

Roland®

VP-9000

VARI-PHRASE PROCESSOR

Reference

From all of us at Roland, thank you for choosing the Roland VP-9000 Variphrase Processor.

In order to ensure safe operation, please read "IMPORTANT SAFETY INSTRUCTIONS" (p. 2), "USING THE UNIT SAFELY" (p. 3-4) and "IMPORTANT NOTES" (p. 5-6) carefully before using the VP-9000. The VP-9000's two manuals, User Guide and Reference, will help you to become familiar with -- and master -- the VP-9000's amazing features. Keep the User Guide and Reference handy for easy reference.

How to use the VP-9000 manuals

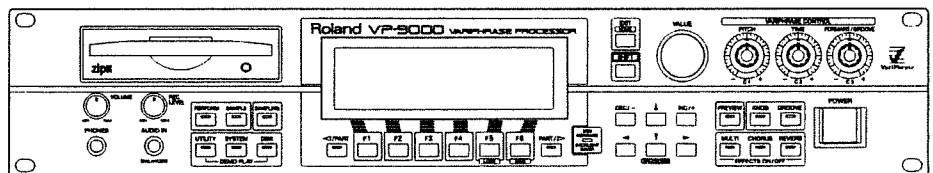
The VP-9000's documentation is composed of two volumes: User Guide and Reference.

User Guide uses specific examples to introduce the basic features of the VP-9000. Think of it as a quick guide to the VP-9000's basic operation.

Reference describes all the features of the VP-9000. It tells you how you can use specific settings, and provides detailed operation examples as well. The Table of Contents, Index and List of Features by Screen allow you to use the Reference as you would a dictionary: by looking things up as you need to learn about them.

Convention Used in This Manual

- Words enclosed in square brackets [] indicate panel buttons.
Example: [PERFORM] indicates the PERFORM button.
- (p. **) indicates a reference page.





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This product uses a Zip disk drive. Be sure to follow the procedure described in "Turning the power off" (p. 21) before powering down your VP-9000. Turning off the VP-9000 incorrectly may lead to a loss of data, and can also cause damage to a Zip disk or the VP-9000's disk drive.

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



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



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

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

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

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

For the USA

GROUNDING INSTRUCTIONS

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

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

DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded.


Do not modify the plug provided with the product — if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED

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

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

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

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

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

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

USING THE UNIT SAFELY

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

About ⚠ WARNING and ⚠ CAUTION Notices


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


About the Symbols


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


ALWAYS OBSERVE THE FOLLOWING


⚠ WARNING


- Before using this unit, make sure to read the instructions below, and the Owner's Manual. 

- Do not open or perform any internal modifications on the unit. (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 *User Guide*, p. 4.) 


- 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. 


- 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! 


- 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!) 

⚠ WARNING










- 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 wave memory SIMM board(s) (*User Guide*, p. 5). 

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result. 

CAUTION

- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit. 
- 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. 
- 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 wave memory SIMM board(s). Remove only the specified screws (*User Guide*, p. 5). 
- Should you remove the optical connector caps, 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 2-4, please read and observe the following:

Power Supply

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

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Observe the following when using the unit's Zip disk drive. For further details, refer to "Before Using Zip Disks" (p. 5).
 - Do not place the unit near devices that produce a strong magnetic field (e.g., loudspeakers).
 - Install the unit on a solid, level surface.
 - Do not move the unit or subject it to vibration while the drive is operating.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- 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 Zip disk or a storage device (e.g., hard disk.)

- Unfortunately, it may be impossible to restore the contents of data that was stored on a Zip disk or a storage device (e.g., hard disk) 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 a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
 - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

Before Using Zip Disks

Handling the Zip Disk Drive

- Install the unit on a solid, level surface in an area free from vibration. If the unit must be installed at an angle, be sure the installation does not exceed the permissible range.
- Avoid using the unit immediately after it has been moved to a location with a level of humidity that is greatly different than its former location. Rapid changes in the environment can cause condensation to form inside the drive, which will adversely affect the operation of the drive and/or damage Zip disks. When the unit has been moved, allow it to become accustomed to the new environment (allow a few hours) before operating it.
- To insert a disk, push it gently but firmly into the drive—it will click into place. To remove a disk, press the EJECT button firmly. Do not use excessive force to remove a disk which is lodged in the drive.

Important Notes

- Never attempt to remove a Zip disk from the drive while the drive is operating (the indicator is lit); damage could result to both the disk and the drive.
- Remove any disk from the drive before powering up or down.
- To prevent damage to the disk drive's heads, always try to hold the Zip disk in a level position (not tilted in any direction) while inserting it into the drive. Push it in firmly, but gently. Never use excessive force.
- To avoid the risk of malfunction and/or damage, insert only Zip disks into the disk drive. Never insert any other type of disk. Avoid getting paper clips, coins, or any other foreign objects inside the drive.

Handling Zip Disks

- Zip disks contain a plastic disk with a thin coating of magnetic storage medium. Microscopic precision is required to enable storage of large amounts of data on such a small surface area. To preserve their integrity, please observe the following when handling Zip disks:
 - Never touch the magnetic medium inside the disk.
 - Do not use or store Zip disks in dirty or dusty areas.
 - Do not subject Zip disks to temperature extremes (e.g., direct sunlight in an enclosed vehicle). Recommended temperature range: -22 to 51° C (-7.6 to 123.8° F.)
 - Do not expose Zip disks to strong magnetic fields, such as those generated by loudspeakers.
- The identification label should be firmly affixed to the disk. Should the label come loose while the disk is in the drive, it may be difficult to remove the disk.
- Store all disks in a safe place to avoid damaging them, and to protect them from dust, dirt, and other hazards. By using a dirty or dust-ridden disk, you risk damaging the disk, as well as causing the disk drive to malfunction.

Handling CD-ROMs

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD-ROM discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.

Copyright

- Unauthorized recording, distribution, sale, lending, public performance, broadcasting, or the like, in whole or in part, of a work (musical composition, video, broadcast, public performance, or the like) whose copyright is held by a third party is prohibited by law.
- When exchanging audio signals through a digital connection with an external instrument, this unit can perform recording without being subject to the restrictions of the Serial Copy Management System (SCMS). This is because the unit is intended solely for musical production, and is designed not to be subject to restrictions as long as it is used to record works (such as your own compositions) that do not infringe on the copyrights of others. (SCMS is a feature that prohibits second-generation and later copying through a digital connection. It is built into MD recorders and other consumer digital-audio equipment as a copyright-protection feature.)
- Do not use this unit for purposes that could infringe on a copyright held by a third party. Roland assumes no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this unit.

Disclaimer

- Roland assumes no liability, direct or incidental, for the loss of customer works or data in any way connected with any malfunction, improper operation, or other use of the VP-9000 (including, but not limited to the lost profits from such works or data), nor shall Roland assume responsibility for the replacement of any lost works or data.
- Due to limitations related to the particular characteristics and specifications of different electronic devices, this device may be incompatible for use with other devices you may have connected. Roland assumes no liability for losses or damages of any kind resulting from such incompatibilities.
- Note that the above disclaimer applies, regardless of the presence or absence of any prior caution or warning regarding individual circumstances.

About the License Agreement

- The VP-9000 and its CD-R capability are designed to allow you to reproduce material to which you have copyright, or material which the copyright owner has granted you permission to copy. Accordingly, reproduction of music CDs or other copyrighted material without the permission of the copyright owner, other than for your own personal use and enjoyment (private use) constitutes copyright infringement, which may incur penalties. Consult a copyright specialist or special publications for more detailed information on obtaining such permission from copyright holders.

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What can I do with the VP-9000? (Main features)

The VP-9000 Variphase Processor is a new sound processor which is capable of manipulating pitch, playback speed (time), voice characteristics (formant) and rhythm (groove) of audio phrases, all with perfect ease. The control of these parameters can be performed in realtime through dedicated controls or through MIDI functions. This sonic manipulation is done while retaining studio sound quality.

Advanced sound source

A new sound source that uses Roland's unique new "Variphase" technology.

Realtime Control of Phrases

Several parameters including pitch, time, formant and groove can be separately controlled via three dedicated control knobs (p. 57). Up to six samples can be simultaneously controlled. The operations of each knob sends standard MIDI controller information.

Realtime Control Via MIDI Messages

Like the dedicated control knobs, you can also use external control of the various parameters from a MIDI controller.

Synchronization Of Samples Varying In Tempo And Key

You can change samples for each part in a Performance to follow the master tempo and key of the Performance allowing users to adapt any phrase to fit the musical structure of a performance (p. 51). Samples in a Performance can also be changed remotely through MIDI program changes (p. 36).

One sample can cover a wider key range

A single sample can be used over a wide range of pitches. Unlike conventional samplers, it is not necessary to provide a sample for each key.

Sophisticated DSP Effects

The use of an advanced DSP (Digital Signal Processor) made it possible for the VP-9000 to provide 40 types of multi-effects in addition to reverb and chorus for a total of three simultaneous effects (p. 67).

Robot Voice function

You can remove the sense of pitch from the sample. For a phrase sample, you can use the keyboard to play a different melody than the original sample, so that a single sample can be used to perform a variety of melodies (p. 43).

Advanced Wave Data Editing Feature and Intuitive Operation

Onboard sampling editing with Waveform display along with easy, simple to use interface with onboard help to guide users (p. 117).

Stereo sampling

The VP-9000 supports stereo sampling. As shipped, the VP-9000, with 8 MB of internal wave memory, offers 25 seconds of stereo sampling, or 50 seconds of monaural sampling. By adding separately available wave memory to expand the memory by the maximum of 128 MB (32 MB SIMM x four) for a total of 136 MB, you will be able to sample a total of approximately seven minutes in stereo, or approximately fourteen minutes in monaural. The maximum sampling time for one sample is 25 seconds for stereo, and 50 seconds for monaural.

Resampling

You can internally resample phrases within the VP-9000 to create completely new Phrases while manipulating them with its unique new control (p. 121).

Support for various file formats

In addition to the VP-9000 format, you can load sound libraries (CD-ROM: the included CD-ROM, Roland VP-CD series, Roland L-CD series, Roland L-CDP series, or AKAI S1000 series) or wave data (AIFF, WAV) (p. 30). (Loadable sampling frequencies: 48, 44.1, 32, 30, 24, 22.05, 16, 15, 11, 8 kHz; bit rates: 8, 16)

Built-in Zip drive

A 250 MB Iomega Zip drive is standard with the VP-9000. Both 100 MB and 250 MB Zip disks can be used.

Two types of SCSI connectors

A 25-pin D-SUB connector (SCSI-A) and an 50-pin connector (SCSI-B) are provided so that an external Zip drives, hard disks or CD ROM drives can be connected for storage and loading.

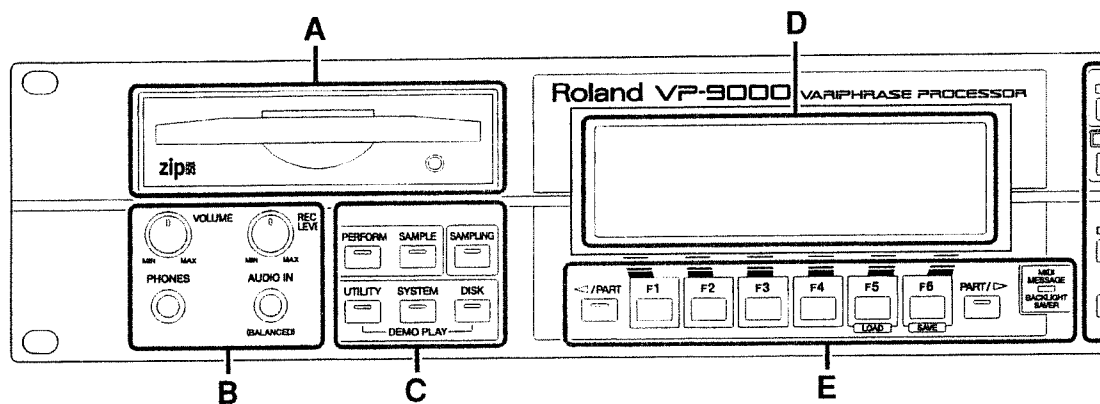
Six multi-output jacks

In addition to stereo main outputs, the VP-9000 has a total of six multi-outputs. All inputs and outputs are balanced TRS 1/4" jacks.

Digital input/output connectors

Two types of connectors (optical and co-axial) are provided for 48, 44.1 and 32 kHz sampling rates.

Front and Rear Panel



A

Zip Disk Drive

Zip disks are inserted here. You can use either 100 or 250 MB Zip disks.

B

VOLUME Knob

Adjusts the overall volume that is output from the MAIN OUT jacks, and the PHONES jack (p. 21).

PHONES Jack

Accepts connection of headphones (p. 18). Please use headphones that have an impedance of 32–600 Ω .

REC LEVEL (recording level) Knob

Adjusts the level when sampling from the AUDIO IN jack (p. 120).

AUDIO IN Jack

When sampling, connect a microphone or other source to this jack (p. 118). If using a microphone, please use a dynamic one.

C

PERFORM (performance) Button

Pressed to enter Performance mode (p. 25).

SAMPLE Button

Pressed to enter Sample mode (p. 25).

SAMPLING Button

Pressed to enter Sampling mode (p. 25).

UTILITY Button

Pressed to enter Utility mode (p. 25).

SYSTEM Button

Pressed to enter System mode (p. 25).

DISK Button

Pressed to enter Disk mode (p. 25). By simultaneously pressing the UTILITY button and the DISK button, you can listen to the demo songs (User Guide p. 26).

D

Display

This displays information regarding the operation you are performing.

E

F1–F6 (function 1–6) Buttons

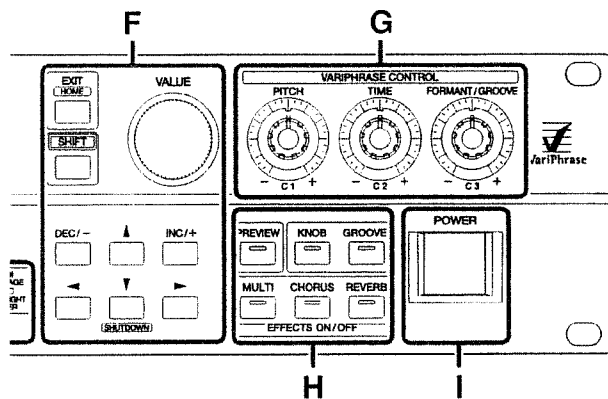
The function of these buttons will change according to the screen. The name of the function will be shown in the display.

</PART, PART/> (part) Buttons

These buttons are used to switch parts. In pages where there are additional pages in the horizontal direction, these buttons are used to switch pages. In this case, the indicator will light.

MIDI MESSAGE, BACKLIGHT SAVER

This lights in green when MIDI messages are received. If there have been no panel operations, or incoming MIDI messages for longer than the time specified for the Backlight Saver setting, the backlight saver will be activated (p. 135), and the indicator will blink in red.



F

EXIT Button

Press this button to return to the previous screen (p. 26).

SHIFT Button

This button is used in conjunction with other buttons. Some of the panel buttons carry an additional label printed in gray. This indicates the function of that button when it is pressed while holding [SHIFT].

VALUE Dial

This is used to modify values. If you hold down the VALUE dial as you rotate it, or if you hold down [SHIFT] while you rotate the VALUE dial, the value will change more rapidly (p. 26).

DEC/- (decrement) Button, INC/+ (increment) Button

These are used to modify values. If you hold down one button and press the other button, the value will change more rapidly (p. 26).

◀, ▶, ▲, ▼ (cursor) Buttons

These buttons are used to move the cursor (p. 26).

In the PERFORM Play screen, you can use [▲] [▼] to change the System Octave Shift setting (p. 138).

In the SAMPLE Play screen, you can use [▲] [▼] to turn Loop Sw on/off (p. 43).

In Sampling mode for screens where a wave is displayed, these buttons will expand or shrink the wave (p. 125).

G (VARIPHASE CONTROLS)

PITCH (C1) Knob

This modifies the pitch.

TIME (C2) Knob

This modifies the playback speed (time).

FORMANT/GROOVE (C3) Knob

This modifies the voice characteristics (formant) and the groove.

* The parameters to be modified can be freely set for each knob (p. 57). The above settings are the defaults when the power is turned on.

H

PREVIEW Button

Press this button to audition samples (p. 38).

KNOB Button

This button is used to adjust the intensity of the effect obtained by rotating the three knobs (p. 60).

GROOVE Button

This button is used to make groove settings (p. 62).

MULTI (multi-effect) Button

Switches multi-effects on/off (p. 64).

CHORUS Button

Switches chorus on/off (p. 64).

REVERB Button

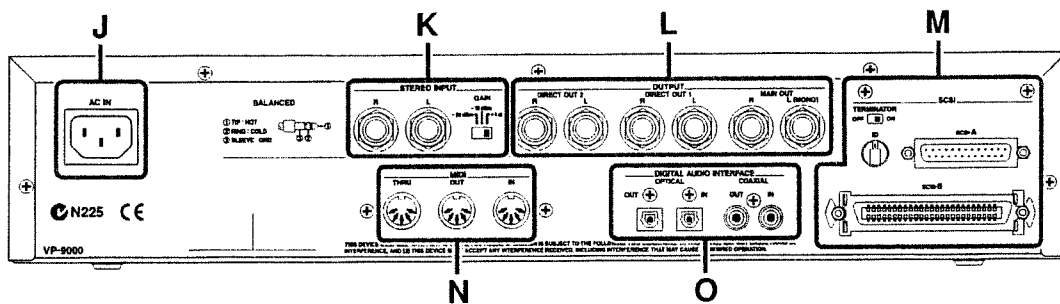
Switches reverb on/off (p. 64).

I

POWER Switch

Turns the power on/off (p. 21).

Front and Rear Panel



J

AC Inlet

Connect the included power cord to this inlet.

K

STEREO INPUT Jacks

When sampling, connect a keyboard or a CD player to these jacks. If the level is too low, set the GAIN switch to the “-20 dB” position. If the level is too high, set the GAIN switch to the “+4 dB” position.

L

OUTPUT

Connect your amp or mixer to these jacks (p. 18). Output settings are made in the screen where you specify the effect signal flow (p. 64).

DIRECT OUT 1, 2 Jacks

These jacks are a stereo output of the sound unprocessed by effects, or of only the multi-effect sound.

MAIN OUT Jacks

These jacks output the audio signal in stereo. If you are outputting in mono, make connections to the L jack.

M

SCSI connector

A SCSI device (Zip drive, CD-R/RW, hard disk) can be connected here. Two types of connector are provided: a D-SUB 25-pin type (SCSI-A) and an Amphenol 50-pin type (SCSI-B). If the VP-9000 is the first or last device in the SCSI chain, place TERMINATOR at the ON position. Set the SCSI ID number so that it does not conflict with any other SCSI device (p. 17).

N

MIDI Connectors

External MIDI devices can be connected to these connectors.

Use a MIDI cable (sold separately) to make connections (p. 18).

IN:

MIDI messages from an external device are received at this connector.

OUT:

MIDI messages are transmitted from this connector to an external device.

THRU:

MIDI messages received at MIDI IN are re-transmitted without change from this connector to an external device.

O

DIGITAL AUDIO INTERFACE

These connectors can be connected to digital audio devices. Connect a CD player or MD player to the IN connector, and a digital mixer or similar device to the OUT connector (p. 18). Both optical type and coaxial type connectors are provided. Output settings can be made in the screen where you specify the effect signal flow (p. 64).

IN:

These connectors input a digital audio signal (stereo). It is not possible to use both types of IN connectors simultaneously.

OUT:

These connectors output a digital audio signal (stereo). Both types of OUT connectors can be used simultaneously, and will output the same sound.

* *Protective caps for optical connectors*

- If you remove the protective caps, please keep them where they will not be lost.
- When not using the optical connectors, please leave the protective caps on to protect the connectors.
- If you use the optical connectors, please place the protective caps out of the reach of children. If a protective cap is accidentally swallowed, consult a doctor immediately.

Chapter 1. Getting Ready

Check the included items

The VP-9000 is packaged with the following items. Please make sure that you have all of them.

- The VP-9000 itself
- Power cable
- User Guide
- Reference (this manual)
- Demo Zip disk
- Sound Library CD-ROM

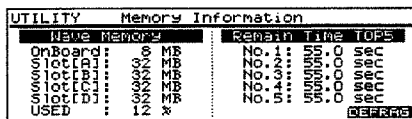
Installing additional wave memory

For details on installing wave memory, refer to p.4 of the user guide. To remove wave memory, refer to p.6 of the user guide.

Checking the wave memory capacity

If the wave memory is correctly installed in the slots, the capacity of the wave memory for each slot can be viewed in the display.

1. Press [UTILITY] to make the indicator light.
The UTILITY Menu1 screen will appear.
If the UTILITY Menu2 screen appears, press [PART/ ▷].
The UTILITY Menu2 screen will appear.
2. Press [F6 (MEMORY)].
The UTILITY Memory Information screen will appear.
The capacity of the added wave memory will be shown in the left half of the display. Slots containing no expansion wave memory will display "0 MB."



Wave Memory	Remain Time	TOPS
OnBoard : 8 MB	No. 1 : 00:00	0 SEC
Slot[A] : 0 MB	No. 2 : 00:00	0 SEC
Slot[B] : 0 MB	No. 3 : 00:00	0 SEC
Slot[C] : 0 MB	No. 4 : 00:00	0 SEC
Slot[D] : 0 MB	No. 5 : 00:00	0 SEC
USED : 12 MB		

3. Press [EXIT] twice to return to the PERFORM Play screen.

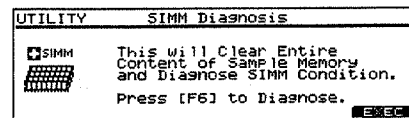
* If a slot for which you did install wave memory displays "0 MB," the wave memory is not being recognized correctly. As described in "Turning the power off" (p. 21), turn off the power, and then re-install the wave memory correctly as described in "Expanding for wave memory" (user guide p.4).

Testing wave memory read/write (SIMM Diagnosis)

You can perform a read/write test to see whether the additional wave memory you installed can be used by the VP-9000. Perform this test after installing wave memory, or if an error message relating to wave memory is displayed.

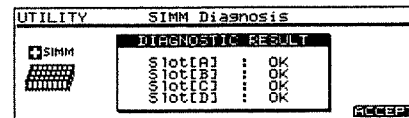
* When you perform this procedure, all data currently existing in the memory of the VP-9000 will be lost. If you have any important data that you wish to keep, please save it on a separately sold Zip disk before you continue (p. 141).

1. Press [UTILITY] to make the indicator light.
2. If the UTILITY Menu1 screen appears, press [PART/ ▷].
The UTILITY Menu2 screen will appear.
3. Press [F2 (DIAG)].
The UTILITY SIMM Diagnosis screen will appear.



If you decide to exit the SIMM Diagnosis screen without executing, press [EXIT].

4. Press [F6 (EXEC)] to perform the test.
When the checking has been completed, the following type of result screen will appear.
"OK" will be displayed for wave memory that could be read and written correctly. "NG" will be displayed for slots that have no wave memory installed.



5. Press [F6 (ACCEPT)].

You will return to the PERFORM Play screen.

* Waveform for which "NG" was displayed cannot be used by the VP-9000. As described in "Turning the power off" (p. 21), turn off the power, and remove the wave memory as described in "Removing wave memory" (user guide p. 6).

Connecting a SCSI device

In order to load wave data from a sound library (a CD-ROM containing sounds or phrases) into the VP-9000, or to save data on a removable disk or hard disk, you will need to connect a separately available SCSI device.

SCSI devices are delicate. Incorrect connections or operation may not only cause the device to malfunction, but may even destroy the data on the disk, or permanently damage the SCSI device itself. Please read the owner's manual for your SCSI device together with this manual.

SCSI (pronounced "scuzzy") stands for Small Computer System Interface, which is a data transmission standard that allows large amounts of data to be transmitted at high speed.

Removable disks refer to storage media that can be removed from the drive, such as a Zip disk.

SCSI devices that can be used

The following types of SCSI device can be used with the VP-9000.

Zip drive

This is a removable disk drive that features high-speed reading and writing of data, and is resistant to physical shock and dust.

A Zip disk that is being used with the VP-9000 for the first time must be formatted by the VP-9000 (p. 140).

- * 100 MB Zip disks take approximately twice as long to save data as a 250 MB disk, so we recommend that you use 250 MB Zip disks.

Hard disk

This is the storage media with the fastest data read/write time. It has a high capacity, and is able to store an extremely large amount of data. However, since the disk cannot be removed, hard disks are not convenient when you need to exchange or transport data.

- * If you share a single hard disk between two VP-9000 units, do not cause both VP-9000 units to read from or write to the hard disk simultaneously. Doing so may damage the data or the connected devices.

- * Do not share a single hard disk between the VP-9000 and a computer. Doing so may damage the data or the connected devices. Some computers automatically access the disk at regular intervals, which may cause both the VP-9000 and the computer to access the hard disk simultaneously.

CD-ROM drive

This is a device for loading wave data from a sound library.

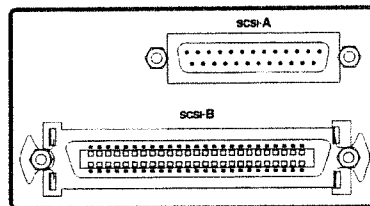
CD-R/RW drive

This is a device for writing data from a Zip disk or hard disk to a CD-R or CD-RW, or for loading such data. Wave data from a sound library can also be loaded.

What you need to know before making connections

Types of SCSI cables and SCSI connectors

The VP-9000 provides two types of SCSI connector: D-SUB 25-pin type (SCSI-A) and Amphenol 50-pin type (SCSI-B), both female.



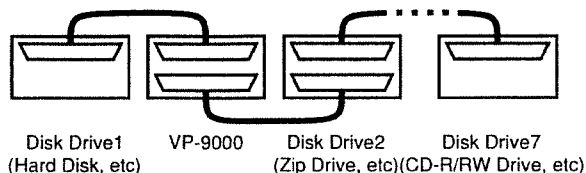
Use a SCSI cable to connect to VP-9000 to a SCSI device.

Check the connector type and number of pins on the SCSI device you wish to connect, and purchase the appropriate cable.

- * Use a SCSI cable that is as short as possible, that is completely shielded, and that has an impedance compatible with the SCSI standard (110 Ω , +/-10%).
- * The total length of SCSI cables for all connected SCSI devices must not exceed 6.5 meters.

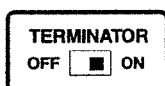
About SCSI chains

A maximum of seven SCSI devices can be connected to the VP-9000. Use SCSI cables to connect SCSI devices as follows. SCSI connectors make no distinction between input and output, so you may use either one. This type of connection is called a **SCSI chain** or a **daisy chain**.



About terminators

To prevent malfunctions caused by aliasing noise, a terminating resistor must be attached to the devices at either end of a SCSI chain. This is called the **terminator**. Some terminators are "internal," and can be switched on/off by a switch. Other terminators are "external," and can be attached to the SCSI connector. The VP-9000 has an internal terminator, and its on/off switch is located on the rear panel.

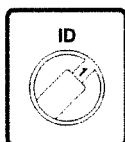


As an external terminator, we recommend that you use an **active terminator**. In this case, if you are using a SCSI device that allows you to switch the terminator power on/off, be sure to turn it on. For details on attaching an active terminator, refer to the owner's manual of your SCSI device.

- * On some SCSI devices, the terminator switch is always on (i.e., the terminator is always active). Attach such devices at the end of the SCSI chain.
- * Do not "double" terminators. For example, do not attach an external terminator to a SCSI device that has an internal terminator.

SCSI ID numbers

SCSI devices are distinguished by a SCSI ID number (0-7). Thus, when connecting two or more SCSI devices, you must set the SCSI ID number of each connected SCSI device so that they do not conflict. If any SCSI ID numbers conflict, the VP-9000 will not detect the SCSI devices correctly. When the VP-9000 is shipped, its SCSI ID number is set to "1." Set the SCSI ID numbers of the connected SCSI devices to a setting other than "1."



If it is not possible to set the SCSI ID number of a connected SCSI device to something other than "1," you will have to change the SCSI ID number of the VP-9000. To do so, rotate the ID knob located on the rear panel.

Making connections

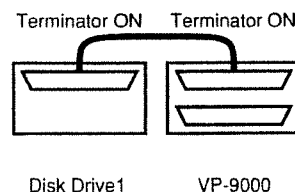
When you understand the material given in "What you need to know before making connections," refer to the connection examples and connect your SCSI device accordingly.

Be sure to turn off the power of all devices before you do any of the following three things.

- Connect/disconnect a SCSI cable
 - Turn a terminator on/off
 - Set a SCSI ID number
- * For the procedure of turning on the power, refer to p. 21.

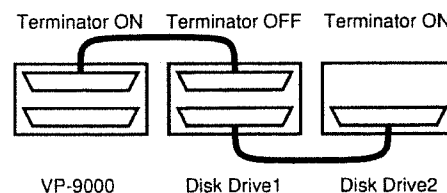
Connection examples

Connecting one SCSI device



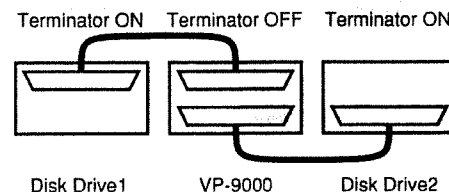
Connecting two or more SCSI devices (1)

Example of connections when the VP-9000 terminator is on.



Connecting two or more SCSI devices (2)

Example of connections when the VP-9000 terminator is off.



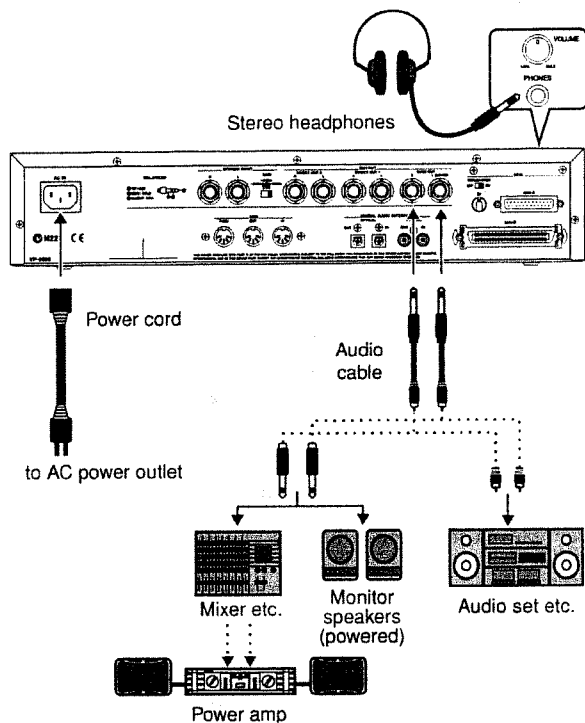
Connecting other external devices

In order to use the VP-9000, you will need to connect audio equipment, and a MIDI device or computer. Connections with audio equipment and with MIDI devices or computers will be explained separately.

- * 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.

Connections with audio devices

The VP-9000 does not contain an amp or speakers. In order to produce sound you will need to provide an audio system, such as monitor speakers or a stereo set, or headphones.



1. Before you begin making connections, make sure that the power on all devices has been turned off.
2. Connect the included power cable to the VP-9000, and plug it into an AC outlet.
3. As shown in the diagram, use audio cables to connect the VP-9000 to your audio equipment.

If you are using headphones, plug them into the PHONES jack, located on the front panel.

- * If you will be using other external MIDI sound generators at the same time, use a mixer to connect them to your audio system in the same way as the VP-9000.

- * If you connect any of the six OUTPUT jacks to a device that has phantom power (such as a mixer), do not turn the phantom power on. Doing so may damage the VP-9000.

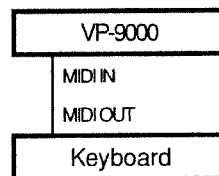
Connection to a MIDI device or computer

After you have connected your audio equipment, you are ready to connect your MIDI device(s) or computer. We will give examples of the most common setups, and explain the parameters that you will need to set.

- * Please set the receive channel for each VP-9000 part to a channel that is different than the Control channel (p. 136). The Control channel is used for simultaneously controlling all parts of the VP-9000. If you set the MIDI receive channel of any part to the same setting as the Control channel, the Control channel setting will take priority.

Playing the VP-9000 from a keyboard

This is the most basic method of connection, where a keyboard is used to play only the VP-9000.



1. Before you begin making connections, make sure that the power is turned off on all devices.
2. As shown in the diagram, use a MIDI cable to connect the VP-9000 and your MIDI keyboard.
3. As described in "Turning the power on" (p. 21), turn on the power of each device.
4. Set the receive channel of each VP-9000 part (p. 56) to match the transmit channel of your MIDI keyboard.

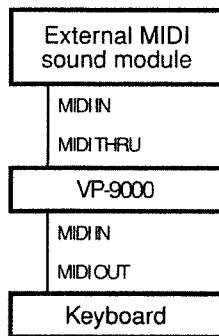
- * For details on setting the transmit channel of your MIDI keyboard, refer to the owner's manual for your MIDI keyboard.

Playing the VP-9000 and another MIDI sound generator from a keyboard

Here are the connection for using your keyboard to play the VP-9000 and another external MIDI sound generator.

For example, you could divide your MIDI keyboard at a specific note into high and low ranges, and specify different transmit channels for each range so that a single keyboard could simultaneously control the VP-9000 and another MIDI sound generator.

If your MIDI keyboard has automatic playback capability or an arpeggiator (a function that produces automatic playback when you hold down a chord), you can use these in conjunction with phrases sampled on the VP-9000 to create a wide range of performance possibilities.



1. Before you begin making connections, make sure that the power has been turned off on all devices.
2. As shown in the diagram, use MIDI cables to connect the VP-9000, your MIDI keyboard, and external MIDI sound generator.
3. As described in "Turning the power on" (p. 21), turn on the power of each device.
4. Set the receive channel (p. 56) of each VP-9000 part to match the transmit channel of your MIDI keyboard.
5. Set the receive channel of each part of your external MIDI sound generator to match the transmit channel of your MIDI keyboard.

* For details on settings for your external MIDI sound generator and MIDI keyboard, refer to their owner's manuals.

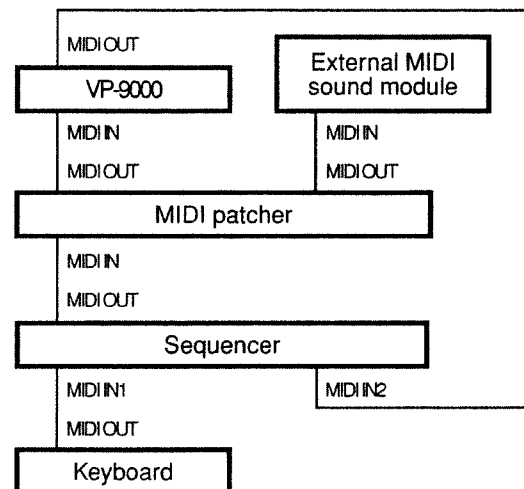
* The MIDI THRU connector retransmits MIDI messages received at the MIDI IN connector, without modifying the messages in any way.

Playing the VP-9000 from an external sequencer

Here's how to make connections in order to use the VP-9000, a MIDI keyboard, external MIDI sound generator, and external sequencer to create and play back a multi-track recording.

When recording, it is a good idea to listen to the metronome of the external sequencer, and record tracks in the order of drums, bass, accompaniment, and melody.

You could also play back a previously recorded performance on your external sequencer, and play your keyboard or operate its controllers to add a realtime performance.



1. Before you begin making connections, make sure that the power of all devices is turned off.
2. As shown in the diagram, use MIDI cables to connect the VP-9000, your MIDI keyboard, external MIDI sound generator, and external sequencer.
3. As described in "Turning the power on" (p. 21), turn on the power of each device.
4. Make settings on the VP-9000.

- Set the receive channel of each part (p. 56) to match the respective transmit channel of each track of your external sequencer.

- Set the C1-C3 output mode to "MIDI" (p. 57).

The MIDI messages that are transmitted when you move the three knobs will be output only to MIDI OUT. This setting prevents duplicate MIDI messages from being sent to the sound generator.

- Turn each receive switch on (p. 56, 137).

You will be able to play sounds and control various parameters by receiving MIDI messages from your MIDI keyboard or external sequencer.

Chapter 1. Getting Ready

- Turn each transmit switch on (p. 138).
When you switch samples or edit sample or performance settings, MIDI messages will be transmitted and recorded on your external sequencer.
 - Set the Clock Source to "MIDI" (p. 50).
The samples will synchronize to the tempo of the sequencer.
- 5. Make settings on your external MIDI sound generator.**
- Set the receive channel of each part to match the respective transmit channel of each track of your external sequencer.
 - * *Use channels that are different from the VP-9000's control channel or the receive channels of each VP-9000 part.*
 - Turn on the receive switches.
MIDI messages from your MIDI keyboard will be received to play sounds and control various parameters.
- 6. Make settings on your external sequencer.**
- Set the transmit channel for each track.
Set each track to match a receive channel of the VP-9000 or of your other MIDI sound generator.
 - Turn the Thru function ON so that MIDI messages received at MIDI IN1 will be transmitted from MIDI OUT.
Musical data received at the MIDI IN 1 of the external sequencer will be retransmitted without change from MIDI OUT.
 - Set the tempo to a setting that is comfortable for recording.
- 7. Set the transmit channel of your MIDI keyboard.**
Set this to match the receive channel of a track on your external sequencer.
- * *For details on making settings for your external sequencer, external MIDI sound generator, and MIDI keyboard, refer to their respective owner's manuals.*
 - * *For details on recording and playing back on your external sequencer, refer to the owner's manual for your sequencer.*

Using the VP-9000 with the MC-307

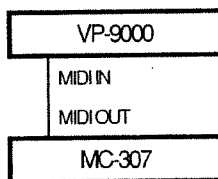
Here's how to make connections so that you can use the keyboard pads of the MC-307 to play the VP-9000. With this setup, you can play MC-307 patterns to create a performance that combines the MC-307 and VP-9000.

Even if you switch MC-307 patterns mid-way, you can still use the keyboard pads to control the VP-9000.

The transmit and receive channels of each MC-307 part are fixed. By selecting the current part on the MC-307, you will determine the transmit channel of the keyboard pads. You will be able to play samples of the VP-9000 part that matches this channel.

For this example, we will describe settings for using MC-307 part 1 to play VP-9000 part 1.

For example, if you set the keyboard map (p. 51) for part 1 to "PHRASE MAP," you will be able to play up to twelve samples from the keyboard pads.



1. Before you begin making connections, make sure that the power of all devices is off.
2. As shown in the diagram, use a MIDI cable to connect the VP-9000 and the MC-307.
3. As described in "Turning the power on" (p. 21), turn on the power of each device.
4. Set the VP-9000 part 1 receive channel (p. 56) to "1."
5. Make MC-307 settings.
 - Set the part 1 Local Tx Switch to "EXT."
The MIDI messages transmitted when you press a keyboard pad will be sent only to MIDI OUT.
 - Set the current part to 1.
The transmit channel for the keyboard pads will be 1.
 - * *For details on making MC-307 settings, refer to the MC-307 owner's manual.*
 - * *By recording musical data on the MC-307 to play VP-9000 samples, you can create patterns that add VP-9000 samples to the performance of the MC-307.*

Turning the power on/off

Turning the power on

* *Once the connections have been completed (p. 16–20), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.*

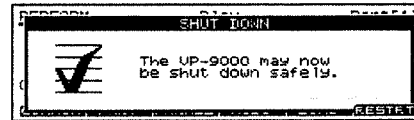
1. Before you turn the power on, check the following points.
 - Have peripheral devices been connected correctly?
 - Have the volume controls of the VP-9000 and all connected audio devices been turned to the minimum position?
 - Has the power cable of the VP-9000 been connected correctly?
2. Turn on the power of any connected SCSI devices.
3. Press the power switch of the VP-9000 to turn the power on.
4. Turn on the power of the connected audio devices.
 - * *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.*
5. Adjust the volume controls of the VP-9000 and the connected audio equipment to appropriate levels.
 - * *Avoid raising the volume excessively. Excessive volumes may inconvenience those around you, damage your audio equipment, or result in hearing loss.*
 - * *If a connected SCSI device is not recognized when you select it for reading or writing data, try increasing the SCSI probe time setting (p. 139). Then refer to the following section "Turning the power off," and turn the power off. Then turn the power on once again.*

Turning the power off

1. Before you turn off the power, check the following points.
 - Have the volume controls of the VP-9000 and all connected audio devices been turned to the minimum position?
 - Have you saved the sound data or other data that you created? (p. 141)
2. Turn off the power of the connected audio devices.
3. Press [PERFORM] to make the indicator light.
4. Hold down [SHIFT] and press [▼].

If a disk has been inserted in the Zip drive, the disk will be ejected automatically.

The SHUT DOWN screen will appear. When this screen is displayed, it is safe to turn off the power.



5. Turn off the power switch of the VP-9000.
 - * *If you decide not to turn off the power, press [F6 (RESTRT)].*

Chapter 2. An overview of the VP-9000

Internal structure of the VP-9000

“Samples” and “Performances”

The VP-9000 uses two units of sound data: “samples” and “performances”.

The sounds that you will normally play are called “samples”. A “sample” consists of a wave along with VP-9000 sample parameters.

A “performance” contains six parts. “Samples” are assigned to each part of a performance (p. 36).

The VP-9000 can hold only one performance in its internal memory. It can hold up to 1,024 samples (128 x 8 banks (A–H)).

By assigning a sample to each part and sending different MIDI messages to each part, you can use multiple samples simultaneously. You can also use program change messages to switch samples in real time (p. 36).

How to play sounds

Turning the power on is not all it takes to get the VP-9000 to produce sound. You must also load samples into internal memory. To do so, you can record samples (p. 117), load them from disk, or load WAV or AIFF wave data (p. 31).

After you’ve recorded a sample or loaded wave data, you will also need to perform a process called “encoding” to convert the wave data (p. 130). Once you encode wave data, it will be possible to modify its pitch, time, formants, and groove in real time, and you will be able to play it from a MIDI keyboard.

Samples for which “NO WAVE DATA” is indicated contain no waves, and will produce no sound.

Maximum sampling time

The maximum sampling time for one sample is 25 seconds stereo or 50 seconds mono. As shipped from the factory (with 8 MB of wave memory), the VP-9000 can sample up to 25 seconds in stereo or 50 seconds in mono. By adding separately sold wave memory to a maximum of 128 MB (four SIMM’s, each 32 MB), you can expand the VP-9000 to a total of 136 MB, allowing a total of approximately 7 minutes of stereo sampling or 14 minutes of monaural sampling.

Saving sounds

When you save a performance (p. 141), you are saving not only the performance settings, but also all samples currently in internal memory (except for samples that have no wave, and samples with a name that is not valid for saving). In other words, a “performance” contains all the data you need to perform a song.

When you load a performance into internal memory (p. 30), the samples that were saved with it will also be loaded into internal memory.

Individual samples can also be saved (p. 141) or loaded (p. 31).

What is the “keyboard map”?

The VP-9000 has a parameter named “Keyboard Map,” which indicates the state of the keyboard (p. 51). It can be set independently for each part, and has three states.

With a setting of “NORMAL,” the sample assigned to each part can be played at the pitch of each key.

With a setting of “EVENT,” the sample assigned to each part will be divided at event (p. 131) locations, and assigned to each key. This means that you can randomly play sections from the middle of a sample. By turning on the Loop switch (p. 43), you can even repeatedly play portions from the middle of a sample.

With a setting of “PHRASE MAP,” up to twelve samples can be assigned to different keys. The sample assigned to that part will be ignored, and instead the samples assigned to Phrase No. 1–12 of that part will be used. This allows you to use one part to play multiple samples. For example, you could assign various percussion sounds to different keys, and use them as a drum set.

About sample playback

Samples will normally play from the beginning of the wave. They cannot be played from any desired location.

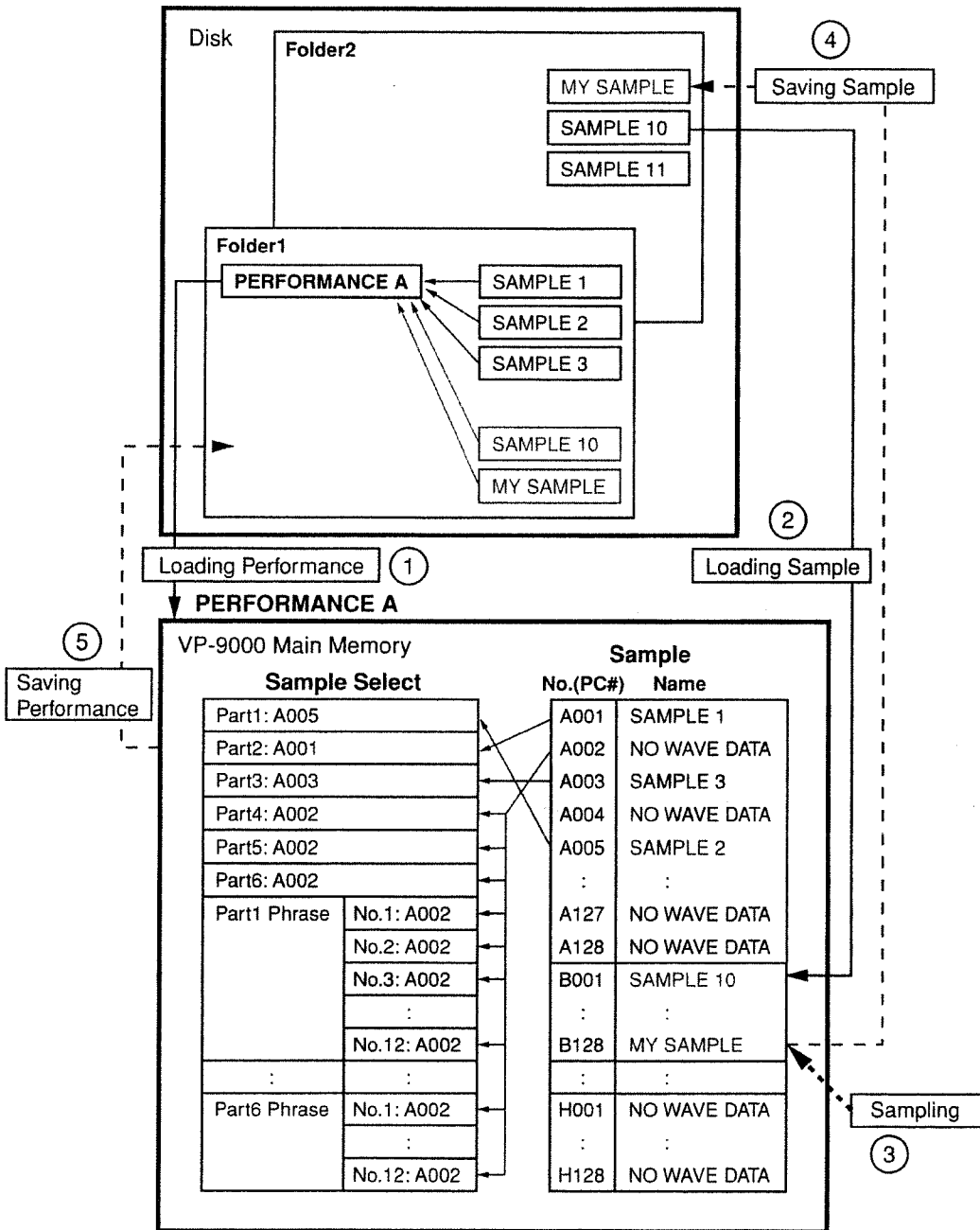
If you wish to play back a sample from the middle, set Keyboard Map to “EVENT” as explained in the preceding section. Alternatively, you can set the Playback Mode (p. 42) to “STEP,” so that the wave will play from one event to the next event each time you play a key. When a sample is played from the middle in this way, it will play in regions of the wave divided by events (p. 131).

By reversing the wave itself (p. 129) and then playing it, you can accomplish the same result as reverse playback.

Polyphony

The VP-9000 can produce a maximum of six notes (voices) simultaneously. If data is received that attempts to play more than this number of voices, notes will be dropped out. When the number of requested voices exceeds six, the VP-9000 will give priority to the later-played notes, and will consecutively turn off the oldest sounding notes.

Stereo samples use two notes (voices) for each note.



Chapter 2. An overview of the VP-9000

"Time" and "Tempo"

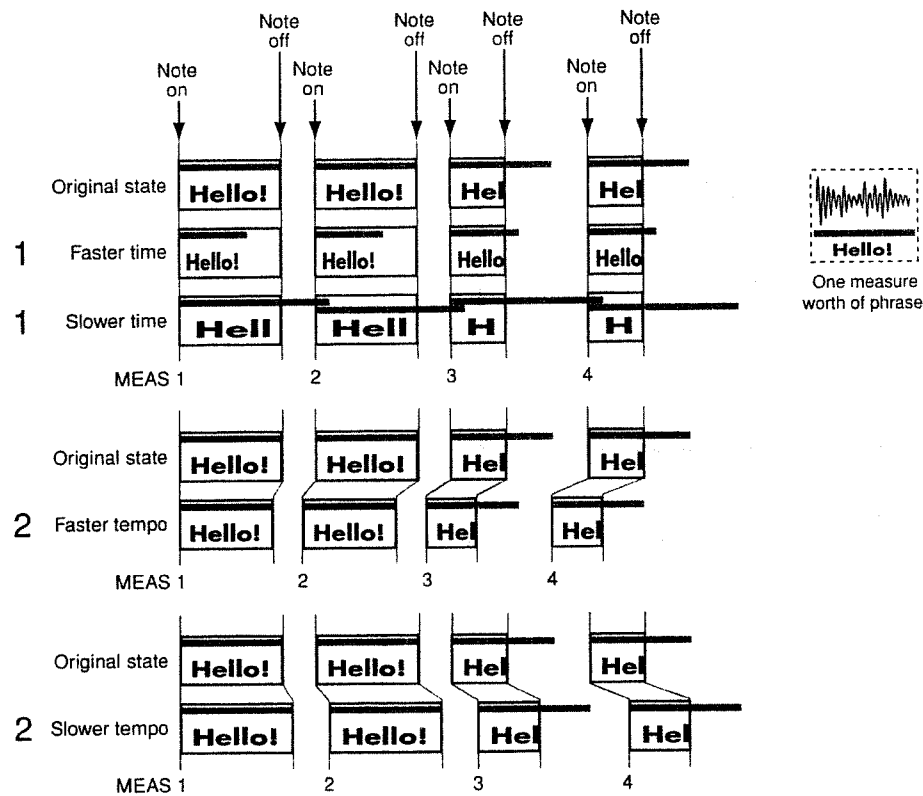
There are two ways to change the playback speed of a sample.

- 1 Use a knob (or controller) to change the time (p. 57).
- 2 Turn on Tempo Sync for the part (p. 51), and modify the master tempo (or the external clock) setting (p. 50).

Methods 1 and 2 differ in the following ways.

Example:

When a one-measure phrase sample is assigned to a part, and note-on/off data is received from a sequencer at the timing shown below



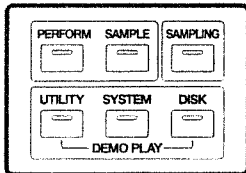
In the case of 1, the timing at which note-on/off data is received will not change. Thus, speeding up the time will cause playback to end sooner, and there will be a gap until the next note-on is received. If the time is slowed down, the phrase will playback incompletely, and will start playback anew when the next note-on is received.

In the case of 2, the timing at which note-on/off data is received will change. Thus, the gaps that occur with method 1 will not occur.

If you wish to momentarily change the playback speed for just one part, it is best to use a knob (or controller).

Display screens and basic operation

Six modes



The VP-9000 has the following six modes.

Performance mode ([PERFORM] button lit)

In this mode you can set performance parameters. Some parameters have a single setting for the entire performance, while others can be set independently for each part. These settings are explained in chapter 5 (p. 49) and chapter 6 (p. 64).

Sample mode ([SAMPLE] button lit)

In this mode you can set sample parameters. You can change the name or category, specify how the sample will be sounded, or make settings for the volume, pitch, time, formant, pan, and LFO. These settings are explained in chapter 4 (p. 41).

Sampling mode ([SAMPLING] button lit)

In this mode you can record samples, and edit waves. These procedures are explained in chapter 7 (p. 117).

Utility mode ([UTILITY] button lit)

In this mode you can perform various operations on internal samples (copy, move, delete) (p. 133), initialize data (p. 155), transmit data (p. 154), perform a factory reset (p. 155), check wave memory information or perform tests (p. 15).

System mode ([SYSTEM] button lit)

In this mode you can set system parameters. These are settings for the entire VP-9000, such as LCD contrast or the preview function. These settings are explained in chapter 9 (p. 135).

Disk mode ([DISK] button lit)

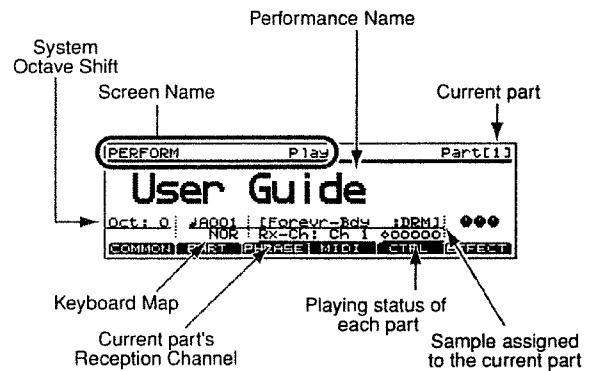
In this mode you can perform disk-related operations (load, save, copy, delete, format). These operations are explained in chapter 10 (p. 140) and chapter 11 (p. 151).

Contents of the Play screens

The top screens (Play screens) of Performance mode and Sample mode display a variety of information.

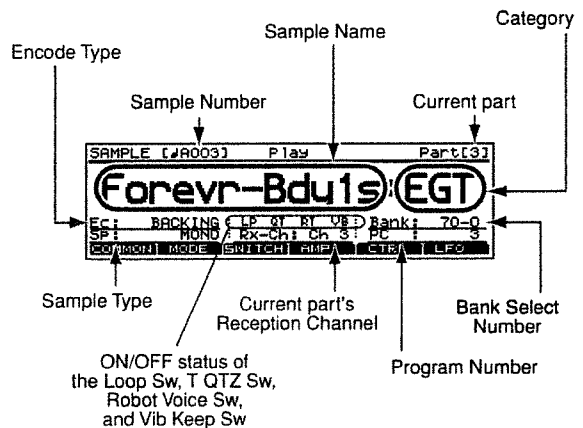
PERFORM Play screen

This will appear when you press [PERFORM].



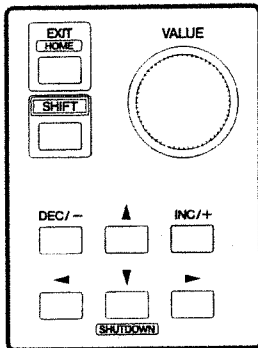
SAMPLE Play screen

This will appear when you press [SAMPLE].



Modifying the value of a setting

1. Use [▲] [▼] [◀] [▶] to move the cursor to the value that you wish to modify.
2. Modify the value either by rotating the VALUE dial or by using [DEC/-] [INC/+].



Increasing the value

VALUE dial

Changing in steps of 10: Press the VALUE dial while you turn it.

Changing in steps of 100: Hold down [SHIFT] while you turn the VALUE dial. In screens for selecting internal samples, the value will change in steps of 128.

Changing in steps of 1000: Hold down [SHIFT], and also press the VALUE dial while you turn it.

[DEC/-] [INC/+]

To increase the value, hold down [INC/+] and press [DEC/-].

To decrease the value, hold down [DEC/-] and press [INC/+].

Returning to the previous screen

[EXIT]

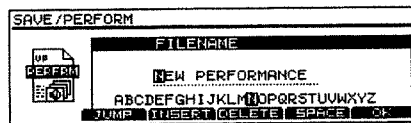
When you press the [EXIT] button, you are returned to the previously displayed screen. By pressing the [EXIT] button several times, you will end up at either the PERFORM Play screen, SAMPLE Play screen, or SAMPLING Menu screen.

Assigning a name

The VP-9000 has several screens in which you can assign a name. Regardless of the data to which you are assigning a name, the procedure is essentially the same.

Performance:	Up to 16 characters (p. 49)
Sample:	Name 12 characters, category 3 characters (p. 42)
System settings:	Up to 16 characters (p. 141)
Folder:	Up to 16 characters (p. 146)
Sampling template:	Up to 6 characters (p. 124)
Volume label:	Up to 11 characters (p. 149)
Backup name:	Up to 16 characters (p. 152)

Assigning a name to something other than a sample



After accessing the screen where you will assign the name, use the following procedure to assign the name.

1. Use [◀] [▶] to move the cursor to the location where you wish to input a character.
 - * When you press the VALUE dial, the cursor will move one place to the right.
2. Specify the desired character either by rotating the VALUE dial or by using [DEC/-] [INC/+].

The following characters/symbols can be used.

For performance, system settings, folder, sampling template, or backup name

A-Z a-z 0-9 ! # \$ % & ' () + = @ [] ^ _ ` space

For volume label

A-Z 0-9 \$ % ' - _ @ ! ' () ~

You can also press [F2]-[F5] or [▲] [▼] to perform the following convenient operations.

For performance, system settings, folder, sampling template, or backup name

[F2 (JUMP)]: Characters will appear in the order of A, a, 0, ! each time you press this button.

[F3 (INSERT)]: Inserts a space at the cursor location.

[F4 (DELETE)]: Deletes the character at the cursor location, and moves subsequent characters to the left.

[F5 (SPACE)]: Displays a space at the cursor location.

[▲]: Converts a lowercase character to uppercase.

[▼]: Converts an uppercase character to lowercase.

For volume label

[F2 (JUMP)]: Characters will appear in the order of A, 0, \$ each time you press this button.

[F3 (INSERT)]: Inserts an underscore (_) at the cursor position.

[F4 (DELETE)]: Deletes the character at the cursor location, and moves subsequent characters to the left.

3. Press [F6].

This finalizes the assigned name.

Assigning a sample name and category



After accessing the screen in which you will assign the sample name, use the following procedure to assign the name and category.

1. Use [◀||▶] to move the cursor to the location where you wish to input a character.

* When you press the VALUE dial, the cursor will move one place to the right.

2. Specify the desired character either by rotating the VALUE dial or by using [DEC/-][INC/+].

The following characters/symbols can be used in a name.

A-Z a-z 0-9 ! # \$ % & ' () + - = @ [] ^ _ ` space

You can also press [F2]–[F5] or [▲||▼] to perform the following functions.

[F2 (JUMP)]: Characters will appear in the order of A, a, 0, ! each time you press this button.

[F3 (INSERT)]: Inserts a space at the cursor location.

[F4 (DELETE)]: Deletes the character at the cursor location, and moves subsequent characters to the left.

[F5 (SPACE)]: Displays a space at the cursor location.

[▲]: Converts a lowercase character to uppercase.

[▼]: Converts an uppercase character to lowercase.

3. When you have input the name, press [F1 (→▶ CATG)].
A screen where you can assign the category will appear.



* If you press [F1 (→▶ NAME)] once again, you will return to the naming screen.

4. Press [F5 (PRESET)].

A list of preset categories will be displayed.

5. Select a category either by rotating the VALUE dial or by using [DEC/-][INC/+] or [▲||▼].

To change the category in steps of 5, use [◀||▶].

6. Press [F6 (OK)].

This will close the category list.

7. Press [F6] once again.

The name and category have now been assigned.

* Instead of steps 4–6, you are also free to assign any desired three-character category in the same way as when inputting a name. The following characters/symbols can be used in a category.

A–Z 0–9 - _ space

By pressing [F2]–[F4] you can perform the following convenient operations.

[F2 (JUMP)]: Characters will appear in the order of A, 0, - each time you press this button.

[F3 (INSERT)]: Inserts a space at the cursor location.

[F4 (DELETE)]: Deletes the character at the cursor location, and moves subsequent characters to the left.

Chapter 2. An overview of the VP-9000

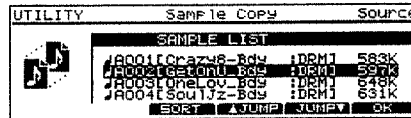
The following preset categories are provided.

Category	Contents
—	NO ASSIGN No assign
PNO: AC.PIANO	Acoustic Piano
EP: EL.PIANO	Electric Piano
KEY: KEYBOARDS	Other Keyboards (Clav, Harpsichord etc.)
BEL: BELL	Bell, Bell Pad
MLT: MALLET	Mallet
ORG: ORGAN	Electric and Church Organ
ACD: ACCORDION	Accordion
HRM: HARMONICA	Harmonica, Blues Harp
AGT: AC.GUITAR	Acoustic Guitar
EGT: EL.GUITAR	Electric Guitar
DGT: DIST.GUITAR	Distortion Guitar
BS: BASS	Acoustic & Electric Bass
SBS: SYNTH BASS	Synth Bass
STR: STRINGS	Strings
ORC: ORCHESTRA	Orchestra Ensemble
HIT: HIT&STAB	Orchestra Hit, Hit
WND: WIND	Winds (Oboe, Clarinet etc.)
FLT: FLUTE	Flute, Piccolo
BRS: AC.BRASS	Acoustic Brass
SBR: SYNTH BRASS	Synth Brass
SAX: SAX	Sax
HLD: HARD LEAD	Hard Synth Lead
SLD: SOFT LEAD	Soft Synth Lead
TEK: TECHNO SYNTH	Techno Synth
PLS: PULSATING	Pulsating Synth
FX: SYNTH FX	Synth FX (Noise etc.)
SYN: OTHER SYNTH	Poly Synth
BPD: BRIGHT PAD	Bright Pad Synth
SPD: SOFT PAD	Soft Pad Synth
VOX: VOX	Vox (Monophonic human voice)
CHR: CHOIR	Choir (Polyphonic human voice)
PLK: PLUCKED	Plucked (Harp etc.)
ETH: ETHNIC	Other Ethnic
FRT: FRETTED	Fretted Inst (Mandolin etc.)
PRC: PERCUSSION	Percussion
SFX: SOUND FX	Sound FX
BTS: BEAT&GROOVE	Beat and Groove
DRM: DRUMS	Drum Set

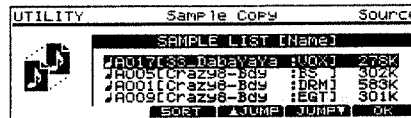
Using the sample list

In screens where you select an internal sample, you can view a sample list. By viewing the sample list, you can quickly find the desired sample.

To view the sample list, press a function button displayed as "LIST" or press the VALUE dial.



- Each time you press [F3 (SORT)], the internal samples will be sorted by name, by category, or by number. If you have loaded a large number of samples, you will find this function very helpful.



- When the list is sorted by number, you can press [F4 (▲ JUMP)][F5 (JUMP ▼)] to switch between banks A-H. Number 001 will be selected. When sorted by name or by category, you can jump to the point where the first character of the name or category changes.
- To change the number in steps of 128, hold down [SHIFT] and rotate the VALUE dial.
- To change the number in steps of 10, rotate the VALUE dial while pressing it.
- To change the number in steps of 4, use [◀ || ▶].
- To change the number in steps of 1, use [▲ || ▼] [DEC/-][INC/+] or rotate the VALUE dial.
- Use any method of steps 1–6 to move the cursor to the desired sample.
- Press [F6 (SELECT)] (or [F6 (OK)]). The sample has now been selected.

Convenient shortcuts

The VP-9000 provides several convenient shortcuts.

- * *None of these shortcuts can be used in the PERFORM/COMMON Name screen or the SAMPLE/COMMON Name screen.*
- * *[SHIFT] + [**] means that you should hold down [SHIFT] and press [**].*

Loading a performance (p. 30)

[SHIFT]+[F5 (LOAD)]

This is available in Performance mode ([PERFORM] button is lit) in screens where [F5 (LOAD)] appears when you press [SHIFT].

A screen will appear in which you can select the performance to load.

- * *The PERFORM/PART Sample Select screen and the PERFORM/PHRASE Sample Select screen are exceptions.*

Saving a performance (p. 141)

[SHIFT]+[F6 (SAVE)]

This is available in Performance mode ([PERFORM] button is lit) in screens where [F6 (SAVE)] appears when you press [SHIFT].

A screen will appear in which you can specify the name for saving.

Loading a sample (p. 31)

[SHIFT]+[F5 (LOAD)]

This is available in Sample mode ([SAMPLE] button is lit) in screens where [F5 (LOAD)] appears when you press [SHIFT].

A screen will appear in which you can select the sample to be loaded.

This is also available in the following three screens.

- SAMPLING Menu screen
- PERFORM/PART Sample Select screen
- PERFORM/PHRASE Sample Select screen

Saving a sample (p. 141)

[SHIFT]+[F6 (SAVE)]

This is available in Sample mode ([SAMPLE] button is lit) in screens where [F6 (SAVE)] appears when you press [SHIFT].

A screen will appear in which you can assign the name for saving.

This is also available in the following screen.

- SAMPLING Menu screen

Setting how the [PREVIEW] button will operate (p. 38)

[SHIFT]+[PREVIEW]

This is available when the [PREVIEW] button indicator is lit. Each time you hold down [SHIFT] and press [PREVIEW], the Preview Trigger Mode setting will alternate between MOMENTARY and LATCH.

MOMENTARY: The sound will play while you hold down [PREVIEW].

LATCH: The sound will start when you press [PREVIEW], and will end when you press [PREVIEW] once again.

Moving the cursor to the top left parameter in the screen

[SHIFT]+[EXIT]

This is available in the following three modes in any screen where there is a cursor.

- Performance mode ([PERFORM] button lit)
- Sample mode ([SAMPLE] button lit)
- System mode ([SYSTEM] button lit)

System Octave Shift setting (p. 138)

Press [▲] or [▼].

This is available in the PERFORM Play screen.

Pressing [▲] will change the System Octave Shift in the positive (+) direction, and pressing [▼] will change it in the negative (-) direction.

The setting is displayed in the PERFORM Play screen (p. 25).

Loop Switch on/off setting (p. 43)

To turn this on, press [▲]. To turn it off press [▼].

This is available in the SAMPLE Play screen.

When the Loop Switch is on, the portion of the wave between the Loop Start and Loop End will be played back repeatedly.

The setting is displayed in the SAMPLE Play screen (p. 25).

Quick Encode (p. 132)

[SHIFT]+[F4 (Q-ENC)]

This is available in the SAMPLING Menu screen.

In the SAMPLING Menu screen, you can encode directly. Use this when you wish to encode multiple waves with the same type and depth. The wave will be encoded with the same encode type and encode depth as the previously encoded wave.

Chapter 3. Playing Sounds

Loading a Performance / Sample / System settings (Load)

In addition to performances, samples, and system settings that it saved, the VP-9000 is also able to load the following wave data and sound library (CD-ROM) data. (Loadable sampling frequencies: 48, 44.1, 32, 30, 24, 22.05, 16, 15, 11, 8 kHz; quantization of 8 or 16 bits)

Wave data

- WAV (the audio file format standard for Windows)
- AIFF (the audio file format standard for Macintosh)

Sound libraries (CD-ROM)

- Included CD-ROM
- Roland VP-CD series
- Roland L-CD series
- Roland L-CDP series
- AKAI S1000 series

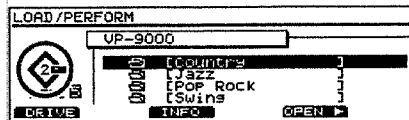
Loading performance / system settings

When you load a performance, the samples that were also saved when the performance was saved will be loaded simultaneously.

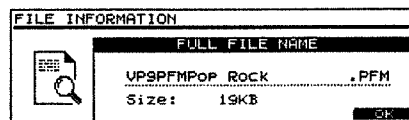
- * When a performance or system settings are loaded, any performance or system settings that may have been in internal memory will be overwritten.

1. Have ready the media that contains the file you wish to load.
2. Press [DISK].
The DISK Menu1 screen will appear.
If the DISK Menu2 screen appears, press [◀ /PART].
3. Press [F1 (LOAD)].
The DISK Load Menu1 screen will appear.
If the DISK Load Menu2 screen appears, press [◀ /PART].
4. If you wish to load a performance, press [F1 (PERFRM)].
If you wish to load system settings, press [F3 (SYSTEM)].
The file selection screen will appear.

5. Press [F1 (DRIVE)] to select the drive.



- * If the hard disk has been divided into two or more partitions, the partition number will be shown in the center of the icon.
6. Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the file that you wish to load.
 7. Press [F6 (LOAD)] to load the file.
When loading has ended, the display will indicate "Completed!," and you will return to the PERFORM Play screen.
- * If you decide to abort the loading operation, press [F1 (ABORT)].
 - * A certain amount of time may be required when loading a performance.
 - * By holding down [SHIFT] and pressing [F1 (DRIVE)], you can select the previous drive.
 - * When selecting a file, [◀] [▶] perform the same function as [F4 (◀ CLOSE)][F5 (OPEN ▶)].
 - * If you press [F3 (INFO)] in step 6, the full name and size of the selected file will be displayed. If a folder is selected, only the full name of the folder will be displayed. To return to the previous screen press [F6 (OK)].



- * As a shortcut to load a performance, you can hold down the [SHIFT] button and press [F5 (LOAD)]. You will jump to the screen where you can select the performance to load. For details refer to "Convenient shortcuts" (p. 29).

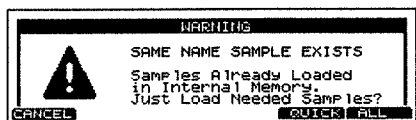
If a message appears when loading a performance

Sometimes a message may appear when you load a performance. If this occurs, refer to the following explanation and take the appropriate action.



The above message will appear if the VP-9000 contains samples that have not been saved.

Press [F6 (ACCEPT)]. Then as necessary, save the unsaved samples or save the performance (p. 141).

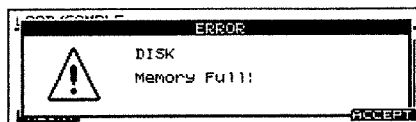


The above message will appear if the VP-9000 contains unedited samples of the same name.

To cancel the operation, press [F1 (CANCEL)].

If you press [F5 (QUICK)], only the necessary samples (those marked with an "E" and those that have not been loaded) will be loaded. Of the samples already existing in the VP-9000, samples that are not associated with the performance being loaded will be erased. Samples will be renumbered to the same numbering as when the performance was saved.

If you press [F6 (ALL)], all samples will be loaded. All samples previously existing in the VP-9000 will be erased.



The above message will appear if the VP-9000's memory becomes full.

Press [F6 (ACCEPT)] to halt the loading operation.

Loading samples / various waves

When you load a sample, the wave itself and sample parameters will be loaded. When you load wave data (WAV, AIFF) or sound library data, only the wave will be loaded. The loaded wave will be handled as 44.1 kHz data.

Data in the following series for which L and R are paired will be displayed as one, and loaded as stereo.

- Roland L-CD series
- Roland L-CDP series
- AKAI S1000 series

If L and R are paired, it is not possible to load only one. If only one exists, that file can be loaded. Even if L and R are a pair, they cannot be loaded in stereo if the two file sizes are different. The two files will be seen separately, and can be loaded separately.

