

# JP-8080

## Owner's Manual

Thank you for purchasing the **Roland JP-8080** synthesizer module.

**Before using this unit, carefully read the sections entitled:**

“**IMPORTANT SAFETY INSTRUCTIONS**” (page 2)

“**USING THE UNIT SAFELY**” (page 3)


“**IMPORTANT NOTES**” (page 15)

These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.


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**CAUTION**  
 RISK OF ELECTRIC SHOCK  
 DO NOT OPEN



**ATTENTION:** RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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



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

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

# IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

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

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

**For the USA**

## GROUNDING INSTRUCTIONS

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

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


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

**For the U.K.**

**WARNING:** THIS APPARATUS MUST BE EARTHED

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

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

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

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

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

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




# USING THE UNIT SAFELY

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

### About ⚠ WARNING and ⚠ CAUTION Notices








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

### About the Symbols


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

## ALWAYS OBSERVE THE FOLLOWING








### ⚠ WARNING

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

### ⚠ WARNING

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

### ⚠ CAUTION

- 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. 

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\* Smart Media is a trademark of Toshiba Corporation.

# Main Features

The JP-8080 is a synthesizer sound module which uses digital technology to simulate an analog synthesizer. It lets you enjoy creating tonal changes in realtime, and a wide range of performance possibilities.

## ■ A further enhancement of the JP-8000 sound source

**Power Up↑**

The JP-8080 features the same analog modeling sound source as the acclaimed JP-8000 synthesizer. In addition, it provides a “**Voice Modulator function**,” a “**External Input Synthesis function**,” and a “**Unison function**” for even broader richer sonic possibilities. **The maximum polyphony has been increased to ten notes, and Distortion has been added to the multi effects type (Chorus).**

## ■ Voice Modulator function

**New!**

By processing an instrumental sound through a filter which imitates the characteristics of a human voice (or an audio signal), this function produces the effect of a “talking” instrument (Formant Filter). Multiple parameters can also be controlled by human voice (audio) (Vocal Morph Control).

## ■ External input synthesis function

**New!**

A sound that is input from an external source can be processed by the filter and amplifier in the same way as the internal waveforms.

## ■ Morphing function

Multiple parameters can be modified simultaneously by a MIDI message. This allows a variety of realtime expressions ranging from brief accentual changes to total transformations in which one sound changes into another.

## ■ Easy operation

**Power Up↑**

The panel is laid out in sections, similarly to analog synthesizers of the past. Panel sliders and knobs can be used to modify the sound in realtime. In addition, **the BANK1–8 buttons and NUMBER1–8 buttons can be used to select patches and performances quickly and easily.**

## ■ A rich array of sounds

**Power Up↑**

The JP-8080 contains **256 performances** (64 x 3 preset, 64 x 1 user) and **512 patches** (128 x 3 preset, 128 x 1 user). In addition to sounds original to the JP-8080, there are also 64 preset performances and 128 preset patches from the JP-8000.

## ■ DSP oscillator

**Power Up↑**

Supplementing the basic waveforms (square, sawtooth, triangle), the newly added DSP (Digital Signal Processor) oscillator contains four types of complex waveform which could not be produced by analog synthesizers. **Noise has also been added to Oscillator 2.**

## ■ Arpeggiator function

Four types of arpeggio can be produced: UP, DOWN, UP&DOWN, and RANDOM. By switching the beat pattern, you can change the accents and note length, letting you play arpeggios with a variety of grooves.

## ■ RPS (Realtime Phrase Sequencer) function

Patterns (musical phrases) that you create can be registered to each key (note number), allowing you to playback a pattern simply by pressing one key.

## ■ Motion Control function

**Power Up↑**

Movements (motions) of nearly all the sliders and knobs on the panel can be recorded for **up to 99 measures**, in four separate memories. By playing back a Motion during your song, you can reproduce complex tonal changes.

## ■ Preview function

**New!**

The BANK1–8 buttons and NUMBER1–8 buttons can be used as a one-octave keyboard. This lets you audition most of the functionality of the JP-8080 even when a MIDI keyboard is not connected.

## ■ Memory cards (SmartMedia) for data storage

**New!**

Optional memory cards (S2M-5: 2M bytes, S4M-5: 4M bytes) can be used. An S2M-5 can hold 64 x 32 performances and 128 x 32 patches, and an S4M-5 can hold 64 x 64 performances and 128 x 64 patches. A card can also hold RPS patterns, motion control, and system settings.

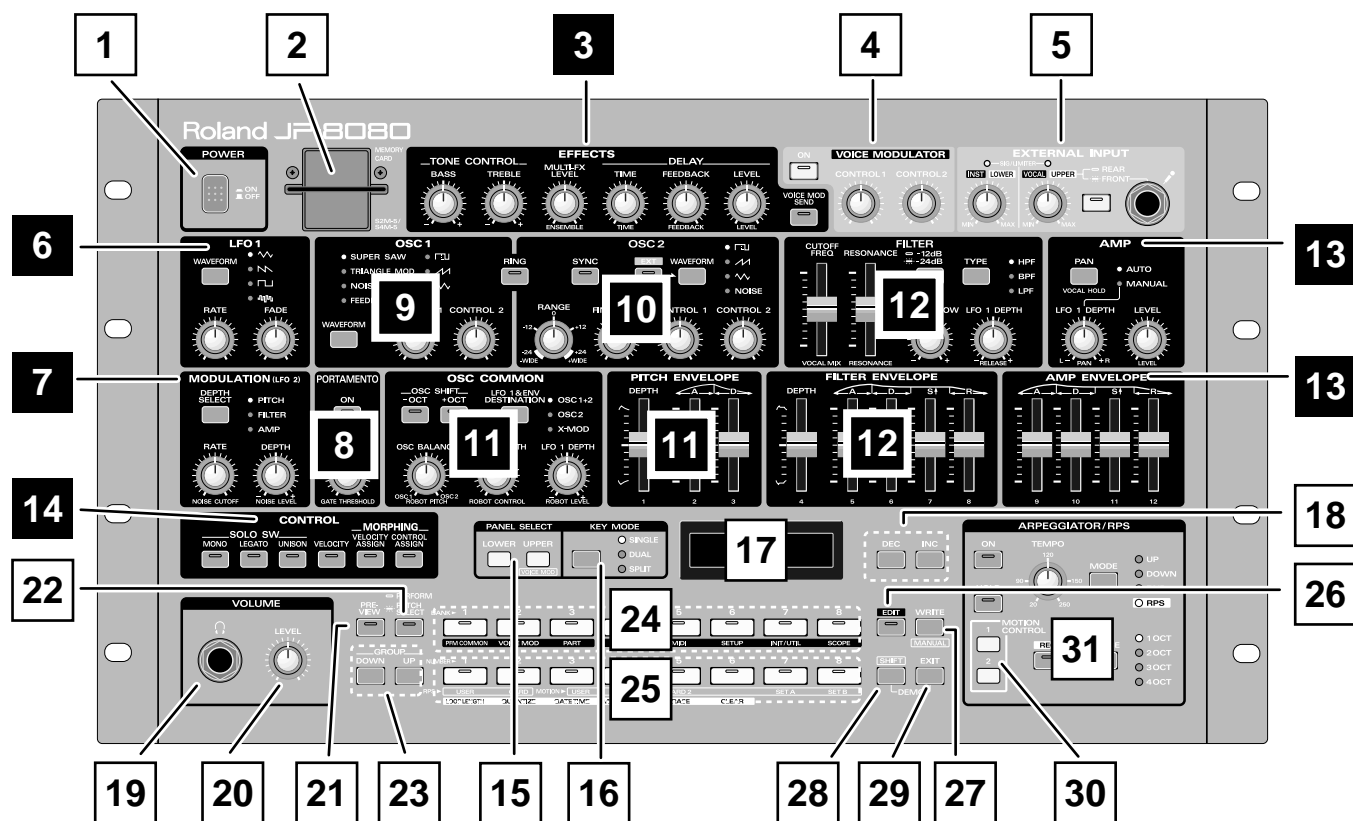
## ■ MIDI Thru function

**New!**

MIDI messages received at the MIDI IN connector can be transmitted from the MIDI OUT connector.

# Front and Rear Panel – Front Panel –

\* The settings of sections marked by white numerals (on black backgrounds) are saved as Patch settings.



## 1 Power switch

Turns the power on/off (p.19).

## 2 MEMORY CARD slot

An optional memory card can be inserted here (p.129).

## 3 EFFECTS section

- **TONE CONTROL**  
Adjusts the high and low ranges (p.30, 78).
- **MULTI-FX LEVEL (multi effects level)**  
Adds depth or spaciousness to the sound (p.30, 78).
- **DELAY**  
Adds an echo effect to the sound (p.31, 79).
- **VOICE MOD SEND (voice modulator send)**  
Turn this on when you wish to input the JP-8080 patch to the Voice Modulator.

## 4 VOICE MODULATOR section

Here you can turn the Voice Modulator on/off, and control the Voice Modulator effects (p.105, 109).

## 5 EXTERNAL INPUT section

Make settings related to the external input (p.70).  
When using the Voice Modulator (p.106) or an external trigger (p.121), connect an optional mic to the MIC jack.

## 6 LFO 1 section

Make settings for a waveform (LFO 1) which cyclically modulates the sound (p.29, 77).

## 7 MODULATION (LFO 2) section

Make settings that specify how the sound will change when you move the modulation lever on a connected MIDI keyboard (p.87).

## 8 PORTAMENTO section

Make settings for portamento (a function which smoothly changes the pitch between notes) (p.88).

## 9 OSC 1 (oscillator 1) section

Select the waveform which will be the basis of the sound. The sound that you specify here is the basis of the sound that you create (p.25, 26).

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## **10 OSC 2 (oscillator 2) section**

As in the OSC 1 section, select the waveform which will be the basis of the sound. Various sounds can be created by layering the OSC 1 and OSC 2 sounds. It is also possible to select an external input sound (p.68).

## **11 OSC COMMON (oscillator common) PITCH ENVELOPE sections**

Make settings which affect both OSC 1 and OSC 2, and settings which specify the pitch of the sound (p.71, 72).

## **12 FILTER FILTER ENVELOPE sections**

Adjust the filter to modify the brightness of the sound (p.28, 73–75).

## **13 AMP (amplifier) AMP ENVELOPE (amplifier envelope) sections**

These settings affect the volume and how the sound will begin and end (p.76).

## **14 CONTROL section**

### **● SOLO SW (solo switch)**

Turn this on when you use solo instrument sounds, or when you wish to play monophonic solos (p.80).

### **● VELOCITY**

Turn this on when you wish to use velocity (keyboard playing dynamics) to affect multiple parameters simultaneously (p.81, 82).

### **● MORPHING**

Specify the width of change for the parameters that will be modified by velocity or MIDI messages (p.82, 84).

## **15 PANEL SELECT section**

Here you can select the part (Upper/Lower) whose settings you wish to modify from the front panel (p.63).

If you hold down [SHIFT] and press [UPPER], you can then use the front panel to make Voice Modulator settings (p.111).

## **16 KEY MODE section**

Select how the two patches assigned to the performance will be played (p.50, 51, 60).

## **17 Display**

The patch/performance you select and the settings of various parameters are shown here.

## **18 DEC/INC (decrement/increment) buttons**

These are used to modify the values of various settings.

To rapidly increase a value, hold down [INC] and press [DEC]. To rapidly decrease a value, hold down [DEC] and press [INC].

## **19 Headphone jack**

An optional set of headphones can be connected here. Sound will still be output from the OUTPUT jacks even if headphones are connected (p.18).

## **20 VOLUME LEVEL knob**

This controls volume of the entire JP-8080. Rotating the knob toward the right will increase the volume (p.19).

## **21 PREVIEW button**

Turn this on when you wish to play sounds from the front panel of the JP-8080 without connecting a MIDI keyboard (p.24, 65).

## **22 PERFORM/PATCH SELECT (performance/patch select) button**

This button switches between the performance select display screen and the patch select display screen (p.59, 61).

## **23 GROUP DOWN/UP buttons**

These buttons select the performance/patch groups (p.23, 59, 61).

## **24 BANK 1–8/parameter buttons**

These buttons select the performance/patch bank (p.23, 59, 61).

When [EDIT] is on, these buttons allow you to select parameters other than those that are controlled directly from the panel sliders/knobs (p.115–126).

## **25 NUMBER 1–8 buttons**

These buttons select performance/patch numbers (p.23, 59, 61).

By holding down [SHIFT] as you press one of these buttons, you can switch RPS or Motion sets (p.93, 99).

These buttons also allow you to select parameters related to RPS pattern recording and Motion recording (p.94, 100).

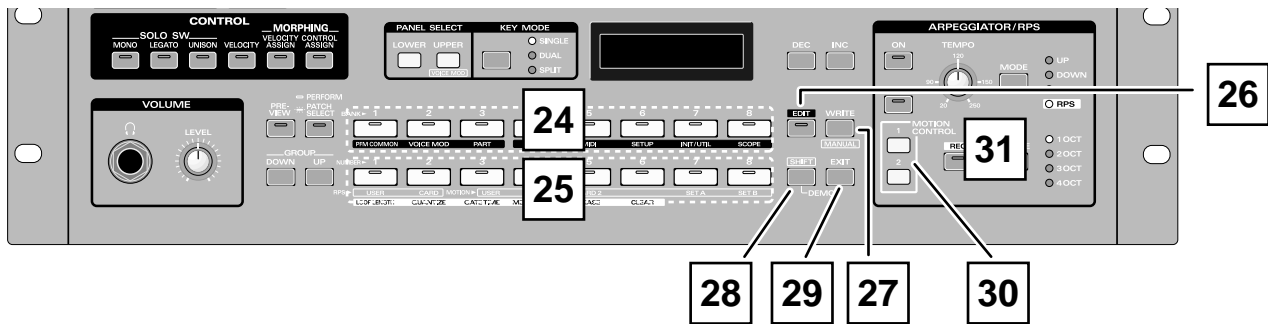
## **26 EDIT button**

When this button is on, the BANK 1–8 buttons allow you to select parameters other than those that are controlled directly from the panel sliders/knobs (p.115–126).

## **27 WRITE button**

Press this button to save a patch/performance (p.33, 128), or to execute an operation such as Initialize (p.140), Copy (p.61, 97), Bulk Dump (p.137), or a card-related operation (p.128–136).

# Front and Rear Panel – Front /Rear Panel –



## 28 SHIFT button

Use this button in conjunction with other buttons to access functions printed on the front panel in a white box (e.g., RPS [USER]). (p.65, 93, 99, 111)

## 29 EXIT button

Press this button to cancel an operation, etc..  
You can press this button simultaneously with [SHIFT] to hear the demo songs (p.21).

## 30 MOTION CONTROL 1/2 buttons

Press these buttons when you wish to use Motion Control (1/2) (p.98).

## 31 ARPEGGIATOR/RPS section

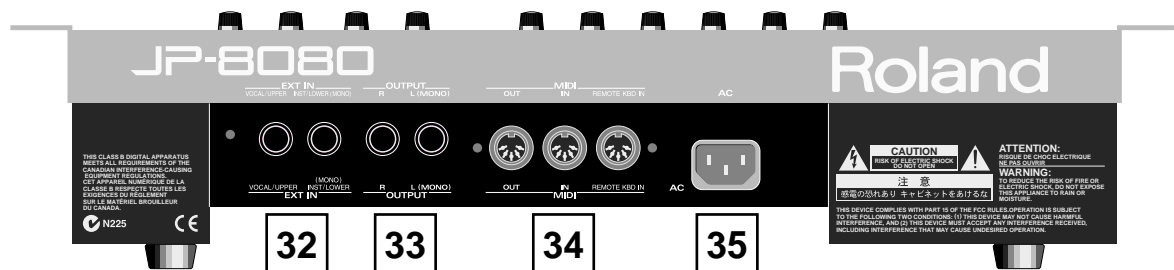
Here you can make arpeggiator/RPS settings (p.90, 92). You can also record RPS patterns or register Motions.

.....  
Words printed in blue below sliders/knobs in the **3 EFFECTS** section–**13 AMP ENVELOPE** section are Voice Modulator-related parameters.

You can use the sliders/knobs with these blue-printed labels to modify Voice Modulator settings.

Voice Modulator settings are saved in the performance.

.....



## 32 EXT IN (external input) jacks (VOCAL/UPPER, INST/LOWER (MONO))

Sound from an external source can be input here (p.26, 70, 106, 146–148). For mono input, use the INST/LOWER jack .

## 33 OUTPUT jacks (R, L (MONO))

These jacks can be connected to your amp or mixer system (p.18). For mono output, use the L jack.

## 34 MIDI connectors (OUT, IN, REMOTE KBD IN)

External MIDI devices can be connected here (p.18, 145). Use MIDI cables (sold separately) to make connections.

## 35 AC inlet

Connect the included power cable to this inlet (p.18).

# IMPORTANT NOTES

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

## Power Supply •••••

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

## Placement •••••

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.

## 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.

## Repairs and Data •••••

- Please be aware that all data contained in the unit's memory may be lost when the unit is sent for repairs. Important data should always be backed up memory card, or written down on paper (when possible). During repairs, due care is taken to avoid the loss of data. However, in certain cases (such as when circuitry related to memory itself is out of order), we regret that it may not be possible to restore the data, and Roland assumes no liability concerning such loss of data.

## Memory Backup •••••

- This unit contains a battery which powers the unit's memory circuits while the main power is off. When this battery becomes weak, the message shown below will appear in the display. Once you see this message, have the battery replaced with a fresh one as soon as possible to avoid the loss of all data in memory. To have the battery replaced, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the “Information” page.

“Battery Low!”

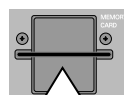
## Additional Precautions •••••

- 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 memory card.
- Unfortunately, it may be impossible to restore the contents of data that was stored in the unit's memory and/or a memory card 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.

## Before Using Cards •••••

### Using DATA Cards

- Carefully insert the memory card all the way in—until it is firmly in place.



The surface without gold contacts must face upward

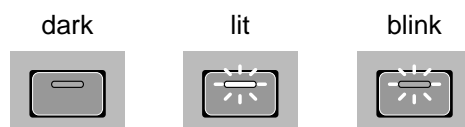
- Never touch the terminals of the memory card. Also, avoid getting the terminals dirty.

---

## Printing Conventions in This Manual

In order to present information as clearly as possible, the following conventions are used in this manual.

- Text or numerals enclosed in square brackets [ ] indicate buttons, sliders, or knobs on the panel. For example [WAVEFORM] indicates the Waveform button, and [RATE] indicates the Rate knob.
- Indications such as [DOWN]/[UP] mean that you may press either button.
- References such as (p.\*\*\*) indicate pages in this manual to which you can refer.
- The dark/lit/blinking status of an indicator is distinguished as follows.



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## Performances/Patches for the Explanation of the Functions

On the JP-8080, the performances/patches for the explanation of the functions are provided:

### ● Performance

<b>P1: 83</b>	<b>Template1:</b>	Individual Trigger (p.118)
<b>P1: 84</b>	<b>Template2:</b>	Delay Sync, Chorus Sync (p.119, 120)
<b>P1: 85</b>	<b>Template3:</b>	LFO Sync (p.120)
<b>P1: 86</b>	<b>Template4:</b>	Key Mode Split (p.51)
<b>P1: 87</b>	<b>Template5:</b>	Key Mode Single, Dual (p.50, 51)
<b>P1: 88</b>	<b>Template6:</b>	Modifying the sound by the controllers such as the knobs and sliders (p.25–46)
<b>P2: 81</b>	<b>VOCAL MORPH FBK:</b>	Vocal Morph Control (p.111)
<b>P2: 82</b>	<b>FILTER BANK:</b>	Filter Bank (p.36)
<b>P2: 86</b>	<b>FORMANT FILTER:</b>	Formnant Filter (p.35)
<b>P2: 87</b>	<b>AUDIO SYNTHESIS:</b>	External input synthesis (p.27)
<b>P2: 88</b>	<b>With MC-505:</b>	Using the JP-8080 with the MC-505 (p.149)

### ● Patch

<b>P1: B87</b>	<b>Template1:</b>	Decay-type envelope (p.77)
<b>P1: B88</b>	<b>Template2:</b>	Sustain-type envelope (p.77)

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**JP-8080**

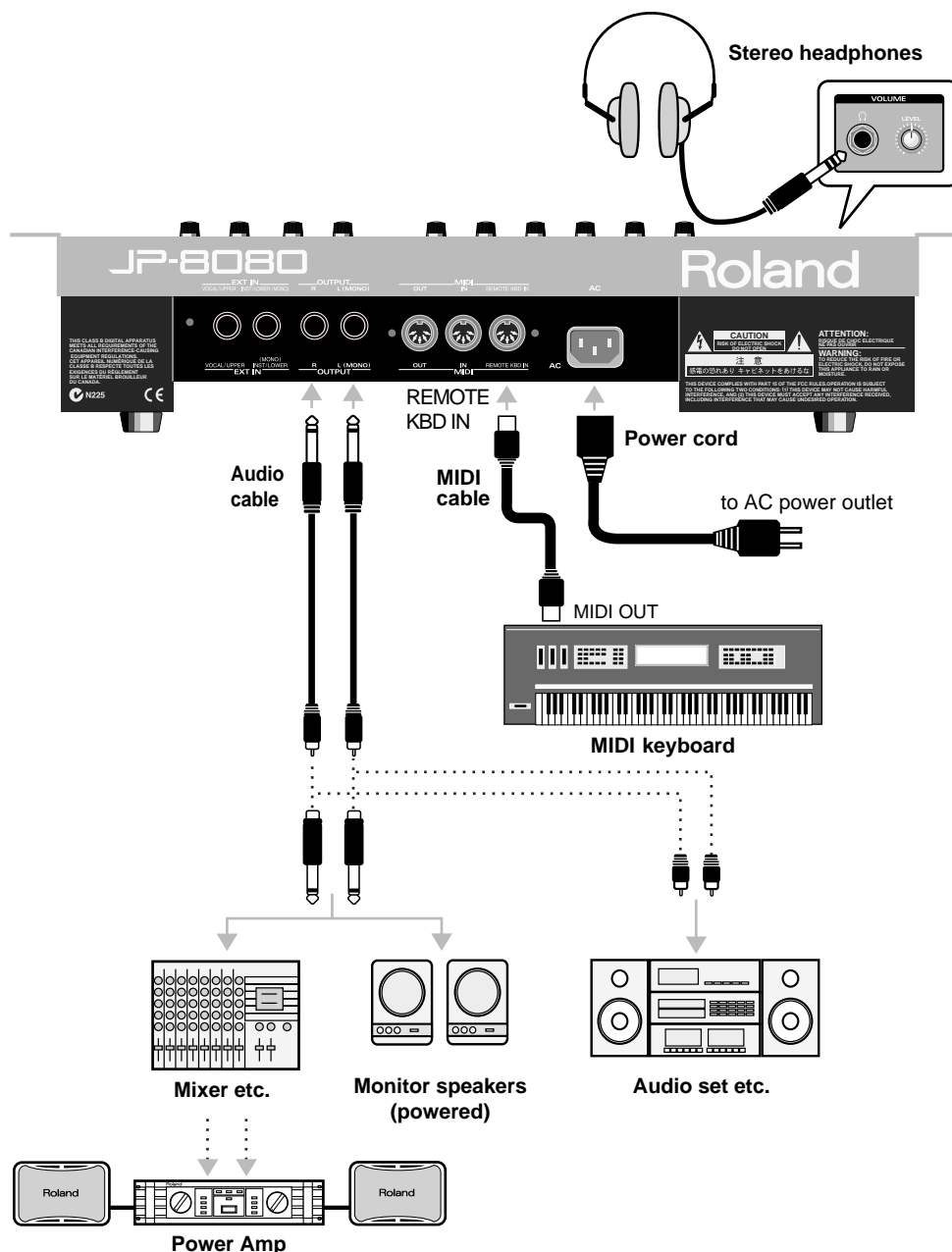
# **Quick Start**

# Step 1. Playing the Sounds

## Connections

The JP-8080 does not contain an amplifier or speakers. In order to hear the sound, you will need to connect a keyboard amp, audio system, or headphones.

