As,  
Filial Finland**  
Elannontie 5  
FIN-01510 Vantaa, FINLAND  
TEL: (09) 68 24 020

### GERMANY

**Roland Elektronische  
Musikinstrumente HmbH.**  
Oststrasse 96, 22844 Norderstedt,  
GERMANY  
TEL: (040) 52 60090

### GREECE

**STOLLAS S.A.**  
**Music Sound Light**  
155, New National Road  
Patras 26442, GREECE  
TEL: 2610 435400

### HUNGARY

**Roland East Europe Ltd.**  
Warehouse Area 'DEPO' Pf.83  
H-2046 Torokbalint, HUNGARY  
TEL: (23) 511011

### IRELAND

**Roland Ireland**  
Audio House, Belmont Court,  
Donnybrook, Dublin 4,  
Republic of IRELAND  
TEL: (01) 2603501

### ITALY

**Roland Italy S. p. a.**  
Viale delle Industrie 8,  
20020 Arese, Milano, ITALY  
TEL: (02) 937-78300

### NORWAY

**Roland Scandinavia Avd.  
Kontor Norge**  
Lilleakerveien 2 Postboks 95  
Lilleaker N-0216 Oslo  
NORWAY  
TEL: 2273 0074

### POLAND

**P. P. H. Brzostowicz**  
UL. Gibraltarska 4,  
PL-03664 Warszawa POLAND  
TEL: (022) 679 44 19

### PORTUGAL

**Tecnologias Musica e Audio,  
Roland Portugal, S.A.**  
Cais Das Pedras, 8/9-1 Dto  
4050-465 PORTO  
PORTUGAL  
TEL: (022) 608 00 60

### ROMANIA

**FBS LINES**  
Piata Libertatii 1,  
RO-4200 Gheorgheni  
TEL: (095) 169-5043

### RUSSIA

**MuTek**  
3-Bogatyrskaya Str. 1.k.1  
107 564 Moscow, RUSSIA  
TEL: (095) 169 5043

### SPAIN

**Roland Electronics  
de España, S. A.**  
Calle Bolivia 239, 08020  
Barcelona, SPAIN  
TEL: (93) 308 1000

### SWEDEN

**Roland Scandinavia A/S  
SWEDISH SALES OFFICE**  
Danvik Center 28, 2 tr.  
S-131 30 Nacka SWEDEN  
TEL: (08) 702 00 20

### SWITZERLAND

**Roland (Switzerland) AG**  
Landstrasse 5, Postfach,  
CH-4452 Itingen,  
SWITZERLAND  
TEL: (061) 927-8383

### UKRAINE

**TIC-TAC**  
Mira Str. 19/108  
P.O. Box 180  
295400 Munkachevo, UKRAINE  
TEL: (03131) 414-40

### UNITED KINGDOM

**Roland (U.K.) Ltd.**  
Atlantic Close, Swansea  
Enterprise Park, SWANSEA  
SA7 9FJ,  
UNITED KINGDOM  
TEL: (01792) 702701

## MIDDLE EAST

### BAHRAIN

**Moon Stores**  
No.16, Bab Al Bahrain Avenue,  
P.O.Box 247, Manama 304,  
State of BAHRAIN  
TEL: 211 005

### CYPRUS

**Radex Sound Equipment Ltd.**  
17, Diagorou Street, Nicosia,  
CYPRUS  
TEL: (022) 66-9426

### IRAN

**MOCO, INC.**  
No.41 Nike St., Dr.Shariyati Ave.,  
Toleroye Cerahe Mirdamad  
Tehran, IRAN  
TEL: (021) 285-4169

### ISRAEL

**Haliit P. Greenspoon &  
Sons Ltd.**  
8 Retzif Ha'aliya Hashnya St.  
Tel-Aviv-Yafo ISRAEL  
TEL: (03) 6823666

### JORDAN

**AMMAN Trading Agency**  
245 Prince Mohammad St.,  
Amman 1118, JORDAN  
TEL: (06) 464-1200

### KUWAIT

**Easa Husain Al Yousifi Est.**  
Abdullah Salem Street,  
Safat, KUWAIT  
TEL: 243-6399

### LEBANON

**Chahine S.A.L.**  
Gerge Zeidan St., Chahine Bldg.,  
Achrafieh, P.O.Box: 16-5857  
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 APPL**  
Corniche Road, Aldossary Bldg.,  
1st Floor, Alkhobar,  
SAUDI ARABIA

P.O.Box 2154, Alkhobar 31952  
SAUDI ARABIA  
TEL: (03) 898 2081

### SYRIA

**Technical Light & Sound  
Center**  
Khaled Ebn Al Walid St.  
Bldg. No. 47, P.O.BOX 13520,  
Damascus, SYRIA  
TEL: (011) 223-5384

### TURKEY

**Barkat muzik aletleri ithalat  
ve ihracat Ltd Sti**  
Siraselvilir Caddesi Siraselvilir  
Pasaji No:74/20  
Taksim - Istanbul, TURKEY  
TEL: (0212) 2499324

### U.A.E.

**Zak Electronics & Musical  
Instruments Co. L.L.C.**  
Zabeel Road, Al Sherooq Bldg.,  
No. 14, Grand Floor, Dubai, U.A.E.  
TEL: (04) 3360715

## NORTH AMERICA

### CANADA

**Roland Canada Music Ltd.  
(Head Office)**  
5480 Parkwood Way Richmond  
B. C., V6V 2M4 CANADA  
TEL: (604) 270 6626

### Roland Canada Music Ltd.

**(Toronto Office)**  
170 Admiral Boulevard  
Mississauga On L5T 2N6  
CANADA  
TEL: (905) 362 9707

### U. S. A.

**Roland Corporation U.S.**  
5100 S. Eastern Avenue  
Los Angeles, CA 90040-2938,  
U. S. A.  
TEL: (323) 890 3700

For EU Countries



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

For the USA

## FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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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