- * **A MIDI keyboard will not play wave data or sound library data that has simply been loaded. You must also encode the data (p. 130).**
- * *The maximum sampling time for one sample is 25 seconds of stereo or 50 seconds of monaural. Thus if you attempt to load a wave that is longer than this, the wave will be only partially loaded.*
- * *The VP-9000 comes with 8 Mbytes of wave memory as standard. With this amount of memory, you will be able to load samples and waves totaling 25 seconds of stereo or 50 seconds of monaural. If you wish to load more samples or waves than this, you must install separately sold wave memory (user guide p. 4).*
- * *WAV data can be loaded only if the filename has an extension of ".WAV". AIFF data can be loaded only if the filename has an extension of ".AIF" or ".AIFF".*
- * *When a wave is loaded from the included CD-ROM or from the Roland VP-CD series, it will occupy approximately 3.4 times as much memory as the file size. When a sample or other wave is loaded, an amount of memory approximately 1.7 times the file size will be used.*
- * *By decision of the producers, the samples in the included Zip disk have been specially compressed and cannot be loaded as individual samples. These samples can be loaded simultaneously when loading a performance.*
- * *It is not possible to load compressed WAV or AIFF data.*

1. Prepare the media that contains the file you wish to load.
2. Press [DISK].
The DISK Menu1 screen will appear.
If the DISK Menu2 screen appears, press | ◀ /PART].
3. Press [F1 (LOAD)].

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4. Press [◀ /PART] or [PART / ▶] to select the Load Menu1 screen or Load Menu2 screen.

5. Press a function button to select the type of file that you wish to load.

Load Menu1 screen

[F2 (SAMPLE)]: Sample

[F4 (VP)]: Included CD-ROM, Roland VP-CD series (sound library)

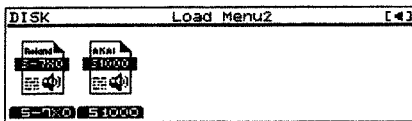
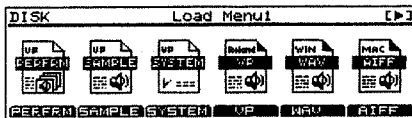
[F5 (WAV)]: WAV (wave data)

[F6 (AIFF)]: AIFF (wave data)

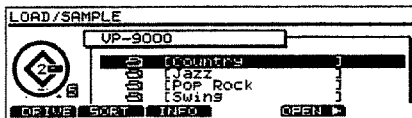
Load Menu2 screen

[F1 (S-7X0)]: Roland L-CD series, Roland L-CDP series (sound library)

[F2 (S1000)]: AKAI S1000 series (sound library)



6. Press [F1 (DRIVE)] to select the drive.



* If the hard disk has been divided into two or more partitions, the partition number will be shown in the center of the icon.

7. Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the file that you wish to load.

* In the case of files for which L and R are a pair, the end of the name will be replaced by "S" for Stereo in the display.

Example: In the case of the Roland L-CD series or L-CDP series

"VOX:ABCDEFGHIJ-L"

"VOX:ABCDEFGHIJ-R"

The above two files will appear as the following single file.

"ABCDEFGHIJ-S:VOX"

Example: In the case of the AKAI S1000 series

"12345678901L"

"12345678901R"

The above two files will appear as the following single file.

"12345678901S"

8. Press [F6 (LOAD)].

A screen will appear in which you can select the location (sample number) into which the file will be loaded.

9. Either rotate the VALUE dial or use [DEC/-][INC/+] or [▼] [▲] to move the cursor to the loading destination.

* By pressing [F4 (▲ JUMP)][F5 (JUMP ▼)], you can switch between banks A-H.

10. Press [F6 (LOAD)] to load the file.

When loading is finished, the display will indicate "Completed!," and you will return to the respective LOAD screen.

11. Press [EXIT] three times to return to the first screen.

* If you decide to abort the operation, press [F1 (ABORT)].

* By holding down [SHIFT] and pressing [F1 (DRIVE)], you can select the previous drive.

* When selecting a file, [◀] [▶] will have the same function as [F4 (◀ CLOSE)][F5 (OPEN ▶)].

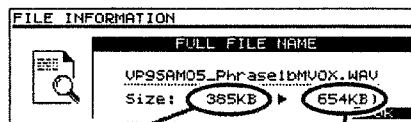
* By pressing [F2 (SORT)] in step 7, you can sort the files by name or by category.

* By pressing [F3 (INFO)] in step 7, you can view the full name and size of the selected file. If a folder is selected, only the full name of the folder will be displayed. In the case of files for which L and R are paired, the end of the name will be replaced by "L&R(Stereo)" for display.

"VOX:ABCDEFGHIJ-L&R(Stereo)"

"12345678901L&R(Stereo)"

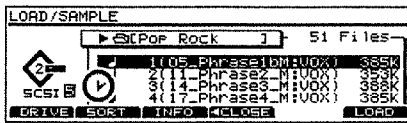
To return to the previous screen, press [F6 (OK)].



Disk capacity

Capacity after loading into internal memory

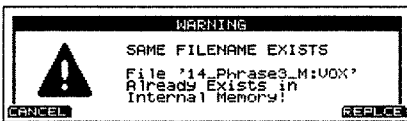
* Files that have been loaded will be indicated by a "✓" symbol, so that you can immediately tell which files have already been loaded. For the purposes of this symbol, the name is used to identify the file. This means that if you delete, overwrite, or rename a sample in the VP-9000, the "✓" symbol for the disk will disappear.



* As a shortcut to load a sample, you can hold down the [SHIFT] button and press [F5 (LOAD)] to jump to the screen where you can select the sample to load. For details refer to "Convenient shortcuts" (p. 29).

If a message appears when loading a sample/various wave data

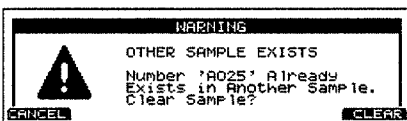
Sometimes a message may be displayed when you load a sample/various wave data. If this occurs, refer to the following explanation and take the appropriate action.



This above message will appear if the VP-9000 contains a sample of the same name.

To cancel the operation, press [F1 (CANCEL)].

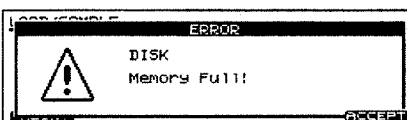
To overwrite the identically-named sample in the VP-9000, press [F6 (REPLACE)].



If a sample already exists in the loading destination number, the above message will appear.

To cancel the operation, press [F1 (CANCEL)].

To overwrite the sample of the selected number, press [F6 (CLEAR)].



The above message will appear when the VP-9000's memory is full.

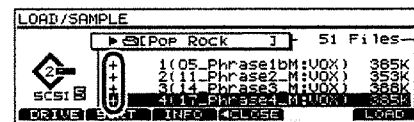
Press [F6 (ACCEPT)] to halt the loading operation. After deleting unneeded samples from the VP-9000 (p. 134), perform the loading operation once again.

Loading multiple files simultaneously

Multiple samples and other wave data can be loaded simultaneously.

- * However, this is limited to files in the same folder.
- * If the media contains a sample that has the identical name and category name, and differs only in whether or not it has encoded data ("✓" symbol present or absent), you can select one of them and load it.

1. In the file selection screen, move the cursor to the file that you wish to load, and press the VALUE dial. A "+" symbol will be displayed.



- * If you wish to erase the "+" symbol, press the VALUE dial once again.
- * If you wish to select numerous files, use the following methods.
 - By rotating the VALUE while pressing it, you can select files consecutively.
 - Holding down [SHIFT] and also pressing the VALUE dial as you rotate it will select 100 at a time.

2. After selecting the "+" symbol for each file you wish to load simultaneously, press [F6 (LOAD)].

A screen will appear in which you can select the destination (sample number) into which the file will be loaded.

3. Either rotate the VALUE dial or use [DEC/-][INC/+] or [▼] | [▲] to move the cursor to the loading destination.

* By pressing [F4 (▲ JUMP)][F5 (JUMP ▼)] you can switch between banks A-H.

4. Press [F6 (LOAD)] to load the files.

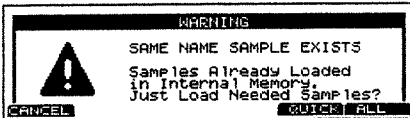
The selected files will be loaded following the number you selected in step 3, in the order of their number on the disk.



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If a message appears when loading multiple files simultaneously

Sometimes a message may be displayed when you load multiple files simultaneously. If this occurs, refer to the following explanation and take the appropriate action.



If the VP-9000 contains an unedited sample of the same name, the above message will appear.

To cancel the operation, press [F1 (CANCEL)].

If you press [F5 (QUICK)], only samples with the "E" symbol and samples that have not been loaded will be loaded. Be aware that the numbers of the samples already in the VP-9000 that are not loaded will change, depending on the number you selected in step 3.

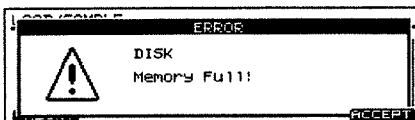
If you press [F6 (ALL)], all samples will be loaded.



If a sample already exists in the loading destination number, the above message will appear.

If you wish to cancel the operation, press [F1 (CANCEL)].

If you wish to overwrite the sample of the loading destination number, press [F6 (CLEAR)].



The above message will appear if the VP-9000's memory becomes full.

Press [F6 (ACCEPT)] to halt the loading operation. After deleting unneeded samples from the VP-9000 (p. 134), perform the loading operation once again.

About the names following loading

The names shown in the display of the VP-9000 are not simply the filenames themselves. Names are displayed according to the following rules.

* Any character that the VP-9000 is unable to display will automatically be replaced with a caret "^".

Performances

Performance filenames consist of the following.

- "VP9PFM*****.PFM"

The "****" portion is 16 characters or less.

For a performance, the filename without the first six characters "VP9PFM" and extension ".PFM" will be displayed in the screen as the performance name.

* Be aware that if you use an external device to change the name of a file so that it does not conform to the conventions of the VP-9000, it can no longer be viewed or used on the VP-9000.

Samples

Sample filenames are of the following two types.

- "VP9SAM*****.WAV" (samples with encoding information)
- "VP9RAW*****.WAV" (samples without encoding information)

The "****" portion is fixed at 15 characters.

For a sample, the first six characters "VP9SAM" or "VP9RAW" and the extension ".WAV" will be omitted, and of the 15 characters that remain, the first 12 will be displayed in the screen as the sample name, and the remaining three characters as the category.

* Be aware that if you use an external device to change the name of a file so that it does not conform to the conventions of the VP-9000, it can no longer be viewed or used on the VP-9000.

System settings

The filenames of system settings consist of the following.

- "VP9SYS*****.VP9"

The "****" portion is 16 characters or less.

For system settings, the first six characters "VP9SYS" and the extension ".VP9" of the filename will be omitted, and the remaining portion will be displayed in the screen.

* Be aware that if you use an external device to change the name of a file so that it does not conform to the conventions of the VP-9000, it can no longer be viewed or used on the VP-9000.

WAV and AIFF (wave data)

For WAV and AIFF files, the filename will be converted according to the following rules and shown in the display.

1. The first three characters of the extension will be the category.
** If these three characters cannot be used for a category, they will be replaced with "^".*
2. The name from the beginning until four characters before the extension will be compressed to 12 characters (see following section), and treated as the name.
3. If the filename is 15 characters or less, the first 12 characters will be the name, and the remainder will be the category.
4. If rule 3 results in insufficient characters, spaces " " will be added to the name, and hyphens "-" will be added to the category.

Example 1: 15 characters

Filename: ABCDEFGHIJKLMNOP.WAV
 ABCDEFGHIJKLMNOP.AIF
 Display: ABCDEFGHIJL:MNO

Example 2: 16 characters or more

Filename: ABCDEFGHIJKLMNOPQRSTUVWXYZ.WAV
 ABCDEFGHIJKLMNOPQRSTUVWXYZ.AIF
 Display: ABCDEFGHI-VW:XYZ

Example 3: 14 characters

Filename: ABCDEFGHIJKLMN.WAV
 ABCDEFGHIJKLMN.AIF
 Display: ABCDEFGHIJKL:MN-

Example 4: 1 character

Filename: A.WAV
 A.AIF
 Display: A :—

Rules for abbreviating names

If the filename is 16 characters or more, the name will be abbreviated as follows.

Example:

In the case of a name of
 "ABCDEFGHIJKLMNOPQRSTUVWXYZ.WAV" or
 "ABCDEFGHIJKLMNOPQRSTUVWXYZ.AIF"

The first three characters of the extension "XYZ" will be the category.

The name will be formed by abbreviating
 "ABCDEFGHIJKLMNOPQRSTUVWXYZ."

1. "first 9 characters + tilde "~" + last 2 characters + category"
 Display: ABCDEFGHI-VW:XYZ

2. If process 1 results in a name that already exists, the name will be "first 8 characters + tilde "~" + last three characters + category"
 Display: ABCDEFGH~UVW:XYZ
 3. Subsequently, this will be repeated until the tilde "~" is at the beginning.
 Display: ~MNOPQRSTUVWXYZ:XYZ
 4. If process 3 is finished but the result is still an existing name, a new name will be assigned. "L00000000001 + category"
 Display: L00000000001:XYZ
 5. Subsequently, the number will be incremented; e.g., "L00000000002 + category".
 Display: L00000000002:XYZ
- * Although a tilde "~" (ASCII 7EH) can be displayed, it cannot be input.*

Included CD-ROM or Roland VP-CD series (sound library)

Filenames on the included CD-ROM and Roland VP-CD series are of the following two types.

- "Vari*****.WAV" (WAV with encoding information)
- "Vari*****.VPW" (compressed WAV with encoding information)

There is no limit on the number of characters in the "****" portion.

For this wave data, the first four characters, "Vari," will be omitted, and the remainder taken as the filename. Then, the rules for "WAV and AIFF" will be applied.

Roland L-CD series and Roland L-CDP series (sound library)

Filenames in this series consist of a "3-character category + ":" + 12-character name" (fixed length of 16 characters). The order of category and name is the opposite of that on the VP-9000.

This wave data will be displayed according to the VP-9000 order as "12-character name: 3-character category".

When an L and R pair of files are loaded, the end of the name will be replaced by "S" for Stereo in the display.

AKAI S1000 series (sound library)

S1000 series filenames are fixed at 12 characters.

This wave data will be displayed as "12 characters:—".

When an L and R pair of files are loaded, the end of the name will be replaced by "S" for Stereo in the display.

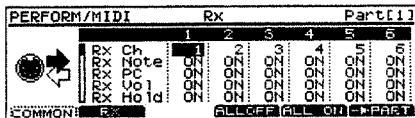


Setting the reception channels

The VP-9000 produces sound in response to MIDI messages that it receives from other devices. In order for this to happen, the MIDI channel of the transmitting device (e.g., MIDI keyboard) must match the MIDI channel of each VP-9000 part.

* For details on setting the MIDI transmit channel of the transmitting device, refer to the owner's manual of the transmitting device.

1. Press [PERFORM] to get the indicator to light. The PERFORM Play screen will appear.
2. Press [F4 (MIDI)] and then [F2 (RX)]. The PERFORM/MIDI Rx screen will appear.



3. Use [▲] [▼] [◀] [▶] to move the cursor to the Rx Ch of each part.
4. Either rotate the VALUE dial or use [DEC/-] [INC/+] to set the value.
5. Press [EXIT] to return to the PERFORM Play screen.

Selecting samples

In the SAMPLE Play screen or the PERFORM/PART Sample Select screen, you can select the samples assigned to each part. In these two screens, you can also view a sample list and select from it.

Samples can also be selected by receiving MIDI messages from an external device.

Selecting in the SAMPLE Play screen

1. Press [SAMPLE] to get the indicator to light. The SAMPLE Play screen will appear.

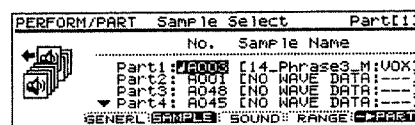


2. Press [◀ /PART] or [PART / ▶] to select the part to which you wish to assign a sample.

3. Either rotate the VALUE dial or use [DEC/-] [INC/+] to select a sample.

Selecting in the PERFORM/PART Sample Select screen

1. Press [PERFORM] to get the indicator to light. The PERFORM Play screen will appear.
2. Press [F2 (PART)] and then [F2 (SAMPLE)]. The PERFORM/PART Sample Select screen will appear.



3. Press [▼] or [▲] to select the part to which you wish to assign a sample.
4. Either rotate the VALUE dial or use [DEC/-] [INC/+] to select a sample.
5. Press [EXIT] twice to return to the PERFORM Play screen.

Selecting from a list

In the previously-explained SAMPLE Play screen and PERFORM/PART Sample Select screen, you can press the VALUE dial to view a sample list. By viewing the sample list, you can find the desired sample more quickly.

Refer to p. 28 for details on using the sample list.

Selecting by MIDI messages from an external device

The VP-9000 can receive MIDI messages to switch samples. MIDI Bank Select messages (controller numbers 0 and 32) and Program Change messages are used for this purpose.

1. Set the transmit channel of the external device (e.g., MIDI keyboard) to match the MIDI receive channel of the VP-9000 part whose sample you wish to select (p. 56).
2. Transmit a Bank Select MSB (controller number 0) to the VP-9000.
3. Transmit a Bank Select LSB (controller number 32) to the VP-9000.

4. Transmit a Program Change to the VP-9000.

- * If the MIDI receive channel of a part is set to the same channel as the control channel (set in the SYSTEM/MIDI General screen), the control channel setting will take priority, and the incoming program change message will switch all parts to the same sample (p. 136). When setting the control channel, be careful that it does not coincide with the MIDI receive channel of a part.
- * In order for Bank Select messages (controller numbers 0 and 32) to be received, the System settings Bank Select Receive Switch and Program Change Receive Switch must both be turned on. With the factory settings, these are both on (p. 137).
- * In order for Program Change messages to be received, the System setting Program Change Receive Switch (p. 137) and the Program Change Receive Switch of each part (p. 56) must both be turned on. With the factory settings, these are all on.

Each sample corresponds to bank select numbers and program numbers as follows.

Sample Number	Bank Select Number		Program Number
	MSB	LSB	
A001-A128	70	00	001-128
B001-B128	70	01	001-128
C001-C128	70	02	001-128
D001-D128	70	03	001-128
E001-E128	70	04	001-128
F001-F128	70	05	001-128
G001-G128	70	06	001-128
H001-H128	70	07	001-128

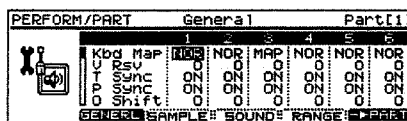
Setting the keyboard state (Keyboard Map)

For each part, you can specify the state of the keyboard. There are three possible keyboard states.

- NORMAL:** A single sample can be played at the pitch of each key
- EVENT:** A single sample can be divided at Event (p. 131) locations, and assigned to each key. This allows you to randomly play regions within the sample.
- PHRASE MAP:** Up to twelve samples can be assigned to each key. This allows you to play multiple samples on one part.

For EVENT and PHRASE MAP, the sample will sound at its original pitch (the pitch at which it was sampled).

1. Press [PERFORM] to get the indicator to light. The PERFORM Play screen will appear.
2. Press [F2 (PART)] and then [F2 (GENERAL)]. The PERFORM/PART General screen will appear.



3. Use [▲] [▼] [◀] [▶] to move the cursor to the Kbd Map of each part.
4. Either rotate the VALUE dial or use [DEC/-][INC/+] to set the value. You can select NOR(= NORMAL), EVT(= EVENT), or MAP(= PHRASE MAP).
5. Press [EXIT] twice to return to the PERFORM Play screen.
 - * The locations at which a sample is divided can be set freely (p. 131).
 - * For "EVENT" and "PHRASE MAP," you can also freely set the location of the key to which the sample is assigned (p. 52).
 - * If "PHRASE MAP" is selected, the sample assigned to that part will be ignored, and the samples assigned to Phrase no. 1-12 for that part will be used instead. For details on phrase map settings, refer to p. 52.



Playing sounds using only the VP-9000 ([PREVIEW])

By pressing the [PREVIEW] button you can play samples using just the VP-9000, even if no other equipment is connected. Samples will sound the pitch at which it was sampled, and the volume will be fixed.

When preview is used, the Trigger Mode setting of the sample will be ignored (p. 43). The preview Trigger Mode setting will be used instead.

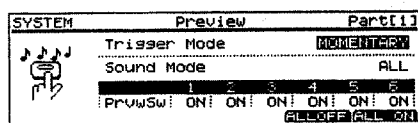
When the VP-9000 is in a mode that allows Preview to be used, the [PREVIEW] indicator will light, and will blink while sounding.

Specifying how the preview will be sounded

You can specify how the preview will be sounded.

1. Press [SYSTEM].
2. Press [F5 (PREVIEW)].

The SYSTEM Preview screen will appear.



3. Use [▲] [II] [▼] [II] [◀] [II] [▶] to move the cursor to the item that you wish to set.
4. Either rotate the VALUE dial or use [DEC/-][INC/+] to set the value.
5. Press [EXIT] twice to return to the initial screen.
 - * If you press [F5 (ALLOFF)] in step 4, PrvwSw will be turned OFF for all parts. Similarly, pressing [F6 (ALL ON)] will turn PrvwSw ON for all parts.

Trigger Mode (Preview Trigger Mode)

Specify how the [PREVIEW] button will function.

Values

- MOMENTARY:** The sound will be heard as long as you continue holding [PREVIEW].
- LATCH:** The sound will begin when you press [PREVIEW], and will stop when you press [PREVIEW] once again.
- * If the [PREVIEW] button indicator is lit, you can hold down [SHIFT] and press [PREVIEW] to switch the Trigger Mode setting (between MOMENTARY and LATCH).

Sound Mode (Preview Sound Mode)

Specify the part(s) that will be sounded by preview.

Values

- SINGLE:** The sample of the current part (or of the current phrase map number of the current part) will sound.
- ALL:** The samples of all parts for which PrvwSw is ON will sound.

PrvwSw (Preview Part 1-6 switch)

Specify the parts that will sound when Sound Mode is ALL.

Values: OFF, ON

About the Preview function

Preview will operate differently depending on the mode.

In Performance mode, Sample mode, and System mode

The wave will be played from the beginning (Wave Start) to the end (Wave End), according to the preview settings. If the sample Loop Sw is turned ON, it will be played repeatedly.

Unencoded samples (without the "♪" symbol) will not sound.

In Utility mode

When copying ([F1 (COPY)]), moving ([F2 (MOVE)]), deleting ([F3 (DELETE)]), initializing ([F4 (INIT)]), or bulk dumping ([F5 (BULK)]) samples of the VP-9000, you can preview the selected sample.

It will be played from the beginning of the wave (Wave Start) to the end of the wave (Wave End). At this time, it will be played without any sample parameters. Thus, sample settings such as Loop Sw will be ignored.

Of the preview settings, Sound Mode and PrvwSw settings will be ignored. Only the Trigger Mode setting will be used.

Unencoded samples (without the "♪" symbol) will also sound.

In Disk mode

When loading ([F1 (LOAD)]) the following files, you can sound the selected file.

Load Menu1 screen

[F2 (SAMPLE)]: Sample

[F4 (VP)]: Included CD-ROM, Roland VP-CD series (sound library)

[F5 (WAV)]: WAV (wave data)

[F6 (AIFF)]: AIFF (wave data)

Load Menu2 screen

[F1 (S-7X0)]: Roland L-CD series, Roland L-CDP series (sound library)

[F2 (S1000)]: AKAI S1000 series (sound library)

The file will be sounded from the beginning of the wave (Wave Start) for two seconds. At this time, it will be sounded without sample parameters. Thus, sample settings such as Loop Sw will be ignored.

Of the preview settings, the Sound Mode and PrvwSw settings will be ignored. Only the Trigger Mode setting will be used.

Unencoded samples (without the "♪" symbol) will also sound.

* The samples on the included Zip disk have been specially compressed by the choice of the producers. Thus, these samples cannot be heard using the preview function.

* Compressed WAV or AIFF data cannot be heard using preview.

In Sampling mode

The selected sample can be previewed. At this time, it will be sounded without the sample parameters. Thus, sample settings such as Loop Sw will be ignored.

Of the preview settings, Sound Mode and PrvwSw will be ignored. Only the Trigger Mode settings will be used.

Unencoded samples (without the "♪" symbol) will also sound.

In Sampling mode, preview operation will depend on the screen that is displayed. Before we explain, please be sure you understand the following seven terms used to indicate locations within a wave.

Wave Start: Beginning of the wave

Wave End: End of the wave

Loop Start, Loop End: If Loop Sw is ON, the region delimited by these two points will continue repeating

Edit Start, Edit End: Editing operations will affect the region delimited by these two points

Current: The currently selected location within the wave

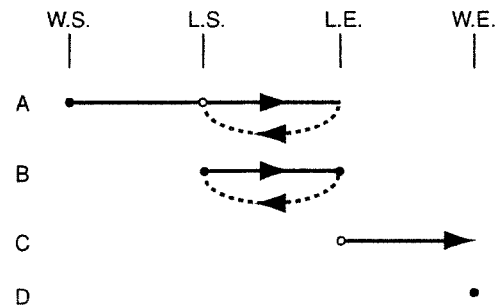
SAMPLING Menu screen, WAVE EDIT screen

The wave will sound from Wave Start to Wave End.

LOOP EDIT screen, TEMPO screen

The wave will begin playing from Current, and the region between Loop Start and Loop End will be repeated.

Details of how the wave will be sounded depending on the Loop Start, Loop End, and Current locations are as follows.



A: If Current is in the region of Wave Start (included)–Loop Start (not included)

B: If Current is in the region of Loop Start (included)–Loop End (not included)

C: If Current is in the region of Loop End (not included)–Wave End (not included)

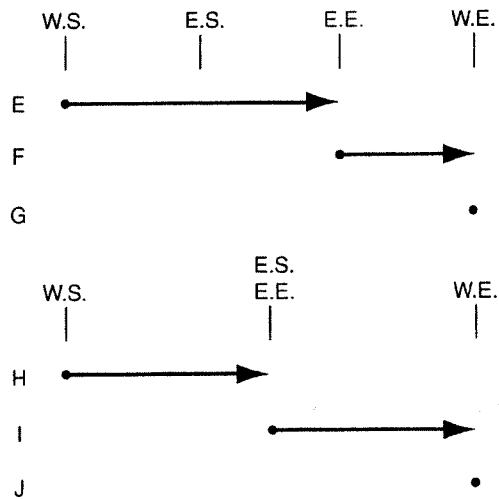
D: If Current is at Wave End, the wave will not sound

Chapter 3. Playing Sounds

CUT&PASTE screen, MODIFY screen, REGION screen

The wave will sound from Current to Edit End.

Details on how the wave will be sounded depending on the Edit Start, Edit End, and Current locations are as follows.



- E:** If Current is in the region of Wave Start (included)–Edit End (not included)
- F:** If Current is in the region of Edit End (included)–Wave End (not included)
- G:** If Current is at Wave End, the wave will not sound
- H:** If Current is in the region of Wave Start (included)–Edit End (= Start) (not included)
- I:** If Current is in the region of Edit End (= Start) (included)–Wave End (not included)
- J:** If Current is at Wave End, the wave will not sound

ENCODE screen

The wave will sound from Current to the next event.

Depending on the locations of Current and the events, a significant length of sound may not be heard.

If there is no event to the right of Current, the wave will sound from Current to Wave End.

If Current is at Wave End, the wave will not sound.

Chapter 4. Sample Settings ([SAMPLE])

The items that can be set for a sample are assigned to the function buttons as follows.

[SAMPLE]	
[F1 (COMMON)]	
[F1 (NAME)]	Change name and category (p. 42)
[F2 (INFO)]	Check sample info/set original tempo, original pitch and original fine tune (p. 41)
[F2 (MODE)]	Specify how sample will sound (1) (p. 42)
[F3 (SWITCH)]	Specify how sample will sound (2) (p. 43)
[F4 (AMP)]	
[F1 (GAIN)]	Volume, fade-in/out settings (p. 44)
[F2 (VELO)]	Velocity settings (p. 44)
[F5 (CTRL)]	
[F1 (PITCH)]	Pitch settings (p. 44)
[F2 (TIME)]	Time settings (p. 45)
[F3 (FORMNT)]	Formant settings (p. 45)
[F4 (PAN)]	Pan settings (p. 45)
[F5 (PORTA)]	Portamento settings (p. 46)
[F6 (LFO)]	
[F1 (COMMON)]	LFO common settings (p. 47)
[F2 (DEPTH)]	LFO depth settings (p. 48)

Checking sample information ([F1 (COMMON)])

[F2 (INFO)]

In the SAMPLE/COMMON Sample Info screen you can check the following information for the sample.

- Encode type (p. 130)
- Sample type (p. 121)
- Loop point location (Loop S, Loop E) (p. 126)
- Time signature (p. 127)
- Original tempo (p. 127)
- Original pitch (p. 121)
- Original fine tune

Original Tempo, Original Pitch, and Original Fine Tune can be modified in this screen.

* If you want to set an accurate original tempo, make settings in the wave editing TEMPO screen (p. 127).

Original Fine Tune adjusts the current pitch in one-cent steps (1/100 of a semitone) over a range of 1/2 semitone upward or downward.

Values: -50→+50

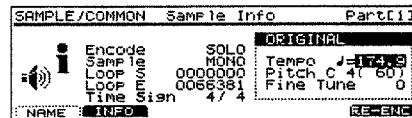
An encoded sample can also be changed to a different encode type.

1. Press [SAMPLE], getting the indicator to light.
2. Use [◀ /PART][PART/ ▶] to select the part to which the sample you wish to check is assigned.

* If you wish to check information of a sample that has not been assigned to a part, either rotate the VALUE dial or use [DEC/-][INC/+] to assign the sample to one of the parts.

3. Press [F1 (COMMON)].

The SAMPLE/COMMON Sample Info screen will appear.



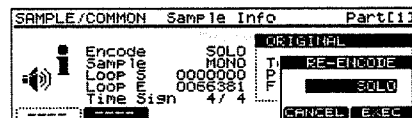
To adjust Original fine tune, Original Tempo, or Original Pitch, use steps 4–5.

4. Use [▲] [▼] to move the cursor to the item that you wish to set.
5. Either rotate the VALUE dial or use [DEC/-][INC/+] to set the value.

If you wish to change to a different type of encoding, use the following steps 6–8.

6. Press [F6 (RE-ENC)].

The RE-ENCODE window will appear.



7. Either rotate the VALUE dial or use [DEC/-][INC/+] to select the encoding type.

* If you decide to halt re-encoding, press [F5 (CANCEL)].

8. Press [F6 (EXEC)] to re-encode the data.

The display will indicate “Completed!”, and you will return to the SAMPLE/COMMON Sample Info screen.

* A certain amount of time may be required for encoding to be completed.

* If you wish to halt re-encoding during the process press [F1 (ABORT)].

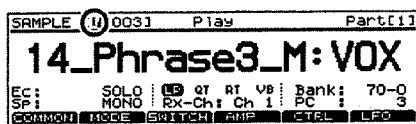
9. Press [EXIT] to return to the SAMPLE Play screen.

* For details on the encode type, refer to p. 130.

Sample setting procedure

Use the following procedure to make settings for a sample.

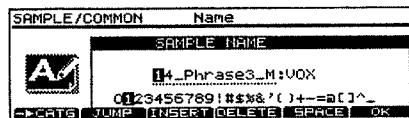
1. Press [SAMPLE], getting the indicator to light.
The SAMPLE Play screen will appear.
2. Use [< /PART][PART / >] to select the part to which the sample you wish to set has been assigned.
* If you wish to make settings for a sample that has not been assigned to a part, either rotate the VALUE dial or use [DEC/-][INC/+] to assign the sample to one of the parts.
3. Press one of the function keys [F1]–[F6].
4. If in step 3 you pressed [F1] or [F4]–[F6], continue and press [F1]–[F5] to access the desired screen.
5. Use [▲ || ▼ || ◀ || ▶] to move the cursor to the item that you wish to set.
6. Either rotate the VALUE dial or use [DEC/-][INC/+] to set the value.
7. Press [EXIT] to return to the SAMPLE Play screen.
At the left of the sample number, a small “E” symbol will appear, indicating that the settings have been modified.



- * When you turn off the power, the VP-9000 will discard all the samples in its internal memory. If you wish to keep these samples, you must perform the Save procedure (p. 141). When you save a sample, the “E” symbol will disappear.

Changing the name and category ([F1 (COMMON)])

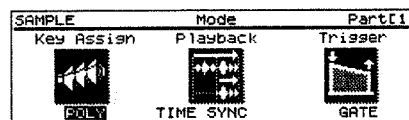
[F1 (NAME)]



After recording or loading a sample, you can change its name or category.

After accessing the SAMPLE/COMMON Name screen, assign the name and category as described in “Assigning a name” (p. 26).

Specifying how the sample will sound (1) ([F2 (MODE)])



Key Assign (key assign mode)

You can specify that the sample be sounded either in polyphonic (POLY) or in monophonic (SOLO) mode. When using a sample of a monophonic instrument (such as sax or flute), it is effective to use SOLO. This setting is also displayed in the SAMPLE Play screen.

Values

- POLY: Multiple notes can be played simultaneously.
SOLO: Only the note of the last-played key will sound.

Playback (playback mode)

Selects how the sample will be played back.

Values

RETRIGGER:

The sample will play back from the beginning each time you play a key.

TIME SYNC (when Key Assign = POLY):

When you play legato, the playback point will be synchronized with the currently playing sound.

LEGATO (when Key Assign = SOLO):

When you play legato, playback will occur from the playback point of the previous note, with a different pitch.

STEP:

Each time you play a key, the sample will play back to the next event (p. 131) and then stop.

Trigger (trigger mode)

Specifies how the sample will be sounded when you play a key.

Values

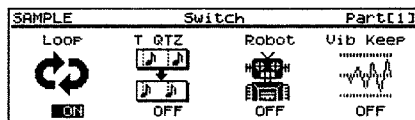
GATE: The sample will sound only as long as you continue pressing the key. In other words, the sample will begin sounding when note-on is received, and will stop sounding when note-off is received.

TRIGGER: Each time you press the key, the sample will either start or stop playing. In other words, the sample will begin playing when a note-on is received, and will stop playing when the next note-on is received.

DRUM: The sample will begin playing when you press the key, and will continue playing to the end. In other words, the sample starts playing when a note-on is received, and will continue playing. If you use this on a decay-type sound (such as a cymbal), you will not need to continue holding the key down.

** If this is set to TRIGGER and you loose track of which key you played, the sample may continue sounding. Also, if you are playing the VP-9000 from a sequencer, samples may continue sounding even after you stop the sequencer. In such cases, hold down the [SHIFT] button and press the [PERFORM] button. Alternatively, play the key that you have specified as the Panic Key (p. 137). All notes will stop.*

Specifying how the sample will sound (2) ([F3 (SWITCH)])



** Loop, T QTZ, Robot, and Vib Keep settings can also be viewed in the Sample Play screen.*



Loop (loop switch)

If you want the sample to play back as a loop, turn this ON. The region between the Loop Start and Loop End you set in the LOOP EDIT screen will continue playing back repeatedly.

Values: OFF, ON

- * If Trigger Mode = DRUM, the Loop settings will be ignored, and loop playback will not occur.
- * If Keyboard Map (p. 51) is set to EVENT, a portion of the sample assigned to the key you played will play back repeatedly.
- * If the Playback Mode (p. 42) is set to STEP, the portion up to the next event will play back repeatedly each time you press a key.
- * You can also change the loop switch setting in the Sample Play screen by pressing [▲] or [▼].
- * If you wish to change the Loop Start and Loop End locations, refer to p. 125, 126.

T QTZ (trigger quantize switch)

If you wish to play back the sample in time with the beat, turn this ON. The Loop Start (p. 126) location will be aligned with the beat.

Values: OFF, ON

Robot (robot voice switch)

If you wish to remove the sense of pitch from the sample, turn this ON. In the case of a phrase sample, you can use the keyboard to play a melody that is different from that of the original sample, so that a single sample can be used to perform a variety of melodies.

Values: OFF, ON

- * This function is valid only for samples whose encode type (p. 130) is SOLO.
- * If the slight changes in pitch within the original phrase are important elements of the performance expression, you may not be able to obtain good results from the Robot Voice function. Also, good results may not be obtainable if the key you play is distant from the pitch of the original phrase.

Chapter 4. Sample Settings ([SAMPLE])

Vib Keep (vibrato keep switch)

This switch preserves the vibrato data of the sample. This function is used simultaneously with Hold messages (Hold 1 (controller number 64) or Hold 2 (controller number 69)). At this time, Hold 1 Destination or Hold 2 Destination (p. 61) must be set to HOLD.

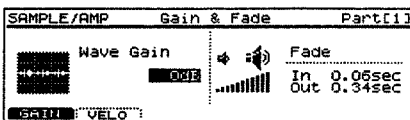
For example, if a vocal sample contains vibrato, rotating the TIME knob will change the speed of playback, which will also change the modulation of vibrato. If you turn Vib Keep ON and are playing back the sample with modified modulation, receiving a Hold message will cause the sample to play while returning to the original state of modulation (the vibrato of the sample).

Values: OFF, ON

- * This function is valid only for samples for which a hold loop point has been specified. This hold loop point cannot be set on the VP-9000. (It is a different parameter than the loop start and loop end points used for loop playback.) The included CD-ROM contain several waves for which hold loop points have been set (Wave List p. 5–11). Be aware that if you load these samples into the VP-9000 and re-encode them, the hold loop points will disappear.

Setting the volume ([F4 (AMP)])

[F1 (GAIN)]



Wave Gain

Sets the gain (amplification) of the waveform. An increase of 6 dB (decibel) doubles the gain.

Values: 0–+18 [dB]

Fade In

This makes the volume gradually louder as the sample begins to sound. This setting specifies the time it will take until the specified volume is reached, starting from a volume of 0.

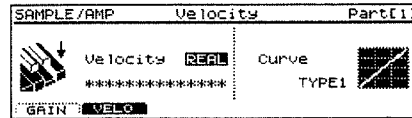
Values: 0.00–2.00 [sec]

Fade Out

This makes the volume gradually softer as the sample stops sounding. This setting specifies the time that is required for a volume of zero to be reached, starting from the specified volume.

Values: 0.00–6.00 [sec]

[F2 (VELO)]



Velocity

This lets you specify how keyboard playing strength will affect the volume. With a setting of REAL, the keyboard playing strength will determine the volume. With a setting of 1–127, the sample will sound at a fixed volume, regardless of how strongly you play the key.

Values: REAL, 1–127

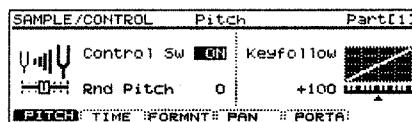
Curve (velocity curve)

You can select from seven curves that determine how keyboard playing strength will affect the volume. The curve is displayed at the right of the parameter value. The horizontal axis is the playing strength, and the vertical axis indicates the volume.

Values: TYPE1–TYPE7

Pitch / time / formant / pan / portamento settings ([F5 (CTRL)])

[F1 (PITCH)]



Control Sw (pitch control switch)

This switch determines whether the pitch can be changed by control changes. If you wish to rotate a knob to control the pitch, turn this ON.

Values: OFF, ON

Rnd Pitch (random pitch depth)

Specifies the amount of pitch change that will occur randomly each time you play a key. If you do not want the pitch to change randomly, set this to 0. These values are in units of cents (1/100th of a semitone).

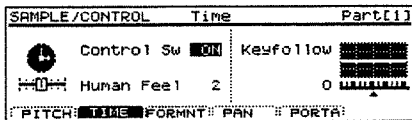
Values: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200

Keyfollow (pitch key follow)

This specifies the amount of pitch change that will occur when you play a key one octave higher (i.e., 12 keys upward on the keyboard). If you want the pitch to rise one octave as on a conventional keyboard, set this to +100. If you want the pitch to rise two octaves, set this to +200. Conversely, set this to a negative value if you want the pitch to fall. With a setting of 0, all keys will produce the same pitch.

Values: -100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F2 (TIME)]



Control Sw (time control switch)

This switch determines whether the playback speed (time) can be varied by control changes. If you wish to vary the time by rotating a knob, turn this ON.

Values: OFF, ON

Human Feel

Use this to produce a sense of multiple singers when playing chords with a vocal sample. It varies the playback speed (time) for each note-on, and minutely varies the timing of the note. Larger values will produce greater variation.

Values: 0-7

* If you use Human Feel, it is not possible to synchronize the tempo.

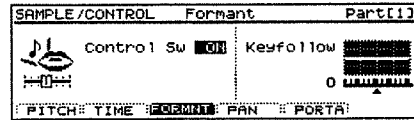
Keyfollow (time key follow)

Use this to vary the playback speed (time) according to the key that you play. With positive (+) settings, the playback will speed up correspondingly as you play keys higher than the original pitch (p. 121). With negative (-) settings, the playback will slow down correspondingly as you play keys higher than the original pitch. Larger settings will produce greater change. With a setting of +100, the change will be the same as on conventional samplers.

Values: -100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F3 (FORMNT)]

* Format Control Switch and Formant Keyfollow are valid only for samples whose encode type (p. 130) is SOLO.



Control Sw (formant control switch)

This switch specifies whether the vocal character (formant) can be modified by control changes. If you wish to modify the formants by rotating a knob, turn this ON.

Values: OFF, ON

Keyfollow (format key follow)

Specifies how the vocal quality (format) will be affected by the key you play. With positive (+) settings, playing a key higher than the original pitch (p. 121) will produce a "duck voice" as though the vocal cords had shrunk. With negative (-) settings, playing a key higher than the original pitch will produce a "giant voice" as though the vocal cords had expanded. With a setting of +100, the change will be the same as on a conventional sampler.

Values: -100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F4 (PAN)]



Control Mode (pan control mode)

Selects how pan messages will be received.

Values

- OFF: Pan messages will not be received.
- CONTINUOUS: Pan messages can be received at any time to continuously change the location of the sound.
- KEY-ON: The location of the sound will change when a note is played. Even if a pan message is received while a note is sounding, the location will not change until the next key is played.

Chapter 4. Sample Settings ([SAMPLE])

Random Pan (random pan depth)

Use this when you want the pan of the sound to change randomly each time you play a key. Higher settings will produce a greater amount of change.

Values: 0–63

Alternate (alternate pan depth)

Use this setting when you want the pan of the sound to alternate between left and right each time you play a key. Higher settings will produce a greater amount of change. L or R settings will reverse the order in which the pan will alternate between left and right.

Values: L64–63R

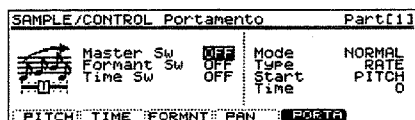
Keyfollow (pan key follow)

Specifies how the pan will be affected by the key that you play. With positive (+) settings, playing keys higher than the original pitch (p. 121) will move the pan toward the right. With negative (-) settings, playing keys higher than the original pitch will move the pan toward the left. Larger values will produce greater change.

Values: -100, -70, -50, -40, -30, -20, -10, 0, +10, +20, +30, +40, +50, +70, +100

[F5 (PORTA)]

Portamento is an effect which smoothly changes the pitch from the first-played key to the next-played key. When Key Assign is SOLO, applying portamento will produce an effect similar to the slide performance technique of a violinist. Portamento can also be applied when Key Assign is polyphonic (POLY).



Master Sw (portamento master switch)

Specify whether the portamento effect will be applied (ON) or not (OFF).

Values: OFF, ON

Formant Sw (portamento formant switch)

When Portamento Key Follow (p. 45) is set to a value other than 0, the Formant Sw parameter specifies whether differences in formant between the first-played key and the second-played key will be changed smoothly (ON) or not (OFF). This is valid only for samples whose Encode Type is SOLO.

Values: OFF, ON

* This function is valid only when the Portamento Master Switch is turned "ON"

Time Sw (portamento time switch)

When Time Key Follow (p. 45) is set to a value other than "0," the Time Sw setting specifies whether differences in the playback speed between the first-played key will be smoothly changed to the playback speed of the second-played key (ON), or whether it will change abruptly (OFF).

Values: OFF, ON

* This function is valid only when the Portamento Master Switch is "ON."

Mode (portamento mode)

Specify the performance conditions for which portamento will be applied.

Values

NORMAL: Portamento will always apply.

LEGATO: Portamento will be applied only when you play legato (i.e., when you press the next key before releasing the previous key).

Type (portamento type)

Specify the type of portamento effect.

Values

RATE: The time of the pitch change will change proportionately to the pitch.

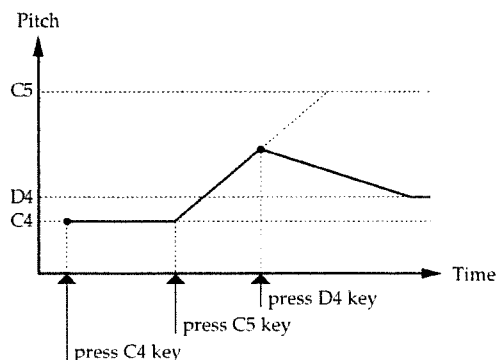
TIME: The pitch will change over a fixed time, regardless of the pitch.

Start (portamento start)

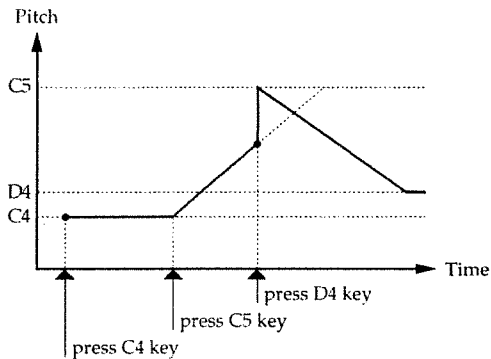
When another key is pressed during a pitch change produced by portamento, a new pitch change will begin. This setting specifies the pitch at which the change will begin.

Values

PITCH: When another key is pressed while the pitch is moving, portamento will begin anew from the pitch that had been reached at that moment.



NOTE: Portamento will begin anew from the pitch where the current change would end.



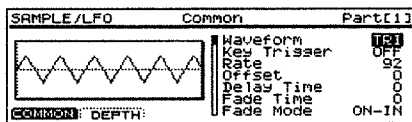
Time (portamento time)

Specify the time over which the next pitch is reached.

Values: 0-127

LFO settings ([F6 (LFO)])

[F1 (COMMON)]



Waveform (LFO waveform)

Selects the waveform of the LFO.

Values

- TRI: Triangle waveform
- SIN: Sine waveform
- SAW: Sawtooth waveform
- SQR: Square waveform
- TRP: Trapezoidal waveform
- S&H: Sample and hold waveform
- RND: Random waveform
- CHS: Chaos waveform

Key Trigger (LFO key trigger)

Specifies whether the timing at which the LFO cycle will begin will be synchronized with the timing at which you play a key (ON), or will not be synchronized (OFF).

Values: OFF, ON

Rate (LFO rate)

Specifies the speed of the LFO cycle.

If Ext Sync is set to CLK, the LFO rate can be set in terms of note lengths of the synchronization tempo.

Example: For a tempo of 120 (120 quarter notes occur in 1 minute (60 seconds))

Setting LFO frequency period

192= ♩ (half note) 1 second (60 / 60 = 1 (second))

96= ♪ (quarter note) 0.5 seconds (60 / 120 = 0.5 (seconds))

48= ♫ (eighth note) 0.25 seconds (60 / 240 = 0.25 (seconds))

Values: 0-127 (when Ext Sync = OFF),
0-880 (note-value symbols) (when Ext Sync = CLK)

* If Waveform is set to CHS, this setting will be ignored.

Offset (LFO offset)

Raises or lowers the LFO waveform relative to the central value (pitch or cutoff frequency). Positive (+) settings will move the waveform so that modulation will occur from the central value upward. Negative (-) settings will move the waveform so that modulation will occur from the central value downward.

Values: -100, -50, 0, +50, +100

Delay Time (LFO delay time)

When Fade Mode is ON-IN, this specifies the time from when the key is played until the LFO begins to apply. (In the case of ON-OUT, this specifies the time that the LFO will continue.)

When Fade Mode is OFF-IN, this specifies the time from when the key is released until the LFO begins to apply. (In the case of OFF-OUT, this specifies the time that the LFO will continue.)

Refer to the illustration for Fade Mode.

Values: 0-127

Fade Time (LFO fade time)

This specifies the time over which the LFO amplitude reaches maximum (minimum) after the delay time has elapsed.

Refer to the illustration for Fade Mode.

Values: 0-127

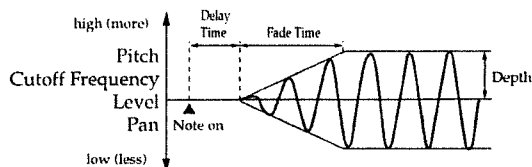
Chapter 4. Sample Settings ([SAMPLE])

Fade Mode (LFO fade mode)

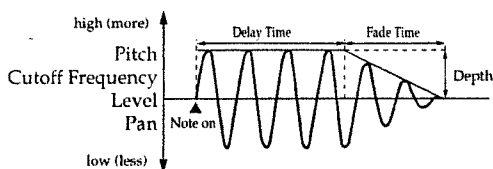
Specifies how the LFO will be applied.

Values

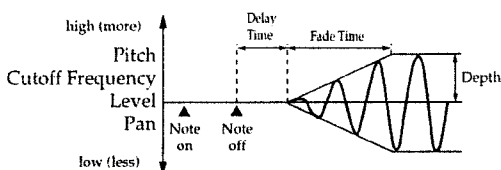
ON-IN: The LFO will be applied gradually, starting when the key is played.



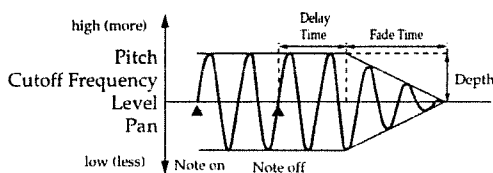
ON-OUT: When the key is pressed, the LFO will be applied, and will then gradually diminish.



OFF-IN: The LFO will begin gradually when the key is released.



OFF-OUT: The LFO will apply from when the key is pressed until it is released, and will gradually diminish after the key is released.



Ext Sync (LFO external sync)

Specify how the LFO will synchronize.

Values

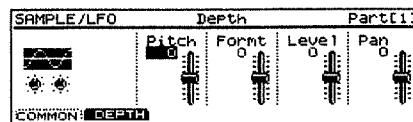
OFF: The LFO will not synchronize.

CLK: The LFO will synchronize to the internal or external tempo clock.

* If you select CLK, turn Tempo Sync on for the part to which the sample is assigned (p. 51).

[F2 (DEPTH)]

* For depths of the opposite sign (positive or negative), the LFO phase will be inverted.



Pitch (pitch LFO depth)

Specifies how greatly the pitch will be affected by the LFO.

Values: -64+63

Formt (formant LFO depth)

Specifies how greatly the formant will be affected by the LFO.

Values: -64+63

Level (level LFO depth)

Specifies how greatly the volume will be affected by the LFO.

Values: -64+63

Pan (pan LFO depth)

Specifies how greatly the pan will be affected by the LFO.

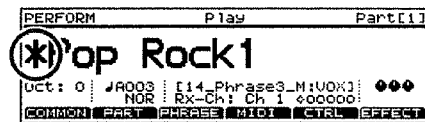
Values: L64-63R

Chapter 5. Performance settings ([PERFORM])

The items that can be set for a performance are assigned to the function buttons as follows.

[PERFORM]	
→ [F1 (COMMON)]	Change the name (p. 49)
[F1 (NAME)]	Tempo/synchronization/metronome settings (p. 49)
[F2 (TEMPO)]	Tuning settings (p. 50)
[F3 (SOUND)]	
→ [F2 (PART)]	Keyboard status/polyphony/synchronization/octave shift settings (p. 51)
[F2 (GENERL)]	Sample selection (p. 51)
[F3 (SAMPLE)]	Volume/pan/tuning settings (p. 52)
[F4 (SOUND)]	Note range (key range) settings (p. 52)
[F5 (RANGE)]	
→ [F3 (PHRASE)]	Sample selection/synchronization/octave shift settings (p. 54)
[F4 (SAMPLE)]	Volume/pan/tuning settings (p. 54)
[F5 (SOUND)]	Effect settings (p. 55)
[F6 (EFFECT)]	
→ [F4 (MIDI)]	MIDI-related knob settings (p. 57)
[F1 (COMMON)]	Receive channel/receive switch settings (p. 56)
[F2 (RX)]	
→ [F5 (CTRL)]	
Menu1	
[F2 (C1)]	Knob C1 settings (p. 58)
[F3 (C2)]	Knob C2 settings (p. 58)
[F4 (C3)]	Knob C3 settings (p. 58)
[F5 (VC)]	Virtual knob settings (p. 58)
Menu2	
[F2 (MOD)]	Modulation settings (p. 58)
[F3 (P.BEND)]	Pitch bend settings (p. 58)
[F4 (AFTER)]	Aftertouch settings (p. 58)
[F5 (HOLD)]	Hold settings (p. 60)
→ [F6 (EFFECT)]	
[F3 (ROUTNG)]	Effect structure settings (p. 64)
[F4 (MULTI)]	Multi-effect settings (p. 67)
[F5 (CHORUS)]	Chorus settings (p. 109)
[F6 (REVERB)]	Reverb settings (p. 111)

When you modify the settings of a performance, an asterisk "*" will be displayed at the left of the performance name to indicate the settings have been changed.



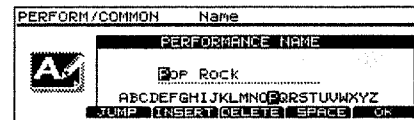
* When the power of the VP-9000 is turned off, all internal performance settings will be lost. If you wish to keep the performance, you must perform the Save operation (p. 141). When you save the performance, the "*" symbol will disappear.

Overall Settings for the performance ([F1 (COMMON)])

Modifying the name

To modify the performance name, use the following procedure.

1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F1 (COMMON)] and then [F1 (NAME)]. The PERFORM/COMMON Name screen will appear.

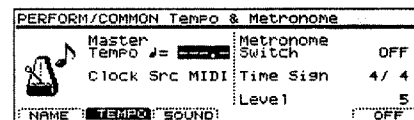


3. As described in "Assigning a name" (p. 26), modify the name. You will return to the PERFORM/COMMON Tempo & Metronome screen.
4. Press [EXIT] to return to the PERFORM Play screen. Verify that the name has been changed.

Tempo / synchronization / metronome settings

To change tempo-related settings of the performance, use the following procedure.

1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F1 (COMMON)]. The PERFORM/COMMON Tempo & Metronome screen will appear.



3. Use [▲] [▼] [◀] [▶] to move the cursor to the item that you wish to set.
4. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].

* By pressing [F6], you can turn the Metronome Switch on/off regardless of the cursor location.

5. Press [EXIT] to return to the PERFORM Play screen.

* The metronome sound will not be output from the two digital output connectors.

Chapter 5. Performance settings ([PERFORM])

Master Tempo

This sets the master tempo of the performance. If Clock Src = MIDI, this will be displayed as “—.”

Values: 20.0–250.0

Clock Src (clock source)

Select whether the internal clock (INT) or an external clock (MIDI) will be used as the tempo clock of the performance.

Values: INT, MIDI

Metronome Switch

Specify whether the metronome will be sounded (ON) or not (OFF).

Values: OFF, ON

Time Sign (time signature)

Specify the time signature of the metronome.

Values

Numerator: 1–16

Denominator: 2, 4, 8, 16

Level (metronome level)

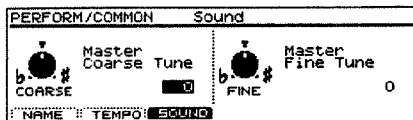
Specify the volume of the metronome.

Values: 1–8

Tuning settings

To make tuning-related settings for the performance, use the following procedure.

1. Press [PERFORM] to make the indicator light.
The PERFORM Play screen will appear.
2. Press [F1 (COMMON)], and then [F3 (SOUND)].
The PERFORM/COMMON Sound screen will appear.



3. Use [◀] [▶] to move the cursor to the item that you wish to set.
4. Set the value by either rotating the VALUE dial or using [DEC/-][INC/+].
5. Press [EXIT] to return to the PERFORM Play screen.

Master Coarse Tune

Adjust the basic pitch of the performance in semitone steps over a range of +/-1 octave.

Values: -12–+12

Master Fine Tune

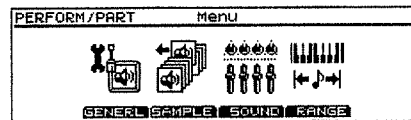
Adjust the pitch specified by Master Coarse Tune in 1-cent steps (1/100th of a semitone), over a range of 1/2 semitone upward or downward.

Values: -50–+50

Settings for each part ([F2 (PART)])

To make settings for each part assigned to the [F2 (PART)] button, use the following procedure.

1. Press [PERFORM] to make the indicator light.
The PERFORM Play screen will appear.
2. Press [F2 (PART)].
The PERFORM/PART Menu screen will appear.



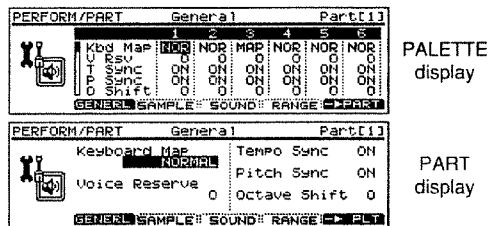
3. Press [F2]–[F5].
4. If you press [F4 (SOUND)] in step 3, proceed to press [F1]–[F4] to access the desired screen.
5. Use [▲] [▼] [◀] [▶] to move the cursor to the part and item that you wish to set.
** You can also use [◀] /PART/[PART] ▷] to switch parts.*
6. Set the value by either rotating the VALUE dial or using [DEC/-][INC/+].
7. Press [EXIT] twice to return to the PERFORM Play screen.

The PALETTE display and the PART display

Each PERFORM/PART screen can be displayed in two ways: the PALETTE display and the PART display.

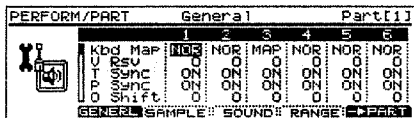
In the PALETTE display, you can make settings for all parts in a single screen. In the PART display, you can make settings for one part in a single screen.

When you enter a screen, the PALETTE display will always appear. If you wish to select the PART display, press [F6 (→PART)]. To return to the PALETTE display, press [F6 (→PLT)].



* In the Sample Select screen and Key Range screen, the PALETTE display and PART display are identical. However, the display that appears when you move to another screen will depend on the display that is selected.

Keyboard state / polyphony / synchronization / octave shift settings



Kbd Map (keyboard map)

Set the state of the keyboard for each part. For EVENT and PHRASE MAP, the sample will sound the pitch at which it was sampled.

Values

NOR (= NORMAL):

The sample assigned to each part can be played at the pitch of each key.

EVT (= EVENT):

The sample will be divided, and assigned to different keys.

MAP (= PHRASE MAP):

Up to twelve samples can be assigned to different keys.

* You are free to specify the location at which the sample is divided (p. 131).

- * For EVENT and PHRASE MAP, you are also free to specify the key location to which the sample is assigned (p. 52).
- * For details on Phrase Map settings, refer to p. 52.

V Rsv (voice reserve)

Specify the number of voices that will be reserved for each part if the VP-9000 is called upon to produce more than six notes simultaneously.

Values: 0-6

* It is not possible for the settings of all parts to total more than six.

T Sync (tempo sync)

Specify whether the playback speed of the sample assigned to each part will match the master tempo or external clock (ON) or not (OFF).

Values: OFF, ON

* If the master tempo (p. 50) is set to a value that is four times or more than the original tempo (p. 127) of the sample, it is not possible to synchronize the sample to the master tempo.

P Sync (pitch sync)

Specify whether the master coarse tune and master fine tune of the performance (p. 50) will be enabled for each part (ON) or not (OFF).

Values: OFF, ON

O Shift (octave shift)

Adjust the pitch of each part in one-octave units.

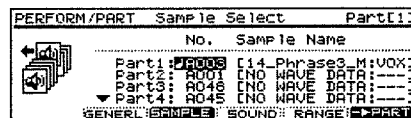
Values: -3+3

Selecting a sample

Here you can select the sample that is assigned to each part. If you press the VALUE dial, you will be able to select samples from a list (p. 28).

No. (sample number)

Values: A001-H128



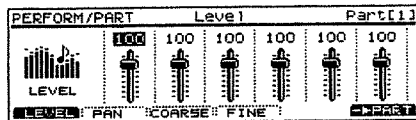
Chapter 5. Performance settings ([PERFORM])

Volume / pan / tuning settings

Level

Set the volume of each part. Use this to adjust the volume balance between parts.

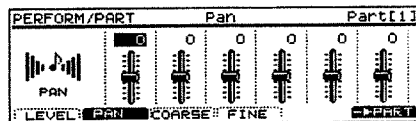
Values: 0–127



Pan

Adjust the pan of each part. L64 is far left, 0 is center, and 63R is far right.

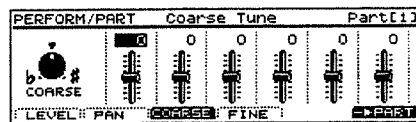
Values: L64–63R



Coarse Tune

Adjust the basic pitch of each part in semitone steps over a range of +/-1 octaves.

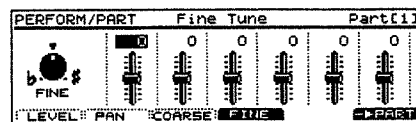
Values: -12–+12



Fine Tune

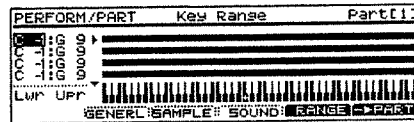
Relative to the Coarse Tune setting, make fine adjustments in steps of one cent (1/100th of a semitone) over a range of 1/2 semitone upward or downward.

Values: -50–+50



Setting the pitch range (Key Range)

Set the pitch range (Key Range) of each part. Use these settings to divide the keyboard and play separate samples.



Key Range Lwr (key range lower)

Specify the lower limit of the range.

Values: C-1–Upper

Key Range Upr (key range upper)

Specify the upper limit of the range.

Values: Lower–G9

Playing different samples from each key (Phrase Map) ([F3 (PHRASE)])

By setting Keyboard Map to PHRASE MAP, you will be able to assign up to twelve samples to different keys within a single part (p. 51).

This section will explain how to make settings for each key and for each assigned sample when Keyboard Map is set to PHRASE MAP.

Specifying the key locations that will play the sample

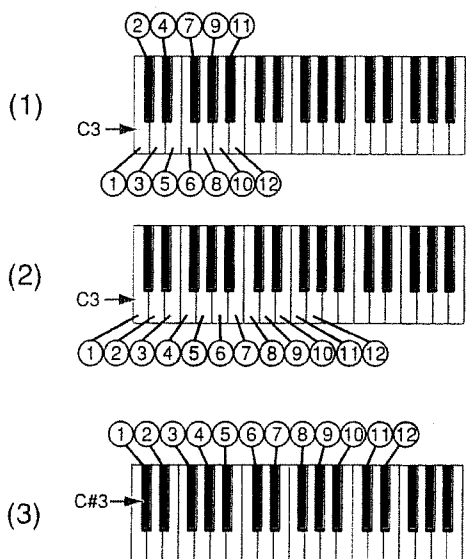
Specify the key locations to which you will assign a sample. These Assign and Start Key settings are also used when Keyboard Map = EVENT.

Samples will be assigned consecutively to the keys specified by Assign, starting at the key specified by Start Key.

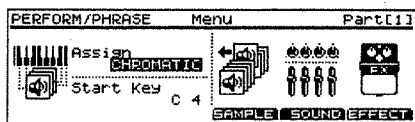
Example:

- 1 When Assign = CHROMATIC and Start Key = C3
- 2 When Assign = WHITE and Start Key = C3
- 3 When Assign = BLACK and Start Key = C#3

(The numbers written on the keys indicate the Phrase No. (phrase map number).)



1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F3 (PHRASE)]. The PERFORM/PHRASE Menu screen will appear.



3. Press [< /PART] or [PART / >] to select the part.
4. Use [▲] [▼] to move the cursor to the item that you wish to set.
5. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].
6. Press [EXIT] to return to the PERFORM Play screen.

Assign (phrase map assign)

Values

CHROMATIC: Samples will be assigned consecutively to both white keys and black keys.

WHITE: Samples will be assigned consecutively to the white keys only.

BLACK: Samples will be assigned consecutively to the black keys only.

Start Key (phrase map start key)

Specify the starting location of the keys to which samples will be assigned. The location you specify here will be the location of phrase number 1.

Values: C-1, C0, C1, C2, C3, C4, C5, C6, C7

* When Assign = BLACK, the Start Key values will be C#-1, C#0, C#1, C#2, C#3, C#4, C#5, C#6, or C#7.

Settings for each key

Here's how to specify the samples that will be used in a phrase map. Select the key (Phrase No. 1-12) for which you wish to make settings, and make the desired settings.

1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F3 (PHRASE)]. The PERFORM/PHRASE Menu screen will appear.
3. Press [< /PART] or [PART / >] to select the part.
4. Press [F4]-[F6] to access the desired screen.
5. Press [F1 (←)] or [F2 (→)] to select the Phrase No (phrase map number).
Regardless of where the cursor is, you can press [F1 (←)] [F2 (→)] to switch the Phrase No.
* When the cursor is at Phrase No., you can switch the phrase number by rotating the VALUE dial or using [DEC/-] [INC/+].
6. Use [▲] [▼] [←] [→] to move the cursor to the item that you wish to set.
7. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].
8. Press [EXIT] twice to return to the PERFORM Play screen.

Chapter 5. Performance settings ([PERFORM])

Selecting the sample / synchronization / octave shift settings

- * For parts whose Keyboard Map = PHRASE MAP, the following part parameter settings (p. 51) will be ignored.
- No. (sample number)
- Tempo Sync
- Pitch Sync
- Octave Shift

PERFORM/PHRASE	Sample Select	Part[1]
Phrase No	No.	Sample Name
Note 60(C 4)	A003	C14_Phrase3_M:VOX3
▲C4	Tempo Sync	OFF
	Pitch Sync	ON
	Octave Shift	0
	SAMPLE	SOUND EFFECT

No. (map sample number)

Select the sample that will be assigned to each key. If you press the VALUE dial, you will be able to select samples from a list display (p. 28).

Values: A001–H128

- * By holding down [SHIFT] and pressing [F3 (SETALL)], you can assign the same sample to all phrase map numbers. All phrase map numbers will use the sample that is assigned to the currently selected phrase map number.

Tempo Sync (map tempo sync)

Specify whether the playback speed of the sample assigned to each key will be synchronized to the master tempo or external clock (ON), or not (OFF).

Values: OFF, ON

Pitch Sync (map pitch sync)

Specify whether the master coarse tune and master fine tune of the performance will be applied to each key (ON) or not (OFF).

Values: OFF, ON

Octave Shift (map octave shift)

Specify the pitch of each key in units of one octave.

Values: -3–+3

Volume / pan / tuning settings

- * The following part parameter settings (p. 52) will be ignored for parts whose Keyboard Map = PHRASE MAP.

- Level
- Pan
- Coarse Tune
- Fine Tune

PERFORM/PHRASE	Sound	Part[1]
Phrase No	Level	Pan
Note 60(C 4)	100	0
▲C4	Coarse	Fine
	0	0
	SAMPLE	SOUND EFFECT

Level (map level)

Specify the volume of each key. Use this to adjust the volume balance between keys.

Values: 0–127

Pan (map pan)

Specify the pan of each key. L64 is far left, 0 is center, and 63R is far right.

Values: L64–63R

Coarse (map coarse tune)

Adjust the basic pitch of each key in semitone steps over a range of +/-1 octaves.

Values: -12–+12

Fine (map fine tune)

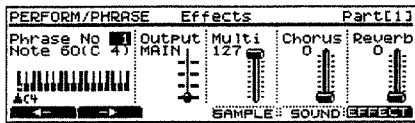
Relative to the pitch specified by Coarse, make fine adjustments in steps of one cent (1/100th of a semitone) over a range of 1/2 semitone upward or downward.

Values: -50–+50

Effect settings

Make effect settings for each key.

- * For parts whose Keyboard Map = PHRASE MAP, the following part parameter settings (p. 66) will be ignored.
- Out Assign (output assign)
- MFX Send Level (multi-effect send level)
- Cho Send Level (chorus send level)
- Rev Send Level (Reverb send level)
- * For details on effect settings common to all parts, and on the effect signal flow, refer to “Specifying the Effect Configuration and Output Jacks” (p. 64).



Output (map output assign)

Specify the output destination of the original sound.

Values

- MAIN: The sound will be output to reverb, chorus and the “MAIN OUT” OUTPUT jacks. Select this setting when you are not using the multi-effect, and wish to use only reverb and chorus.
- M-FX: The sound will be output to reverb, chorus, and multi-effect. Select this when you wish to use reverb, chorus, and multi-effect.
- DIR1: The sound will be output to the “DIRECT OUT 1” OUTPUT jacks. Select this when you wish to use an external effect processor without using the built-in effects of the VP-9000.
- DIR2: The sound will be output to the “DIRECT OUT 2” OUTPUT jacks. Select this when you wish to use an external effect processor without using the built-in effects of the VP-9000.

Multi (map multi-effect send level)

Adjust the depth of the multi-effect.

Values: 0-127

Chorus (map chorus send level)

Adjust the chorus depth.

Values: 0-127

Reverb (map reverb send level)

Adjust the reverb depth.

Values: 0-127

Receive channel / receive switch settings ([F4 (MIDI)])

To set the receive channel and receive switch of each part, use the following procedure.

1. Press [PERFORM] to make the indicator light.
The PERFORM Play screen will appear.
2. Press [F4 (MIDI)], and then [F2 (RX)].
The PERFORM/MIDI Rx screen will appear.

PERFORM/MIDI	Rx	Part [1]					
		1	2	3	4	5	6
Rx Ch	1	2	3	4	5	6	
Rx Note	ON	ON	ON	ON	ON	ON	ON
Rx PC	ON	ON	ON	ON	ON	ON	ON
Rx Vol	ON	ON	ON	ON	ON	ON	ON
Rx Hold	ON	ON	ON	ON	ON	ON	ON
COMMON: Rx		ALL OFF	ALL ON	PART			

3. Use [▲] || ▼ || ◀ || ▶ to move the cursor to the part and item that you wish to set.
* You can also switch parts by using [◀ /PART /PART ▶].
4. Set the value by either rotating the VALUE dial or using [DEC / -] || INC / +].
5. Press [EXIT] to return to the PERFORM Play screen.

PALETTE display and PART display

In the PERFORM/MIDI Rx screen, you can view either the PALETTE display or the PART display.

The PALETTE display allows you to make settings for all parts in a single screen. The PART display allows you to make settings for one part in a single screen.

When you enter each screen, the PALETTE display will always appear. If you wish to select the PART display, press [F6 (→ PART)]. To return to the PALETTE display, press [F6 (→ PLT)].