- \* Audio cables, MIDI cables, and stereo headphones are not included. You may purchase these items separately at your dealer.
- \* If you will be installing the JP-8080 in a rack for use, make connections before installing it into the rack.



### 1 Before you begin making connections, make sure that all equipment is powered-off.

- \* 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.

- 2** Connect the included AC power cord to the JP-8080, and plug it into an AC outlet.
- 3** As shown in the diagram, make connections to your MIDI keyboard and audio equipment.

.....  
 The JP-8080 has two connectors for MIDI input (IN/REMOTE KBD IN). In order to control the arpeggiator (p.36, 90) and RPS (p.38, 92), be sure to connect your MIDI keyboard to the REMOTE KBD IN connector.

The arpeggiator and RPS cannot be controlled from the MIDI IN connector.  
 .....

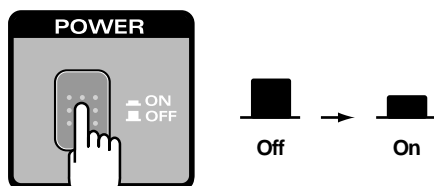
- \* **Set your MIDI keyboard to a mode in which it transmits only a single channel of MIDI messages.**
- \* In order to take full advantage of the superior sound of the JP-8080, we recommend that you listen to it in stereo. If you are using a mono system, make connections using the OUTPUT L (MONO) jack.
- \* The JP-8080 can be test-played even without connecting a MIDI keyboard. (Preview: p.24, 65)
- \* If you will be connecting a sequencer to the JP-8080, refer to p.145.
- \* If you will be using the EXT IN jack, refer to p.26, 70, 106, 146–148.

Connect headphones as necessary.

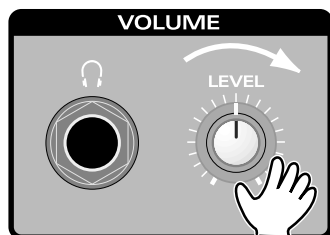
## Turning On the Power

Once the connections have been completed (p.18), 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.
  - Is the JP-8080 connected correctly to the external devices?
  - Are the volume controls of the JP-8080 and of your audio equipment turned to the minimum position?
- 2** Turn on the power switch of the JP-8080.



- 3** Turn on the power switch of the connected MIDI keyboard.
- 4** Turn on the power switches of the connected audio equipment.
- 5** Rotate the VOLUME [LEVEL] knob to adjust the volume of the JP-8080.



Adjust the volume of the connected audio equipment in the same way.

- \* 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.

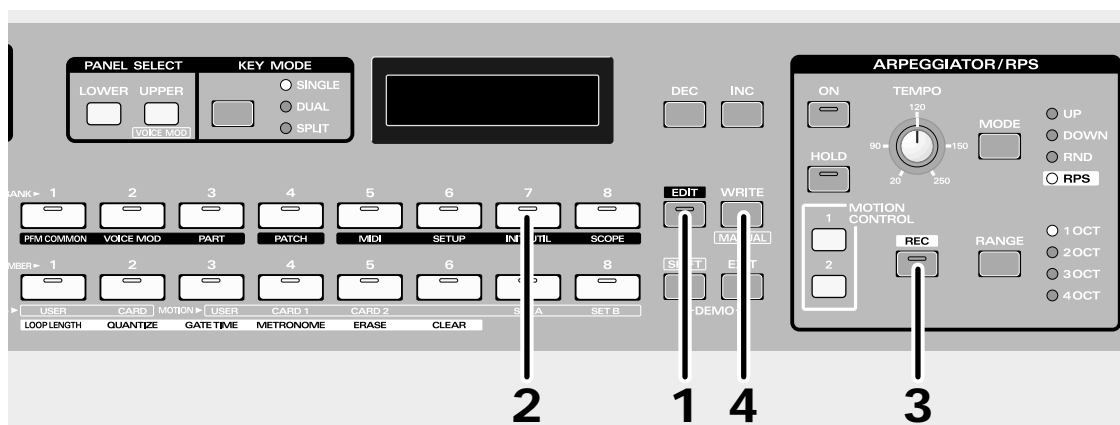
## ■ Turning Off the Power .....

- 1 Before you turn the power off, check the following points.**
  - Have you saved any Performances or Patches that you created? (p.32, p.127)
  - Have the volume controls of the JP-8080 and the connected audio equipment been turned to the minimum position?
- 2 Turn off the power of the connected audio equipment.**
- 3 Turn off the power of the connected MIDI keyboard.**
- 4 Turn off the power of the JP-8080.**

## Restoring the Factory Settings (Factory Reset)

If you have modified the settings on your JP-8080 after you purchased it, you may find it difficult to follow the explanations in this Quick Start section. If this is the case, you can use the following procedure to restore the factory settings before you read through the Quick Start section.

- \* When you perform this operation, the data in memory will be returned to the factory settings. If memory contains data that you wish to keep, save your data to a memory card (p.129) before you restore the factory settings.



- 1 Press [EDIT].**  
The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.
- 2 Press [INIT/UTIL] (BANK [7]) several times to access the Factory Reset display.**  
The [INIT/UTIL] indicator will light.

Factory Reset  
ALL [REC]

Make sure that “ALL” is selected.

If the selection is other than ALL, press [DEC]/[INC] several times to select “ALL.”

- 3 Press [REC].**

A confirmation message will appear.

Erase your data  
OK? [WRITE/EXIT]

To cancel without executing the factory reset, press [EXIT].

#### 4 Press [WRITE].

The display will indicate “Completed,” and then the previous display will reappear.

Completed

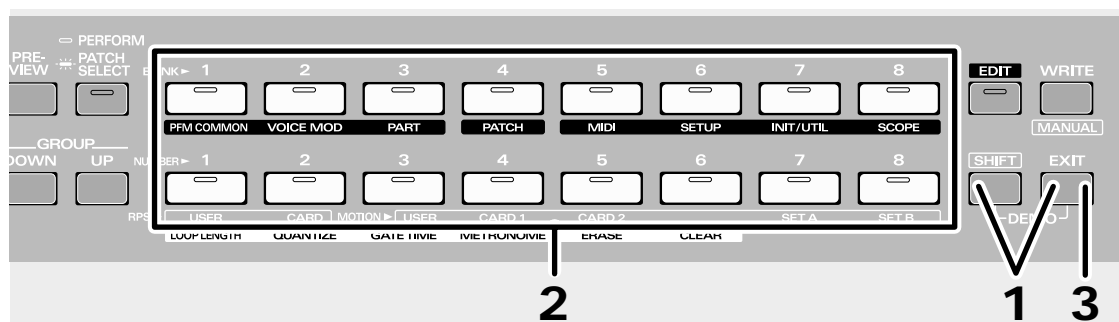
The factory settings have now been restored.

- ◆ It is also possible to select just a specified type of data (such as only Patches, or only RPS patterns, etc.) for restoration to the factory settings.

→ “Restoring the Factory Settings (Factory Reset)” (p.140)

## Listening to the Demo Songs

The JP-8080 contains demo songs that show off the musical potential of the instrument. Here’s how to listen to these demo songs.



#### 1 Simultaneously press [SHIFT] and [EXIT].

The display will indicate “DEMO”, and the demo songs will playback consecutively.

==== DEMO ====  
1: Roentgen

#### 2 If you wish to listen to from in the middle of the song, press a key BANK [1]–[8] or NUMBER [1]–[8].

#### 3 To return to the condition in which you can play the connected MIDI keyboard of the JP-8080, press [EXIT].

The previous display will reappear.

- \* While the demo songs are playing back, playing the connected MIDI keyboard will not produce sound. Also, no data for the music that is played will be output from MIDI OUT.
- \* All rights reserved. Unauthorized use of this material for purposes other than private, personal enjoyment is a violation of applicable laws.
- \* The NUMBER [8] demo song lets you try out the formant filter effect. Connect a mic (sold separately) to the MIC jack, use the EXTERNAL INPUT section [VOCAL/UPPER] control to adjust the volume, and speak into the mic.

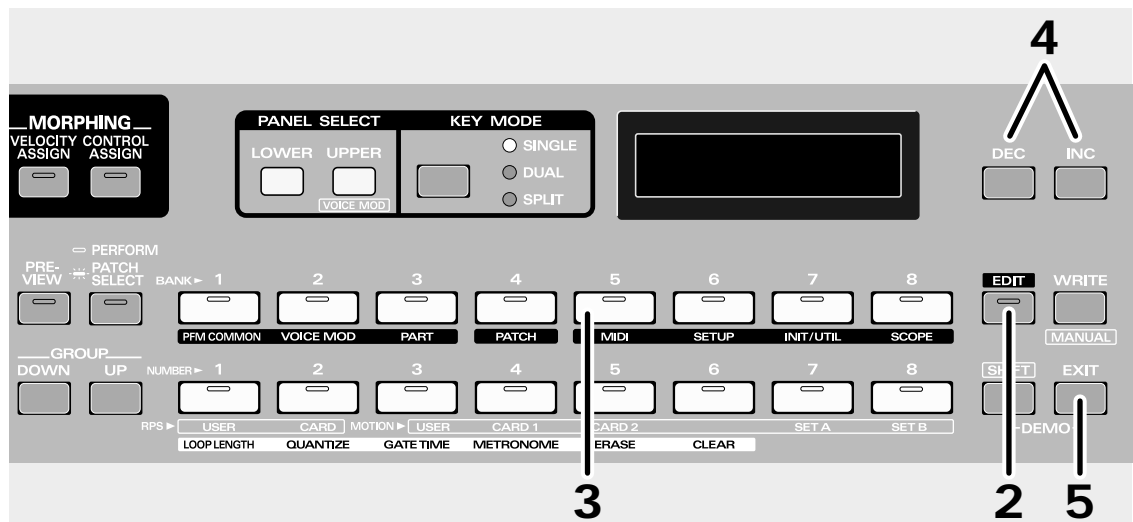
A list of the demo songs and profiles of the demo song composers is provided on page 52 for your reference.

## MIDI Channel Settings

The JP-8080 receives MIDI messages from another device, and produces sound in response. In order to play the JP-8080 from a MIDI keyboard connected to REMOTE KBD IN, you will need to set the transmit channel of the MIDI keyboard to match the Remote Keyboard Channel of the JP-8080.

For this example, let's set both channels to "1."

- \* Immediately after the factory settings have been restored, the JP-8080's Remote Keyboard Channel will be set to ALL (all channels will be received). (p.124)



- 1 Set the transmit channel of your MIDI keyboard to "1."**  
For details on this setting, refer to the owner's manual of your MIDI keyboard.
- 2 Press [EDIT].**  
The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.
- 3 Press [MIDI] (BANK [5]) several times to access the Remote Keyboard Channel display.**  
The [MIDI] indicator will light.

```
Remote KBD CH
ALL
```

- 4 Use [DEC]/[INC] several times to choose "1."**

```
Remote KBD CH
1
```

- 5 When you finish making settings, press [EXIT].**  
The [EDIT] indicator will go dark, and the previous display will reappear.

.....

- ◆ If an external MIDI device is connected to MIDI IN/OUT
  - "Setting the MIDI Channel for Each Part" (p.118)
  - "Perform Ctrl CH (Performance Control Channel)" (p.124)

.....

## Playing the Sounds

The JP-8080 contains a wide variety of sounds. In this section we will select Performances to hear the various sounds. The Performances are organized into the following groups.

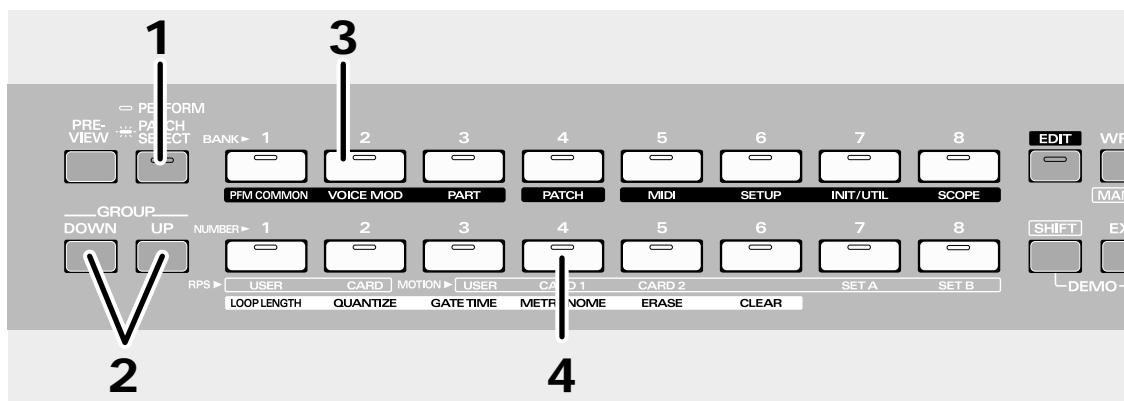
**USER:** Sounds which can be rewritten

**PRESET1–3:** Sounds which cannot be rewritten

**CARD01–64:** Sounds saved on an optional memory card

- \* P2: 83–P2: 86 are performances which use the formant filter. These should be played while inputting vocals through the MIC jack. This is especially true in the case of P2:84 and P2:86—they will not sound at all unless vocals are being input. (p.103)
- \* P2: 87 is a performance which uses the external input. There will be no sound unless sound is being input to the EXT IN jack. (p.26, 70)
- \* CARD sounds can be selected only if a memory card is inserted into the CARD slot. (p.128)

Performances are selected by specifying the three items Group (USER/PRESET1–3/CARD01–64), Bank (1–8), and Number (1–8). For this example, let's select performance "P1: 24 1979!"



### 1 Make sure that the upper left of the display indicates "PERFORM."

If not, press [PERFORM/PATCH SELECT] to get the correct display.

```
PERFORM  U: 7 7
Sand Storm
```

### 2 Use GROUP [DOWN]/[UP] to select a Group (P1: Preset1).

### 3 Press BANK [2] to select a Bank (2).

The BANK [2] indicator will light.

### 4 Press NUMBER [4] to select a Number (4).

The NUMBER [4] indicator will light.

The Performance has now been selected.

Play the connected MIDI keyboard and listen to the sound of the selected performance.

#### ◆ For more details on Performances

→ "Patches and Performances" (p.55)

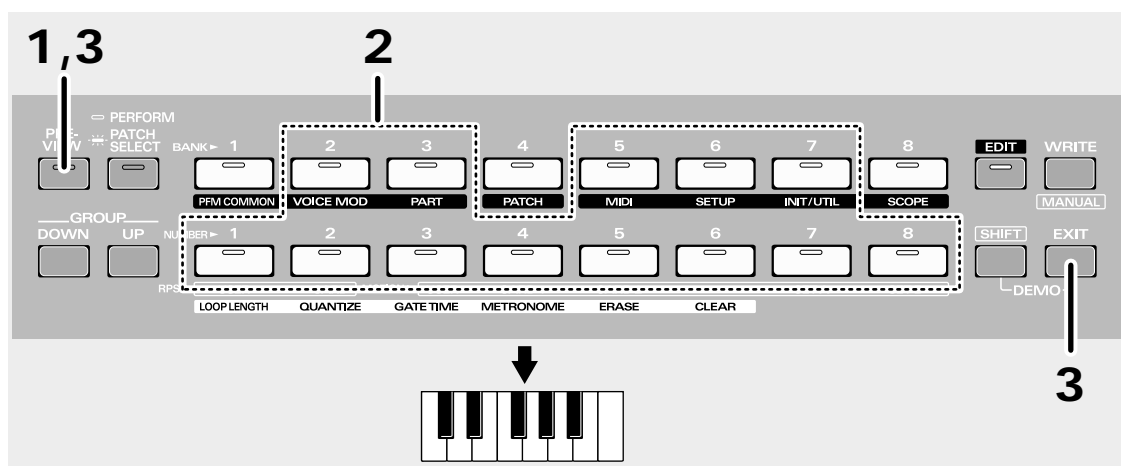
#### ◆ For details on Performance numbers and the contents of each

→ "Performance List" (p.176)

- ◆ For more details on selecting performances
  - “Selecting a Performance” (p.59)
- ◆ For more details on memory cards
  - “Using a Memory Card (SmartMedia)” (p.128)

## ■ Using the Preview Function

The JP-8080 allows you to audition notes without a MIDI keyboard or any other external device. This is called the “Preview” function.



### 1 Press [PREVIEW].

The [PREVIEW] indicator will blink.

At the same time, the BANK [2], [3], [5]–[7] and NUMBER [1]–[8] indicators will light.

These buttons can be used as a one-octave keyboard.

### 2 Press any of the BANK [2], [3], [5]–[7] or NUMBER [1]–[8] buttons.

The selected Performance will sound.

- \* Do not press the buttons strongly, since the volume will not change in response to the strength with which the buttons are pressed. This is fixed at note-on velocity 80 and note-off velocity 80.

Select different Performances and play them.

- \* In Preview Play mode, you can use the [DOWN]/[UP] and [DEC]/[INC] buttons to select performances. If you hold down one of the [DOWN]/[UP] or [DEC]/[INC] buttons and then press the other button, the change will become more rapid in the direction of the first-pressed button. You can use this function whenever using the [DOWN]/[UP] or [DEC]/[INC] buttons to specify a value.

### 3 To return to the previous state, press [PREVIEW] or [EXIT].

The [PREVIEW] indicator will go dark.

- ◆ To learn more about the Preview function
  - “Playing Sounds Using the JP-8080 Alone (Preview)” (p.65)



## Step 2. Modifying the Sound

In step 2 we will use the panel sliders and knobs etc. to modify the sound in real-time.

.....  
Each Performance is assigned settings for two sounds, which are called “Patches.” By using the slides or knobs etc. to modify the settings of these Patches you can modify the sound in various ways.

The two Patches are assigned to the Lower Part and the Upper Part respectively. From the panel you can modify the settings of the Patch which is assigned to the Part whose [LOWER] or [UPPER] indicator is lit.  
.....

### Selecting the Basic Waveform for the Sound (Waveform)

Now let's select and listen to a Waveform — the most basic element of a Patch.

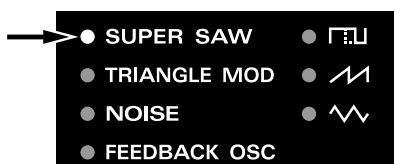
By using the sliders and knobs to modify the waveform you can create a variety of sounds.



#### 1 Select the Performance P1: 88 (p.23).

By playing the connected MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

#### 2 In the OSC 1 section, make sure that “SUPER SAW” is selected.

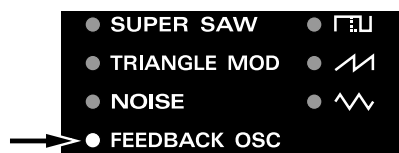


Play the connected MIDI keyboard and listen to SUPER SAW.

#### 3 Rotate the OSC 1 section [CONTROL 2] knob toward the right.

The sound will become thicker as if several sounds were being played simultaneously.

#### 4 Press [WAVEFORM] three times to select “FEEDBACK OSC.”

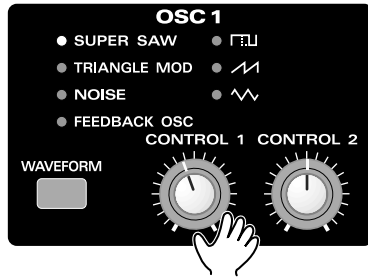


Solo SW [MONO] will be turned on, and the JP-8080 will play monophonically. (one note at a time)

- \* When FEEDBACK OSC is selected, the Solo SW [MONO] or [LEGATO] will be turned on. This cannot be turned off.

Leave [CONTROL 2] at the position shown in the illustration, and rotate [CONTROL 1] to change the harmonics in various ways.

When you move [CONTROL 1]/[CONTROL 2], the waveform name and parameter name will appear in the display.