PERFORM/MIDI	Rx	Part [1]					
		1	2	3	4	5	6
Rx Ch	1	2	3	4	5	6	
Rx Note	ON	ON	ON	ON	ON	ON	ON
Rx PC	ON	ON	ON	ON	ON	ON	ON
Rx Vol	ON	ON	ON	ON	ON	ON	ON
Rx Hold	ON	ON	ON	ON	ON	ON	ON
COMMON: Rx		ALL OFF	ALL ON	PART			

PALETTE display

PERFORM/MIDI	Rx	Part [1]					
		1	2	3	4	5	6
Rx Ch	1	2	3	4	5	6	
Rx Note	ON	ON	ON	ON	ON	ON	ON
Rx PC	ON	ON	ON	ON	ON	ON	ON
Rx Vol	ON	ON	ON	ON	ON	ON	ON
Rx Hold	ON	ON	ON	ON	ON	ON	ON
COMMON: Rx		ALL OFF	ALL ON	PLT			

PART display

Rx Ch (receive MIDI channel)

Specify the MIDI receive channel for each part.

Values: 1-16

- * If the MIDI receive channel of a part is set to the same setting as the Control channel (p. 136), the Control channel setting will take priority.

Rx Note (receive note switch)

Specify whether each part will receive note-on and note-off messages (ON), or not (OFF).

Values: OFF, ON

Rx PC (receive program change switch)

Specify whether each part will receive program change messages (ON) or not (OFF).

Values: OFF, ON

Rx Vol (receive volume switch)

Specify whether each part will receive volume messages (ON) or not (OFF).

Values: OFF, ON

Rx Hold (receive hold 1/2 switch)

Specify whether each part will receive hold 1/2 messages (ON) or not (OFF).

Values: OFF, ON

Using controllers to modify the sound in realtime ([F4 (MIDI)][F5 (CTRL)])

The VP-9000 has three controllers (knobs), and these can be used to modify a sample in realtime. You can also use external MIDI controllers (such as modulation lever, pitch bend lever, foot switch, or expression pedal) to modify a sample in the same ways.

When you operate a controller, MIDI messages will be transmitted. These MIDI messages can be used to control various parameters in realtime, providing a rich array of expressive possibilities.

- * Immediately after the power is turned on, the default settings assign the *PITCH* knob to modify the pitch, the *TIME* knob to modify the playback speed (*TIME*), and the *FORMANT/GROOVE* knob to modify the vocal quality (*formant*) or groove. However immediately after the power is turned on, it is not possible to modify the groove unless you turn on the Groove switch.
- * It is possible to modify the formant only for a sample whose Encode Type (p. 130) is *SOLO*.
- * If the sample includes variation in pitch such as vibrato, changing Time significantly may cause the sample to sound unnatural.

MIDI settings for the knobs

Here's how to make MIDI-related settings for the three knobs. Parameters are also provided to allow you to use external MIDI controllers in the same way as the three knobs.

1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F4 (MIDI)]. The PERFORM/MIDI Common screen will appear.

PERFORM/MIDI		Common	
Assign	Out Mode	Knob Control	
C1	CC18	INT&MIDI	MULTI PART
C2	CC18	INT&MIDI	
C3	CC18	INT&MIDI	
UC	CC19	INT&MIDI	
[EXIT]		[RX]	

3. Use [▲ || ▼ || ◀ || ▶] to move the cursor to the item that you wish to set.
4. Set the value by either rotating the VALUE dial or using [DEC/-]||INC/+].
5. Press [EXIT] to return to the PERFORM Play screen.

C1–C3 Assign

Specify the controller number that will be output when you rotate knobs C1–C3. When the controller numbers assigned here are received at the MIDI IN connector, the result will be the same as though you rotated the knobs.

Values: CC02–CC05, CC07–CC31, CC64–CC95

VC Assign

This parameter allows you to use an external MIDI controller as a fourth knob. When the controller number selected here is received at the MIDI IN connector, the result will be the same as though you rotated the knob.

Values: CC02–CC05, CC07–CC31, CC64–CC95

* VC stands for Virtual Controller.

C1–C3 Output Mode

Specify how the control change will be output when you rotate the C1–C3 knobs.

Values

- OFF: The control change will not be output; the knob will have no effect.
- INT: It will be sent only to the internal sound source.
- MIDI: It will be sent only to the MIDI OUT connector.
- INT&MIDI: It will be sent both to the internal sound source and to the MIDI OUT connector.

Knob Control

Specify the part(s) that will be affected when you rotate the C1–C3 knobs.

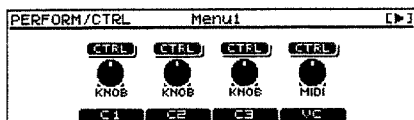
Values

- MULTI PART: All six parts will be affected.
- CURRENT PART: Only the currently selected part (the current part) will be affected.

Specifying the width of parameter change

You can specify how greatly the parameter will be affected by the three knobs or external MIDI controllers.

1. Press [PERFORM] to make the indicator light.
The PERFORM Play screen will appear.
2. Press [F5 (CTRL)].
3. Press [◀ /PART] or [PART / ▶] to select the PERFORM/CTRL Menu1 screen or the PERFORM/CTRL Menu2 screen.
4. Use [F2]–[F5] to access the desired screen.
PERFORM/CTRL Menu1 screen.
[F2 (C1)]: The setting modified by the C1 knob
[F3 (C2)]: The setting modified by the C2 knob
[F4 (C3)]: The setting modified by the C3 knob
[F5 (VC)]: The setting modified by receiving the controller number specified by VC Assign
PERFORM/CTRL Menu2 screen
[F2 (MOD)]: The setting modified by receiving modulation
[F3 (P.BEND)]: The setting modified by receiving pitch bend change
[F4 (AFTER)]: The setting modified by receiving channel aftertouch
[F5 (HOLD)]: The function when Hold 1 or Hold 2 are received. For details on this setting, refer to p. 60.



5. [▲] [▼] [◀] [▶] to move the cursor to the part and item that you wish to set.
* You can also switch parts by using [◀ /PART] [PART / ▶].
6. Set the value by either rotating the VALUE dial or using [DEC / -] [INC / +].
7. Press [EXIT] twice to return to the PERFORM Play screen.

PALETTE display and PART display

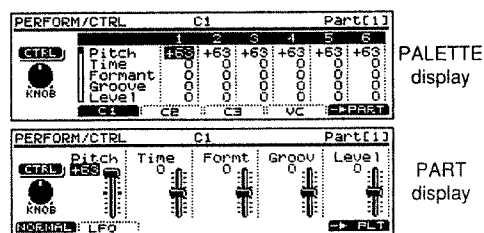
In each of the PERFORM/CTRL screens, you can view either the PALETTE display or the PART display.

In the PALETTE display you can make settings for all parts in a single screen. In the PART display you can make settings for one part in a single screen.

When you enter each screen, the PALETTE display will always appear. If you wish to view the PART display, press [F6 (→ PART)].

The PART display has two screens (three in the case of pitch bend). Use [F1]–[F2] ([F3]) to view each screen.

To return to the PALETTE display, press [F6 (→ PLT)].



- * As the value increases in the positive (+) or negative (-) direction, the change will be correspondingly greater.
- * Changes in the sound produced by controllers are temporary. They do not rewrite the parameter values.

Pitch (pitch depth)

This sets the range of pitch change. In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will raise the pitch. Setting this value to a negative (-) setting and rotating the knob toward the right will lower the pitch.

Values: -64+63

- * In order to modify the pitch, you must turn on the Pitch Control Switch (p. 44) of the sample in addition to making the Pitch Depth setting described here.
- * This parameter is not part of the pitch bend change settings.

Time (time depth)

This sets the range of change in playback speed (time). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will make the playback faster. Setting this value to a negative (-) setting and rotating the knob toward the right will make the playback slower.

Values: -64+63

- * In order to modify the time, you must turn on the Time Control Switch (p. 45) of the sample in addition to making the Time Depth setting described here.

Formant (formant depth)

This sets the range of change in vocal quality (formant). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will produce a “duck voice,” as though the vocal cords had become smaller. Setting this value to a negative (-) setting and rotating the knob toward the right will produce a “giant voice,” as though the vocal cords had become larger.

Values: -64+63

- * Formant can be adjusted only for samples whose Encode Type (p. 130) is SOLO.
- * In order to modify the formant, you must turn on the Formant Control Switch (p. 45) of the sample in addition to making the Formant Depth setting described here.

Groove (groove depth)

This sets the range of change in groove. In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will skew the timing specified by the template. Setting this value to a negative (-) setting and rotating the knob toward the right will skew the timing specified by the template in the opposite way.

Values: -64+63

- * For details on groove settings, refer to p. 62.

Level (level depth)

This sets the range of volume change. In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will increase the volume. Setting this value to a negative (-) setting and rotating the knob toward the right will decrease the volume.

Values: -64+63

LFO Rte (LFO rate depth)

This sets the range of change in LFO rate (p. 47). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will speed up the rate. Setting this value to a negative (-) setting and rotating the knob toward the right will slow down the rate.

Values: -64+63

LFO Pth (LFO pitch depth)

This sets the range of change in the LFO applied to the pitch (pitch LFO depth, p. 48). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will cause the range to change in the positive (+) direction from the current value. Setting this value to a negative (-) setting and rotating the knob toward the right will cause the range to change in the negative (-) direction from the current value.

Values: -64+63

LFO Fmt (LFO formant depth)

This sets the range of change in the LFO applied to the formant (formant LFO depth, p. 48). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will cause the range to change in the positive (+) direction from the current value. Setting this value to a negative (-) setting and rotating the knob toward the right will cause the range to change in the negative (-) direction from the current value.

Values: -64+63

LFO Lvl (LFO level depth)

This sets the range of change in the LFO applied to the volume (level LFO depth, p. 48). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will cause the range to change in the positive (+) direction from the current value. Setting this value to a negative (-) setting and rotating the knob toward the right will cause the range to change in the negative (-) direction from the current value.

Values: -64+63

LFO Pan (LFO pan depth)

This sets the range of change in the LFO applied to the pan (pan LFO depth, p. 48). In the case of a knob, setting this value to a positive (+) setting and rotating the knob toward the right will cause the range to change in the positive (+) direction from the current value. Setting this value to a negative (-) setting and rotating the knob toward the right will cause the range to change in the negative (-) direction from the current value.

Values: -64+63

Chapter 5. Performance settings ([PERFORM])

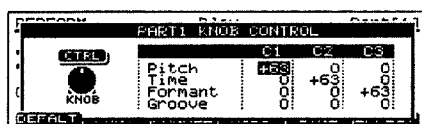
Using the [KNOB] button to set the parameter range

The VP-9000 has a convenient [KNOB] button. In Performance mode or Sample mode, you can press the [KNOB] button to access a screen in which you can adjust the depths of the three knobs Pitch, Time, Formant, and Groove. You can make the same settings as in the PERFORM/CTRL C1/2/3 screens.

To switch parts, use [◀ /PART][PART / ▶]. Press the [KNOB] button once again to return to the screen where you began.



If you press [F1 (DEFAULT)] for a sample whose Encode Type is SOLO, the settings shown in the following screen will be made.



If you press [F1 (DEFAULT)] for a sample whose Encode Type is other than SOLO, the settings shown in the following screen will be made.



Changing the pitch of the sound (Bend Range Up/Down)

When you move the pitch bend lever of a connected MIDI keyboard to left/right (or up/down in the case of a wheel), the pitch of the note you played will change. The bend range (the amount of the pitch change) can be specified in semitone steps.

For details on the procedure of making settings, refer to the settings for Pitch Bend Range in the previous section.

Range U (bend range up)

Specify how far the pitch will rise when the pitch bend lever is moved to the far right (or in the case of a wheel, fully upward). With a setting of +12, moving the pitch bend lever to the far right will raise the pitch one octave.

Values: 0--+12

Range D (bend range down)

Specify how far the pitch will rise when the pitch bend lever is moved to the far left (or in the case of a wheel, fully downward). With a setting of -48, moving the pitch bend lever to the far left will lower the pitch four octaves.

Values: -48-0

Using pedals to modify the sound

MIDI messages Hold 1 (controller number 64) and Hold 2 (controller number 69) can be used to change how a sample sounds. It is convenient to use a hold pedal when you wish to control the sound of a sample in realtime while you play your MIDI keyboard.

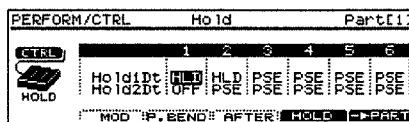
On the VP-9000, you can press a pedal at the appropriate timing within a sample to do the following things.

- Continue playing one cycle of the sample
- Repeatedly play a phrase in a specified loop range of the sample
- Move the playback point while playing the sample

By using these capabilities in conjunction with samples such as drum loops or voices, you can produce some interesting results.

The hold pedal can also be used to play legato chords, or to switch the sample between solo and poly.

1. Press [PERFORM] to make the indicator light. The PERFORM Play screen will appear.
2. Press [F5 (CTRL)].
3. Press [◀ /PART] or [PART / ▶] to select the PERFORM/CTRL Menu2 screen.
4. Press [F5 (HOLD)]. The PERFORM/CTRL Hold screen will appear.



5. Use [▲ || ▼ || ◀ || ▶] to move the cursor to the part and item that you wish to set.
 - * You can also switch parts by using [◀ /PART][PART / ▶].
6. Set the value by either rotating the VALUE dial or using [DEC / -][INC / +].
7. Press [EXIT] twice to return to the PERFORM Play screen.

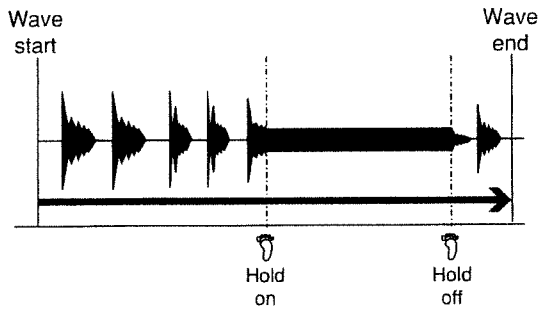
Hold1Dt (hold1 destination)

Hold2Dt (hold2 destination)

Values

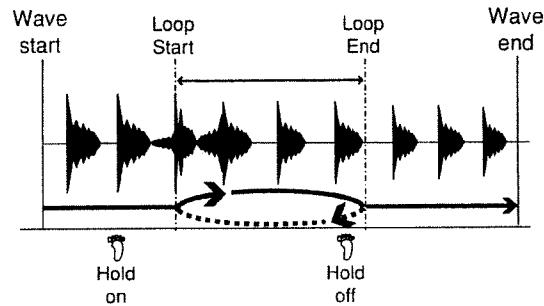
OFF: Pressing the pedal will not change anything.

PSE (pause): The waveform that was playing at the instant that the pedal was pressed will continue playing as long as you hold down the pedal. Even if you take your finger off the key, the sound will continue as long as you hold down the pedal.

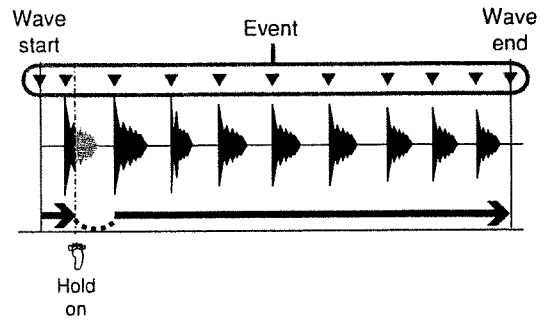


* Since this repeatedly plays a single cycle of the waveform at the point where the pedal was pressed, it may not produce the result that you expect, or may sound like oscillation (feedback).

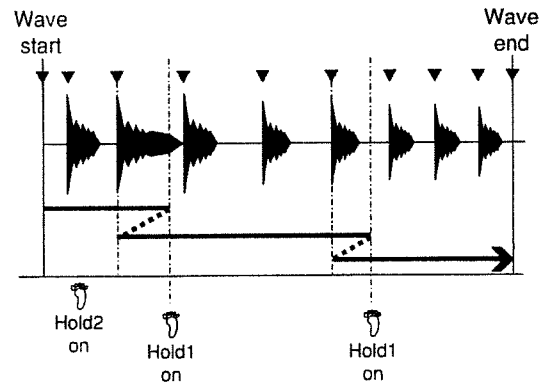
LOP (loop): The sound from Loop Start to Loop End (p. 126) will continue playing repeatedly as long as you hold down the pedal. Even if you take your finger off the key, the sound will continue as long as you hold down the pedal. For example if you had a drum loop of several measures, you could make settings beforehand to set the loop range as the measure you wanted to play repeatedly. Then you would press the pedal at the section that you wanted to play, and allow that measure to play the desired number of times.



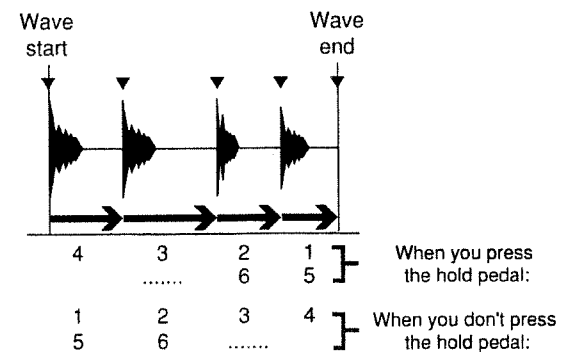
EVT (event step): Pressing the pedal while the sample is playing will cause playback to jump to the next section divided by an event.



By using this together with the STD explained below, you can jump to the previous section divided by an event, and play it. For example, you could set Hold1 Destination to "EVT" and Hold2 Destination to "STD." Then while the sample was playing, hold down the pedal that transmits Hold2 and press the pedal that transmits Hold1.



STD (step direction): This function reverses the direction of the step. When using this, set the Playback Mode (p. 42) to STEP. As long as you do not press the pedal, each key you play (each note-on that is received) will cause playback to continue to the next event, and then stop. If you play a key while holding down the pedal, the previous region divided by events will sound. If you hold down the pedal from the beginning and play a note, the sound will begin from the last region of the sample.



This can also be used together with EVT. For details refer to the explanation of EVT.

Chapter 5. Performance settings ([PERFORM])

P/S (poly/solo): The Key Assign Mode (p. 42) setting will be switched temporarily as long as you continue holding down the pedal. For example if you are playing a vocal sample in solo mode, you can hold down the pedal to play a chord.

LCK (lock legato): Regardless of how you are playing the keyboard, notes will be sounded as legato while you hold down the pedal. This means that you can use this function to play legato chords.

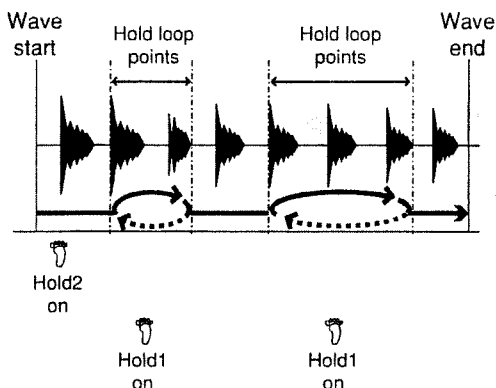
- * You can play legato chords even if the Playback Mode (p. 42) is set to RETRIGGER.

HLD (hold): The region between the hold loop points will continue repeating as long as you hold down the pedal. Even if you take your finger off the key, the sound will continue repeating as long as you continue holding down the pedal. For details on the hold loop points, refer to the column below.

- * By using this together with the Vibrato Keep Switch (p. 44), you can independently control the sample playback tempo and the frequency of the vibrato included in the sample. In other words, if you have a vocal sample with vibrato, the original vibrato speed will be preserved even if you change the sample playback speed.

LHS (loop hold step): This is used in conjunction with HLD. For example, you can set Hold1 Destination to "LHS," and Hold2 Destination to "HLD." While pressing the pedal that transmits Hold 2 to repeatedly play the range between the hold loop points, you can then press the pedal that transmits Hold 1 to repeatedly play the range between the next hold loop points. For details on hold loop points, refer to the following column.

- * This is functionally identical to repeatedly alternating HLD on and off. However by using HLD and LHS together, you can sequentially play the regions between the hold loop points without knowing the location of the hold loop points.



Hold loop points

The included CD-ROM contains several samples that have preset **hold loop points** in addition to the loop start and loop end points used for loop playback (refer to the CD-ROM wave list). These are mainly set to the fill-in sections within a drum loop, or to the portion of a vocal sample in which vibrato is used.

Each sample can have only one loop start point and one loop end point for loop playback. However, a sample can have any number of hold loop start and hold loop end points.

"HLD" and "LHS" are valid for samples that contain hold loop points.

- * The VP-9000 is not able to add or modify hold loop points. Nor can it be used to check the locations of these points.
- * When you re-encode a sample, the hold loop points will be lost, so that this effect will no longer be available. If you wish to use the hold loop points, do not re-encode the sample.

Groove settings ([GROOVE])

Groove is a function that modifies the rhythmic character of a sample to change its "feel." You can use the preset groove templates to modify the rhythm in various ways. This is effective when used on drum-type samples.

Groove is created by skewing the timing of the beats. The templates contain various such changes in timing for each beat. The template will play back in synchronization with the master tempo. Thus, **you must turn Tempo Sync on for the part to which you are applying Groove** (p. 51).

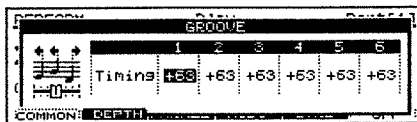
To use groove, turn Groove on, and set the parameters described below. Then set the Groove Depth, and apply the effect by operating the controller (knob) that controls the depth. For details on setting the Groove Depth, refer to p. 62.

- * Groove parameters are Performance parameters.
- * Depending on the sample that is playing, there may be cases in which an appropriate groove effect cannot be obtained.
- * If you apply the groove effect excessively, the sound quality may deteriorate.
- * Groove templates created on the XP-80/60 or MC-80 cannot be loaded.

1. Press [GROOVE] to make the indicator light.
The GROOVE setting screen will appear.



2. Use [▲] [▼] [◀] [▶] to move the cursor to the item that you wish to set.
3. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].
* By pressing [F6], you can turn Switch ON/OFF regardless of the cursor location.
4. Press [F2 (DEPTH)].
A screen will appear in which you can adjust the depth of the groove timing.



5. Use [▲] [▼] [◀] [▶] to move the cursor to the part and item that you wish to set.
* You can also use [◀ /PART] [PART / ▶] to switch parts.
6. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].
7. Press [GROOVE] to return to the first screen.

[F1 (COMMON)]

Switch (groove switch)

Turn groove on/off.

Values: OFF, ON

Start Trigger (groove start trigger)

Specify the event that will start the groove. If you want the groove to start at the timing that a connected external sequencer begins playing (i.e., starts), set this to "MIDI START."

Values

MIDI START:

When a sequencer start message (System realtime message: FA) is received

NOTE (PART 1)–NOTE (PART 6):

When the corresponding part receives a note-on

NOTE (CUR PART):

When the current part receives a note-on

Template (groove template)

Select the template that you wish to use. 1 and 2 are for 16-beat, and 3 and 4 are for 8-beat. All templates are in a 4/4 time signature and are one measure long.

Values

1: 16BEAT SWING1: 16-beat swing

2: 16BEAT SWING2: 16-beat swing

3: 8BEAT SWING1: 8-beat swing

4: 8BEAT SWING2: 8-beat swing

* The expected effect may not be obtained if these are used on a performance whose time signature is other than 4/4.

[F2 (DEPTH)]

Timing (groove timing depth)

Specify how deeply the timing skew specified by the template will be applied. With a setting of +63, the full timing skew specified by the template will be obtained. With a negative (-) setting, the timing skew specified by the template will be applied in the opposite direction. (For example if the template specifies a forward skew, the timing will be skewed backward.)

Values: -64+63

Effect settings ([F6 (EFFECT)])

For details on effect settings, refer to p. 64–116.

Chapter 6 Effect Settings

The VP-9000 contains three effects processors: multi-effects, chorus, and reverb. Settings can be made separately for each effects processor.

There are 40 types of multi-effects, 8 types of chorus, and 9 types of reverb. A performance can use one of each kind of effect. You can adjust the depth of each effect separately for each part.

Broadly speaking, effect settings involve three steps, as follows:

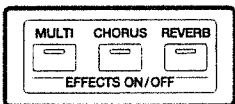
- 1 Turn each effects processor on/off (p. 64).
- 2 Specify how deeply each effects processor will be applied, and select the output jacks from which it will be output (p. 64)
- 3 Select the desired effect type for each effects processor, and set the parameters of the selected effect type (p. 67, 109, 111)

Turning Effects On/Off

In order to enable an effects processor (multi-effects, chorus, reverb), turn its button on.

Turn these settings off when you wish to listen to the unprocessed sound as you create a sound, or when you wish to use external effect devices instead of the built-in effects.

The multi-effects, chorus, and reverb on/off settings are System settings.

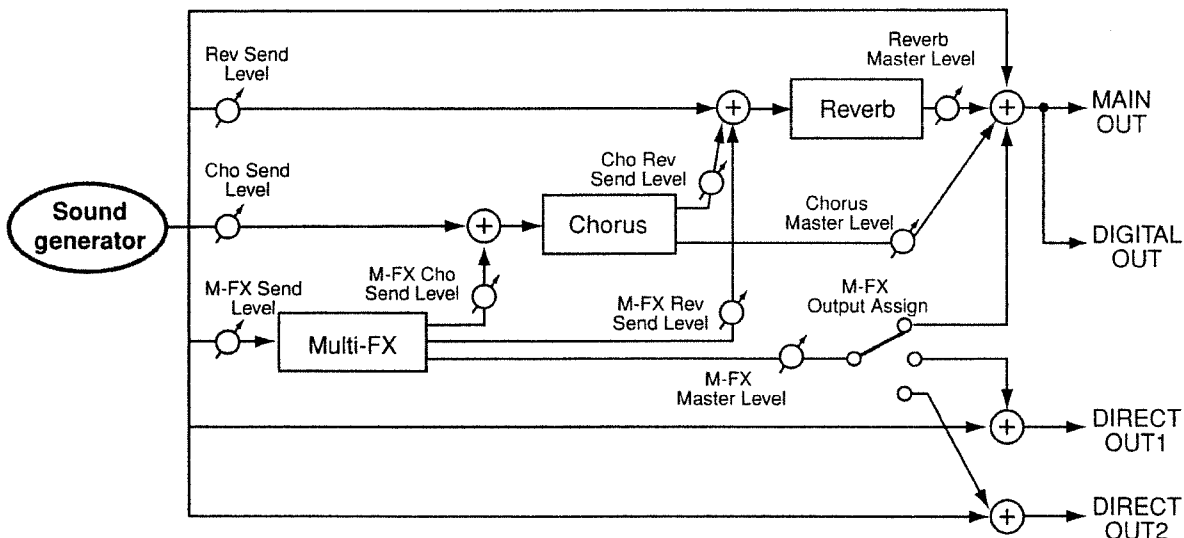


1. Press [MULTI] [CHORUS] [REVERB] to turn the effects processor on (indicator lighted) or off (indicator extinguished).

Specifying the Effect Configuration and Output Jacks

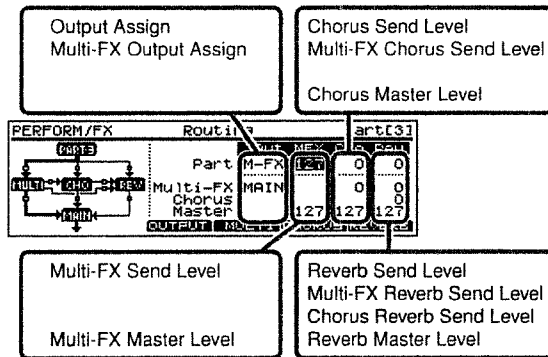
You can specify how deeply each effects processor is to be applied, and select the output jacks from which its sound will be output. Some parameters are set independently for each part, while other parameters are common to all parts.

The signal flow will be as follows:



* The same sound as output from the "MAIN OUT" OUTPUT jacks will be output from the two digital output connectors and the PHONES jack. This means that if you wish to output the effect sound from the digital output connectors and the PHONES jack, you should specify that the effect sound be output from "MAIN OUT."

1. Press [PERFORM], getting the indicator to light.
The PERFORM Play page will appear.
2. Press the [F6 (EFFECT)] and [F3 (ROUTNG)] buttons, in this order.
The PERFORM/FX Routing page appears.



3. Press [◀ /PART] or [PART / ▶] to select the part you wish to set.
4. Use [▲] [▼] [◀] [▶] to move the cursor to the item you wish to set.
5. Either rotate the VALUE dial or press [DEC/-] [INC/+] to set the value.
6. Press [EXIT] twice to return to the PERFORM Play page.

Make settings for all parts in a single screen

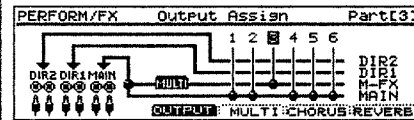
When the PERFORM/FX Routing screen is displayed in step 2, you can press [F3]-[F6] to access a screen where settings for all parts can be made in a single screen.

Use [◀] [▶] to move the cursor to the part for which you wish to make settings, and either rotate the VALUE dial or use [DEC/-] [INC/+] to set the value.

To return to the PERFORM/FX Routing page, press [EXIT].

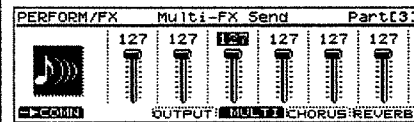
When [F3 (OUTPUT)] is pressed...

The setting page for Output Assign will appear.



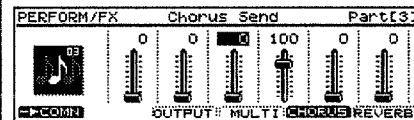
When [F4 (MULTI)] is pressed...

The setting page for multi-effects send level will appear.



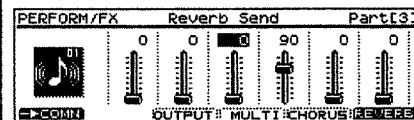
When [F5 (CHORUS)] is pressed...

The setting page for chorus send level will appear.



When [F6 (REVERB)] is pressed...

The setting page for reverb send level will appear.



* If you press [F4]-[F6], the [F1(→ COMN)] button will appear. You can press this button to jump to the parameter setting screen for the effect type that is selected for each effects processor (multi-effects p. 67, chorus p. 109, reverb p. 111). To return to the previous screen press [F1(→ SEND)].

Settings for each part

* If the keyboard map is set to "PHRASE MAP," the following settings for each part will be ignored. Instead, the output assign and send levels specified for each phrase map number will be used. For details on making settings, refer to "Settings for each key" (p. 53).

Output Assign

This specifies the output destination of the direct sound.

Values

MAIN: The sound will be output to reverb, chorus, and the "MAIN OUT" OUTPUT jacks. Select this setting when you wish to use reverb and chorus, but not multi-effects.

M-FX: The sound will be output to reverb, chorus and multi-effects. Select this setting when you wish to use reverb, chorus, and multi-effects.

DIR1: Output is from the "DIRECT OUT 1" OUTPUT jacks. Use this setting when you want to use an external effects processor, not the VP-9000's build-in effects.

DIR2: Output is from the "DIRECT OUT 2" OUTPUT jacks. Use this setting when you want to use an external effects processor, not the VP-9000's build-in effects.

MFX Send Level (Multi-effect send level)

Specifies the multi-effects depth.

Sets the extent of the effectiveness of the multi-effects.

Values: 0-127

* If Output Assign is set to "M-FX," this setting will be applied.

Cho Send Level (Chorus send level)

Specifies the chorus depth.

Values: 0-127

* If Output Assign is set to "DIR1" or "DIR2," this setting will be ignored.

Rev Send Level (Reverb send level)

Specifies the reverb depth.

Values: 0-127

* If Output Assign is set to "DIR1" or "DIR2," this setting will be ignored.

Settings for the Entire Performance (common to all parts)

Multi-FX Out Assign (Multi-effect output assign)

Specifies how the sound from the multi-effects will be output.

Values

MAIN: Output is from the "MAIN OUT" OUTPUT jacks.

DIR1: Output is from the "DIRECT OUT 1" OUTPUT jacks.

DIR2: Output is from the "DIRECT OUT 2" OUTPUT jacks.

Multi-FX Cho Send Level (Multi-effect chorus send level)

Adjusts the amount of chorus to be applied to the sound routed through multi-effects.

Values: 0-127

Multi-FX Rev Send Level (Multi-FX reverb send level)

Adjusts the amount of reverb to be applied to the sound routed through multi-effects.

Values: 0-127

Chorus Rev Send Level (Chorus reverb send level)

Adjusts the amount of reverb to be applied to the sound routed through chorus.

Values: 0-127

MFX Master Level (Multi-FX master level)

Adjusts the volume of the sound that has passed through the multi-effects.

Values: 0-127

Cho Master Level (Chorus master level)

Adjusts the volume of the sound that has passed through chorus.

Values: 0-127

Reverb Master Level (Reverb master level)

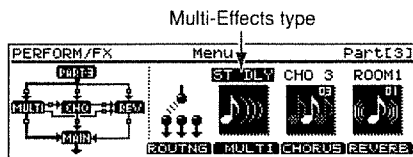
Adjusts the volume of the sound that has passed through reverb.

Values: 0-127

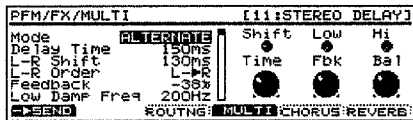
Multi-effects settings

There are 40 types of multi-effects. You can select any one of these. You can also modify the parameter values for the selected type.

1. Press [PERFORM], getting the indicator to light.
The PERFORM Play page will appear.
2. Press [F6 (EFFECT)].
The PERFORM/FX Menu page will appear.



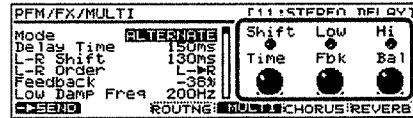
3. Press [◀] or [▶] to move the cursor to the multi-effects type.
4. Either rotate the VALUE dial or press [DEC/-] [INC/+]
to select the type.
5. Press [F4 (MULTI)].
A page in which you can set the parameters for the selected type will appear.



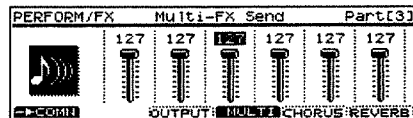
6. Use [▲] [▼] to move the cursor to the item you wish to set.
7. Either by rotating the VALUE dial or by pressing [DEC/-] [INC/+], set the value.
8. Press [EXIT] twice to return to the PERFORM Play page.

* There are several parameters whose value can be set to a note-value symbol. If you select a note value, the frequency or time etc. of that parameter will synchronize to the master tempo. When using this function, you must turn Tempo Sync on for the part to which the multi-effect will be applied (p. 51).

* If the display shows graphics of three knobs, you can rotate the C1–C3 knobs to set the values of the parameters shown in the display. This function is valid only when the knob graphics are displayed. Be aware that it is not possible to set values using the control changes assigned to the C1–C3 knobs. Sometimes, graphics of small knobs and sliders or waveforms may be displayed. These graphically indicate the values of other important parameters.



* If you press the [F1 (→ SEND)] button, you will jump to the multi-effects send level setting screen (p. 65). To return to the previous screen, press [F1 (→ COMN)].



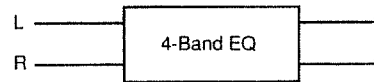
Chapter 6 Effect Settings

Parameters for each multi-effect are given on the following pages.

	Menu screen display	
01: PARAMETRIC EQ	P EQ	(p. 68)
02: GRAPHIC EQ	G EQ	(p. 69)
03: RESONANT FILTER	RESO F	(p. 69)
04: ISOLATOR AND FILTER	ISOLTR	(p. 70)
05: OVERDRIVE	OD	(p. 71)
06: GUITAR AMP SIMULATOR	G AMP	(p. 72)
07: AUTO WAH	A WAH	(p. 73)
08: HUMANIZER	HUMNZR	(p. 74)
09: DYNAMIC PROCESSOR	D PRCR	(p. 75)
10: TAPE ECHO SIMULATOR	T ECHO	(p. 76)
11: STEREO DELAY	ST DLY	(p. 77)
12: MULTI TAP DELAY	TAPDLY	(p. 78)
13: REVERSE DELAY	RVSDLY	(p. 79)
14: VOCAL ECHO	VOECHO	(p. 80)
15: BAND PASS DELAY	BP DLY	(p. 81)
16: ANALOG DELAY->CHORUS	AD ► CHO	(p. 82)
17: DIGITAL CHORUS	D CHO	(p. 83)
18: SPACE CHORUS	SP CHO	(p. 84)
19: HEXA CHORUS	HEXCHO	(p. 85)
20: ANALOG FLANGER	A FLG	(p. 86)
21: BOSS FLANGER	BS FLG	(p. 86)
22: STEP FLANGER	STPFLG	(p. 87)
23: ANALOG PHASER	A PHSR	(p. 88)
24: DIGITAL PHASER	D PHSR	(p. 89)
25: ROTARY	ROTARY	(p. 89)
26: TREMOLO	TREM	(p. 90)
27: STEREO PITCH SHIFTER	P SHFT	(p. 91)
28: OD->CHO	OD ► CHO	(p. 92)
29: OD->DLY	OD ► DLY	(p. 94)
30: CHO->DLY	CH ► DLY	(p. 95)
31: ENH->CHO	EN ► CHO	(p. 96)
32: ENH->DLY	EN ► DLY	(p. 97)
33: VOCAL MULTI	VOCAL	(p. 98)
34: GUITAR MULTI	GUITAR	(p. 100)
35: BASS MULTI	BASS	(p. 101)
36: RHODES MULTI	RHODES	(p. 103)
37: KEYBOARD MULTI	KBD	(p. 105)
38: PHONOGRAPH	PHONO	(p. 107)
39: RADIO TUNING	RADIO	(p. 108)
40: BIT RATE CONVERTER	BITCON	(p. 108)

01: PARAMETRIC EQ (Parametric Equalizer)

This is a 4 band (low range, midrange x 2, high range) stereo parametric equalizer.



Low Freq (Low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Low Gain

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Mid 1 Freq (Middle 1 frequency)

Specifies the center frequency for the mid-range equalizer (middle 1).

Values: 50–20000 [Hz]

Mid 1 Q (Middle 1 Q)

Specifies the width of the area around the middle 1 frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Mid 1 Gain (Middle 1 gain)

Specifies the gain of the mid-range equalizer (middle 1).

Values: -15– +15 [dB]

Mid 2 Freq (Middle 2 frequency)

Specifies the center frequency for the mid-range equalizer (middle 2).

Values: 50–20000 [Hz]

Mid 2 Q (Middle 2 Q)

Specifies the width of the area around the middle 2 frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Mid 2 Gain (Middle 2 gain)

Specifies the gain of the mid-range equalizer (middle 2).

Values: -15– +15 [dB]

Hi Freq (High frequency)

Specifies the center frequency of the high range equalizer.
Values: 2000–20000 [Hz]

Hi Gain (High gain)

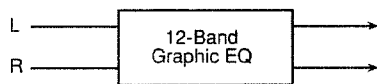
Specifies the gain of the high range equalizer.
Values: -15– +15 [dB]

Total Gain

Specifies the output gain.
Values: -15– +15 [dB]

02: GRAPHIC EQ (Graphic Equalizer)

This simulates a 12-band stereo graphic equalizer.



- 180Hz Gain**
- 250Hz Gain**
- 355Hz Gain**
- 500Hz Gain**
- 710Hz Gain**
- 1000Hz Gain**
- 1400Hz Gain**
- 2000Hz Gain**
- 2800Hz Gain**
- 4000Hz Gain**
- 5600Hz Gain**
- 8000Hz Gain**

Adjust the gain of the equalizer for each frequency.
Values: -15– +15 [dB]

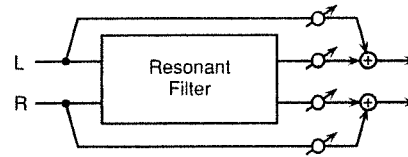
Total Gain

Adjusts the output gain.
Values: -15– +15 [dB]

03: RESONANT FILTER

This is a low-pass filter (a type of filter that allows the frequency range below the cutoff frequency to pass), which allows for cyclical control of the cutoff frequency using an LFO. It allows you to make drastic changes in the frequency response of the input signal by the cutoff frequency and

feedback, making the sound brighter or darker, or giving it a distinctive character.



Cutoff Freq (Cutoff frequency)

Sets the cutoff frequency. The LFO will control the cutoff frequency with this value as its maximum level.
Values: 50–20000 [Hz]

Resonance

Sets the filter’s resonance level. Raising the setting increases resonance near the cutoff frequency, producing a uniquely characteristic sound.
Values: 0–127

Band Mode

Specifies the frequency range to which the filter will be applied.

Values

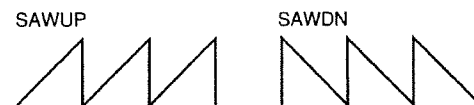
- LOW: low frequency band
- MID: mid-range frequency
- HIGH: high frequency
- LOW+MID: low and middle range frequency
- MID+HIGH: middle and high range frequency
- ALL: all ranges

Sweep Waveform (Frequency sweep waveform)

Specifies the LFO waveform.

Values

- TRI: Triangle wave
- SAWUP: Sawtooth Wave
- SAWDN (= SAW DOWN): Sawtooth Wave
- SQR: Square wave



Sweep Rate (Frequency sweep rate)

Sets the frequency of the LFO modulation. If you want the LFO modulation to synchronize to the master tempo, select a note value for this parameter.
Values: 0.05–10.0 [Hz], note-value symbols

Chapter 6 Effect Settings

Sweep Depth (Frequency sweep depth)

Specifies the modulation depth of the LFO.

Values: 0-127

Balance (Effect balance)

Sets the volume balance between the original sound (D) and the effect sound (E).

Values: E0:D100-E100:D0

04: ISOLATOR AND FILTER

A 3-band isolator, filter, and low booster are connected in stereo in series.



3-Band Isolator

This effect separates the input sound into three frequency bands, High, Mid, and Low, and cuts or extracts them.

Low Band Level

Mid Band Level

Hi Band Level (High band level)

These specify each level of the Low, Mid, and High frequency ranges. At -60 dB, the sound becomes inaudible. 0 dB is equivalent to the input level of the sound.

Values: -60- +4 [dB]

AP Low Sw (Anti-phase low switch)

Values: OFF, ON

AP Low Level (Anti-phase low level)

Values: 0-127

AP Mid Sw (Anti-phase middle switch)

Values: OFF, ON

AP Mid Level (Anti-phase middle level)

Values: 0-127

This turns the Anti-Phase function on and off and sets the level settings for the low and mid frequency ranges. When turned on, the counter-channel of stereo sound is inverted and added to the signal. The level setting allows you to achieve the effect of extracting only a particular part. (This is effective only for stereo source.)

Filter

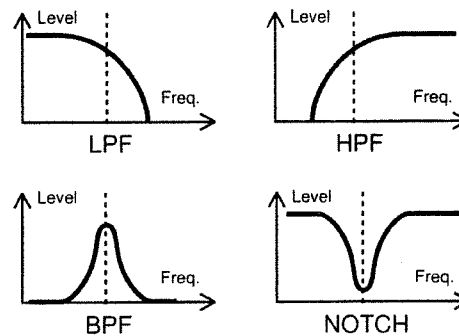
The filters allow you to modify the frequency response of the input sound widely and give sound a character.

Filter Type

Sets the type of filter used.

Values

- THRU: No filter is used.
- LPF: Passes frequencies below the cutoff frequency.
- BPF: Passes frequencies near the cutoff frequency.
- HPF: Passes frequencies above the cutoff frequency.
- NOTCH: Passes frequencies other than those near the cutoff frequency.



Filter Slope

Sets the filter's attenuation slope (-24 dB per one octave: steep; -12 dB per one octave: shallow).

Values: -12, -24 [dB/oct]

Filter Cutoff (Filter cutoff frequency)

Sets the filter's cutoff frequency. Set this closer to zero, the cutoff frequency becomes lower; set closer to 127, the cutoff frequency becomes higher.

Values: 0-127

Filter Resonance

Sets the filter's resonance level. Raising the setting increases resonance near the cutoff frequency, giving the sound a special characteristic.

Values: 0-127

Filter Gain

Compensates for the volume dropped in the cut frequency range with some filters. The level of compensation increases as the value is increased, and raise the volume.

Values: 0- +24 [dB]

Low Booster

This emphasizes the bottom to create a heavy bass sound.

LowBoost Level

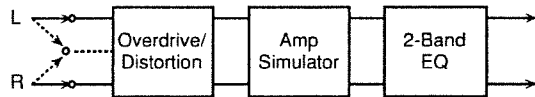
Increasing this value gives you a heavier low end.

Values: -15– +15 [dB]

* Depending on the Isolator and filter settings this effect may be hard to distinguish.

05: OVERDRIVE (Stereo overdrive)

This is stereo overdrive or distortion. Overdrive produces a natural-sounding distortion similar to that produced by a vacuum tube amplifier. Distortion produces a more intense distortion than the overdrive effect.



Input Mode

Selects whether to input in stereo or in monaural. If MONO is selected, the left and right sound will be mixed, and input as monaural.

Values: MONO, STEREO

Distortion Mode

Selects whether to use overdrive or distortion.

Values: OD (= OVERDRIVE), DS (= DISTORTION)

Drive

Adjusts the amount of distortion.

Values: 0–127

Amp Sim Sw (Amp simulator switch)

Turns the Amp Simulator on/off.

Values: OFF, ON

Amp Type

Selects the type of guitar amp.

Values

- SMALL: Small amp
- BUILT-IN: Built-in type amp
- 2-STACK: Large two-level stack
- 3-STACK: Large three-level stack

Output Level

Specifies the output level.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

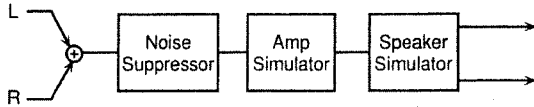
Values: -15– +15 [dB]

Chapter 6 Effect Settings

06: GUITAR AMP SIMULATOR

This effect simulates a monaural guitar amp.

* If Bass, Middle and Treble are all set to "0," no sound may be produced, depending on the amp type settings.



NS Sw (Noise suppressor switch)

The noise suppressor leaves the original sound unmodified, but mutes only the noise during the silent intervals. This parameter turns the noise suppressor on/off.

Values: OFF, ON

NS Threshold (Noise suppressor threshold)

Adjusts the level at which the noise suppressor will begin to take effect. When the signal drops below the specified level, it will be muted.

Values: 0–127

* You may hear no sound if this value is raised excessively.

NS Release (Noise suppressor release)

Sets the transition time from when the noise suppression starts to the point where the volume reaches 0.

Values: 0–127

Amp Type

Values

- JC-120: The sound of a Roland JC-120.
- CLEAN TWIN: The sound of a standard built-in type vacuum tube amp.
- MATCH DRIVE: The sound of a recent vacuum tube amp widely used in blues, rock, and fusion.
- BG LEAD: The sound of a vacuum tube amp representative of the late 70's and the 80's.
- MS1959 I: The sound of the large vacuum tube amp stack that was indispensable to the British hard rock of the 70's, with input I connected.
- MS1959 II: The same amp as MS1959 I, but with input II connected.
- MS1959 I+II: The same amp as MS1959 I, but with inputs I and II connected in parallel.
- SLDN LEAD: The sound of a vacuum tube amp usable in a wide variety of styles.

- Metal 5150: The sound of a large vacuum tube amp suitable for heavy metal.
- METAL LEAD: A metal lead sound with a distinctive mid-range.
- OD-1: The sound of the BOSS OD-1 compact effects processor.
- OD-2 Turbo: The sound of the BOSS OD-2 compact effects processor with the Turbo switch on.
- DISTORTION: Distortion sound.
- FUZZ: Fuzz sound.

Volume

Adjusts the volume and the amount of distortion of the amp.

Values: 0–127

Bass

Sets the bass sound quality.

Values: 0–127

Middle

Adjusts the tone of the mid range.

Values: 0–127

* When the Amp Type is set to "MATCH DRIVE," this setting will be ignored.

Treble

Sets the treble sound quality.

Values: 0–127

Presence

Adjusts the tone for the ultra high frequency range.

Values: 0–127

Master Volume

Adjusts the volume of the entire amp.

Values: 0–127

Brightness Sw (Brightness switch)

Turning this "On" will produce a sharper and brighter sound.

Values: OFF, ON

* This setting is effective only when the Amp Type is set to "JC-120," "CLEAN TWIN," or "BG LEAD."

Gain Sw (Gain switch)

Adjusts the distortion of the amp.

Values: LOW, MID, HIGH

Sp Sim Sw (Speaker simulator switch)

Turns the speaker simulator effect on/off.

Values: OFF, ON

Sp Type (Speaker type)

Selects the type of speaker. The specifications of each type are as follows. The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

Values (Type)	Cabinet	Speaker	Mic
SMALL	Small open back enclosure	10	dynamic mic
MIDDLE	open back enclosure	12 x 1	dynamic mic
JC-120	open back enclosure	12 x 2	dynamic mic
BUILT IN 1	open back enclosure	12 x 2	dynamic mic
BUILT IN 2	open back enclosure	12 x 2	condenser mic
BUILT IN 3	open back enclosure	12 x 2	condenser mic
BUILT IN 4	open back enclosure	12 x 2	condenser mic
BG STACK 1	sealed enclosure	12 x 2	condenser mic
BG STACK 2	large sealed enclosure	12 x 2	condenser mic
MS STACK 1	large sealed enclosure	12 x 4	condenser mic
MS STACK 2	large sealed enclosure	12 x 4	condenser mic
METAL STACK	large double stack	12 x 4	condenser mic

Recommended combination of pre-amp and speaker

Amp type	Speaker type
BG LEAD	BG STACK 1, BG STACK 2, MIDDLE
MS1959 II	BG STACK 1-2, METAL STACK
MS1959 I+II	BG STACK 1-2, METAL STACK
SLDN LEAD	BG STACK 1-2, METAL STACK
METAL 5150	BG STACK 1-2, METAL STACK
METAL LEAD	BG STACK 1-2, METAL STACK
OD-2 TURBO	BUILT IN 1-4
DISTORTION	BUILT IN 1-4
FUZZ	BUILT IN 1-4

Mic Setting

Specifies the location of the mic that is recording the sound of the speaker. Increasing this value will produce the effect of the mic being further away from the center of the speaker cone.

Values: 1-10

Mic Level

Adjusts the volume of the microphone.

Values: 0-127

Direct Level

Sets the volume of the direct sound.

Values: 0-127

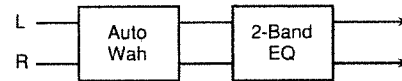
Level

Adjusts the output level for the entire guitar amp simulator.

Values: 0-127

07: AUTO WAH

Wah is an effect that modifies the frequency characteristics of a filter over time, producing a unique tone. The wah effect can change in relation to the volume of the input signal, and/or cyclically.



Filter Type

Selects the filter type.

Values

LPF: The wah effect will be applied over a wide frequency range.

BPF: The wah effect will be produced over a narrow frequency range.

Polarity

When using the volume of the input signal to control the wah effect, this setting determines whether the frequency of the filter will be moved upward (UP) or downward (DOWN).

Values: DOWN, UP

Frequency

Adjusts the frequency at which the wah effect will apply.

Values: 0-127

Peak

Adjusts the amount of the wah effect that will occur in the area of the center frequency. Lower settings will cause the effect to be applied in a broad area around the center frequency. Higher settings will cause the effect to be applied in a more narrow range.

Values: 0-127

Chapter 6 Effect Settings

Trigger Sens

When using the volume of the input signal to control the wah effect, this adjusts the sensitivity. As this value is increased, the response to the input level will become stronger. If you do not want the volume of the input sound to affect the wah effect, set this to 0.

Values: 0–127

Rate

Adjusts the rate at which the wah effect will be cyclically modulated. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Adjusts the depth at which the wah effect will be cyclically modulated. If you do not want the wah effect to be cyclically modulated, set this to 0.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

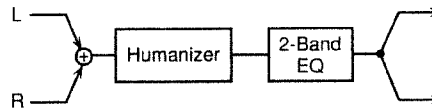
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

08: HUMANIZER

This adds a vowel character to the sound, making it similar to a human voice.



Overdrive Sw (Overdrive switch)

Turns Drive on/off.

Values: OFF, ON

Drive

Specifies the depth of distortion.

Values: 0–127

Vowel 1

Selects the first vowel.

Values: a, e, i, o, u

Vowel 2

Selects the second vowel.

Values: a, e, i, o, u

Rate

Sets the frequency at which the two vowels will be switched. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Sets the effect depth. With a setting of 0, it will be fixed at Vowel 1.

Values: 0–127

Trigger Sens

Selects the level at which the vowel sound will switch.

Values

-60–0 [dB]: When the specified level is exceeded, the sound will change to the other vowel at the frequency (speed) specified by Rate.

LFO: The two vowel sounds will alternate at the frequency specified by Rate, regardless of the level.

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Adjusts the gain of the low range equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

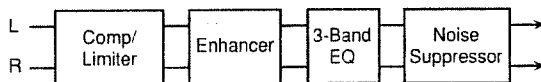
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

**09: DYNAMIC PROCESSOR
(Stereo dynamic processor)**

A comp/limiter, enhancer, 3-band equalizer, and noise suppressor are connected in series.

**Comp/Limiter**

This effect is able to use as a compressor, which controls inconsistencies in sound levels by suppressing high sound levels while lifting weaker signals, or as a limiter that prevents the signal from reaching exceedingly high levels.

Comp Sw (Compressor switch)

Turns the comp/limiter on/off.

Values: OFF, ON

Comp Threshold (Compressor threshold)

Sets the volume level at which the compression begins.

Values: -60-0 [dB]

Comp Attack (Compressor attack)

Sets the time after the sound volume is crossed the compressor threshold until compression begins.

Values: 0-127

Comp Release (Compressor release)

Specifies the time from when the volume drops below the compressor threshold until compression is no longer applied.

Values: 0-127

Comp Ratio (Compressor ratio)

Sets the "source sound:output sound" compression ratio.

Values: 1.5:1, 2:1, 4:1, 100:1

Comp Gain (Compressor gain)

Adjusts the output gain.

Values: -60- +12 [dB]

Enhancer

This effect regulates the high-end overtones, clarifying the sound and the sound contour.

Enhance Sw (Enhancer switch)

Turns the enhancer on/off.

Values: OFF, ON

Enhance Sens (Enhancer sens)

Specifies the sensitivity of the enhancer.

Values: 0-127

Enhance Frequency (Enhancer frequency)

Sets the lower limit of the frequencies to which the enhancement effect is added.

Values: 0-127

Enhance Mix Level (Enhancer mix level)

Sets the level of the overtones produced by the Enhancer that is mixed in with the source sound.

Values: 0-127

Enhance Level (Enhancer level)

Specifies the output volume.

Values: 0-127

Chapter 6 Effect Settings

3-Band Equalizer

This equalizer works in three frequency ranges: Low, Mid, and High. You can set the frequencies and boost or cut the level.

EQ Low Freq (Equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

EQ Low Gain (Equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

EQ Mid Freq (Equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

EQ Mid Q (Equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency parameter that will be affected by the gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

EQ Mid Gain (Equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

EQ High Freq (Equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

EQ High Gain (Equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Noise Suppressor

The noise suppressor leaves the original sound unmodified, but mutes only the noise during the silent intervals.

NS Sw (Noise suppressor switch)

Turns the noise suppressor on/off.

Values: OFF, ON

NS Threshold (Noise suppressor threshold)

Adjusts the level at which the noise suppressor will begin to take effect. When the signal drops below the specified level, it will be muted.

Values: 0–127

* You may hear no sound if this value is raised excessively.

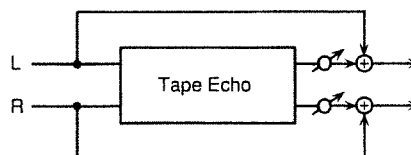
NS Release (Noise suppressor release)

Sets the transition time from when the noise suppression starts to the point where the volume reaches 0.

Values: 0–127

10: TAPE ECHO SIMULATOR

This virtual tape echo gives you real tape delay sound. This simulates the tape echo part of Roland's RE-201 Space Echo.



Mode

The RE-201 had three playback heads to make different delay times (Short, Medium, and Long delay) at once. You can set the combination of playback heads to be used. For example, to use the short and middle heads, select "S+M."

Values: S, M, L, S+M, S+L, M+L, S+M+L

Repeat Rate

Sets the tape speed. This corresponds to the delay time in a contemporary delay effect. As the value is increased, the interval of the delay sounds is shortened.

Values: 0–127

Intensity

Sets the repeat times of the delayed sound. This is analogous to a contemporary delay's feedback setting. Raising this value increases the number of repeats.

Values: 0–127

Bass

Treble

These are the echo sound's bass and treble adjustments. When set to 0, they make no change to the sound.

Values: -100– +100

Head S Pan

Head M Pan

Head L Pan

These are the pan (left-right) settings for each of the heads for Short, Medium, and Long delay time. This parameter does not appear on the original RE-201.

Values: L63-63R

Tape Distortion

Adds the distortion characteristic of tape. It reproduces that subtle change in tone that can only be measured with equipments. The distortion gets more intense as the value is increased.

Values: 0-5

W/F Rate (Wow/Flutter Rate)

W/F Depth (Wow/Flutter Depth)

The wavering of multiple pitches that appears from tape wear and irregularities in rotation is called wow and flutter. (This phenomenon is called "wow" when its occurs at slow rotation speeds, and "flutter" when the tape is run quickly.) The wavering becomes more rapid the higher the Wow/Flutter rate is set. The wavering deepens as the Wow/Flutter depth setting is increased.

Values: 0-127

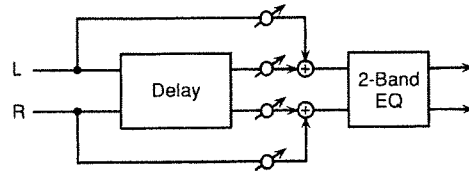
Echo Level

Sets the volume of the echo sound.

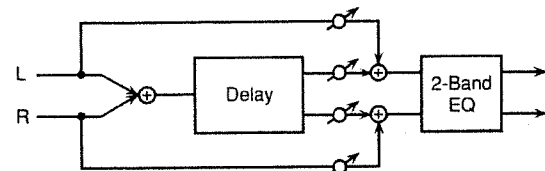
Values: 0-127

11: STEREO DELAY

This is a stereo delay. Depending on the length of the delay you set, you can get long echoes, thick sounds, or spatial sounds.



When Mode parameter is STEREO:



When Mode parameter is MONO or ALTERNATE:

Mode

Switches stereo, monaural, or alternate.

Values

- MONO:** This is a single-input, dual-output delay. Stereo sound (left and right) are mixed before being input.
- STEREO:** This is a dual-input, dual-output delay. The delay sound output features the same stereo placement as that of the input.
- ALTERNATE:** The left and right delay sound output alternately. (Alternate delay)

Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms] (When MONO is set), 0-650 [ms] (When STEREO or ALTERNATE is set), note-value symbols

L-R Shift

Of the left and right delay sounds, the delay time will be increased for only one side. If the L-R order is L->R, the R sound will be later. In the case of R->L, the L sound will be later. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-650 [ms], note-value symbols

* When the mode is set to "MONO" or "ALTERNATE," this setting will be ignored.

Chapter 6 Effect Settings

L-R Order

In STEREO or ALTERNATE mode, this setting determines which of the left or right sides has the delay sound before the other (at L->R, the left side is expressed first; when set to R->L, the right side is expressed first).

Values: L->R, R->L

* In "MONO" mode, this setting will be ignored.

Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98- +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by "Low Damp."

Values: 50-4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000-20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

Balance (Effect balance)

Sets the balance for the levels of the original sound (D) and the delay sound (E).

Values: E0:D100-E100:D0

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50-4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

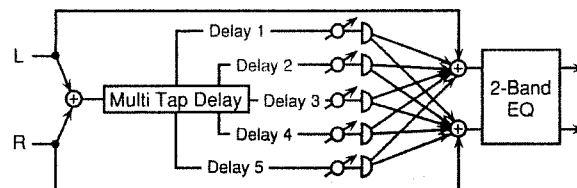
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

12: MULTI TAP DELAY

The Multi Tap Delay has five delays.



Delay 1 Time

Delay 2 Time

Delay 3 Time

Delay 4 Time

Delay 5 Time

Specifies the delay time from the original sound until each delay sound (Delay 1/2/3/4/5) is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Fbk Dly Time (Feedback delay time)

Adjusts the delay time for the feedback sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98- +98 [%]

Delay 1 Level

Delay 2 Level

Delay 3 Level

Delay 4 Level

Delay 5 Level

Adjusts the volume of each delay sound (Delay 1/2/3/4/5).

Values: 0–127

Delay 1 Pan

Delay 2 Pan

Delay 3 Pan

Delay 4 Pan

Delay 5 Pan

Adjusts the pan of each delay sound (Delay 1/2/3/4/5). L63 pans hard left, 0 is center and 63R pans hard right.

Values: L63–63R

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain

Sets the degree of the High Damp.

Values: -36-0 [dB]

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

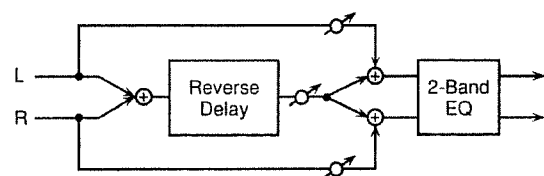
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

13: REVERSE DELAY

This effect plays the delay sound in reverse.



Threshold

Specify the input level at which the delay will begin to apply. The delay will apply when the specified level is exceeded.

Values: 0–127

Rvs Dly Time (Reverse delay time)

Specifies the delay time from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–650 [ms], note-value symbols

Rvs Feedback (Reverse feedback)

Adjusts the proportion (%) of the reverse delay sound that is fed back into the effect. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]



Chapter 6 Effect Settings

Hi Damp Freq (High damp frequency)

The High Damp function attenuates the higher frequencies first. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain

Sets the degree of the High Damp.

Values: -36-0 [dB]

Balance (Effect balance)

Sets the balance for the levels of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

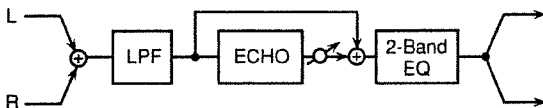
Ps Hi Gain (post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

14: VOCAL ECHO

This effect simulates a karaoke echo.



Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–650 [ms], note-value symbols

Pre LPF Freq (Pre low pass filter frequency)

Sets the filter's cutoff frequency. The frequency range below the cutoff frequency will be passed, producing a lo-fi sound. If you do not wish to use the filter, select "THRU."

Values: 500–15000 [Hz], THRU

Mod Rate (Modulation rate)

Specifies the modulation speed of the modulation effect. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Specifies the modulation depth of the modulation effect.

Values: 0–127

Diffusion

Specifies the spaciousness of the delay sound.

Values: 0–100

Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped. If you do not want to apply attenuation, set this parameter to THRU.

Values: 500–15000 [Hz], THRU

Echo Level

Sets the volume of the echo sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

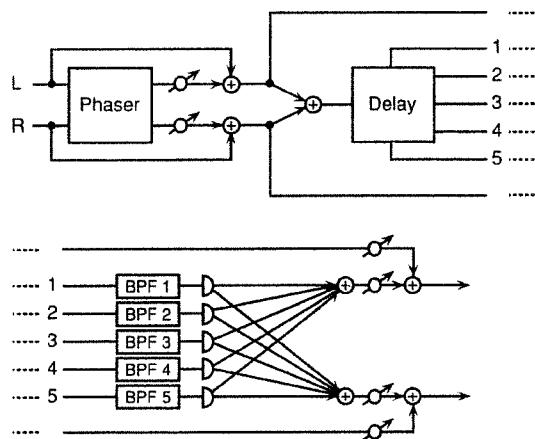
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

15: BAND PASS DELAY

This is a delay with a band pass filter (a filter that outputs only a specified frequency range) on each of five delays. A phaser is included before the delay. Phaser is an effect that adds a phase-shifted sound to the original sound to create time-varying change, modulating the sound.



Phaser Manual

Specifies the center frequency at which the sound is modulated.

Values: 0-127

Phaser Rate

Specifies the frequency of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05-10.0 [Hz], note-value symbols

Phaser Depth

Specifies the depth of modulation.

Values: 0-127

Phaser Resonance

Specifies the amount of feedback for the phaser. Higher settings will give the sound a stronger character.

Values: 0-127

Phaser Mix Level

Specifies the volume of the phase-shifted sound, relative to the direct sound.

Values: 0-127

Delay Time

Specifies the delay time from the original sound until the each delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Fbk Dly Time (Feedback delay time)

Adjusts the delay time for the feedback sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Dly Time Dev (Delay time deviation)

Specifies the differences in delay time for each of the delay sounds. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Delay Level

Adjusts the volume of each delay sound.

Values: 0-127

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98- +98 [%]

Chapter 6 Effect Settings

Delay Pan Type

Specifies the stereo position of each delay sound. Ten settings are provided as various panning combinations of the delay sounds.

Values	Dly 1	Dly 2	Dly 3	Dly 4	Dly 5
1	L63	L32	0	32R	63R
2	L63	32R	L32	63R	0
3	L63	63R	L32	32R	0
4	32R	L32	L63	0	63R
5	63R	0	L63	L32	32R
6	L32	32R	L63	63R	0
7	0	63R	L63	32R	L32
8	0	63R	L32	32R	L63
9	0	32R	L32	63R	L63
10	63R	32R	0	L32	L63

BPF 1 Freq (Band pass filter 1 frequency)

BPF 2 Freq (Band pass filter 2 frequency)

BPF 3 Freq (Band pass filter 3 frequency)

BPF 4 Freq (Band pass filter 4 frequency)

BPF 5 Freq (Band pass filter 5 frequency)

Sets the center frequency for each band pass filter (1-5).

Values: 50-20000 [Hz]

BPF 1/2 Q (Band pass filter 1/2 Q)

BPF 3/4/5 Q (Band pass filter 3/4/5 Q)

Specify the output bandwidth for each band pass filter (1-5). Increasing the value will narrow the output range (bandwidth).

Values: 0.3-24.0

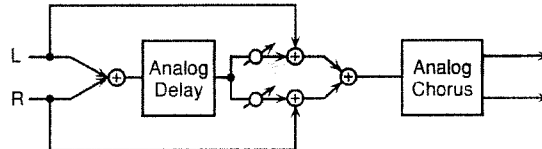
Balance (Effect balance)

Sets the balance for the levels of the original, dry sound (D) and the effect sound (E).

Values: E0:D100-E100:D0

16: ANALOG DELAY->CHORUS (Analog delay->Analog chorus)

This effect reproduces the sound of the BOSS CE-1 Chorus Ensemble, which first came out in 1976. To reproduce the sound of the unit at the time, a monaural analog-type delay is first inserted in series.



Analog Delay

This effect simulates the compact analog delays used for guitars in the 1980s. This imparts the analog delay's characteristic mood, giving you that soft, velvety sound.

Dly Sw (Delay switch)

Turns the delay on/off.

Values: OFF, ON

Dly Repeat Rate (Delay repeat rate)

Corresponds to the delay time in a current delay effects unit. The higher the value selected, the shorter the interval of the delay sound.

Values: 0-127

Dly Intensity (Delay intensity)

Sets the repeat times of the delayed sound. This is analogous to a current delay effect's feedback setting. Raising this value increases the number of repeats.

Values: 0-127

Dly Level (Delay level)

Sets the volume of the delay sound.

Values: 0-127

Analog Chorus

This effect reproduces the sound of the BOSS CE-1 Chorus Ensemble. It adds a vibrating effect and breadth to the source sound.

Chorus Sw (Chorus switch)

Turns chorus or vibrato on/off.

Values: OFF, ON

Chorus Mode

Switches the sound between chorus and vibrato modes.

Values: CHORUS, VIBRATO

Chorus Intensity

When Chorus Mode is CHORUS, this sets the pitch vibrato speed.

Values: 0–127

Vibrato Depth

When Chorus Mode is VIBRATO, this sets the pitch vibrato depth.

Values: 0–127

Vibrato Rate

When Chorus Mode is VIBRATO, this sets the pitch vibrato speed.

Values: 0–127

Chorus Out Mode (Chorus output mode)

Switches the output format (mono/stereo). This includes two different stereo settings.

Values

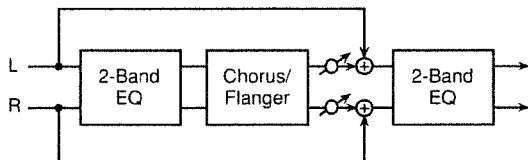
MONO: Output is monaural.

ST-1: Chorus sound of the pitch vibration which phase is inverted between left and right is mixed with the source sound. This is a broader chorus, with a weaker feeling of placement.

ST-2: The left output contains the source sound, and the right side has the wavering chorus sound.

17: DIGITAL CHORUS

This is a stereo chorus or flanger. Equalizers are provided before (Pre) and after (Post) the chorus (or flanger).



Mode

Selects either chorus or flanger.

Values: CHORUS, FLANGER

Rate

Sets the cycle for the chorus or flanger sound undulations. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Phase

Specifies the spaciousness of the chorus or flanger sound.

Values: 0–180 [deg]

Pre Low Freq (pre equalizer low frequency)

Specifies the center frequency of the low range “Pre” equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range “Pre” equalizer.

Values: -15– +15 [dB]

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range “Pre” equalizer.

Values: 2000–20000 [Hz]

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range “Pre” equalizer.

Values: -15– +15 [dB]

Pre Dly Time (Pre delay time)

Adjusts the delay time from the direct sound until when the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Feedback

Adjusts the proportion (%) of the chorus or flanger sound that is fed back into the effect. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Xover LowFreq (Crossover low frequency)

Attenuates the effect in the range below the specified frequency.

Values: 50–4000 [Hz]

Chapter 6 Effect Settings

Xover Low Gain (Crossover low gain)

Specifies how greatly the low range will be attenuated.

Values: -36-0 [dB]

Xover HiFreq (Crossover high frequency)

Attenuates the effect in the range above the specified frequency.

Values: 2000-20000 [Hz]

Xover Hi Gain (Crossover high gain)

Specifies how greatly the high range will be attenuated.

Values: -36-0 [dB]

Modulation Level

Adjusts the volume of the chorus or flanger sound.

Values: 0-127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range "Post" equalizer.

Values: 50-4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range "Post" equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range "Post" equalizer.

Values: 2000-20000 [Hz]

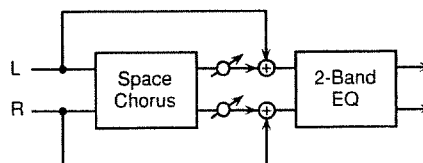
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range "Post" equalizer.

Values: -15- +15 [dB]

18: SPACE CHORUS

This effect reproduces the sound of Roland's SDD-320 spatial expression effects. Greater breadth is added.



Mode

Selects the way in the chorus will change.

The SDD-320 features four mode buttons for changing the effect. This setting determines which buttons are to be pressed. ("1+4" represents the condition when Buttons 1 and 4 are pressed simultaneously.)

Values: 1, 2, 3, 4, 1+4, 2+4, 3+4

Chorus Level

Adjusts the volume level of the chorus sound.

Values: 0-127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50-4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

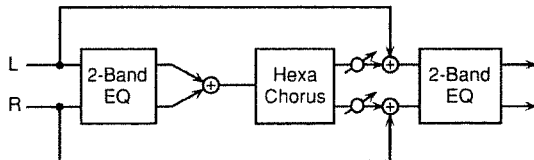
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

19: HEXA CHORUS

Hexa-chorus is a six-stage chorus which adds depth and spaciousness to the sound. (Six chorus sounds with different delay times are overlaid.) An equalizer is provided before (Pre) and after (Post) the hexa chorus.



Pre Dly Time (Pre delay time)

Specifies the delay time from the original sound until when the chorus sound is heard.

Values: 0–50.0 [ms]

Pre Dly Dev (Pre delay deviation)

Specifies the differences in Pre Delay time for each of the chorus sounds. Higher settings will cause each of the chorus sounds to be spread further apart.

Values: 0–50.0 [ms]

Rate

Specifies the modulation frequency of the chorus sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Specifies the modulation depth of the chorus sound.

Values: 0–127

Depth Deviation

Specifies the difference in modulation depth between each of the chorus sounds.

Values: 0–127

Pan Deviation

Specifies the difference in stereo position between each of the chorus sounds. With a setting of 0, all of the chorus sounds will be panned to the center. With a setting of L20 or 20R, each chorus sound will be placed in 30 degree intervals relative to the center position.

Values: L63–63R

Chorus Level

Adjusts the volume level of the chorus sound.

Values: 0–127

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range “Pre” equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range “Pre” equalizer.

Values: -15– +15 [dB]

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range “Pre” equalizer.

Values: 2000–20000 [Hz]

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range “Pre” equalizer.

Values: -15– +15 [dB]

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range “Post” equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range “Post” equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range “Post” equalizer.

Values: 2000–20000 [Hz]

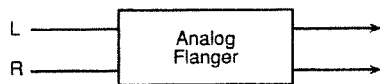
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range “Post” equalizer.

Values: -15– +15 [dB]

20: ANALOG FLANGER

This effect reproduces the sound of Roland's SBF-325 analog flanger. You can get three different types of flanger sounds (adding a metallic swelling sound to the source sound) and chorus like effect.



Mode

Sets the effect type.

Values

- FL1: A general monaural flanger
FL2: A stereo flanger that utilizes the stereo placement of the source sound
FL3: A cross mix flanger that providing a more intense effect
CHO: Chorus effect

Rate

Sets the rate of the swelling of the flanger sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.02–5.00 [Hz], note-value symbols

Depth

Specifies the modulation depth of the flanger sound.

Values: 0–127

Manual

Adjusts the center frequency to which the flanger effect is applied. This changes the pitch of the flanger effect's metallic sound.

Values: 0–127

Feedback

Sets the intensity of the flanger's effect.

Values: 0–127

* When the mode is set to "CHO," this setting will be ignored.

CH-R Mod Phase (Right Channel Modulation Phase)

This is usually set to "Normal" (NORM). Setting this to "Invert" (INV) inverts the phase of the modulation (rise and fall) in the right channel. You can get the modulation effect in the left and right channels being opposite from each other.

Values: NORM, INV

CH-L Phase (Left Channel Phase)

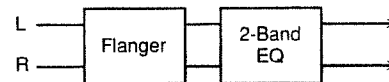
CH-R Phase (Right Channel Phase)

Sets the phase of the left and right channels when the source sound is mixed with the flanging sound. "Normal" (NORM) corresponds to positive phase (+), "Invert" (INV) to inverted, or negative phase (-). This changes the breadth of the sound. Check the sound to assure you have the appropriate setting.

Values: NORM, INV

21: BOSS FLANGER

This effect features a pair of the same flanger circuits used in the BOSS compact flangers, connected in parallel for stereo input. This adds a particular metallic-sounding modulation to the source sound.



Type

Selects the model of flanger simulated.

Values

- NORMAL: Normal type (BOSS BF-2)
HI-BAND: High-Band type (BOSS HF-2). Setting HI-B raise the flanging sound one octave above that at the NORM.

Manual

Sets the center frequency for the effect. This changes the pitch of the flanger's metallic sound.

Values: 0–127

Depth

Sets the depth of the swelling of the flanger sound.

Values: 0–127

Rate

Adjusts the modulation speed of the flanger effect. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Resonance

Sets the intensity of the flanger's effect.

Values: 0–127

* If the Feedback Mode is "CROSS," this setting is ignored.

Phase

Specifies the spaciousness of the flanger sound.

Values: 0–180 [deg]

Feedback Mode

Specifies the input destination to which the flanger sound will be returned.

Values

NORMAL: The left flanger sound will be returned to the left input, and the right flanger sound to the right input.

CROSS: The left flanger sound will be returned to the right input, and the right flanger sound to the left input.

Feedback

This setting makes the flanging sound of each of right and left channels return to the input of the opposite channel. This gives an even stronger flanging effect. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

* When the Feedback Mode is set to "NORMAL," this setting will be ignored.

Cross Mix Level

This setting makes the flanging sound from each of the right and left channels mix it with the flanging sound of the opposite channel. Positive (+) settings will mix them with the original phase, while negative (-) settings produce an inverted phase.

Values: -100– +100

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

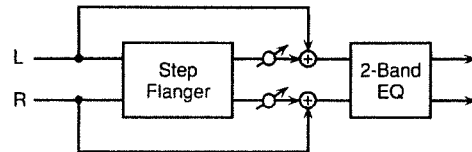
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

22: STEP FLANGER

Step flanger is a flanger in which the pitch of the flanger sound changes in steps.



Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the flanger sound is heard.

Values: 0–50.0 [ms]

Rate

Specifies the modulation frequency of the flanger sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Specifies the modulation depth of the flanger sound.

Values: 0–127

Feedback

Specifies the proportion (%) of the flanger sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Phase

Specifies the spaciousness of the flanger sound.

Values: 0–180 [deg]

Step Rate

Specifies the frequency of pitch change. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Flanger Level

Adjusts the volume of the flanger sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]



Chapter 6 Effect Settings

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

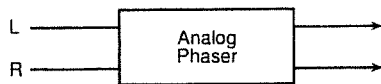
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

23: ANALOG PHASER

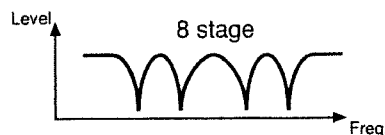
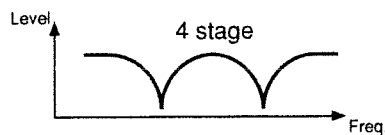
This effect features two analog-type phasers arranged in parallel, making it stereo compatible. The sound as it cyclically drifts in and out of phase is added to the source sound, creating the modulation with the characteristic of phasers.



Shift Mode

Sets the number of stages in the pitch shift circuit (four (4STG) or eight (8STG)). Setting this to eight stages (8STG) increases the number of the frequency points that sound is canceled, giving a sharper effect.

Values: 4STAGE, 8STAGE



Center Freq (Center frequency)

Sets the center frequency to which the phaser effect is applied. Increasing this value moves the effect point of the phaser into higher frequency ranges.

Values: 0–127

Resonance

Increasing this value gives a more distinctive sound to the effect.

Values: 0–127

LFO 1 Rate

Sets the rate of the swelling sound. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.02–5.00 [Hz], note-value symbols

LFO 1 Depth

Specifies the depth of modulation.

Values: 0–127

LFO 1 Phase

Sets the phase of both left and right swelling. When set to “Normal” (NORM), both are same phase; when set to “Invert” (INV), the phase of right channel is inverted.

Values: NORM, INV

LFO 2 Rate

Sets the rate of the swelling sound.

Values: 0.2–50.0 [Hz]

LFO 2 Depth

Specifies the depth of modulation.

Values: 0–127

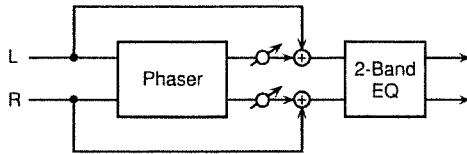
LFO 2 Phase

Sets the phase of both left and right swelling. When set to “Normal” (NORM), both are same phase; when set to “Invert” (INV), the phase of right channel is inverted.

Values: NORM, INV

24: DIGITAL PHASER

Phaser is an effect that adds a phase-shifted sound to the original sound to create time-varying change, modulating the sound.



Shift Mode

Sets the number of stages in the pitch shift circuit (four (4STG) or eight (8STG)). Setting this to eight stages (8STG) increases the number of the frequency points that sound is canceled, giving a sharper effect.

Values: 4STAGE, 8STAGE

Manual

Specifies the center frequency at which the sound is modulated.

Values: 0–127

Rate

Specifies the frequency of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Specifies the depth of modulation.

Values: 0–127

Phase

Sets the phase of both left and right swelling. When set to “Normal” (NORM), both are same phase; when set to “Invert” (INV), the phase of right channel is inverted.

Values: NORM, INV

Resonance

Specifies the amount of feedback for the phaser. Higher settings will give the sound a stronger character.

Values: 0–127

Mix Level

Specifies the volume of the phase-shifted sound, relative to the direct sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Ps Hi Gain (Post equalizer high gain)

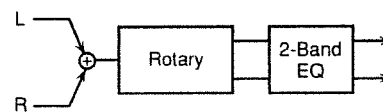
Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

25: ROTARY

Rotary is an effect which simulates the sound of the rotary speakers of the past.

Since the movement of the high frequency and low frequency rotors can be specified separately, the unique modulation can be simulated realistically. This effect is most effective on organ-type samples.



Speed

Selects the rotational speed of the low-range rotor and high-range rotor.

Values

SLOW: The specified rotational speeds (the Low Slow Rate/Hi Slow Rate values) will take effect.

FAST: The specified rotational speeds (the Low Fast Rate/Hi Fast Rate values) will take effect.

Low Slow Rate (Low frequency slow rate)

Specifies the low-speed (SLOW) rotational speed of the low-range rotor. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Chapter 6 Effect Settings

Low Fast Rate (Low frequency fast rate)

Specifies the high-speed (FAST) rotational speed of the low-range rotor. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Low Acceleration (Low frequency acceleration)

Specifies the time required for the rotational speed of the low-range rotor to change from the low speed to the high speed (or from the high speed to the low speed). Smaller values will require more time.

Values: 0–15

Low Level (Low frequency level)

Specifies the volume of the low-range rotor.

Values: 0–127

Hi Slow Rate (High frequency slow rate)

Specifies the low-speed (SLOW) rotational speed of the high-range rotor. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Hi Fast Rate (High frequency fast rate)

Specifies the high-speed (FAST) rotational speed of the high-range rotor. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Hi Acceleration (High frequency acceleration)

Specifies the time required for the rotational speed of the high-range rotor to change from the low speed to the high speed (or from the high speed to the low speed). Lower values will require longer times.

Values: 0–15

Hi Level (High frequency level)

Specifies the volume of the high-range rotor.

Values: 0–127

Separation

Adjusts the spaciousness of the sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

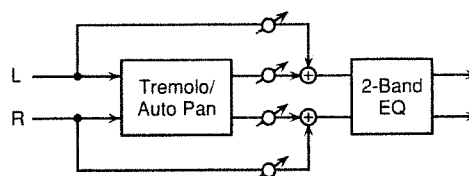
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

26: TREMOLO

This is a stereo tremolo or auto-pan effect. Tremolo cyclically modulates the volume to add tremolo effect to the sound. The Auto Pan effect cyclically modulates the stereo location of the sound.



Mode

Selects whether to use tremolo or auto pan.

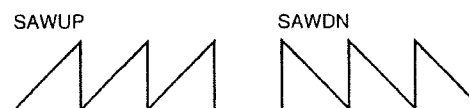
Values: TREMOLO, AUTO PAN

Waveform

Selects the type of modulation.

Values

TRI:	The sound will be modulated like a triangle wave.
SAWUP:	The sound will be modulated like a sawtooth wave.
SAWDN (SAW DOWN):	The sound will be modulated like a sawtooth wave.
SQR:	The sound will be modulated like a square wave.
SIN:	The sound will be modulated like a sine wave.



Rate

Specifies the rate of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Depth

Specifies the depth of modulation.

Values: 0–127

Balance (Effect balance)

Sets the balance for the levels of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

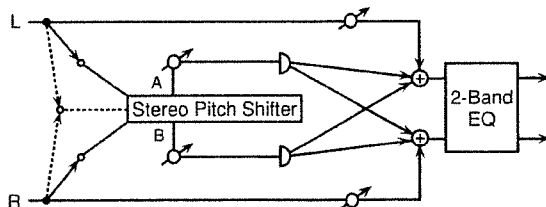
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

27: STEREO PITCH SHIFTER

This effect features two pitch shifters arranged in parallel, making it stereo compatible. It can shift the pitch of the input signal up to one octave up or down.



Input Mode

Selects either stereo input or monaural input.

Values: MONO, STEREO

Grade

Sets the grade of the effect sound. The higher the value is set, the more natural-sounding can be obtained; however, this increases the delay from the source sound as well.

Depending on the setting, you may be able to hear some disruption of drum samples, so select the suitable setting after listening to the sound at different settings.

Values: 1–5

Coarse Pitch A

Specifies the pitch shift amount in semitones for pitch shift A.

Values: -12– +12 [semitone]

Fine Pitch A

Adjusts the pitch shift amount in 2-cent units (1 cent = 1/100 of a semitone) for pitch shift A.

Values: -100– +100 [cent]

Coarse Pitch B

Specifies the pitch shift amount in semitones for pitch shift B.

Values: -12– +12 [semitone]

Fine Pitch B

Adjusts the pitch shift amount in 2-cent units (1 cent = 1/100 of a semitone) for pitch shift B.

Values: -100– +100 [cent]

Pre Delay A (Pre delay time A)

Specifies the time delay from the original sound until the pitch shift A sound is heard.

Values: 0–500 [ms]

Pre Delay B (Pre delay time B)

Specifies the time delay from the original sound until the pitch shift B sound is heard.

Values: 0–500 [ms]

Level A

Adjusts the volume of the pitch shift A sound.

Values: 0–127

Level B

Adjusts the volume of the pitch shift B sound.

Values: 0–127

Chapter 6 Effect Settings

Pan A

Specifies the stereo location of the pitch shift A sound. L63 is far left, 0 is center, and 63R is far right.

Values: L63–63R

Pan B

Specifies the stereo location of the pitch shift B sound. L63 pans hard left, 0 is center and 63R pans hard right.

Values: L63–63R

Direct Level

Sets the volume of the source sound.

Values: 0–127

Feedback

Specifies the proportion (%) of the pitch shift sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the pitch shift sound quicker than other bands. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

The High Damp function damps the high frequency band of the pitch shift sound quicker than other bands. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain

Sets the degree of the High Damp.

Values: -36-0 [dB]

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

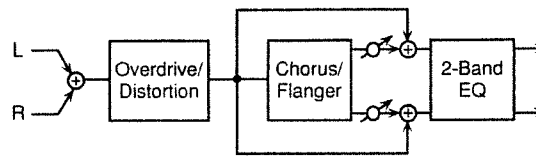
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

28: OD->CHO (Overdrive->Chorus)

This effect connects either Overdrive or Distortion and either Chorus or Flanger.



Distortion Mode

Selects whether to use overdrive or distortion.

Values: OD (= OVERDRIVE), DS (= DISTORTION)

Drive

Adjusts the amount of distortion.

Values: 0–127

Amp Sim Sw (Amp simulator switch)

Turns the amp simulator on/off.

Values: OFF, ON

Amp Type

Selects the type of guitar amp.

Values

SMALL: Small amp

BUILT-IN: Single-unit type amp

2-STACK: Large two-level stack

3-STACK: Large three-level stack

Distortion Level

Adjusts the volume of the overdrive or distortion sound.

Values: 0–127

Mod Mode (Modulation mode)

This is used to select either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Mod Phase (Modulation phase)

Sets how the flanger or chorus sound is spread.

Values: 0–180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the flanger or chorus sound is heard.

Values: 0–50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Xover LowFreq (Modulation crossover low frequency)

Attenuates the effect in the range below the specified frequency.

Values: 50–4000 [Hz]

Xover Low Gain (Modulation crossover low gain)

Specifies the amount of cut for the low frequency range.

Values: -36-0 [dB]

Xover HiFreq (Modulation crossover high frequency)

Attenuates the effect in the range above the specified frequency.

Values: 2000–20000 [Hz]

Xover Hi Gain (Modulation crossover high gain)

Specifies the amount of cut for the high frequency range.

Values: -36-0 [dB]

Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

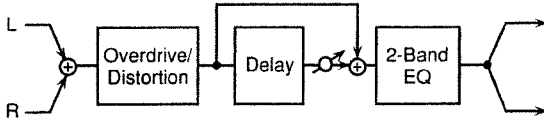
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

29: OD->DLY (Overdrive->Delay)

This effect connects either Overdrive or Distortion and Delay in series.



Distortion Mode

Selects whether to use overdrive or distortion.

Values: OD (= OVERDRIVE), DS (= DISTORTION)

Drive

Sets the degree of distortion.

Values: 0-127

Amp Sim Sw (Amp simulator switch)

Turns the amp simulator on/off.

Values: OFF, ON

Amp Type

Selects the type of guitar amp.

Values

SMALL: Small amp
BUILT-IN: Single-unit type amp
2-STACK: Large two-level stack
3-STACK: Large three-level stack

Distortion Level

Adjusts the volume of the overdrive or distortion sound.

Values: 0-127

Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0-1300 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98- +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by "Low Damp."

Values: 50-4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000-20000 [Hz]

Hi Damp Gain

Sets the degree of the High Damp.

Values: -36-0 [dB]

Delay Level

Sets the volume of the delay sound.

Values: 0-127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50-4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

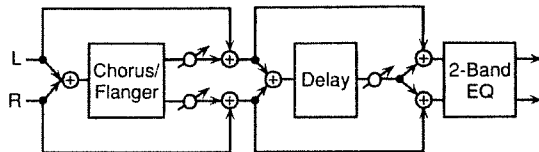
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

30: CHO->DLY (Chorus->Delay)

This effect connects either Chorus or Flanger and Delay in series.



Mod Mode (Modulation mode)

Selects either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Mod Phase (Modulation phase)

Sets how the chorus or flanger sound is spread.

Values: 0–180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Xover LowFreq (Modulation crossover low frequency)

Attenuates the effect in the range below the specified frequency.

Values: 50–4000 [Hz]

Xover Low Gain (Modulation crossover low gain)

Specifies how greatly the low range will be attenuated.

Values: -36-0 [dB]

Xover HiFreq (Modulation crossover high frequency)

Attenuates the effect in the range above the specified frequency.

Values: 2000–20000 [Hz]

Xover Hi Gain (Modulation crossover high gain)

Specifies how greatly the high range will be attenuated.

Values: -36-0 [dB]

Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–1300 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Chapter 6 Effect Settings

Hi Damp Gain

Sets the degree of the High Damp.

Values: -36-0 [dB]

Delay Level

Sets the volume of the delay sound.

Values: 0-127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50-4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15- +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000-20000 [Hz]

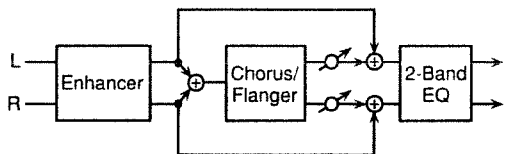
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15- +15 [dB]

31: ENH->CHO (Enhancer->Chorus)

This effect connects Enhancer and either Chorus or Flanger in series.



Enhans Sens (Enhancer sens)

Adjusts the depth of the enhancer effect.

Values: 0-127

Enhans Frequency (Enhancer frequency)

Sets the lower limit of the frequencies to which the enhancement effect is added.

Values: 0-127

Enhans Mix Level (Enhancer mix level)

Sets the level of the overtones produced by the Enhancer that is mixed in with the source sound.

Values: 0-127

Enhans Level (Enhancer level)

Adjusts the volume of the enhancer sound.

Values: 0-127

Mod Mode (Modulation mode)

This is used to select either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05-10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0-127

Mod Phase (Modulation phase)

Sets how the chorus or flanger sound is spread.

Values: 0-180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0-50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98- +98 [%]

Xover LowFreq (Modulation crossover low frequency)

Attenuates the effect in the range below the specified frequency.

Values: 50-4000 [Hz]

Xover Low Gain (Modulation crossover low gain)

Specifies how greatly the low range will be attenuated.

Values: -36-0 [dB]

Xover HiFreq (Modulation crossover high frequency)

Attenuates the effect in the range above the specified frequency.

Values: 2000–20000 [Hz]

Xover Hi Gain (Modulation crossover high gain)

Specifies how greatly the high range will be attenuated.

Values: -36-0 [dB]

Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

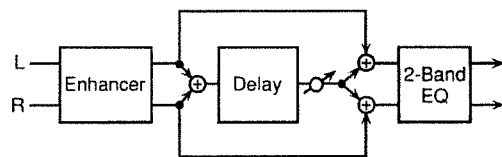
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

32: ENH->DLY (Enhancer->Delay)

This effect connects an enhancer and a delay in series.



Enhans Sens (Enhancer sens)

Adjusts the depth of the enhancer effect.

Values: 0–127

Enhans Frequency (Enhancer frequency)

Sets the lower limit of the frequencies to which the enhancement effect is added.

Values: 0–127

Enhans Mix Level (Enhancer mix level)

Sets the level of the overtones produced by the Enhancer that is mixed in with the source sound.

Values: 0–127

Enhans Level (Enhancer level)

Adjusts the volume of the enhancer sound.

Values: 0–127

Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–1300 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by "Low Damp."

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

Delay Level

Sets the volume of the delay sound.

Values: 0–127

Chapter 6 Effect Settings

Ps Low Freq (Post equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Ps Low Gain (Post equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Ps Hi Freq (Post equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

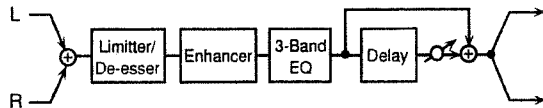
Ps Hi Gain (Post equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

33: VOCAL MULTI

A limiter/de-esser, enhancer, 3-band equalizer, and delay are connected in series.



Limiter/De-esser

This can be used either as a limiter or as a de-esser. A limiter holds down high signal levels to prevent distortion. A de-esser cuts the sibilant sounds of a voice, producing a gentler tone.

* When the limiter mode is "DE-ESSER," the setting for Limtr xxxxx will be ignored. When the mode is "LIMITER," the setting for DE xxxxx will be ignored.

Limtr Mode (Limiter mode)

Selects whether the effect will function as a limiter or as a de-esser.

Values: LIMITER, DE-ESSER

Limtr Threshold (Limiter threshold)

Adjusts the level (Threshold Level) at which the limiter will begin to operate.

Values: -60–0 [dB]

Limtr Release (Limiter release)

Adjusts the time until when the limiter will turn off after the input level falls below the threshold level.

Values: 0–127

Limtr Gain (Limiter gain)

Adjusts the gain of the sound that passes through the limiter.

Values: -60– +12 [dB]

DE Sens (De-esser sens)

Adjusts the sensitivity relative to the input volume, which controls how the effect is applied.

Values: 0–127

DE Frequency (De-esser frequency)

Adjusts the frequency at which the de-esser effect will apply. The effect will be made apparent in the frequencies above the frequency set here.

Values: 1000–10000 [Hz]

Enhancer

Enhan Sens (Enhancer sens)

Adjusts the depth of the enhancer effect.

Values: 0–127

Enhan Frequency (Enhancer frequency)

Sets the lower limit of the frequencies to which the enhancement effect is added.

Values: 0–127

Enhan Mix Level (Enhancer mix level)

Sets the level of the overtones produced by the Enhancer that is mixed in with the source sound.

Values: 0–127

Enhan Level (Enhancer level)

Adjusts the volume of the enhancer sound.

Values: 0–127

3-Band Equalizer

EQ Low Freq (Equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

EQ Low Gain (Equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

EQ Mid Freq (Equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

EQ Mid Q (Equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

EQ Mid Gain (Equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

EQ High Freq (Equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

EQ High Gain (Equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Delay**Delay Time**

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–1300 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the sound to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

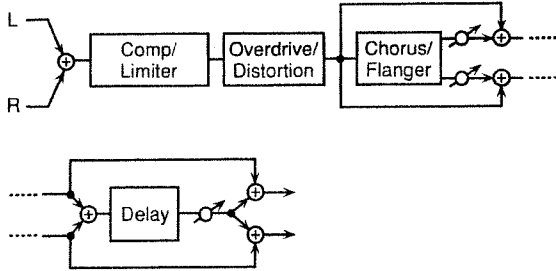
Delay Level

Sets the volume of the delay sound.

Values: 0–127

34: GUITAR MULTI

Guitar Multi provides Comp/Limiter, Overdrive or Distortion, Chorus or Flanger, and Delay effects connected in series.



Comp/Limiter

Comp Sw (Compressor switch)

Turns the comp/limiter on/off.

Values: OFF, ON

Comp Threshold (Compressor threshold)

Sets the volume level at which the compression begins.

Values: -60-0 [dB]

Comp Attack (Compressor attack)

Sets the time after the sound volume is crossed the compressor threshold until compression begins.

Values: 0-127

Comp Release (Compressor release)

Specifies the time from when the volume drops below the compressor threshold until compression is no longer applied.

Values: 0-127

Comp Ratio (Compressor ratio)

Sets the "source sound:output sound" compression ratio.

Values: 1.5:1, 2:1, 4:1, 100:1

Comp Gain (Compressor gain)

Adjusts the output gain.

Values: -60- +12 [dB]

Overdrive/Distortion

Distortion Sw (Distortion switch)

Turns the overdrive or distortion on/off.

Values: OFF, ON

Distortion Mode

Selects whether to use overdrive or distortion.

Values: OD (= OVERDRIVE), DS (= DISTORTION)

Drive

Adjusts the amount of distortion.

Values: 0-127

Amp Sim Sw (Amp simulator switch)

Turns the amp simulator on/off.

Values: OFF, ON

Amp Type

Selects the type of guitar amp.

Values

SMALL: Small amp
 BUILT-IN: Single-unit type amp
 2-STACK: Large two-level stack
 3-STACK: Large three-level stack

Distortion Level

Adjusts the volume of the overdrive or distortion sound.

Values: 0-127

Chorus/Flanger

Mod Mode (Modulation mode)

This is used to select either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05-10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0-127

Mod Phase (Modulation phase)

Adjusts the spaciousness for the chorus or flanger.

Values: 0-180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Mod XoverLPF (Modulation crossover low pass filter frequency)

Adjusts the cutoff frequency of the low pass filter. The effect will be applied to the frequency range below the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: 500–15000 [Hz], THRU

Mod XoverHPF (Modulation crossover high pass filter frequency)

Adjusts the cutoff frequency of the high pass filter. The effect will be applied to the frequency range above the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: THRU, 50–800 [Hz]

Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

Delay

Delay Time

Specifies the time delay from the original sound until the delay sound is heard.

Values: 0–1300 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped. If you do not want to apply attenuation, set this parameter to "THRU."

Values: 500–15000 [Hz], THRU

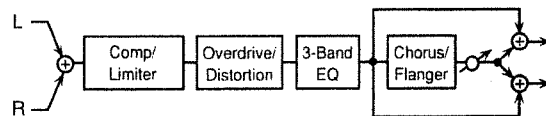
Delay Level

Sets the volume of the delay sound.

Values: 0–127

35: BASS MULTI

Bass Multi provides Comp/Limiter, Overdrive or Distortion, 3-band equalizer, and Chorus or Flanger effects connected in series. This algorithm is a multi-effects for bass.



Comp/Limiter

Comp Sw (Compressor switch)

Turns the comp/limiter on/off.

Values: OFF, ON

Comp Threshold (Compressor threshold)

Sets the volume level at which the compression begins.

Values: -60– 0 [dB]

Comp Attack (Compressor attack)

Sets the time after the sound volume is crossed the compressor threshold until compression begins.

Values: 0–127

Comp Release (Compressor release)

Specifies the time from when the volume drops below the compressor threshold until compression is no longer applied.

Values: 0–127

Comp Ratio (Compressor ratio)

Sets the "source sound:output sound" compression ratio.

Values: 1.5:1, 2:1, 4:1, 100:1

Comp Gain (Compressor gain)

Adjusts the output gain.

Values: -60– +12 [dB]

Overdrive/Distortion

Distortion Sw (Distortion switch)

Turns overdrive or distortion on/off.

Values: OFF, ON

Distortion Mode

Selects whether to use overdrive or distortion.

Values: OD (= OVERDRIVE), DS (= DISTORTION)

Drive

Specifies the depth of distortion.

Values: 0–127

Amp Sim Sw (Amp simulator switch)

Turns the amp simulator on/off.

Values: OFF, ON

Amp Type

Selects the type of bass amp.

Values

SMALL: Small amp

BUILT-IN: Single-unit type amp

STACK: Large two-level stack

Distortion Level

Adjusts the volume of the overdrive or distortion sound.

Values: 0–127

3-Band Equalizer

EQ Low Freq (Equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

EQ Low Gain (Equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

EQ Mid Freq (Equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

EQ Mid Q (Equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

EQ Mid Gain (Equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

EQ High Freq (Equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

EQ High Gain (Equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Chorus/Flanger

Mod Mode (Modulation mode)

This is used to select either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Mod Phase (Modulation phase)

Adjusts the spaciousness for the chorus or flanger.

Values: 0–180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Mod XoverLPF (Modulation crossover low pass filter frequency)

Adjusts the cutoff frequency of the low pass filter. The effect will be applied to the frequency range below the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: 500–15000 [Hz], THRU

Mod XoverHPF (Modulation crossover high pass filter frequency)

Adjusts the cutoff frequency of the high pass filter. The effect will be applied to the frequency range above the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: THRU, 50–800 [Hz]

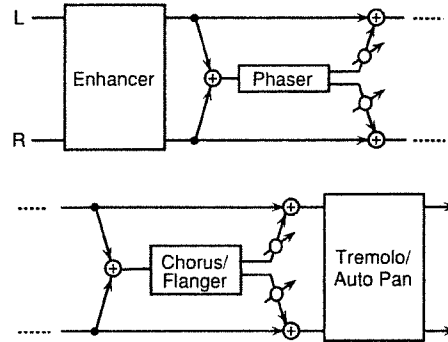
Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

36: RHODES MULTI

Enhancer, Phaser, Chorus or Flanger, and Tremolo or Auto-pan are connected in series. This effect is used for electric piano.



Enhancer

Enhan Sw (Enhancer switch)

Turns the enhancer effect on/off.

Values: OFF, ON

Enhan Sens (Enhancer sens)

Adjusts the depth of the enhancer effect.

Values: 0–127

Enhan Frequency (Enhancer frequency)

Sets the lower limit of the frequencies to which the enhancement effect is added.

Values: 0–127

Enhan Mix Level (Enhancer mix level)

Sets the level of the overtones produced by the Enhancer that is mixed in with the source sound.

Values: 0–127

Enhan Level (Enhancer level)

Specifies the volume of the Enhancer effect.

Values: 0–127

Chapter 6 Effect Settings

Phaser

Phaser Manual

Specifies the center frequency at which the sound is modulated.

Values: 0–127

Phaser Rate

Specifies the frequency of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Phaser Depth

Specifies the depth of modulation.

Values: 0–127

Phaser Resonance

Specifies the amount of feedback for the phaser. Higher settings will give the sound a stronger character.

Values: 0–127

Phaser Mix Level

Specifies the volume of the phase-shifted sound, relative to the direct sound.

Values: 0–127

Chorus/Flanger

Mod Mode (Modulation mode)

This is used to select either the chorus or flanger.

Values: CHORUS, FLANGER

Mod Rate (Modulation rate)

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Mod Depth (Modulation depth)

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Mod Phase (Modulation phase)

Adjusts the spaciousness for the chorus or flanger.

Values: 0–180 [deg]

Mod Pre Delay (Modulation pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Mod Feedback (Modulation feedback)

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Mod XoverLPF (Modulation crossover low pass filter frequency)

Adjusts the cutoff frequency of the low pass filter. The effect will be applied to the frequency range below the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: 500–15000 [Hz], THRU

Mod XoverHPF (Modulation crossover high pass filter frequency)

Adjusts the cutoff frequency of the high pass filter. The effect will be applied to the frequency range above the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: THRU, 50–800 [Hz]

Mod Level (Modulation level)

Adjusts the volume of the chorus or flanger sound.

Values: 0–127

Tremolo/Auto pan

Trem/Pan Sw (Tremolo/Auto pan switch)

Turns the tremolo/auto pan effect on/off.

Values: OFF, ON

Trem Mode (Tremolo mode)

Selects whether to use tremolo or auto pan.

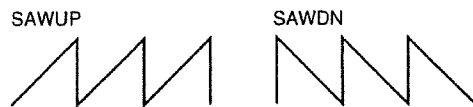
Values: TREMOLO, AUTO PAN

Trem Waveform (Tremolo waveform)

Selects the type of modulation.

Values

- TRI: The sound will be modulated like a triangle wave.
- SAWUP: The sound will be modulated like a sawtooth wave.
- SAWDN (= SAW DOWN): The sound will be modulated like a sawtooth wave.
- SQR: The sound will be modulated like a square wave.
- SIN: The sound will be modulated like a sine wave.



Trem Rate (Tremolo rate)

Specifies the frequency of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

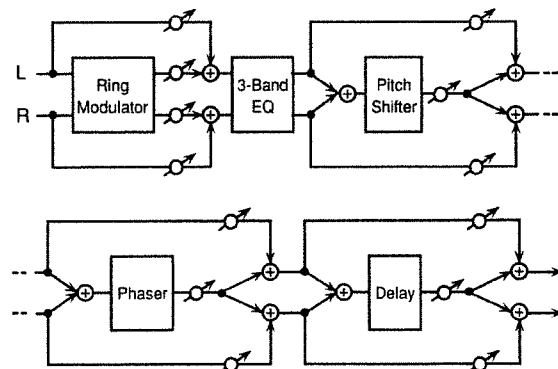
Trem Depth (Tremolo depth)

Specifies the depth of modulation.

Values: 0–127

37: KEYBOARD MULTI

A ring modulator, 3-band equalizer, pitch shifter, phaser, and delay are connected in series.



Ring Modulator

Ring Modulator is an effect which applies ring modulation using an internal oscillator to the input signal, producing bell-like sounds.

Ring Freq (Ring modulator frequency)

Sets the frequency at which modulation will be applied.

Values: 0–127

Ring Balance (Ring effect balance)

Sets the volume balance of the original sound (D) and the ring modulator sound (E).

Values: E0:100D–E100:0D

3-Band Equalizer

EQ Low Freq (Equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

EQ Low Gain (Equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

EQ Mid Freq (Equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

EQ Mid Q (Equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

EQ Mid Gain (Equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

EQ High Freq (Equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

EQ High Gain (Equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Pitch Shifter

PS Grade (Pitch shifter grade)

Sets the grade of the effect sound. The higher the value is set, the more natural-sounding can be obtained; however, this increases the delay from the source sound as well. Depending on the setting, you may be able to hear some disruption of drum samples, so select the suitable setting after listening to the sound at different settings.

Values: 1–5

PS Coarse (Pitch shifter coarse pitch)

Specifies the pitch shift amount in semitone steps.

Values: -12– +12 [semitone]

PS Fine (Pitch shifter fine pitch)

Adjusts the pitch shift amount in 2-cent steps (1 cent = 1/100 of a semitone).

Values: -100– +100 [cent]

PS Balance (Pitch shifter effect balance)

Sets the balance for the volumes of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

Phaser

Phaser Manual

Specifies the center frequency at which the sound is modulated.

Values: 0–127

Phaser Rate

Specifies the frequency of modulation. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

Phaser Depth

Specifies the depth of modulation.

Values: 0–127

Phaser Resonance

Specifies the amount of feedback for the phaser. Higher settings will give the sound a stronger character.

Values: 0–127

Phaser Mix Level

Specifies the volume of the phase-shifted sound, relative to the direct sound.

Values: 0–127

Delay

Delay Time

Specifies the time delay from the original sound until the delay sound is heard. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0–650 [ms], note-value symbols

Delay Feedback

Specifies the proportion (%) of the delay sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the delay sound quicker than other bands, which makes for a clearer delay effect. Sets the upper frequency limit of the range to be damped by "Low Damp."

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the delay sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

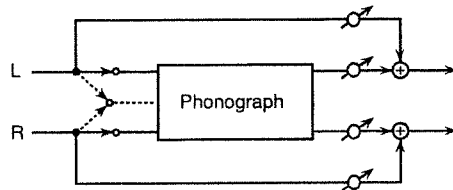
Delay Level

Sets the volume of the delay sound.

Values: 0–127

38: PHONOGRAPH

This effect reproduces the sound of an analog record played on a record player. This includes the various noises with the characteristic of records and the uneven rotation of older turntables.



Input Mode

Use this setting to select either a stereo or monaural record player for the effect.

Values: MONO, STEREO

Signal Dist (Signal distortion)

Adjusts the depth of distortion. The higher the value is set, the more the sound is distorted.

Values: 0–127

Frequency Range

Sets the frequency response of the record player. Lowering the value degrades the frequency characteristics, making the sound resemble that from an older system.

Values: 0–127

Disk Type

Sets the turntable rotation speed. This influences the cycles of scratches being played.

Values

LP: 33 1/3 r.p.m.

EP: 45 r.p.m.

SP: 78 r.p.m.

Total Noise

Total noise level.

Values: 0–127

Scratch

Scratches on the record.

Values: 0–127

Dust

Dust on the record.

Values: 0–127

Hiss

Continuous hissing noise.

Values: 0–127

* These settings add the typical record's noise. The noises increase as the values are raised. Set each of the Scratch, Dust, and Hiss noise levels to get a balance, then adjust the overall amount of noise with the Total Noise Level control.

Total Wow/Flutter (Total wow/flutter)

Total wow and flutter.

Values: 0–127

Wow

Wow, long cycle rotational irregularity.

Values: 0–127

Flutter

Flutter, short cycle rotational irregularity.

Values: 0–127

Random

Random rotational irregularity.

Values: 0–127

* These settings determine the rotational irregularities of the record player. Set each of the Wow, Flutter, and Random levels to get a balance, then adjust the overall depth of the effect with the Total Wow/Flutter control.

Balance (Effect balance)

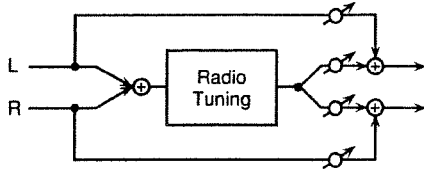
Sets the balance for the volumes of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

Chapter 6 Effect Settings

39: RADIO TUNING

This effect reproduces the sound of an AM radio playing.



Tuning

Adjusts the degree of noise that occurs when tuning a radio. A setting of 0 corresponds to exact tuning.

Values: -50– +50

Noise Level

Sets the noise level.

Values: 0–127

Frequency Range

Sets the frequency response of the radio. Lowering the value worsens the frequency characteristics, making the sound appear to be coming from a tiny radio speaker.

Values: 0–127

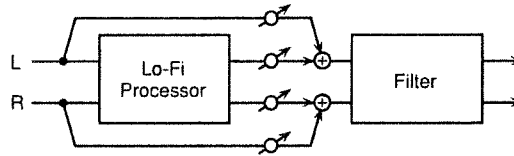
Balance (Effect balance)

Sets the balance for the volumes of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

40: BIT RATE CONVERTER

By changing the bit count and sample rate, this effect recreates the Lo-Fi (Low-Fidelity) sounds of the early digital samplers and similar machines. After the Lo-Fi processor, a filter to change the tone is arranged in series.



Lo-Fi Processor

Pre Filter Sw (Pre filter switch)

This is the switch of the filter placed before the Lo-Fi processing. When set “ON,” this suppresses the digital distortion by lowering sample rates.

Values: OFF, ON

Sample Rate

Sets the fraction of current sampling rates to be used for processing.

Values: 1/1, 1/2, 1/4, 1/8, 1/16, 1/32

Bit Down (Sample bit down)

This setting is for reducing the bit count. When this is set to 0 bit, the bit count currently used is preserved.

Values: 0–15

Post Filter Sw (Post filter switch)

This is the switch of the filter placed after the Lo-Fi processing. Like the pre-filter. When set “ON,” this suppresses the digital distortion by lowering sample rates.

Values: OFF, ON

Balance (Effect balance)

Sets the balance for the volumes of the original sound (D) and the effect sound (E).

Values: E0:D100–E100:D0

Filter

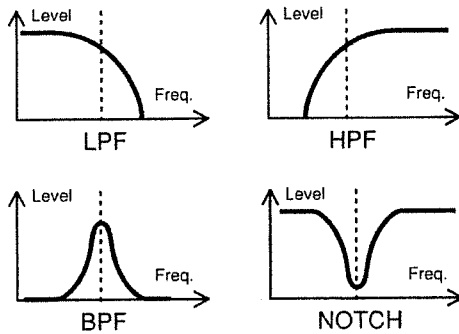
This filter allows you to modify the frequency response of the input sound widely and give sound a style.

Filter Type

Specifies the type of filter.

Values

- THRU: No filter is used.
- LPF: Passes frequencies below the cutoff frequency.
- BPF: Passes frequencies near the cutoff frequency.
- HPF: Passes frequencies above the cutoff frequency.
- NOTCH: Passes frequencies other than those near the cutoff frequency.



Filter Slope

Sets the filter's attenuation slope (-24 dB per one octave: steep; -12 dB per one octave: shallow).

Values: -12, -24 [dB/oct]

Filter Cutoff (Filter cutoff frequency)

Sets the filter's cutoff frequency. Set this closer to zero, the cutoff frequency becomes lower; set closer to 127, the cutoff frequency becomes higher.

Values: 0-127

Filter Resonance

Sets the filter's resonance level. Raising the setting increases resonance near the cutoff frequency, giving the sound a special characteristic.

Values: 0-127

Filter Gain

Compensates for the volume dropped in the cut frequency range with some filters. The level of compensation increases as the value is increased, and raise the volume.

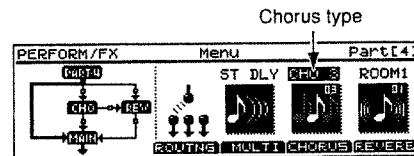
Values: 0- +24 [dB]

Chorus settings

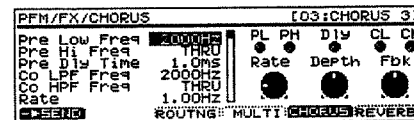
There are eight types of chorus. You can select one of these types, and edit the parameter values of the selected type.

* Chorus parameters are the same for all types of chorus. When the power is turned on, however, the parameter values will be different for each type.

1. Press [PERFORM], getting the indicator to light. The PERFORM Play page will appear.
2. Press [F6 (EFFECT)]. The PERFORM/FX Menu page will appear.

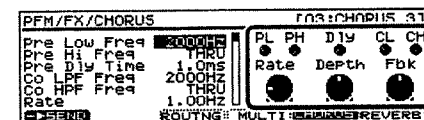


3. Use [◀] [▶] to move the cursor to the chorus type.
4. Either rotate the VALUE dial or press [DEC/-] [INC/+] to select the type.
5. Press [F5 (CHORUS)]. In this page you can specify the parameters for the selected type.



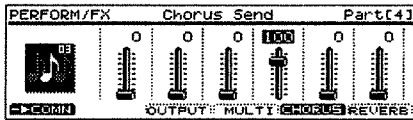
6. Use [▲] [▼] to move the cursor to the item you wish to set.
7. Either by rotating the VALUE dial or by pressing [DEC/-] [INC/+], set the value.
8. Press [EXIT] twice to return to the PERFORM Play page.

* The values of rate, depth, and feedback can be adjusted by rotating the C1-C3 knobs. This function is valid only while graphics of the knobs are displayed. Be aware that the control changes assigned to the C1-C3 knobs cannot be used to set the values. The small knob graphics indicate the values of other parameters.



Chapter 6 Effect Settings

* By pressing the [F1 (→ SEND)] you can jump to the Chorus Send Level setting screen (p. 65). To return to the previous screen, press [F1 (→ COMN)].



Chorus Type

01: CHORUS 1

Display: CHO 1

This conventional chorus effect adds spaciousness and depth to the sound. Slow modulation frequency with less depth.

02: CHORUS 2

Display: CHO 2

This conventional chorus effect adds spaciousness and depth to the sound. Rapid modulation frequency with less depth.

03: CHORUS 3

Display: CHO 3

This conventional chorus effect adds spaciousness and depth to the sound. Slow modulation frequency with more depth.

04: CHORUS 4

Display: CHO 4

This conventional chorus effect adds spaciousness and depth to the sound. Rapid modulation frequency with more depth.

05: FEEDBACK CHORUS

Display: FBCHO

This chorus offers a flanger-like effect, creating a soft sound.

06: FLANGER

Display: FLNGR

This effect sounds somewhat like a jet airplane taking off and landing.

07: SHORT DELAY

Display: S DLY

This is a delay with a short delay time.

08: FEEDBACK SHORT DELAY

Display: FBDLY

This is a short delay with many repeats.

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 500–15000 [Hz], THRU

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: THRU, 50–800 [Hz]

Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the chorus or flanger sound is heard.

Values: 0–50.0 [ms]

Co LPF Freq (Crossover low pass filter frequency)

Adjusts the cutoff frequency of the low pass filter. The effect will be applied to the frequency range below the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: 500–15000 [Hz], THRU

Co HPF Freq (Crossover high pass filter frequency)

Adjusts the cutoff frequency of the high pass filter. The effect will be applied to the frequency range above the cutoff frequency. If you don't want to use a filter, set this to "THRU."

Values: THRU, 50–800 [Hz]

Rate

Adjusts the speed of modulation for the chorus or flanger. If you want this to synchronize to the master tempo, select a note-value setting.

Values: 0.05–10.0 [Hz], note-value symbols

* If this is set to a note-value symbol, you must turn Tempo Sync on for the part to which chorus will be applied (p. 51).

Depth

Adjusts the depth of modulation for the chorus or flanger.

Values: 0–127

Feedback

Specifies the proportion (%) of the effect sound that is to be returned to the input. Positive (+) settings will return the signal to the input with the original phase, while negative (-) settings produce an inverted phase.

Values: -98– +98 [%]

Cho/Flg Sw (Chorus/Flanger switch)

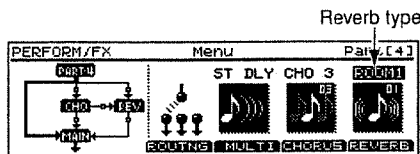
Selects either the chorus or flanger.

Values: CHORUS, FLANGER

Reverb settings

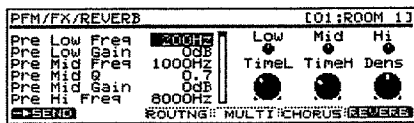
There are nine types of reverb. You can select one of these, and modify the parameter values for the selected type.

1. Press [PERFORM], getting the indicator to light.
The PERFORM Play page will appear.
2. Press [F6 (EFFECT)].
The PERFORM/FX Menu page will appear.



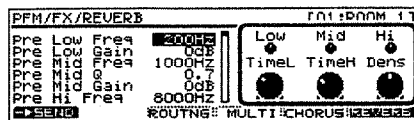
3. Use [◀] [▶] to move the cursor to the reverb type.
4. Either by rotating the VALUE dial or by pressing [DEC/-] [INC/+], set the value.
5. Press [F6 (REVERB)].

In this page you can specify the parameters for the selected type.

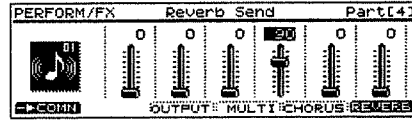


6. Use [▲] [▼] to move the cursor to the item you wish to set.
7. Either by rotating the VALUE dial or by pressing [DEC/-] [INC/+], set the value.
8. Press [EXIT] twice to return to the PERFORM Play page.

* The values of the parameters shown in the screen can be adjusted by rotating the C1–C3 knobs. This function is valid only while graphics of the knobs are displayed. Be aware that the control changes assigned to the C1–C3 knobs cannot be used to set the values. The small knob graphics indicate the values of other important parameters.



* By pressing the [F1 (→ SEND)] button you can jump to the Reverb Send Level setting screen (p. 65). To return to the previous screen, press [F1 (→ COMN)].



Parameters for each reverb are given on the following pages.

Menu screen display

01: ROOM 1	ROOM1	(p. 111)
02: ROOM 2	ROOM2	(p. 112)
03: ROOM 3	ROOM3	(p. 113)
04: HALL 1	HALL1	(p. 114)
05: HALL 2	HALL2	(p. 114)
06: HALL 3	HALL3	(p. 114)
07: GARAGE	GARAG	(p. 115)
08: PLATE	PLATE	(p. 115)
09: NON-LINEAR	NLR	(p. 115)

01: ROOM 1

Reverb which simulates the reverberation within a room. It is standard room reverb.

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Pre Mid Freq (Pre equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

Pre Mid Q (Pre equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Pre Mid Gain (Pre equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

Chapter 6 Effect Settings

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Low Rev Time (Low band reverb time)

Adjusts the duration (time) of the reverb for the low frequency band.

Values: 0.06–32.0 [sec]

Hi Rev Time (High band reverb time)

Adjusts the duration (time) of the reverb for the high frequency band.

Values: 0.06–32.0 [sec]

Xover Freq (Crossover frequency)

The reverberation specified by the Low Rev Time will be applied to the range below this frequency, and by the Hi Rev Time to the range above this frequency.

Values: 160–15000 [Hz], THRU

Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the delay sound is heard.

Values: 0–200.0 [ms]

Density

Adjusts the density of the reverb.

Values: 0–99

Room Size

Adjusts the size of the room which is simulated.

Values: 5.6–32.6 [m]

Early Ref Level (Early reflection level)

Adjusts the volume level of the initial reflected sound.

Values: 0–99

Release Density

Adjusts the density of the sound that reaches the listener after many repeated reflections.

Values: 0–99

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the reverb sound quicker than other bands, which makes for a clearer reverb effect. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

High Damp, by attenuating the higher frequencies first, makes the reverb sound more natural. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

Post HC Freq (Post high cut frequency)

Adjusts the frequency at which the high cut filter will begin to take effect. The effect is applied to the reverb output. If you don't want to use a filter, set this to “THRU.”

Values: 160–15000 [Hz], THRU

02: ROOM 2

This simulates the reverberation of a room. It is suitable for simulating a fairly small room, and produces a clear reverberation.

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Pre Mid Freq (Pre equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

Pre Mid Q (Pre equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Pre Mid Gain (Pre equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Reverb Time

Adjusts the duration (time) of the reverb.

Values: 0.06–32.0 [sec]

Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the delay sound is heard.

Values: 0–200.0 [ms]

Density

Adjusts the density of the reverb.

Values: 0–99

Room Size

Adjusts the size of the room which is simulated.

Values: 1–10

Early Ref Level (Early reflection level)

Adjusts the volume level of the initial reflected sound.

Values: 0–99

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the reverb sound quicker than other bands. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

The Low Damp function damps the high frequency band of the reverb sound quicker than other bands. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

Post HC Freq (Post high cut frequency)

Adjusts the frequency at which the high cut filter will begin to take effect. The effect is applied to the reverb output. If you don't want to use a filter, set this to “THRU.”

Values: 160–15000 [Hz], THRU

03: ROOM 3

Reverb which simulates the reverberation within a room. This is suitable for simulating a fairly large room, and produces reverberation with a strong mid and low range.

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Pre Mid Freq (Pre equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

Pre Mid Q (Pre equalizer middle Q)

Adjusts the width of the area around the equalizer middle frequency that will be affected by the Gain setting. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Pre Mid Gain (Pre equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Chapter 6 Effect Settings

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Reverb Time

Adjusts the duration (time) of the reverb.

Values: 0.06–32.0 [sec]

Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the delay sound is heard.

Values: 0–200.0 [ms]

Density

Adjusts the density of the reverb.

Values: 0–99

Room Size

Adjusts the size of the room which is simulated.

Values: 1–8

Early Ref Level (Early reflection level)

Adjusts the volume level of the initial reflected sound.

Values: 0–99

Release Density

Adjusts the density of the sound that reaches the listener after many repeated reflections.

Values: 0–99

Low Damp Freq (Low damp frequency)

The Low Damp function damps the low frequency band of the reverb sound quicker than other bands. Sets the upper frequency limit of the range to be damped by “Low Damp.”

Values: 50–4000 [Hz]

Low Damp Gain

Sets the degree of the Low Damp.

Values: -36-0 [dB]

Hi Damp Freq (High damp frequency)

The Low Damp function damps the high frequency band of the reverb sound quicker than other bands. Sets the lower frequency limit of the range to be damped.

Values: 2000–20000 [Hz]

Hi Damp Gain (High damp gain)

Sets the degree of the High Damp.

Values: -36-0 [dB]

Post HC Freq (Post high cut frequency)

Adjusts the frequency at which the high cut filter will begin to take effect. The effect is applied to the reverb output. If you don't want to use a filter, set this to “THRU.”

Values: 160–15000 [Hz], THRU

04: HALL 1

This simulates the reverberation of a concert hall. It is a conventional hall reverb. You can also apply a chorus effect to the reverberation to adjust the sense of spaciousness or to create a special effect.

The parameters are the same as “01: ROOM 1” with the addition of the following two parameters. However, the range for Low Rev Time and Mid Rev Time is “0.06–64.0 [sec],” and the range for Room Size “3.5–38.3 [m].”

Chorus Rate

Adjusts the rate of modulation for the reverb.

Values: 0–127

Chorus Depth

Adjusts the depth of modulation for the reverb.

Values: 0–127

05: HALL 2

Simulates the reverberation in a concert hall. This is suitable for simulating a smaller room, and produces a clear reverberation.

The parameters are the same as for “02: ROOM 2.” However, the range for Reverb Time is “0.06–64.0 [sec].”

* Even if you set the values of all parameters to the same values as ROOM 2, the resulting sound will be different.

06: HALL 3

Simulates the reverberation in a concert hall. This is suitable for simulating a fairly large room, and produces reverberation with a strong mid and low range.

The parameters are the same as for “03: ROOM 3.” However, the range for Reverb Time is “0.06–64.0 [sec].”

* Even if you set the values of all parameters to the same values as ROOM 3 or GARAGE, the resulting sound will be different.

07: GARAGE

This simulates the reverberation of a garage. It produces the reverberation of a room surrounded by hard-surfaced walls with many reflections.

The parameters are the same as for "03: ROOM 3."

* *Even if you set the values of all parameters to the same values as ROOM 3 or HALL 3, the resulting sound will be different.*

08: PLATE

Simulates plate reverberation (a reverb unit that uses the vibration of a metallic plate).

The parameters are the same as for "01: ROOM 1." However, the range for Room Size is "5.6–34.7 [m]."

* *Even if you set the values of all parameters to the same values as ROOM 1, the resulting sound will be different.*

09: NON-LINEAR

This uses digital processing to create an artificial reverberation that is quite different than naturally occurring reverberation.

Pre Low Freq (Pre equalizer low frequency)

Specifies the center frequency of the low range equalizer.

Values: 50–4000 [Hz]

Pre Low Gain (Pre equalizer low gain)

Specifies the gain of the low range equalizer.

Values: -15– +15 [dB]

Pre Mid Freq (Pre equalizer middle frequency)

Specifies the center frequency of the mid-range equalizer.

Values: 50–20000 [Hz]

Pre Mid Q (Pre equalizer middle Q)

Adjusts the width of the area centered at the equalizer middle frequency in which the gain will be affected. Higher values of Q will result in a narrower area being affected.

Values: 0.5, 0.7, 1.0, 2.0, 4.0, 8.0

Pre Mid Gain (Pre equalizer middle gain)

Specifies the gain of the mid-range equalizer.

Values: -15– +15 [dB]

Pre Hi Freq (Pre equalizer high frequency)

Specifies the center frequency of the high range equalizer.

Values: 2000–20000 [Hz]

Pre Hi Gain (Pre equalizer high gain)

Specifies the gain of the high range equalizer.

Values: -15– +15 [dB]

Pre Dly Time (Pre delay time)

Specifies the time delay from the original sound until the delay sound is heard.

Values: 0–200.0 [ms]

Density

Adjusts the density of the reverb.

Values: 0–99

Early Ref Level (Early reflection level)

Adjusts the volume level of the initial reflected sound.

Values: 0–99

NLR Type (Non-linear type)

Specifies the method of output panning.

Values:

L->R: Pan from the L channel to the R channel

NORMAL: Output without panning

L<-R: Pan from the R channel to the L channel

Env Time Ratio (Envelope time ratio)

The overall time will be expanded or contracted while preserving the time ratios of the various envelope times.

Values: 10–120 [%]

Envelope T1 (Envelope time 1)

Envelope T2 (Envelope time 2)

Envelope T3 (Envelope time 3)

Envelope T4 (Envelope time 4)

Specifies the time until each point is reached.

Values: 0.1–1000 [ms]

Chapter 6 Effect Settings

Envelope L1 (Envelope level 1)

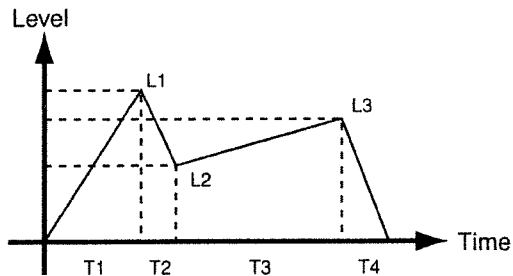
Envelope L2 (Envelope level 2)

Envelope L3 (Envelope level 3)

Adjusts the output level for each point.

Values: 0-100

* If the total length of Envelope times ($T1+T2+T3+T4$) exceeds 1000 ms, the sound of the portion that extends beyond this will be cut.



Feedback Time

Adjusts the delay time for the feedback sound.

Values: 0.1-1000 [ms]

Feedback Level

Adjusts the amount of feedback.

Values: 0-99 [%]

Post HC Freq (Post high cut frequency)

Adjusts the frequency at which the high cut filter will begin to take effect. The effect is applied to the reverb output. If you don't want to use a filter, set this to "THRU."

Values: 160-15000 [Hz], THRU

Chapter 7. Creating and Editing Waves ([SAMPLING])

In this chapter, we will explain the procedures for:

- Sampling (p. 117)
 - Editing waves (p. 124)
 - Converting waves so the VariPhrase function can be used (Encoding) (p. 130)
 - Increasing the available sampling time (Defrag) (p. 132)
- * For details on loading samples and various waves, refer to p. 31.

Sampling

The maximum sampling time for a single sample is 25 seconds of stereo, or 50 seconds of monaural. It is not possible to create a sample that is longer than these times. When the VP-9000 is shipped (with 8 MB of wave memory installed), it is able to sample 25 seconds in stereo, or 50 seconds in monaural. By installing separately available wave memory, using the maximum of 128 MB (four 32-MB SIMMs), thus expanding the wave memory to a total of 136 MB, you will be able to sample a total of approximately seven minutes in stereo, or approximately fourteen minutes in monaural.

Settings before you sample (What is a template?)

A sampling template is something that holds a collection of settings for sampling (the setup settings, pre-effect settings, and metronome settings described below).

You can store sixteen different sampling templates. When you sample, you will always select one of these sixteen templates.

With the factory settings, eight sampling templates are preset. The remaining eight can be used to hold your own favorite sampling settings. You can also modify the contents of a preset sampling template.

For details on modifying the settings, refer to "Sampling procedure" (p. 118).

Sampling templates are system settings (with the exception of some metronome parameters). They are remembered even when you turn off the power. If you wish to restore all sixteen sampling templates to the factory settings, perform the Factory Reset operation.

- * The metronome parameters *Tempo*, *Clock Src*, *Time Sign*, and *Level* are performance parameters.

Applications of each template

The preset templates cover different input settings and pre-effect types.

- MIC:** Sample in mono from a mic. Connect a mic to the front panel AUDIO IN jack.
- CD:** Sample in stereo from a CD. Connect your CD player to the rear panel STEREO INPUT jacks.
- OPTCAL:** Sample a digital signal. Connect your audio device to the rear panel OPTICAL IN connector.
- RESAMP:** Play a sample on the VP-9000 and sample the result. This is called "resampling." For details on resampling, refer to p. 121.
- COMP:** Use the compressor pre-effect. The sample will be recorded from the rear panel STEREO INPUT jacks.
- LIMITR:** Use the limiter pre-effect. The sample will be recorded from the rear panel STEREO INPUT jacks.
- NS:** Use the noise suppressor pre-effect. The sample will be recorded from the rear panel STEREO INPUT jacks.
- MIDI:** Start sampling when a sequencer start (system realtime message: FA) is received. The sample will be recorded from the rear panel STEREO INPUT jacks.

Chapter 7. Creating and Editing Waves ([SAMPLING])

Factory settings of each template

	1	2	3	4
	MIC	CD	OPTCAL	RESAMP
SETUP				
Type	MONO M	STEREO	STEREO	STEREO
Input	FRONT	REAR	OPTICAL	RESAMPLE
Original Pitch	C4	C4	C4	C4
Trigger Mode	MANUAL	LEVEL	LEVEL	MANUAL
Trigger Level	(64)	64	64	(64)
Pre-Trigger	0	0	0	0
Pre-Gain	0	0	0	0
PRE-FX				
Type	OFF	OFF	OFF	OFF
METRONOME				
Mode	REC	REC	REC	REC
Count-In	1	(0)	(0)	1

	5	6	7	8
	COMP	LIMITR	NS	MIDI
SETUP				
Type	STEREO	STEREO	STEREO	STEREO
Input	REAR	REAR	REAR	REAR
Original Pitch	C4	C4	C4	C4
Trigger Mode	MANUAL	MANUAL	MANUAL	MIDI
Trigger Level	(64)	(64)	(64)	(64)
Pre-Trigger	0	0	0	0
Pre-Gain	0	0	0	0
PRE-FX				
Type	COMP	LIMTR	NS	OFF
METRONOME				
Mode	REC	REC	REC	REC
Count-In	1	1	1	(0)

9-16
User 1-User 8

SETUP	
Type	STEREO
Input	REAR
Original Pitch	C4
Trigger Mode	MANUAL
Trigger Level	(64)
Pre-Trigger	0
Pre-Gain	0
PRE-FX	
Type	OFF
METRONOME	
Mode	REC
Count-In	0

* Parameters enclosed in parentheses () have no effect for that template.

* The Metronome parameters Tempo, Clock Src, Time Sign, and Level are performance parameters.

Sampling procedure

Here's how to input a sound from the input jacks and sample it. For resampling, refer to the following section.

The VP-9000 has the following input jacks.

- AUDIO IN (front panel)
- STEREO INPUT L, R (rear panel)
- DIGITAL AUDIO INTERFACE
 - OPTICAL IN (rear panel)
 - COAXIAL IN (rear panel)

Use the input jack that is appropriate for your situation.

- Monaural sampling from a mic -> AUDIO IN
- Sampling from an analog source -> STEREO INPUT L, R
- Sampling from a digital source -> OPTICAL IN or COAXIAL IN

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

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

When sampling, you must make sure that the following two items are set correctly. If these two settings are incorrect, the sample will not be recorded as you intend.

- What type of sample are you recording? (stereo or mono)
-> In the SETUP screen, set Type.
- Which input are you sampling from? (select the input jack)
-> In the SETUP screen, set Input.

- * The input jacks are enabled only when the level meter is shown at the right side of the display in Sampling mode.
- * During sampling, the two types of digital output (OPTICAL and COAXIAL) are fixed at a sampling rate of 44.1 kHz.

1. Press [SAMPLING].

The SAMPLING Menu screen will appear.

2. Select the location (sample number) that you wish to sample.

Use one of the following methods to move the cursor to the desired sample. Normally, you will select a sample that has no wave; i.e., a sample number whose name is "NO WAVE DATA:—".

- Each time you press [F1 (SORT)], the samples in the display will be sorted alternately by name, category, or number.
- When sorted by number, you can use [F2 (▲ JUMP)] [F3 (JUMP ▼)] to switch between banks A–H.
Number 001 will be selected. When sorted by name or category, you will jump to the next sample whose name or category begins with a different letter.
- By holding down [SHIFT] and rotating the VALUE dial, you can change the number in steps of 128.
- By pressing the VALUE dial as you rotate it, you can change the number in steps of ten.
- By pressing [◀] [▶], you can change the number in steps of four.
- By pressing [▲] [▼] [DEC/-] [INC/+], or rotating the VALUE dial, you can change the number in steps of one.

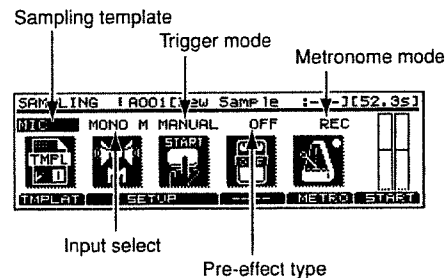
3. Press [F4 (SMPLNG)].

The SAMPLING Name screen will appear.

If you are sampling for the first time, a name and category of "New Sample :—" will be assigned automatically. You may modify the name and category as desired.

4. As described in "Assigning a name" (p. 26), assign the desired name and category.

The SAMPLING screen will appear.



5. Press [◀] to move the cursor to the sampling template at the far left.

6. Either by rotating the VALUE dial or by using [DEC/-] [INC/+], select a sampling template.
If you wish to modify the settings of the selected sampling template, perform steps 7–9 below.

7. Press [F2]–[F5] to access the corresponding setting screen.

- [F2] or [F3]: Setup settings (p. 121)
- [F4]: Pre-effect settings (p. 122)
- [F5]: Metronome settings (p. 123)

- * If you wish to use a pre-effect, switch the Type to a setting other than OFF in the SAMPLING screen, and then press [F4 (PRE-FX)].
- * If the Pre-effect Type has been set to COMP or LIMTR, you will also be able to make settings for the noise suppressor (NS). Press [F4] to switch the screen.
- * For details on each parameter, refer to the page references given.

8. Use [▲] [▼] to move the cursor to the item that you wish to set.

9. Set the value by either rotating the VALUE dial or using [DEC/-] [INC/+].

To return to the SAMPLING screen, press [EXIT].

Chapter 7. Creating and Editing Waves ([SAMPLING])

10. Adjust the sampling level.

Adjust the volume of the device that is producing the sound.

If you are sampling from the AUDIO IN jack, rotate the front panel REC LEVEL knob to make adjustments.

If you are sampling from the STEREO INPUT jacks, change the position of the rear panel GAIN switch to adjust the level. If the level is too low, set this to “-20 dBm.” If the level is too high, set this to “+4 dBm.”

- * The REC LEVEL knob affects only the AUDIO IN jack. The GAIN switch affects only the STEREO INPUT jacks.
- * If you are sampling from the rear panel DIGITAL AUDIO INTERFACE IN connector, use the setup Pre-gain (p. 122) or the pre-effect Output Level (p. 122) settings to adjust the level.

11. Press [F6 (START)] to start sampling.

The way in which sampling begins will depend on the setting of Trigger Mode (set in the SETUP screen).

If **MANUAL** is selected, sampling will start after a count of the number of measures specified by the metronome Count-In setting.

If **MIDI** is selected, sampling will wait for the sequencer to start (system realtime message: FA). Sampling will begin when the sequencer start message is received.

If **LEVEL** is selected, sampling will wait for an input signal. Sampling will begin when the input signal exceeds the level specified by Trigger Level (set in the SETUP screen).

The number of seconds available for sampling will be shown in the upper right of the display.

- * If you have selected MIDI or LEVEL, you can press [F6 (START)] once again to begin sampling without waiting for the sequencer to start or the input signal to be received.
- * You can also press [F6 (START)] in the various setting screens of step 7 to begin sampling in a similar way.

12. When you are finished sampling, press [F6 (STOP)].

The display will indicate “Completed!” Press [PREVIEW] to hear the sound that you sampled, and check whether the sample was recorded as you wish.

- * A wave that has just been sampled cannot be played from a MIDI keyboard. When you encode (p. 130) the wave, you will be able to play it from a MIDI keyboard.

13. The button you will press next will depend on what you wish to do.

[F1 (EXIT)]:

Stop sampling, and return to the SAMPLING Menu screen.

[F2 (RETRY)]:

Discard the sample that you just recorded, and sample once again.

[F3 (NEXT)]:

Record the next sample. The sampling number will automatically be incremented. A new name will also be assigned automatically, consisting of the current sample name with a number added after it. When you use the [F3 (NEXT)] button to sample repeatedly, the number added will increment automatically to create a new name for each sample. If the number gets too large to be displayed, you will automatically return to the SAMPLING Name screen.

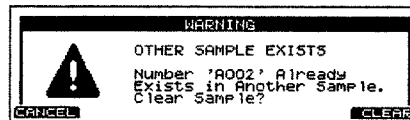
[F4 (NEW)]:

Record the next sample. The sampling number will automatically be incremented. You will return to the SAMPLING Name screen so that you can assign a name yourself.

[F6 (WEDIT ►)]:

You will move to the WAVE EDIT screen so that you can edit the wave you just sampled (p. 124).

- * When you press [F3 (NEXT)] or [F4 (NEW)] and a wave already exists at the next number, the following message will appear. To cancel, press [F1 (CANCEL)]. If you press [F6 (CLEAR)], the previously existing wave will be deleted, and you will return to the SAMPLING screen.

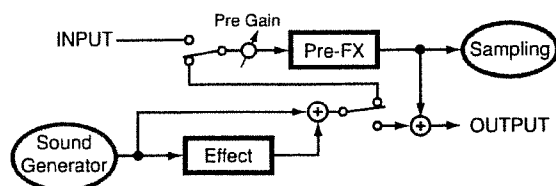


- * If memory becomes full, sampling will be halted. If this occurs, delete unneeded samples from memory (p. 134), and perform the Defrag operation (p. 132).

Resampling

The VP-9000 is able to resample samples from its internal memory. This is called "resampling." In actuality, the sounds that are output from the rear panel MAIN OUT L(MONO), R jacks are sampled.

For example, you could sample multiple samples played simultaneously, and record them as a single sample. You can conserve voices in this way.



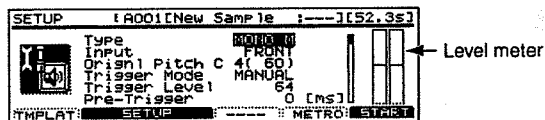
Before you enter Resampling mode, make settings so that you can play the sample(s) you wish to resample.

The resampling procedure is essentially the same as the "Sampling procedure" described in the preceding section.

However, please be aware of the following points.

- You must set the setup Input to "RESAMPLE."
- To adjust the sampling level, adjust the setup Pre-gain (p. 122) and the pre-effect Output Level (p. 122).

Setup settings



Type (sample type)

Select the type of sampling.

Values

- STEREO: Sample in stereo.
- MONO M: Mix the signals input to L and R, and sample in monaural.
- MONO L: Sample the L input signal in monaural.
- MONO R: Sample the R input signal in monaural.

- * If you select "STEREO" when Input is set to FRONT, the Input setting will automatically change to REAR.
- * This parameter can also be set in the SAMPLING screen.
- * When sampling in stereo, twice as much memory is required as when sampling in monaural. This means that the number of seconds that can be sampled will be half that of monaural.

Input (input select)

Select the input from which the sound will be sampled.

Values

- REAR: rear panel STEREO INPUT jacks
- FRONT: front panel AUDIO IN jack
- OPTICAL: rear panel optical IN connector
- COAXIAL: rear panel coaxial IN connector
- RESAMPLE: Select this when you wish to resample. The sound that is output to MAIN OUT L(MONO) and R will be sampled.