## 5 Using the same procedure, listen to the sound of other waveforms.

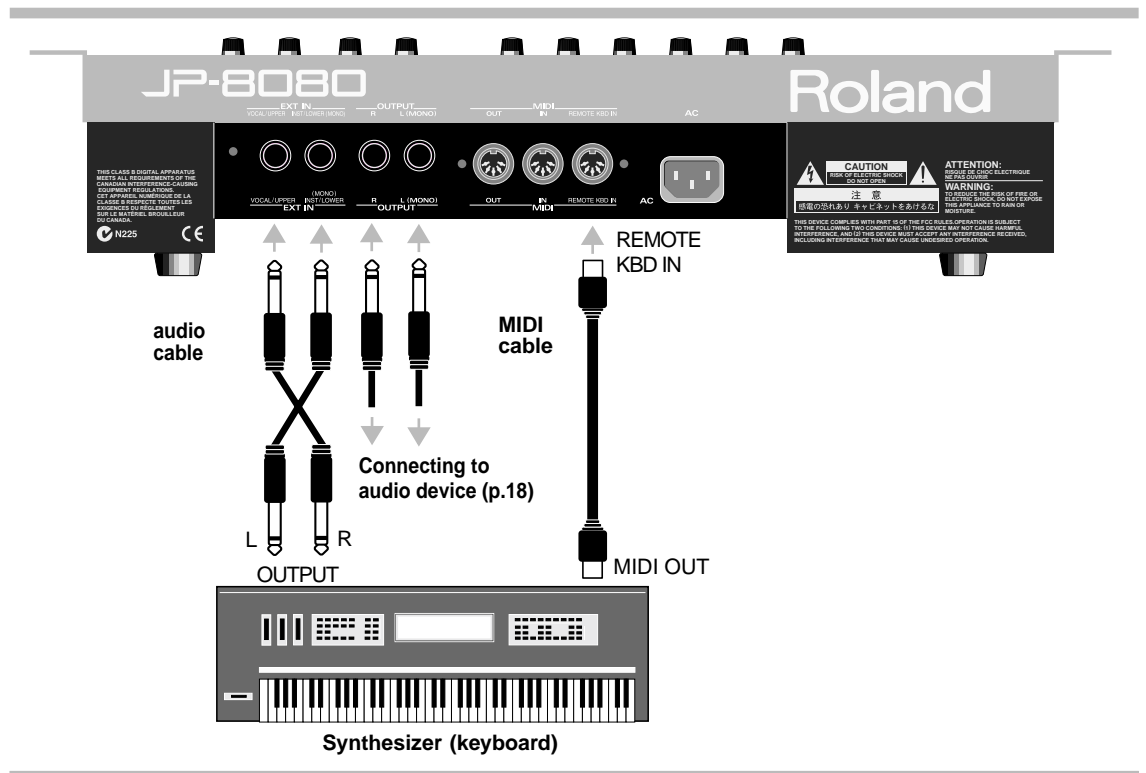
Rotate [CONTROL 1]/[CONTROL 2] to change the sound in various ways.

- ◆ For details on the settings of the OSC 1 section
  - “Selecting the Basic Waveform for the Sound (1) (Oscillator 1)” (p.66)
- ◆ For details on other OSC related settings
  - “Selecting the Basic Waveform for the Sound (2) (Oscillator 2)” (p.68)
  - “Modifying the Waveform and Pitch of the Sound” (p.71)

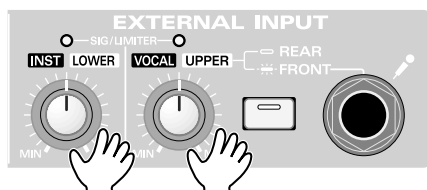
## ■ Using the External Inputs

The sliders and knobs can be used to modify sounds from a MIDI keyboard, MIDI sound source, tape, or CD that is connected to the rear panel EXT IN jacks, in the same way as the internal waveforms.

For this example, let's input the sound of a synthesizer (keyboard) in stereo.



- 1** As shown in the diagram, connect the EXT IN jacks and the synthesizer's (keyboard's) OUTPUT jacks.
- 2** Select a sound on the synthesizer (keyboard).
- 3** Select performance P2: 87. (p.23)
- 4** Play your synthesizer (keyboard), and you will hear the sound that you selected on the synthesizer.
- 5** Use the EXTERNAL INPUT section [INST/LOWER]/[VOCAL/UPPER] to adjust the volume.



The sound that is input to the EXT IN jack VOCAL/UPPER will be assigned to the Upper part, and the sound that is input to the EXT IN jack INST/LOWER will be assigned to the Lower part.

P2: 87 is a performance which uses the external inputs. You will hear no sound unless sound is being input to the EXT IN jacks.

Settings have been made so moving the sliders or knobs will simultaneously modify both the Upper and Lower sounds. Use the various functions described below to modify the sound in.

- \* Be aware that selecting a sound on your synthesizer (keyboard) in step 4 or later will cause the JP-8080's performance to change as well. (p.60)

- 
- ◆ For more details on external input settings
    - "Using the External Inputs" (p.70)
  - ◆ To learn how the external input can be used
    - "Various Ways to Use Voice Modulator" (p.146)
-

## Making the Sound Brighter/Darker (Cutoff Frequency)

Let's try modifying the brightness of the sound.



### 1 Select the Performance P1: 88 (p.23).

By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

### 2 Move the FILTER section [CUTOFF FREQ] slider.

Raising the slider will make the sound sharper and brighter.

Lowering the slider will make the sound mellower and darker.

- .....
- ◆ For details on [CUTOFF FREQ],  
→ "Modifying the Brightness" (p.73)
- .....

## Adding Character to the Sound (Resonance)

Now let's give the sound more character.



### 1 Select the Performance P1: 88 (p.23).

By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

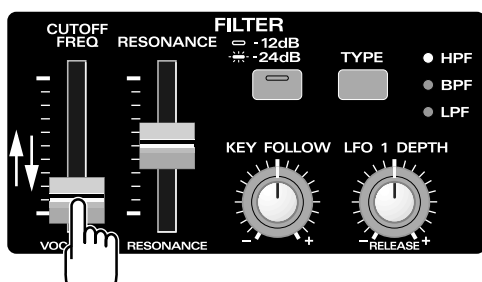
### 2 Move the FILTER section [RESONANCE] slider.

Raising the slider will give the sound a more distinct character.

Lowering the slider will make the sound more natural.

- \* With excessively high settings of [RESONANCE], you may hear an additional sound that is different than the sound of the Patch, so excessively high settings should normally be avoided. (This phenomenon is called "oscillation.")

- 3** Leave [RESONANCE] at the position shown in the illustration, and now try moving [CUTOFF FREQ].



You will hear a characteristic synthesized sound. A combination of changes in [CUTOFF FREQ] and [RESONANCE] is one of the most frequently used sound modifications on synthesizers.

- ♦ For details on [RESONANCE],  
→ “Modifying the Brightness” (p.74)

## Modulating the Sound (LFO 1)

The LFO 1 waveform is independent of OSC 1 (even if the waveforms themselves are the same), and is used to modulate the sound (i.e., to apply cyclic change). Let's change the sound by using the LFO 1 to modulate the pitch.



- 1** Select the Performance P1: 88 (p.23).  
By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.
- 2** Rotate the OSC COMMON section [LFO 1 DEPTH] knob.  
The sound cyclically becomes higher or lower.  
Rotating [LFO 1 DEPTH] will increase/decrease the amount of modulation.
- 3** Rotate the LFO 1 section [RATE] knob.  
Rotating [RATE] will modify the speed of modulation.
- 4** Press the LFO 1 section [WAVEFORM] to change the waveform.  
You can change the way in which the sound is modulated. Try out the different waveforms.

- ♦ Rotate the FILTER section [LFO1 DEPTH] toward the right, and the brightness will change cyclically.  
→ “Modifying the Brightness” (p.75)

- ◆ Rotate the AMP section [LFO1 DEPTH] toward the right, and the volume will change cyclically.  
→ “Modifying the Volume” (p.76)
- ◆ For details on the settings of the LFO 1 section  
→ “Modulating the Sound (LFO 1)” (p.77)
- ◆ You can also add modulation at the desired timing while you play.  
→ “Adding Cyclic Change (MODULATION (LFO 2))” (p.87)

## Adjusting the High and Low Tone (Tone Control)

The Tone Control knobs are used to adjust the low/high frequency ranges of the sound, so that the tonal quality is to your taste. Let's use the Tone Control knobs to emphasize the low range.



### 1 Select the Performance P1: 88 (p.23).

By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

### 2 Rotate the TONE CONTROL [BASS] knob.

Rotating the knob toward the right will emphasize the low range, producing a solid sound.

### 3 Rotate the TONE CONTROL [TREBLE] knob.

If you also rotate [TREBLE] toward the right in the same way to emphasize the high range, the sound will have both a solid bottom and a crisp top.

- ◆ For details on the settings of the TONE CONTROL  
→ “Adjusting the High and Low Tone (Tone Control)” (p.78)

## Broadening the Sound (Multi Effects Level)

The JP-8080 provides 13 types of effects, and these can be assigned to [MULTI-FX LEVEL] and used.

For this example, let's select a performance to which “chorus” is assigned, and try modifying the sound.

By using Chorus, even single notes can be given a broad and spacious sound that is characteristic of multiple sounds occurring at once.



## 1 Select the Performance P1: 88 (p.23).

By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

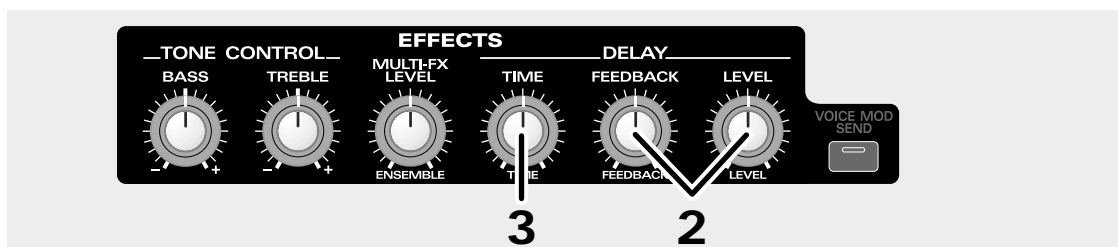
## 2 Rotate the EFFECTS section [MULTI-FX LEVEL] knob.

This will adjust the depth of the chorus effect.

- .....
- ◆ For details on the settings of the [MULTI-FX LEVEL]
    - "Adding Spaciousness and Depth to the Sound (Multi Effects Level)" (p.78)
- .....

# Adding an Echo Effect (Delay)

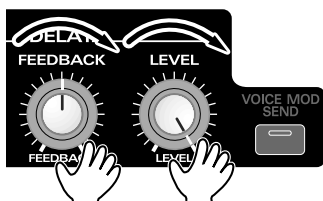
Let's use Delay to add an echo-like effect to the sound.



## 1 Select the Performance P1: 88 (p.23).

By playing the MIDI keyboard, you will hear the Upper Patch sound. Let's modify this sound.

## 2 Rotate the DELAY [FEEDBACK] and [LEVEL] knobs to the positions shown in the illustration.



An echo effect will be applied. (This effect is called "Delay.")

## 3 Rotate the DELAY [TIME] knob.

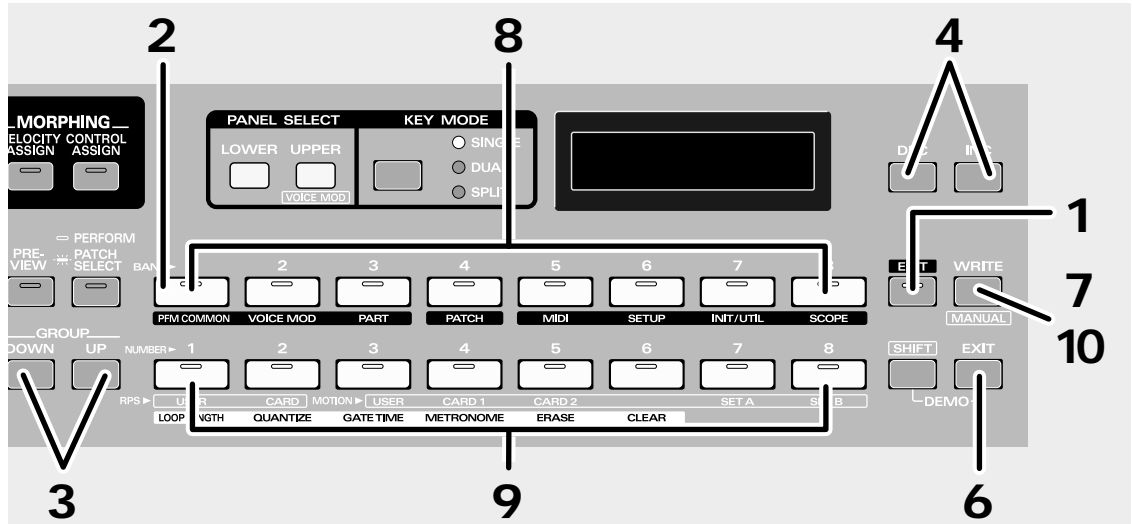
The interval at which the delay sound is heard will change.

- \* Unexpected sound will be heard if you rapidly move [TIME] while playing a note, but this is not a malfunction.

- .....
- ◆ For details on the settings of the DELAY
    - "Adding an Echo Effect (Delay)" (p.79)
- .....

## Storing a Performance

Now that you have worked through the examples in Step 2 and created a sound that's to your liking, let's write the Performance into memory.



Once you modify the sound with a slider/knob and button, then “\*” (asterisk) will appear at the left of the Performance number, indicating that the settings of the selected Performance have been modified.

```
PERFORM* P1:E3E3
Template6
```

If you select a different Performance while the asterisk is displayed, the current settings will be lost. If you wish to keep the current settings, you must use the following procedure to write them to a User Performance (a Performance whose number begins with a “U”). You can assign a name of up to 16 characters to your Performance.

- \* The new modified Performance will be written over the User Performance that previously existed in that memory.
- \* If you do not wish to modify the Performance name, skip steps 1–6.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK[1]–[8] indicators will blink.

### 2 Press [PFM COMMON] (BANK [1]) to access the Performance Name display.

The [PFM COMMON] indicator will light.

The following display will appear, and the “\_” (cursor) will appear below the Performance name.

```
Performance Name
Template6
```

If you decide not to change the performance name, press [EXIT].

### 3 Use GROUP [DOWN]/[UP] to move the cursor to the location where you wish to input a character.

### 4 Use [DEC]/[INC] to specify the character.



- \* If you hold down one of the [DEC]/[INC] buttons and then press the other button, the change will become more rapid in the direction of the first-pressed button. You can use this function whenever using the [DEC]/[INC] buttons to specify a value.

```
Performance Name
Name1ate6
```

The following characters can be selected.

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

.....

**When inputting characters, the NUMBER [1]–[8] buttons have the following convenient functions.**

- [1]: Display an "." at the cursor location.
  - [2]: Display a space at the cursor location.
  - [3]: Display an "A" at the cursor location.
  - [4]: Display an "a" at the cursor location.
  - [5]: Display a "0" at the cursor location.
  - [6]: Switch between uppercase and lowercase characters.
  - [7]: Insert a space at the cursor location.
  - [8]: Delete the character at the cursor location, and shift subsequent characters to the left.
- .....

## 5 Repeat steps 3–4 to input the Performance name.

## 6 Press [EXIT].

The performance name has now been changed.

Next, let's select a save destination and save it.

## 7 Press [WRITE].

```
To PERF      U:00
With MC-505
```

## 8 Press BANK [1]–[8] to select a Bank (1–8).

## 9 Press NUMBER [1]–[8] to select a Number (1–8).

## 10 Press [WRITE].

The display will indicate "Completed" and the previous display will reappear.

```
Completed → PERFORM      U:4343
NEW PERFORM NAME
```

The Performance has now been stored into memory.

- \* The Patches stored within a Performance are displayed as "UPPER" and "LOWER." Be aware that the original Patch numbers are not displayed.

- .....
- ◆ In addition to the operations explained in Step 2, each one of the front panel sliders and knobs etc. can be used to modify the sound.
    - “Chapter 3. Functions that Modify the Sound” (p.66)
  - ◆ If you wish to restore the Performance that you overwrote to the factory settings
    - “Returning Only a Specific User Performance or User Patch to the Factory Settings” (p.141)
  - ◆ In addition to the sound settings, a variety of other settings such as the Key Mode and Arpeggiator settings etc. can also be stored in a Performance.
    - “Patches and Performances” (p.55)
  - ◆ Patch settings can be stored by themselves separately from Performances.
    - “Storing a Performance/Patch” (p.127)
  - ◆ You can also save the data to a memory card.
    - “Saving to a Memory Card” (p.129)
- .....

# Step 3. Shortcuts! Convenient Functions of the JP-8080

## Using Voice Modulator

The Voice Modulator of the JP-8080 provide twelve filters of differing frequency bands. These filters can be used to produce three effects. Here we will listen to two of these: the “formant filter” and “filter bank” effects.

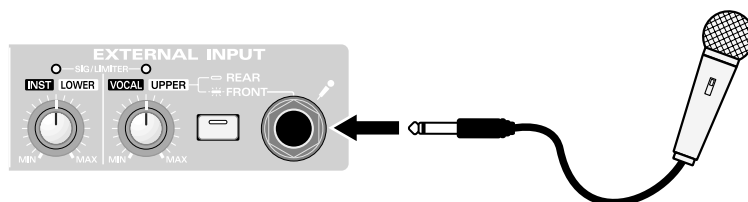
### ■ Producing an Effect as though an Instrumental Sound were Talking (Formant Filter) • • • •

With the Formant Filter effect, a set of filters which simulates the characteristics of a human voice (an audio signal) be applied to an instrumental sound, creating the impression that the instrumental sound is talking. The filter settings are created by analyzing an audio input. The audio is normally input from a mic.

\* A microphone is not included. You can purchase one from your dealer if required.

- 1 **Turn down the volume of the JP-8080 and of the connected audio system to the minimum position, and connect a mic.**

After connecting the mic, adjust the volume of the JP-8080 and of the connected audio system.



- 2 **Select performance P2: 86 (p.23).**

The PANEL SELECT [UPPER] and [LOWER] indicators will blink.

- 3 **Use the EXTERNAL INPUT [VOCAL/UPPER] to adjust the volume of the mic input.**

- 4 **While playing your MIDI keyboard, speak into the microphone.**

The sound of the JP-8080 will appear to be speaking.

The pitch will change according to how you play your MIDI keyboard.

- \* Performances P2: 83–P2: 86 use the formant filter. These should be played while inputting vocals through the MIC jack. This is especially true in the case of P2:84 and P2:86—they will not sound at all unless vocals are being input. (p.103)
- \* 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 at a greater distance from speakers.
  3. Lowering volume levels.

♦ To learn more about the formant filter

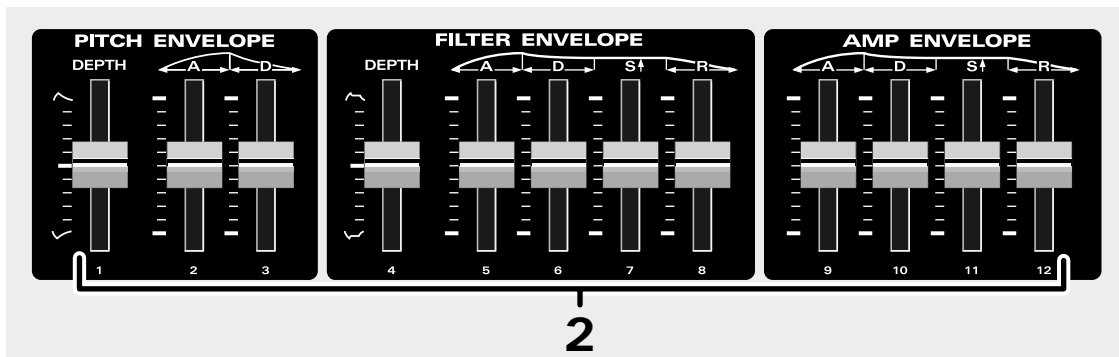
→ “Chapter 8. Using Voice Modulator” (p.103)

♦ You can also input a human voice from a tape or CD, or use instrumental sounds other than the JP-8080.

→ “Various Ways to Use Voice Modulator” (p.146)

## ■ Adjusting the Volume of Each Frequency Range to Create a New Sound (Filter Bank) • • •

You can create new sounds by passing a sound through the twelve filters and adjusting the volume for frequency range. The twelve filters are collectively called a “**filter bank**.”



### 1 Select performance P2: 82 (p.23).

The PANEL SELECT [UPPER] and [LOWER] indicators will blink.

### 2 Try moving sliders 1–12.

The frequencies will rise in the order of 1–12.

Raising a slider will increase the volume at that frequency range.

Lowering a slider all the way to the bottom will cause the volume of that frequency range to be zero.

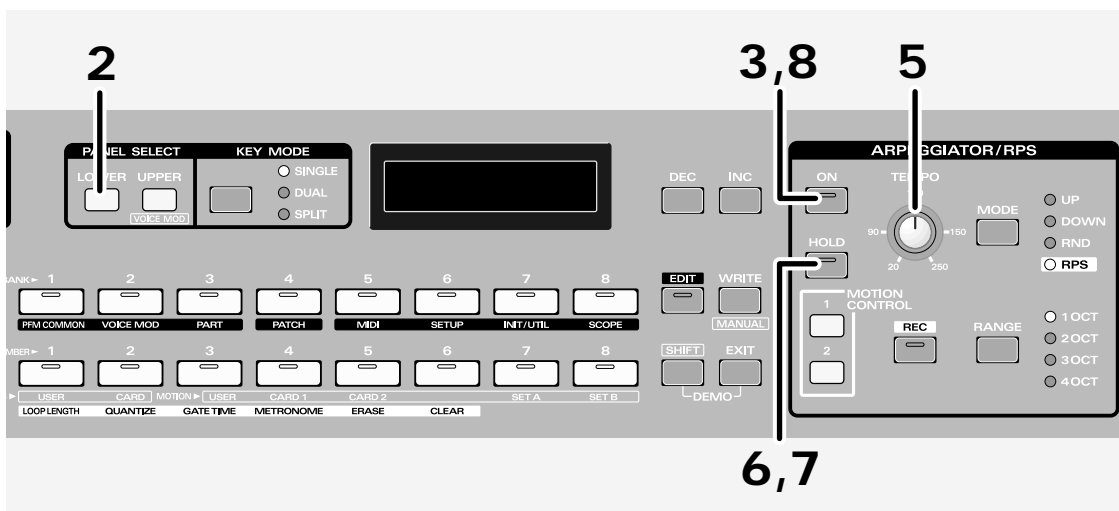
- \* While the [UPPER] and [LOWER] indicators are blinking, the PITCH ENVELOPE, FILTER ENVELOPE and AMP ENVELOPE sliders will control the volume of the twelve filters.

♦ To learn more about the filter bank

→ “Chapter 8. Using Voice Modulator” (p.103)

## Producing Arpeggios when Chords are Played (Arpeggiator)

The JP-8080 allows you to automatically play an arpeggio (broken chord) simply by holding down two or more notes.



Here's how to produce the following arpeggio.



C3 D3 E3 G3

**1** Select the Performance P1: 88 (p.23).

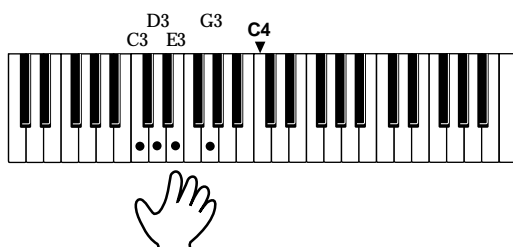
**2** Press PANEL SELECT [LOWER].

By playing the MIDI keyboard, you will hear the Lower Patch sound. Let's play the arpeggio using this sound.

**3** Press the ARPEGGIATOR/RPS section [ON].

The indicator will light, and the arpeggiator will be turned on.

**4** Hold down the following notes on the MIDI keyboard.



The arpeggio will begin to play.

The arpeggio will play as long as you continue holding the notes.

**5** Rotate [TEMPO] to adjust the tempo to your liking.

**6** Press [HOLD].

The indicator will light and the arpeggio will continue to play even if you take your hand off the MIDI keyboard.

**7** To stop the arpeggio, press [HOLD] once again.

The indicator will go dark.

**8** To turn off the arpeggiator, press [ON].

The indicator will go dark.

.....  
◆ For details on arpeggio settings

→ "Chapter 5. Producing Arpeggios When Chords are Played (Arpeggiator)" (p.90)

◆ Arpeggiator settings can be saved in a Performance.

→ "Storing a Performance" (p.32)

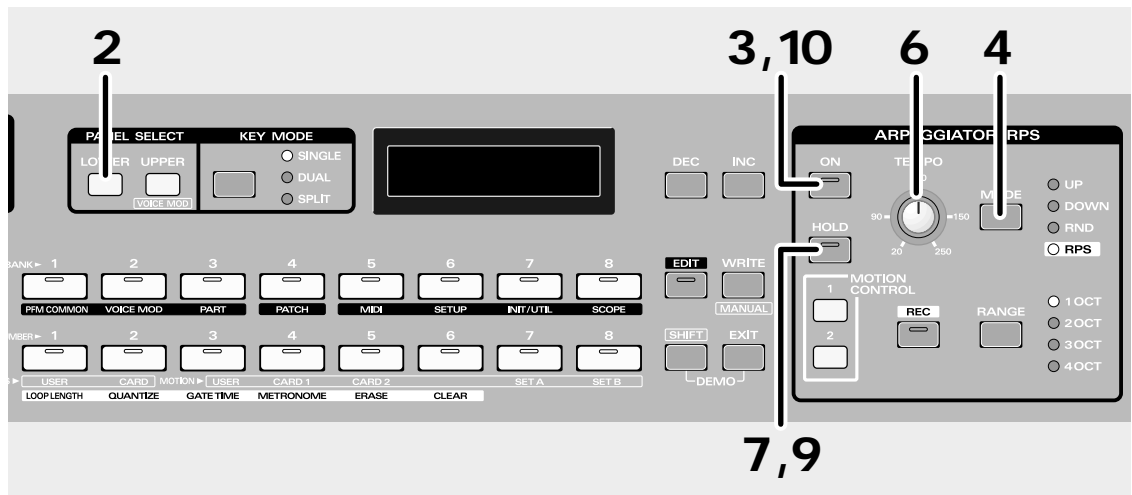
◆ The arpeggiator can also be used during Preview.

→ "Playing Sounds Using the JP-8080 Alone (Preview)" (p.65)  
.....

## Playing Patterns with One Finger (RPS)

Normally, pressing a key on the MIDI keyboard will play only the note that was pressed. However RPS (Real-time Phrase Sequence) is a function that plays back a variety of musical patterns when a key is pressed, instead of the note for that key. If there are musical passages that you need to play repeatedly, you can assign each pattern to a key, and then play the desired pattern simply by pressing one key.

First let's listen to the patterns which are assigned to each key.



**1** Select the Performance P1: 88 (p.23).

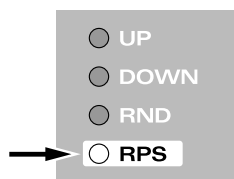
**2** Press PANEL SELECT [LOWER].

By playing the MIDI keyboard, you will hear the Lower Patch sound. Let's play the patterns using this sound.

**3** Press the ARPEGGIATOR/RPS section [ON].

The indicator will light.

**4** Press [MODE] several times to select RPS.



The RPS indicator will light.

**5** Press various keys and listen to the pattern that plays back for each key.

These are assigned to the forty-eight keys from C#2 (note number 37)–C6 (note number 84).

The pattern will continue repeating as long as you hold down the key.

**6** Rotate [TEMPO] to adjust the tempo to your liking.

**7** Press [HOLD].

The indicator will light and the pattern will continue playing even if you take your hand off the keyboard.

**8** Select a pattern that you like, and modify the sound using the FILTER section [CUTOFF FREQ] etc.

**9** To stop the pattern, press a key outside the range of C#2–C6, or press [HOLD] once again.

By pressing a key outside the range of C#2–C6, you can stop the pattern while leaving Hold on.

## 10 To turn off the RPS, press [ON].

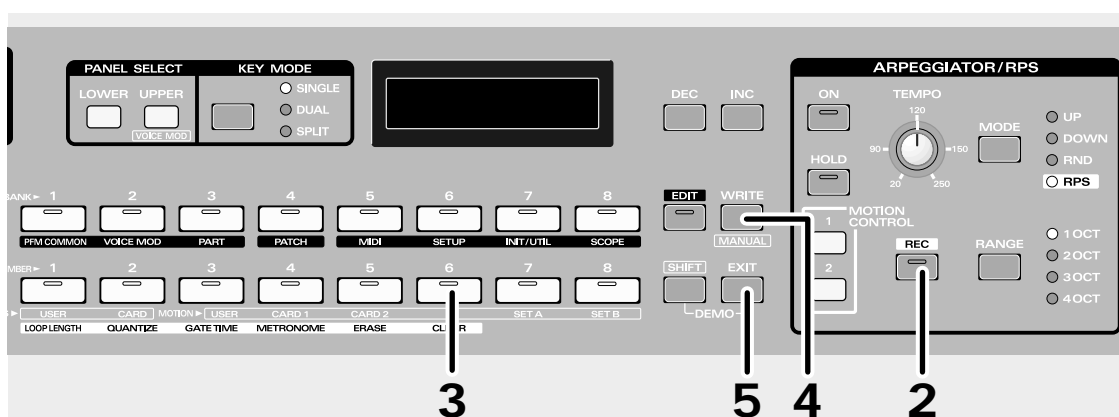
The indicator will go dark.

- ♦ If you want patterns to change at beat or measure boundaries  
→ “Setting the Timing at Which Patterns Will Switch (Pattern Trigger Quantize)” (p.93)
- ♦ To play a pattern that was saved on a memory card  
→ “Playing a Pattern That was Saved on a Memory Card” (p.93)
- ♦ RPS can also be used during Preview.  
→ “Playing Sounds Using the JP-8080 Alone (Preview)” (p.65)

## ■ Preparing to Create Patterns (Pattern Clear) •••••

In the following section you will learn how to create an RPS pattern, but first you need to make some preparations.

In order to playback a pattern that you create, you must assign it to a key, but with the factory settings, patterns are already assigned to all keys (C#2 (Note No.37)–C6 (Note No.84) ), and there is no vacant key to which your pattern can be assigned. Use the following procedure to clear the pattern currently assigned to the any key, to prepare a place where the pattern you are about to create can be assigned.

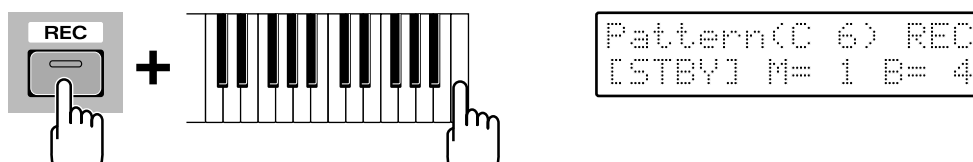


**1** Follow steps 1–4 on page 38 to prepare for pattern playback.

**2** Hold down [REC] and press the any (C#2–C6) key.

The indicator will blink, and the pattern will begin to play.

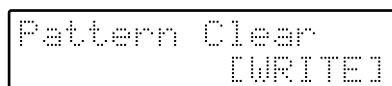
The following display will appear.



**3** Press [CLEAR] (NUMBER [6]).

\* When in Preview mode, press [PREVIEW] to exit Preview mode, and then press [CLEAR].

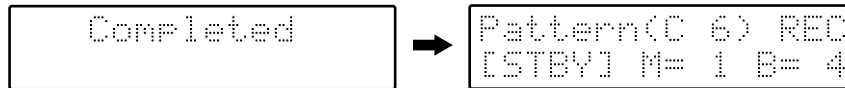
The indicator will blink, and the following display will appear.



To cancel the pattern clear operation, press [CLEAR] or [EXIT].

#### 4 Press [WRITE].

The display will indicate “Completed,” and the sound will stop.



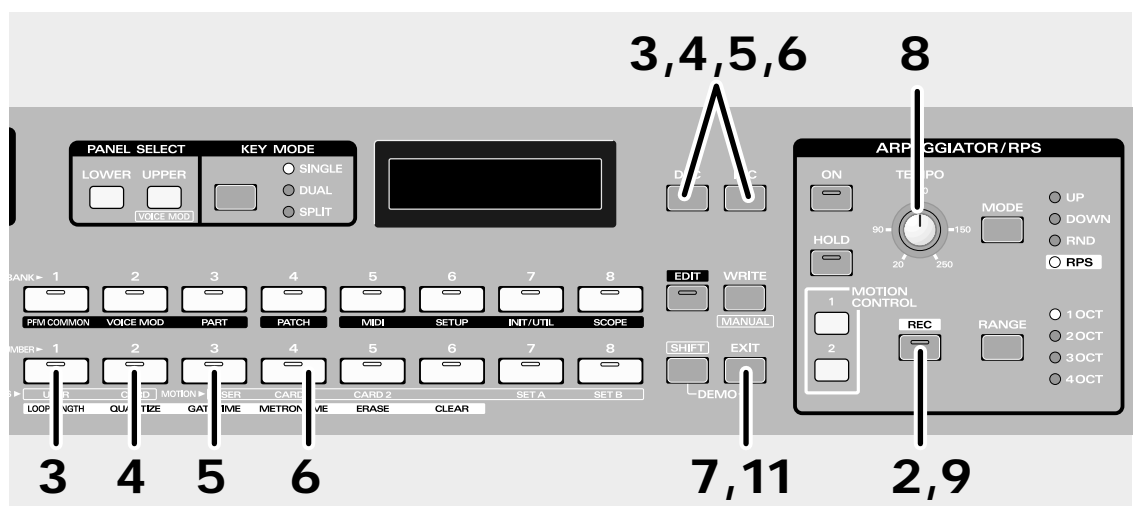
The pattern that had been assigned to the key has been cleared.

#### 5 Press [EXIT].

The [REC] indicator will go dark.

- ◆ To restore the cleared pattern to the factory settings  
→ “Restoring the Factory Settings (Factory Reset)” (p.140)

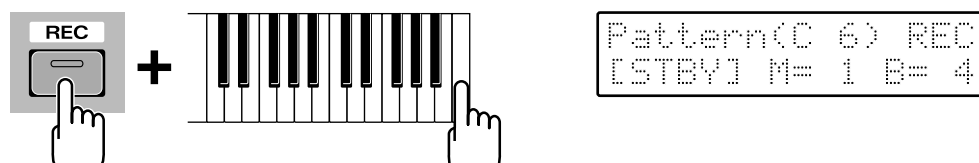
### ■ Recording a Pattern .....



Let's create a pattern like the following.



- 1 Follow steps 1–4 on page 38 to prepare for pattern playback.
- 2 Hold down [REC], and press the key for which you wish to delete the pattern.  
The indicator will blink, and the following display will appear.



#### 3 Press [LOOP LENGTH] (NUMBER [1]).

The indicator will light, and the pattern length will appear in the display.



Since in this example we will be creating a one-measure pattern, use [DEC]/[INC] several times to select "1."

```
Loop Length
1
```

#### 4 Press [QUANTIZE] (NUMBER [2]).

The indicator will light, and the display will indicate the shortest note value that will be recorded.

Use [DEC]/[INC] several times to select "♪."

```
Input Quantize
♪
```

.....  
The operation in step 4 sets the Quantize function. Quantize is a function that "tightens up" the timing of the notes you play, aligning them to precise intervals of the specified note value. Normally you should set this to the shortest note value that you wish to record.  
.....

#### 5 Press [GATE TIME] (NUMBER [3]).

The indicator will light, and the display will indicate the note duration that will be recorded.

Since in this example we will be inputting staccato notes, use [DEC]/[INC] several times to select "STACCATO."

```
Gate Time Ratio
STACCATO
```

#### 6 Press [METRONOME] (NUMBER [4]).

The indicator will light, and the display will indicate the type of metronome sound and the volume.

Use [DEC]/[INC] several times to select "Beep: VOLUME 2."

```
Metronome
Beep: VOLUME 2
```

#### 7 Press [EXIT].

The [METRONOME] indicator will go dark, and the previous display will reappear.

#### 8 Rotate [TEMPO] to select a tempo that you find convenient for recording.

While the [REC] indicator is blinking, recording will not take place even if you play the MIDI keyboard.

You can practice the phrase while listening to the metronome sound to keep in tempo.

This completes preparations for recording.

Now let's record the pattern.

#### 9 Press [REC].

The indicator will change to lit, and recording will begin.

```
Pattern(C 6) REC
[REC] M= 1 B= 4
      measure  beat
```

#### 10 Play the musical example given at the beginning of this section, and record it.

## 11 Press [EXIT].

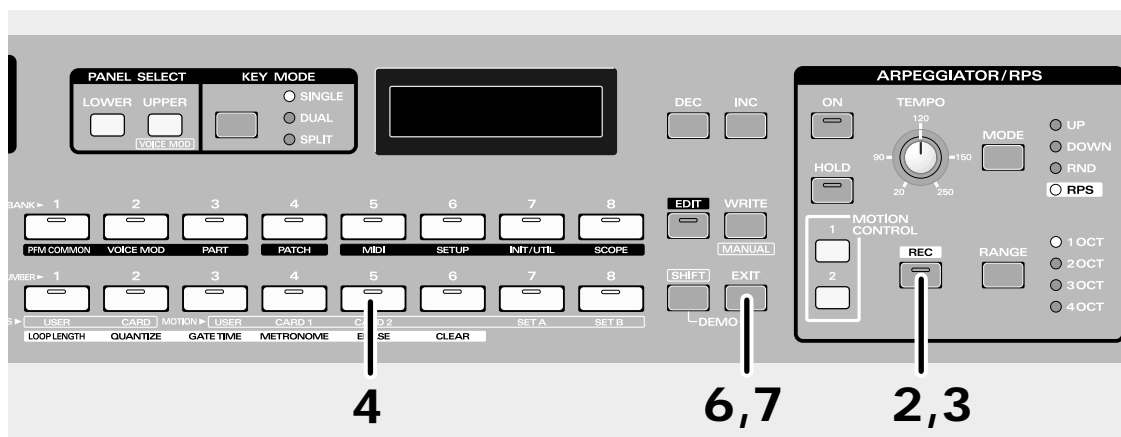
The [REC] indicator will go dark, and recording will end.

## 12 Press the key, and listen to the pattern playback.

- ◆ For details on settings for recording  
→ “Settings for Recording” (p.94)
- ◆ For details on recording  
→ “Recording a Pattern” (p.95)
- ◆ You can copy a pattern to a different key.  
→ “Copying a Pattern” (p.97)
- ◆ You can also save a recorded pattern to a memory card.  
→ “Saving RPS patterns to a card (PATTERN)”(p.131)

## ■ If You Make a Mistake While Recording

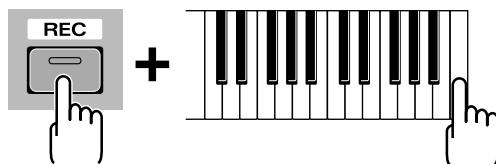
If you make a mistake while recording, use the following procedure to erase the wrong note.



### 1 Follow steps 1–4 on page 38 to prepare for pattern playback.

### 2 Hold down [REC], and press the key that was recorded by mistake.

The indicator will blink, and the pattern will begin to play.



### 3 Press [REC] once again.

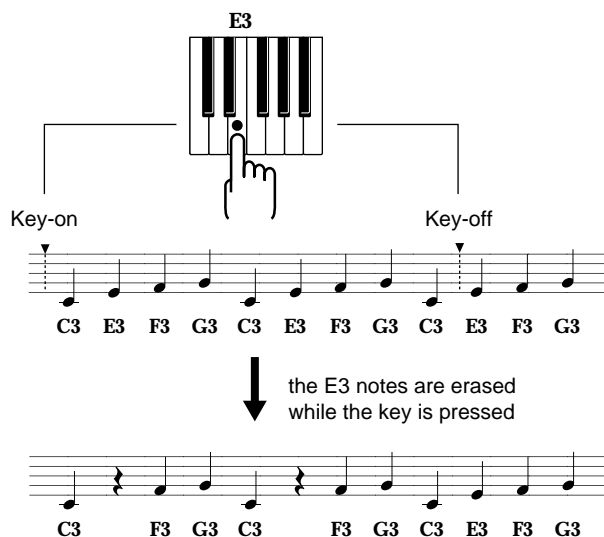
The indicator will change to lit, and recording will begin.

#### 4 Press [ERASE] (NUMBER [5]).

The indicator will light, and the following display will appear.

Note Erase  
Push Keyboard

#### 5 At the timing that the wrong note sounds, press the key for that note. While you continue holding that key, all notes on that key will be erased.



#### 6 When all the wrong notes have been erased, press [EXIT].

The [ERASE] indicator will go dark, and the previous display will reappear.

You will be in normal recording mode, and can now record new notes.

#### 7 To end recording, press [EXIT].

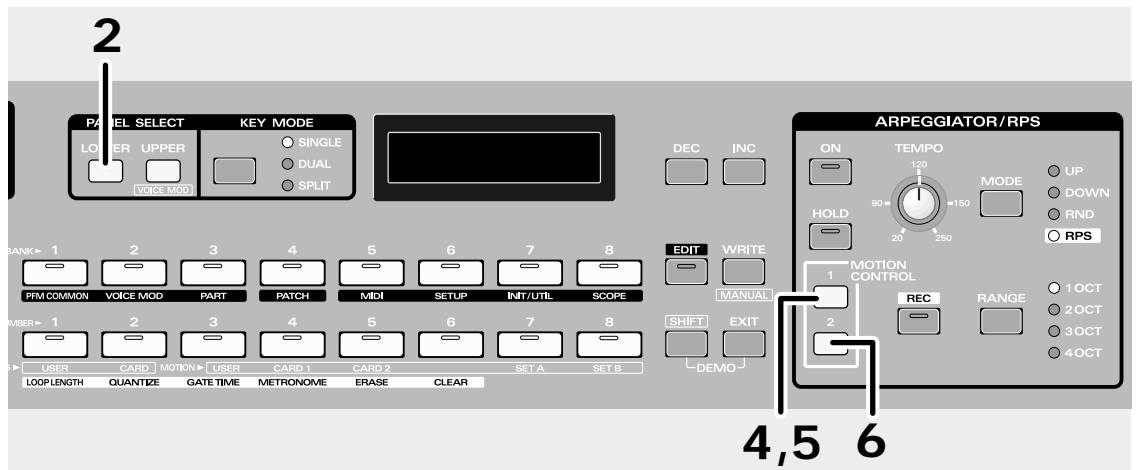
The [REC] indicator will go dark, and recording will end.

- .....
- ◆ A range of notes between specified keys can be erased from a pattern.  
→ "Erasing Unwanted Notes" (p.96)
- .....

## Easily Controlling Complex Tonal Changes (Motion Control)

Normally, it is all you can do to move one or two sliders/knobs as you play, but there may be times at which you would like to operate more sliders/knobs to produce more complex tonal changes. In such cases you can use Motion Control. Motion Control is a function that can store movements (motions) of two or more sliders/knobs.

While playing back the pattern that you created in the previous section, let's playback a Motion to modify the sound.



- 1** Select the Performance P1: 88 (p.23).
- 2** Press PANEL SELECT [LOWER].  
By playing the MIDI keyboard, you will hear the Lower Patch sound. Let's modify this sound by Motion Control.
- 3** Follow steps 1–4 on page 38 to prepare for pattern playback, and playback the pattern that you created in the previous section.
- 4** Press MOTION CONTROL [1].  
The indicator will blink, and the Motion of [1] will playback.  
The tone will change as though various sliders/knobs are being moved simultaneously.
- 5** To stop the Motion, press [1] once again.  
The indicator will go dark.
- 6** In the same way, listen to the Motion of [2].