- * The sound that is input from the AUDIO IN jack will always be sampled in monaural. It cannot be sampled in stereo. This means that if "FRONT" is selected, the Type setting will have no effect.
- * If the Type is set to STEREO, it is not possible to select "FRONT."
- * This parameter can also be set in the SAMPLING screen.

Original Pitch (original pitch)

Specifies the key that will play the sample at the pitch at which it was sampled.

Values: C-1 (0)–G9 (127)

Trigger Mode

Specifies how sampling will be started.

Values

- MANUAL: Sampling will begin when you press the [F6 (START)] button.
- MIDI: Sampling will begin when a sequencer start message (system realtime message: FA) is received.
- LEVEL: Sampling will start when the input signal exceeds the level specified by the Trigger Level setting.

Trigger Level

Specifies the input level at which sampling will begin when the Trigger Mode is set to "LEVEL." The middle line of the level meter at the right of the display corresponds to a value of 64.

Values: 0–127

- * If Trigger Mode is set to other than LEVEL, this parameter has no effect.

Chapter 7. Creating and Editing Waves ([SAMPLING])

Pre-Trigger

After the selected trigger to start sampling has been received, previously received data for the length of time specified here will be included in the sampled data. When the Trigger Mode is set to "LEVEL" and the early portion of the sample is being lost, you can use this setting to include the early portion.

Values: 0–1000 [msec]

Pre-Gain

Adjusts the input gain. This will apply to the sound that is received from all input jacks. It will also be applied to the sound being resampled. With positive (+) values, the gain will be higher than originally, and with negative (-) values the gain will be lower than originally.

Values: -12–+24 [dB]

Pre-effect settings

There are three pre-effects: compressor, limiter, and noise suppressor. By using these you can adjust the level of the sound being sampled.

Compressor:

By reducing high levels and raising low levels, this effect smoothes out unevenness in volume.

Limiter:

By compressing sounds that exceed a specified volume level, this effect prevents the sound from distorting.

Noise suppressor:

This effect leaves the original sound untouched, but mutes the noise that is heard during periods of silence.

Type (pre-effect type)

Values

OFF: No pre-effect will be used.

COMP: Compressor and noise suppressor settings can be made.

LIMTR: Limiter and noise suppressor settings can be made.

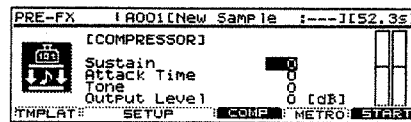
NS: Noise suppressor settings can be made.

After selecting the Type in the SAMPLING screen, press [F4 (PRE-FX)] to display the parameter setting screen for each effect.

If you have selected COMP or LIMTR as the Type, you can press [F4] repeatedly to switch between the setting screens for the compressor and noise suppressor, or the limiter and the noise suppressor.

* If the Type is set to OFF, [F4] will be displayed as "(—)," and the [F4] button will have no function.

COMPRESSOR



Sustain

Specifies the time over which a low-level signal is raised until it reaches a fixed volume.

Values: 0–127

Attack Time

Specifies the attack time of the input sound.

Values: 0–127

Tone

Adjusts the tone quality of the compressor.

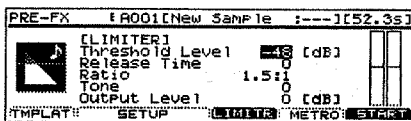
Values: -50–+50

Output Level

Adjusts the output volume.

Values: 0–+24 [dB]

LIMITER



Threshold Level

Specifies the level (threshold level) at which the limiter will begin to function.

Values: -60–0 [dB]

Release Time

Specifies the time from when the input level drops below the threshold level until the limiter turns off.

Values: 0–127

Ratio

Specifies the compression ratio.

Values: 1.5:1, 2:1, 4:1, 100:1

Tone

Adjusts the tonal quality of the limiter.

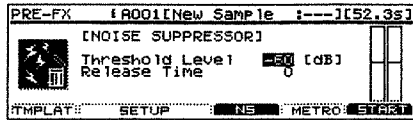
Values: -50–+50

Output Level

Adjusts the output volume.

Values: 0–+24 [dB]

NOISE SUPPRESSOR



Threshold Level

Specifies the level at which the noise suppressor will begin to operate. When the signal falls below the specified level, it will be muted.

Values: -60-0 [dB]

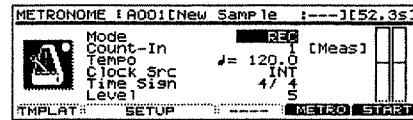
Release Time

Specifies the time from when the noise suppressor begins to operate until the volume reaches 0.

Values: 0-127

Metronome settings

Make settings such as the tempo that will be used when sampling.



* The Metronome parameters Tempo, Clock Src, Time Sign, and Level are performance parameters. These parameters can also be set in the PERFORM/COMMON Tempo & Metronome screen (p. 49).

Mode (metronome mode)

Values

- OFF: The metronome will not sound.
- REC: The metronome will sound only during sampling.
- ALWAYS: The metronome will sound whenever you sample (including while you are making settings in preparation for sampling).

* This parameter can also be set in the SAMPLING screen.

Count-In

Specifies the number of measures for the count-in that will occur before sampling.

Values: 0-2 [Meas]

* If the setup parameter Trigger Mode is set to MIDI or LEVEL, this parameter will have no effect.

Tempo (master tempo)

Specifies the tempo. If Clock Src = MIDI, this will be displayed as "—.-"

Values: 20.0-250.0

Clock Src (clock source)

Specifies whether the internal clock (INT) or an external clock (MIDI) will be used as the tempo clock.

Values: INT, MIDI

Time Sign (time signature)

Specifies the time signature of the metronome.

Values

- Numerator: 1-16
- Denominator: 2, 4, 8, 16

Level (metronome level)

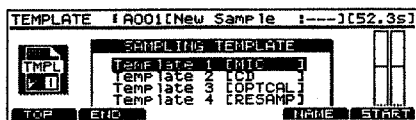
Specifies the volume of the metronome.

Values: 1-8

Changing the name of a template

A template can be given a name of up to six characters. Here we will explain the procedure beginning from the SAMPLING screen display.

1. Make sure that the SAMPLING screen is displayed.
2. Press [F1 (TMPLAT)].
The TEMPLATE screen will appear.



3. Select the template whose name you wish to change.
Use any of the following to move the cursor to the desired template.
 - Press [F1 (TOP)] to select Template 1.
 - Press [F2 (END)] to select Template 16.
 - Use [◀] [▶] to change the number in steps of four.
 - Use [▲] [▼] [DEC/-] [INC/+] or rotate the VALUE dial to change the number in steps of one.
4. Press [F5 (NAME)].
A screen will appear in which you can assign a name to the template.
5. As described in "Assigning a name" (p. 26), assign the desired name.
6. Press [EXIT] to return to the SAMPLING screen.

Editing a wave

When you have finished sampling, you can edit the wave data. You can also edit waves that you loaded (p. 31).

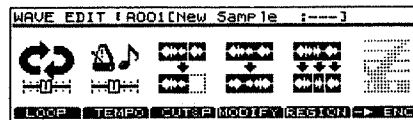
When editing a wave, pressing [PREVIEW] will play the sample so you can check whether it was edited as you expect. For details on the Preview function in each screen, refer to p. 39.

- * When the editing screens are displayed, playing the keyboard will not produce sound.
- * It is not possible to edit two or more waves simultaneously.
- * With some exceptions, editing a wave that has been encoded will cause the encoding data to be discarded, and the "♪" symbol will disappear. In this case, you must encode the data once again (p. 130).

Common procedure for editing

To display the WAVE EDIT screen

To edit a wave, you must display the WAVE EDIT screen. There are two ways to do this.



If you have just finished sampling

1. Press [F6 (WEDIT ▶)] and the WAVE EDIT screen will appear.

In other modes

1. Press [SAMPLING].
The SAMPLING Menu screen will appear.
2. Select the sample number whose wave you wish to edit.
For details on making this selection, refer to "Sampling procedure" (p. 118).
3. Press [F5 (W.EDIT)].
The WAVE EDIT screen will appear.

Editing procedure

After you have displayed the WAVE EDIT screen, press [F1]-[F5] to move to the corresponding edit screen.

The editing functions are organized into the following five screens.

- [F1 (LOOP)]: Set the loop region
- [F2 (TEMPO)]: Set the original tempo
- [F3 (CUT&P)]: Adjust the wave length
- [F4 (MODIFY)]: Perform other editing
- [F5 (REGION)]: Divide a wave into regions

When you press [F1][F3]-[F5], the wave will be displayed.

Here we will explain the procedures that are common to all screens where the wave is displayed, such as setting the loop region or selecting the editing region.

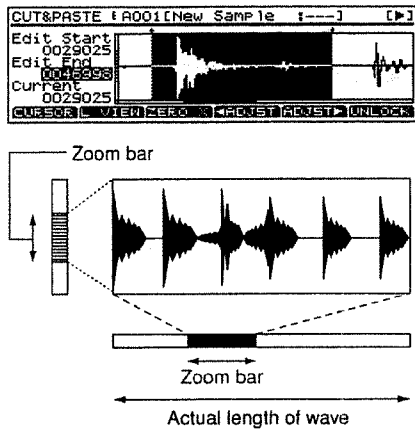
- * To return from the editing screens to the WAVE EDIT screen, press [EXIT].
- * The VP-9000 does not provide a function that returns the data to its previous state. (Although in the case of the Cut or Clear operations, you can Paste to restore the data.) Instead, it provides shortcuts that allow you to instantly save and load samples. Press [SAMPLING] to return to the SAMPLING Menu screen, and hold down the [SHIFT] button and press [F6 (SAVE)] or [F5 (LOAD)]. For details refer to "Convenient shortcuts" (p. 29).

Expanding/shrinking the wave

In screens where the wave is displayed, you can use the cursor buttons to expand/shrink the wave.

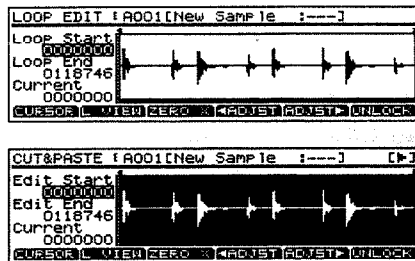
- [▲]: Expand vertically
- [▼]: Shrink vertically
- [◀]: Shrink horizontally
- [▶]: Expand horizontally

Zoom bars



The vertical zoom bar indicates the magnification of the wave in the vertical direction. The horizontal zoom bar indicates the magnification of the wave in the horizontal direction, and shows the current location. As the display is magnified, the zoom bar will become narrower.

[F1 (CURSOR)] (cursor switch)



The VP-9000 uses seven terms to indicate locations within a wave.

- Wave Start:** Beginning of the wave
- Wave End:** End of the wave
- Loop Start, Loop End:** When the Loop Sw is ON, the region between these two points will be played repeatedly.
- Edit Start, Edit End:** Editing will affect the region between these two points.

Current: This is the currently selected location of the wave.

Each time you press [F1 (CURSOR)], the cursor will move in the order of XXXX Start -> XXXX End -> Current.

You can modify each location either by rotating the VALUE dial or by using [DEC/-][INC/+]. Three locations are also displayed numerically.

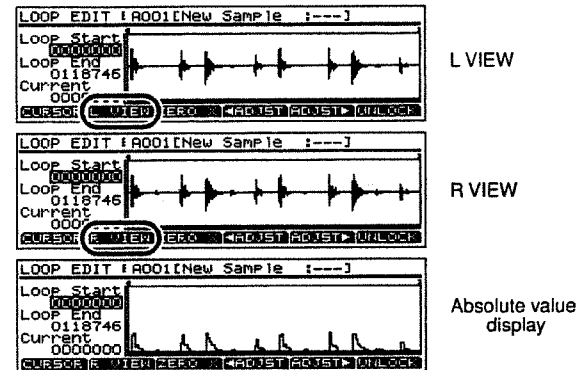
The region of the wave between Edit Start and Edit End is displayed with the color inverted.

When Current = XXXX Start, moving XXXX Start will cause Current to change as well.

It is not possible to move XXXX Start to the right of XXXX End.

- * In the WAVE EDIT screen, the Loop Start and Loop End locations will also be displayed.
- * The XXXX portion will be displayed as "Loop" in the LOOP EDIT window, and as "Edit" in the other edit windows.

[F2 (L VIEW)]/[F2 (R VIEW)] (switch L/R display)



In the case of a stereo sample, this switches between the L and R displays. "L VIEW" displays the L wave, and "R VIEW" displays the R wave.

By holding down [SHIFT] and pressing [F2], you can make the bottom of the display indicate the absolute value of 0. To return to the previous display, once again hold down [SHIFT] and press [F2].

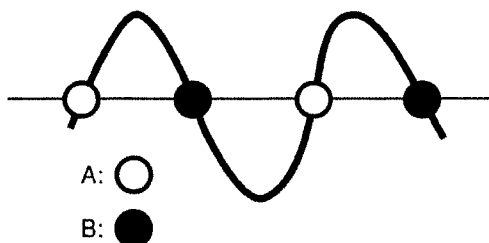
- * In the case of a monaural sample, [F2] will display "(—)," and the [F2] button will have no function.

Chapter 7. Creating and Editing Waves ([SAMPLING])

[F3 (ZERO X)] (zero cross search)

This function searches for locations where the wave has a value of zero. When setting loop points or when cutting the wave, you should search for locations where the wave value is zero so that noise is not heard when you play the sample. The wave will have a value of zero in the following two cases.

- A When it changes from a negative to a positive value
- B When it changes from a positive to a negative value



When you press [F3 (ZERO X)], the position selected with the cursor (of the seven possible positions in the wave) will move to the next A location to the right of the current location.

When you hold down [SHIFT] and press [F3 (ZERO X)], you will move to the next B location to the left of the current location.

In the case of a stereo sample, both L and R will move to the A or B locations.

[F4 (◀ ADJUST)]/[F5 (ADJUST ▶)] (adjust)

In the LOOP EDIT screen, the Adjust function moves the Loop Start, Loop End, or Current locations to the nearest of the following locations 1-5.

In other edit screens, the Adjust function moves the Edit Start, Edit End, or Current locations to the nearest of the following locations 1-7.

- 1 Wave Start location
- 2 Wave End location
- 3 Loop Start location
- 4 Loop End location
- 5 Current location
- 6 Edit Start location
- 7 Edit End location

Press [F1 (CURSOR)] to move the cursor to the point that you wish to move (either XXXX Start, XXXX End, or Current), and then press [F4 (◀ ADJUST)] or [F5 (ADJUST ▶)].

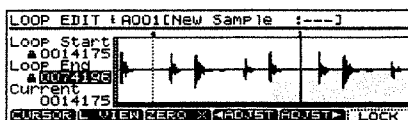
In the ENCODE screen, the current location will be placed at the nearest event, regardless of the location of the cursor.

If you press [F4 (◀ ADJUST)] the point will move toward the left. If you press [F5 (ADJUST ▶)] the point will move toward the right.

For example, if you wish to press [PREVIEW] to check whether the results of your editing were satisfactory, you can jump the current location.

- * The XXXX portion will be displayed as "Loop" in the LOOP EDIT screen, and as "Edit" in other editing screens.
- * In some cases nothing may happen, due to the relation between points or the Length Lock setting.

[F6 (UNLOCK)] (length lock)



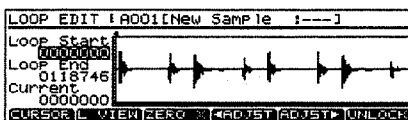
This locks the length from XXXX Start to XXXX End. When this is locked, [F6] will display "LOCK." This is convenient when the required length of the wave is fixed, and you want to find the portion of the wave that you wish to use.

After locking this, you can rotate the VALUE dial or use [DEC/-][INC/+] to move the Start and End locations while maintaining the length between Start and End. You can also perform Zero Cross Search or Adjust with the length locked. To unlock, press [F6 (LOCK)].

- * The XXXX portion will be displayed as "Loop" in the LOOP EDIT screen, and as "Edit" in other editing screens.

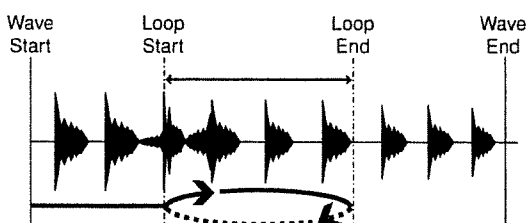
Loop region settings ([F1 (LOOP)])

When the sample loop switch (p. 43) is ON, you can specify the region that will be played back as a loop. The region of the wave between Loop Start and Loop End will be played back repeatedly.



Immediately after sampling or loading a wave, Loop Start will be set to the beginning of the wave and Loop End to the end of the wave.

If you set Loop Start and Loop End to locations within the wave, the wave will play back from the beginning, and then the region between Loop Start and Loop End will play back repeatedly.

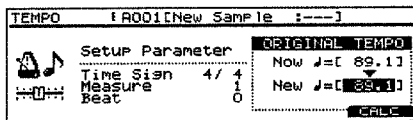


- * The data in the VP-9000 is handled as 44.1 kHz data, which means there are 44,100 data samples per second. The shortest possible loop that can be set is 16 data samples.
- * If after encoding you move the Loop Start or Loop End locations by even a small amount, the encode data will be discarded, and the "♪" symbol will disappear. If this occurs, please re-encode the data.
- * Loop range settings are ignored when the Keyboard Map (p. 51) is set to EVENT, or when the Playback Mode (p. 42) is set to STEP.

Original tempo setting ([F2 (TEMPO)])

The Original Tempo is the reference tempo of the sample used when synchronizing it to the master tempo.

Example: A sample whose original tempo is 100. If the master tempo is set to 200 and the sample is synchronized, the sample will play back at double the speed at which it was recorded. If you set the master tempo to 50 and synchronize the sample, it will play back at half the speed at which it was recorded.



The exact original tempo can be calculated from the time signature, number of measures, and number of beats for the wave length between Loop Start and Loop End. This means that you must first specify the loop region, and then set the original tempo.

If you wish to play back a loop while simultaneously synchronizing another sample, you must specify the correct original tempo. If you fail to do this, the sounds will drift out of synchronization.

1. Use [▲][▼][←][→] to move the cursor to the item that you wish to set.
2. Either rotate the VALUE dial or press [DEC-][INC/+] to set the Time Sign, Measure, and Beat values.
3. Press [F6 (CALC)].

The precise tempo will be displayed at the right of the "New" indication. The tempo displayed here is the original tempo.

- * You can also move the cursor to the original tempo, and set it by rotating the VALUE dial or by using [DEC-][INC/+].

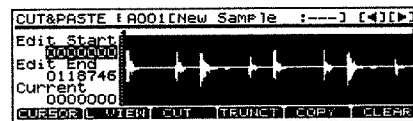
Changing the length of the wave ([F3 (CUT&P)])

There are three CUT&PASTE screens. The first is the screen where you select the editing range of the wave, and the remaining two are the screens where you execute the edit.

Use [◀/PART][PART/▶] to switch screens.

Immediately after the CUT&PASTE screen is displayed, Edit Start will be set to the Loop Start location, and Edit End will be set to the Loop End location.

- * You can cut, paste, and insert between different waves. After copying, press [SAMPLING] to return to the SAMPLING Menu screen. Select a different wave, access the CUT&PASTE screen, and then paste or insert. If after copying, you access the SAMPLING screen, ENCODE screen, or a screen of a different mode, the contents that you copied will be lost.
- * If the amount of remaining memory is small, it may not be possible to execute Copy, Paste, Insert, or Zero Insert. In such cases, delete unneeded samples from memory (p. 134), and execute the Defrag operation (p. 132).



Cut

When you press [F3 (CUT)], the region of the wave between Edit Start and Edit End will be cut.

Cutting the portion outside the specified region (Truncate)

When you press [F4 (TRUNCT)], the region of the wave between Edit Start and Edit End will be kept, and the remainder of the wave will be deleted.

Copy

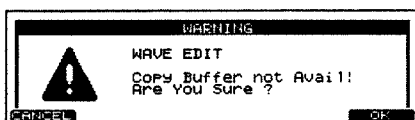
When you press [F5 (COPY)], the wave between Edit Start and Edit End will be copied.

Chapter 7. Creating and Editing Waves ([SAMPLING])

Clear

When you press [F6 (CLEAR)], the wave between Edit Start and Edit End will be set to values of zero.

- * When you Cut or Clear, the data will also be copied. This means that you can generally make use of Paste afterwards to restore it. However, if there is insufficient memory available, it may be impossible to make a copy. In such cases, the following message will appear. If you decide to cancel the operation, press [F1 (CANCEL)]. If you press [F6 (OK)], only the Cut or Clear operation will be executed, without copying the data.



Paste

When you press [F4 (PASTE)], the copied data will be overwritten, beginning at the current location.

- * If there is any wave data following the current location, it will be lost as far as the pasted portion extends.

Insert

When you press [F5 (INSERT)], the copied data will be inserted at the current location.

Inserting silent space (Zero Insert)

This operation inserts silent space at the current location. It can also be used to lengthen a wave to a precise number of measures and beats.

For example, if you wish to insert one second of silence, you would specify "44100 Sp" and execute Zero Insert.

- * This setting is made in terms of a number of samples, displayed as "Sp." Data in the VP-9000 is handled as 44.1 kHz data, meaning that one second contains 44,100 data samples.

1. Move the current location to the location where you wish to insert silence.
2. Press [F6 (ZERO I)].
A window will appear, allowing you to specify the amount of silence to be inserted.

3. Set the value by either rotating the VALUE dial or using [DEC/-][INC/+].
If you decide to cancel the operation, press [F5 (CANCEL)].
4. Press [F6 (EXEC)] to execute Zero Insert.

Other editing ([F4 (MODIFY)])

There are two MODIFY screens. One is the screen in which you can select the wave editing range, and the other is the screen in which you execute the edit.

Use [◀ /PART][PART / ▶] to switch between screens.

Immediately after the MODIFY screen is displayed, Edit Start will be set to the Loop Start location, and Edit End will be set to the Loop End location.

- * Normalize, LR Mix, and Trimming are executed on the entire wave, regardless of the Edit Start and Edit End settings.



Making the volume consistent (Normalize)

The Normalize operation is used to uniformly increase or decrease the level of the entire wave without allowing it to distort. This is used when you wish to make the volume consistent with other waves.

For example, let's suppose that 100 is the maximum volume at which the volume does not distort. Executing the Normal operation at a setting of 90% will make the maximum value of the wave be 90.

- * If you normalize at a low setting and then normalize at a high setting, the audio quality will deteriorate. This means that if you intend to normalize several times, you should start from the higher value and work downward.

1. Press [F3 (NORMAL)].
A window will appear in which you can specify the value for normalization.
2. Set the value by either rotating the VALUE dial or using [DEC/-][INC/+].
If you decide to cancel the operation, press [F5 (CANCEL)].
3. Press [F6 (EXEC)] to execute the Normalize operation.

Converting stereo to monaural (LR Mix)

When you press [F4 (LR MIX)], the stereo sample will be mixed to L, converting it into a monaural sample. If this is set to monaural, less wave memory will be used. This will also decrease the number of voices.

* If the sample is already monaural, an error message will be displayed, and the command will not be executed. Press [F6 (ACCEPT)] to return to the previous screen.

Set the value to 0 for the beginning and end of the wave (Trimming)

If the beginning and end of the wave are values other than zero, noise will be heard when you play the sample. Trim sets the values at the beginning and end of the wave to zero.

Example: Trimming at 100 Sp

This will connect the first data sample and the one hundredth data sample of the wave by a smooth line of one hundred points. Similarly, the last data sample of the wave and the data sample one hundred samples before it will be connected by a smooth line of one hundred points.



* This setting is made in terms of a number of samples, displayed as "Sp." Data in the VP-9000 is handled as 44.1 kHz data, meaning that one second contains 44,100 data samples.

1. Press [F5 (TRIM)].
A window will appear in which you can specify the Trim value.
2. Set the value by either rotating the VALUE dial or using [DEC/-][INC/+].
If you decide to cancel the operation, press [F5 (CANCEL)].
3. Press [F6 (EXEC)] to execute the Trim operation.

Reversing the wave (Reverse)

When you press [F6 (REVRSE)], the wave will be reversed between Edit Start and Edit End. If you want the wave to play backwards, execute Reverse to reverse the wave from the beginning.

Dividing the wave ([F5 (REGION)])

The region of the wave between Edit Start and Edit End can be stored in internal memory as a separate wave. The original wave will remain unchanged.

There are two REGION screens. One is the screen where you select the edit range of the wave. The other is the screen where you execute the division of the wave.

Use [< /PART][PART / >] to switch screens.

Immediately after the REGION screen is displayed, Edit Start will be set to the Loop Start location, and Edit End will be set to the Loop End location.



1. Press [F6 (REGION)].
2. Select a sample number.
For details on selecting a sample number, refer to "Sampling procedure" (p. 118). Normally, you will select a sample that has no wave; i.e., a sample number whose name is "NO WAVE DATA:—".
3. As described in "Assigning a name" (p. 26), assign a name and category.

When you assign the name, the wave will be divided.

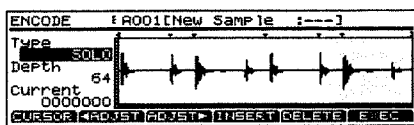
* If in step 2 you select a sample number that already has a wave, the wave data between Edit Start and Edit End will be added to the end of the wave of the selected sample.

Converting the wave to VP-9000 data (Encode)

After you have finished editing the wave, you should encode it. Once you encode a wave, it will be possible to modify its pitch, time, formant, and groove in real time. You will also be able to play it from a MIDI keyboard.

To access the ENCODE screen

In order to encode a wave, you must access the ENCODE screen. There are two ways to access this screen.



* Samples whose wave is too short (0.1 sec or less) cannot be encoded, and the ENCODE screen cannot be accessed for such samples.

When the WAVE EDIT screen is displayed

1. Press [F6 (→ ENC)], and the ENCODE screen appears.

In other modes

1. Press [SAMPLING].
The SAMPLING Menu screen will appear.
2. Select the sample number whose wave you wish to encode.
For details on how to select a sample, refer to "Sampling procedure" (p. 118).
3. Press [F6 (ENCODE)].
The ENCODE screen will appear.

To execute the Encode operation

1. In the ENCODE screen, select the encode type, set the encode depth, and delete or add events. Then press [F6 (EXEC)].

If you wish to stop the encode during the operation, press [F1 (ABORT)].

When encoding is completed, you will return to the SAMPLING Menu screen. An encoded wave will be indicated by a "♪" symbol.

- * For details on these settings, refer to the following sections.
- * The amount of time required by the encoding process will depend on the wave. You may need to wait a certain amount of time for encoding to be completed.

* If you re-encode data from the included CD-ROM or Zip disk, or from the separately sold Roland VP-CD series (sound library), the playback condition may change. Also, it may not be possible to re-encode the data.

Select the encode type

There are three encode types.

Type (Encode type)

Values

SOLO: This is suitable for monophonic vocals or monophonic wind instruments (such as sax, trumpet, or flute). If you encode the wave using this type, you will be able to control the formant (p. 59) and use the robot voice function (p. 43). Even if you encode using SOLO, you can still play the sample polyphonically.

BACKING: This is suitable for decay-type instruments. It is particularly suitable for phrases that include instruments with a clear attack (such as drums, percussion, and guitar chords).

ENSEMBLE: This is suitable for sustain-type instruments. It is particularly suitable when there are smooth changes in tone (such as choir or strings). Of the three encode types, this is the type that is suitable for the widest variety of sounds.

* If the data is encoded using BACKING or ENSEMBLE, it will not be possible to use the formant control or robot voice functions.

1. Press [F1 (CURSOR)] to move the cursor to Type.
2. Select the encoding type, either by rotating the VALUE dial or by using [DEC/-][INC/+].

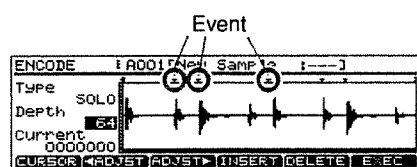
* With some exceptions, editing the wave after encoding will cause the encoded data to be discarded, and the "♪" symbol will disappear. If you access the ENCODE screen in this state, "SOLO" will always be selected as the encode type. Change the encode type to a suitable setting.

* Depending on the wave, encoding with SOLO may cause the sound to be different than you expect, such as changes in pitch being incorrect by one octave. If this occurs, re-encode the wave using BACKING or ENSEMBLE.

* If a wave that contains large amounts of reverb or delay is encoded using SOLO, it may not sound as you expect. If this occurs, re-encode the wave using BACKING or ENSEMBLE.

Automatically detecting events

By specifying the Depth, you can automatically detect and mark locations where there is a strong attack (i.e., locations where the volume changes abruptly). Such marked locations are called "events."



When the Keyboard Map (p. 51) is set to EVENT, the sample will be divided at event locations, and assigned to each key. If the Playback Mode (p. 42) is STEP, the sample will play to the next event, and then stop each time you play the key.

The higher the value you set, the more events will be assigned.

Depth (Encode depth)

Values: 0–127

1. Press [F1 (CURSOR)] to move the cursor to Depth.
2. Set the encode depth, either by rotating the VALUE dial or by using [DEC/-][INC/+].

- * If you set Depth to a high value, a large number of events may be detected. If you encode in such a state, the interval between events will be too short, and the expected result will not be obtained when you play back in event units.
- * If you change the location of an event after encoding, you must re-encode the wave. When you encode, the newly detected event locations will take effect.

Deleting and adding events

Setting the Depth and automatically detecting events does not guarantee that the events will be added at the locations that you expect. If necessary, you can delete or add events as you like.

In the ENCODE screen, you can press [PREVIEW] to play the wave from the current location until the next event. By pressing [PREVIEW], you can play the sample to see whether events have been assigned to the locations that you expect.

- * Be aware that if you change the encode depth after deleting or adding events, the events that were modified manually will be discarded, and the events that were detected by depth will be displayed.
- * If you modify the location of events after encoding, you must re-encode. The modified location of the events will take effect when you encode.

Adding an event

1. Press [F1 (CURSOR)] to move the cursor to Current.
2. Either by rotating the VALUE dial or by using [DEC/-][INC/+], move the current location to the place where you wish to add the event.
3. Press [F4 (INSERT)] to add the event.

Deleting an event

1. Press [F1 (CURSOR)] to move the cursor to Current.
2. Press either [F2 (◀ ADJUST)] or [F3 (ADJUST ▶)]. The Current location will move to the location of the next event toward the left or right.
3. Repeat step 2 to move Current to the location of the event that you wish to delete.
4. Press [F5 (DELETE)] to delete the event.

- * The events at the beginning and end of a wave cannot be deleted.

Consecutively encoding multiple waves (Quick Encode)

You can encode directly in the SAMPLING Menu screen. Use this when you wish to encode multiple waves with the same type and depth settings. The wave will be encoded with the same Encode Type and Encode Depth as you specified for the previously encoded wave.

1. Make sure that the SAMPLING screen is displayed.
2. Select the sample number whose wave you wish to encode.
For details on selecting a sample number, refer to "Sampling procedure" (p. 118).
3. Hold down [SHIFT] and press [F4 (Q-ENC)] to execute Quick Encode.



When encoding is completed, you will return to the SAMPLING Menu screen. A "♪" symbol will be displayed for encoded waves.

* If you use Quick Encode without having previously encoded any waves, the wave will be encoded with a Type of "SOLO" and Depth of "64."

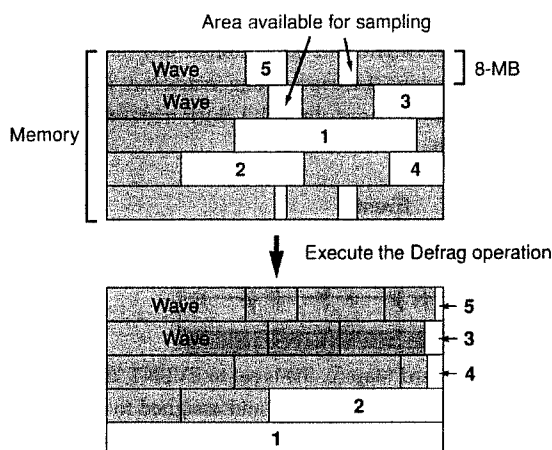
Increasing the available sampling time (Defrag)

The memory of the VP-9000 is divided into 8-MB blocks. One sample resides in one block, and cannot spill over and occupy two or more blocks. Since the maximum sampling time available for one block is 25 seconds stereo, or 50 seconds monaural, this is the maximum sampling time for one sample.

As you repeatedly record or edit waves, the area available for sampling will become fragmented. The operation of collecting the area available for sampling into one unified area is called "Defrag."

When you perform Defrag, the available sampling time will increase.

* If the area available for sampling is not fragmented, performing Defrag will not increase the available sampling time.



1. Press [UTILITY], getting the indicator to light. The UTILITY Menu 1 screen will appear. If the UTILITY Menu 2 screen appears, press [◀ /PART].
2. Press [F6 (MEMORY)]. The UTILITY Memory Information screen will appear. At the right side of the display, the five largest areas available for sampling will be displayed in order of their size, in terms of the number of seconds.

Wave Memory		Remain Time TOP5	
OnBoard	32 MB	NO. 1	25.1 sec
Slot(A)	32 MB	NO. 2	25.1 sec
Slot(B)	32 MB	NO. 3	25.1 sec
Slot(C)	32 MB	NO. 4	11.0 sec
Slot(D)	32 MB	NO. 5	2.8 sec
USED	400 MB		

3. Press [F6 (DEFRAG)] to execute the Defrag operation.
4. Press [EXIT] twice to return to the first screen.

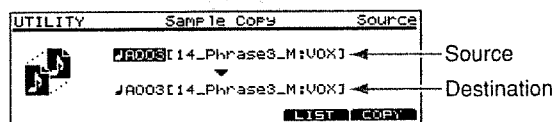
Chapter 8. Organizing Internal Samples

Samples in the VP-9000 can be copied, moved (MOVE), swapped (SWAP), or deleted (DELETE).

Copying samples

On the VP-9000, two or more samples with the same name cannot exist in internal memory. This means that when you copy a sample, you must assign a name to the newly created sample.

1. Press [UTILITY] to get the indicator to light. The UTILITY Menu1 screen will appear. If the UTILITY Menu2 screen appears, press [< /PART].
2. Press [F1 (COPY)]. The UTILITY Sample Copy screen will appear.



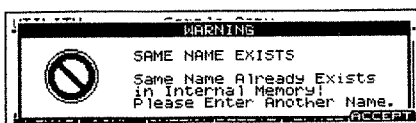
3. Use [▲] or [▼] to move the cursor to the item that you wish to set.
4. Either rotate the VALUE dial or use [DEC/-][INC./+] to select the copy source and copy destination.

* If you press [F5 (LIST)], you will be able to select samples from a list (p. 28).

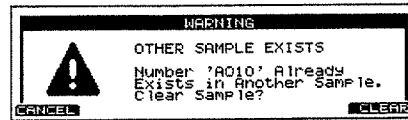
5. Press [F6 (COPY)]. A screen will appear in which you can assign a name to the copy destination sample.
6. As described in "Assigning a name" (p. 26), assign a name and then execute the copy. The display will indicate "Completed!," and then you will return to the UTILITY Sample Copy screen.

7. Press [EXIT] twice to return to the screen where you began.

* If you assign a name that is the same as a sample that already exists in internal memory, the following display will appear. Press [F6 (ACCEPT)] to return to the name assigning screen, and assign a different name.



* If a number where a sample already exists is selected as the copy destination, the following display will appear. If you wish to cancel the operation, press [F1 (CANCEL)]. If you wish to overwrite the existing sample, press [F6 (CLEAR)].



Moving/swapping samples

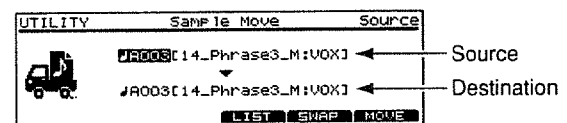
When you wish to rearrange samples in internal memory, it is convenient to use the move (MOVE) and swap (SWAP) operations.

When you move a sample, the original number will change to "NO WAVE DATA:—".

When you swap samples, the source and destination samples will be exchanged.

* When a sample is assigned to a part, the performance stores only the number of the sample. This means that if you move/swap a sample that is assigned to a part, that part will no longer sound, or will sound a different sample. In order for the original sample to sound, the number of the sample assigned to the part must be changed to the new number of the sample following the move/swap operation.

1. Press [UTILITY] to get the indicator to light. The UTILITY Menu1 screen will appear. If the UTILITY Menu2 screen appears, press [< /PART].
2. Press [F2 (MOVE)]. The UTILITY Sample Move screen will appear.



3. Use [▲] or [▼] to move the cursor to the item that you wish to set.
4. Either rotate the VALUE dial or use [DEC/-][INC./+] to select the move (swap) source and move (swap) destination.

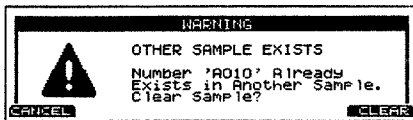
* If you press [F5 (LIST)], you will be able to select samples from a list display (p. 28).

Chapter 8. Organizing Internal Samples

5. To move the sample press [F6 (MOVE)]. To swap the samples, press [F5 (SWAP)].

The display will indicate "Completed!," and you will return to the UTILITY Sample Move screen.

6. Press [EXIT] twice to return to the screen where you began.
 - * If a number at which a sample already exists is selected as the move destination, the following display will appear. If you wish to cancel the operation, press [F1 (CANCEL)]. If it is OK to overwrite the existing sample, press [F6 (CLEAR)].

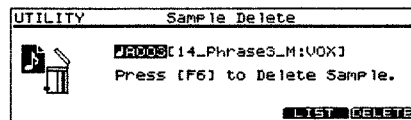


Deleting samples

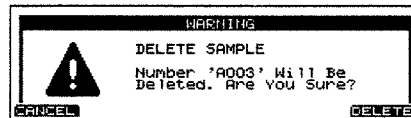
In order to make the best use of memory, you should delete (DELETE) unneeded samples that occupy internal memory.

When a sample is deleted, the number will change to "NO WAVE DATA:—"

1. Press [UTILITY] to get the indicator to light. The UTILITY Menu1 screen will appear. If the UTILITY Menu2 screen appears, press [◀ /PART].
2. Press [F3 (DELETE)]. The UTILITY Sample Delete screen will appear.



3. Either rotate the VALUE dial or use [DEC/-][INC/+] to select the sample that you wish to delete.
 - * If you press [F5 (LIST)], you can select the sample from a list (p. 28).
4. Press [F6 (DELETE)]. The display will ask whether you really want to delete the sample.



If you decide to cancel the operation without deleting, press [F1 (CANCEL)].

5. Press [F6 (DELETE)] to execute the deletion. The display will indicate "Completed!," and you will return to the UTILITY Sample Delete screen.
6. Press [EXIT] twice to return to the screen where you began.

Chapter 9. Overall Settings for the VP-9000 ([SYSTEM])

System settings are assigned to the function buttons as follows.

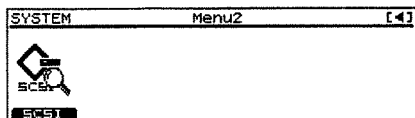
[SYSTEM]	
Menu1	
→ [F1 (LCD)]	LCD contrast/backlight saver settings (p. 135)
→ [F2 (SOUND)]	
[F1 (ATT)]	Master attenuation setting (p. 136)
[F2 (TUNE)]	Master tune setting (p. 136)
[F3 (D OUT)]	Digital out frequency setting (p. 136)
→ [F3 (MIDI)]	
[F1 (GENEAL)]	Device ID number/panic key settings etc. (p. 136)
[F2 (RX SW)]	Receive switch settings (p. 137)
[F3 (TX SW)]	Transmit switch settings (p. 138)
→ [F4 (TRSPSE)]	Transpose/octave shift settings (p. 138)
→ [F5 (PREVIW)]	Preview settings (p. 138)
→ [F6 (AUTO)]	Specify a performance to be automatically loaded at power-on (p. 139)
Menu2	
→ [F1 (SCSI)]	Settings to recognize a SCSI device (p. 139)

* System settings are remembered even when the power is turned off. If you wish to return all system settings to their factory values, execute the Factory Reset operation (p. 155).

Procedure for making system settings

Use the following procedure to make system settings.

1. Press [SYSTEM].
2. Press [◀ /PART] or [PART / ▶] to select the System Menu1 screen or System Menu2 screen.

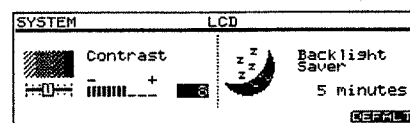


3. Press [F1]–[F6].
4. If in step 2 you pressed [F2 (SOUND)] or [F3 (MIDI)], you can then press [F1]–[F3] to access the desired screen.
5. Use [▲] [▼] [◀] [▶] to move the cursor to the item that you wish to set.

6. Either rotate the VALUE dial or use [DEC/-][INC/+] to set the value.

7. Press [EXIT] twice to return to the screen where you began.

LCD contrast / backlight saver setting ([F1 (LCD)])



* Pressing [F6 (DEFAULT)] will restore the factory setting (Contrast = 8, Backlight Saver = 5 [minutes]).

Contrast (LCD contrast)

Adjust the contrast (brightness) of the display. Increasing this value will increase the display contrast.

Values: 1–16

Backlight Saver

The backlight of the display has a finite lifespan. If the backlight becomes dim or fails to light, the display screen will be dark and difficult to read. To extend the life of the backlight, use this Backlight Save setting.

If there are no panel operations or MIDI input for longer than the time specified here, the backlight will go dark. While the backlight is dark, the MIDI MESSAGE indicator will blink red. If this setting is turned OFF, the backlight saver will not function.

Values: OFF, 5, 10, 20, 30, 40, 50, 60 [minutes]

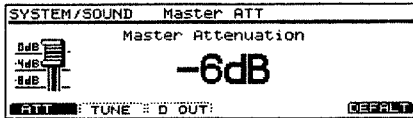
The backlight saver will be defeated by the following two occurrences.

- When a panel operation is performed (this operation will be reflected by the parameter changing, etc.)
- When the following MIDI messages are received
 - Channel voice messages
 - Channel mode messages
 - Exclusive messages

Chapter 9. Overall Settings for the VP-9000 ([SYSTEM])

Output level / master tune / digital out frequency settings ([F2 (SOUND)])

[F1 (ATT)]



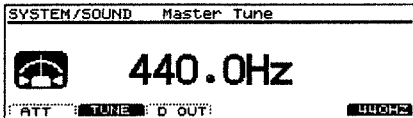
Master Attenuation

Adjust this setting if the output level from the six OUTPUT jacks is excessive. A setting of -60 dB will produce the lowest output level.

Values: -60-0 [dB]

- * When this parameter is adjusted, the output from the DIGITAL AUDIO INTERFACE OUT jacks (OPTICAL and COAXIAL) will also decrease.
- * Pressing [F6 (DEFAULT)] will restore the factory setting (0 dB).

[F2 (TUNE)]



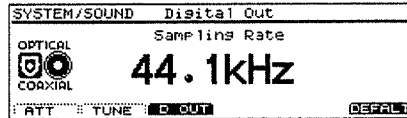
Master Tune

Adjust the tuning of the entire VP-9000. The displayed value indicates the frequency of the A4 key.

Values: 427.4-452.6 [Hz]

- * Pressing [F6 (440Hz)] will restore the factory setting (440.0 Hz).

[F3 (D OUT)]



Sampling Rate (Digital Out Sampling Rate)

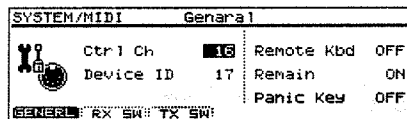
Set the sampling frequency of the two types of digital output (OPTICAL and COAXIAL). Set this to match the input frequency of the digital devices that are connected to the VP-9000.

Values: 32, 44.1, 48 [kHz]

- * While you are sampling, the Sampling Rate will be fixed at 44.1 kHz.
- * Pressing [F6 (DEFAULT)] will restore the factory setting (44.1 kHz).

MIDI settings ([F3 (MIDI)])

[F1 (GENERAL)]



Ctrl Ch (Control Channel)

This setting specifies the channel on which MIDI messages from an external device can be used to simultaneously control all parts of the VP-9000. If you do not need to control all parts simultaneously, turn this "OFF."

Values: 1-16, OFF

- * If the MIDI receive channel (p. 56) of any part is set identically to the control channel, the control channel setting will take priority. You should set the MIDI receive channel of each part so that it does not coincide with the control channel.

Device ID (Device ID Number)

When transmitting and receiving system exclusive messages, set both devices to the same device ID number.

Values: 17-32

Remote Kbd (Remote Keyboard Switch)

If this is ON, MIDI messages from an external device will sound the sample that is assigned to the currently selected part (the current part), regardless of the MIDI transmit channel setting of the external MIDI device. In this case, the MIDI receive channel settings of each part will be ignored.

This is convenient when you wish to switch parts on the VP-9000 and play the samples of each part without changing the MIDI transmit channel of your external MIDI device. If you wish to play two or more parts simultaneously, turn this "OFF."

Values: OFF, ON

Remain (Remain Switch)

This setting specifies whether the currently heard sound will continue (ON) or not (OFF) when another sample is selected.

Values: OFF, ON

Panic Key

When the note message specified as the Panic Key is received (regardless of the channel), the sound of all parts will be halted, and all controllers will be reset. It is convenient to use this to turn off all sounding notes when you have set the Trigger Mode (p. 43) to TRIGGER and have forgotten which keys you pressed.

Values: OFF, C -1-G 9

[F2 (RX SW)]

SYSTEM/MIDI	Rx Switch				
PC	<input checked="" type="checkbox"/>	Mod	ON	Bend	ON
Bank	ON	Volume	ON	After	ON
CC	ON	Hold 1/2	ON	SysEX	ON
GENERAL: RX SW: TX SW: ALL OFF ALL ON					

* By pressing [F5 (ALLOFF)] you can turn all receive switches OFF. Similarly, you can press [F6 (ALL ON)] to turn all receive switches ON.

PC (Program Change Reception Switch)

Determines whether Program Change messages will be received (ON) or not (OFF).

Values: OFF, ON

Bank (Bank Select Reception Switch)

Determines whether Bank Select messages will be received (ON) or not (OFF).

Values: OFF, ON

CC (Control Change Reception Switch)

Determines whether Control Change messages will be received (ON) or not (OFF).

Values: OFF, ON

Mod (Modulation Reception Switch)

Determines whether Modulation messages will be received (ON) or not (OFF).

Values: OFF, ON

Volume (Volume Reception Switch)

Determines whether Volume messages will be received (ON) or not (OFF).

Values: OFF, ON

Hold 1/2 (Hold 1/2 Reception Switch)

Determines whether Hold 1/2 messages will be received (ON) or not (OFF).

Values: OFF, ON

Bend (Pitch Bend Reception Switch)

Determines whether Pitch Bend messages will be received (ON) or not (OFF).

Values: OFF, ON

After (Aftertouch Reception Switch)

Determines whether Aftertouch messages will be received (ON) or not (OFF).

Values: OFF, ON

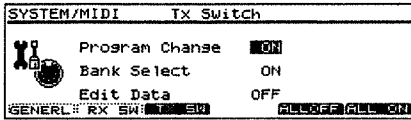
SysEx (System Exclusive Reception Switch)

Determines whether System Exclusive messages will be received (ON) or not (OFF).

Values: OFF, ON

Chapter 9. Overall Settings for the VP-9000 ([SYSTEM])

[F3 (TX SW)]



- * By pressing [F5 (ALLOFF)] you can turn all transmit switches OFF. Similarly, you can press [F6 (ALL ON)] to turn all transmit switches ON.

Program Change (Program Change Transmit Switch)

Determines whether Program Change messages will be transmitted (ON) or not (OFF) when you use the panel buttons or VALUE dial to switch samples.

Values: OFF, ON

Bank Select (Bank Select Transmit Switch)

Determines whether Bank Select messages will be transmitted (ON) or not (OFF) when you use the panel buttons or VALUE dial to switch sample banks.

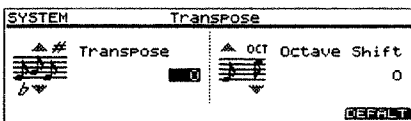
Values: OFF, ON

Edit Data (Edit Data Transmit Switch)

When you use the panel buttons or knobs to edit sample or performance settings, this specifies whether the changes you make will be transmitted as system exclusive messages (ON) or not transmitted (OFF).

Values: OFF, ON

Transpose / octave shift settings ([F4 (TRSPSE)])



- * Pressing [F6 (DEFAULT)] will restore the factory setting (Transpose = 0, Octave Shift = 0).

Transpose

Adjust the pitch of the sound in semitone steps. Incoming note numbers will be converted according to this Transpose setting.

Values: -5-+6

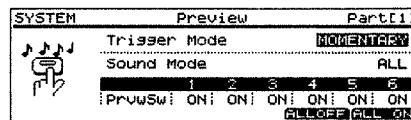
Octave Shift (System Octave Shift)

Adjust the pitch of the sound in steps of an octave. Incoming note numbers will be converted according to this Octave Shift setting.

Values: -3-+3

- * In the PERFORM Play screen, you can also use [▲] or [▼] to set the System Octave Shift.

Preview settings ([F5 (PREVIW)])



- * By pressing [F5 (ALLOFF)] you can turn PrvwSw OFF for all parts. Similarly, you can press [F6 (ALL ON)] to turn PrvwSw ON for all parts.
- * Preview will operate differently depending on the mode. For details refer to "About the Preview function" (p. 38).

Trigger Mode (Preview Trigger Mode)

Specify how the [PREVIEW] button will function.

Values

MOMENTARY: The sound will play as long as you continue holding [PREVIEW].

LATCH: The sound will begin playing when you press [PREVIEW], and will stop when you press [PREVIEW] once again.

Sound Mode (Preview Sound Mode)

Specify the part(s) that will be sounded by the preview function.

Values

SINGLE: The sample of the current part (or the current phrase map number of the current part) will be sounded.

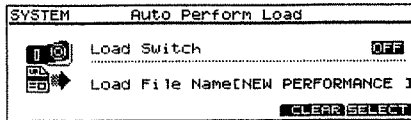
ALL: All samples of the parts whose PrvwSw is ON will be sounded.

PrvwSw (Preview Part 1-6 Switch)

Specify the part(s) that will be sounded when Sound Mode is ALL.

Values: OFF, ON

Automatically loading a performance when the power is turned on ([F6 (AUTO)])



- * In order to use this function, media that contains the selected performance must be prepared before the next time you turn on the power. For example, if you are using a Zip disk, you must insert it into the VP-9000's Zip drive before turning on the power.

Load Switch (Auto Performance Load Switch)

Determines whether a performance will automatically be loaded into internal memory when the power is turned on (ON) or not (OFF).

Values: OFF, ON

Load File Name (Auto Performance Load File Name)

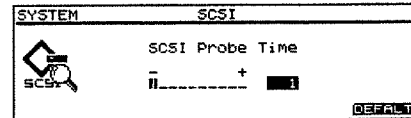
Specify the performance that will automatically be loaded into the VP-9000 when the power is turned on.

In the SYSTEM Auto Perform Load screen, use the following procedure to select the desired performance.

1. Press [F6 (SELECT)].
2. Press [F1 (DRIVE)] to specify the drive that contains the performance you wish to select.
3. Use [F2 (SORT)], [F4 (◀ CLOSE)], [F5 (OPEN ▶)] or [▲] [▼] [◀] [▶], [DEC/-] [INC/+], and the VALUE dial to move the cursor to the desired performance.
4. Press [F6 (SELECT)].
You will return to the SYSTEM Auto Perform Load screen, and the selected performance will be displayed.

- * If you press [F5 (CLEAR)], the Load File Name will show "NEW PERFORMANCE." If "NEW PERFORMANCE" is selected, automatic loading will not occur even if the Load Switch is turned ON.

Settings to recognize a SCSI device (Menu2 [F1 (SCSI)])



SCSI Probe Time

Specify the time required for detecting a SCSI device. As this value is increased, the time will be longer. Normally you will leave this at "1."

Values: 1-10

- * If a connected SCSI device is not detected, increase this value, and then turn off the power using the procedure described in "Turning the power off" (p. 21). Then use the procedure in "Turning the power on" (p. 21) to turn the power on once again.
- * When you press [F6 (DEFAULT)], this will return to the factory setting of "1."

Chapter 10. Saving Your Settings

The performance/samples/system settings you create can be saved on a Zip disk. They can also be saved on a connected SCSI device (e.g., hard disk).

This chapter explains the saving procedure, and operations related to Zip disks and hard disks.

- * Be sure to read "Before Using Zip Disks" (p. 5) and the separately included leaflets "Cautions for handling Zip drives and Zip disks."
- * For details on connecting SCSI devices, refer to p. 16.

Formatting a Zip disk / hard disk

Zip disks must first be formatted (initialized) so that they can be used by the VP-9000.

There are two types of format: "QUICK" and "FULL". In the case of a 250 MB Zip disk, approximately 5 seconds are required to complete a QUICK format, and approximately 15 minutes to complete a FULL format.

A Zip disk should first be formatted using QUICK. Only if the display indicates "File Write Error!" should you then perform a FULL format.

For a hard disk, perform a FULL format only if the display indicates "Improper Disk!" when you select the drive.

If you wish to re-format a previously formatted hard disk, please observe the following points.

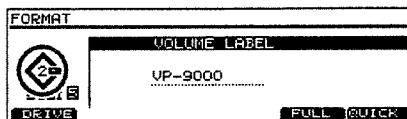
- **If the hard disk is not partitioned**
 - > Use QUICK format
 - **If the hard disk is partitioned, and you wish to re-format only a specific partition**
 - > Select the partition number and use QUICK format
 - **If the hard disk is partitioned, and you wish to re-format the entire hard disk**
 - > Use FULL format (the partitions will disappear)
- * When you execute the format operation, everything contained on the disk will be lost. Make sure to verify the contents of all media before you execute the format operation.
 - * Both 100 MB and 250 MB Zip disks can be used. 100 MB Zip disks take approximately twice as long to save data as a 250 MB disk, so we recommend that you use 250 MB Zip disks.
 - * The VP-9000 is not able to perform a FULL format of a 100 Mbyte Zip disk on its internal Zip drive. If you wish to perform a FULL format, you must connect a separately sold "100 Mbyte only" Zip drive to the VP-9000.

* A hard disk that can be used by Windows98/95/3.1 or MS-DOS can be used as is.

* A Mac OS format hard disk cannot be used.

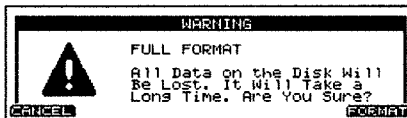
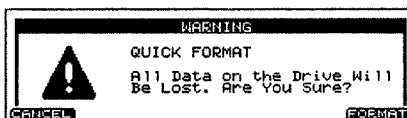
* The VP-9000 is not able to partition a hard disk.

1. Prepare the media that you wish to format.
2. Press [DISK], and then [PART/ \triangleright].
The DISK Menu2 screen will appear.
3. Press [F3 (FORMAT)].
The FORMAT screen will appear. If the media is already formatted, the name (volume label) will appear. If it is a format that the VP-9000 is unable to use, the display will indicate "Improper Disk!"
4. Press [F1 (DRIVE)] to select the drive.
 - * By holding down [SHIFT] and pressing [F1 (DRIVE)], you can select the previous drive.
 - * If the hard disk has been divided into two or more partitions, select the number of the partition that you wish to format. The partition number is displayed in the center of the icon.



* If you wish to use FULL to format a hard disk that has been partitioned, it does not matter which partition number you select.

5. Press [F5 (FULL)] or [F6 (QUICK)].
A screen will appear in which you can assign a name (volume label) to the media.
6. Refer to "Assigning a name" (p. 26), and assign the desired name.
A confirmation screen will appear, asking you to verify that you really do wish to format the media.

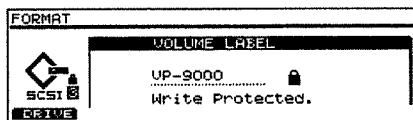


If you decide to cancel without formatting, press [F1 (CANCEL)].

7. Press [F6 (FORMAT)] to execute the format operation. When formatting is completed, the display will indicate "DISK Format Completed!" (formatting has been completed).
8. Press [F6 (ACCEPT)] to return to the FORMAT screen.
9. Press [EXIT] twice to return to the screen from which you began.

If the FORMAT screen indicates "Write Protected."

The Zip disk is protected. Turn protect off, and then format the disk.



1. Press [EXIT] to return to the DISK Menu2 screen.
 2. Press [F5 (PRTECT)].
 3. Press [F6 (PRTECT)].
The setting will change to Protect = OFF.
 4. Press [EXIT] and then [F3 (FORMAT)] to return to the FORMAT screen.
- * For details on protect, refer to "Prohibiting writing to a Zip disk (Protect)" (p. 150).

Saving performance / samples / system settings

When you save a performance, all samples in the VP-9000 at that time will also be saved (except for samples without waves, and samples with names that cannot be saved). We recommend that you create a folder (p. 146) and save each performance in its own folder. If this is done, it will be clear which samples belong to which performance when you view the contents of the disk.

When you save a sample, the sample that are assigned to the currently selected part (current part) will be saved. If the Keyboard Map is set to "PHRASE MAP," the sample assigned to the currently selected phrase map number will be saved.

System settings include the parameters that can be set in system mode (p. 135), sampling template parameters (p. 118), and EFFECT ON/OFF settings (p. 64).

- * It is not possible to save a sample that has no wave.
- * The following names cannot be saved.

Performance

- "NEW PERFORMANCE" (Uppercase and lowercase characters are not distinguished)
- All spaces

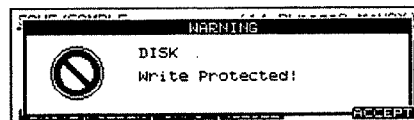
Sample

- "NO WAVE DATA:—" (Uppercase and lowercase characters are not distinguished)
- A name consisting of 12 spaces (category can be anything)

System

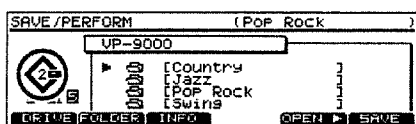
- All spaces

* If protect is ON for a Zip disk and you attempt to save data to that Zip disk, the following message will be displayed. If this occurs, press [F6 (ACCEPT)], and then press [EXIT] four times to return to the Play screen. Then refer to "Prohibiting writing to a Zip disk (Protect)" (p. 150), turn protect OFF, and perform the save operation once again.

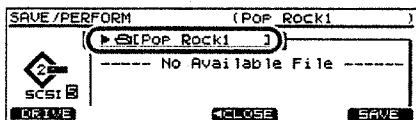


Chapter 10. Saving Your Settings

1. Prepare the media.
2. If you wish to save samples, use [◀ /PART] [PART/ ▶] to select the part to which the samples you wish to save are assigned.
 - * If you wish to save a sample that is not assigned to a part, refer to "Selecting samples" (p. 36), and assign the sample to one of the parts.
3. Press [DISK], getting the indicator to light. The DISK Menu1 screen will appear. If the DISK Menu2 screen appears, press [◀ /PART].
4. Press [F2 (SAVE)].
5. Press [F1]–[F3] to select the data that you wish to save.
 - [F1 (PERFRM)]: Performance
 - [F2 (SAMPLE)]: Sample
 - [F3 (SYSTEM)]: System
 The naming screen will appear.
6. Assign a name as described in "Assigning a name" (p. 26). A screen will appear, allowing you to select the save destination.
7. Press [F1 (DRIVE)] to select the drive.
 - * By holding down [SHIFT] and pressing [F1 (DRIVE)], you can select the previous drive.
 - * If you are saving to a hard disk that has been divided into two or more partitions, select the partition number. The partition number is displayed in the center of the icon.



8. Use [▼] [▲] or [F4 (◀ CLOSE)] [F5 (OPEN ▶)] to move the cursor into the save destination folder. The folder displayed in the second line from the top will be the save destination. If the cursor is at the top level, the volume label will be displayed.

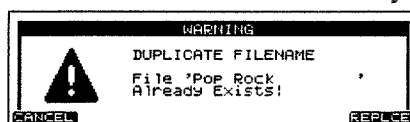


- * In the screen, [◀] [▶] have the same function as [F4 (◀ CLOSE)] [F5 (OPEN ▶)].

- * If you wish to create a new folder, press [F2 (FOLDER)] to jump to the CREATE/FOLDER screen (p. 146).
9. Press [F6 (SAVE)] to execute the Save operation. When saving has been completed, you will return to the PERFORM Play screen in the case of performance or system settings, or to the SAMPLE Play screen in the case of samples.
 - * For saving performances and samples, you can use the shortcut of holding down the [SHIFT] button and pressing [F6 (SAVE)] to jump to the screen where you specify the name for saving. For details refer to "Convenient shortcuts" (p. 29).

If a message appears during saving

Sometimes a message may appear during the save procedure. If this occurs, refer to the following explanation and take the appropriate action.

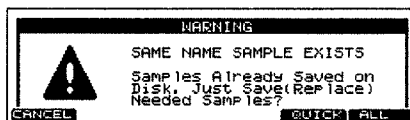


The above message will appear if the save destination contains an identically named file.

To halt the operation, press [F1 (CANCEL)].

If you press [F6 (REPLACE)], the data will be overwritten onto the identically named file.

- * Be aware that the VP-9000 does not distinguish between uppercase and lowercase characters in a filename. For example, it will consider "ABC" and "Abc" to be the same name.



The above message will appear when saving a performance if an identically named sample exists at the save destination.

To halt the procedure, press [F1 (CANCEL)].

When you press [F5 (QUICK)], only the performance, samples with the "E" symbol, and samples that do not exist at the save destination will be saved.

If you press [F6 (ALL)], the performance and all samples will be saved. Identically named samples in the save destination will be overwritten.

Organizing a Zip disk / hard disk

Files saved on a Zip disk or on a connected SCSI device (such as a hard disk) can be

- Copied (p. 143)
- Moved (p. 144)
- Deleted (p. 145)
- Renamed (p. 146)

You can also

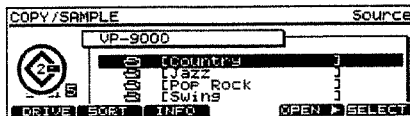
- Perform folder-related operations (p. 146)
- Change the media name (Label) (p. 149)
- Check the unused media space (Info) (p. 150)
- Prohibit writing to the Zip disk (Protect) (p. 150)

* In screens that display [F4 (◀ CLOSE)]/[F5 (OPEN ▶)], [◀] / [▶] will perform the same function.

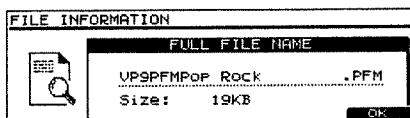
* In screens that display samples and Roland VP-CD series files, [F2 (SORT)] will be displayed. Each time you press this button, the files will be rearranged in order of filename or category.

* By holding down [SHIFT] and pressing [F1 (DRIVE)], you can select the previous drive.

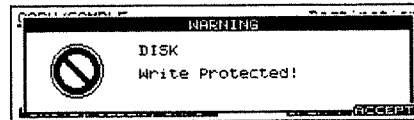
* If the hard disk has been divided into two or more partitions when you select a drive, you will need to select the number of the partition to which the operation will apply. The partition number is displayed in the center of the icon.



* If you press [F3 (INFO)], the full name and size of the selected file will be displayed. If a folder is selected, only the full name of the folder will be displayed. To return to the previous screen, press [F6 (OK)].



* The following message will be displayed if you attempt to write data to a Zip disk whose protect is turned ON. If this occurs, press [F6 (ACCEPT)], and then press [EXIT] several times to return to the Play screen. Then refer to "Prohibiting writing to a Zip disk (Protect)" (p. 150) and turn protect OFF. Then write the data once again.



Copying files (Copy)

You can copy files within the same media or between different media.

* It is not possible to copy files from a Zip disk to another Zip disk using only one Zip drive.

1. Prepare the media that contains the file(s) you wish to copy, and the copy destination media.

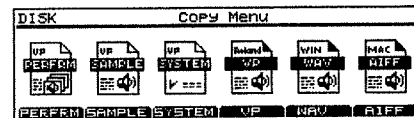
2. Press [DISK].

The DISK Menu1 screen will appear.

If the DISK Menu2 screen appeared, press [◀ /PART].

3. Press [F3 (COPY)].

The DISK Copy Menu screen will appear.



4. Use [F1]–[F6] to select the type of file that you wish to copy.

[F1 (PERFRM)]: Performance

[F2 (SAMPLE)]: Sample

[F3 (SYSTEM)]: System settings

[F4 (VP)]: Files of the same format as the included CD-ROM or the Roland VP-CD series (sound library)

[F5 (WAV)]: WAV (wave data)

[F6 (AIFF)]: AIFF (wave data)

Files of the selected type and folders will be displayed.

5. Press [F1 (DRIVE)] to select the drive.

6. Use [▼] / [▲] or [F4 (◀ CLOSE)]/[F5 (OPEN ▶)] to move the cursor to the file that you wish to copy.

Chapter 10. Saving Your Settings

- If you wish to copy two or more files simultaneously, move the cursor to each file you wish to copy, and press the VALUE dial.
A "+" symbol will be displayed. Repeat step 7 to add a "+" symbol to each file you wish to copy simultaneously.
To erase a "+" symbol, press the VALUE dial once again.

* However, this is limited to files within the same folder.

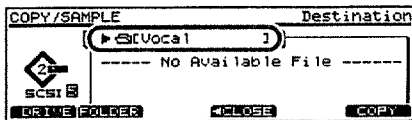
- Press [F6 (SELECT)].

A screen will appear in which you can select the copy destination of the file(s) (Destination)

- Press [F1 (DRIVE)] to select the drive.

- Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor into the copy destination folder.

The folder displayed in the second line from the top will be the copy destination. If the cursor is at the top level, the volume label will be displayed.



* If you wish to create a new folder, press [F2 (FOLDER)] to jump to the CREATE/FOLDER screen (p. 146).

- Press [F6 (COPY)] to execute the copy.

When the copy is completed, the display will indicate "Completed!," and you will return to the respective COPY Source screen.

- Press [EXIT] three times to return to the screen where you begin.

* If an identically named file exists at the copy destination, an error message will appear, and it will not be possible to copy the data. The VP-9000 does not distinguish between uppercase and lowercase characters in a filename. For example, "ABC" and "Abc" will be treated as the same name.

* If you selected a folder in steps 6 or 7, all files in that folder will also be copied.

* It is not possible to copy files to a CD-R/RW.

Moving files (Move)

You can move files within the same media, or between different media.

* It is not possible to move files from one Zip disk to another Zip disk using only one Zip drive.

- Prepare the media containing the file(s) that you wish to move, and the move destination media.

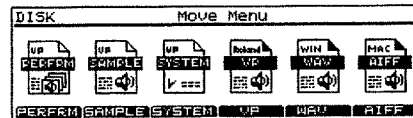
- Press [DISK].

The DISK Menu1 screen will appear.

If the DISK Menu2 screen appears, press [◀ /PART].

- Press [F4 (MOVE)].

The DISK Move Menu screen will appear.



- Use [F1]–[F6] to select the type of file you wish to move.

[F1 (PERFRM)]: Performance

[F2 (SAMPLE)]: Sample

[F3 (SYSTEM)]: System settings

[F4 (VP)]: Files of the same format as the included CD-ROM or the Roland VP-CD series (sound library)

[F5 (WAV)]: WAV (wave data)

[F6 (AIFF)]: AIFF (wave data)

Files of the selected type and folders will be displayed.

- Press [F1 (DRIVE)] to select the drive.

- Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the file that you wish to move.

- If you wish to move two or more files simultaneously, move the cursor to one of the files, and then press the VALUE dial.

A "+" symbol will appear. Repeat step 7 to assign a "+" symbol to each file that you wish to move simultaneously.

To erase a "+" symbol, press the VALUE dial once again.

* However, this is limited to files in the same folder.

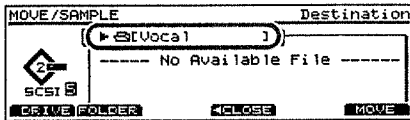
- Press [F6 (SELECT)].

A screen will appear in which you can select the move destination of the file(s) (Destination).

- Press [F1 (DRIVE)] to select the drive.

10. Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor into the move destination folder.

The folder displayed in the second line from the top will be the move destination. If the cursor is at the top level, the volume label will be displayed.



* If you wish to create a new folder, press [F2 (FOLDER)] to jump to the CREATE/FOLDER screen (p. 146).

11. Press [F6 (MOVE)] to execute the move.

When the files have been moved, the display will indicate "Completed!," and you will return to the respective MOVE Source screen.

12. Press [EXIT] three times to return to the screen where you began.

* If an identically named file exists at the move destination, an error message will appear, and it will not be possible to move the file. The VP-9000 does not distinguish between uppercase and lowercase characters in a filename. For example, "ABC" and "Abc" will be treated as the same name.

* If you selected a folder in steps 6 or 7, all files in that folder will also be moved.

* It is not possible to move files from a CD-R/RW, or to move files to a CD-R/RW.

Deleting files (Delete)

1. Prepare the media that contains the file(s) you wish to delete.

2. Press [DISK].

The DISK Menu1 screen will appear.

If the DISK Menu2 screen appears, press [◀ /PART].

3. Press [F5 (DELETE)].

The DISK Delete Menu screen will appear.



4. Use [F1]–[F6] to select the type of file that you wish to delete.

[F1 (PERFRM)]: Performances

[F2 (SAMPLE)]: Samples

[F3 (SYSTEM)]: System settings

[F4 (VP)]: Files of the same format as the included CD-ROM or the Roland VP-CD series (sound library)

[F5 (WAV)]: WAV (wave data)

[F6 (AIFF)]: AIFF (wave data)

Files of the selected type and folders will be displayed.

5. Press [F1 (DRIVE)] to select the drive.

6. Use [▼] [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the file that you wish to delete.

7. If you wish to delete two or more files simultaneously, move the cursor to one of the files and press the VALUE dial.

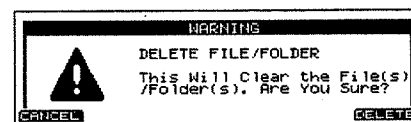
A "+" symbol will appear. Repeat step 7 to assign a "+" symbol to each file that you wish to delete simultaneously.

To erase the "+" symbol, press the VALUE dial once again.

* However, this is limited to files within the same folder.

8. Press [F6 (DELETE)].

A confirmation screen will appear, asking whether you really want to delete the files.



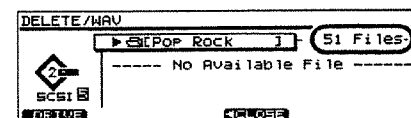
If you decide not to delete, press [F1 (CANCEL)].

9. Press [F6 (DELETE)] to execute the deletion.

When deletion is complete, the display will indicate "Completed!," and you will return to the respective DELETE screen.

10. Press [EXIT] three times to return to the screen where you began.

* If you selected a folder in steps 6 or 7, all files in the folder will also be deleted. Before deleting a folder, display the contents of the folder, and notice the number of files shown in the upper right of the display. Even if the display shows "No Available File," a number of files other than 0 in the upper right indicates that the folder does contain other types of file.