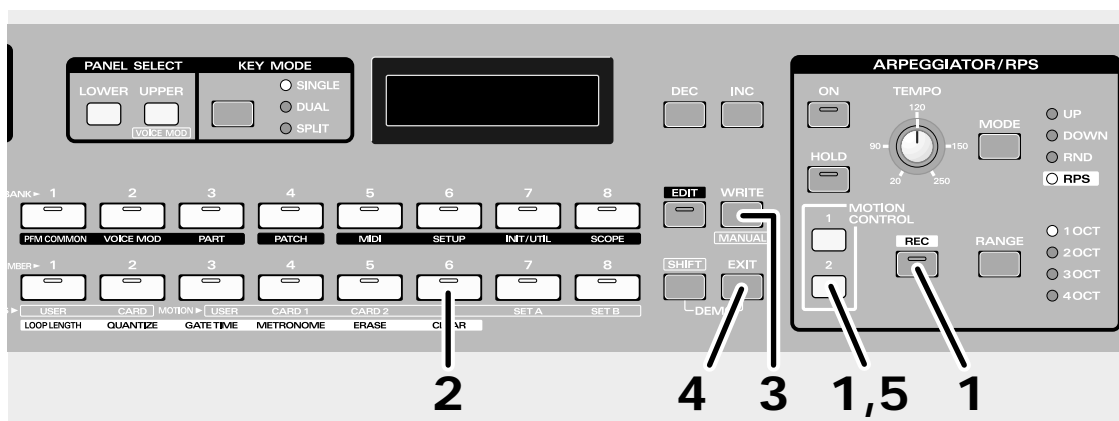
- 
- ◆ For details on playing back a Motion  
→ “Playing Back a Motion” (p.98)
  - ◆ To change the tone in additional ways while playing back a Motion  
→ “Moving Sliders or Knobs While Playing Back Motions” (p.99)
  - ◆ To playback a Motion simultaneously when a Pattern is selected  
→ “Playing Back a Motion From the Beginning Each Time a Key is Pressed (Motion Restart)” (p.99)
  - ◆ The JP-8080 has two Motion Sets, with motion [1] and [2] as a single set.  
→ “Switching Motion Sets” (p.99)

- ◆ Motion Control can also be used during Preview.

→ “Playing Sounds Using the JP-8080 Alone (Preview)” (p.65)

## ■ Preparing to Record a Motion (Clearing a Motion) .....

In the same way as before recording a pattern, you must first prepare a place for the newly recorded Motion. Use the following procedure to clear (erase) Motion [2].



### 1 Hold down [REC] and press MOTION CONTROL [2].

The [REC] and [2] indicators will blink, and the following display will appear.

```
Motion AI[2] REC
[STBY] M= 1 B= 4
```

### 2 Press [CLEAR] (NUMBER [6]).

- \* When in Preview mode, press [PREVIEW] to exit Preview mode, and then press [CLEAR].

The indicator will light, and the following display will appear.

```
Motion Clear
[WRITE]
```

To cancel the Motion Clear operation, press [CLEAR] or [EXIT].

### 3 Press [WRITE].

The display will indicate “Completed,” and then the previous display will reappear.

```
Completed → Motion AI[2] REC
[STBY] M= 1 B= 4
```

Motion [2] has now been erased.

### 4 Press [EXIT].

The [REC] indicator will go dark.

### 5 Press MOTION CONTROL [2].

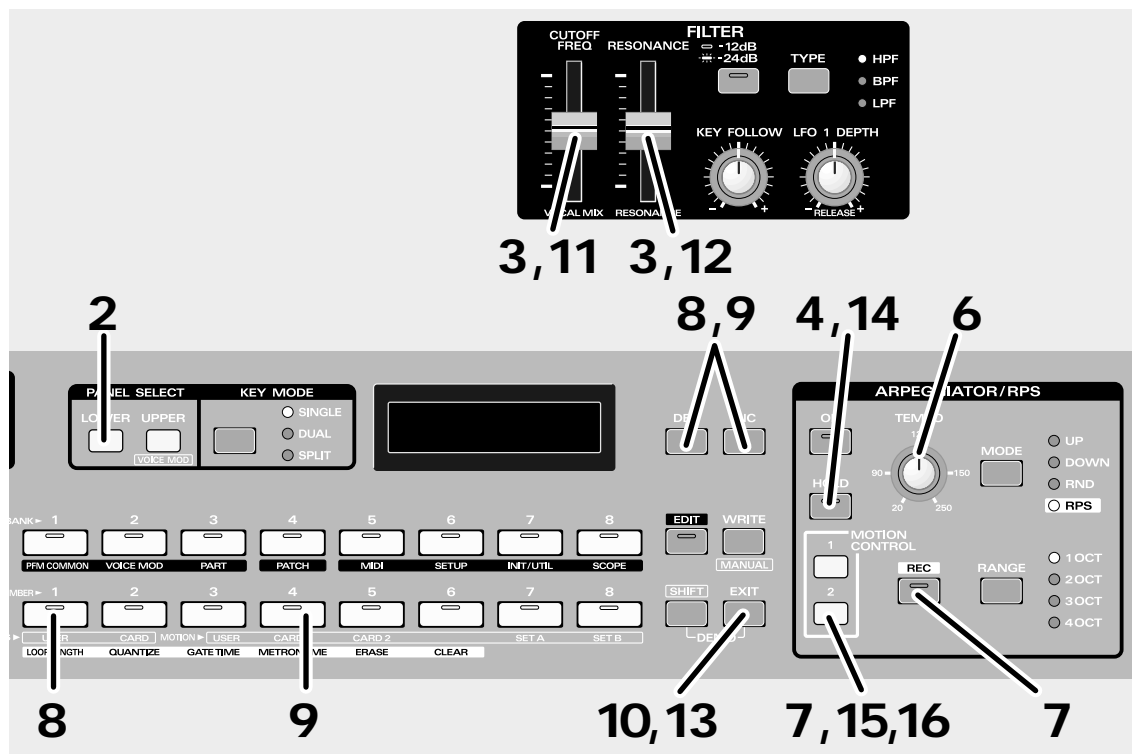
The indicator will go dark.

- ◆ To restore a Motion that you erased

→ “Restoring the Factory Settings (Factory Reset)” (p.140)

## ■ Recording a Motion •••••

Now let's create a Motion for the pattern that we recorded in the previous section.



- 1** Select the Performance P1: 88 (p.23).
- 2** Press PANEL SELECT [LOWER].  
The indicator will light, and the Lower Patch will be selected.
- 3** Move the [CUTOFF FREQ] and [RESONANCE] to the center position.
- 4** Press [HOLD].  
The indicator will light.
- 5** Follow steps 1–4 on page 38 to prepare for pattern playback, and playback the pattern that you created in the previous section.  
Since Hold is On, the pattern playback will continue to repeat even if you release the key.
- 6** While listening to the pattern, rotate [TEMPO] to set a tempo that will be convenient for recording.
- 7** Hold down [REC] and press MOTION CONTROL [2] in time with the beginning of the pattern.  
The [REC] and [2] indicators will blink, and the following display will appear.

```
Motion AL[2] REC
[STBY] M= 1 B= 4
```

- 8** Press [LOOP LENGTH] (NUMBER [1]).  
The indicator will light, and the display will show the length of the Motion.

Since in this example we will be creating a Motion that is four measures long, use [DEC]/[INC] several times to select "4."

```

Loop Length
4

```

## 9 Press [METRONOME] (NUMBER [4]).

The indicator will light, and the type and volume of the metronome sound will be displayed.

Use [DEC]/[INC] several times to select "Beep: VOLUME 2."

```

Metronome
Beep: VOLUME 2

```

## 10 Press [EXIT].

The [METRONOME] indicator will go dark, and the previous display will reappear.

This completes preparations for recording.

Now let's record a Motion.

## 11 Starting when the count is "M=1 B=1," move [CUTOFF FREQ] as follows.

The [REC] indicator will change to lit, and recording will begin.

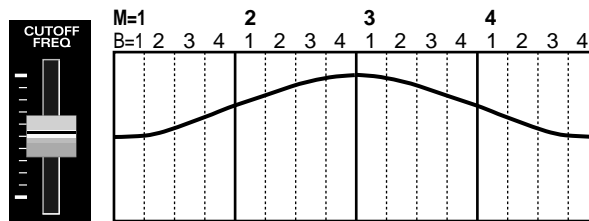
Do not move the slider before the count reaches "M=1 B=1" of the second cycle. After recording is begun, if you continue to move the slider through "M=1 B=1" of the second cycle, the data of the first cycle will be erased as the data of the second cycle is recorded.

```

Motion AL2] REC
[STBY] M= 1 B= 4

```

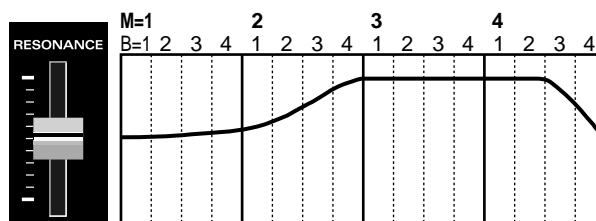
measure
beat



At the end of the fourth measure, recording will automatically end, and the [REC] indicator will change to blinking.

## 12 Starting when the count is "M=1 B=1," move [RESONANCE] as follows.

The [REC] indicator will change to lit, and recording will begin.



At the end of the fourth measure, recording will automatically end, and the [REC] indicator will change to blinking.

## 13 Press [EXIT].

The [REC] indicator will go dark, and recording will end.

## 14 Press [HOLD] to stop pattern playback.

## 15 Press MOTION CONTROL [2] to stop Motion playback.

## 16 While playing back the pattern that you created in the previous section, press MOTION CONTROL [2] and listen to the sound of the recorded motion change.

- ♦ For details on recording settings  
→ “Settings for Recording” (p.100)
- ♦ For details on recording  
→ “Recording a Motion” (p.100)
- ♦ A recorded motion can also be saved to a memory card.  
→ “Saving Motion Control to a card (MOTION CONTROL)” (p.131)

## ■ If You Make a Mistake While Recording •••••

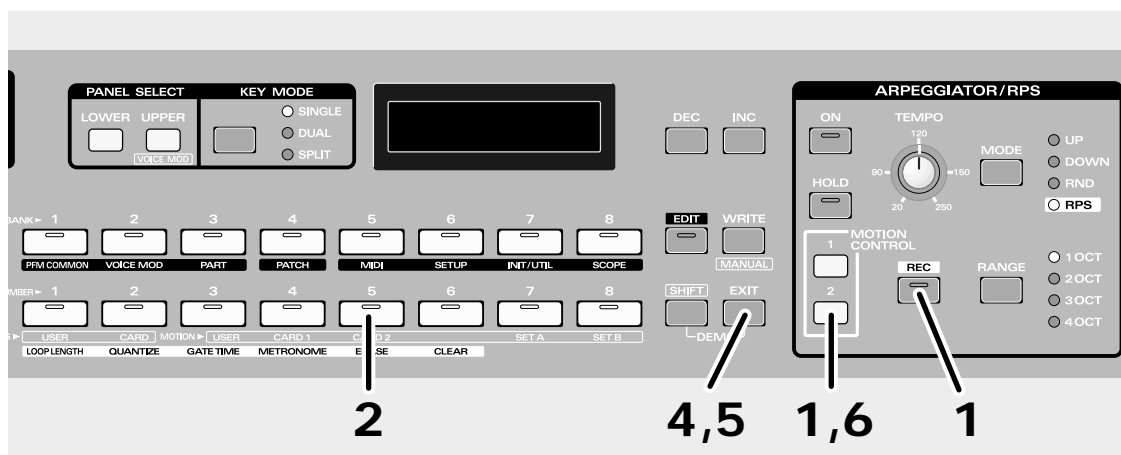
If you make a mistake while recording a Motion, use the following procedure to correct it.

### If you don't like the Motion that you recorded

When a Motion is recorded, movements of the same slider/knob are overwritten. This means that if you wish to re-do a Motion, simply re-record the movement of that slider/knob. The old movement will be overwritten by the newly recorded movement.

### If you moved the wrong slider or knob by mistake

If you moved the wrong slider or knob, use the following procedure to erase the movements of that slider or knob.



### 1 Hold down [REC] and press MOTION CONTROL [2].

The [REC] and [2] indicators will blink.

### 2 Press [ERASE] (NUMBER [5]).

The indicator will light, and the following display will appear.

```
Motion Erase
  Select Knob
```



**3 Move the slider or knob that you moved by mistake through its entire range of movement.**

When you move the slider or knob through its entire range, its data will be erased.



**4 After you have erased the movement for the incorrectly-moved slider or knob, press [EXIT].**

The [ERASE] indicator will go dark, and the previous display will reappear.

Now you can move the slider/knob to record its movement.

**5 To end recording, press [EXIT].**

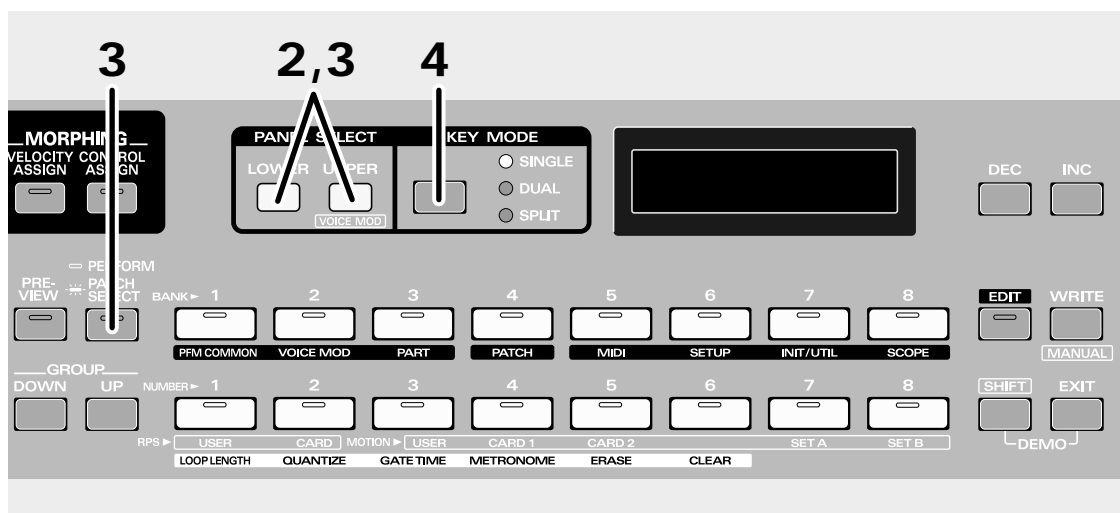
The [REC] indicator will go dark, and recording will end.

**6 Press MOTION CONTROL [2] to stop Motion playback.**

## Playing Two Sounds at Once (Key Mode)

Settings for two sounds (called Patches) are assigned to each Performance of the JP-8080. The Key Mode setting determines how these two Patches will be combined.

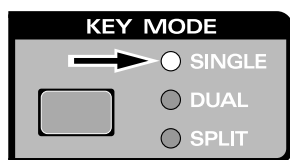
When you select a Performance, one of the three [KEY MODE] indicators will light to indicate the Key Mode setting of the selected Performance. The indicator that lights will indicate how the two Patches will sound when you play the keyboard.



### ■ Playing Just One Patch (Single) .....

#### 1 Select Performance P1: 87 (p.23).

The Single indicator will light.

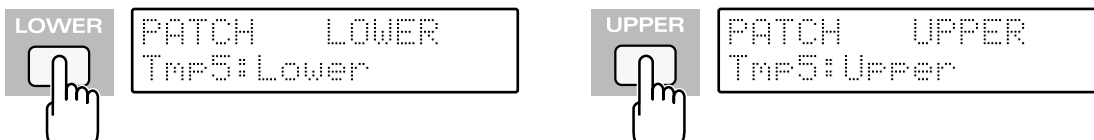


#### 2 Press [LOWER] and play the MIDI keyboard, and you will hear the Lower Patch sound.

If you press [UPPER] and play the MIDI keyboard, you will hear the Upper Patch sound.

Single mode is the basic condition, in which each keys will play the sound of one Patch.

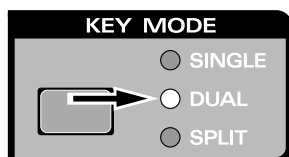
#### 3 To view the Patch names of the two Patches, you can press [PERFORM/PATCH SELECT] to access the Patch select display and then press [LOWER]/[UPPER].



## ■ Playing Two Patches From Each Key (Dual) •••••

Now let's layer the two Patches of Performance P1: 87.

### 4 Press [KEY MODE] to select DUAL.



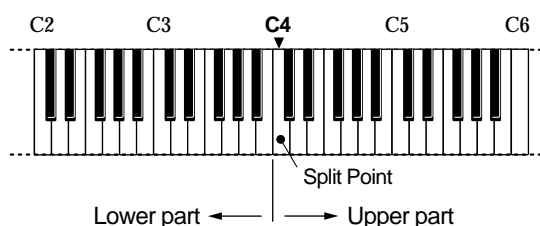
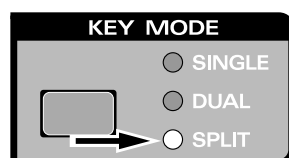
When you play the MIDI keyboard, the Lower Patch and Upper Patch sounds will be heard simultaneously.

## ■ Playing Different Patches in the Left and Right Keyboard Areas (Split) •••••

Now let's play the two Patches of Performance P1:86 in separate areas of the keyboard.

### 5 Select Performance P1: 86 (p.23).

The Split indicator will light.



Notes to the left of C4 (Note No.60) will play the Lower Patch sound, and notes C4 and to the right will play the Upper Patch sound.

- ◆ For details on LOWER/UPPER (Lower Part, Upper Part)
  - "Patches and Performances" (p.55)
- ◆ To change the way that Patches are combined
  - "Selecting a Patch" (p.61)
- ◆ To change the Split Point
  - "Setting the Split Point" (p.116)
- ◆ To change the number of notes that can be played in the left and right keyboard areas for Split mode
  - "Setting the Number of Voices for Each Part (Voice Assign)" (p.116)
- ◆ To play arpeggios or patterns in Dual or Split modes
  - "Parts which will be arpeggiated" (p.90)
  - "Parts which will play Patterns" (p.92)
  - "Cautions when playing Patterns in Split mode" (p.92)
- ◆ Key Mode settings can be stored in a Performance.
  - "Storing a Performance" (p.32)

.....

## ■ Demo Song List

- BANK    [1]    Roentgen  
          [2]    Callisto  
          [3]    Coma Cluster  
          [4]    OverTones  
          [5]    ADAGIO  
          [6]    17W  
          [7]    Happy Rockoon  
          [8]    Final Frontier

Music by Tatsuya Nishiwaki Copyright © 1998, Tatsuya Nishiwaki

- NUMBER [1]    Tornado  
          [2]    Feedbacker  
          [3]    Volcano  
          [4]    Marine Snow  
          [5]    Prologue  
          [6]    Labyrinth  
          [7]    Shadow  
          [8]    Speak to me

NUMBER [1]–[7]: Music by Mitsuru Sakaue Copyright © 1996, Roland Corporation

NUMBER [8]: Music by Mitsuru Sakaue Copyright © 1998, Roland Corporation

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## ■ Composer Profiles

### Tatsuya Nishiwaki

Debuted on CBS Sony in 1987 as a member of “PAZZ.”

Since 1988, he has been composing, arranging and producing with many Japanese artists, and has been acclaimed for the unique style of his work. In 1997 he joined “Portfolio” and released a debut album “Portfolio.”

He has gathered many fans for his guitar-like synth playing and his intense organ style.

### Mitsuru Sakaue

From his college days, Mitsuru Sakaue has been active as a keyboard player and arranger in studio and commercial music production. At present he is involved in production of commercials for TV and radio as a composer, arranger, keyboard player and computer music expert. His highly acclaimed musical abilities go beyond borders of musical genre. He is the chief director of the Idecs (Inc.) group of creative musical artists.

.....

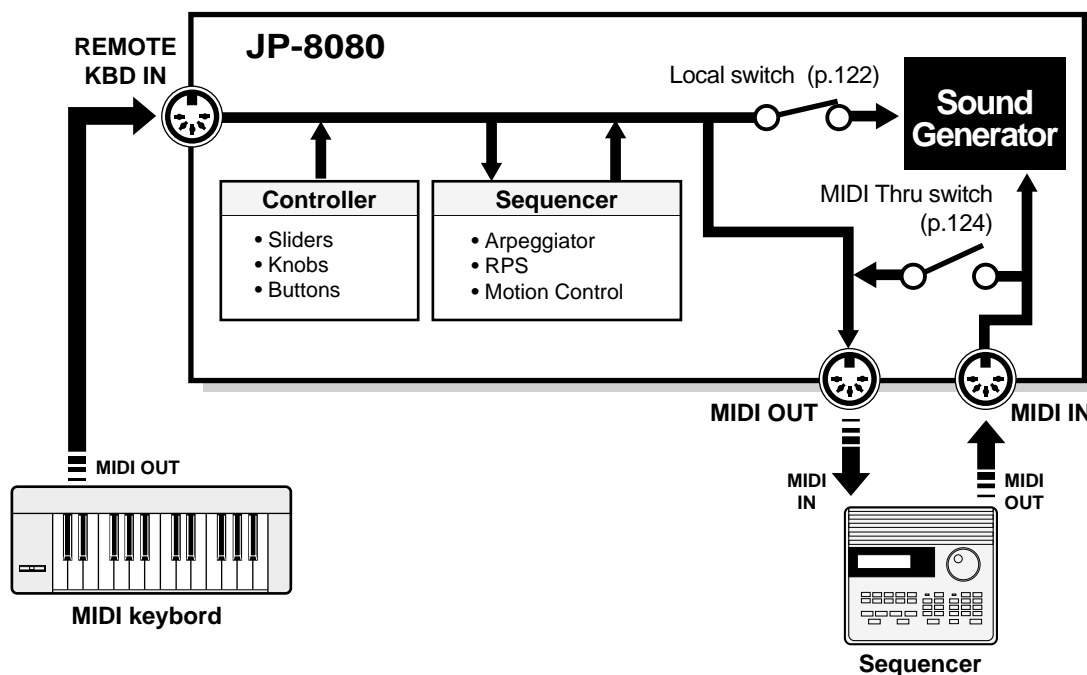
**JP-8080**

# **Advanced Use**

# Chapter 1. Overview of the JP-8080

## How the JP-8080 is Organized

The overall structure of the JP-8080 is as follows.



### MIDI connectors

The JP-8080 has two MIDI IN connectors (IN/REMOTE KBD IN) and one MIDI OUT connector.