* It is not possible to delete files from a CD-R.

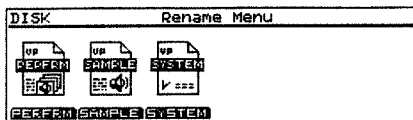
* It is not possible to delete individual files from a CD-RW. (By re-formatting a CD-RW, it is possible to delete all files.)

Chapter 10. Saving Your Settings

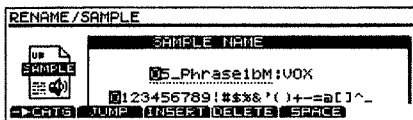
Changing the name of a file (Rename)

You can change the name of a performance, sample, or system setting file.

1. Prepare the media that contains the file you wish to rename.
2. Press [DISK].
The DISK Menu1 screen will appear.
If the DISK Menu2 screen appears, press [< /PART].
3. Press [F6 (RENAME)].
The DISK Rename Menu screen will appear.



4. Use [F1]–[F3] to select the type of file whose name you wish to change.
[F1 (PERFRM)]: Performances
[F2 (SAMPLE)]: Samples
[F3 (SYSTEM)]: System settings
Files of the selected type and folders will be displayed.
5. Press [F1 (DRIVE)] to select the drive.
6. Use [↓] [↑] or [F4 (← CLOSE)] [F5 (OPEN →)] to move the cursor to the file whose name you wish to change.
7. Press [F6 (RENAME)].
The renaming screen will appear.



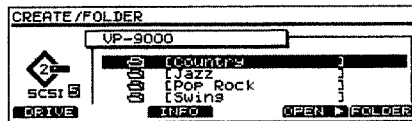
- * When this screen is first displayed, [F6 (WRITE)] will not appear. It will appear when you modify the name.
8. As described in “Assigning a name” (p. 26), modify the name of the file as desired, and rename the file.
The display will indicate “Completed!,” and you will return to the respective RENAME screen.
 9. Press [EXIT] three times to return to the screen where you began.

- * If a file of the same name already exists in the same folder, an error message will appear. Please assign a new name. The VP-9000 does not distinguish between uppercase and lowercase characters in a filename. For example, “ABC” and “Abc” will be treated as the same name.
- * By selecting a folder in step 6, you can change the name of the folder.
- * It is not possible to change the name of a CD-R/RW file.

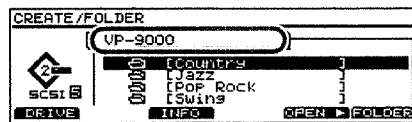
Folder-related operations

Creating a folder (Create)

1. Prepare the media in which you wish to create a folder.
2. Press [DISK] and then [PART/ >].
The DISK Menu2 screen will appear.
3. Press [F1 (FOLDER)] and then [F1 (CREATE)].
The CREATE/FOLDER screen will appear.



4. Press [F1 (DRIVE)] to select the drive.
5. Use [↓] [↑] or [F4 (← CLOSE)] [F5 (OPEN →)] to move the cursor into the folder in which you wish to create a folder.
A folder will be created within the folder displayed in the second line from the top. If the cursor is at the top level, the volume label will be displayed.



6. Press [F6 (FOLDER)].
A screen in which you can assign a name will appear.
 - * If you decide not to create a folder, press [F1 (CANCEL)].
7. As described in “Assigning a name” (p. 26), assign a name and create the folder.
When the folder has been created, the display will indicate “Completed!,” and you will return to the CREATE/FOLDER screen.
8. Press [EXIT] three times to return to the screen where you began.

* If a folder of the same name already exists at the same folder, an error message will appear. Re-assign a new name. The VP-9000 does not distinguish between uppercase and lowercase characters in a folder name. For example, "ABC" and "Abc" will be treated as the same name.

* It is not possible to create a folder on a CD-R/RW.

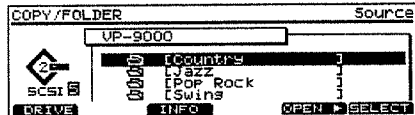
Copying a folder (Copy)

When you copy a folder, all files within that folder will also be copied.

Folders can be copied within the same media or between different media.

* It is not possible to copy a folder from one Zip disk to another Zip disk using only a single Zip drive.

1. Prepare the media containing the folder to be copied, and the copy destination media.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F1 (FOLDER)] and then [F2 (COPY)].
The COPY/FOLDER screen will appear.

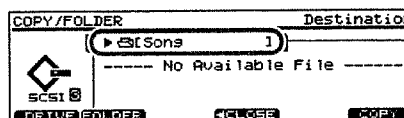


4. Press [F1 (DRIVE)] to select the drive.
5. Use [▼ || ▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the folder that you wish to copy.
6. If you wish to copy two or more folders simultaneously, move the cursor to one of the folders and press the VALUE dial.
A "+" symbol will appear. Repeat step 6 to assign a "+" symbol to each folder that you wish to copy.
To erase the "+" symbol, press the VALUE dial once again.

* However, this is limited to files within the same folder.
7. Press [F6 (SELECT)].
A screen will appear, allowing you to select the copy destination for the folder (Destination).
8. Press [F1 (DRIVE)] to select the drive.

9. Use [▼ || ▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor into the copy destination folder.

The folder displayed in the second line from the top will be the copy destination. If the cursor is at the top level, the volume label will be displayed.



10. Press [F6 (COPY)] to execute the copy.

When the copy is completed, the display will indicate "Completed!," and you will return to the COPY/FOLDER Source screen.

11. Press [EXIT] three times to return to the screen where you began.

* If a folder of the same name already exists at the copy destination, an error message will appear, and it will not be possible to execute the copy. The VP-9000 does not distinguish between uppercase and lowercase characters in a folder name. For example, "ABC" and "Abc" will be treated as the same name.

* It is not possible to copy a folder to a CD-R/RW.

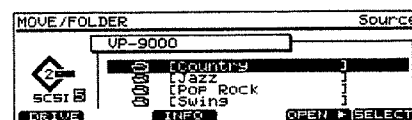
Moving a folder (Move)

When you move a folder, all files within that folder will also be moved.

You can move a folder within the same media, or between different media.

* It is not possible to move a folder from one Zip disk to another Zip disk using only a single Zip drive.

1. Prepare the media that contains the folder you wish to move, and the move destination media.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F1 (FOLDER)] and then [F3 (MOVE)].
The MOVE/FOLDER screen will appear.



4. Press [F1 (DRIVE)] to select the drive.
5. Use [▼ || ▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the folder that you wish to move.

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6. If you wish to move two or more folders simultaneously, move the cursor to one of the folders, and press the VALUE dial.

A "+" symbol will appear. Repeat step 6, and assign a "+" symbol to each folder that you wish to move simultaneously.

To erase a "+" symbol, press the VALUE dial once again.

* However, this is limited to files within the same folder.

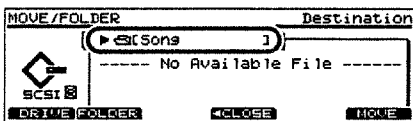
7. Press [F6 (SELECT)].

A screen will appear in which you can select the move destination for the folder (Destination).

8. Press [F1 (DRIVE)] to select the drive.

9. Use [▼] or [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor into the move destination folder.

The folder displayed in the second line from the top will be the move destination. If the cursor is at the top level, the volume label will be displayed.



10. Press [F6 (MOVE)] to execute the move.

When the move is completed, the display will indicate "Completed!" and you will return to the MOVE/FOLDER Source screen.

11. Press [EXIT] three times to return to the screen where you began.

* If a folder of the same name already exists at the move destination, an error message will appear, and it will not be possible to execute the move. The VP-9000 does not distinguish between uppercase and lowercase characters in a folder name. For example, "ABC" and "Abc" will be treated as the same name.

* It is not possible to move a folder from a CD-R/RW, or to move a folder to a CD-R/RW.

Deleting a folder (Delete)

When you delete a folder, all files within that folder will also be deleted. Before you delete a folder, please view the contents of the folder and check the number of files shown in the upper right of the display.

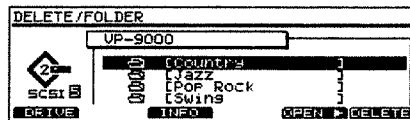
1. Prepare the media containing the folder you wish to delete.

2. Press [DISK] and then [PART/▷].

The DISK Menu2 screen will appear.

3. Press [F1 (FOLDER)] and then [F4 (DELETE)].

The DELETE/FOLDER screen will appear.



4. Press [F1 (DRIVE)] to select the drive.

5. Use [▼] or [▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the folder that you wish to delete.

6. If you wish to delete two or more folders simultaneously, move the cursor to one of the folders, and press the VALUE dial.

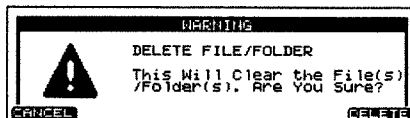
A "+" symbol will appear. Repeat step 6, and assign a "+" symbol to each folder that you wish to delete simultaneously.

To erase a "+" symbol, press the VALUE dial once again.

* However, this is limited to files within the same folder.

7. Press [F6 (DELETE)].

A confirmation screen will appear, asking you whether you really want to delete the folder.



If you decide not to delete, press [F1 (CANCEL)].

8. Press [F6 (DELETE)] to execute the deletion.

When the deletion is completed, the display will indicate "Completed!" and you will return to the DELETE/FOLDER screen.

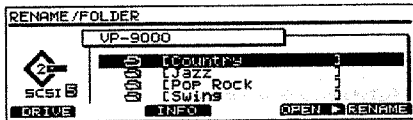
9. Press [EXIT] three times to return to the screen where you began.

* It is not possible to delete a folder from a CD-R.

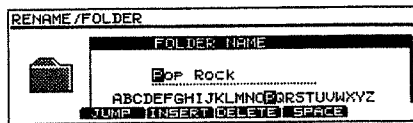
* It is not possible to delete an individual folder from a CD-RW. (By re-formatting a CD-RW, you can delete all folders.)

Changing the name of a folder (Rename)

1. Prepare the media that contains the folder whose name you wish to change.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F1 (FOLDER)] and then [F5 (RENAME)].
The RENAME/FOLDER screen will appear.



4. Press [F1 (DRIVE)] to select the drive.
5. Use [↓ | ↑] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor to the folder whose name you wish to change.
6. Press [F6 (RENAME)].
A screen will appear in which you can assign a name.

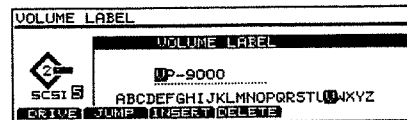


* When this screen appears, [F6 (WRITE)] will not be displayed. It will be displayed when you change the name.

7. As described in "Assigning a name" (p. 26), assign a name and rewrite the folder name.
The display will indicate "Completed!," and you will return to the RENAME/FOLDER screen.
 8. Press [EXIT] three times to return to the screen where you began.
- * If a folder of the same name already exists in the same folder, an error message will appear. Please re-specify a new name. The VP-9000 does not distinguish between uppercase and lowercase characters in a folder name. For example, "ABC" and "Abc" will be treated as the same name.
- * It is not possible to change the name of a folder in a CD-R/RW.

Changing the name of a media (Label)

1. Prepare the media whose name you wish to change.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F2 (LABEL)].
The VOLUME LABEL screen will appear.



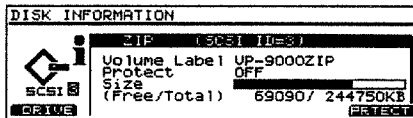
* When this screen is first accessed, [F6 (WRITE)] will not be displayed. It will appear when you change the name.

4. Press [F1 (DRIVE)] to select the drive.
 5. As described in "Assigning a name" (p. 26), assign a name, and rewrite the media name (volume label).
The display will indicate "Completed!," and you will return to the VOLUME LABEL screen.
 6. Press [EXIT] twice to return to the screen from which you began.
- * It is not possible to assign a name to a CD-R/RW.
- * When you select a CD-R/RW drive, the last-written backup name (p. 152) will be displayed.

Checking the unused media space (Info)

You can check the unused space of a Zip disk or a connected SCSI device (such as a hard disk or CD-R/RW).

1. Prepare the media whose Unused space you wish to check.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F4 (INFO)].
The DISK INFORMATION screen will appear.

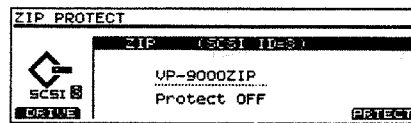


4. Press [F1 (DRIVE)] to select the drive.
The media name (volume label), protect status, and the amount of unused space will be displayed.
 - * If you selected a Zip drive, [F6 (PRTECT)] will be displayed. By pressing this button you can jump to the ZIP PROTECT screen (refer to the following section).
5. Press [EXIT] twice to return to the screen from which you began.
 - * In the case of a CD-ROM or for a CD-R/RW that cannot be written, the area available for writing (the Free value) will be displayed as "0."
 - * For a CD-ROM or for a CD-R/RW that cannot be written, protect will be displayed as "ON." In the case of a hard disk, protect will be displayed as "OFF."

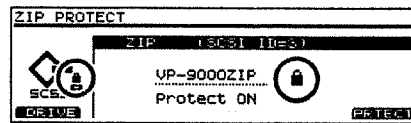
Prohibiting writing to a Zip disk (Protect)

If you prohibit writing to a Zip disk, it will not be possible to format it or write data to it.

1. Insert a Zip disk into the Zip drive.
2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F5 (PRTECT)].
The ZIP PROTECT screen will appear.



4. Press [F1 (DRIVE)] to select the drive.
5. Press [F6 (PRTECT)] to turn the setting ON or OFF.
If this is ON, a lock symbol will be appear in the display.



6. Press [EXIT] twice to return to the screen from which you began.
 - * If "Protect Password" appears in the display, then the write protection cannot be removed on the VP-9000. If you wish to use such disks on the VP-9000, remove the write protect feature with the device used to set it in the first place.

Chapter 11. Backing Up Your Data

Data you've saved on a Zip disk or hard disk can be written to CD-R or CD-RW to make a backup.

Performance and sample parameters (except for wave data) and system settings can also be saved on an external sequencer.

Backing up data to a CD-R/RW

What are CD-R and CD-RW?

CD-R (Compact Disc Recordable) is a disc system of the same format as the CD (CD-ROM and audio CD), which can be read and written. A special CD-R drive is used to write data to the disc only once. (Additional writing is possible.) Data that has been written cannot be erased. When there is no more space remaining on a disc, or if an operation has been performed on the disc so that no further writing is possible, it will be read-only media like a CD (CD-ROM or audio CD). Sometimes, such discs are called "write once CD" or "CD-write once."

CD-RW (Compact Disk Re-Writable) is a disc system of the same format as the CD (CD-ROM or audio CD) that can be read and written. It is similar to CD-R in that it uses a special CD-RW drive, but can be rewritten as many times as desired. However, data can be erased only for the entire disc.

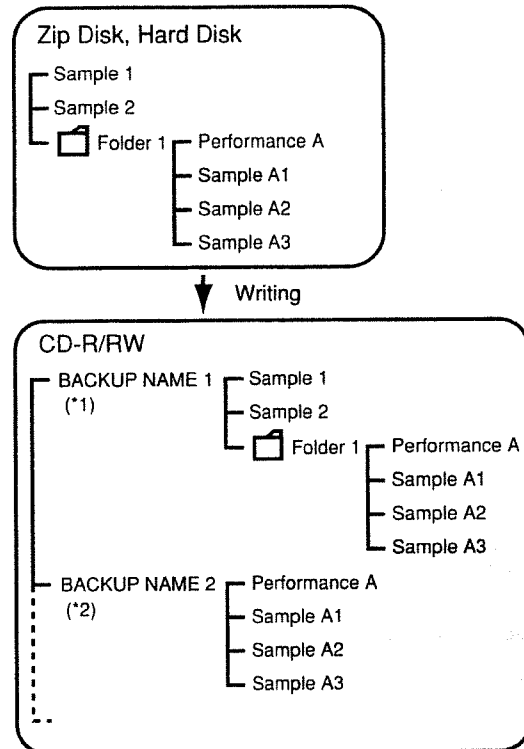
For both CD-R and CD-RW, there is no need to format the disc before you begin using it. You will format a CD-RW only if you wish to restore a previously written CD-RW to a like-new condition.

Writing data

You can write all data below the selected hierarchical level of a Zip disk or hard disk to a CD-R or CD-RW. You can assign a backup name, and write it.

Example: (*1): When the top level of a Zip disk or hard disk is selected

(*2): When "Folder 1" within a Zip disk or hard disk is selected



There are two ways to write the data.

[F5 (CLOSE)]: No further writing will be possible.

[F6 (WRITE)]: Further writing will be possible. This is the usual method of writing.

If you press the [F5 (CLOSE)] button to write the data, it will not be possible to write data subsequently, even if there is still space remaining on the CD-R/RW. (In the case of a CD-RW, you can format the disc to write data to it again.)

* For details on connecting a CD-R drive or CD-RW, refer to "Connecting a SCSI device" (p. 16).

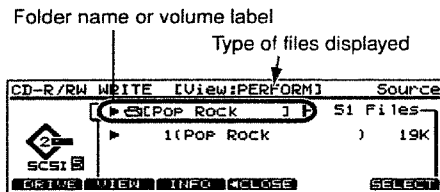
* It is not possible to write data directly from the VP-9000 to a CD-R/RW.

Chapter 11. Backing Up Your Data

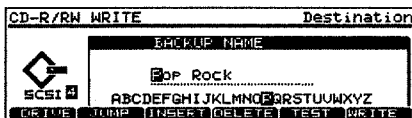
Test whether writing is possible

Before you actually write data to a CD-R or CD-RW, test whether writing will be possible.

1. Prepare the media containing the file you wish to back up, and the CD-R/RW.
2. Press [DISK], and then [PART/ ▷].
The DISK Menu2 screen will appear.
3. Press [F6 (CD-R)].
The DISK CD-R/RW Menu screen will appear.
4. Press [F1 (WRITE)].
The CD-R/RW WRITE Source screen will appear.
5. Use [▼ || ▲] or [F4 (◀ CLOSE)][F5 (OPEN ▶)] to move the cursor into the folder that contains the file you wish to back up.
The contents of the folder displayed in the second line from the top will be backed up. If the cursor is at the top level, the volume label will be displayed.
Each time you press [F2(VIEW)], the backup files will be displayed by their type.



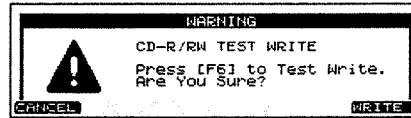
6. Press [F6 (SELECT)].
A screen will appear, allowing you to select the writing destination for the file (Destination). In this case, the CD-R/RW drive will be selected automatically.



- The backup name will show the folder name that you selected in step 5. If you selected the top level, the volume label will be displayed.
7. If more than one CD-R/RW drive is connected, press [F1 (DRIVE)] to select the drive.
 8. As described in "Assigning a name" (p. 26), assign a backup name.

9. Press [F5 (TEST)].

A message will ask you to confirm that you want to perform the test.



If you decide to cancel the operation, press [F1 (CANCEL)].

10. Press [F6 (WRITE)] to execute the test.

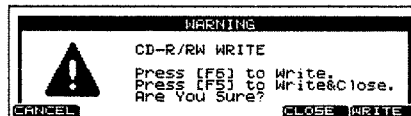
If writing is possible, the display will indicate "Completed!" and you will return to the CD-R/RW WRITE Destination screen. At this time, the CD-R/RW will automatically be ejected.

* If writing is not possible, the display will indicate "DISK File Write Error!" Press [F6 (ACCEPT)] to return to the CD-R/RW WRITE Source page. If this occurs, prepare another CD-R/RW, and try the test again.

Writing to CD-R/RW

Next, you will actually write the data. This explanation will continue from step 10 of the preceding section, where the CD-R/RW Destination Source screen is displayed.

1. Insert the ejected CD-R/RW back into the drive.
At this time, the drive you selected for the test will be selected. The name you assigned for the test will be displayed as the backup name.
* Once you write the data, it is not possible to change the backup name later. If you wish to change the name from the one used for the test, change the name as described in "Assigning a name" (p. 26).
2. Press [F6 (WRITE)].
A message will ask you to confirm that you really want to write the backup.



If you decide to cancel, press [F1 (CANCEL)].

3. For normal writing, press [F6 (WRITE)]. If you want this to be the last data written, and to make it impossible to write any further data, press [F5 (CLOSE)].
When writing is completed, the display will indicate "Completed!" and you will return to the CD-R/RW WRITE Source screen.
The CD-R/RW will be ejected automatically.

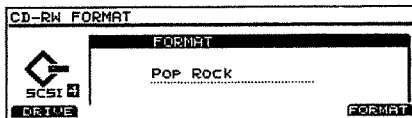
4. Press [EXIT] three times to return to the screen where you began.

Formatting a previously written CD-RW

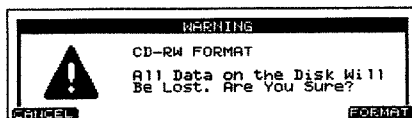
If you wish to restore a previously written CD-RW to a like-new state, use the following procedure to format it.

If you are using the CD writing kit CDR-88RW-2 (sold separately), approximately 40 minutes will be required for formatting to be completed.

- * When you execute the format operation, all contents of the CD-RW will be erased. Be sure to verify the contents of the CD-RW before you execute this operation.
1. Prepare the CD-RW that you wish to format.
 2. Press [DISK] and then [PART/ ▷].
The DISK Menu2 screen will appear.
 3. Press [F6 (CD-R)].
The CD-R/RW Menu screen will appear.
 4. Press [F2 (FORMAT)].
The CD-RW FORMAT screen will appear. In this case, the CD-R/RW drive will be selected automatically.
The display will show the backup name that was written last.



5. If two or more CD-R/RW drives are connected, press [F1 (DRIVE)] to select the desired CD-RW drive.
6. Press [F6 (FORMAT)].
A display will appear, asking you to confirm that you really want to format the disc.

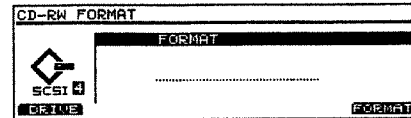


To cancel without formatting, press the [F1 (CANCEL)].

7. Press [F6 (FORMAT)] to execute the format.
When formatting is completed, the display will indicate "DISK Format Completed!" At this time the CD-RW will be ejected automatically.

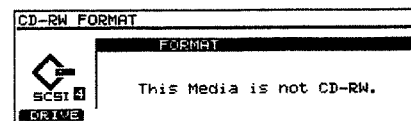
8. Press [F6 (ACCEPT)] to return to the CD-RW FORMAT screen.

Since nothing has been written to a newly formatted or newly purchased CD-RW, the display will be blank.



9. Press [EXIT] three times to return to the screen where you began.

- * If a CD-R drive is selected in step 4, the following message will appear. Press [F1 (DRIVE)] to select a CD-RW. If you wish to return to the previous screen, press [EXIT].



Saving settings on an external sequencer (Bulk Dump)

The VP-9000 is able to transmit various settings to an external device as exclusive messages. This operation is called "bulk dump."

You can save VP-9000 settings by connecting it to an external sequencer and transmitting data to the sequencer. It is best to use this method when you only wish to save performance or sample parameters.

* Wave data will not be transmitted.

Types of bulk dump

SYSTEM: System parameters

However, the following system parameters will not be transmitted via bulk dump.

- Device ID
- Rx SysEx Sw
- LCD Contrast
- Backlight Saver

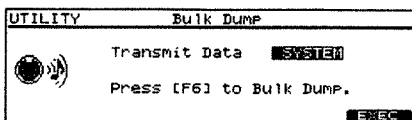
PERFORM: All performance parameters

PERFORM PART1-6: Performance part parameters

SAMPLE: Sample parameters

Bulk dump procedure

1. Use a MIDI cable to connect the VP-9000's MIDI OUT connector to the MIDI IN connector of the external sequencer.
2. Press [UTILITY], getting the indicator to light. The UTILITY Menu1 screen will appear. If the UTILITY Menu2 screen appears, press [◀ /PART].
3. Press [F5 (BULK)]. The UTILITY Bulk Dump screen will appear.



4. Either rotate the VALUE dial or use [DEC/-][INC/+] to select the type of bulk dump.
 - * In the case of PERFORM PART 1-6, press [▼], and then rotate the VALUE dial to select the part as well.
 - * In the case of SAMPLE, press [▼], and then rotate the VALUE dial to select the sample number as well. If you press [F5 (LIST)], you will be able to select a sample from a list display (p. 28).
5. Put the external sequencer in record mode.
6. Press [F6 (EXEC)] to transmit the settings. If you wish to stop the bulk dump during the operation, press [F1 (ABORT)]. When the bulk dump is finished, the display will indicate "Completed!", and you will return to the UTILITY Bulk Dump screen.
7. Stop the external sequencer.
8. Press [EXIT] twice to return to the screen from which you began.

Restoring saved settings to the VP-9000

* Be aware that when you restore data to the VP-9000, the data in the VP-9000 will be overwritten and lost.

1. Use a MIDI cable to connect the MIDI OUT connector of the external sequencer to the MIDI IN connector of the VP-9000.
2. Set the device ID number to the same setting as when you performed the bulk dump. SYSTEM/MIDI General screen:Device ID (p. 136)
3. Turn on the exclusive receive switch. SYSTEM/MIDI Rx Switch screen:SysEx (p. 137)
4. Transmit (play back) the data from the external sequencer.
 - * Play back the external sequencer at the same tempo you used when performing the bulk dump. If you use a faster tempo, the data may not be restored correctly.

Chapter 12. Restoring the Original Settings

Restoring sound parameters to their power-up defaults (Initialize)

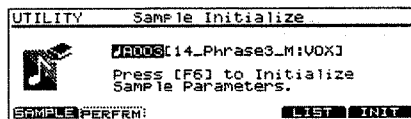
There are two types of initialization: one for initializing samples, the other for initializing performance.

Initializing samples

This restores the parameters of the selected sample to the power-up default values. However, the sample name and category will remain, and will not be initialized.

* *The wave will remain unchanged.*

1. Press [UTILITY] to get the indicator to light.
The UTILITY Menu1 screen will appear.
If the UTILITY Menu2 screen appears, press [◀] /PART].
2. Press [F4 (INIT)].
The UTILITY Sample Initialize screen will appear.



3. Either rotate the VALUE dial or use [DEC/-][INC/+] to select the sample that you wish to initialize.

* *If you press [F5 (LIST)], you will be able to select a sample from a list (p. 28).*
4. Press [F6 (INIT)] to initialize the sample.
The display will indicate "Completed!," and you will return to the SAMPLE Play screen.

Initializing performance

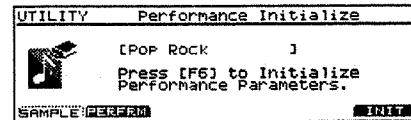
This operation restores the parameters of a performance to the power-up default values.

* *The sample numbers assigned to each part will be A001 for part 1, A002 for part 2, ... and A006 for part 6. Be aware that this will change the sample assigned to each part.*

1. Press [UTILITY] to get the indicator to light.
The UTILITY Menu1 screen will appear.
If the UTILITY Menu2 screen appears, press [◀] /PART].
2. Press [F4 (INIT)].
The UTILITY Sample Initialize screen will appear.

3. Press [F2 (PERFRM)].

The UTILITY Perform Initialize screen will appear.



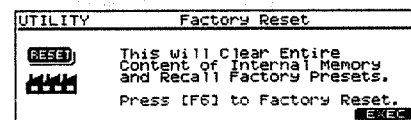
4. Press [F6 (INIT)] to initialize the performance.
The display will indicate "Completed!," and you will return to the PERFORM Play screen.

Restoring the factory settings (Factory Reset)

This operation restores all settings of the VP-9000 to the factory settings. Wave data in internal memory will also be lost.

* *If the VP-9000 already contains important data that you created, this operation will cause this data to be lost. If you wish to keep your data, save it on a separately sold Zip disk or on other media in a connected external drive (p. 141).*

1. Press [UTILITY] to get the indicator to light.
2. If the UTILITY Menu1 screen is displayed, press [PART/ ▶].
The UTILITY Menu2 screen will appear.
3. Press [F1 (FACTRY)].
The UTILITY Factory Reset screen will appear.



If you decide to exit the Factory Reset screen without resetting, press [EXIT].

4. Press [F6 (EXEC)] to execute the factory reset.
The display will indicate "Completed!," and you will return to the PERFORM Play screen.

Chapter 13. Application Examples

Tips for sampling and wave editing

Selecting material for sampling

As far as possible, sample a sound that has not been processed by effects. In particular, you should not sample a sound that has been processed by a reverb-type effect (reverb or delay). If a sound processed by an effect is encoded, it may not play as you expect.

If you wish to apply an effect, apply the effects of the VP-9000 when you play back the sample.

* *Using a pre-effect is not a problem.*

Sample a bit longer than the desired length

For example, if you wish to create a drum sample that is one measure long, you should record a sample that is one beat longer than a measure. Then edit the sample so that the length is exactly one measure.

If you sample only one measure and the actual recorded sample is slightly shorter, it will not be possible to synchronize the sample for loop playback.

Since it is difficult to sample a precisely accurate length, you should sample a bit longer than you need to, and then adjust the length later.

Avoiding noise in your sample

Set the loop points where the wave value is zero. Also, when cutting or pasting a wave, do so at points where the wave value is zero.

If the connections at the beginning and end of a loop or between waves are not smooth, noise will occur.

The VP-9000 has a Zero Cross Search function (p. 126) that finds locations where the wave value is zero. It also provides a Trimming function (p. 129) that sets the beginning and end of the wave to a value of zero. Use these functions to create smooth connections for the waves you edit.

Adding to a wave that is too short

Suppose you have a three-measure long vocal wave. If you want to synchronize this to a 4/4 time signature, use Zero Insert (p. 128) to add a one-beat blank, converting it into a full measure of data.

Creating a sample for looping

Record the sample a bit longer than you expect to need. Then, set the loop point to the precise length. At this time, it is convenient to use the Length Lock function (p. 126) to find the loop point location.

Then use Truncate (p. 127) to delete the unlooped portion that is not needed, creating a sample of the exact length.

First set the loop point. Immediately after the Cut & Paste screen is accessed, Edit Start will be set to Loop Start, and Edit End will be set to Loop End so that the unneeded portion can be deleted easily.

If you wish to loop multiple samples and synchronize them, you must also set the precise original tempo (p. 127).

The exact original tempo is calculated from the time signature, number of measures, and number of beats for the wave length between Loop Start and Loop End. This means that if you edit the wave afterward so that the loop points change, you must re-specify the correct original tempo.

Playing multiple samples in synchronization

As described in the preceding section "Creating a sample for looping," prepare the samples that you wish to synchronize. Then make the following settings and play.

1. Turn on the Loop switch of the sample (p. 43).
2. Turn on Tempo Sync for each part (p. 51).
3. Set the Clock Source of the performance to INT (p. 50).
4. Set the Master Tempo of the performance (p. 50).
5. Play your MIDI keyboard.

Synchronizing to an external MIDI device

To synchronize to the tempo of an external sequencer, do the following instead of steps 3–5 of the procedure above.

3. Set the performance Clock Source to MIDI (p. 50).
4. Set the tempo of the external MIDI device.
5. Start playback on the external MIDI device.
6. While listening to the playback of the external MIDI device, play your MIDI keyboard.

Easy ways to fix skewed synchronization

If the original performance is slightly skewed, there may be cases in which synchronization may not occur even if you specify the correct original tempo after setting the loop point correctly.

If you wish to adjust a slightly skewed beat, as in such a case, you can directly adjust the original tempo of the sample.

However, this applies only when not using loop playback.

The original tempo is the reference tempo of the sample used to synchronize the sample to the master tempo. This means that unless you change the master tempo setting, lowering the original tempo will cause playback to be faster, and raising the original tempo will cause playback to be slower.

1. Press [SAMPLE], getting the indicator to light.
2. Press [F1 (COMMON)].
The SAMPLE/COMMON Sample Info screen will appear. Immediately after this screen is displayed, the cursor will always be located at Tempo.
3. By either rotating the VALUE dial or using [DEC/-][INC/+], change the original tempo value.
Play the sample as you make adjustments.
 - If the beat lags compared with other samples
-> Lower the original tempo.
 - If the beat is rushed compared with other samples
-> Raise the original tempo.
4. Press [EXIT] to return to the SAMPLE Play screen.
 - * *This method cannot be used if you are using loop playback.*

Synchronizing LFO or effect parameters

On the VP-9000, the following parameters can be synchronized to the master tempo.

- Sample LFO rate
- Multi-effect parameters that can be set to a note value setting
- Chorus rate

To use this function, you must turn Tempo Sync on.

1. Select a note value symbol as the setting for the parameter to be synchronized.
 - Sample LFO rate (p. 47)
 - Multi-effect parameter (p. 68–109)
 - Chorus rate (p. 110)
2. For the part to be synchronized (i.e., the part to which the sample to be synchronized is assigned), turn Tempo Sync on (p. 51).
3. Play your MIDI keyboard.

Playing legato chords

By using the hold pedal, you can play legato chords. For example, by using this capability with a vocal phrase sample, you can easily do things such as starting with a solo, and then shifting to a chorus.

1. Set the sample Playback Mode to TIME SYNC (p. 42).
2. Set the Hold 1 Destination or the Hold 2 Destination to LCK (Lock Legato) (p. 61).
3. While pressing the hold pedal, play your MIDI keyboard.

While you continue holding down the pedal, the notes will always be sounded legato regardless of how you play the keyboard.

- * *Connect the hold pedal to the hold pedal jack of your MIDI keyboard. On your MIDI keyboard, select whether you will use Hold 1 or Hold 2, and make settings so that Hold messages are transmitted from the MIDI OUT of your MIDI keyboard.*

Assigning 72 samples to the keyboard

By selecting Phrase Map as the keyboard state for all parts, you can assign up to 72 samples to the keys.

1. For all six parts, set Keyboard Map to PHRASE MAP (p. 51).
2. For all six parts, set Phrase Map Assign to CHROMATIC (p. 53).
3. Set a different Phrase Map Start Key for each part (p. 53).
4. Assign a sample to each key (p. 54).

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Troubleshooting

If there is no sound or if the VP-9000 does not operate as you expect, please check the following points. If this does not resolve the problem, contact your dealer or a nearby Roland service center.

* Roland Corporation cannot attempt to recover your data, nor accept any responsibility for its loss.

Power does not turn on

Is the power cable correctly connected to the VP-9000 and to the AC outlet?

Check the power cable connections.

No sound

Is the power of the connected equipment turned on?

Make sure that the power of the connected amp/mixer system is turned on.

Has the volume been lowered?

Check the volume of the VP-9000, and the volume of the connected amp/mixer system.

Are the connections correct?

If there is sound in the headphones, it is possible that the connection cables are broken, or that your amp/mixer has malfunctioned. Check the connection cables and your equipment once again.

Does the transmit channel match the receive channel?

Make sure that the MIDI transmit channel(s) of the connected device matches the receive channel of each VP-9000 part (p. 56).

Have you selected a sample that has no wave, and are attempting to play it?

A sample that has no wave will not sound. Select a sample that has a wave (p. 36).

Are you attempting to play a sample that has not been encoded (i.e., that has no “” symbol)?

Encode the sample (p. 130) before you play it.

Has the level of each part been turned down?

Check the level setting of each part (p. 52).

Are the note range settings correct?

Check the note range settings of each part (p. 52).

Have volume/expression messages been received from an external device to lower the levels?

Hold down the [SHIFT] button and press the [PERFORM] button. Alternatively, play the key that has been specified as the Panic Key (p. 137).

Are the effect settings correct?

Check settings such as effect on/off (p. 64), multi-effect send level (p. 66), and effect balance and level.

Are the output destination settings correct?

Check the settings for output assign and multi-effect output assign (p. 137).

Has a controller been used to turn down the volume?

Return the controller to the original position, and change its settings so that the volume is not controlled.

Alternatively, hold down the [SHIFT] button and press the [PERFORM] button, or play the key that was specified as the Panic Key (p. 137).

Has the Master Attenuation been turned to a low value?

Set the Master Attenuation to a higher value (p. 136).

The volume level of the instrument connected to OUTPUT jacks is too low

Could you be using a connection cable that contains a resistor?

Use a connection cable that does not contain a resistor.

MIDI messages are not transmitted/received correctly

Are the various MIDI channel settings correct?

Check the settings of the receive MIDI channel for each part (p. 56), and the control channel (p. 136).

Are the various transmit/receive switch settings correct?

Check the settings of the receive switch for each part (p. 56), and the transmit/receive switches (p. 137, 138) for each type of MIDI message.

Are the exclusive reception settings correct?

If you wish to receive system exclusive messages, set the device ID number to match the transmitting device (p. 136), and turn on the system exclusive receive switch (p. 137).

Is the DEMO PLAY screen displayed?

While the DEMO PLAY screen is displayed, MIDI messages received from an external device will be ignored.

SCSI device is not recognized

Was the power turned on in the correct order?

As described in "Turning the power on" (p. 21), turn the power on in the correct order for each device.

Some SCSI devices may require some time before they are recognized.

If this is the case, set the SCSI Probe Time to a greater value (p. 139). As described in "Turning the power off" (p. 21), turn off the power. Then turn on the power using the sequence described in "Turning the power on" (p. 21). If the device is not recognized even with the maximum setting, that SCSI device cannot be used with the VP-9000.

Wave is loaded only part-way

Were you attempting to load a long wave?

The maximum sampling time for one sample is 25 seconds of stereo or 50 seconds of monaural. Thus if you attempt to load a wave that is longer than this, the wave will be only partially loaded.

Display indicates "Trigger Mode: MANUAL Wait MIDI(F8)..." but sampling does not begin

If the metronome clock source is MIDI, is an external clock not being received?

Ensure that an external clock (system realtime message: F8) is received.

Metronome does not start even though you began sampling

Has the metronome mode been turned off?

Check the setting (p. 123).

If the metronome clock source is MIDI, is an external clock not being received?

Ensure that an external clock (system realtime message: F8) is received. Alternatively, set the clock source to INT (p. 123).

Encode does not end

In very rare cases, encoding may not be possible.

Press [F1 (ABORT)] to abort the encode operation. This wave cannot be used on the VP-9000.

Pitch is wrong

Is the master tune setting correct?

Check the setting (p. 136).

Are the pitch settings of performance correct?

Check the settings (p. 50).

Are the pitch settings of each part correct?

Check the settings (p. 52).

Is the original fine tune setting correct?

Check the setting (p. 41).

Have pitch bend messages been received from an external device without returning to the zero value?

Hold down the [SHIFT] button and press the [PERFORM] button. Alternatively, play the key that is specified as the Panic Key (p. 137).

Are you playing a key that is distant from the original pitch?

Depending on the sample, the correct pitch may not be heard if you play a key that is distant from the original pitch.

Sound does not play correctly

If you use SOLO to encode a sound that contains large amounts of reverberation or which has no sense of pitch, the sound may not play as you expect.

When encoding with the SOLO setting, you should select sounds that have as little reverberation as possible. If the sound includes reverberation, use ENSEMBLE or BACKING to encode it (p. 130).

The sound may distort if you play multiple samples that have a high level, or if an effect is applied to the sound.

Either lower the part levels (p. 52), or use the Normalize operation (p. 128) to lower the level of the wave. Alternatively, set the master attenuation to a lower level (p. 136).

It is possible that the hardware has malfunctioned.

Load the hardware checking performance "User Hard Check" from the included Zip disk (p. 30), and press the [PREVIEW] button to play the sound (p. 38). The sample is assigned to part 1. A sine wave sounding like "pong, pong, pong" will be heard. If there is no problem with the audio quality, the hardware is functioning correctly. Depending on the wave, modifying the pitch, time, or formant while you play may cause the audio quality to be otherwise than you expect; this is simply due to the inherent limitations of this device.

Effects do not apply

Are [MULTI][CHORUS][REVERB] turned off?

Press the appropriate button, getting the indicator to light (p. 64).

Are the various effect settings correct?

If the send level of each effect is set to 0, the effect will not be applied. Check the settings (p. 66).

Even if the send level to each effect is higher than 0, there will be no effect if the master level of each effect is 0. Check the settings (p. 66).

If output assign is set to MAIN, DIR1, or DIR2, the sound of the multi-effect will not be output (p. 66).

Sound drifts out of sync when you use Groove

Has tempo sync been turned off for the part to which you are applying Groove?

Turn on tempo sync for the appropriate part.

If you use a single note-on to play for an extended time, the groove may drift out of synchronization.

Send a new note-on (play the key once again) to start the groove from the beginning. Shorten the length of time that is played by a single note-on.

Have you used a knob to modify the time?

Return the knob to the center position (p. 57).

Tempo does not synchronize

Is tempo sync turned off for the applicable part?

Turn on tempo sync for the applicable part (p. 51).

Was the original tempo set correctly?

Check the setting (p. 127).

Have you used a knob to modify the time?

Return the knob to the center position (p. 57).

If you use a single note-on to tempo-synchronize for an extended duration, the sample may drift out of synchronization.

Send a new note-on (play the key once again) to start synchronization from the beginning. Shorten the length of time that is played by a single note-on.

If you are not using loop playback, you can directly specify the original tempo of the sample to correct the synchronization drift.

For details refer to "Easy ways to fix skewed synchronization" (p. 157).

LFO or effect parameters do not synchronize to tempo

Has tempo sync been turned off for the corresponding part?

Turn tempo sync on for the part to which the sample is assigned, or for the part to which the effect is being applied (p. 51).

The sound does not stop

Has the trigger mode of the sample been set to TRIGGER?

If it is set to TRIGGER, the sample will continue sounding if you forget the key that you pressed. Sometimes if you are playing the VP-9000 from a sequencer, the sample may continue sounding even when you stop the sequencer. If this occurs, hold down the [SHIFT] button and press the [PERFORM] button. Alternatively, you can play the key that is assigned as the Panic Key (p. 137). All sounds will stop.

Message List

The VP-9000 displays a variety of messages. There are four types of message screen.

- ERROR screen:** This will appear if you attempt to perform an incorrect operation, or if an operation could not be executed correctly.
- WARNING screen:** This will appear when caution is necessary.
- MESSAGE screen:** This informs you of the current status.
- Message box:** This informs you of the current status. It will also appear if you attempt to perform an incorrect operation, or if an operation could not be executed correctly.

Messages are listed here alphabetically for each type of message screen.

ERROR Screens

If an ERROR screen appears, press [F6 (ACCEPT)] to erase the message.

● AUTO PERFORM LOAD Cannot Find Target File!

Cause: The performance specified for Auto Performance Load was not found.

Action 1: Make sure that the drive you specified for Auto Performance Load is connected.

Action 2: In the case of a Zip disk, insert it into the drive.

Action 3: Have you deleted the specified performance? If you have, re-select a different performance (p. 139).

● CD-R/RW WRITE Cannot Allocate Work Area. Delete Unneeded Files on the Source Disk.

Cause: Needed work area could not be allocated, because there was not enough free space on the media containing the files being backed up.

Action: Delete unneeded files from the media (p. 145).

● CD-R/RW WRITE Cannot Allocate Work Area. Remove Write Protection on the Source Disk.

Cause: Needed work area could not be allocated, because the media containing the files being backed up is write protected.

Action: Turn off the write protection of the media (p. 150).

● DISK Disk Full!

Cause: The media is full, and no further writing is possible.

Action: Delete unneeded files from the media (p. 145). Alternatively, provide other media that has free space.

● DISK File not Found!

Cause: After saving a performance, you deleted a sample from disk, or renamed a sample. Thus, the sample was not found when the performance was loaded.

Action: Re-create the performance, and save it.

● DISK File Read Error!

Cause 1: The data is damaged, and cannot be loaded.

Action 1: Do not use this file.

Cause 2: A problem has occurred with the connected SCSI device.

Action 2: Check the connections and power supply of the SCSI device.

● DISK File Write Error!

Cause 1: The media is of a format to which the VP-9000 cannot write.

Action 1: Prepare a media that is of a format to which the VP-9000 is able to write.

Cause 2: A problem has occurred with the connected SCSI device.

Action 2: Check the connections and power supply of the SCSI device.

Cause 3: Since the data transmission speed is too slow, the data could not be written to the CD-R/RW.

Action 3: Copy the files to be backed up to a hard disk. Then, write the copied files from the hard disk to the CD-R/RW.

● DISK Illegal Format!

Cause: Since the format of this file is incorrect, it cannot be loaded.

Action: Do not use this file.

- **DISK**
Illegal PCM Wave!
Cannot Load This Wave.
Cause: This file uses a type of compression that the VP-9000 is unable to read.
Action: Use the device that created the file to convert the data into an 8 bit or 16 bit wave.

- **DISK**
Illegal Sampling Rate!
Cannot Load This Wave.
Cause: This file uses a sampling frequency that the VP-9000 is unable to read.
Action: Use the device that created the file to convert the data to one of the following sampling frequencies. (The VP-9000 can read the following sampling frequencies: 48, 44.1, 32, 30, 24, 22.05, 16, 15, 11, 8 kHz.)

- **DISK**
Memory Error!
Cause: Wave memory cannot be read or written.
Action: Perform the wave memory read/write test (p. 15).

- **DISK**
Memory Full!
Cause: Wave memory capacity is full, and further data cannot be loaded.
Action: Delete unneeded samples from the VP-9000 (p. 134). Alternately, perform the Defrag operation (p. 132).

- **DISK**
Too Many Channels!
Cannot Load This Wave.
Cause: This file contains waves for three or more channels, and cannot be loaded into the VP-9000.
Action: Do not use this file.

- **DISK**
Unknown Disk Error!
Cause: A disk error of unknown causes has occurred.
Action: Contact your dealer or a nearby Roland service center for service.

- **EEP-ROM**
System Backup Error!
Cause: There is a problem with the memory that contains the system settings.
Action: Contact your dealer or a nearby Roland service center for service.

- **ENCODE**
Encode Error!
Cause: For some reason, encoding is not possible.
Action: Shorten the wave (p. 127). Alternatively, delete unneeded samples from the VP-9000's memory (p. 134), or perform the Defrag operation (p. 132).

- **ENCODE**
Memory Error!
Cause: For some reason, wave memory cannot be read or written.
Action: Perform the wave memory read/write test (p. 15).

- **ENCODE**
Memory Full!
Cause: Due to insufficient wave memory, encoding is not possible.
Action: Shorten the wave (p. 127). Alternatively, delete unwanted samples from the VP-9000's memory (p. 134), or perform the Defrag operation (p. 132).

- **ENCODE**
Unknown Encode Error!
Cause: An encoding error of unknown cause has occurred.
Action: Contact your dealer or a nearby Roland service center for service.

- **SAMPLING/UTILITY**
Memory Full!
Cause: Since the wave memory has become full, the operation was halted.
Action: Delete unneeded samples from the VP-9000 (p. 134), or perform the Defrag operation (p. 132).

- **WAVE EDIT**
Copy Buffer not Allocated!
Cause: There is not enough wave memory to execute the Copy.
Action: Shorten the range that will be copied (p. 127). Alternatively, delete unneeded samples from the VP-9000 (p. 134), or perform the Defrag operation (p. 132).

- **WAVE EDIT**
Memory Allocation Error!
Cause: There is not enough wave memory to execute the wave editing operation (Insert, Zero Insert, Region, Paste).
Action: Delete unneeded samples from the VP-9000 (p. 134). Alternatively, perform the Defrag operation (p. 132).

Message List

● WAVE EDIT

Stereo/Mono Mismatch!

Cause 1: The sampling types (monaural/stereo) do not match.

Action 1: Copy, paste, insert, or divide the wave as appropriate for the sampling type.

Cause 2: When executing LR Mix, the applicable sample was monaural.

Action 2: Perform the LR Mix operation on a stereo sample.

● WAVE EDIT

Unknown Edit Error!

Cause: A wave editing error of unknown causes has occurred.

Action: Contact your dealer or a nearby Roland service center for service.

WARNING Screens

If a WARNING screen appears, follow the procedure described in the corresponding "Action."

● CD-R/RW TEST WRITE

Press [F6] to Test Write. Are You Sure?

Condition: The VP-9000 will test whether a CD-R or CD-RW can be written. Is it OK to execute the test?

Action: To cancel the operation, press [F1 (CANCEL)].
To execute the test, press [F6 (WRITE)].

● CD-R/RW WRITE

Press [F6] to Write. Press [F5] to Write & Close. Are You Sure?

Condition: A data backup will be made on the CD-R or CD-RW. OK to execute?

Action: To cancel the operation, press [F1 (CANCEL)].
To write the data normally, press [F6 (WRITE)].
If this will be the last data written to the media and you want to make it impossible for any further writing to occur, press [F5 (CLOSE)].

● CD-RW FORMAT

All Data on the Disk Will Be Lost. Are You Sure?

Condition: When you format a CD-RW, all data on the disk will be lost. Is it OK to execute?

Action: To cancel the operation, press [F1 (CANCEL)].
To execute the formatting operation, press [F6 (FORMAT)].

● DELETE FILE/FOLDER

This Will Clear the File(s) /Folder(s). Are You Sure?

Condition: The file(s) or folder(s) will be deleted from the disk. Is it OK to execute?

Action: To cancel the operation, press [F1 (CANCEL)].
To execute the operation, press [F6 (DELETE)].

● DELETE SAMPLE

Number '****' Will Be Deleted. Are You Sure?

Condition: The sample at internal sample number '****' will be deleted. Is it OK to execute?

Action: To cancel the operation, press [F1 (CANCEL)].
To execute the deletion, press [F6 (DELETE)].

● DISK

Write Protected!

Cause: The Zip disk is write protected.

Action: After pressing [F6 (ACCEPT)] to erase the message, turn off the write protection of the Zip disk (p. 150). Alternatively, provide a different media that can be written.

● DUPLICATE FILENAME

File '*****' Already Exists!

Cause: A file of the same name exists at the save destination. ('*****' will display the file name.)

Action: To cancel the operation, press [F1 (CANCEL)]. If you wish to overwrite the existing file of the same name, press [F6 (REPLCE)].

● FULL FORMAT

All Data on the Disk Will Be Lost. It Will Take a Long Time. Are You Sure?

Condition: When you execute a Full Format, all data on the disk will be lost. Also, a substantial length of time is required for a full format. Is it OK to execute the operation?

Action: To cancel the operation, press [F1 (CANCEL)].
To execute the full format, press [F6 (FORMAT)].

● LOAD DEMO

Replace All Data. Are You Sure?

Condition: When you load the demo data, all data in the VP-9000 will be lost. Is it OK to execute the operation?

Action: To cancel the operation, press [F1 (CANCEL)]. If you wish to load the demo data, press [F6 (OK)].

● **OTHER SAMPLE EXISTS**
Number '***' Already**
Exists in Another Sample.
Clear Sample?

Cause: A different sample already exists in the selected sample number '*****'.

Action: To cancel the operation, press [F1 (CANCEL)]. If you wish to overwrite the sample of the selected number, press [F6 (CLEAR)].

● **OTHER SAMPLES EXIST**
Samples Already Exist
at Dest Numbers.
Clear Samples?

Cause: Other samples already exist at the writing destination.

Action: To cancel the operation, press [F1 (CANCEL)]. To overwrite the samples at the writing destination numbers, press [F6 (CLEAR)].

● **QUICK FORMAT**
All Data on the Drive Will
Be Lost. Are You Sure?

Condition: If you execute Quick Format, all data on the disk will be lost. Is it OK to execute?

Action: To cancel the operation, press [F1 (CANCEL)]. To execute the Quick Format, press [F6 (FORMAT)].

● **RESERVED NAME**
This Name is Reserved.
Please Enter Another Name.

Cause: This name is reserved, and cannot be used.

Action: After pressing [F6 (ACCEPT)] to erase the message, assign a different name (p. 26).

● **SAME FILENAME EXISTS**
File '***'**
Already Exists in
Internal Memory!

Cause: A sample of the same name exists in the VP-9000 (at the loading destination). ('*****' displays the file name.)

Action: To cancel the operation, press [F1 (CANCEL)]. To overwrite the data onto the identically named sample in the VP-9000, press [F6 (REPLCE)].

● **SAME NAME EXISTS**
Same Name Already Exists
in Internal Memory!
Please Enter Another Name.

Cause: A sample of the same name exists in the VP-9000.

Action: After pressing [F6 (ACCEPT)] to erase the message, assign a different name (p. 26).

● **SAME NAME SAMPLE EXISTS**
Samples Already Loaded
in Internal Memory.
Just Load Needed Samples?

Cause: Unedited samples of the same name exist on the VP-9000.

Action: If you wish to load only the necessary samples (those marked with an "E" and those that have not been loaded), press [F5 (QUICK)]. If you press [F6 (ALL)], all samples will be loaded.

● **SAME NAME SAMPLE EXISTS**
Samples Already Saved on
Disk. Just Save(Replace)
Needed Samples?

Cause: The save destination contains samples of the same name.

Action: If you wish to save only the performance, samples with the "E" symbol, and samples that do not exist at the save destination, press [F5 (QUICK)]. If you press [F6 (ALL)], the performance and all samples will be saved. Identically named samples in the save destination will be overwritten.

● **SAVE SAMPLE**
Wave Data Doesn't Exist!
Cannot Save This Sample!

Cause: Since it has no wave data, this sample cannot be saved.

● **WAVE EDIT**
Copy Buffer not Avail!
Are You Sure?

Cause: When you perform the Cut or Clear wave editing operation, the data is simultaneously copied as well. However, this message indicates that in this case, there is insufficient memory remaining to copy the data. Do you still want to execute the Cut or Clear? (Since a copy will not be made, you will be unable to restore the data simply by pasting it back. The Cut or Clear operation can still be carried out, though.)

Action: To cancel the operation, press [F1 (CANCEL)]. If you also want to Copy the data, shorten the range being Cut or Cleared. Alternatively, delete unneeded samples from the VP-9000 or perform the Defrag operation. To execute the Cut or Clear operation, press [F6 (OK)].

Message List

MESSAGE Screens

If a MESSAGE screen appears, press [F6 (ACCEPT)] to erase the message.

● DIGITAL OUT

Sampling Rate is Fixed 44.1kHz While Sampling.

Condition: During sampling, the sampling frequency of the digital output is fixed at 44.1 kHz. If the sampling frequency of the digital output is set to 32 kHz or 48 kHz, this message will appear when you attempt to sample.

Action: Press [F6 (ACCEPT)] to erase the message.

● DISK

Format Completed!

Condition: Formatting has been completed.

Action: Press [F6 (ACCEPT)] to erase the message.

● EDITED SAMPLE EXISTS

If You Need This Sample, Save Sample Immediately.

Condition: The VP-9000 contains an unsaved sample.

Action: If you need the sample, save it now.
Press [F6 (ACCEPT)] to erase the message.

Message Boxes

Message boxes are displayed briefly, and then disappear automatically.

● Cannot Delete This Event!

Cause: The events at the beginning and end of a wave cannot be deleted.

● CD-R/RW Drive Not Found!

Cause: The CD-R or CD-RW drive cannot be found.

Action: Connect the CD-R or CD-RW drive (p. 16).

● Checking the disk...

Condition: The disk is being checked.

● Completed!

Condition: The operation has been completed.

● Copy Buffer Empty!

Cause: When you executed the Paste or Insert wave editing operation, no content had been copied.

Action: Copy some data before you execute Paste or Insert (p. 127).

● Create Folder...

Condition: A folder is being created.

● Dest Disk Incorrect!

Cause: The media is of a format that cannot be written by the VP-9000.

Action: Prepare media of a format that the VP-9000 is able to write.

● Disk Full!

Cause: The media is full.

Action: Either delete unneeded files (p. 145), or prepare another media.

● Disk Not Ready!

Cause: The media is not ready.

Action: Insert another media.

● Event Doesn't Exist Here!

Cause: There is no event at the specified location.

Action: Specify a location where there is an event.

● Event Interval Too Narrow!

Cause: The event interval is too narrow for events to be placed in it.

Action: Move the interval further from the nearest event.

● File/Folder Name Duplicate!

Cause: There is an identically named file or folder.

Action 1: Assign a different name (p. 26).

Action 2: Please write to a folder that does not contain an identically-named file or folder.

● Folder Level Too Deep!

Cause: You have exceeded the allowable depth to which folders can be created.

Action: Create the folder at a shallower level of the folder hierarchy.

● Folder Name Exists!

Cause: A folder of the same name exists.

Action: Assign a different name (p. 26).

● Improper Name!

Cause: The folder name or volume label is blank.

Action: Assign a name before you execute (p. 26).

● **Memory Full!**

Cause: Wave memory is full.

Action: Delete unneeded samples from the VP-9000 (p. 134). Alternatively, perform the Defrag operation (p. 132).

● **MIDI Buffer Full!**

Cause: An excessive amount of MIDI data was received all at once, and could not be processed properly.

● **MIDI Communication Error!**

Cause: A MIDI hardware error has occurred.

Action: Please contact your dealer or a nearby Roland service center for service.

● **MIDI Offline!**

Cause: The MIDI IN connection has been broken.

Action: Check whether there is a problem with the MIDI cable connected to the VP-9000's MIDI IN, or whether the MIDI cable has been disconnected.

● **No Space for Name!**

Cause: There is no space to assign the name.

Action: Assign a different name (p. 26).

● **Path Duplicate!**

Cause: You are attempting to write to the same hierarchical level.

Action: Change the writing destination.

● **Path Name Too Long!**

Cause: The path name is too long.

Action: Shorten the names of each folder (p. 26). Alternatively, move the entire folder to a shallower level of the hierarchy (p. 147).

* The "path" indicates the hierarchical level at which the file is located. It is given together with the folder name.

● **Phrase Doesn't Exist!**

Cause: There is no wave to edit.

Action: Execute the editing operation on a portion where there is a wave.

● **Please wait a minute.**

Meaning: Please wait a short time.

● **Processing...**

Condition: The operation is being executed.

● **Same Name Exists!**

Cause: The same name already exists.

Action: Assign a different name (p. 26).

● **Same Sample**

Cause: When copying, moving, or exchanging samples within the VP-9000, the same sample number was selected as the Source and Destination.

Action: Select a different sample number, and then execute the operation.

● **Source Disk Incorrect!**

Cause: The operation you are attempting to execute does not support this media.

Action: Do not select this media as the object of the operation.

● **Too Many Files!**

Cause: The maximum number of files that can be created in a folder has been exceeded.

Action: Either delete unneeded files (p. 145), or write the file to a different folder.

● **Too Many Folders!**

Cause: The maximum number of folders that can be created in a folder has been exceeded.

Action: Either delete unneeded folders (p. 148), or create the folder in a different folder.

● **Writing...**

Condition: Data is being written.

● **You Cannot Use This Device!**

Cause: The operation you attempted to execute does not support this media

Action: Do not select this media for this operation.

Parameter List

Performance ([PERFORM])

[F1] (COMMON)

PERFORM/COMMON Name screen

[F1 (NAME)]

Parameter Name	Full Name of Parameter	Value
Performance Name	Performance name	ASCII character (max. 16)

PERFORM/COMMON Tempo & Metronome screen [F2 (TEMPO)]

Parameter Name	Full Name of Parameter	Value
Master Tempo	Master tempo	20.0-250.0
Clock Src	Clock source	INT, MIDI
Metronome Switch	Metronome switch	OFF, ON
Time Sign	Time signature	Numerator: 1-16, Denominator: 2, 4, 8, 16
Level	Metronome level	1-8

PERFORM/COMMON Sound screen

[F3 (SOUND)]

Parameter Name	Full Name of Parameter	Value
Master Coarse Tune	Master coarse tune	-12- +12
Master Fine Tune	Master fine tune	-50- +50

[F2 (PART)]

PERFORM/PART General screen

[F2 (GENERAL)]

Parameter Name	Full Name of Parameter	Value
Kbd Map	Keyboard map	NOR (= NORMAL), EVT (= EVENT), MAP (= PHRASE MAP)
V Rsv	Voice reserve	0-6
T Sync	Tempo sync	OFF, ON
P Sync	Pitch sync	OFF, ON
O Shift	Octave shift	-3- +3

PERFORM/PART Sample Select screen

[F3 (SAMPLE)]

Parameter Name	Full Name of Parameter	Value
No.	Sample number	A001-H128

PERFORM/PART Sound screen

[F4 (SOUND)]

Parameter Name	Full Name of Parameter	Value
Level	Level	0-127
Pan	Pan	L64-63R
Coarse Tune	Coarse tune	-12- +12
Fine Tune	Fine tune	-50- +50

PERFORM/PART Key Range screen

[F5 (RANGE)]

Parameter Name	Full Name of Parameter	Value
Key Range Lwr	Key range lower	C-1-Upper
Key Range Up	Key range upper	Lower-G9

[F3 (PHRASE)]

PERFORM/PHRASE Menu screen

Parameter Name	Full Name of Parameter	Value
Assign	Phrase map assign	CHROMATIC, WHITE, BLACK
Start Key	Phrase map start key	C-1, C0, C1, C2, C3, C4, C5, C6, C7 *

* When Assign = BLACK, the value for Start Key will be C#-1, C#0, C#1, C#2, C#3, C#4, C#5, C#6, and C#7.

PERFORM/PHRASE Sample Select screen

[F4 (SAMPLE)]

Parameter Name	Full Name of Parameter	Value
No.	Map sample number	A001-H128
Tempo Sync	Map tempo sync	OFF, ON
Pitch Sync	Map pitch sync	OFF, ON
Octave Shift	Map octave shift	-3- +3

PERFORM/PHRASE Sound screen

[F5 (SOUND)]

Parameter Name	Full Name of Parameter	Value
Level	Map level	0-127
Pan	Map pan	L64-63R
Coarse	Map coarse tune	-12- +12
Fine	Map fine tune	-50- +50

PERFORM/PHRASE Effects screen

[F6 (EFFECT)]

Parameter Name	Full Name of Parameter	Value
Output	Map output assign	MAIN, M-FX, DIR1, DIR2
Multi	Map Multi-effects send level	0-127
Chorus	Map chorus send level	0-127
Reverb	Map reverb send level	0-127

[F4 (MIDI)]

PERFORM/MIDI Common screen

[F1 (COMMON)]

Parameter Name	Full Name of Parameter	Value
C1-C3 Assign	C1-C3 assign	CC02-CC05, CC07-CC31, CC64-CC95
VC Assign	VC assign	CC02-CC05, CC07-CC31, CC64-CC95
C1-C3 Output Mode	C1-C3 output mode	OFF, INT, MIDI, INT&MIDI
Knob Control	Knob control	MULTI PART, CURRENT PART

PERFORM/MIDI Rx screen

[F2 (RX)]

Parameter Name	Full Name of Parameter	Value
Rx Ch	Receive MIDI channel	1-16
Rx Note	Receive note switch	OFF, ON
Rx PC	Receive program change switch	OFF, ON
Rx Vol	Receive volume switch	OFF, ON
Rx Hold	Receive hold 1/2 switch	OFF, ON

Parameter List

[F5 (CTRL)]

PERFORM/CTRL

PERFORM/CTRL C1, C2, C3, VC screen

Menu1 [F2 (C1)]-[F5 (VC)]

PERFORM/CTRL Modulation, Pitch Bend, Aftertouch screen

Menu2 [F2 (MOD)]-[F4 (AFTER)]

Parameter Name	Full Name of Parameter	Value
Range U *1	Bend range up	0- +12
Range D *1	Bend range down	-48-0
Pitch *2	Pitch depth	-64- +63
Time	Time depth	-64- +63
Formant	Formant depth	-64- +63
Groove	Groove depth	-64- +63
Level	Level depth	-64- +63
LFO Rte	LFO rate depth	-64- +63
LFO Pth	LFO pitch depth	-64- +63
LFO Fmt	LFO formant depth	-64- +63
LFO Lvl	LFO level depth	-64- +63
LFO Pan	LFO pan depth	-64- +63

*1 You can set this parameter only when the PERFORM/CTRL Pitch Bend screen is displayed.

*2 You cannot set this parameter when the PERFORM/CTRL Pitch Bend screen is displayed.

PERFORM/CTRL Hold screen

[F5 (HOLD)]

Parameter Name	Full Name of Parameter	Value
Hold1Dt	Hold 1 destination	OFF, PSE, LOP, EVT, STD, P/S, LCK, HLD, LHS *
Hold2Dt	Hold 2 Destination	OFF, PSE, LOP, EVT, STD, P/S, LCK, HLD, LHS *

* PSE = PAUSE, LOP = LOOP, EVT = EVENT STEP, STD = STEP DIRECTION, P/S = POLY/SOLO, LCK = LOCK LEGATO, HLD = HOLD, LHS = LOOP HOLD STEP

[F6 (EFFECT)]

PERFORM/FX Menu screen

Parameter Name	Full Name of Parameter	Value
Multi Effect Type	Multi-effect type	*1
Chorus Type	Chorus type	*2
Reverb Type	Reverb type	*3

*1 P EQ (01:PARAMETRIC EQ), G EQ (02:GRAPHIC EQ), RESO F (03:RESONANT FILTER), ISOLTR (04:ISOLATOR AND FILTER), OD (05:OVERDRIVE), G AMP (06:GUITAR AMP SIMULATOR), A WAH (07:AUTO WAH), HUMNZR (08:HUMANIZER), D PRCR (09:DYNAMIC PROCESSOR), T ECHO (10:TAPE ECHO SIMULATOR), ST DLY (11:STEREO DELAY), TAPDLY (12:MULTI TAP DELAY), RVSDLY (13:REVERSE DELAY), VOECHO (14:VOCAL ECHO), BP DLY (15:BAND PASS DELAY), AD► CHO (16:ANALOG DELAY->CHORUS), D CHO (17:DIGITAL CHORUS), SP CHO (18:SPACE CHORUS), HEXCHO (19:HEXA CHORUS), A FLG (20:ANALOG FLANGER), BS FLG (21:BOSS FLANGER), STPFLG (22:STEP FLANGER), A PHSR (23:ANALOG PHASER), D PHSR (24:DIGITAL PHASER), ROTARY (25:ROTARY), TREM (26:TREMOLO), P SHFT (27:STEREO PITCH SHIFTER), OD► CHO (28:OD->CHO), OD► DLY (29:OD->DLY), CH► DLY (30:CHO->DLY), EN► CHO (31:ENH->CHO), EN► DLY (32:ENH->DLY), VOCAL (33:VOCAL MULTI), GUITAR (34:GUITAR MULTI), BASS (35:BASS MULTI), RHODES (36:RHODES MULTI), KBD (37:KEYBOARD MULTI), PHONO (38:PHONOGRAPH), RADIO (39:RADIO TUNING), BITCON (40:BIT RATE CONVERTER)

*2 CHO 1, CHO 2, CHO 3, CHO 4, FBCHO, FLNGR, S DLY, FBDLY

*3 ROOM1, ROOM2, ROOM3, HALL1, HALL2, HALL3, GARAG, PLATE, NLR

PERFORM/FX Routing screen

[F3 (ROUTNG)]

Parameter Name	Full Name of Parameter	Value
Out Assign	Output assign	MAIN, M-FX, DIR1, DIR2
MFX Send Level	Multi-effects send level	0-127
Cho Send Level	Chorus send level	0-127
Rev Send Level	Reverb send level	0-127
Multi-FX Out Assign	Multi-effects output assign	MAIN, DIR1, DIR2
Multi-FX Cho Send Level	Multi-effects chorus send level	0-127
Multi-FX Rev Send Level	Multi-effects reverb send level	0-127
Chorus Rev Send Level	Chorus reverb send level	0-127
MFX Master Level	Multi-effects master level	0-127
Cho Master Level	Chorus master level	0-127
Rev Master Level	Reverb master level	0-127

PFM/FX/MULTI screen

Please refer to p. 178.

PFM/FX/CHORUS screen

Please refer to p. 192.

PFM/FX/REVERB screen

Please refer to p. 192.

[GROOVE]

[F1 (COMMON)]

Parameter Name	Full Name of Parameter	Value
Switch	Groove switch	OFF, ON
Start Trigger	Groove start trigger	MIDI START, NOTE(PART 1)-NOTE(PART 6), NOTE(CUR PART)
Template	Groove template	1: 16BEAT SWING1, 2: 16BEAT SWING2, 3: 8BEAT SWING1, 4: 8BEAT SWING2

[F2 (DEPTH)]

Parameter Name	Full Name of Parameter	Value
Timing	Groove timing depth	-64- +63

Parameter List

Sample ([SAMPLE])

[F1 (COMMON)]

SAMPLE/COMMON Name screen

[F1 (NAME)]

Parameter Name	Full Name of Parameter	Value
Sample Name	Sample name	ASCII characters (max. 12)
Sample Category	Sample category	ASCII characters (max. 3)

SAMPLE/COMMON Sample Info screen

[F2 (INFO)]

Parameter Name	Full Name of Parameter	Value
Tempo	Original tempo	20.00– 250.0
Pitch	Original pitch	C -1(0)– G 9(127)
Fine Tune	Original fine tune	-50– +50

[F2 (MODE)]

SAMPLE Mode screen

Parameter Name	Full Name of Parameter	Value
Key Assign	Key assign mode	POLY, SOLO
Playback	Playback mode	RETRIGGER, TIME SYNC (when Key Assign = POLY), LEGATO (when Key Assign = SOLO), STEP
Trigger	Trigger mode	GATE, TRIGGER, DRUM

[F3 (SWITCH)]

SAMPLE Switch screen

Parameter Name	Full Name of Parameter	Value
Loop	Loop switch	OFF, ON
T QTZ	Trigger quantize switch	OFF, ON
Robot	Robot voice switch	OFF, ON
Vib Keep	Vibrato keep switch	OFF, ON

[F4 (AMP)]

SAMPLE/AMP Gain & Fade screen

[F1 (GAIN)]

Parameter Name	Full Name of Parameter	Value
Wave Gain	Wave gain	0– +18 [dB]
Fade In	Fade in	0.00–2.00 [sec]
Fade Out	Fade out	0.00–6.00 [sec]

SAMPLE/AMP Velocity screen

[F2 (VELO)]

Parameter Name	Full Name of Parameter	Value
Velocity	Velocity	REAL, 1–127
Curve	Velocity curve	TYPE1–TYPE7

[F5 (CTRL)]

SAMPLE/CONTROL Pitch screen

Parameter Name	Full Name of Parameter	Value
Control Sw	Pitch control switch	OFF, ON
Rnd Pitch	Random pitch depth	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200
Keyfollow	Pitch key follow	-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F1 (PITCH)]

SAMPLE/CONTROL Time screen

Parameter Name	Full Name of Parameter	Value
Control Sw	Time control switch	OFF, ON
Human Feel	Human feel	0-7
Keyfollow	Time key follow	-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F2 (TIME)]

SAMPLE/CONTROL Formant screen

Parameter Name	Full Name of Parameter	Value
Control Sw	Formant control switch	OFF, ON
Keyfollow	Formant key follow	-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200

[F3 (FORMNT)]

SAMPLE/CONTROL Pan screen

Parameter Name	Full Name of Parameter	Value
Control Mode	Pan control mode	OFF, CONTINUOUS, KEY-ON
Random Pan	Random pan depth	0-63
Alternate	Alternate pan depth	L64-63R
Keyfollow	Pan key follow	-100, -70, -50, -40, -30, -20, -10, 0, +10, +20, +30, +40, +50, +70, +100

[F4 (PAN)]

SAMPLE/CONTROL Portamento screen

Parameter Name	Full Name of Parameter	Value
Master Sw	Portamento master switch	OFF, ON
Formant Sw	Portamento formant switch	OFF, ON
Time Sw	Portamento time switch	OFF, ON
Mode	Portamento mode	NORMAL, LEGATO
Type	Portamento type	RATE, TIME
Start	Portamento start	PITCH, NOTE
Time	Portamento time	0-127

[F5 (PORTA)]

[F6 (LFO)]

SAMPLE/LFO Common screen

Parameter Name	Full Name of Parameter	Value
Waveform	LFO waveform	TRI, SIN, SAW, SQR, TRP, S&H, RND, CHS
Key Trigger	LFO key trigger	OFF, ON
Rate	LFO rate	0-127 / 0-880 (note-value symbols) *
Offset	LFO offset	-100, -50, 0, +50, +100
Delay Time	LFO delay time	0-127
Fade Time	LFO fade time	0-127
Fade Mode	LFO fade mode	ON-IN, ON-OUT, OFF-IN, OFF-OUT
Ext Sync	LFO external sync	OFF, CLK

[F1 (COMMON)]

* When the Ext Sync is set to "CLK" this is set as note-value symbols.