Operations performed on an external MIDI device connected to REMOTE KBD IN will be handled exactly in the same way as when JP-8080 controllers are operated (including test playing in preview mode).

This means that when an external MIDI device is connected to REMOTE KBD IN, the following things are possible. (These things cannot be controlled from MIDI IN connector.)

- ◆ Playing back arpeggios (p.90)
- ◆ Recording/playing RPS patterns (p.92, 94)
- ◆ Recording controller messages from an external MIDI device to Motion Control (p.100)

### Sound generator

The sound generator is the section which produces the sound. It receives note messages from an external MIDI device, and produces sound in response to these messages. In Preview mode, sounds can also be played by pressing the BANK [2], [3], [5]–[7] and NUMBER [1]–[8] buttons.

#### ■ About maximum simultaneous polyphony

The sound generator of the JP-8080 can produce up to 10 simultaneous notes (voices) when the Voice Modulator is off, and up to 8 notes (voices) when the Voice Modulator is on. If incoming messages request more than this number of notes at any one time, the newly received notes will take priority, and the oldest sounding notes will be turned off one by one. This means that some of the previously-sounding notes will be interrupted. Please be aware of this when playing sounds which have a long decay, or when using RPS.

### Sequencer

#### ● Arpeggiator

The arpeggiator plays arpeggios in response to note messages from an external MIDI device.

In Preview mode, the arpeggiator can also be controlled by pressing BANK[2], [3], [5]–[7] and NUMBER[1]–[8].

## ● RPS

RPS patterns can be recorded/played by note messages from an external MIDI device.

In Preview mode, RPS can also be controlled by pressing BANK[2],[3],[5]–[7] and NUMBER[1]–[8].

## ● Motion Control

Motion Control records and plays back data from the JP-8080's knobs and sliders, or controller data from an external MIDI device.

## Controller

The sliders, knobs and buttons on the panel are collectively referred to as “controllers.” By operating these controllers, you can modify the sound in various ways.

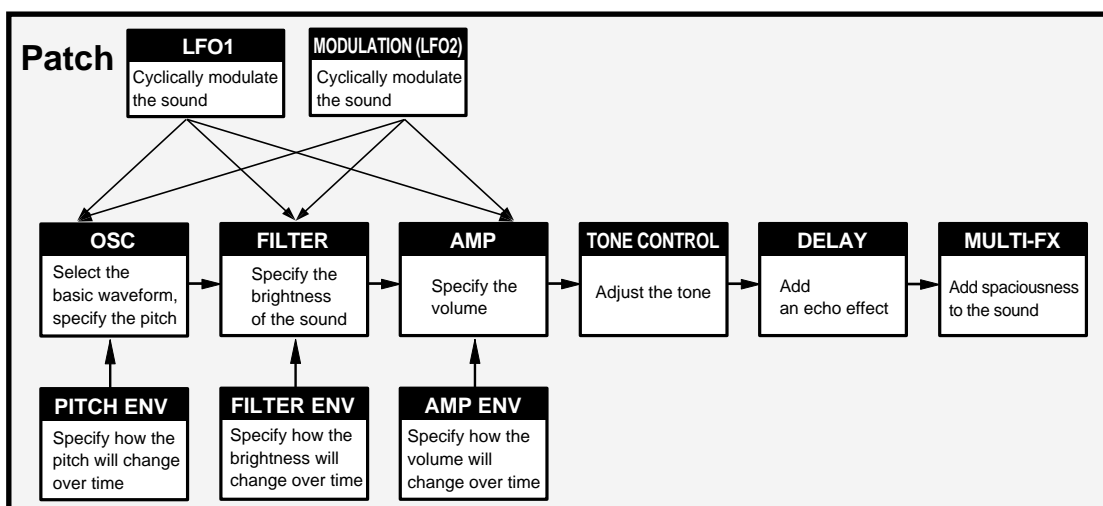
Of course, you can also modify the sound by operating the controllers (keyboard, pitch bend lever, modulation lever, etc.) of an external MIDI device.

# Patches and Performances

## Patches

On the JP-8080, each musical sound that you can play is called a Patch. The JP-8080 has 512 different Patches: 128 User Patches and 384 Preset Patches. (Refer to “About Memory,” p.56.)

Patches have the following structure, and can be modified by using the panel buttons, sliders and knobs to adjust the sound.



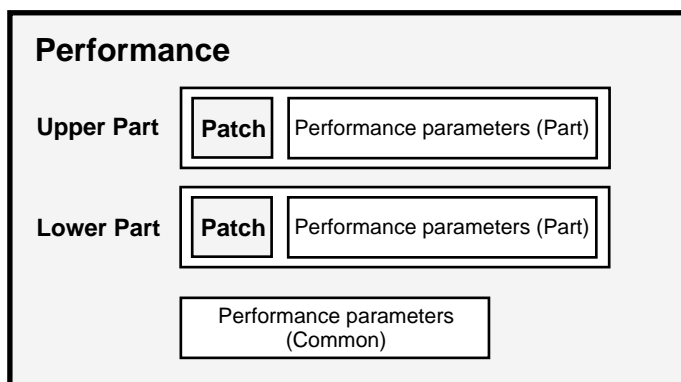
## Parts

On the JP-8080, two Patches are always selected, and you can choose to play just one or both Patches. The two Patches are assigned to locations referred to as the Upper Part and the Lower Part. When you select a Patch, you are actually selecting the Patch that is assigned to one of these Parts. You may think of the Part as being analogous to a musician, and the Patch as the instrument that the musician is playing.

## Performances

The Patch selection for the Upper and Lower Parts, settings of the panel select section, key mode section, arpeggiator/RPS section, and a variety of other settings (Performance Common: p.115, Performance Part: p.118, Voice Modulator: p.103) are stored together as a Performance. The JP-8080 has 256 Performances, and as with Patches, they are divided into 64 User Performances and 192 Preset Performances. (Refer to “About Memory,” p.56).

Since it is difficult to quickly change a large number of settings while you are playing, you can make things easy for yourself by saving suitable settings as a Performance. Then you can simply select the appropriate Performance to make all the necessary settings at once.



On the JP-8080, the Patch numbers that are stored as part of each Performance do not simply refer to Patches that are kept separately in memory — the actual settings of the entire Patch can be stored in the Performance itself. This means that when you save a Performance, you don't need to perform a separate Save operation to save the Patch settings that are used by that Performance. It also means that if you rewrite the settings of the Patch used by a Performance, other Performances that use that Patch will not be affected.

Patches which are saved as part of a Performance are managed separately from Patches which are stored individually. Each individual Patch has its own Patch number, by which it is identified. However Patches which are saved as part of a Performance have no Patch numbers, and are identified as “the Upper (or Lower) Patch of the Performance”.

On the JP-8080, Patches are displayed as follows.

#### ◆ Patches stored individually

Patch number

```
PATCH  P1:BE3E3
TenPlete 2
```

#### ◆ Patches which are saved as part of a Performance

Lower part

```
PATCH  LOWER
Tnp6:Lower
```

Upper part

```
PATCH  UPPER
Tnp6:Upper
```

## About Memory

Memory is where settings such as Patches are stored. The memory of the JP-8080 includes System memory, User memory, and Preset memory.

The JP-8080 can also use optional memory cards.

There is also a part of memory known as the Temporary Area, into which the settings of the currently-selected Patch or Performance are called, and which your modifications will affect.

### System Memory

System memory is where the settings of the system parameters which determine the overall operating environment of the JP-8080 (i.e., all parameters that are set in [MIDI] and [SETUP]) are stored.

### User Memory

User memory is where you can store the settings you create. It contains 128 Patches, 64 Performances, 48 Patterns, and 4 Motions. When the JP-8080 is shipped from the factory, the User Patches and User Performances contain the same settings as the correspondingly-numbered Preset2 Patches and Preset2 Performances.



## Preset Memory

It is not possible to modify the contents of Preset memory. Preset memory contains 384 Preset Patches and 192 Preset Performances.

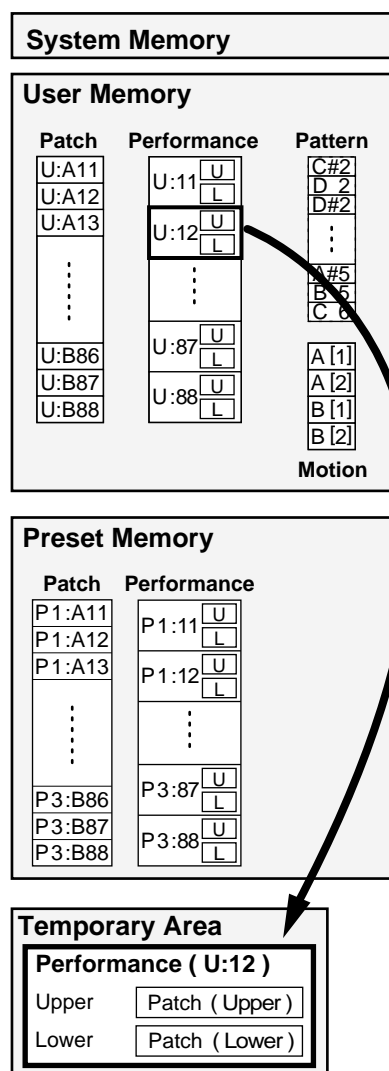
## The Temporary Area

When you select a Patch or Performance, the settings of the selected Patch or Performance are called into a temporary memory location known as the Temporary Area.

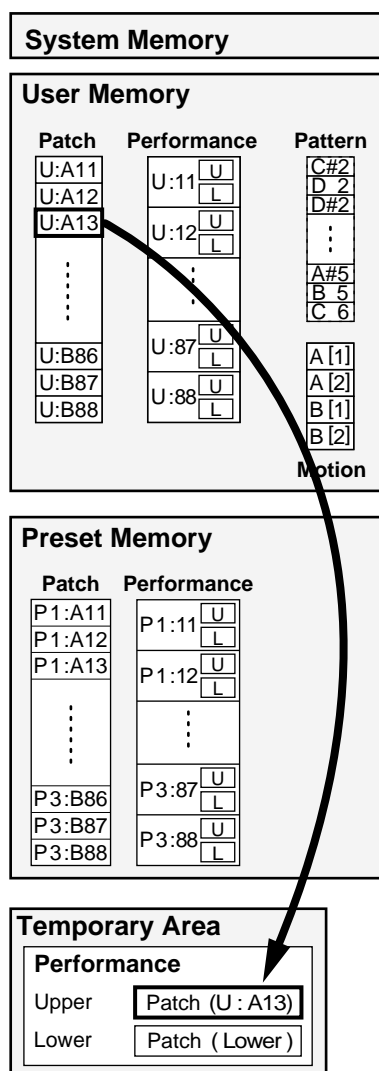
When you select a Performance, the selected Performance is called into the Temporary Area, and these settings will be played.

When you select a Patch, the selected Patch is called into the Upper or Lower Part of the Performance that is currently in the Temporary Area, and these settings will be played. (The Temporary Area always contains a Performance.)

### ◆ When you select a Performance



### ◆ When you select a Patch



The contents of memory are preserved even when the power is turned off, and can be called up at any time. However the data in the Temporary Area is lost when the power is turned off.

When you modify Patch or Performance settings, your modifications affect only the data in the Temporary Area, and do not directly affect the settings in memory. If you wish to keep the modifications that you have made, you must write the settings from the Temporary Area into User Memory or Memory Card (sold separately).

In the case of Pattern, Motion, and System settings, your settings are written directly into memory, so you don't need to perform a separate operation to save the data.

---

## Memory Cards (SmartMedia)

---

These are read/write cards which can store data from internal system memory and user memory. You can use memory cards to store data for which there is no room in internal user memory, or data which you wish to use on another JP-8080.

Before a memory card can be used, it must be formatted. (p.129)

- \* Either "S2M-5" or "S4M-5" memory cards can be used. Memory cards are not included, but may be purchased from your dealer.

# Chapter 2. Sound Selecting and Editing Procedure

In this owner's manual, the process of modifying settings is referred to as "editing," and each of the settings that can be changed are referred to as "parameters."

This chapter explains the basic operations of editing: selecting a performance/patch, and convenient functions for carrying out the editing process.

## Selecting a Performance

Performances are organized into the following groups.

<b>USER</b>	<b>64</b>
<b>PRESET1</b>	<b>64</b>
<b>PRESET2</b>	<b>64</b>
<b>PRESET3</b>	<b>64</b>
<b>CARD01</b>	<b>64</b>
:	
<b>CARD32</b>	<b>64</b>
:	
<b>CARD64</b>	<b>64</b>

- \* In the case of a S2M-5 (2M bytes) memory card these will be CARD01-32; in the case of a S4M-5 (4M bytes) card these will be CARD01-64.

### USER

This is the sound group inside JP-8080 which can be rewritten. Sounds you yourself create can be stored in this group. With the factory settings, this contains the same performances as Preset 2.

### PRESET1-3

These are sound groups inside the JP-8080 which cannot be rewritten.

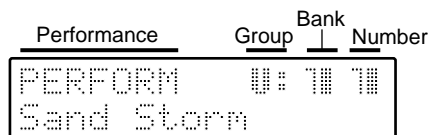
### CARD01-64

These groups use sounds from a memory card (optional) inserted into the card slot.

Use these groups to store sounds for which there is no room in the internal USER group. For details on using a memory card, refer to p.128.

Performances are selected by specifying three items: group (USER/PRESET1-3/CARD01-64), bank (1-8), and number (1-8).

- 1 Press [PERFORM/PATCH SELECT] so that the upper left of the display indicates "PERFORM."



- 2 Use GROUP [DOWN]/[UP] to select a Group (U: User, P1-3: Preset1-3, C01-64: CARD01-64).

- 3 Press BANK [1]-[8] to select a Bank (1-8).

The indicator of the button you pressed will light.

- 4 Press NUMBER [1]-[8] to select a Number (1-8).

The indicator of the button you pressed will light.

The Performance has now been selected.

- \* You can also change performances by using [DEC]/[INC].
- \* P2: 83-P2: 86 contain performances which use the formant filter. These should be played while inputting vocals through the MIC jack or VOCAL/UPPER jack. This is especially true in the case of P2:84 and P2:86—they will not sound at all unless vocals are being input. (p.103)
- \* P2: 87 is a performance which uses the external input. It will not produce sound unless sound is input from the EXT IN jacks. (p.26, 70)
- \* CARD sounds can be selected only if a memory card is inserted into the CARD slot. (p.128)
- \* When selecting performances from a memory card, it is not possible to select performances from a group to which nothing has ever been written.
- \* For performance numbers and their content, refer to "Performance List." (p.176)

## Selecting Performances from an External Device

You can select performances by transmitting Bank Select (controller number 0, 32) and Program Change messages from a connected MIDI keyboard etc. to the JP-8080. In this case, the settings will differ slightly depending on whether the external MIDI device is connected to the REMOTE KBD IN connector or to the MIDI IN connector.

### Connection to the REMOTE KBD IN connector

- 1 Use a MIDI cable to connect the MIDI OUT connector of the external MIDI device to the JP-8080's REMOTE KBD IN connector.
- 2 Press [PERFORM/PATCH SELECT] so that the upper left of the display reads "PERFORM."
- 3 Set the JP-8080's Remote Keyboard Channel (Remote KBD CH) either to ALL or to the same number as the transmit channel of your external MIDI device.
  - 1) Press [EDIT]. (The indicator will light.)
  - 2) Press [MIDI](BANK[5]) several times to select "Remote KBD CH."
  - 3) Press [DEC]/[INC] to set the channel.
    - \* After making the setting, be sure to press [EDIT] or [EXIT] so that the upper left of the display reads "PERFORM."
- 4 Transmit a Bank Select MSB (controller number 0) message to the JP-8080.
- 5 Transmit a Bank Select LSB (controller number 32) message to the JP-8080.
- 6 Transmit a Program Change message to the JP-8080.

### Connection to the MIDI IN connector

- 1 Use a MIDI cable to connect the MIDI OUT connector of the external MIDI device to the JP-8080's MIDI IN connector.
- 2 Set the JP-8080 Performance Control MIDI channel to match the transmit channel of the external MIDI device.
  - 1) Press [EDIT]. (The indicator will light.)
  - 2) Press [MIDI] (BANK [5]) several times to select "Perform Ctrl CH."
  - 3) Use [DEC]/[INC] to set the channel.
- 3 Set the Program Change Transmit/Receive Switch to BANK SEL + PC.
  - 1) Press [MIDI] (BANK [5]) several times to select "Tx/Rx ProgChg SW."

- 2) Use [DEC]/[INC] to select "BANK SEL + PC."

- \* After making the setting, be sure to press [EDIT] or [EXIT] to make the upper left of the display read "PERFORM" or "PATCH."

- 4 Transmit a Bank Select MSB (controller number 0) message to the JP-8080.
- 5 Transmit a Bank Select LSB (controller number 32) message to the JP-8080.
- 6 Transmit a Program Change message to the JP-8080.

- \* When the JP-8080 receives only a Program Change message without receiving Bank Select messages, Performances within the same group will be selected.
- \* If a Bank Select message other than those listed in the table on page 176 is received, that Bank Select message will be ignored, and Performances will be selected within the same group.

For the correspondence between the bank select (CC#0, CC#32) / program numbers (PC#) which are transmitted and the performances, refer to "Performance List (p.176)."

## Selecting a Key Mode

The Key Mode specifies how the two patches assigned to the performance will be sounded.

**SINGLE:** Either the Upper or the Lower patch will sound.

**DUAL:** The Upper and Lower patches will sound together.

**SPLIT:** Divided at a specified key (Split Point), the Lower patch will sound in the left side of the keyboard, and the Upper patch in the right side.

- 1 Press [KEY MODE] to select the mode.

The indicator of the selected mode will light.
- 2 If SINGLE is selected, use the PANEL SELECT [LOWER]/[UPPER] buttons to select the part whose patch you will play.
  - \* It is possible to change the Split Point. (p.116)

## Selecting a Patch

Patches (other than those which are saved within a performance) are organized into the following groups.

USER: A	64
USER: B	64
PRESET1: A	64
PRESET1: B	64
:	
PRESET3: A	64
PRESET3: B	64
CARD01: A	64
CARD01: B	64
:	
CARD32: A	64
CARD32: B	64
:	
CARD64: A	64
CARD64: B	64

- \* For a S2M-5 (2M bytes) memory card these will be CARD01-32: A, B, and for a S4M-5 (4M bytes) memory card these will be CARD01-64: A, B.

### USER: A, B

This is the sound group inside JP-8080 which can be rewritten. Sounds you yourself create can be stored in this group. With the factory settings, these contain the same patches as Preset 2.

### PRESET1-3: A, B

These are sound groups inside the JP-8080 which cannot be rewritten.

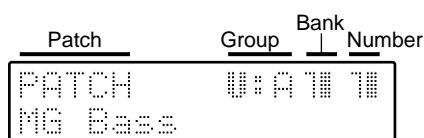
### CARD01-64: A, B

These groups use sounds from a memory card (optional) inserted into the card slot. Sounds for which there is no room in the internal USER group can be stored here. For details on using a memory card, refer to p.128.

If you wish to play one of these Patches, call the desired Patch into either the Upper or Lower Part of the Performance.

Patches are selected by specifying three things: the group (USER: A, B/PRESET1-3: A, B/CARD01-64: A, B), bank (1-8), and number (1-8).

- 1 Press [PERFORM/PATCH SELECT] to make the upper left of the display read "PATCH."



- 2 Press PANEL SELECT [LOWER]/[UPPER] to select the Part into which the Patch will be called.

You can press both [LOWER] and [UPPER] simultaneously to make both indicators light, and select the same Patch for both Parts at the same time.

- 3 Use GROUP [DOWN]/[UP] to select a Group (U: A, B, P1-3: A, B, C01-C64: A, B)

- 4 Press BANK [1]-[8] to select a Bank (1-8).

The indicator of the button you pressed will light.

- 5 Press NUMBER [1]-[8] to select a Number (1-8).

The indicator of the button you pressed will light.

The Patch has now been selected.

- \* You can also change patches by using [DEC]/[INC].
- \* CARD sounds can be selected only if a memory card is inserted into the CARD slot. (p.128)
- \* When selecting patches from a memory card, it is not possible to select patches from a group to which nothing has ever been written.
- \* For the patch numbers and their content, refer to "Patch List." (p.179)

### ● To select a patch which has been saved within a performance

First, the patch which has been saved within a performance must be saved to USER or CARD (p.128). Then you can select that patch.

## Copying the Upper Patch to the Lower

You can copy patches between the Upper and Lower parts of the currently selected performance, or swap patches.

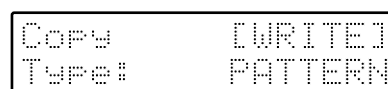
By layering two copies of the same patch with a slight difference in their pitch, you can create a more spacious sound. The Patch Copy operation is convenient when you wish to create this type of sound.

- 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]-[8] indicators will blink.

- 2 Press [INIT/UTIL] (BANK [7]) several times to access the Copy display.

The [INIT/UTIL] indicator will light.



- 3 Use [DEC]/[INC] several times to select a copy type.

#### UPPER > LOWER:

Copy the Upper patch to the Lower.

#### LOWER > UPPER:

Copy the Lower patch to the Upper.

#### SWAP U <-> L:

Exchange the Upper patch and Lower patch.

#### 4 Press [WRITE].

The display will indicate "Completed," and then the previous display will reappear.

The patch has now been copied or exchanged.

\* For details on copying patterns, refer to page 97.

## Selecting Patches from an External Device

Patches can be selected by transmitting Bank Select (controller number 0, 32) and Program Change messages from a connected MIDI keyboard etc. to the JP-8080.

In this case, the settings will differ slightly depending on whether the external MIDI device is connected to the REMOTE KBD IN connector or to the MIDI IN connector.

### Connection to the REMOTE KBD IN connector

**1 Use a MIDI cable to connect the MIDI OUT connector of the external MIDI device to the JP-8080's REMOTE KBD IN connector.**

**2 Press [PERFORM/PATCH SELECT] so that the upper left of the display reads "PATCH."**

**3 Set the JP-8080's Remote Keyboard Channel (Remote KBD CH) either to ALL or to the same number as the transmit channel of your external MIDI device.**

1) Press [EDIT]. (The indicator will light.)