Parameter List

SAMPLE/LFO Depth screen

[F2 (DEPTH)]

Parameter Name	Full Name of Parameter	Value
Pitch	Pitch LFO depth	-64+ +63
Formt	Formant LFO depth	-64+ +63
Level	Level LFO depth	-64+ +63
Pan	Pan LFO depth	L64-63R

System ([SYSTEM])

SYSTEM Menu 1

[F1 (LCD)]

SYSTEM LCD screen

Parameter Name	Full Name of Parameter	Value
Contrast	LCD contrast	1-16
Backlight Saver	Backlight saver	OFF, 5, 10, 20, 30, 40, 50, 60 [minutes]

[F2 (SOUND)]

SYSTEM/SOUND Master ATT screen

[F1 (ATT)]

Parameter Name	Full Name of Parameter	Value
Master Attenuation	Master attenuation	-60-0 [dB]

SYSTEM/SOUND Master Tune screen

[F2 (TUNE)]

Parameter Name	Full Name of Parameter	Value
Master Tune	Master tune	427.4-452.6 [Hz]

SYSTEM/SOUND Digital Out screen

[F3 (D OUT)]

Parameter Name	Full Name of Parameter	Value
Sampling Rate	Digital out sampling rate	32, 44.1, 48 [kHz]

[F3 (MIDI)]

SYSTEM/MIDI General screen

[F1 (GENERL)]

Parameter Name	Full Name of Parameter	Value
Ctrl Ch	Control channel	1-16, OFF
Device ID	Device ID number	17-32
Remote Kbd	Remote keyboard switch	OFF, ON
Remain	Remain switch	OFF, ON
Panic Key	Panic key	OFF, C -1-G 9

SYSTEM/MIDI Rx Switch screen

[F2 (RX SW)]

Parameter Name	Full Name of Parameter	Value
PC	Program change receive switch	OFF, ON
Bank	Bank select receive switch	OFF, ON
CC	Control change receive switch	OFF, ON
Mod	Modulation receive switch	OFF, ON
Volume	Volume receive switch	OFF, ON
Hold1/2	Hold 1/2 receive switch	OFF, ON
Bend	Pitch bend receive switch	OFF, ON
After	Aftertouch receive switch	OFF, ON
SysEx	System exclusive receive switch	OFF, ON

SYSTEM/MIDI Tx Switch screen

[F3 (TX SW)]

Parameter Name	Full Name of Parameter	Value
Program Change	Program change transmit switch	OFF, ON
Bank Select	Bank select transmit switch	OFF, ON
Edit Data	Edit data transmit switch	OFF, ON

[F4 (TRSPSE)]

SYSTEM Transpose screen

Parameter Name	Full Name of Parameter	Value
Transpose	Transpose	-5- +6
Octave Shift	System octave shift	-3- +3

[F5 (PREVIW)]

SYSTEM Preview screen

Parameter Name	Full Name of Parameter	Value
Trigger Mode	Preview trigger mode	MOMENTARY, LATCH
Sound Mode	Preview sound mode	SINGLE, ALL
PrvwSw	Preview part 1-6 switch	OFF, ON

[F6 (AUTO)]

SYSTEM Auto Perform Load screen

Parameter Name	Full Name of Parameter	Value
Load Switch	Auto performance load switch	OFF, ON
Load File Name	Auto performance load file name	ASCII characters

SYSTEM Menu2

[F1 (SCSI)]

SYSTEM SCSI screen

Parameter Name	Full Name of Parameter	Value
SCSI Probe Time	SCSI probe time	1-10

Multi-Effect

01: PARAMETRIC EQ (Parametric Equalizer)

Parameter Name	Full Name of Parameter	Value
Low Freq	Low frequency	50–4000 [Hz]
Low Gain	Low gain	-15– +15 [dB]
Mid 1 Freq	Middle 1 frequency	50–20000 [Hz]
Mid 1 Q	Middle 1 Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Mid 1 Gain	Middle 1 gain	-15– +15 [dB]
Mid 2 Freq	Middle 2 frequency	50–20000 [Hz]
Mid 2 Q	Middle 2 Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Mid 2 Gain	Middle 2 gain	-15– +15 [dB]
Hi Freq	High frequency	2000–20000 [Hz]
Hi Gain	High gain	-15– +15 [dB]
Total Gain	Total gain	-15– +15 [dB]

02: GRAPHIC EQ (Graphic Equalizer)

Parameter Name	Full Name of Parameter	Value
180Hz Gain	180 Hz gain	-15– +15 [dB]
250Hz Gain	250 Hz gain	-15– +15 [dB]
355Hz Gain	355 Hz gain	-15– +15 [dB]
500Hz Gain	500 Hz gain	-15– +15 [dB]
710Hz Gain	710 Hz gain	-15– +15 [dB]
1000Hz Gain	1000 Hz gain	-15– +15 [dB]
1400Hz Gain	1400 Hz gain	-15– +15 [dB]
2000Hz Gain	2000 Hz gain	-15– +15 [dB]
2800Hz Gain	2800 Hz gain	-15– +15 [dB]
4000Hz Gain	4000 Hz gain	-15– +15 [dB]
5600Hz Gain	5600 Hz gain	-15– +15 [dB]
8000Hz Gain	8000 Hz gain	-15– +15 [dB]
Total Gain	Total gain	-15– +15 [dB]

03: RESONANT FILTER

Parameter Name	Full Name of Parameter	Value
Cutoff Freq	Cutoff frequency	50–20000 [Hz]
Resonance	Resonance	0–127
Band Mode	Band mode	LOW, MID, HIGH, LOW+MID, MID+HIGH, ALL
Sweep Waveform	Frequency sweep waveform	TRI, SAWUP, SAWDN, SQR
Sweep Rate	Frequency sweep rate	0.05–10.0 [Hz], note-value symbols
Sweep Depth	Frequency sweep depth	0–127
Balance	Effect balance	E0:D100–E100:D0

04: ISOLATOR AND FILTER

3-Band Isolator

Parameter Name	Full Name of Parameter	Value
Low Band Level	Low band level	-60– +4 [dB]
Mid Band Level	Mid band level	-60– +4 [dB]
Hi Band Level	High band level	-60– +4 [dB]
AP Low Sw	Anti-phase low switch	OFF, ON
AP Low Level	Anti-phase low level	0–127
AP Mid Sw	Anti-phase middle switch	OFF, ON
AP Mid Level	Anti-phase middle level	0–127

Filter

Filter Type	Filter type	THRU, LPF, BPF, HPF, NOTCH
Filter Slope	Filter slope	-12, -24 [dB/oct]
Filter Cutoff	Filter cutoff frequency	0-127
Filter Resonance	Filter resonance	0-127
Filter Gain	Filter gain	0- +24 [dB]

Low Booster

LowBoost Level	Low boost level	-15- +15 [dB]
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05: OVERDRIVE (Stereo overdrive)

Parameter Name	Full Name of Parameter	Value
Input Mode	Input mode	MONO, STEREO
Distortion Mode	Distortion mode	OD (= OVERDRIVE), DS (= DISTORTION)
Drive	Drive	0-127
Amp Sim Sw	Amp simulator switch	OFF, ON
Amp Type	Amp type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Output Level	Output level	0-127
Ps Low Freq	Post equalizer low frequency	50-4,000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

06: GUITAR AMP SIMULATOR

Parameter Name	Full Name of Parameter	Value
NS Sw	Noise suppressor switch	OFF, ON
NS Threshold	Noise suppressor threshold	0-127
NS Release	Noise suppressor release	0-127
Amp Type	Amp type	JC-120, CLEAN TWIN, MATCH DRIVE, BG LEAD, MS1959 I, MS1959 II, MS1959 I+II, SLDN LEAD, Metal 5150, METAL LEAD, OD-1, OD-2 TURBO DISTORTION, FUZZ
Volume	Volume	0-127
Bass	Bass	0-127
Middle	Middle	0-127
Treble	Treble	0-127
Presence	Presence	0-127
Master Volume	Master Volume	0-127
Brightness Sw	Brightness switch	OFF, ON
Gain Sw	Gain switch	LOW, MID, HIGH
Sp Sim Sw	Speaker simulator switch	OFF, ON
Sp Type	Speaker type	SMALL, MIDDLE, JC-120, BUILT IN 1, BUILT IN 2, BUILT IN 3, BUILT IN 4, BG STACK 1, BG STACK 2, MS STACK 1, MS STACK 2, METAL STACK
Mic Setting	Mic setting	1-10
Mic Level	Mic level	0-127
Direct Level	Direct level	0-127
Level	Level	0-127

07: AUTO WAH

Parameter Name	Full Name of Parameter	Value
Filter Type	Filter type	LPF, BPF
Polarity	Polarity	DOWN, UP
Frequency	Frequency	0-127
Peak	Peak	0-127
Trigger Sens	Trigger sens	0-127
Rate	Rate	0.05-10.0 [Hz], note-value symbols
Depth	Depth	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

Parameter List

08: HUMANIZER

Parameter Name	Full Name of Parameter	Value
Overdrive Sw	Overdrive switch	OFF, ON
Drive	Drive	0–127
Vowel 1	Vowel 1	a, e, i, o, u
Vowel 2	Vowel 2	a, e, i, o, u
Rate	Rate	0.05–10.0 [Hz], note-value symbols
Depth	Depth	0–127
Trigger Sens	Trigger sens	-60–0 [dB], LFO
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

09: DYNAMIC PROCESSOR (Stereo dynamic processor)

Comp/Limiter

Parameter Name	Full Name of Parameter	Value
Comp Sw	Compressor switch	OFF, ON
Comp Threshold	Compressor threshold	-60–0 [dB]
Comp Attack	Compressor attack	0–127
Comp Release	Compressor release	0–127
Comp Ratio	Compressor ratio	1.5:1, 2:1, 4:1, 100:1
Comp Gain	Compressor gain	-60– +12 [dB]

Enhancer

Enhan Sw	Enhancer switch	OFF, ON
Enhan Sens	Enhancer sens	0–127
Enhan Frequency	Enhancer frequency	0–127
Enhan Mix Level	Enhancer mix level	0–127
Enhan Level	Enhancer level	0–127

3-Band Equalizer

EQ Low Freq	Equalizer low frequency	50–4000 [Hz]
EQ Low Gain	Equalizer low gain	-15– +15 [dB]
EQ Mid Freq	Equalizer middle frequency	50–20000 [Hz]
EQ Mid Q	Equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
EQ Mid Gain	Equalizer middle gain	-15– +15 [dB]
EQ High Freq	Equalizer high frequency	2000–20000 [Hz]
EQ High Gain	Equalizer high gain	-15– +15 [dB]

Noise Suppressor

NS Sw	Noise suppressor switch	OFF, ON
NS Threshold	Noise suppressor threshold	0–127
NS Release	Noise suppressor release	0–127

10: TAPE ECHO SIMULATOR

Parameter Name	Full Name of Parameter	Value
Mode	Mode	S, M, L, S+M, S+L, M+L, S+M+L
Repeat Rate	Repeat rate	0–127
Intensity	Intensity	0–127
Bass	Bass	-100– +100
Treble	Treble	-100– +100
Head S Pan	Head S pan	L63–63R
Head M Pan	Head M pan	L63–63R
Head L Pan	Head L pan	L63–63
Tape Distortion	Tape distortion	0–5
W/F Rate	Wow/Flutter Rate	0–127
W/F Depth	Wow/Flutter Depth	0–127
Echo Level	Echo level	0–127

11: STEREO DELAY

Parameter Name	Full Name of Parameter	Value
Mode	Mode	MONO, STEREO, ALTERNATE
Delay Time	Delay time	0–1300 [ms] (When MONO is set), 0–650 [ms] (When STEREO or ALTERNATE is set), note-value symbols
L-R Shift	L-R shift	0–650 [ms], note-value symbols
L-R Order	L-R order	L->R, R->L
Feedback	Feedback	-98– +98 [%]
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Balance	Effect balance	E0:D100–E100:D0
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

12: MULTI TAP DELAY

Parameter Name	Full Name of Parameter	Value
Delay 1 Time	Delay 1 time	0–1300 [ms], note-value symbols
Delay 2 Time	Delay 2 time	0–1300 [ms], note-value symbols
Delay 3 Time	Delay 3 time	0–1300 [ms], note-value symbols
Delay 4 Time	Delay 4 time	0–1300 [ms], note-value symbols
Delay 5 Time	Delay 5 time	0–1300 [ms], note-value symbols
Fbk Dly Time	Feedback delay time	0–1300 [ms], note-value symbols
Feedback	Feedback	-98– +98 [%]
Delay 1 Level	Delay 1 level	0–127
Delay 2 Level	Delay 2 level	0–127
Delay 3 Level	Delay 3 level	0–127
Delay 4 Level	Delay 4 level	0–127
Delay 5 Level	Delay 5 level	0–127
Delay 1 Pan	Delay 1 pan	L63–63R
Delay 2 Pan	Delay 2 pan	L63–63R
Delay 3 Pan	Delay 3 pan	L63–63R
Delay 4 Pan	Delay 4 pan	L63–63R
Delay 5 Pan	Delay 5 pan	L63–63R
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

13: REVERSE DELAY

Parameter Name	Full Name of Parameter	Value
Threshold	Threshold	0–127
Rvs Dly Time	Reverse delay time	0–650 [ms], note-value symbols
Rvs Feedback	Reverse feedback	-98– +98 [%]
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Balance	Effect balance	E0:D100–E100:D0
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

Parameter List

14: VOCAL ECHO

Parameter Name	Full Name of Parameter	Value
Delay Time	Delay time	0-650 [ms], note-value symbols
Pre LPF Freq	Pre low pass filter frequency	500-15000 [Hz], THRU
Mod Rate	Modulation rate	0.05-10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0-127
Diffusion	Diffusion	0-100
Feedback	Feedback	-98- +98 [%]
Hi Damp Freq	High damp frequency	500-15000 [Hz], THRU
Echo Level	Echo level	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

15: BAND PASS DELAY

Parameter Name	Full Name of Parameter	Value
Phaser Manual	Phaser manual	0-127
Phaser Rate	Phaser rate	0.05-10.0 [Hz], note-value symbols
Phaser Depth	Phaser depth	0-127
Phaser Resonance	Phaser resonance	0-127
Phaser Mix Level	Phaser mix level	0-127
Delay Time	Delay time	0-1300 [ms], note-value symbols
Fbk Dly Time	Feedback delay time	0-1300 [ms], note-value symbols
Dly Time Dev	Delay time deviation	0-1300 [ms], note-value symbols
Delay Level	Delay level	0-127
Delay Feedback	Delay feedback	-98- +98 [%]
Delay Pan Type	Delay pan type	1-10
BPF 1 Freq	Band pass filter 1 frequency	50-20000 [Hz]
BPF 2 Freq	Band pass filter 2 frequency	50-20000 [Hz]
BPF 3 Freq	Band pass filter 3 frequency	50-20000 [Hz]
BPF 4 Freq	Band pass filter 4 frequency	50-20000 [Hz]
BPF 5 Freq	Band pass filter 5 frequency	50-20000 [Hz]
BPF 1/2 Q	Band pass filter 1/2 Q	0.3-24.0
BPF 3/4/5 Q	Band pass filter 3/4/5 Q	0.3-24.0
Balance	Effect balance	E0:D100-E100:D0

16: ANALOG DELAY->CHORUS (Analog delay->Analog chorus)

Analog Delay

Parameter Name	Full Name of Parameter	Value
Dly Sw	Delay switch	OFF, ON
Dly Repeat Rate	Delay repeat rate	0-127
Dly Intensity	Delay intensity	0-127
Dly Level	Delay level	0-127

Analog Chorus

Chorus Sw	Chorus switch	OFF, ON
Chorus Mode	Chorus mode	CHORUS, VIBRATO
Chorus Intensity	Chorus intensity	0-127
Vibrato Depth	Vibrato depth	0-127
Vibrato Rate	Vibrato rate	0-127
Chorus Out Mode	Chorus output mode	MONO, ST-1, ST-2

17: DIGITAL CHORUS

Parameter Name	Full Name of Parameter	Value
Mode	Mode	CHORUS, FLANGER
Rate	Rate	0.05–10.0 [Hz], note-value symbols
Depth	Depth	0–127
Phase	Phase	0–180 [deg]
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Pre Dly Time	Pre delay time	0–50.0 [ms]
Feedback	Feedback	-98– +98 [%]
Xover LowFreq	Crossover low frequency	50–4000 [Hz]
Xover Low Gain	Crossover low gain	-36–0 [dB]
Xover HiFreq	Crossover high frequency	2000–20000 [Hz]
Xover Hi Gain	Crossover high gain	-36–0 [dB]
Modulation Level	Modulation level	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

18: SPACE CHORUS

Parameter Name	Full Name of Parameter	Value
Mode	Mode	1, 2, 3, 4, 1+4, 2+4, 3+4
Chorus Level	Chorus level	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

19: HEXA CHORUS

Parameter Name	Full Name of Parameter	Value
Pre Dly Time	Pre delay time	0–50.0 [ms]
Pre Dly Dev	Pre delay deviation	0–50.0 [ms]
Rate	Rate	0.05–10.0 [Hz], note-value symbols
Depth	Depth	0–127
Depth Deviation	Depth deviation	0–127
Pan Deviation	Pan deviation	L63–63R
Chorus Level	Chorus level	0–127
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

20: ANALOG FLANGER

Parameter Name	Full Name of Parameter	Value
Mode	Mode	FL1, FL2, FL3, CHO
Rate	Rate	0.02–5.00 [Hz], note-value symbols
Depth	Depth	0–127
Manual	Manual	0–127
Feedback	Feedback	0–127
CH-R Mod Phase	Right Channel Modulation Phase	NORM, INV
CH-L Phase	Left Channel Phase	NORM, INV
CH-R Phase	Right Channel Phase	NORM, INV

Parameter List

21: BOSS FLANGER

Parameter Name	Full Name of Parameter	Value
Type	Type	NORMAL, HI-BAND
Manual	Manual	0-127
Depth	Depth	0-127
Rate	Rate	0.05-10.0 [Hz], note-value symbols
Resonance	Resonance	0-127
Phase	Phase	0-180 [deg]
Feedback Mode	Feedback mode	NORMAL, CROSS
Feedback	Feedback	-98- +98 [%]
Cross Mix Level	Cross mix level	-100- +100
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

22: STEP FLANGER

Parameter Name	Full Name of Parameter	Value
Pre Dly Time	Pre delay time	0-50.0 [ms]
Rate	Rate	0.05-10.0 [Hz], note-value symbols
Depth	Depth	0-127
Feedback	Feedback	-98- +98 [%]
Phase	Phase	0-180 [deg]
Step Rate	Step rate	0.05-10.0 [Hz], note-value symbols
Flanger Level	Flanger level	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

23: ANALOG PHASER

Parameter Name	Full Name of Parameter	Value
Shift Mode	Shift mode	4STAGE, 8STAGE
Center Freq	Center frequency	0-127
Resonance	Resonance	0-127
LFO 1 Rate	LFO 1 rate	0.02-5.00 [Hz], note-value symbols
LFO 1 Depth	LFO 1 depth	0-127
LFO 1 Phase	LFO 1 phase	NORM, INV
LFO 2 Rate	LFO 2 rate	0.2-50.0 [Hz]
LFO 2 Depth	LFO 2 depth	0-127
LFO 2 Phase	LFO 2 phase	NORM, INV

24: DIGITAL PHASER

Parameter Name	Full Name of Parameter	Value
Shift Mode	Shift mode	4STAGE, 8STAGE
Manual	Manual	0-127
Rate	Rate	0.05-10.0 [Hz], note-value symbols
Depth	Depth	0-127
Phase	Phase	NORM, INV
Resonance	Resonance	0-127
Mix Level	Mix level	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

25: ROTARY

Parameter Name	Full Name of Parameter	Value
Speed	Speed	SLOW, FAST
Low Slow Rate	Low frequency slow rate	0.05–10.0 [Hz], note-value symbols
Low Fast Rate	Low frequency fast rate	0.05–10.0 [Hz], note-value symbols
Low Acceleration	Low frequency acceleration	0–15
Low Level	Low frequency level	0–127
Hi Slow Rate	High frequency slow rate	0.05–10.0 [Hz], note-value symbols
Hi Fast Rate	High frequency fast rate	0.05–10.0 [Hz], note-value symbols
Hi Acceleration	High frequency acceleration	0–15
Hi Level	High frequency level	0–127
Separation	Separation	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

26: TREMOLO

Parameter Name	Full Name of Parameter	Value
Mode	Mode	TREMOLO, AUTO PAN
Waveform	Waveform	Tri, SAWUP, SAWDN, SQR, SIN
Rate	Rate	0.05–10.0 [Hz], note-value symbols
Depth	Depth	0–127
Balance	Effect balance	E0:D100–E100:D0
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

27: STEREO PITCH SHIFTER

Parameter Name	Full Name of Parameter	Value
Input Mode	Input mode	MONO, STEREO
Grade	Grade	1–5
Coarse Pitch A	Coarse pitch A	-12– +12 [semitone]
Fine Pitch A	Fine pitch A	-100– +100 [cent]
Coarse Pitch B	Coarse pitch B	-12– +12 [semitone]
Fine Pitch B	Fine pitch B	-100– +100 [cent]
Pre Delay A	Pre delay time A	0–500 [ms]
Pre Delay B	Pre delay time B	0–500 [ms]
Level A	Level A	0–127
Level B	Level B	0–127
Pan A	Pan A	L63–63R
Pan B	Pan B	L63–63R
Direct Level	Direct level	0–127
Feedback	Feedback	-98– +98 [%]
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

Parameter List

28: OD->CHO (Overdrive->Chorus)

Parameter Name	Full Name of Parameter	Value
Distortion Mode	Distortion mode	OD (= OVERDRIVE), DS (= DISTORTION)
Drive	Drive	0-127
Amp Sim Sw	Amp simulator switch	OFF, ON
Amp Type	Amp type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Distortion Level	Distortion level	0-127
Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05-10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0-127
Mod Phase	Modulation phase	0-180 [deg]
Mod Pre Delay	Modulation pre delay time	0-50.0 [ms]
Mod Feedback	Modulation feedback	-98- +98 [%]
Xover LowFreq	Modulation crossover low frequency	50-4000 [Hz]
Xover Low Gain	Modulation crossover low gain	-36-0 [dB]
Xover HiFreq	Modulation crossover high frequency	2000-20000 [Hz]
Xover Hi Gain	Modulation crossover high gain	-36-0 [dB]
Mod Level	Modulation level	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

29: OD->DLY (Overdrive->Delay)

Parameter Name	Full Name of Parameter	Value
Distortion Mode	Distortion mode	OD (= OVERDRIVE), DS (= DISTORTION)
Drive	Drive	0-127
Amp Sim Sw	Amp simulator switch	OFF, ON
Amp Type	Amp type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Distortion Level	Distortion level	0-127
Delay Time	Delay time	0-1300 [ms], note-value symbols
Delay Feedback	Delay feedback	-98- +98 [%]
Low Damp Freq	Low damp frequency	50-4000 [Hz]
Low Damp Gain	Low damp gain	-36-0 [dB]
Hi Damp Freq	High damp frequency	2000-20000 [Hz]
Hi Damp Gain	High damp gain	-36-0 [dB]
Delay Level	Delay level	0-127
Ps Low Freq	Post equalizer low frequency	50-4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15- +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000-20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15- +15 [dB]

30: CHO->DLY (Chorus->Delay)

Parameter Name	Full Name of Parameter	Value
Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05–10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0–127
Mod Phase	Modulation phase	0–180 [deg]
Mod Pre Delay	Modulation pre delay time	0–50.0 [ms]
Mod Feedback	Modulation feedback	-98– +98 [%]
Xover LowFreq	Modulation crossover low frequency	50–4000 [Hz]
Xover Low Gain	Modulation crossover low gain	-36–0 [dB]
Xover HiFreq	Modulation crossover high frequency	2000–20000 [Hz]
Xover Hi Gain	Modulation crossover high gain	-36–0 [dB]
Mod Level	Modulation level	0–127
Delay Time	Delay time	0–1300 [ms], note-value symbols
Delay Feedback	Delay feedback	-98– +98 [%]
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Delay Level	Delay level	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

31: ENH->CHO (Enhancer->Chorus)

Parameter Name	Full Name of Parameter	Value
Enhan Sens	Enhancer sens	0–127
Enhan Frequency	Enhancer frequency	0–127
Enhan Mix Level	Enhancer mix level	0–127
Enhan Level	Enhancer level	0–127
Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05–10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0–127
Mod Phase	Modulation phase	0–180 [deg]
Mod Pre Delay	Modulation pre delay time	0–50.0 [ms]
Mod Feedback	Modulation feedback	-98– +98 [%]
Xover LowFreq	Modulation crossover low frequency	50–4000 [Hz]
Xover Low Gain	Modulation crossover low gain	-36–0 [dB]
Xover HiFreq	Modulation crossover high frequency	2000–20000 [Hz]
Xover Hi Gain	Modulation crossover high gain	-36–0 [dB]
Mod Level	Modulation level	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

32: ENH->DLY (Enhancer->Delay)

Parameter Name	Full Name of Parameter	Value
Enhan Sens	Enhancer sens	0–127
Enhan Frequency	Enhancer frequency	0–127
Enhan Mix Level	Enhancer mix level	0–127
Enhan Level	Enhancer level	0–127
Delay Time	Delay time	0–1300 [ms], note-value symbols
Delay Feedback	Delay feedback	-98– +98 [%]
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Delay Level	Delay level	0–127
Ps Low Freq	Post equalizer low frequency	50–4000 [Hz]
Ps Low Gain	Post equalizer low gain	-15– +15 [dB]
Ps Hi Freq	Post equalizer high frequency	2000–20000 [Hz]
Ps Hi Gain	Post equalizer high gain	-15– +15 [dB]

Parameter List

33: VOCAL MULTI

Limiter/De-esser

Parameter Name	Full Name of Parameter	Value
Limtr Mode	Limiter mode	LIMITER, DE-ESSER
Limtr Threshold	Limiter threshold	-60-0 [dB]
Limtr Release	Limiter release	0-127
Limtr Gain	Limiter gain	-60- +12 [dB]
DE Sens	De-esser sens	0-127
DE Frequency	De-esser frequency	1000-10000 [Hz]

Enhancer

Enhan Sens	Enhancer sens	0-127
Enhan Frequency	Enhancer frequency	0-127
Enhan Mix Level	Enhancer mix level	0-127
Enhan Level	Enhancer level	0-127

3-Band Equalizer

EQ Low Freq	Equalizer low frequency	50-4000 [Hz]
EQ Low Gain	Equalizer low gain	-15- +15 [dB]
EQ Mid Freq	Equalizer middle frequency	50-20000 [Hz]
EQ Mid Q	Equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
EQ Mid Gain	Equalizer middle gain	-15- +15 [dB]
EQ High Freq	Equalizer high frequency	2000-20000 [Hz]
EQ High Gain	Equalizer high gain	-15- +15 [dB]

Delay

Delay Time	Delay time	0-1300 [ms], note-value symbols
Delay Feedback	Delay feedback	-98- +98 [%]
Low Damp Freq	Low damp frequency	50-4000 [Hz]
Low Damp Gain	Low damp gain	-36-0 [dB]
Hi Damp Freq	High damp frequency	2000-20000 [Hz]
Hi Damp Gain	High damp gain	-36-0 [dB]
Delay Level	Delay level	0-127

34: GUITAR MULTI

Comp/Limiter

Parameter Name	Full Name of Parameter	Value
Comp Sw	Compressor switch	OFF, ON
Comp Threshold	Compressor Threshold	-60-0 [dB]
Comp Attack	Compressor attack	0-127
Comp Release	Compressor release	0-127
Comp Ratio	Compressor ratio	1.5:1, 2:1, 4:1, 100:1
Comp Gain	Compressor gain	-60- +12 [dB]

Overdrive/Distortion

Distortion Sw	Distortion switch	OFF, ON
Distortion Mode	Distortion mode	OD (= OVERDRIVE), DS (= DISTORTION)
Drive	Drive	0-127
Amp Sim Sw	Amp simulator switch	OFF, ON
Amp Type	Amp type	SMALL, BUILT-IN, 2-STACK, 3-STACK
Distortion Level	Distortion level	0-127

Chorus/Flanger

Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05–10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0–127
Mod Phase	Modulation phase	0–180 [deg]
Mod Pre Delay	Modulation pre delay time	0–50.0 [ms]
Mod Feedback	Modulation feedback	-98– +98 [%]
Mod XoverLPF	Modulation crossover low pass filter frequency	500–15000 [Hz], THRU
Mod XoverHPF	Modulation crossover high pass filter frequency	THRU, 50–800 [Hz]
Mod Level	Modulation level	0–127

Delay

Delay Time	Delay time	0–1300 [ms], note-value symbols
Delay Feedback	Delay feedback	-98– +98 [%]
Hi Damp Freq	High damp frequency	500–15000 [Hz], THRU
Delay Level	Delay level	0–127

35: BASS MULTI

Comp/Limiter

Parameter Name	Full Name of Parameter	Value
Comp Sw	Compressor switch	OFF, ON
Comp Threshold	Compressor threshold	-60– 0 [dB]
Comp Attack	Compressor attack	0–127
Comp Release	Compressor release	0–127
Comp Ratio	Compressor ratio	1.5:1, 2:1, 4:1, 100:1
Comp Gain	Compressor gain	-60– +12 [dB]

Overdrive/Distortion

Distortion Sw	Distortion switch	OFF, ON
Distortion Mode	Distortion mode	OD (= OVERDRIVE), DS (= DISTORTION)
Drive	Drive	0–127
Amp Sim Sw	Amp simulator switch	OFF, ON
Amp Type	Amp type	SMALL, BUILT-IN, STACK
Distortion Level	Distortion level	0–127

3-Band Equalizer

EQ Low Freq	Equalizer low frequency	50–4000 [Hz]
EQ Low Gain	Equalizer low gain	-15– +15 [dB]
EQ Mid Freq	Equalizer middle frequency	50–20000 [Hz]
EQ Mid Q	Equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
EQ Mid Gain	Equalizer middle gain	-15– +15 [dB]
EQ High Freq	Equalizer high frequency	2000–20000 [Hz]
EQ High Gain	Equalizer high gain	-15– +15 [dB]

Chorus/Flanger

Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05–10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0–127
Mod Phase	Modulation phase	0–180 [deg]
Mod Pre Delay	Modulation pre delay time	0–50.0 [ms]
Mod Feedback	Modulation feedback	-98– +98 [%]
Mod XoverLPF	Modulation crossover low pass filter frequency	500–15000 [Hz], THRU
Mod XoverHPF	Modulation crossover high pass filter frequency	THRU, 50–800 [Hz]
Mod Level	Modulation level	0–127

Parameter List

36: RHODES MULTI

Enhancer

Parameter Name	Full Name of Parameter	Value
Enhan Sw	Enhancer switch	OFF, ON
Enhan Sens	Enhancer sens	0–127
Enhan Frequency	Enhancer frequency	0–127
Enhan Mix Level	Enhancer mix level	0–127
Enhan Level	Enhancer level	0–127

Phaser

Phaser Manual	Phaser manual	0–127
Phaser Rate	Phaser rate	0.05–10.0 [Hz], note-value symbols
Phaser Depth	Phaser depth	0–127
Phaser Resonance	Phaser resonance	0–127
Phaser Mix Level	Phaser mix level	0–127

Chorus/Flanger

Mod Mode	Modulation mode	CHORUS, FLANGER
Mod Rate	Modulation rate	0.05–10.0 [Hz], note-value symbols
Mod Depth	Modulation depth	0–127
Mod Phase	Modulation phase	0–180 [deg]
Mod Pre Delay	Modulation pre delay time	0–50.0 [ms]
Mod Feedback	Modulation feedback	-98– +98 [%]
Mod XoverLPF	Modulation crossover low pass filter frequency	500–15000 [Hz], THRU
Mod XoverHPF	Modulation crossover high pass filter frequency	THRU, 50–800 [Hz]
Mod Level	Modulation level	0–127

Tremolo/Auto pan

Trem/Pan Sw	Tremolo/Auto pan switch	OFF, ON
Trem Mode	Tremolo mode	TREMOLO, AUTO PAN
Trem Waveform	Tremolo waveform	TRI, SAWUP, SAWDN, SQR, SIN
Trem Rate	Tremolo rate	0.05–10.0 [Hz], note-value symbols
Trem Depth	Tremolo depth	0–127

37: KEYBOARD MULTI

Ring Modulator

Parameter Name	Full Name of Parameter	Value
Ring Freq	Ring modulator frequency	0–127
Ring Balance	Ring effect balance	E0:127D–E127:0D

3-Band Equalizer

EQ Low Freq	Equalizer low frequency	50–4000 [Hz]
EQ Low Gain	Equalizer low gain	-15– +15 [dB]
EQ Mid Freq	Equalizer middle frequency	50–20000 [Hz]
EQ Mid Q	Equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
EQ Mid Gain	Equalizer middle gain	-15– +15 [dB]
EQ High Freq	Equalizer high frequency	2000–20000 [Hz]
EQ High Gain	Equalizer high gain	-15– +15 [dB]

Pitch Shifter

PS Grade	Pitch shifter grade	1–5
PS Coarse	Pitch shifter coarse pitch	-12– +12 [semitone]
PS Fine	Pitch shifter fine pitch	-100– +100 [cent]
PS Balance	Pitch shifter effect balance	E0:D100–E100:D0

Phaser

Phaser Manual	Phaser manual	0-127
Phaser Rate	Phaser rate	0.05-10.0 [Hz], note-value symbols
Phaser Depth	Phaser depth	0-127
Phaser Resonance	Phaser resonance	0-127
Phaser Mix Level	Phaser mix level	0-127

Delay

Delay Time	Delay time	0-650 [ms], note-value symbols
Delay Feedback	Delay feedback	-98- +98 [%]
Low Damp Freq	Low damp frequency	50-4000 [Hz]
Low Damp Gain	Low damp gain	-36-0 [dB]
Hi Damp Freq	High damp frequency	2000-20000 [Hz]
Hi Damp Gain	High damp gain	-36-0 [dB]
Delay Level	Delay level	0-127

38: PHONOGRAPH

Parameter Name	Full Name of Parameter	Value
Input Mode	Input mode	MONO, STEREO
Signal Dist	Signal distortion	0-127
Frequency Range	Frequency range	0-127
Disk Type	Disk type	LP, EP, SP
Total Noise	Total noise	0-127
Scratch	Scratch	0-127
Dust	Dust	0-127
Hiss	Hiss	0-127
Total Wow/Flutter	Total Wow/Flutter	0-127
Wow	Wow	0-127
Flutter	Flutter	0-127
Random	Random	0-127
Balance	Effect balance	E0:D100-E100:D0

39: RADIO TUNING

Parameter Name	Full Name of Parameter	Value
Tuning	Tuning	-50- +50
Noise Level	Noise level	0-127
Frequency Range	Frequency range	0-127
Balance	Effect balance	E0:D100-E100:D0

40: BIT RATE CONVERTER

Lo-Fi Processor

Parameter Name	Full Name of Parameter	Value
Pre Filter Sw	Pre filter switch	OFF, ON
Sample Rate	Sample rate	1/1, 1/2, 1/4, 1/8, 1/16, 1/32
Bit Down	Sample bit down	0-15
Post Filter Sw	Post filter switch	OFF, ON
Balance	Effect balance	E0:D100-E100:D0

Filter

Filter Type	Filter type	THRU, LPF, BPF, HPF, NOTCH
Filter Slope	Filter slope	-12, -24 [dB/oct]
Filter Cutoff	Filter cutoff frequency	0-127
Filter Resonance	Filter resonance	0-127
Filter Gain	Filter gain	0- +24 [dB]

Parameter List

Chorus

01: CHORUS 1

02: CHORUS 2

03: CHORUS 3

04: CHORUS 4

05: FEEDBACK CHORUS

06: FLANGER

07: SHORT DELAY

08: FEEDBACK SHORT DELAY

Parameter Name	Full Name of Parameter	Value
Pre Low Freq	Pre equalizer low frequency	500–15000 [Hz], THRU
Pre Hi Freq	Pre equalizer high frequency	THRU, 50–800 [Hz]
Pre Dly Time	Pre delay time	0–50.0 [ms]
Co LPF Freq	Crossover low pass filter frequency	500–15000 [Hz], THRU
Co HPF Freq	Crossover high pass filter frequency	THRU, 50–800 [Hz]
Rate	Rate	0.05–10.0 [Hz], note-value symbols
Depth	Depth	0–127
Feedback	Feedback	-98– +98 [%]
Cho/Flg Sw	Chorus/Flanger switch	CHORUS, FLANGER

Reverb

01: ROOM 1

Parameter Name	Full Name of Parameter	Value
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Mid Freq	Pre equalizer middle gain	50–20000 [Hz]
Pre Mid Q	Pre equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Pre Mid Gain	Pre equalizer middle gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Low Rev Time	Low band reverb time	0.06–32.0 [sec]
Hi Rev Time	High band reverb time	0.06–32.0 [sec]
Xover Freq	Crossover frequency	160–15000 [Hz], THRU
Pre Dly Time	Pre delay time	0–200.0 [ms]
Density	Density	0–99
Room Size	Room size	5.6–32.6 [m]
Early Ref Level	Early reflection level	0–99
Release Density	Release density	0–99
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Post HC Freq	Post high cut frequency	160–15000 [Hz], THRU

02: ROOM 2

Parameter Name	Full Name of Parameter	Value
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Mid Freq	Pre equalizer middle gain	50–20000 [Hz]
Pre Mid Q	Pre equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Pre Mid Gain	Pre equalizer middle gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Reverb Time	Reverb time	0.06–32.0 [sec]
Pre Dly Time	Pre delay time	0–200.0 [ms]
Density	Density	0–99
Room Size	Room size	1–10
Early Ref Level	Early reflection level	0–99
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Post HC Freq	Post high cut frequency	160–15000 [Hz], THRU

03: ROOM 3

Parameter Name	Full Name of Parameter	Value
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Mid Freq	Pre equalizer middle frequency	50–20000 [Hz]
Pre Mid Q	Pre equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Pre Mid Gain	Pre equalizer middle gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Reverb Time	Reverb time	0.06–32.0 [sec]
Pre Dly Time	Pre delay time	0–200.0 [ms]
Density	Density	0–99
Room Size	Room size	1–8
Early Ref Level	Early reflection level	0–99
Release Density	Release density	0–99
Low Damp Freq	Low damp frequency	50–4000 [Hz]
Low Damp Gain	Low damp gain	-36–0 [dB]
Hi Damp Freq	High damp frequency	2000–20000 [Hz]
Hi Damp Gain	High damp gain	-36–0 [dB]
Post HC Freq	Post high cut frequency	160–15000 [Hz], THRU

04: HALL 1

The parameters are the same as “01: ROOM 1” with the addition of the following two parameters.

However, the range for Low Rev Time and Mid Rev Time is “0.06–64.0 [sec],” and the range for Room Size “3.5–38.3 [m].”

Parameter Name	Full Name of Parameter	Value
Chorus Rate	Chorus rate	0–127
Chorus Depth	Chorus depth	0–127

05: HALL 2

The parameters are the same as for “02: ROOM 2.” However, the range for Reverb Time is “0.06–64.0 [sec].”

* Even if you set the values of all parameters to the same values as ROOM 2, the resulting sound will be different.

06: HALL 3

The parameters are the same as for “03: ROOM 3.” However, the range for Reverb Time is “0.06–64.0 [sec].”

* Even if you set the values of all parameters to the same values as ROOM 3 or GARAGE, the resulting sound will be different.

Parameter List

07: GARAGE

The parameters are the same as for "03: ROOM 3."

* Even if you set the values of all parameters to the same values as ROOM 3 or HALL 3, the resulting sound will be different.

08: PLATE

The parameters are the same as for "01: ROOM 1." However, the range for Room Size is "5.6–34.7 [m]."

* Even if you set the values of all parameters to the same values as ROOM 1, the resulting sound will be different.

09: NON-LINEAR

Parameter Name	Full Name of Parameter	Value
Pre Low Freq	Pre equalizer low frequency	50–4000 [Hz]
Pre Low Gain	Pre equalizer low gain	-15– +15 [dB]
Pre Mid Freq	Pre equalizer middle frequency	50–20000 [Hz]
Pre Mid Q	Pre equalizer middle Q	0.5, 0.7, 1.0, 2.0, 4.0, 8.0
Pre Mid Gain	Pre equalizer middle gain	-15– +15 [dB]
Pre Hi Freq	Pre equalizer high frequency	2000–20000 [Hz]
Pre Hi Gain	Pre equalizer high gain	-15– +15 [dB]
Pre Dly Time	Pre delay time	0–200.0 [ms]
Density	Density	0–99
Early Ref Level	Early reflection level	0–99
NLR Type	Non-linear type	L->R, NORMAL, L<-R
Env Time Ratio	Envelope time ratio	10–120 [%]
Envelope T1	Envelope time 1	0.1–1000 [ms]
Envelope T2	Envelope time 2	0.1–1000 [ms]
Envelope T3	Envelope time 3	0.1–1000 [ms]
Envelope T4	Envelope time 4	0.1–1000 [ms]
Envelope L1	Envelope level 1	0–100
Envelope L2	Envelope level 2	0–100
Envelope L3	Envelope level 3	0–100
Feedback Time	Feedback time	0.1–1000 [ms]
Feedback Level	Feedback level	0–99 [%]
Post HC Freq	Post high cut frequency	160–15000 [Hz], THRU

Sampling ([SAMPLING])

[F4 (SMPLNG)]

TEMPLATE screen

Parameter Name	Full Name of Parameter	Value
Template	Sampling template	Template 1–Template16
Sampling Template Name	Sampling template name	ASCII character (max. 6)

[F1 (TMPLAT)]

SETUP screen

Parameter Name	Full Name of Parameter	Value
Type	Sampling type	STEREO, MONO M, MONO L, MONO R
Input	Input select	REAR, FRONT, OPTICAL, COAXIAL, RESAMPLE
Original Pitch	Original pitch	C-1 (0)–G9 (127)
Trigger Mode	Trigger mode	MANUAL, MIDI, LEVEL
Trigger Level	Trigger level	0–127
Pre-trigger	Pre-trigger	0–1000 [msec]
Pre-Gain	Pre-gain	-12– +24 [dB]

[F2/3 (SETUP)]

PRE-FX screen

Parameter Name	Full Name of Parameter	Value
Type *	Pre-effect type	OFF, COMP, LIMTR, NS

* The pre-effect type is specified in the SAMPLING screen.

[F4 (PRE-FX)]

COMPRESSOR

Parameter Name	Full Name of Parameter	Value
Sustain	Sustain	0–127
Attack Time	Attack time	0–127
Tone	Tone	-50– +50
Output Level	Output level	0– +24 [dB]

LIMITER

Parameter Name	Full Name of Parameter	Value
Threshold Level	Threshold level	-60–0 [dB]
Release Time	Release time	0–127
Ratio	Ratio	1.5:1, 2:1, 4:1, 100:1
Tone	Tone	-50– +50
Output Level	Output level	0– +24 [dB]

NOISE SUPPRESSOR

Parameter Name	Full Name of Parameter	Value
Threshold Level	Threshold level	-60–0 [dB]
Release Time	Release time	0–127

METRONOME screen

Parameter Name	Full Name of Parameter	Value
Mode	Metronome mode	OFF, REC, ALWAYS
Count-In	Count-in	0–2 [Meas]
Tempo	Master tempo	20.0–250.0
Clock Src	Clock source	INT, MIDI
Time Sign	Time signature	Numerator: 1–16, Denominator: 2, 4, 8, 16
Level	Metronome level	1–8

[F5 (METRO)]

Parameter List

Factory Settings for Sampling Template

	1	2	3	4	5	6	7	8	9-16
	MIC	CD	OPTCAL	RESAMP	COMP	LIMITR	NS	MIDI	User 1–User 8
SETUP									
Type	MONO M	STEREO	STEREO	STEREO	STEREO	STEREO	STEREO	STEREO	STEREO
Input	FRONT	REAR	OPTICAL	RESAMPLE	REAR	REAR	REAR	REAR	REAR
Original Pitch	C4	C4	C4	C4	C4	C4	C4	C4	C4
Trigger Mode	MANUAL	LEVEL	LEVEL	MANUAL	MANUAL	MANUAL	MANUAL	MIDI	MANUAL
Trigger Level	(64)	64	64	(64)	(64)	(64)	(64)	(64)	(64)
Pre-Trigger	0	0	0	0	0	0	0	0	0
Pre-Gain	0	0	0	0	0	0	0	0	0
PRE-FX									
Type	OFF	OFF	OFF	OFF	COMP	LIMTR	NS	OFF	OFF
METRONOME									
Mode	REC	REC	REC	REC	REC	REC	REC	REC	REC
Count-In	1	(0)	(0)	1	1	1	1	(0)	0

* Parameters enclosed in parentheses () have no effect for that template.

* The Metronome parameters Tempo, Clock Src, Time Sign, and Level are performance parameters.

MIDI Implementation

Model: VP-9000 (VariPhrase Processor)
Date: Dec. 12, 1999
Version: 1.00

1. Receive Data

■ Channel Voice Messages

● Note Off

status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

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

- Not received when the Receive switch (PERFORM/MIDI/RX SW) is OFF.
- This is not received if the part and note number that receives this message has a Trigger Mode (SAMPLE/MODE) setting of TRIGGER or DRUM.

● Note On

status	2nd byte	3rd byte
9nH	kkH	vvH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
kk = note number: 00H-7FH (0-127)
vv = Note On velocity: 01H-7FH (1-127)

- Not received when the Receive switch (PERFORM/MIDI/RX SW) is OFF.
- If the sample assigned to the part and note number that receives this message has a Trigger Mode (SAMPLE/MODE) setting of TRIGGER, and if that note is sounding, this will function as note-off.

● Polyphonic Aftertouch

status	2nd byte	3rd byte
AnH	kkH	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- When received on the control channel, this will affect all parts.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the effect will apply to all phrases assigned to the note number.

● Control Change

- If the corresponding Controller number is selected for the C1 Assign, C2 Assign, C3 Assign, or VC Assign parameter (PERFORM/MIDI/COMMON), the corresponding effect will occur. With a value of 64, there will be no effect.
- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- If this is received on the control channel (SYSTEM/MIDI/GENERAL), the effect will apply to all parts, unless otherwise noted for each item.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the effect will apply to all phrases.

○ 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-ch.16)
mm, ll = Bank number: 00 00H-7F 7FH (bank.1-bank.16384)

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- The Samples corresponding to each Bank Select are as follows:

Bank Select	Program No		Sample
	MSB	LSB	
70	0	0 - 127	A001 - A128
70	1	0 - 127	B001 - B128
70	2	0 - 127	C001 - C128
70	3	0 - 127	D001 - D128
70	4	0 - 127	E001 - E128
70	5	0 - 127	F001 - F128
70	6	0 - 127	G001 - G128
70	7	0 - 127	H001 - H128

○ Modulation (Controller number 1)

status	2nd byte	3rd byte
BnH	01H	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.

○ Portamento Time (Controller number 5)

status	2nd byte	3rd byte
BnH	05H	vvH

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

- This will affect the Portamento Time parameter (SAMPLE/CTRL/PORTA) of the sample assigned to the part that receives the message.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, this will have no effect.
- Not received on the Control channel.

○ Data Entry (Controller number 6, 38)

status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
mm, ll = the value of the parameter specified by RPN/NRPN
mm = MSB, ll = LSB

- Not received on the Control channel.

○ Volume (Controller number 7)

status	2nd byte	3rd byte
BnH	07H	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.

○ Panpot (Controller number 10)

status	2nd byte	3rd byte
BnH	0AH	vvH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
vv = Panpot: 00H-40H-7FH (left-center-right)

- Adjust the stereo location over 128 steps, where 0 is far left, 64 is center, and 127 is far right.

○ Expression (Controller number 11)

status	2nd byte	3rd byte
BnH	0BH	vvH

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

○ Hold 1 (Controller number 64)

status	2nd byte	3rd byte
BnH	40H	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- This will have the effect specified by the setting of the Hold 1 Destination parameter (PERFORM/CTRL/HOLD).

○ Portamento (Controller number 65)

status	2nd byte	3rd byte
BnH	41H	vvH

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

- This will change the Portamento Sw parameter (SAMPLE/CTRL/PORTA) setting of the sample assigned to the part that receives this.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, this will have no effect.
- Not received on the Control channel.

MIDI Implementation

○ Hold 2 (Controller number 69)

status	2nd byte	3rd byte
BnH	45H	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- This will have the effect specified by the setting of the Hold 2 Destination parameter (PERFORM/CTRL/HOLD).

○ Portamento Control (Controller number 84)

status	2nd byte	3rd byte
BnH	54H	kkH

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

- A Note On message received immediately after a Portamento control will be sounded with the pitch changing smoothly from the source note number. If a voice is already sounding at the same note number as the source note number, that voice will change pitch to the pitch of the newly received Note On, and continue sounding (i.e., will be played legato).
- The speed of pitch change produced by portamento control will depend on the setting of the Portamento Time parameter (SAMPLE/CTRL/PORTA) of the sample assigned to the part that receives this.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, this will have no effect.
- Not received on the Control channel.

○ Effect 1 (Reverb Send Level) (Controller number 91)

(Controller number 91)

status	2nd byte	3rd byte
BnH	5BH	vvH

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

- The Reverb Send Level parameter (PERFORM/EFFECT/ROUTING) will change.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the Map Reverb Send Level (PERFORM/PHRASE/EFFECT) of the currently selected phrase map number will change.
- Not received on the Control channel.

○ Effect 3 (Chorus Send Level) (Controller number 93)

(Controller number 93)

status	2nd byte	3rd byte
BnH	5DH	vvH

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

- The Chorus Send Level parameter (PERFORM/EFFECT/ROUTING) will change.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the Map Chorus Send Level (PERFORM/PHRASE/EFFECT) of the currently selected phrase map number will change.
- Not received on the Control channel.

○ 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-ch.16)
 mm = MSB of the parameter number specified by RPN
 ll = LSB of the parameter number specified by RPN

- Not received on the Control channel.

<<< RPN >>>

Control Changes include RPN (Registered Parameter Numbers), which are extended parameters whose function is defined in the MIDI specification. When using RPNs, first the RPN (Controller numbers 100 and 101; they can be sent in any order) is transmitted to specify the parameter you wish to control. Then, Data Entry messages (Controller numbers 6 and 38) are used to set the value of the specified parameter. Once an RPN parameter has been specified, all Data Entry messages received on that channel will modify the value of that parameter. In order to prevent accidents, when the desired setting has been made for the parameter, it is recommended that RPN be set to Null.

This device receives the following RPNs

RPN	Data entry	Notes
MSB LSB	MSB LSB	
00H 00H	mmH ---	Pitch Bend Sensitivity mm: 00H-0CH (0-12 semitones) ll: ignored (processed as 00H) Up to 1 octave can be specified in semitone steps. • The Bend Range Up/Down parameters (PERFORM/CTRL/P.BEND) will also change.
00H 01H	mmH llH	Master Fine Tuning mm, ll: 20 00H-40 00H-60 00H (-40% *100 / 8192-0- +40% *100 / 8192 cent) • The Fine Tune parameter (PERFORM/PART/SOUND/FINE) will change.
00H 02H	mmH ---	Master Coarse Tuning mm: 10H-40H-70H (-48-0- +48 semitones) ll: ignored (processed as 00H) • The Coarse Tune parameter (PERFORM/PART/SOUND/COARSE) will change.
7FH 7FH	--- ---	RPN null RPN and NRPN will be set as "unspecified." Once this setting has been made, subsequent Data Entry messages will be ignored. (It is not necessary to transmit Data Entry for RPN Null settings.) Settings already made will not change. mm, ll: ignored

● Program Change

status	2nd byte
CnH	ppH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
 pp=Program number: 00H-7FH (prog.1-prog.128)

- Not received when the System Receive Switch (SYSTEM/MIDI/RX SW) or the Receive Switch (PERFORM/MIDI/RX) of each Part is OFF.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the sample of the currently selected phrase map number will change.
- Not received on the Control channel.

● Channel Aftertouch

status	2nd byte
DnH	vvH

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- If this is received on the control channel, the effect will apply to all parts.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the effect will apply to all phrases.

● Pitch Bend Change

status	2nd byte	3rd byte
EnH	llH	mmH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
 mm, ll = Pitch Bend value: 00 00H-40 00H-7F 7FH (-8192-0- +8191)

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- If this is received on the control channel, the effect will apply to all parts.
- If the part that receives this has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the effect will apply to all phrases.

■ Channel Mode Messages

● All Sound Off (Controller number 120)

status	2nd byte	3rd byte
BnH	7BH	00H

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- When this message is received, all currently sounding notes on the corresponding channel will be turned off immediately.
- If this is received on the control channel, all currently sounding notes of all parts will be silenced.

● Reset All Controllers (Controller number 121)

status	2nd byte	3rd byte
BnH	79H	00H

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- When this message is received, the following controllers will be set to their reset values.
- If this is received on the control channel, the controllers of all parts will be set to their reset values.

Controller	Reset value
Pitch Bend Change	+/- 0 (center)
Polyphonic Key Pressure	0 (off)
Channel Pressure	0 (off)
Modulation	0 (off)
Expression	127 (maximum)
Hold 1	0 (off)
Hold 2	0 (off)
Panpot	64 (center)
RPN	Unset. Previously set data will not change.
NRPN	Unset. Previously set data will not change.
C1	64 (center)
C2	64 (center)
C3	64 (center)
VC	64 (center)

● All Notes Off (Controller number 123)

status	2nd byte	3rd byte
BnH	7BH	00H

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- When All Notes Off is received, all currently sounding notes on the corresponding channel will be turned off. However, if the Hold 1 Destination is set to PAUSE, LOOP, or HOLD, and Hold 1 is on; or if the Hold 2 Destination is set to PAUSE, LOOP, or HOLD, and Hold 2 is on, the sound will not end until these are turned off.
- If the sample of a note that is "on" has a Trigger Mode (SAMPLE/MODE) setting of TRIGGER or DRUM, that note will not turn off.
- If this is received on the control channel, the effect will apply to the notes of all parts.

● Omni Off (Controller number 124)

status	2nd byte	3rd byte
BnH	7CH	00H

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

- Not received when the Receive Switch (SYSTEM/MIDI/RX SW) is OFF.
- All notes currently "on" for the part that receives this will be turned off. However, if the sample corresponding to one of these notes has a Trigger Mode (SAMPLE/DRUM) setting of DRUM, that note will not turn off.
- Not received on the Control channel.

● Omni On (Controller number 125)

status	2nd byte	3rd byte
BnH	7DH	00H

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- All notes currently "on" for the part that receives this will be turned off. However, if the sample corresponding to one of these notes has a Trigger Mode (SAMPLE/DRUM) setting of DRUM, that note will not turn off.
- The VP-9000 cannot be switched to OMNI ON.
- Not received on the Control channel.

● Mono (Controller number 126)

status	2nd byte	3rd byte
BnH	7EH	mmH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
mm = Mono number: 00H-10H (0-16)

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- The sample assigned to that part will be switched to a Key Assign (SAMPLE/MODE) setting of SOLO. If that part has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the parameter will not be changed.
- All notes currently "on" for the part that receives this will be turned off. However, if the sample corresponding to one of these notes has a Trigger Mode (SAMPLE/DRUM) setting of DRUM, that note will not turn off.
- Not received on the Control channel.

● Poly (Controller number 127)

status	2nd byte	3rd byte
BnH	7FH	00H

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

- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.
- The sample assigned to that part will be switched to a Key Assign (SAMPLE/MODE) setting of POLY. If that part has a Keyboard Map (PERFORM/PART/GENERAL) setting of PHRASE MAP, the parameter will not be changed.
- All notes currently "on" for the part that receives this will be turned off. However, if the sample corresponding to one of these notes has a Trigger Mode (SAMPLE/DRUM) setting of DRUM, that note will not turn off.
- Not received on the Control channel.

■ System Realtime Messages

● Timing Clock

status
F8H

- This message will be received if the Clock Source parameter (PERFORM/COMMON/TEMPO) is MIDI.

● Start

status
FAH

- When Start is received, the metronome beat will be reset.
- If the Groove Sw parameter (GROOVE/COMMON) is ON, and the Groove Start parameter (GROOVE/COMMON) is set to MIDI START, the groove will start when this message is received.

● Continue

status
FBH

- When Continue is received, the metronome beat will be reset.
- If the Groove Sw parameter (GROOVE/COMMON) is ON, and the Groove Start parameter (GROOVE/COMMON) is set to MIDI START, the groove will start when this message is received.

● Stop

status
FCH

- If the Groove Sw parameter (GROOVE/COMMON) is ON, and the Groove Start parameter (GROOVE/COMMON) is set to MIDI START, the groove will stop when this message is received.

● Active Sensing

status
FEH

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

MIDI Implementation

■ System Exclusive Messages

status	data byte	status
F0H	iiH, ddH,, eeH	F7H

F0H: System Exclusive message status
 ii = ID number: This is the ID number (manufacturer ID) that specifies the manufacturer whose exclusive message this is. Roland's manufacturer ID is 41H. ID numbers 7EH and 7FH are defined in an expansion of the MIDI standard as Universal Non-realtime messages (7EH) and Universal Realtime Messages (7FH).
 dd, ..., ee = data: 00H-7FH (0-127)
 F7H: EOX (End Of Exclusive)

Of the System Exclusive messages received by this device, the Universal Non-realtime messages, the Data Request (RQ1) messages and the Data Set (DT1) messages will be set automatically.

● Universal Non-realtime System Exclusive Messages

○ Identity Request Message

When this message is received, Identity Reply message (p. 201) will be transmitted.

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: 10H-1FH)
06H	sub ID#1 (General Information)
01H	sub ID#2 (Identity Request)
F7H	EOX (End of Exclusive)

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

● Data Transmission

The VP-9000 can transmit and receive the various parameters using System Exclusive messages.

The model ID of the exclusive messages used by this instrument is 00 1DH.

○ Data Request 1 (RQ1)

This message requests the other device to transmit data. The address and size indicate the type and amount of data that is requested.

When a Data Request message is received, if the device is in a state in which it is able to transmit data, and if the address and size are appropriate, the requested data is transmitted as a Data Set 1 (DT1) message. If the conditions are not met, nothing is transmitted.

Status	Data Byte	Status
F0H	41H, dev, 00H, 1DH, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H-1FH)
00H	Model ID#1 (VP-9000)
1DH	Model ID#2 (VP-9000)
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 listed in Section 3 (p. 201).
- For the checksum, refer to (p. 207).
- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.

○ Data Set 1 (DT1)

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

Status	Data Byte	Status
F0H	41H, dev, 00H, 1DH, 12H, aaH, bbH, ccH, ddH, eeH, ..., ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H-1FH)
00H	Model ID#1 (VP-9000)
1DH	Model ID#2 (VP-9000)
12H	command ID (DT1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
eeH	data: The actual data to be transmitted. Multi-byte data is transmitted in the address order.
ffH	data
sum	checksum
F7H	EOX (End of Exclusive)

- The amount of data that is transmitted at one time is fixed for the type of data, and only data of the fixed starting address and size will be transmitted. Refer to the Address and Size listed in Section 3 (p. 201).
- Data whose size is greater than 128 bytes should be divided into packets of 128 bytes or less and transmitted. Successive "Data Set 1" messages should have at least 20 ms of time interval between them.
- For the checksum, refer to (p. 207).
- Not received when the Receive switch (SYSTEM/MIDI/RX SW) is OFF.

2. Transmit Data

■ Channel Voice Messages

● Control Change

- By selecting a controller number that corresponds to the setting of the C1 Assign, C2 Assign, C3 Assign, or VC Assign parameter (PERFORM/MIDI/COMMON), you can transmit any desired Control Change.
- This is not transmitted if C1 Output Mode, C2 Output Mode, or C3 Output Mode (PERFORM/MIDI/COMMON) is set to INT.
- This is transmitted on the control channel if Knob Control (PERFORM/MIDI/COMMON) is set to MULTI PART.

○ 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-ch.16)
 mn, ll = Bank number: 00 00H-7F 7FH (bank.1-bank.16384)

- This message is not transmitted if Tx Program Change parameter (SYSTEM/MIDI/TX SW) or Tx Bank Select parameter (SYSTEM/MIDI/TX SW) is OFF.
- For the Bank Select that corresponds to each Sample, refer to p. 197.

● Program Change

status	2nd byte
CnH	ppH

n = MIDI channel number: 0H-FH (ch.1-ch.16)
 pp = Program number: 00H-7FH (prog.1-prog.128)

- Not received when the Tx Program Change parameter (SYSTEM/MIDI/TX SW) is OFF.

■ System Realtime Messages

● Active Sensing

status
FEH

- Transmitted at intervals of approximately 250 ms.

System Exclusive Messages

There is a kind of the Universal Non-realtime messages and the Data Set (DT1) messages in the System Exclusive messages transmitted by this device.

Universal Non-realtime System Exclusive Messages

Identity Reply Message

When Identity Request message (p. 200) is received, this message will be transmitted.

status	data byte	status
F0H	7EH, dev. 06H, 02H, 41H, 1DH, 01H, 00H, 00H, 00H, 00H, 00H, 00H	F7H

Byte	Explanation
F0H	Exclusive status
7EH	ID number (Universal Non-realtime message)
dev	device ID (dev: 10H-1FH)
06H	sub ID#1 (General Information)
02H	sub ID#2 (Identity Reply)
41H	ID number (Roland)
1DH 01H	Device family code
00H 00H	Device family number code
00H 00H 00H 00H	Software revision level
F7H	EOX (End of Exclusive)

Data Transmission

Data Set 1 (DT1)

Status	Data Byte	Status
F0H	41H, dev, 00H, 1DH, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Explanation
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H-1FH)
00H	Model ID#1 (VP-9000)
1DH	Model ID#2 (VP-9000)
12H	command ID (DT1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
eeH	data: The actual data to be transmitted. Multi-byte data is transmitted in the address order.
:	:
ffH	data
sum	checksum
F7H	EOX (End of Exclusive)

- The amount of data transmitted at one time is fixed for the type of data, and the data will be transmitted with the fixed starting address and size. Refer to the Address and Size listed in Section 3 (p. 201).
- Large amounts of data must be divided into packets of 128 bytes or less, and transmitted at intervals of approximately 20 ms.
- For the checksum, refer to (p. 207).

3. Parameter Address Map

1. VP-9000 (Model ID = 00H 1DH)

- Addresses marked with # support only data request 1 (RQ1). Data set 1 (DT1) messages are ignored.
- Addresses marked at "*" cannot be used as starting addresses.