2) Press [MIDI] (BANK [5]) several times to select "Remote KBD CH."

3) Press [DEC]/[INC] to set the channel.

\* After making the setting, be sure to press [EDIT] or [EXIT] so that the upper left of the display reads "PATCH."

**4 Use the PANEL SELECT [LOWER]/[UPPER] buttons to select the part whose patch you wish to change.**

You can press both [LOWER] and [UPPER] simultaneously to make both indicators light, and select the same Patch for both Parts at the same time.

**5 Transmit a Bank Select MSB (controller number 0) message to the JP-8080.**

**6 Transmit a Bank Select LSB (controller number 32) message to the JP-8080.**

**7 Transmit a Program Change message to the JP-8080.**

### Connection to the MIDI IN connector

**1 Use a MIDI cable to connect the MIDI OUT connector of the external MIDI device to the JP-8080's MIDI IN connector.**

**2 Set the MIDI channel of each JP-8080 Part to match the transmit channels of the external MIDI device.**

1) Press [EDIT]. (The indicator will light.)

2) Press [PART] (BANK [3]) several times to select "Part MIDI CH."

3) Press PANEL SELECT [LOWER]/[UPPER] to select the part that you wish to set.

4) Use [DEC]/[INC] to set the channel.

**3 Set the Program Change Transmit/Receive Switch to BANK SEL + PC.**

1) Press [MIDI] (BANK[5]) several times to select "Tx/Rx ProgChg SW."

2) Use [DEC]/[INC] to select "BANK SEL + PC."

\* After making the setting, be sure to press [EDIT] or [EXIT] to make the upper left of the display read "PERFORM" or "PATCH."

**4 Transmit a Bank Select MSB (controller number 0) message to the JP-8080.**

**5 Transmit a Bank Select LSB (controller number 32) message to the JP-8080.**

**6 Transmit a Program Change message to the JP-8080.**

\* When the JP-8080 receives only a Program Change message without receiving Bank Select messages, Patches within the same group will be selected.

\* If a Bank Select message other than those listed in the table on page 179 is received, that Bank Select message will be ignored, and Patches will be selected within the same group.

\* If the MIDI channel of each JP-8080 Part has the same setting as the Performance Ctrl CH (p.124) parameter, the Performance Ctrl CH setting will take priority, meaning that the Performance will change when a Program Change is received.

For the correspondence between the bank select (CC#0, CC#32) / program numbers (PC#) which are transmitted and the patches, refer to "Patch List (p.179)."

## Editing a Patch

You can move the sliders and knobs etc. of the front panel to modify the sound of the selected Patch.

### 1 Use PANEL SELECT [LOWER]/[UPPER] to select the Part whose Patch you wish to edit.

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the Patches of both Parts.

In this case, the panel will show the settings of the Upper Patch.

### 2 Use the panel sliders and knobs etc. to edit the Patch.

- \* When the [UPPER] and [LOWER] indicators are blinking, moving the panel sliders/knobs displayed in blue will edit the Voice Modulator parameters. (p.111)

## Checking the Current Value of a Parameter (Temporary Scope)

When you wish to check the current value of a parameter (the parameter value in the temporary area), use the following procedure to view the value.

- \* While Temporary Scope page is displayed, the parameters will not edit if you move the sliders/knobs.
- \* The values of the following knobs cannot be viewed in the display.
  - VOLUME [LEVEL]
  - EXTERNAL INPUT [INST/LOWER] and [VOCAL/UPPER]

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [SCOPE] (BANK [8]) to access the Temporary Scope display.

The [SCOPE] indicator will light.

```
Temporary Scope
Select Knob
```

### 3 Move the slider/knob of the parameter whose value you wish to check.

The parameter name and temporary value of the slider/knob you moved will appear in the display.

By pressing [DEC]/[INC] you can modify the value in steps of 1.

```
FLT CUTOFF FREQ
35
```

- \* If at this time you press [SCOPE], the lower left of the display will indicate (Edit), and you will enter Edit Scope mode (see following section).

### 4 To end Temporary Scope, press [EDIT] or [EXIT].

- \* If you use the Temporary Scope when the Voice Modulator panel (p.111) is selected, an “x” will sometimes appear in the display. This indicates that when the algorithm (p.108) is set to “FLT BANK WIDE” or “FLT BANK NARROW,” this parameter is invalid.

## Velocity Scope and Control Scope

The width of change for the various parameters assigned to Velocity (p.82) or Control (p.84) can be verified in the display.

### 1 When the Temporary Scope page is displayed, press [VELOCITY ASSIGN] or [CONTROL ASSIGN].

The indicator will blink, and the display will indicate either “Velocity Scope” or “Control Scope.”

### 2 Move the slider/knob whose value you wish to verify.

The parameter and width of change for the slider/knob you moved will be displayed.

You can use [DEC]/[INC] to modify the value in steps of one.

```
FLT CUTOFF FREQ
Velocity: +15
```

```
FLT CUTOFF FREQ
Control: +15
```

- \* If at this point you press [SCOPE] (BANK [8]), the display will indicate (E), and you will enter the corresponding Edit Scope (refer to the following section).

### 3 When you press [VELOCITY ASSIGN], [CONTROL ASSIGN] or [EXIT], you will return to the Temporary Scope page.

## Edit While Viewing the Slider/Knob Values (Edit Scope)

If you wish to edit while viewing the value of the slider/knob, you can use the following procedure to make the parameter value appear in the display.

- \* The values of the following knobs cannot be viewed in the display.
  - VOLUME [LEVEL]
  - EXTERNAL INPUT [INST/LOWER] and [VOCAL/UPPER]

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [SCOPE] (BANK [8]) several times to access the Edit Scope display.

The [SCOPE] indicator will light.

```
Edit Scope
Select Knob
```

### 3 While viewing the value, move the slider/knob that you wish to edit.

The value of the slider/knob you moved will appear in the display.

By pressing [DEC]/[INC] you can modify the value in steps of 1.

```
FLT CUTOFF FREQ
(Edit)          35
```

- \* If at this point you press [SCOPE], the (Edit) indication in the lower left of the display will disappear, and the Temporary Scope (refer to previous section) will appear.

### 4 To end Edit Scope, press [EDIT] or [EXIT].

- \* Sometimes, moving a slider/knob will not make the displayed value change in increments of 1. In such cases, use [DEC]/[INC] to set the value.
- \* When you are in the Performance/Patch select pages, you can hold down [SHIFT] and move a slider/knob to view the value as you edit. Also, you can use [DEC]/[INC] to modify the value in steps of one.
- \* If you use the Edit Scope when the Voice Modulator panel (p.111) is selected, an “x” will sometimes appear in the display. This indicates that when the vocal effects algorithm (p.108) is set to “FLT BANK WIDE” or “FLT BANK NARROW,” this parameter is invalid.

## ■ Velocity Edit Scope and Control Edit Scope

The width of change for the various parameters assigned to Velocity (p.82) or Control (p.84) can be edited while you view the value in the display.

### 1 When the Edit Scope page is displayed, press [VELOCITY ASSIGN] or [CONTROL ASSIGN].

The indicator will blink, and the display will indicate either “Vel. Edit Scope” or “Ctrl Edit Scope.”

### 2 Move the slider/knob whose value you wish to set.

The parameter and width of change for the slider/knob you moved will be displayed.

You can use [DEC]/[INC] to modify the value in steps of one.

```
FLT CUTOFF FREQ
Velocity: (E) +15
```

```
FLT CUTOFF FREQ
Control: (E) +15
```

- \* If at this point you press [SCOPE] (BANK [8]), the (E) indication in the display will disappear, and you will enter the corresponding Temporary Scope (refer to the previous section).

### 3 When you press [VELOCITY ASSIGN], [CONTROL ASSIGN] or [EXIT], you will return to the Edit Scope page.



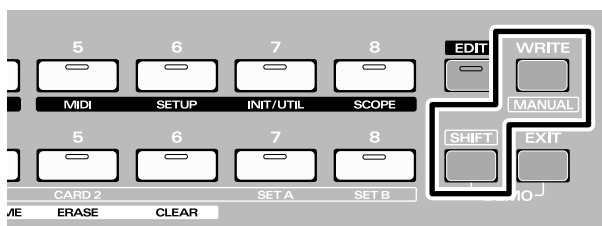
## Resetting the Sound to the Panel Settings (Manual)

The Manual function matches the parameter values to the current slider/knob positions.

When editing a Patch to modify the sound, the parameter values will not always necessarily match the positions of the sliders/knobs. However if the Manual function is used, the sound will match the settings of the sliders/knobs, which is convenient when you are creating a sound from scratch.

When you execute the Manual operation, the patch parameters of the part selected by Panel Select will be set according to the positions of the sliders/knobs.

- \* When the Voice Modulator panel (p.111) is selected, the voice modulator parameters will be according to the settings of the sliders/knobs.
- \* When the following procedure is executed, the Performance and Patch settings in the Temporary Area (p.57) will be lost. If you wish to keep these settings, save the Performance and Patch settings (p.127) before you execute following procedure.



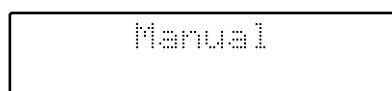
### 1 Press PANEL SELECT [LOWER]/[UPPER] to select the part for the desired patch.

If you simultaneously press both [LOWER] and [UPPER], both indicators will light, allowing you to set both parts simultaneously to the positions of the sliders/knobs.

At this time, the panel will display the settings of the Upper patch.

### 2 Hold down [SHIFT] and press [MANUAL].

The following display will appear, and then an asterisk will be displayed at the left of the Patch or Performance number.



The sound will match the positions of the knobs and sliders.

## Playing Sounds Using the JP-8080 Alone (Preview)

The JP-8080 lets you play sounds even without connecting a MIDI keyboard.

### 1 Press [PREVIEW].

The [PREVIEW] indicator will blink.

At the same time, the BANK[2], [3], [5]–[7] and NUMBER [1]–[8] indicators will light.

These buttons can be used as a one-octave keyboard covering the range of C4–C5 (note numbers 60–72).

### 2 Press one of the BANK [2], [3], [5]–[7] or NUMBER [1]–[8] buttons.

The selected sound will be heard.

- \* The volume will not be affected by the force with which you press the button, so do not strike the buttons or press them with excessive force. This is fixed at note-on velocity 80 and note-off velocity 80.

### 3 To select sounds, use [PERFORM/PATCH SELECT], GROUP [DOWN]/[UP], and [DEC]/[INC].

When using the [DOWN]/[UP] or [DEC]/[INC] buttons, holding down one button and then pressing the other will cause the change to occur more rapidly in the direction of the first-pressed button.

### 4 To change the pitch in one-octave steps, use the OSC SHIFT [-OCT]/[+OCT] buttons.

	[-OCT]	[+OCT]	
-2OCT	red	green:	Lower the pitch two octaves
-1OCT	orange	green:	Lower the pitch one octave
0OCT	green	green:	Normal pitch
+1OCT	green	orange:	Raise the pitch one octave
+2OCT	green	red:	Raise the pitch two octaves

In Preview mode, the [-OCT]/[+OCT] indicators will blink.

In Preview mode, [-OCT]/[+OCT] will function as Keyboard Shift.

### 5 Turn ARPEGGIATOR/RPS [HOLD] on.

In Preview mode, the sound will be held if you turn [HOLD] on when ARPEGGIATOR/RPS [ON] is off.

The knobs, sliders and other buttons will function normally, so you can audition various functions using just the JP-8080 alone.

### 6 To return to the previous condition, press [PREVIEW] or [EXIT].

The [PREVIEW] indicator will go dark.

# Chapter 3. Functions that Modify the Sound

Chapter 3 explains the sound-related parameters. All of the parameters explained in this chapter can be set independently for each Patch.

It is a good idea to first use PANEL SELECT [LOWER]/[UPPER] to make sure of the patch for which you are making settings.

## Selecting the Basic Waveform for the Sound (1) (Oscillator 1)

The OSC 1 (Oscillator 1) section selects the waveform that is the basis for the synthesizer's sound.



**[WAVEFORM]/[CONTROL 1]/[CONTROL 2]**  
[WAVEFORM] selects the OSC 1 waveform, and [CONTROL 1]/[CONTROL 2] modify parameters unique to that waveform.

When you move [CONTROL 1]/[CONTROL 2], the display will show the name of the parameter that is being edited.

In the following explanation, [CONTROL 1] will be listed as [1], and [CONTROL 2] as [2].

### ■ SUPER SAW

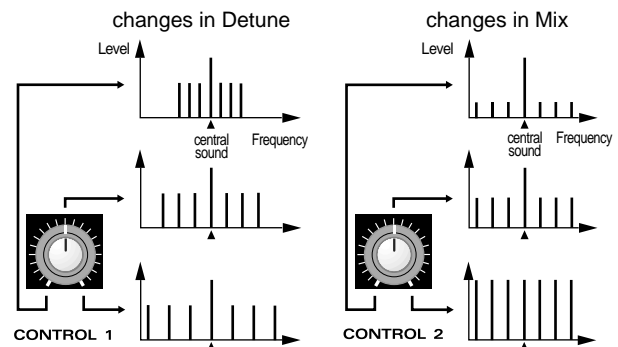
This sounds like seven sawtooth waveforms sounding simultaneously. Pitch-shifted sounds are added to a central sound. It is especially suitable for creating thick string-type sounds, and allows you to produce a thick sound even when the Key Mode is Single.

#### [1] DETUNE:

Adjust the degree of pitch detuning. As the knob is rotated to the right, the pitch will be detuned more greatly, making the sound more spacious.

#### [2] MIX:

Adjust the volume of the detuned sounds relative to the central sound. As the knob is rotated to the right, the detuned sounds will become louder, making the sound thicker.

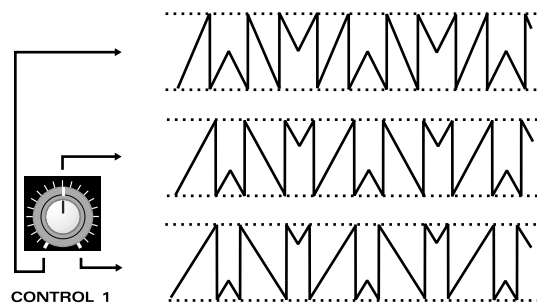


### ■ TRIANGLE MOD (Triangle Modulation)

This is a modification of a triangle wave, with a large number of overtones. Since there is much energy in the overtones and little in the fundamental, the result is similar to applying an HPF (high pass filter, p.73) to a square wave.

#### [1] OFFSET:

Specify the way in which the triangle wave will be shaped. As the knob is rotated to the right, the waveform will be modified more significantly, producing a greater proportion of overtones.



#### [2] LFO 1 DEPTH:

Adjust the amount of effect which LFO 1 (p.77) will have when it is applied to Offset. As the knob is rotated to the right, Offset will change more.

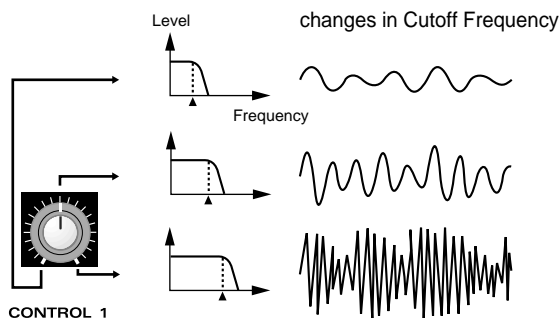
### ■ NOISE

By applying a LPF (low pass filter, p.73) to noise, many different "colors" of noise can be produced.

#### [1] CUTOFF FREQ:

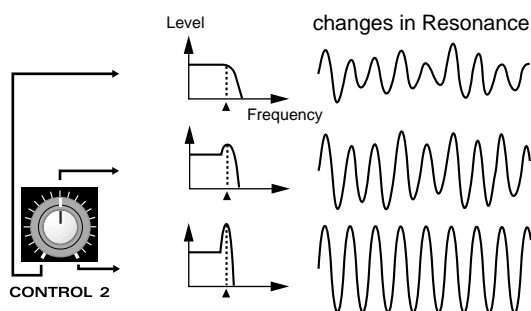
Set the cutoff frequency of the LPF. As the knob is rotated to the right, the noise will have more high frequency components, and at the same time the volume will also increase. (Rotating the knob to the left all the way may result in no

sound at all.) Also, since the cutoff frequency will change depending on the key that you play, the noise will change. The cutoff frequency will rise as you play higher notes, and will fall as you play lower notes.



## [2] RESONANCE:

This regulates the emphasis that is applied to the region at the cutoff frequency. As the knob is rotated to the right, the sound will have a greater sense of pitch. If the knob is rotated to the right all the way, a sine wave will result.



## ● Characteristics for high values of RESONANCE

When RESONANCE=127, a sine wave will result, producing a pitched sound. At this time, setting CUTOFF FREQ=64 will cause the pitch to correspond to the key that is played. As the CUTOFF FREQ value is changed in steps of one, the pitch will change in semitone steps. You may find it convenient to use the Edit Scope (p.64) to view the value as you make settings.

## ■ FEEDBACK OSC (Feedback Oscillator)

This sound is similar to electric guitar feedback. It is suitable for creating hard and aggressive sounds that stand out.

\* If FEEDBACK OSC is selected, SOLO SW [MONO] or [LEGATO] will be turned on, and notes will play monophonically. It will not be possible to turn off [MONO] or [LEGATO]. Nor will it be possible to turn [UNISON] on.

## [1] HARMONICS:

Vary the sound of the harmonics.

## [2] FEEDBACK AMOUNT:

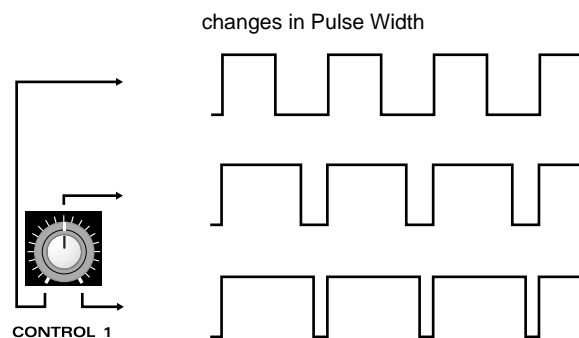
Adjust the amount of feedback to adjust the level of the harmonics.

## ■ (Square wave)

This sound is similar to a woodwind instrument. It also widely used in making typical “synthesizer” sounds.

## [1] PULSE WIDTH:

Set the width (pulse width) of the square wave. As the knob is rotated to the right, the pulse width will change, producing a sound with more overtones.



## [2] PWM DEPTH:

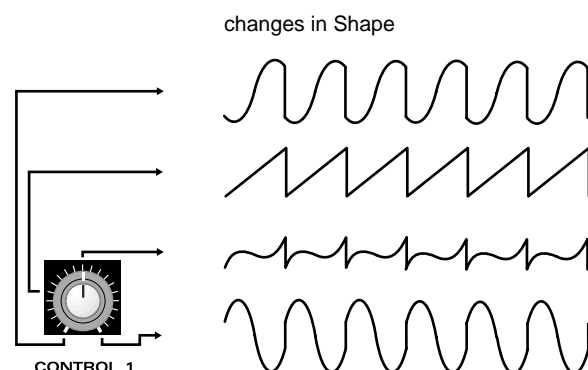
The technique of applying LFO 1 (p.77) to the Pulse Width is referred to as Pulse Width Modulation (PWM). PWM Depth determines how greatly PWM will be applied. As the knob is rotated to the right, Pulse Width will be modulated more greatly, creating a broader and more “smeared” sound.

## ■ (Sawtooth wave)

This waveform is used for nearly all instruments except for woodwinds. Many sounds unique to synthesizers can be created using this waveform.

## [1] SHAPE:

Specify the degree to which the sawtooth wave will be deformed. When the knob is at either end of its range, the sound will have a strong fundamental, and will be suitable for thick bass sounds etc. When the knob is in the center position, the sound will be thin, as though an HPF were applied to it.



## [2] LFO 1 DEPTH:

When LFO 1 (p.77) is applied to Shape, this parameter specifies how greatly Shape will be affected. As the knob is rotated to the right, Shape will be affected more greatly.

## ● Shape for sawtooth waveforms

Sawtooth wave sounds on different synthesizers differ in subtle ways, and the sound of the sawtooth wave often determines the character of the synthesizer itself.

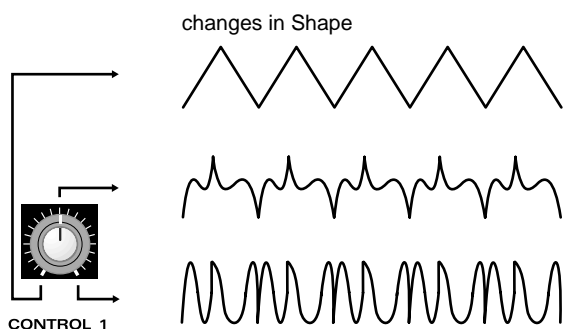
On the JP-8080 you can use the Shape parameter to make fine adjustments to sawtooth wave sounds to create a variety of sawtooth waves, for an even greater range of sound-creating possibilities.

## ■ ▲▼ (Triangle wave)

This is a simple sound with few overtones. It is used for creating flute sounds etc.,

### [1] SHAPE:

Specify the degree to which the triangle wave will be deformed. As the knob is rotated to the right, the waveform will be modified more greatly, producing a sound with more overtones. This will produce a sound similar to square wave with an LPF (low pass filter, p.73) applied to it.



### [2] LFO 1 DEPTH:

When LFO 1 (p.77) is applied to Shape, this parameter specifies how greatly Shape will be affected. As the knob is rotated to the right, Shape will be affected more greatly.

## [RING] (Ring Modulator Switch)

For details on the ring modulator, refer to “Selecting the Basic Waveform for the Sound (2) (Oscillator 2)” (p.70).

## Selecting the Basic Waveform for the Sound (2) (Oscillator 2)

In the same way as for the OSC 1 section, this selects the waveform that will be the basis of the sound. By combining OSC 1 and OSC 2, a variety of sounds can be created.

You can also input audio from an external source without using the OSC 2 waveform.