Start Address	Description	
00 00 00 00	System	1-1
00 00 00 00	System Common	1-1-1
01 00 00 00	Sampling Template 1	1-1-2
01 01 00 00	Sampling Template 2	:
:	:	:
01 0F 00 00	Sampling Template 16	:
10 00 00 00	Performance	1-2
10 00 00 00	Performance Common	1-2-1
11 00 00 00	Performance Part 1	1-2-2
11 0C 10 00	Performance Part 2	:
:	:	:
11 00 50 00	Performance Part 6	:
12 00 00 00	Performance Part 1 Phrase Map 1	1-2-3
12 00 01 00	Performance Part 1 Phrase Map 2	:
:	:	:
12 00 0B 00	Performance Part 1 Phrase Map 12	:
12 01 00 00	Performance Part 2 Phrase Map 1	1-2-3
:	:	:
12 05 0B 00	Performance Part 6 Phrase Map 12	:
20 00 00 00	Sample A-1	1-3
20 01 00 00	Sample A-2	:
:	:	:
20 7F 00 00	Sample A-128	:
21 00 00 00	Sample B-1	:
:	:	:
27 7F 00 00	Sample H-128	:
30 00 00 00	Wave A-1	1-4
30 01 00 00	Wave A-2	:
:	:	:
30 7F 00 00	Wave A-128	:
31 00 00 00	Wave B-1	:
:	:	:
37 7F 00 00	Wave H-128	:

1-1. System

1-1-1. System Common

Offset Address	Description	
00 00	0000 aaaa	Master Tune 4274 - 4526 (nibbled) (427.4 - 452.6)
00 01*	0000 bbbb	:
00 02*	0000 cccc	:
00 03*	0000 dddd	Master Attenuation 0 - 60 (-60 - 0[dB])
00 04	00aa aaaa	:
00 05	0000 000a	HFX Sw 0 - 1 (OFF, ON)
00 06	0000 000a	Chorus Sw 0 - 1 (OFF, ON)
00 07	0000 000a	Reverb Sw 0 - 1 (OFF, ON)
00 08	0000 000a	Remain 0 - 1 (OFF, ON)
00 09	0000 000a	Receive Program Change 0 - 1 (OFF, ON)
00 0A	0000 000a	Receive Bank Select 0 - 1 (OFF, ON)
00 0B	0000 000a	Receive Control Change 0 - 1 (OFF, ON)
00 0C	0000 000a	Receive Modulation 0 - 1 (OFF, ON)
00 0D	0000 000a	Receive Volume 0 - 1 (OFF, ON)
00 0E	0000 000a	Receive Hold1/2 0 - 1 (OFF, ON)
00 0F	0000 000a	Receive Pitch Bend 0 - 1 (OFF, ON)
00 10	0000 000a	Receive Aftertouch 0 - 1 (OFF, ON)
00 11	000a aaaa	Control Channel 0 - 16 (1 - 16, OFF)
00 12	0000 000a	Preview Sound Mode 0 - 1 (SINGLE, ALL)
00 13	0000 000a	Preview Trigger Mode 0 - 1 (MOMENTARY, LATCH)
00 14	0000 000a	Preview Part 1 Sw 0 - 1 (OFF, ON)
00 15	0000 000a	Preview Part 2 Sw 0 - 1 (OFF, ON)
00 16	0000 000a	Preview Part 3 Sw 0 - 1 (OFF, ON)
00 17	0000 000a	Preview Part 4 Sw 0 - 1 (OFF, ON)
00 18	0000 000a	Preview Part 5 Sw 0 - 1 (OFF, ON)
00 19	0000 000a	Preview Part 6 Sw 0 - 1 (OFF, ON)
00 1A	0000 000a	Transmit Program Change 0 - 1 (OFF, ON)
00 1B	0000 000a	Transmit Bank Select 0 - 1 (OFF, ON)
00 1C	0000 aaaa	Transpose Value 0 - 11 (-5 - +6 [semitone])
00 1D	0000 0aaa	Octave Shift 0 - 6 (-3 - +3 [octave])
00 1E	0000 000a	Remote Keyboard Sw 0 - 1 (OFF, ON)
00 1F	0000 000a	Transmit Edit Data 0 - 1 (OFF, ON)
00 20	0000 00aa	Digital Out Sample Rate 0 - 2 (32, 44.1, 48 [kHz])
00 21	0000 000a	Panic Key 0 - 128
00 22*	0bbb bbbb	(OFF, C-1 - G9)
# 00 23	0000 000a	Auto Load Sw 0 1 (OFF, ON)

#	02 00	0aaa aaaa	Auto Load File Path 218	32 - 126
#	02 0E	0aaa aaaa	Auto Load File Path 219	32 - 126
#	02 0F	0aaa aaaa	Auto Load File Path 220	32 - 126
#	02 10	0aaa aaaa	Auto Load File Path 221	32 - 126
#	02 11	0aaa aaaa	Auto Load File Path 222	32 - 126
#	02 12	0aaa aaaa	Auto Load File Path 223	32 - 126
#	02 13	0aaa aaaa	Auto Load File Path 224	32 - 126
#	02 14	0aaa aaaa	Auto Load File Path 225	32 - 126
#	02 15	0aaa aaaa	Auto Load File Path 226	32 - 126
#	02 16	0aaa aaaa	Auto Load File Path 227	32 - 126
#	02 17	0aaa aaaa	Auto Load File Path 228	32 - 126
#	02 18	0aaa aaaa	Auto Load File Path 229	32 - 126
#	02 19	0aaa aaaa	Auto Load File Path 230	32 - 126
#	02 1A	0aaa aaaa	Auto Load File Path 231	32 - 126
#	02 1B	0aaa aaaa	Auto Load File Path 232	32 - 126
#	02 1C	0aaa aaaa	Auto Load File Path 233	32 - 126
#	02 1D	0aaa aaaa	Auto Load File Path 234	32 - 126
#	02 1E	0aaa aaaa	Auto Load File Path 235	32 - 126
#	02 1F	0aaa aaaa	Auto Load File Path 236	32 - 126
#	02 20	0aaa aaaa	Auto Load File Path 237	32 - 126
#	02 21	0aaa aaaa	Auto Load File Path 238	32 - 126
#	02 22	0aaa aaaa	Auto Load File Path 239	32 - 126
#	02 23	0aaa aaaa	Auto Load File Path 240	32 - 126
#	02 24	0aaa aaaa	Auto Load File Path 241	32 - 126
#	02 25	0aaa aaaa	Auto Load File Path 242	32 - 126
#	02 26	0aaa aaaa	Auto Load File Path 243	32 - 126
#	02 27	0aaa aaaa	Auto Load File Path 244	32 - 126
#	02 28	0aaa aaaa	Auto Load File Path 245	32 - 126
#	02 29	0aaa aaaa	Auto Load File Path 246	32 - 126
#	02 2A	0aaa aaaa	Auto Load File Path 247	32 - 126
#	02 2B	0aaa aaaa	Auto Load File Path 248	32 - 126
#	02 2C	0aaa aaaa	Auto Load File Path 249	32 - 126
#	02 2D	0aaa aaaa	Auto Load File Path 250	32 - 126
#	02 2E	0aaa aaaa	Auto Load File Path 251	32 - 126
#	02 2F	0aaa aaaa	Auto Load File Path 252	32 - 126
#	02 30	0aaa aaaa	Auto Load File Path 253	32 - 126
#	02 31	0aaa aaaa	Auto Load File Path 254	32 - 126
#	02 32	0aaa aaaa	Auto Load File Path 255	32 - 126
#	02 33	0aaa aaaa	Auto Load File Path 256	32 - 126
Total size				00 00 02 34

#: KQI only (can NOT be written by DTI)
 * Cannot start from this address

1-1-2. Sampling Template

Offset Address	Description	
00 00	0aaa aaaa	Template Name 1 32 - 126
00 01	0aaa aaaa	Template Name 2 32 - 126
00 02	0aaa aaaa	Template Name 3 32 - 126
00 03	0aaa aaaa	Template Name 4 32 - 126
00 04	0aaa aaaa	Template Name 5 32 - 126
00 05	0aaa aaaa	Template Name 6 32 - 126
00 06	0000 00aa	Sampling Type 0 - 3 (STEREO, MONO M, MONO L, MONO R)
00 07	0000 0aaa	Input Select 0 - 4 (REAR, FRONT, OPTICAL, COAXIAL, RESAMPLE)
00 08	0000 00aa	Trigger Mode 0 - 2 (MANUAL, MIDI START, LEVEL)
00 09	0aaa aaaa	Trigger Level 0 - 127
00 0A	0aaa aaaa	Pre Trigger 0 - 100
00 0B	0aaa aaaa	Pre Gain (0 - 1000 [msec]) 0 - 36
00 0C	0aaa aaaa	Original Pitch (-12 - +24 [dB]) 0 - 127
00 0D	0000 00aa	Count In 0 - 2 (0 - 2 [MEAS])
00 0E	0000 00aa	Metronome Mode 0 - 2 (OFF, REC, ALWAYS)
00 0F	0000 00aa	Pre Effect Type 0 - 3 (OFF, COMP, LIMITER, NS)
00 10	0aaa aaaa	Comp. Sustain 0 - 127
00 11	0aaa aaaa	Comp. Attack 0 - 127
00 12	0aaa aaaa	Comp. Tone 0 - 100 (-50 - +50)
00 13	000a aaaa	Comp. Level 0 - 24 (0 - +24 [dB])
00 14	00aa aaaa	Limiter Threshold 0 - 60 (-60 - 0 [dB])
00 15	0aaa aaaa	Limiter Release 0 - 127
00 16	0000 00aa	Limiter Ratio 0 - 3 (1.5:1/2:1/4:1/100:1)
00 17	0aaa aaaa	Limiter Tone 0 - 100 (-50 - +50)
00 18	000a aaaa	Limiter Level 0 - 24 (0 - +24 [dB])
00 19	00aa aaaa	NS Threshold 0 - 60 (-60 - 0 [dB])
00 1A	0aaa aaaa	NS Release Time 0 - 127
Total size 00 00 00 1B		

1-2. Performance

1-2-1. Performance Common

Offset Address	Description	
00 00	00aa aaaa	Multi-FX Type 0 - 40 (0 (THRU), 1 - 40)
00 01	0aaa aaaa	Multi-FX Parameter 1 0 - 127
00 02	0aaa aaaa	Multi-FX Parameter 2 0 - 127
00 03	0aaa aaaa	Multi-FX Parameter 3 0 - 127
00 04	0aaa aaaa	Multi-FX Parameter 4 0 - 127
00 05	0aaa aaaa	Multi-FX Parameter 5 0 - 127
00 06	0aaa aaaa	Multi-FX Parameter 6 0 - 127
00 07	0aaa aaaa	Multi-FX Parameter 7 0 - 127
00 08	0aaa aaaa	Multi-FX Parameter 8 0 - 127
00 09	0aaa aaaa	Multi-FX Parameter 9 0 - 127
00 0A	0aaa aaaa	Multi-FX Parameter 10 0 - 127
00 0B	0aaa aaaa	Multi-FX Parameter 11 0 - 127
00 0C	0aaa aaaa	Multi-FX Parameter 12 0 - 127
00 0D	0aaa aaaa	Multi-FX Parameter 13 0 - 127
00 0E	0aaa aaaa	Multi-FX Parameter 14 0 - 127
00 0F	0aaa aaaa	Multi-FX Parameter 15 0 - 127
00 10	0aaa aaaa	Multi-FX Parameter 16 0 - 127
00 11	0aaa aaaa	Multi-FX Parameter 17 0 - 127
00 12	0aaa aaaa	Multi-FX Parameter 18 0 - 127
00 13	0aaa aaaa	Multi-FX Parameter 19 0 - 127
00 14	0aaa aaaa	Multi-FX Parameter 20 0 - 127
00 15	0aaa aaaa	Multi-FX Parameter 21 0 - 127
00 16	0aaa aaaa	Multi-FX Parameter 22 0 - 127
00 17	0aaa aaaa	Multi-FX Parameter 23 0 - 127
00 18	0aaa aaaa	Multi-FX Parameter 24 0 - 127
00 19	0aaa aaaa	Multi-FX Parameter 25 0 - 127
00 1A	0aaa aaaa	Multi-FX Parameter 26 0 - 127
00 1B	0aaa aaaa	Multi-FX Parameter 27 0 - 127
00 1C	0aaa aaaa	Multi-FX Parameter 28 0 - 127
00 1D	0aaa aaaa	Multi-FX Parameter 29 0 - 127
00 1E	0aaa aaaa	Multi-FX Parameter 30 0 - 127
00 1F	0aaa aaaa	Multi-FX Parameter 31 0 - 127
00 20	0aaa aaaa	Multi-FX Parameter 32 0 - 127
00 21	0000 00aa	Multi-FX Output Assign 0 - 2 (MAIN, DIR1, DIR2)
00 22	0aaa aaaa	Multi-FX Master Level 0 - 127
00 23	0aaa aaaa	Multi-FX Chorus Send Level 0 - 127
00 24	0aaa aaaa	Multi-FX Reverb Send Level 0 - 127
00 25	0000 00aa	Chorus Type 0 - 7 (CHORUS 1, CHORUS 2, CHORUS 3, CHORUS 4, FB CHORUS, FLANGER, SHORT DELAY, FB DELAY)
00 26	0aaa aaaa	Chorus Parameter 1 0 - 127
00 27	0aaa aaaa	Chorus Parameter 2 0 - 127
00 28	0aaa aaaa	Chorus Parameter 3 0 - 127
00 29	0aaa aaaa	Chorus Parameter 4 0 - 127
00 2A	0aaa aaaa	Chorus Parameter 5 0 - 127
00 2B	0aaa aaaa	Chorus Parameter 6 0 - 127
00 2C	0aaa aaaa	Chorus Parameter 7 0 - 127
00 2D	0aaa aaaa	Chorus Parameter 8 0 - 127
00 2E	0aaa aaaa	Chorus Parameter 9 0 - 127
00 2F	0aaa aaaa	Chorus Parameter 10 0 - 127
00 30	0aaa aaaa	Chorus Master Level 0 - 127
00 31	0aaa aaaa	Chorus Reverb Send Level 0 - 127
00 32	0000 00aa	Reverb Type 0 - 8 (ROOM1, ROOM2, ROOM3, HALL1, HALL2, HALL3, GARAGE, PLATE, NLR)
00 33	0aaa aaaa	Reverb Parameter 1 0 - 127
00 34	0aaa aaaa	Reverb Parameter 2 0 - 127
00 35	0aaa aaaa	Reverb Parameter 3 0 - 127
00 36	0aaa aaaa	Reverb Parameter 4 0 - 127
00 37	0aaa aaaa	Reverb Parameter 5 0 - 127
00 38	0aaa aaaa	Reverb Parameter 6 0 - 127
00 39	0aaa aaaa	Reverb Parameter 7 0 - 127
00 3A	0aaa aaaa	Reverb Parameter 8 0 - 127
00 3B	0aaa aaaa	Reverb Parameter 9 0 - 127
00 3C	0aaa aaaa	Reverb Parameter 10 0 - 127
00 3D	0aaa aaaa	Reverb Parameter 11 0 - 127
00 3E	0aaa aaaa	Reverb Parameter 12 0 - 127
00 3F	0aaa aaaa	Reverb Parameter 13 0 - 127
00 40	0aaa aaaa	Reverb Parameter 14 0 - 127
00 41	0aaa aaaa	Reverb Parameter 15 0 - 127
00 42	0aaa aaaa	Reverb Parameter 16 0 - 127
00 43	0aaa aaaa	Reverb Parameter 17 0 - 127
00 44	0aaa aaaa	Reverb Parameter 18 0 - 127
00 45	0aaa aaaa	Reverb Parameter 19 0 - 127
00 46	0aaa aaaa	Reverb Parameter 20 0 - 127
00 47	0aaa aaaa	Reverb Parameter 21 0 - 127
00 48	0aaa aaaa	Reverb Parameter 22 0 - 127
00 49	0aaa aaaa	Reverb Parameter 23 0 - 127
00 4A	0aaa aaaa	Reverb Parameter 24 0 - 127
00 4B	0aaa aaaa	Reverb Master Level 0 - 127
00 4C	0000 00aa	Master Tempo 2000 - 25000 (nibbled) (20.00 - 250.00)
00 4D	0000 bbbb	
00 4E	0000 cccc	
00 4F	0000 dddd	
00 50	0000 000a	Clock Source 0 - 1 (INT, MIDI)
00 51	0000 000a	Metronome Sw 0 - 1 (OFF, ON)
00 52	0000 00aa	Metronome Level 1 - 8
00 53	0000 00aa	Metronome Denominator 0 - 3 (2, 4, 8, 16)
00 54	0000 00aa	Metronome Numerator 0 - 15 (1 - 16)
00 55	000a 00aa	Master Coarse Tune 0 - 24 (-12 - +12 [semitone])
00 56	0aaa aaaa	Master Fine Tune 0 - 100 (-50 - +50 [cent])

MIDI Implementation

00 57	0000 000a	Knob Control	0 - 1
00 58	00aa aaaa	C1 Assign (MULTI PART, CURRENT PART) (CC02 - CC05, CC07 - CC31, CC64 - CC95)	0 - 60
00 59	0000 00aa	C1 Output Mode	0 - 3
00 5A	00aa aaaa	C2 Assign (OFF, INT, MIDI, INT&MIDI) (CC02 - CC05, CC07 - CC31, CC64 - CC95)	0 - 60
00 5B	0000 00aa	C2 Output Mode	0 - 3
00 5C	00aa aaaa	C3 Assign (OFF, INT, MIDI, INT&MIDI) (CC02 - CC05, CC07 - CC31, CC64 - CC95)	0 - 60
00 5D	0000 00aa	C3 Output Mode	0 - 3
00 5E	00aa aaaa	VC Assign (OFF, INT, MIDI, INT&MIDI) (CC02 - CC05, CC07 - CC31, CC64 - CC95)	0 - 60
00 5F	0000 0aaa	Groove Start Trigger	0 - 7
00 60	0000 00aa	(MIDI START, PART1 - 6, CUR PART) Groove Template	0 - 3
00 61	0000 000a	Groove Sw	0 - 1 (OFF, ON)
00 62	0000 0aaa	Voice Reserve 1	0 - 6
00 63	0000 0aaa	Voice Reserve 2	0 - 6
00 64	0000 0aaa	Voice Reserve 3	0 - 6
00 65	0000 0aaa	Voice Reserve 4	0 - 6
00 66	0000 0aaa	Voice Reserve 5	0 - 6
00 67	0000 0aaa	Voice Reserve 6	0 - 6
# 00 68	0aaa aaaa	Performance Name 1	32 - 126
# 00 69	0aaa aaaa	Performance Name 2	32 - 126
# 00 6A	0aaa aaaa	Performance Name 3	32 - 126
# 00 6B	0aaa aaaa	Performance Name 4	32 - 126
# 00 6C	0aaa aaaa	Performance Name 5	32 - 126
# 00 6D	0aaa aaaa	Performance Name 6	32 - 126
# 00 6E	0aaa aaaa	Performance Name 7	32 - 126
# 00 6F	0aaa aaaa	Performance Name 8	32 - 126
# 00 70	0aaa aaaa	Performance Name 9	32 - 126
# 00 71	0aaa aaaa	Performance Name 10	32 - 126
# 00 72	0aaa aaaa	Performance Name 11	32 - 126
# 00 73	0aaa aaaa	Performance Name 12	32 - 126
# 00 74	0aaa aaaa	Performance Name 13	32 - 126
# 00 75	0aaa aaaa	Performance Name 14	32 - 126
# 00 76	0aaa aaaa	Performance Name 15	32 - 126
# 00 77	0aaa aaaa	Performance Name 16	32 - 126
Total size	00 00 00 78		

RQ1 only (can NOT be written by DT1)

* Cannot start from this address

1-2-2. Performance Part

Offset Address	Description	
00 00	0000 0aaa	Sample Number
00 01	0bbb bbbb	(A001 - H128)
00 02	0000 000a	Receive Note Sw
		(OFF, ON)
00 03	0000 aaaa	Receive Channel
		0 - 15 (1 - 16)
00 04	0aaa aaaa	Level
00 05	0aaa aaaa	Pan
		(L64 - 63R)
00 06	000a aaaa	Coarse Tune
		(-12 - +12 {semitone})
00 07	0aaa aaaa	Fine Tune
		0 - 100 (-50 - +50 {cent})
00 08	0000 0aaa	Octave Shift
		0 - 6 (-3 - +3 {octave})
00 09	0000 000a	Pitch Sync Sw
		0 - 1 (OFF, ON)
00 0A	0aaa aaaa	Keyboard Range Lower
		0 - 127 (C-1 - Upper)
00 0B	0aaa aaaa	Keyboard Range Upper
		0 - 127 (Lower - G9)
00 0C	0000 00aa	Output Assign
		0 - 3 (MAIN, M-FX, DIR1, DIR2)
00 0D	0aaa aaaa	Multi-FX Send Level
00 0E	0aaa aaaa	Chorus Send Level
00 0F	0aaa aaaa	Reverb Send Level
00 10	0000 000a	Receive Program Change Sw
00 11	0000 000a	Receive Volume Sw
00 12	0000 000a	Receive Hold1/2 Sw
		0 - 1(OFF, ON)
00 13	0000 000a	Tempo Sync Sw
		0 - 1(OFF, ON)
00 14	0aaa aaaa	C1 Formant Depth
		0 - 127 (-64 - +63)
00 15	0aaa aaaa	C1 Time Depth
		0 - 127 (-64 - +63)
00 16	0aaa aaaa	C1 Pitch Depth
		0 - 127 (-64 - +63)
00 17	0aaa aaaa	C1 Level Depth
		0 - 127 (-64 - +63)
00 18	0aaa aaaa	C1 Groove Quantize Depth
		0 - 127 (-64 - +63)
00 19	0aaa aaaa	C1 LFO Rate
		0 - 127 (-64 - +63)
00 1A	0aaa aaaa	C1 LFO Formant Depth
		0 - 127 (-64 - +63)
00 1B	0aaa aaaa	C1 LFO Pitch Depth
		0 - 127 (-64 - +63)
00 1C	0aaa aaaa	C1 LFO Level Depth
		0 - 127 (-64 - +63)
00 1D	0aaa aaaa	C1 LFO Pan Depth
		0 - 127 (-64 - +63)

00 1E	0aaa aaaa	C2 Formant Depth	0 - 127 (-64 - +63)
00 1F	0aaa aaaa	C2 Time Depth	0 - 127 (-64 - +63)
00 20	0aaa aaaa	C2 Pitch Depth	0 - 127 (-64 - +63)
00 21	0aaa aaaa	C2 Level Depth	0 - 127 (-64 - +63)
00 22	0aaa aaaa	C2 Groove Quantize Depth	0 - 127 (-64 - +63)
00 23	0aaa aaaa	C2 LFO Rate	0 - 127 (-64 - +63)
00 24	0aaa aaaa	C2 LFO Formant Depth	0 - 127 (-64 - +63)
00 25	0aaa aaaa	C2 LFO Pitch Depth	0 - 127 (-64 - +63)
00 26	0aaa aaaa	C2 LFO Level Depth	0 - 127 (-64 - +63)
00 27	0aaa aaaa	C2 LFO Pan Depth	0 - 127 (-64 - +63)
00 28	0aaa aaaa	C3 Formant Depth	0 - 127 (-64 - +63)
00 29	0aaa aaaa	C3 Time Depth	0 - 127 (-64 - +63)
00 2A	0aaa aaaa	C3 Pitch Depth	0 - 127 (-64 - +63)
00 2B	0aaa aaaa	C3 Level Depth	0 - 127 (-64 - +63)
00 2C	0aaa aaaa	C3 Groove Quantize Depth	0 - 127 (-64 - +63)
00 2D	0aaa aaaa	C3 LFO Rate	0 - 127 (-64 - +63)
00 2E	0aaa aaaa	C3 LFO Formant Depth	0 - 127 (-64 - +63)
00 2F	0aaa aaaa	C3 LFO Pitch Depth	0 - 127 (-64 - +63)
00 30	0aaa aaaa	C3 LFO Level Depth	0 - 127 (-64 - +63)
00 31	0aaa aaaa	C3 LFO Pan Depth	0 - 127 (-64 - +63)
00 32	0aaa aaaa	VC Formant Depth	0 - 127 (-64 - +63)
00 33	0aaa aaaa	VC Time Depth	0 - 127 (-64 - +63)
00 34	0aaa aaaa	VC Pitch Depth	0 - 127 (-64 - +63)
00 35	0aaa aaaa	VC Level Depth	0 - 127 (-64 - +63)
00 36	0aaa aaaa	VC Groove Quantize Depth	0 - 127 (-64 - +63)
00 37	0aaa aaaa	VC LFO Rate	0 - 127 (-64 - +63)
00 38	0aaa aaaa	VC LFO Formant Depth	0 - 127 (-64 - +63)
00 39	0aaa aaaa	VC LFO Pitch Depth	0 - 127 (-64 - +63)
00 3A	0aaa aaaa	VC LFO Level Depth	0 - 127 (-64 - +63)
00 3B	0aaa aaaa	VC LFO Pan Depth	0 - 127 (-64 - +63)
00 3C	0aaa aaaa	MOD Formant Depth	0 - 127 (-64 - +63)
00 3D	0aaa aaaa	MOD Time Depth	0 - 127 (-64 - +63)
00 3E	0aaa aaaa	MOD Pitch Depth	0 - 127 (-64 - +63)
00 3F	0aaa aaaa	MOD Level Depth	0 - 127 (-64 - +63)
00 40	0aaa aaaa	MOD Groove Quantize Depth	0 - 127 (-64 - +63)
00 41	0aaa aaaa	MOD LFO Rate	0 - 127 (-64 - +63)
00 42	0aaa aaaa	MOD LFO Formant Depth	0 - 127 (-64 - +63)
00 43	0aaa aaaa	MOD LFO Pitch Depth	0 - 127 (-64 - +63)
00 44	0aaa aaaa	MOD LFO Level Depth	0 - 127 (-64 - +63)
00 45	0aaa aaaa	MOD LFO Pan Depth	0 - 127 (-64 - +63)
00 46	0aaa aaaa	AFT Formant Depth	0 - 127 (-64 - +63)
00 47	0aaa aaaa	AFT Time Depth	0 - 127 (-64 - +63)
00 48	0aaa aaaa	AFT Pitch Depth	0 - 127 (-64 - +63)
00 49	0aaa aaaa	AFT Level Depth	0 - 127 (-64 - +63)
00 4A	0aaa aaaa	AFT Groove Quantize Depth	0 - 127 (-64 - +63)
00 4B	0aaa aaaa	AFT LFO Rate	0 - 127 (-64 - +63)
00 4C	0aaa aaaa	AFT LFO Formant Depth	0 - 127 (-64 - +63)
00 4D	0aaa aaaa	AFT LFO Pitch Depth	0 - 127 (-64 - +63)
00 4E	0aaa aaaa	AFT LFO Level Depth	0 - 127 (-64 - +63)
00 4F	0aaa aaaa	AFT LFO Pan Depth	0 - 127 (-64 - +63)
00 50	0000 aaaa	Hold1 Destination	
		(OFF, PAUSE, LOOP, EVENT STEP, STEP DIRECTION, POLY/SOLC, LOCK LEGATO, HOLD, LOOP HOLD STEP)	
00 51	0000 aaaa	Hold2 Destination	
		(OFF, PAUSE, LOOP, EVENT STEP, STEP DIRECTION, POLY/SOLC, LOCK LEGATO, HOLD, LOOP HOLD STEP)	

00 52	0aaa aaaa	Bend Formant Depth	0 - 127 (-64 - +63)
00 53	0aaa aaaa	Bend Time Depth	0 - 127 (-64 - +63)
00 54	0aaa aaaa	Bend Level Depth	0 - 127 (-64 - +63)
00 55	0aaa aaaa	Bend LFO Rate	0 - 127 (-64 - +63)
00 56	0aaa aaaa	Bend LFO Formant Depth	0 - 127 (-64 - +63)
00 57	0aaa aaaa	Bend LFO Pitch Depth	0 - 127 (-64 - +63)
00 58	0aaa aaaa	Bend LFO Level Depth	0 - 127 (-64 - +63)
00 59	0aaa aaaa	Bend LFO Pan Depth	0 - 127 (-64 - +63)
00 5A	0aaa aaaa	Bend Groove Quantize Depth	0 - 127 (-64 - +63)
00 5B	0000 aaaa	Bend Range Up	0 - 12 (0 - +12)
00 5C	00aa aaaa	Bend Range Down	0 - 48 (0 - -48)
00 5D	0aaa aaaa	Groove Timing Depth	0 - 127 (-64 - +63)
00 5F	0000 00aa	Keyboard Map	0 - 2 (NORMAL, EVENT, PHRASE MAP)
00 60	0000 00aa	Phrase Map Assign	0 - 2 (CHROMATIC, WHITE, BLACK)
00 61	0000 aaaa	Phrase Map Start Key	0 - 8 (C-1, C0, C1, C2, C3, C4, C5, C6, C7)
# 00 62	0aaa aaaa	Sample Name 1	32 - 126
# 00 63	0aaa aaaa	Sample Name 2	32 - 126
# 00 64	0aaa aaaa	Sample Name 3	32 - 126
# 00 65	0aaa aaaa	Sample Name 4	32 - 126
# 00 66	0aaa aaaa	Sample Name 5	32 - 126
# 00 67	0aaa aaaa	Sample Name 6	32 - 126
# 00 68	0aaa aaaa	Sample Name 7	32 - 126
# 00 69	0aaa aaaa	Sample Name 8	32 - 126
# 00 6A	0aaa aaaa	Sample Name 9	32 - 126
# 00 6B	0aaa aaaa	Sample Name 10	32 - 126
# 00 6C	0aaa aaaa	Sample Name 11	32 - 126
# 00 6D	0aaa aaaa	Sample Name 12	32 - 126
# 00 6E	0aaa aaaa	Sample Category Name 1	32 - 126
# 00 6F	0aaa aaaa	Sample Category Name 2	32 - 126
# 00 70	0aaa aaaa	Sample Category Name 3	32 - 126
Total size		00 00 06 71	

RQ1 only (can NOT be written by DT1)

*: Cannot start from this address

1-2-3. Phrase Map

Offset Address	Description	
00 00	0000 0aaa	Sample Number 0 - 1023
00 01*	0bbb bbbb	(A001 - H128)
00 02	0aaa aaaa	Map Level 0 - 127
00 03	0aaa aaaa	Map Pan 0 - 127 (L64 - 63R)
00 04	000a aaaa	Map Coarse Tune 0 - 24 (-12 - +12 [semitone])
00 05	0aaa aaaa	Map Fine Tune 0 - 100 (-50 - +50 [cent])
00 06	0000 0aaa	Map Octave Shift 0 - 6 (-3 - +3 [octave])
00 07	0000 000a	Map Pitch Sync Sw 0 - 1 (OFF, ON)
00 08	0000 00aa	Map Output Assign 0 - 3 (MAIN, M-FX, DIR1, DIR2)
00 09	0aaa aaaa	Map Multi-FX Send Level 0 - 127
00 0A	0aaa aaaa	Map Chorus Send Level 0 - 127
00 0B	0aaa aaaa	Map Reverb Send Level 0 - 127
00 0C	0000 000a	Map Tempo Sync Sw 0 - 1 (OFF, ON)
# 00 0D	0aaa aaaa	Sample Name 1 32 - 126
# 00 0E	0aaa aaaa	Sample Name 2 32 - 126
# 00 0F	0aaa aaaa	Sample Name 3 32 - 126
# 00 10	0aaa aaaa	Sample Name 4 32 - 126
# 00 11	0aaa aaaa	Sample Name 5 32 - 126
# 00 12	0aaa aaaa	Sample Name 6 32 - 126
# 00 13	0aaa aaaa	Sample Name 7 32 - 126
# 00 14	0aaa aaaa	Sample Name 8 32 - 126
# 00 15	0aaa aaaa	Sample Name 9 32 - 126
# 00 16	0aaa aaaa	Sample Name 10 32 - 126
# 00 17	0aaa aaaa	Sample Name 11 32 - 126
# 00 18	0aaa aaaa	Sample Name 12 32 - 126
# 00 19	0aaa aaaa	Sample Category Name 1 32 - 126
# 00 1A	0aaa aaaa	Sample Category Name 2 32 - 126
# 00 1B	0aaa aaaa	Sample Category Name 3 32 - 126
Total size		00 00 00 1C

RQ1 only (can NOT be written by DT1)

*: Cannot start from this address

1-3. Sample

Offset Address	Description	
00 00	000a aaaa	Wave Gain 0 - 18 (0 - +18 [dB])
00 01	0000 0aaa	LFO Waveform 0 - 7 (TRI, SIN, SAW, SQR, TRP, S&H, RND, CHS)
00 02	0000 000a	LFO Key Trigger 0 - 1 (OFF, ON)
00 03	0aaa aaaa	LFO Rate 0 - 127
00 04	0000 0aaa	LFO Offset 0 - 4 (-100, -50, 0, +50, +100 [%])
00 05	0aaa aaaa	LFO Delay Time 0 - 127
00 06	0aaa aaaa	LFO Fade Time 0 - 127
00 07	0000 00aa	LFO Fade Mode 0 - 3 (ON-IN, ON-OUT, OFF-IN, OFF-OUT)
00 08	0000 000a	LFO External Sync 0 - 1 (OFF, CLK)
00 09	0000 000a	Pitch Control Sw 0 - 1 (OFF, ON)
00 0A	0000 aaaa	Pitch Keyfollow 0 - 15 (-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200)
00 0B	0aaa aaaa	Pitch LFO Depth 0 - 127 (-64 - +63)
00 0C	000a aaaa	Random Pitch Depth 0 - 30 (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200)
00 0D	0000 000a	Time Control Sw 0 - 1 (OFF, ON)
00 0E	0000 aaaa	Time Keyfollow 0 - 15 (-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200)
00 0F	0000 0aaa	Human Feel 0 - 7
00 10	0000 000a	Formant Control Sw 0 - 1 (OFF, ON)
00 11	0000 aaaa	Formant Keyfollow 0 - 15 (-100, -70, -50, -30, -10, 0, +10, +20, +30, +40, +50, +70, +100, +120, +150, +200)
00 12	0aaa aaaa	Formant LFO Depth 0 - 127 (-64 - +63)
00 13	0000 00aa	Pan Control Mode 0 - 2 (OFF, CONTINUOUS, KEY-ON)
00 14	0000 aaaa	Pan Keyfollow 0 - 14 (-100, -70, -50, -40, -30, -20, -10, 0, +10, +20, +30, +40, +50, +70, +100)
00 15	00aa aaaa	Random Pan Depth 0 - 63
00 16	0aaa aaaa	Alternate Pan 0 - 127 (L64 - 63R)
00 17	0aaa aaaa	Pan LFO Depth 0 - 127 (L64 - 63R)
00 18	0aaa aaaa	Level LFO Depth 0 - 127 (-64 - +63)
00 19	0aaa aaaa	Velocity 0 - 127 (REAL, 1 - 127)
00 1A	0000 0aaa	Velocity Curve 0 - 6 (TYPE1 - TYPE7)
00 1B	0aaa aaaa	Fade In 0 - 127 (0.00 - 2.00[sec])
00 1C	0aaa aaaa	Fade Out 0 - 127 (0.00 - 6.00[sec])
00 1D	0000 000a	Portamento Sw 0 - 1 (OFF, ON)
00 1E	0000 000a	Portamento Mode 0 - 1 (NORMAL, LEGATO)
00 1F	0000 000a	Portamento Type 0 - 1 (RATE, TIME)
00 20	0000 000a	Portamento Start 0 - 1 (FITCH, NOTE)
00 21	0aaa aaaa	Portamento Time 0 - 127
00 22	0000 000a	Portamento Formant Sw 0 - 1 (OFF, ON)
00 23	0000 000a	Portamento Time Sw 0 - 1 (OFF, ON)
00 24	0000 000a	Loop Sw 0 - 1 (OFF, ON)
00 25	0000 000a	Key Assign Mode 0 - 1 (POLY, SOLO)
00 26	0000 00aa	Playback Mode 0 - 2 (RETRIGGER, TIME SYNC/LEGATO, STEP)
00 27	0000 00aa	Trigger mode 0 - 2 (GATE, TRIGGER, DRUM)
00 28	0000 000a	Trigger Quantize 0 - 1 (OFF, ON)
00 29	0000 000a	Melody Cancel 0 - 1 (OFF, ON)
00 2A	0000 000a	Vibrato Keep Sw 0 - 1 (OFF, ON)
00 2B	0aaa aaaa	Encode Event Sens 0 - 127

MIDI Implementation

#	00 2C	Gaaa aaaa	Sample Name 1	32 - 126
#	00 2D	Gaaa aaaa	Sample Name 2	32 - 126
#	00 2E	Gaaa aaaa	Sample Name 3	32 - 126
#	00 2F	Gaaa aaaa	Sample Name 4	32 - 126
#	00 30	Gaaa aaaa	Sample Name 5	32 - 126
#	00 31	Gaaa aaaa	Sample Name 6	32 - 126
#	00 32	Gaaa aaaa	Sample Name 7	32 - 126
#	00 33	Gaaa aaaa	Sample Name 8	32 - 126
#	00 34	Gaaa aaaa	Sample Name 9	32 - 126
#	00 35	Gaaa aaaa	Sample Name 10	32 - 126
#	00 36	Gaaa aaaa	Sample Name 11	32 - 126
#	00 37	Gaaa aaaa	Sample Name 12	32 - 126
#	00 38	Gaaa aaaa	Sample Category Name 1	32 - 126
#	00 39	Gaaa aaaa	Sample Category Name 2	32 - 126
#	00 3A	Gaaa aaaa	Sample Category Name 3	32 - 126

Total size | 00 00 00 3B

#: RQ1 only (can NOT be written by DT1)

1-4. Wave

Offset Address	Description	
00 00	0000 G00a	Original Tempo 200000 - 2500000
00 01*	0bbb bbbb	(20.0000 - 250.0000)
00 02*	0ccc cccc	
00 03*	0ddd dddd	
00 04	0000 G0aa	Original Denominator 0 - 3
		(2, 4, 8, 16)
00 05	000a aaaa	Original Numerator 1 - 16
00 06	Gaaa aaaa	Original Pitch 0 - 127
00 07	Gaaa aaaa	Original Fine Tune 0 - 100
		(-50 - +50 [cent.])
# 00 08	0000 G00a	Sample Type 0 - 1
		(MONO, STEREO)
# 00 09	0000 G0aa	Encode Type 0 - 3
		(NO ENCODE, SOLO, BACKING, ENSEMBLE)
# 00 0A	Gaaa aaaa	Loop Start Point 0 - 268435455
# 00 0B*	0bbb bbbb	
# 00 0C*	0ccc cccc	
# 00 0D*	0ddd dddd	
# 00 0E	Gaaa aaaa	Loop End Point 0 - 268435455
# 00 0F*	0bbb bbbb	
# 00 10*	0ccc cccc	
# 00 11*	0ddd dddd	
# 00 12	Gaaa aaaa	Number of Events 0 - 16383
# 00 13*	0bbb bbbb	
# 00 14	Gaaa aaaa	Number of Samples 0 - 268435455
# 00 15*	0bbb bbbb	
# 00 16*	0ccc cccc	
# 00 17*	0ddd dddd	
# 00 18	000a aaaa	Original Key 0 - 31
		(C-B(lower 4bit), major/minor(bit 4))
# 00 19	0000 aaaa	Original Tune 4274 - 4526
# 00 1A*	0000 bbbb	(nibbled) (427.4 - 452.6)
# 00 1B*	0000 cccc	
# 00 1C*	0000 dddd	

Total size | 00 00 00 1D

#: RQ1 only (can NOT be written by DT1)

*: Cannot start from this address

Address Block Map

The following is an outline of the address map for Exclusive messages.

Address (H)	Block	Sub Block	Reference
00 00 00 00	System common		1-1-1
	Sampling Template	Template 1	1-1-2
		:	
		Template 16	
10 00 00 00	Performance	Common	1-2-1
		Part 1	1-2-2
		:	
		Part 6	
		Part 1 Map 1	1-2-3
		:	
		Part 6 Map 12	
20 00 00 00	Sample	Sample A001	1-3
		:	
		Sample H128	
30 00 00 00	Wave	Wave A001	1-4
		:	
		Wave H128	

4. Supplementary material

Decimal/Hexadecimal Table

(hexadecimal values are indicated by a following "H")

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

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, bank select, and program change are listed as one (1) 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 $aa \times 128 + bb$.
- For a signed number (+/-), 00H = -64, 40H = +/-0, and 7FH = +63. I.e., the decimal equivalent will be 64 less than the decimal value given in the above table. For a two-byte signed number, 00 00H = -8192, 40 00H = +/-0, and 7F 7FH = +8191. For example the decimal expression of aa bbH would be $aa \times 128 + bb - 64 \times 128$.
- Hexadecimal notation in two 4-bit units is used for data indicated as "nibbled." The nibbled two-byte value of 0a 0bH would be $a \times 16 + b$.

<Example 1> What is the decimal equivalent of 5AH?

From the above table, 5AH = 90.

<Example 2> What is the decimal equivalent of the 7-bit hexadecimal values 12 34H?

From the above table, 12H = 18 and 34H = 52.

Thus, $18 \times 128 + 52 = 2356$.

Examples of Actual MIDI Messages

<Example 1> 92 3E 5F

9n is the Note On status and 'n' is the MIDI channel number.

Since 2H = 2, 3EH = 62, and 5FH = 95, this is a Note On message of MIDI CH = 3, note number 62 (note name D4) and velocity 95.

<Example 2> 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.

<Example 3> EA 00 28

EnH is the Pitch Bend Change status and 'n' is the MIDI channel number.

The 2nd byte (00H=0) is the LSB of the Pitch Bend value, and the 3rd byte (28H=40) is the MSB. However since the Pitch Bend is a signed number with 0 at 40 00H (= $64 \times 128 + 0 = 8192$), the Pitch Bend value in this case is $28 00H - 40 00H = 40 \times 128 + 0 - (64 \times 128 + 0) = 5120 - 8192 = -3072$.

If we assume that the Pitch Bend Sensitivity is set to two semitones, the pitch will change only -200 cents for a Pitch Bend value of -8192 (00 00H). Thus, this message is specifying a Pitch Bend of $-200 \times (-3072) / (-8192) = -75$ cents on MIDI CH = 11.

<Example 4> B3 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. In Control Change messages, the 2nd byte is the controller number, and the 3rd byte is the parameter value. MIDI allows what is known as "running status," when if messages of the same status follow each other, it is permitted to omit the second and following status bytes. In the message above, running status is being used, meaning that the message has the following content.

B3 64 00	MIDI CH = 4, RPN parameter number LSB: 00H
(B3) 65 00	MIDI CH = 4, RPN parameter number MSB: 00H
(B3) 06 0C	MIDI CH = 4, parameter value MSB: 0CH
(B3) 26 00	MIDI CH = 4, parameter value LSB: 00H
(B3) 64 7F	MIDI CH = 4, RPN parameter number LSB: 7FH
(B3) 65 7F	MIDI CH = 4, RPN parameter number MSB: 7FH

Thus, this message transmits a parameter value of 0C 00H to RPN parameter number 00 00H on MIDI CH = 4, and then sets the RPN parameter number to 7F 7FH.

The function assigned to RPN parameter number 00 00H is Pitch Bend Sensitivity, and the MSB of the parameter value indicates semitone steps. Since the MSB of this parameter value is 0CH = 12, the maximum width of pitch bend is being set to +/-12 semitones (1 octave). (This instrument ignores the LSB of Pitch Bend Sensitivity, but it is best to transmit the LSB (parameter value 0) as well, so that the message can be correctly received by any device.)

Once the parameter number has been set for RPN or NRPN, all subsequent Data Entry messages on that channel will be effective. Thus, it is recommended that after you have made the change you want, you set the parameter number to 7F 7FH (an "unset" or "null" setting). The final (B3) 64 7F (B3) 65 7F is for this purpose.

It is not a good idea to store many events within the data of a song (e.g., a Standard MIDI File song) using running status as shown in <Example 4>. When the song is paused, fast-forwarded or rewound, the sequencer may not be able to transmit the proper status, causing the sound source to misinterpret the data. It is best to attach the proper status byte to all events.

It is also important to transmit RPN or NRPN parameter number settings and parameter values in the correct 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 (i.e., the time resolution of the sequencer)

● Examples of Exclusive Messages and Calculating the Checksum

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

○ How to calculate the checksum (hexadecimal numbers are indicated by 'H')

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

$$\begin{aligned}
 aa + bb + cc + dd + ee + ff &= \text{total} \\
 \text{total} / 128 &= \text{quotient} \dots \text{remainder} \\
 128 - \text{remainder} &= \text{checksum}
 \end{aligned}$$

<Example 1> Setting the Performance Common REVERB TYPE to HALL 1 (DT1)

The "Parameter address map" indicates that the starting address of the Performance is 10 00 00 00H, that the Performance Common offset address is 00 00H, and that the REVERB TYPE address is 00 32H. Thus, the address is:

$$\begin{array}{r}
 10\ 00\ 00\ 00\text{H} \\
 00\ 00\text{H} \\
 +) \quad 00\ 32\text{H} \\
 \hline
 10\ 00\ 00\ 32\text{H}
 \end{array}$$

Since HALL 1 is parameter value 03H,

F0	41	10	00	1D	12	10 00 00 32	03	??	E7
(1)	(2)	(3)	(4)	(5)	(6)	address	size	checksum	(7)

(1) Exclusive status	(2) ID number (Roland)
(3) Device ID (17)	(4) Model ID#1 (VP-9000)
(5) Model ID#2 (VP-9000)	(6) Command ID (DT1)
	(7) EOX

Next we calculate the checksum.

$$\begin{aligned}
 10\text{H} + 00\text{H} + 00\text{H} + 32\text{H} + 03\text{H} &= 16 + 0 + 0 + 50 + 3 = 69 \text{ (sum)} \\
 69 \text{ (total)} / 128 &= 0 \text{ (quotient)} \dots 69 \text{ (remainder)} \\
 \text{checksum} &= 128 - 69 \text{ (remainder)} = 59 = 3BH
 \end{aligned}$$

This means that F0 41 10 00 1D 12 01 00 00 32 03 3B F7 is the message we transmit.

<Example 2> Retrieving data for Performance Part 3 (RQ1)

The "Parameter address map" indicates that the starting address of the Performance Part is 11 00 00 00H, and that the offset address of Performance Part 3 is 20 00H. Thus, the address is:

$$\begin{array}{r}
 11\ 00\ 00\ 00\text{H} \\
 +) \quad 20\ 00\text{H} \\
 \hline
 11\ 00\ 20\ 00\text{H}
 \end{array}$$

Since the size of the Performance Part is 00 00 00 71H,

F0	41	10	00	1D	11	11 00 20 00	00 00 00 71	??	E7
(1)	(2)	(3)	(4)	(5)	(6)	address	data	checksum	(7)

(1) Exclusive status	(2) ID number (Roland)
(3) Device ID (17)	(4) Model ID#1 (VP-9000)
(5) Model ID#2 (VP-9000)	(6) Command ID (RQ1)
	(7) EOX

Next we calculate the checksum.

$$\begin{aligned}
 11\text{H} + 00\text{H} + 20\text{H} + 00\text{H} + 00\text{H} + 00\text{H} + 71\text{H} &= \\
 17 + 0 + 32 + 0 + 0 + 0 + 113 &= 162 \text{ (sum)} \\
 162 \text{ (total)} / 128 &= 1 \text{ (quotient)} \dots 34 \text{ (remainder)} \\
 \text{checksum} &= 128 - 34 \text{ (remainder)} = 94 = 5EH
 \end{aligned}$$

This means that F0 41 10 00 1D 11 11 00 20 00 00 00 71 5E F7 is the message we transmit.

<Example 3> Retrieving all data for Performance (RQ1)

The "Parameter Address Map" gives the following start addresses for Performance data.

10 00 00 00H	Performance Common
11 00 00 00H	Performance Part 1
:	
11 00 50 00H	Performance Part 6
12 00 00 00H	Performance Part 1 Phrase Map 1
:	
12 05 0B 00H	Performance Part 6 Phrase Map 12

Since Phrase Map has a size of 00 00 00 1CH, we add that size to the start address of the Phrase Map 12 for Part 6, resulting in:

$$\begin{array}{r}
 12\ 05\ 0B\ 00\text{H} \\
 +) \quad 00\ 00\ 00\ 1C\text{H} \\
 \hline
 12\ 05\ 0B\ 1C\text{H}
 \end{array}$$

Thus, the size for the retrieved data will be:

$$\begin{array}{r}
 12\ 05\ 0B\ 1C\text{H} \\
 +) \quad 10\ 00\ 00\ 00\text{H} \\
 \hline
 02\ 05\ 0B\ 1C\text{H}
 \end{array}$$

F0	41	10	00	1D	11	10 00 00 00	02 05 0B 1C	??	E7
(1)	(2)	(3)	(4)	(5)	(6)	address	data	checksum	(7)

(1) Exclusive status	(2) ID number (Roland)
(3) Device ID (17)	(4) Model ID#1 (VP-9000)
(5) Model ID#2 (VP-9000)	(6) Command ID (RQ1)
	(7) EOX

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 1D 11 11 00 00 02 05 0B 1C 42 F7 to be transmitted.

<Example 4> Retrieving the Performance data together with all Sample data (RQ1)

The "Parameter Address Map" gives the following start addresses for Performance, Sample and Wave data.

10 00 00 00H	Performance
20 00 00 00H	Sample A001
:	
27 7F 00 00H	Sample H128
30 00 00 00H	Wave A001
:	
37 7F 00 00H	Wave H128

Since Wave size is 00 00 00 1DH, we add that size to the start address of the Wave H128.

$$\begin{array}{r}
 37\ 7F\ 00\ 00\text{H} \\
 +) \quad 00\ 00\ 00\ 1D\text{H} \\
 \hline
 37\ 7F\ 00\ 1D\text{H}
 \end{array}$$

Thus, the Size for the retrieved data will be:

$$\begin{array}{r}
 37\ 7F\ 00\ 1D\text{H} \\
 +) \quad 10\ 00\ 00\ 00\text{H} \\
 \hline
 27\ 7F\ 00\ 1D\text{H}
 \end{array}$$

F0	41	10	00	1D	11	10 00 00 00	27 7F 00 1D	??	E7
(1)	(2)	(3)	(4)	(5)	(6)	address	data	checksum	(7)

(1) Exclusive status	(2) ID number (Roland)
(3) Device ID (17)	(4) Model ID#1 (VP-9000)
(5) Model ID#2 (VP-9000)	(6) Command ID (RQ1)
	(7) EOX

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 1D 11 11 00 00 27 7F 00 1D 2D F7 to be transmitted.

MIDI Implementation

● ASCII Code Table

On the VP-9000, the following ASCII code set is used for processing data such as the Sample Name and the Performance Name

D	H	Char	D	H	Char	D	H	Char
32	20H	SP	64	40H	A	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	^	126	7EH	~
63	3FH	?	95	5FH	_			

D: decimal

H: hexadecimal

Note: SP indicates "space."

MIDI Implementation

VARI PHRASE PROCESSOR

Date : Sep. 21, 1999

Model VP-9000

MIDI Implementation Chart

Version : 1.00

Function...	Transmitted	Recognized	Remarks
Basic Default Channel Changed	X X	1-16 1-16	
Mode Default Messages Altered	X X *****	Mode 3 Mode 3, 4 (M = 1)	* 2
Note Number : True Voice	X *****	0-127 0-127	
Velocity Note On Note Off	X X	O O	
After Key's Touch Channel's	X X	O O	*1 *1
Pitch Bend	X	O	
Control Change	0, 32 X *1 1 X 5 X 6, 38 X 7 X 10 X 11 X 64 X 65 X 69 X 84 X 91 X 93 X 2-5, 7-31, 64-95 *3 2-5, 7-31, 64-95 *3 2-5, 7-31, 64-95 *3 2-5, 7-31, 64-95 *3 98, 99 X 100, 101 X	O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O *1 O (Reverb) *1 O (Chorus) *1 O *1 O *1 O *1 O *1 X *1 O *1	Bank select Modulation Portamento time Data entry Volume Panpot Expression Hold 1 Portamento Hold 2 Portamento control General purpose effects 1 General purpose effects 3 C1 (General purpose controller 1) C2 (General purpose controller 2) C3 (General purpose controller 3) VC (General purpose controller 4) NRPN LSB, MSB RPN LSB, MSB
Program Change : True Number	O *****	O 0-127	*1 *1 Program No. 1-128
System Exclusive	O	O	*1
System : Song Position Common : Song Select : Tune Request	X X X	X X X	
System : Clock Real Time : Commands	X X	O X	*1
Aux Messages : All Sound Off : Reset All Controllers : Local On/Off : All Notes Off : Active Sensing : System Reset	X X X X X X	O (120, 126, 127) O O X X (123-127) O O X	
Notes	* 1 O X is selectable. * 2 Recognized as M=1 even if M≠1. * 3 Can be changed settings.		

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

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

O : Yes
X : No

Appendices

Glossary

Adjust

During wave editing, this is a function that moves the five locations (Loop Start, Loop End, Current, Edit Start, Edit End) to the nearest point. For details refer to p. 126.

Current

This term means "currently selected." For example, the "current part" is the currently selected part. In screens where a wave is displayed, the "Current" display indicates the currently selected location of the wave.

Defrag

When sampling or wave editing operations are repeated, the wave memory area available for sampling will become fragmented. The Defrag function collects these fragmented areas into a single area as far as possible.

Edit Start and Edit End

These are locations within a wave. Editing operations will affect the region enclosed by these two points.

Event

This is a marker that is added to a point of the wave where there is a strong attack (i.e., where the volume changes abruptly). By setting the encode depth, you can find these points automatically, or set them yourself. If events have been added, you will be able to play phrase samples from points mid-way through the sample, or to repeat portions mid-way through the sample.

Event map

This refers to a keyboard condition in which a sample is divided at event locations and assigned to individual keys. To use Event Map, make the appropriate Keyboard Map settings.

Encode

This refers to a process of converting a wave so that pitch, time, formant, and groove can be modified in real time. If a wave is encoded, you will be able to play it from a MIDI keyboard. There are three encoding types.

SOLO:

This is suitable for single-note vocals or monophonic instruments (e.g., sax, trumpet, flute). When a wave is encoded using this type, you will be able to control the formant and use the robot voice functions. Even if you use SOLO to encode, you will be able to play polyphonically.

BACKING:

This is suitable for decay-type instruments. In particular, it is suited to phrases with instruments that have a clear attack (e.g., drums, percussion, guitar chords).

ENSEMBLE:

This is suitable for sustain-type instruments. In particular, it is suitable when the tonal character changes smoothly (e.g., choir or strings). Of the three types, this supports the widest variety of sounds.

* If you use BACKING or ENSEMBLE to encode, formant control or robot voice functions cannot be used.

Formant

Formants are one of the elements that determine the character of a voice, and are fixed frequency regions of harmonic emphasis that depend on the dimensions of the vocal cords. Formants are an important element in the character of human voices. Fixed frequency regions of emphasis are also found in musical instruments. The VP-9000 allows you to modify the vocal character (formant) in real time without changing the pitch or playback speed (time). The formant can be adjusted only for samples that were encoded as "SOLO." The formant cannot be adjusted for samples that were encoded as "BACKING" or "ENSEMBLE."

Groove

The rhythmic "feel." On the VP-9000, the rhythmic character of a sample can be modified in real time to produce various types of groove.

Hold 1/2 destination

This parameter lets you use the MIDI messages Hold 1 (controller number 64) or Hold 2 (controller number 69) to control the way in which a sample is played. For details refer to p. 61.

Keyboard map

This is a parameter that specifies the state of the keyboard for each part. It can be in one of three states: normal, event map, and phrase map. When normal is selected, the sample assigned to the part can be played at the pitch of each key. For event map and phrase map, refer to the separate explanations.

Length lock

During wave editing, this function locks the length between Loop Start and Loop End, or the length between Edit Start and Edit End. This is convenient when the required length of the wave is fixed, and you want to find the portion of the wave that you wish to use.

Loop playback

The VP-9000 has two types of loop playback. One is to turn on the loop switch, so that the region of the wave between Loop Start and Loop End is played repeatedly. The other is to use the MIDI messages Hold 1 (controller number 64) or Hold 2 (controller number 69) to repeatedly play back the region of the wave between the hold loop points. For details on the hold loop points, refer to p. 62.

Loop Start and Loop End

These are locations within a wave. If the Loop Switch is on, the region enclosed by these two points will be played repeatedly.

LR mix

A wave editing operation that converts a stereo sample into monaural by combining it into the L side.

Master attenuation

This parameter adjusts the output levels from the six OUTPUT jacks.

Normalize

A wave editing function that increases or decreases the overall level of the wave without allowing the sound to distort. It is used to even out differences in volume with other waves.

Original pitch

This is a parameter that specifies the key for which the sample will play at the pitch at which it was sampled.

Original tempo

This is the reference of the sample that is used to synchronize to the master tempo. The precise original tempo can be calculated by inputting the time signature, number of measures, and number of beats for the length of the wave between Loop Start and Loop End. You can also input the original tempo value directly.

Performance

A performance has six parts. By assigning a sample to each part and receiving MIDI messages for each part, you can play multiple samples simultaneously. Program change messages can also be received to switch samples in real time.

Phrase map

This refers to a state of the keyboard in which up to twelve samples are assigned to individual keys. To use Phrase Map, make the appropriate keyboard map setting.

Pitch

On the VP-9000, the pitch can be changed in real time without affecting the playback speed (time) and tonal character (formant).

Pitch sync

This function allows the master coarse tune and master fine tune settings of the performance to apply to each part (or in the case of Phrase Map, to each key).

Pre-effect

This is an effect used to adjust the level of the sound to be sampled. There are three pre-effects: compressor, limiter, and noise suppressor.

Quick encode

This is a function that allows you to encode a sample directly from the SAMPLING Menu screen. It is convenient when you wish to encode multiple waves in succession. However, the encode type and encode depth will be the same as for the previously encoded wave.

Region

A wave editing operation in which the portion of the wave between Edit Start and Edit End can be maintained in the VP-9000 as a separate wave.

Resampling

This is an operation in which the VP-9000 plays back one or more samples and re-records (resamples) the result. The sound that is output from the rear panel MAIN OUT L (MONO) and R jacks will be sampled. You can resample multiple samples played simultaneously, to create a single sample.

Reverse

A wave editing operation in which the portion of the wave between Edit Start and Edit End is flipped end-for-end. If you want to play a wave backward, execute Reverse to reverse the wave itself.

Robot voice

This function removes the sense of pitch from the sample. This function can be used only for a sample that was encoded with an encode type of SOLO.

Sampling

A method of recording sound. The level of the sound is measured at fixed intervals, and each level is stored as a digital value. Sounds recorded in this way are used by the VP-9000 as sound sources.

Sampling frequency

The sampling frequency is a number that indicates how many times per second the sound is sampled. For example, if the sampling frequency is 44.1 kHz, the sound is sampled 44,100 times each second. The higher the sampling frequency, the better the sound quality will be. In particular, a high sampling frequency is necessary if you want high frequencies to be reproduced accurately. However, higher sampling frequencies will also require a correspondingly greater amount of storage capacity. Waves in the VP-9000 are handled as 44.1 kHz data.

Sample

A unit of sound. On the VP-9000, the sounds used for normal playing are called "samples."

SIMM diagnostics

This is a read/write test that verifies whether expanded wave memory can be used by the VP-9000. Perform this test immediately after installing additional wave memory, or if an error message related to wave memory is displayed.

Tempo sync

This is a function that causes the playback speed of the sample assigned to each part to synchronize to the master tempo of the performance (or to an external clock).

Time

This refers to the speed at which the sample plays back. On the VP-9000, you can adjust the time in real time without affecting the pitch or the tonal quality (formant).

Time sync

One way of playing back a sample. When keys are played legato, the playback point will be synchronized to the sound that is already playing.

Trigger quantize

A function that makes the sample play in synchronization with the beats. The Loop Start location will match the beat.

Trimming

A wave editing function that set the beginning and end of the wave to values of zero. For details refer to p. 129.

Truncate

A wave editing function that leaves the wave between Edit Start and Edit End, and deletes the remaining portions of the wave.

Vari-phrase

This refers to the following four technologies.

- 1 The
 - Pitch
 - Playback speed (time)
 - Tonal character (formant)
 - Rhythmic character (Groove)of an audio phrase can be independently controlled in real time.
- 2 Synchronization is easy to accomplish.
- 3 A single sample can cover a wide range of keys.
- 4 High audio quality is maintained while allowing 1-3.

Vibrato keep

This is a function that controls the tempo at which the sample is played independently from the frequency of the vibrato included in the sample. For details refer to p. 44.

Zero cross search

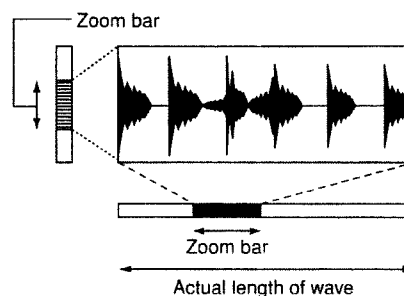
When editing a wave, this function searches for locations where the value of the wave is zero. When setting loop points or when cutting the wave, you should search for locations where the wave value is zero so that noise is not heard when you play the sample.

Zero insert

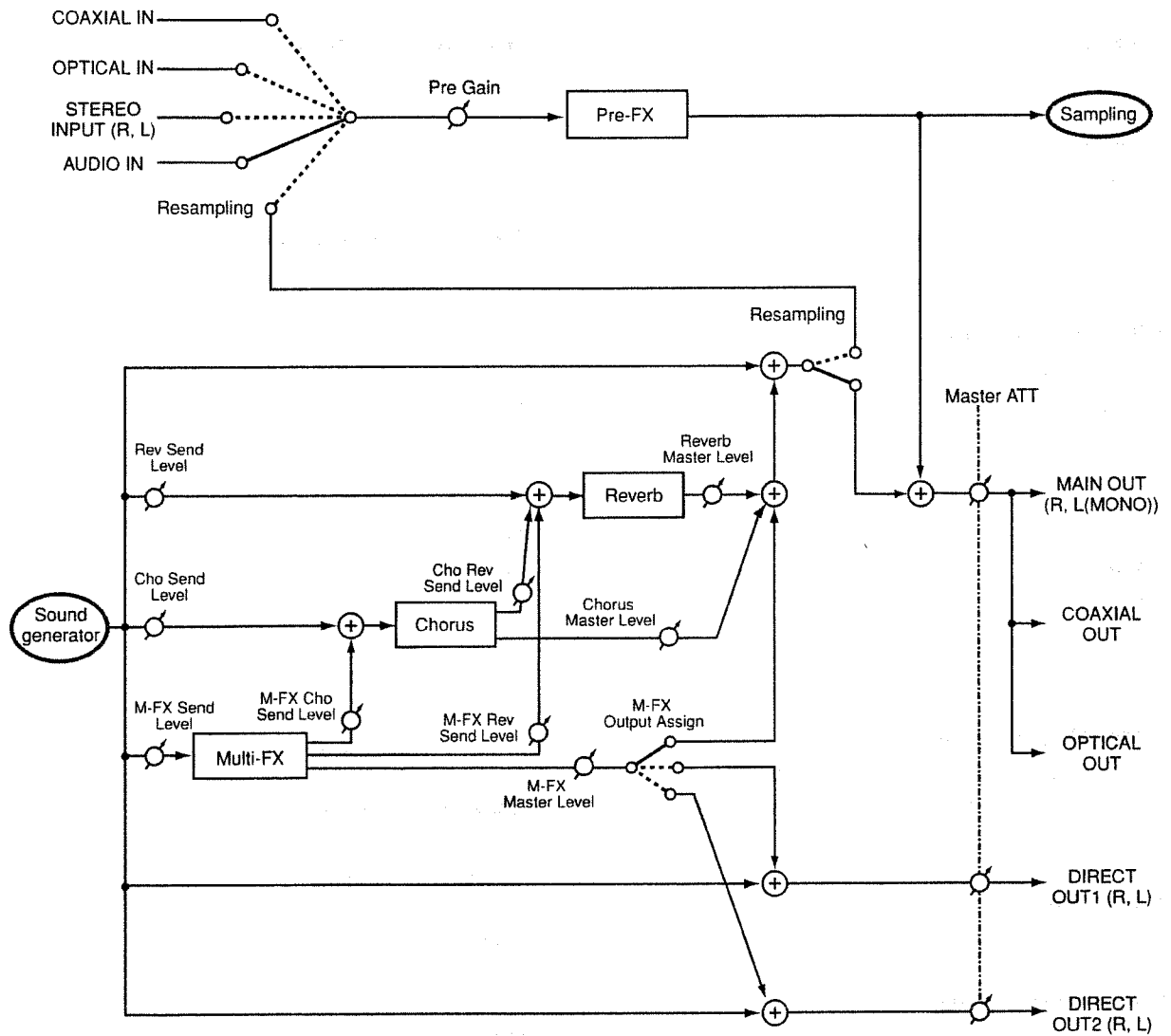
This is one of the wave editing functions, which inserts a region of silence into the wave. It can also be used to lengthen a wave to a precise number of measures and beats.

Zoom bar

In screens where the wave is displayed, a vertical and a horizontal zoom bar will be displayed. The vertical zoom bar indicates the magnification of the wave in the vertical direction. The horizontal zoom bar indicates the magnification of the wave in the horizontal direction, and the current location. As the wave display is magnified, the zoom bar will become narrower.



Signal flow



Appendices

Specifications

© 1997 Yamaha

VP-9000: VariPhrase processor

• Sound Generator

VariPhrase

• Parts

1 to 6

• Maximum Polyphony

6 voices

• Internal Memory

Performance: 1

Phrase maps: 12 samples (for each part)

Samples: 1024

Wave memory (RAM): 8 M bytes (can be expanded up to 136 M bytes with SIMMs)

• Effects

Reverb: 9 sets

Chorus: 1 set (8 types)

Multi: 40 sets

• Sampling Frequency

48, 44.1, 32 kHz (when sampling or playback)

48, 44.1, 32, 30, 24, 22.05, 16, 15, 11, 8 kHz (when importing)

44.1 kHz (Internal)

• Data Format

16 bits linear (compatible with 8 or 16 bits when importing)

• Signal Processing

AD Conversion: 20 bits

DA Conversion: 20 bits

Internal Processing: 24 bits linear

• Frequency Response

20 Hz to 20 kHz -3/-3 dB

• Residual Noise Level

MAIN OUT (L (MONO), R) (VOLUME: MAX, IHF-A typ.)

Balanced: -78 dBm or less

Unbalanced: -84 dBm or less

DIRECT OUT 1/2 (L, R) (IHF-A typ.)

Balanced: -78 dBm or less

Unbalanced: -84 dBm or less

• Nominal Input Level

AUDIO IN (front): -10 dBm (REC LEVEL: MIN) to
-50 dBm (REC LEVEL: MAX)

STEREO INPUT (rear): +4, -10, -20 dBm (selectable with
a gain switch)

• Maximum Input Level

AUDIO IN (front): +6 dBm (REC LEVEL: MIN) to
-34 dBm (REC LEVEL: MAX)

STEREO INPUT (rear): +20, +6, -4 dBm

• Input Impedance

AUDIO IN (front): 10 k ohms

STEREO INPUT (rear): 10 k ohms

• Nominal Output Level

MAIN OUT (L (MONO), R)

Balanced: +10 dBm

Unbalanced: +4 dBm

DIRECT OUT 1/2 (L, R)

Balanced: +10 dBm

Unbalanced: +4 dBm

• Output Impedance

Balanced: 2 k ohms

Unbalanced: 1 k ohms

• Display

240 x 64 dots (backlit LCD)

• Disk Drive

Zip Disk Drive (250 M bytes)

• Connectors

Headphones Jack (stereo 1/4 inch phone type)
Audio In Jacks (1/4 inch phone type, TRS balanced)
Digital Audio Interface (conforms to S/P DIF)
 OPTICAL Connectors (IN, OUT)
 COAXIAL Connectors (IN, OUT)
SCSI Connectors
 SCSI-A: DB-25 type
 SCSI-B: Full pitch 50 pins type
MIDI Connectors (in, out, thru)
Stereo Input Jack (1/4 inch phone type, TRS balanced)
Output Jacks (1/4 inch phone type, TRS balanced)
 MAIN OUT (L (MONO), R)
 DIRECT OUT 1 (L, R)
 DIRECT OUT 2 (L, R)

• Power Supply

AC 117 V, AC 230 V or AC 240 V

• Power Consumption

25 W (AC 117 V), 25 W (AC 230 V), 25 W (AC 240 V)

• Dimensions

482 (W) x 302 (D) x 87.8 (H) mm
19 (W) x 11-15/16 (D) x 3-1/2 (H) inches
(EIA-2U rack mount type)

• Weight

5.4 kg/11 lbs 15 oz

• Accessories

User Guide
Reference
Power Cable
Demo Zip disk
Sound Library CD-ROM

0 dBm = 0.775 V rms

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

Quick Reference of Displays

Performance ([PERFORM])

[F1 (COMMON)]

[F1 (NAME)]	Change the name	(p. 49)
[F2 (TEMPO)]	Tempo/synchronization/metronome settings	(p. 49)
[F3 (SOUND)]	Tuning settings	(p. 50)

[F2 (PART)]

[F2 (GENERL)]	Keyboard status/polyphony/synchronization/octave shift settings	(p. 51)
[F3 (SAMPLE)]	Sample selection	(p. 51)
[F4 (SOUND)]	Volume/pan/tuning settings	(p. 52)
[F5 (RANGE)]	Note range (key range) settings	(p. 52)

[F3 (PHRASE)]

[F4 (SAMPLE)]	Sample selection/synchronization/octave shift settings	(p. 54)
[F5 (SOUND)]	Volume/pan/tuning settings	(p. 54)
[F6 (EFFECT)]	Effect settings	(p. 55)

[F4 (MIDI)]

[F1 (COMMON)]	MIDI-related knob settings	(p. 57)
[F2 (RX)]	Receive channel/receive switch settings	(p. 56)

[F5 (CTRL)]

Use [◀ /PART] or [PART/ ▶] to switch between Menu 1 and 2.

Menu1

[F2 (C1)]	Knob C1 settings	(p. 58)
[F3 (C2)]	Knob C2 settings	(p. 58)
[F4 (C3)]	Knob C3 settings	(p. 58)
[F5 (VC)]	Virtual knob settings	(p. 58)

Menu2

[F2 (MOD)]	Modulation settings	(p. 58)
[F3 (P.BEND)]	Pitch bend settings	(p. 58)
[F4 (AFTER)]	Aftertouch settings	(p. 58)
[F5 (HOLD)]	Hold settings	(p. 60)

[F6 (EFFECT)]

[F3 (ROUTNG)]	Effect structure settings	(p. 64)
[F4 (MULTI)]	Multi-effect settings	(p. 67)
[F5 (CHORUS)]	Chorus settings	(p. 109)
[F6 (REVERB)]	Reverb settings	(p. 111)

Sample ([SAMPLE])

[F1 (COMMON)]

[F1 (NAME)]	Change name and category	(p. 42)
[F2 (INFO)]	Check sample info/set original tempo, original pitch and original fine tune	(p. 41)

[F3 (MODE)]

	Specify how sample will sound (1)	(p. 42)
--	-----------------------------------	---------

[F4 (SWITCH)]

	Specify how sample will sound (2)	(p. 43)
--	-----------------------------------	---------

[F5 (AMP)]

[F1 (GAIN)]	Volume, fade-in/out settings	(p. 44)
[F2 (VELO)]	Velocity settings	(p. 44)

[F6 (T/R)]

[F1 (PITCH)]	Pitch settings	(p. 44)
[F2 (TIME)]	Time settings	(p. 45)
[F3 (FORMNT)]	Formant settings	(p. 45)
[F4 (PAN)]	Pan settings	(p. 45)
[F5 (PORTA)]	Portamento settings	(p. 46)

[F7 (LFO)]

[F1 (COMMON)]	LFO common settings	(p. 47)
[F2 (DEPTH)]	LFO depth settings	(p. 48)

Quick Reference of Displays

System ([SYSTEM])

Use [< /PART] or [PART / >] to switch between Menu 1 and 2.

Menu1

[F1 (LCD)]

LCD contrast/backlight saver settings (p. 135)

[F2 (SOUND)]

[F1 (ATT)]	Master attenuation setting	(p. 136)
[F2 (TUNE)]	Master tune setting	(p. 136)
[F3 (D OUT)]	Digital out frequency setting	(p. 136)

[F3 (MIDI)]

[F1 (GENERAL)]	Device ID number/panic key settings etc.	(p. 136)
[F2 (RX SW)]	Receive switch settings	(p. 137)
[F3 (TX SW)]	Transmit switch settings	(p. 138)

[F4 (TRPSE)]

Transpose/octave shift settings (p. 138)

[F5 (PREVIEW)]

Preview settings (p. 138)

[F6 (AUTO)]

Specify a performance to be automatically loaded at power-on (p. 139)

Menu2

[F1 (SCSI)]

Setting to recognize a SCSI device (p. 139)

Utility ([UTILITY])

Use [◀ /PART] or [PART / ▶] to switch between Menu 1 and 2.

Menu1

[F1 (COPY)]	Copy a sample within internal memory	(p. 133)
[F2 (MOVE)]	Move/exchange samples within internal memory	(p. 133)
[F3 (DELETE)]	Delete a sample from internal memory	(p. 134)
[F4 (INIT)]	Initialize a sample/performance	(p. 155)
[F5 (BULK)]	Save settings on an external sequencer	(p. 154)
[F6 (MEMORY)]	Check wave memory capacity Increase the time available for sampling	(p. 15) (p. 132)

Menu2

[F1 (FACTORY)]	Restore the factory settings	(p. 155)
[F2 (DIAG)]	Test reading/writing of wave memory	(p. 15)

Disk ([DISK])

Use [< /PART] or [PART / >] to switch between Menu 1 and 2.

Menu1

[L1] (LOAD)

Load data into internal memory (p. 30)

[L2] (SAVE)

Save data on media (p. 141)

[L3] (COPY)

Copy data on media (p. 143)

[L4] (MOVE)

Move data on media (p. 144)

[L5] (DELETE)

Delete data from media (p. 145)

[L6] (RENAME)

Rename data on media (p. 146)

Menu2

[F1] (FOLDER) [F2] (FOLDER)

Create/copy/move/delete/rename a folder (p. 146)

[F3] (LABEL)

Rename media (p. 149)

[F4] (FORMAT)

Format media (p. 140)

[F5] (INFO)

Check the unused media space (p. 150)

[F6] (PROTECT)

Write-protect a Zip disk (p. 150)

[F7] (CD-R)

Back up data to CD-R/RW (p. 151)

Sampling ([SAMPLING])

[F4 (SMPLNG)]

[F1 (TMPLAT)]	Rename a sampling template	(p. 124)
[F2/3 (SETUP)]	Setup settings	(p. 121)
[F4 (PRE-FX)]	Pre-effect settings	(p. 122)
[F5 (METRO)]	Metronome settings	(p. 123)
[F6 (START)]	Record a sample	(p. 118)

[F5 (WAVE)]

[F1 (LOOP)]	Loop region settings	(p. 126)
[F2 (TEMPO)]	Original tempo setting	(p. 127)
[F3 (CUT&P)]	Adjust the length of the wave <ul style="list-style-type: none"> • Cut • Delete all but specified region (Truncate) • Copy • Erase (Clear) • Overwrite (Paste) • Insert • Insert silence (Zero Insert) 	(p. 127)
[F4 (MODIFY)]	Other wave editing <ul style="list-style-type: none"> • Make volume consistent (Normalize) • Convert stereo to monaural (LR Mix) • Smooth the transition of a loop (Trimming) • Reverse the direction of a wave (Reverse) 	(p. 128)
[F5 (REGION)]	Divide a wave	(p. 129)

[F6 (EVENT)]

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MEMO

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
P.O. Box 2904,
El Horrieh Heliopolis, Cairo,
EGYPT
TEL: (02) 4185531

REUNION

Maison FO - YAM Marcel
25 Rue Jules MermanZL
Chaudron - BP79 97491
Ste Clotilde REUNION
TEL: 28 29 16

SOUTH AFRICA

That Other Music Shop (PTY) Ltd.
11 Melle Street (Cnr Melle and Juta Street)
Braamfontein 2001
Republic of SOUTH AFRICA
TEL: (011) 403 4105

Paul Bothner (PTY) Ltd.
17 Werdmuller Centre Claremont
7700
Republic of SOUTH AFRICA

P.O. Box 23032
Claremont, Cape Town
SOUTH AFRICA, 7735
TEL: (021) 64 4030

ASIA

CHINA

Beijing Xinghai Musical Instruments Co., Ltd.
6 Huangmichang Chao Yang District, Beijing, CHINA
TEL: (010) 6774 7491

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) 498 3079

INDONESIA

PT Citra Inti Rama
Jl. Cideng Timur No. 15J-150
Jakarta Pusat
INDONESIA
TEL: (021) 6324170

KOREA

Cosmos Corporation Service Station
261 2nd Floor Nak-Won Arcade Jong-Ro ku, Seoul, KOREA
TEL: (02) 742 8844

MALAYSIA

Bentley Music SDN BHD
140 & 142, Jalan Bukit Bintang
55100 Kuala Lumpur, MALAYSIA
TEL: (03) 2443333

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: 748-1069

CRISTOFORI MUSIC PTE LTD

Blk 3014, Bedok Industrial Park E,
#02-2148, SINGAPORE 489980
TEL: 243 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 Veng 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 (NZ) Ltd.
97 Mt. Eden Road, Mt. Eden,
Auckland 3, NEW ZEALAND
TEL: (09) 3098 715

CENTRAL/LATIN AMERICA

ARGENTINA

Instrumentos Musicales S.A.
Florida 656 2nd Floor
Office Number 206A
Buenos Aires
ARGENTINA, CP1005
TEL: (54-11) 4-393-6057

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Roland Brasil Ltda.
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203 05522-010
Sao Paulo BRAZIL
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Comercial Fancy S.A.
Avenida Rancagua #0330
Providencia Santiago, CHILE
TEL: 56-2-373-9100

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Juan Pablo 2 No. 4010
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Donnybrook, Dublin 4,
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MIDDLE EAST

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Chahine Building, Achrafieh
Beirut, LEBANON
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Sulfanate of OMAN
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DOHA QATAR
TEL: 423554

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SAUDI ARABIA
TEL: (03) 898 2081

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Technical Light & Sound Center
Khaled Ibn Al Walid St.
P.O. Box 13520
Damascus - SYRIA
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TURKEY

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TEL: (0212) 2499324

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TEL: (323) 890 3700

As of June 11, 1999



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

For EU Countries

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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.

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 the USA

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.

For Canada

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