### [WAVEFORM]/[CONTROL 1]/[CONTROL 2]

[WAVEFORM] selects the waveform of OSC 2. Only when square wave and noise are selected, [CONTROL 1]/[CONTROL 2] will modify parameters unique to these waveforms.

When you move [CONTROL 1]/[CONTROL 2], the name of the parameter being edited will appear in the display.

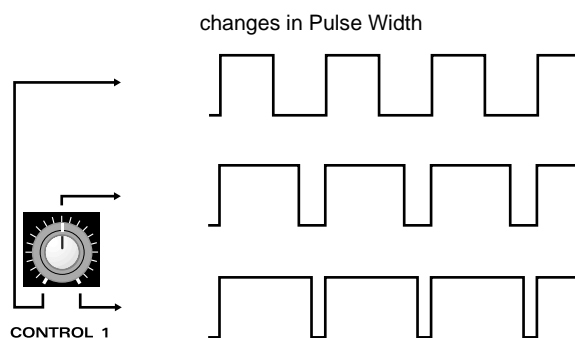
In the explanation below, [CONTROL 1] is abbreviated as [1], and [CONTROL 2] as [2].

## ■ □ (Square wave)

This sound is similar to a woodwind instrument. It also widely used in making typical “synthesizer” sounds.

### [1] PULSE WIDTH:

Set the width (pulse width) of the square wave. As the knob is rotated to the right, the pulse width will change, producing a sound with more overtones.



### [2] PWM DEPTH:

The technique of applying LFO 1 (p.77) to the Pulse Width is referred to as Pulse Width Modulation (PWM). PWM Depth determines how greatly PWM will be applied. As the knob is rotated to the right, Pulse Width will be modulated more greatly, creating a broader and more “smeared” sound.

## ■ (Sawtooth wave)

This waveform is used for nearly all instruments except for woodwinds. Many sounds unique to synthesizers can be created using this waveform.

## ■ (Triangle wave)

This is a simple sound with few overtones. It is used for creating flute sounds etc.,

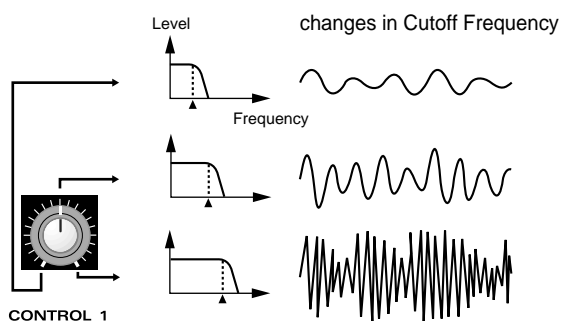
## ■ NOISE

By applying a LPF (low pass filter, p.73) to noise, many different “colors” of noise can be produced.

### [1] CUTOFF FREQ:

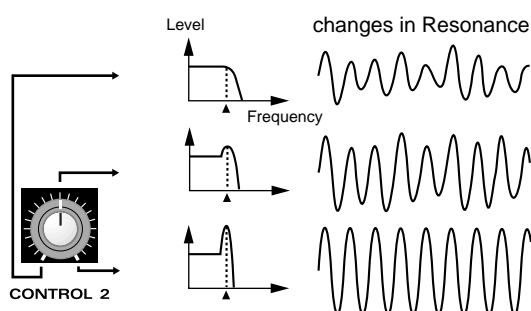
Set the cutoff frequency of the LPF. As the knob is rotated to the right, the noise will have more high frequency components, and at the same time the volume will also increase. (Rotating the knob to the left all the way may result in no sound at all.)

Unlike NOISE for OSC 1, the cutoff frequency will not change, regardless of the key that you play.



### [2] RESONANCE:

This regulates the emphasis that is applied to the region at the cutoff frequency. As the knob is rotated to the right, the sound will have a greater sense of pitch. If the knob is rotated to the right all the way, a sine wave will result.



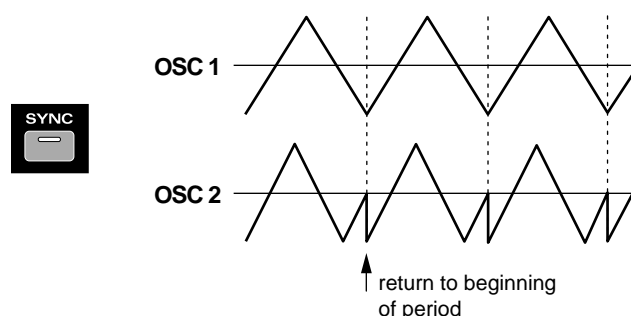
#### ● Characteristics for high values of RESONANCE

When RESONANCE=127, a sine wave will result, producing a pitched sound. At this time, setting CUTOFF FREQ=64 will cause all keys to produce a pitch of C4. As the CUTOFF FREQ value is changed in steps of one, the pitch will change in semitone steps. You may find it convenient to use the Edit Scope (p.64) to view the value as you make settings.

## [SYNC] (Sync Switch)

This switches sync on/off. When this is on, the indicator will light, and a complex sound with many overtones will be produced. This is effective when the OSC2 pitch is higher than the OSC 1 pitch.

Sync cause the output waveform of OSC 2 to be synchronized to the output waveform of OSC 1. (“Functions using OSC 1 and OSC 2” (p.73)). I.e., each time the OSC 1 waveform returns to the beginning of its period, OSC 2 will also be forcibly reset to the beginning of its period, producing a complex waveform.



- \* If the effect of Sync is difficult to notice, rotate [OSC BALANCE] toward the right (toward OSC 2).
- \* Sync will not occur if NOISE is selected as the OSC 2 [WAVEFORM], or if [EXT] is on.

#### ● Tonal changes using Sync

If you turn [SYNC] on and modify [RANGE] or [FINE/WIDE], the tone of OSC 2 will change in various ways while the pitch remains the same.

## [RANGE]

Specify the pitch of OSC 2 in relation to OSC 1 over a range of +/-24 semitones (+/-2 octaves). As the knob is rotated toward the right the pitch of OSC 2 will rise. As it is rotated toward the left the pitch of OSC 2 will fall. With a setting of 0, OSC 2 will have the same pitch as OSC 1.

With settings of -WIDE or +WIDE, the [FINE/WIDE] knob can adjust the pitch of OSC 2 over a +/-4 octave range. However in this case, you must be sure to rotate the knob fully right or left.

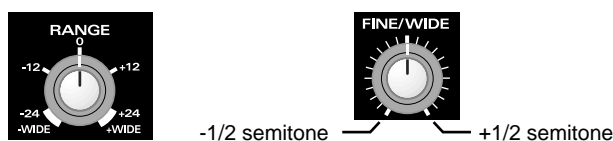
- \* To make it easy for you to make accurate settings, the -24, -12, 0, +12 and +24 settings have a greater width than other settings.

## [FINE/WIDE] (Fine tune/Wide)

When the [RANGE] setting is -24+24, this knob provides a +/-50 cent (+/- 1/2 semitone) adjustment to the pitch specified by the [RANGE] setting. As this knob is rotated to the right, the OSC 2 pitch will rise. As it is rotated to the left, the OSC 2 pitch will fall. When this knob is in the center position, the pitch will be as specified by the [RANGE] setting.

When the [RANGE] knob is in the fully left (-WIDE) or fully right (+WIDE) position, this knob can be rotated toward the left to adjust the pitch -4-0 octaves, or toward the right to adjust the pitch 0- +4 octaves.

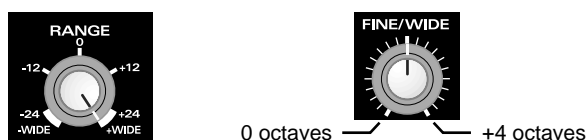
#### ◆ When [RANGE] is -24- +24



#### ◆ When [RANGE] is -WIDE



#### ◆ When [RANGE] is +WIDE



- \* To make it easy for you to make accurate settings, the center setting has a greater width.

#### ● Giving the sound more spaciousness

If you select the same waveform for OSC 1 and OSC 2, set [RANGE] to 0 and use [FINE/WIDE] to create a slight difference in pitch, the sound will appear more spacious (the Detune effect).

### [RING] (Ring Modulator Switch)

This switches the Ring Modulator on/off. When this is on, the indicator will light, and the sound will become more metallic. This is suitable for creating bell sounds, etc.

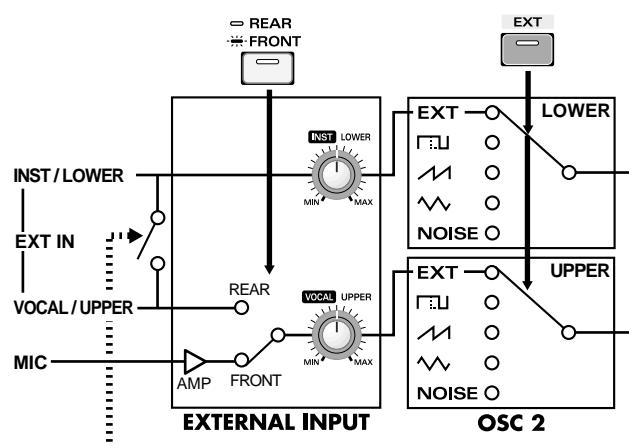
The ring modulator multiplies the OSC1 waveform with the OSC2 waveform, producing a sound that contains many overtones not found in either of the original waveforms. ("Functions using OSC 1 and OSC 2", p.73). Since large numbers of inharmonic overtones are present, the sound will have a dissonant, un-pitched feeling.

- \* The sound with the newly-generated overtones will be generated by OSC 2, so if the result of the ring modulator is difficult to detect, rotate the OSC COMMON [OSC BALANCE] toward the right (toward OSC 2).

## Using the External Inputs

Audio from an external source can be input via the external EXT IN jack or the MIC jack. In this case, it will not be possible to use the OSC 2 waveform.

Settings related to external input can be made in [EXT] (External Input Switch) of the OSC 2 section, and in the EXTERNAL INPUT section.



When only one jack is connected

VOCAL/UPPER: The sound will be input only to the UPPER part.

INST/LOWER: The same sound will be input to both parts (UPPER/LOWER).

The sound which is input from the INST/LOWER jack can be used as the OSC 2 of the Lower part.

The sound which is input from the VOCAL/UPPER jack or the MIC jack can be used as the OSC 2 of the Upper part.

The sound which is input from the MIC jack will be amplified by the mic amp. The sound which is input from the EXT IN VOCAL/UPPER jack will be used at its original level.

In the same way as for the OSC 2 waveform, sound will be produced only while note-on messages are being received.

However, the pitch cannot be controlled.

## [EXT] (External Input Switch)

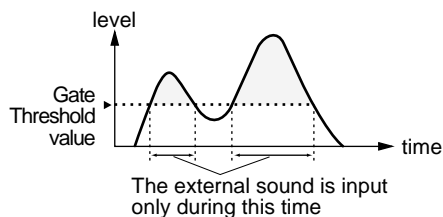
When [EXT] is turned on, the [WAVEFORM] will automatically be turned off, the sound from the EXT IN jack or MIC jack will be input.

To turn [EXT] off, press [WAVEFORM] to select a waveform for OSC 2.

Also, when [EXT] is on, [CONTROL 1] will control the following parameter.

### [1] GATE THRESHOLD:

This sets the minimum input level. Only sounds that are louder than the specified level will be input.



- \* If the External Trigger switch (p.121) is on, sounds of any level will be input. Depending on the Gate Threshold setting, the envelope specified by the External Trigger Destination will start. (p.122)
- \* No parameter is assigned to [CONTROL 2].

## ■ EXTERNAKL INPUT section

### [REAR/FRONT] (Vocal Input Select Switch)

Specify whether you will be using the VOCAL/UPPER jack or the MIC jack.

[REAR/FRONT] specifies which jack will be used. When off (REAR), the EXT IN VOCAL/UPPER jack is used; when on (FRONT), the MIC jack is used.

This parameter can be set independently for each performance.

### [INST/LOWER]/[VOCAL/UPPER] (Input Level)

Adjusts the volume of the external input.

If even a small amount of sound is input, the SIG/LIMITER indicator will light green.

The limiter will operate on sounds which exceed a specified level, automatically adjusting the volume to keep the sound from distorting. When this happens, the SIG/LIMITER indicator will light red.

If you want the sound to have dynamic expression, adjust it so that the SIG/LIMITER indicator lights red occasionally.

- \* The external input sound is frequently used for the Voice Modulator function (p.103) or the External Trigger function (p.121).

## Modifying the Waveform and Pitch of the Sound

In the OSC COMMON (Oscillator Common) section and PITCH ENVELOPE (Pitch Envelope) sections, you can make settings that affect both OSC 1 and OSC 2.

## OSC COMMON (Oscillator Common) Section



### [OSC BALANCE] (Oscillator Balance)

This adjusts the balance between OSC 1 and OSC 2. As the knob is rotated toward the left, the volume of OSC 1 will become louder. As it is rotated toward the right the volume of OSC 2 will become louder. In the center position, OSC 1 and OSC 2 will have the same volume.

### OSC SHIFT [-OCT]/[+OCT] (Oscillator Shift)

Shift the pitch that is produced when you play your MIDI, in one-octave steps. This allows you to play notes which fall above or below the actual range of notes on your MIDI keyboard.

It is convenient to use this method when you wish to change just the Patch of a specific Part in Dual or Split modes.

Pressing [-OCT] will lower the pitch in one-octave steps, and pressing [+OCT] will raise it in one-octave steps.

	[-OCT]	[+OCT]	
-2OCT	red	dark:	Lower the pitch two octaves
-1OCT	orange	dark:	Lower the pitch one octave
0OCT	dark	dark:	Normal pitch
+1OCT	dark	orange:	Raise the pitch one octave
+2OCT	dark	red:	Raise the pitch two octaves

### [X-MOD DEPTH] (Cross Modulation Depth)

Cross Modulation is when OSC 2 modify the frequency of OSC 1 ("Functions using OSC 1 and OSC 2", p.73). [X-MOD DEPTH] adjusts the depth of this Cross Modulation. As the knob is rotated toward the right, the sound of OSC 1 will become more complex, with more overtones, and will be suitable for creating metallic sounds and sound effects.

- \* If OSC1 [WAVEFORM] is set to SUPER SAW or NOISE, the Cross Modulation effect can not be obtained.
- \* If the Cross Modulation effect is difficult to hear, rotate OSC COMMON [OSC BALANCE] toward the left (the OSC 1 position).

.....

### ● Tonal changes using Cross Modulation

Leave [X-MOD DEPTH] raised, and move OSC2 [RANGE] or [FINE/WIDE] to modify the tone in various ways without changing the pitch.

.....

## [LFO 1 & ENV DESTINATION] (LFO 1 & Envelope Destination)

Select one of the following three possibilities to specify how LFO 1 (p.77) and the envelope generator will be applied.

### OSC 1+2 (Oscillator 1+2):

LFO 1 and the envelope will be applied to the pitch of OSC 1 and OSC 2.

### OSC 2 (Oscillator 2):

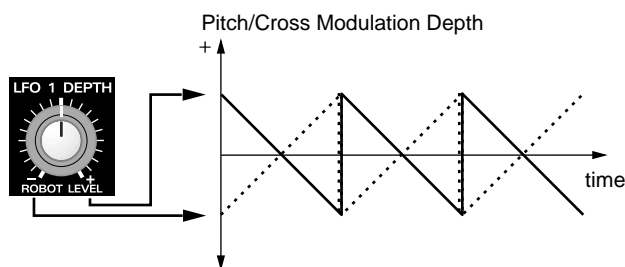
LFO 1 and the envelope will be applied to the pitch of OSC 2.

### X-MOD (Cross Modulation Depth):

LFO 1 and the envelope will be applied to Cross Modulation Depth.

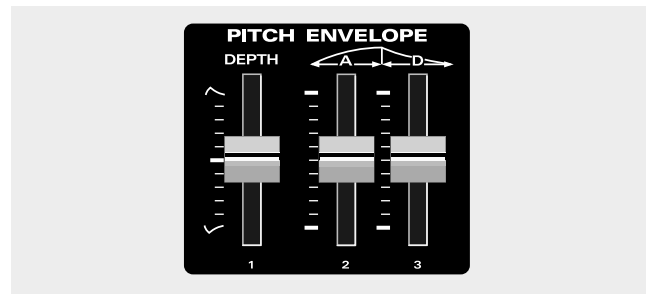
### [LFO 1 DEPTH]

Specify the depth for when LFO 1 (p.77) is applied to the pitch. As the knob is rotated from the center position toward the right, the change will become greater. As it is rotated from the center toward the left, the LFO 1 waveform will be inverted, and change will become greater in the opposite direction. When the knob is in the center position, LFO 1 will not affect the pitch.



- \* If X-MOD is selected for [LFO 1 & ENV DESTINATION], read “pitch” in the above explanation as “cross modulation depth.”

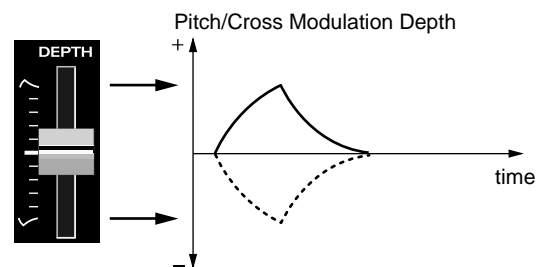
## PITCH ENVELOPE Section



- \* If X-MOD is selected for [LFO 1 & ENV DESTINATION], read “pitch” in the following explanation as “cross modulation depth.”

### [DEPTH] (Envelope Depth)

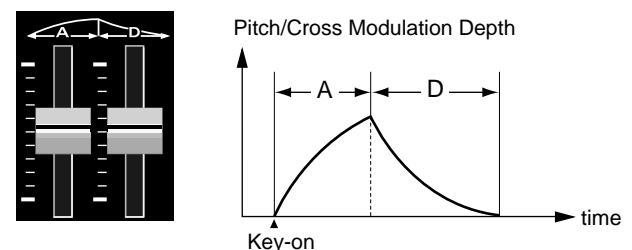
Specify the depth of the pitch envelope. Raising the slider above the center position will produce a greater change. Lowering the slider below the center position will invert the shape of the envelope, and produce an increasing amount of change in the opposite direction. When the slider is in the center position, the pitch envelope will not affect the pitch.



- \* When applying a positive (+) envelope to Cross Modulation, the effect will be more apparent if [X-MOD DEPTH] is set to a low setting. When applying a negative (-) envelope, the effect will be more apparent if [X-MOD DEPTH] is set to a high setting.

### [A] (Attack Time) / [D] (Decay Time)

Specify the Attack Time and Decay Time of the pitch envelope. The value will increase as the slider is raised.

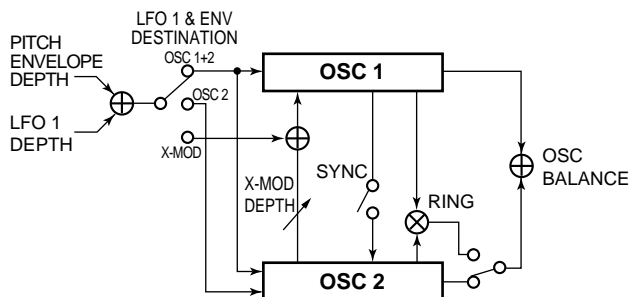


- A: The time from when the key is pressed until the maximum pitch change is reached.
- D: The time from when the maximum pitch change is reached until normal pitch is reached.



## ● Functions using OSC 1 and OSC 2

Functions which use OSC 1 and OSC 2 (Sync, Ring Modulator, Cross Modulation) are applied as shown in the following diagram to modify the sound.



## Modifying the Brightness

Sound consists of partials (overtones) at many frequencies. The filter allows a specific range of frequencies to pass (or restricts the way that they pass), thereby modifying the brightness of the sound. The FILTER section and the FILTER ENVELOPE section allow you to select the Type of this filter, and to make the output waveform change in various ways to modify the brightness.

### FILTER Section



#### [TYPE] (Filter Type)

Select one of the following three filter types.

##### HPF (High Pass Filter):

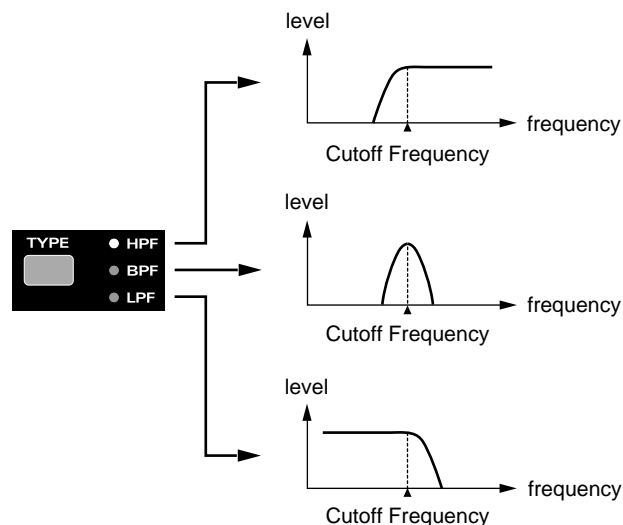
This type of filter allows partials higher than the cutoff frequency to pass. This is useful when you want the sound to be bright and sharp.

##### BPF (Band Pass Filter):

This type of filter allows partials in the region of the cutoff frequency to pass. This will emphasize the mid-range, and is suitable for creating sounds with a unique character.

##### LPF (Low Pass Filter):

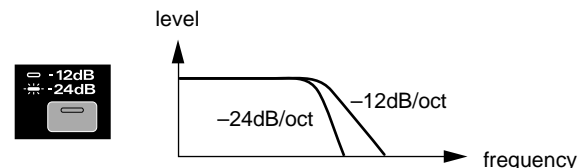
This type of filter allows partials lower than the cutoff frequency to pass. This is the most common type of filter, and is useful when you want to make the sound more mellow.



#### [-12dB/-24dB] (Cutoff Slope)

This selects the slope of the filter.

When the indicator is dark the slope will be more gradual (-12 dB/oct). When [-12dB/-24dB] is pressed to make the indicator light, the filter will have a steep slope (-24 dB/oct), making a clearer distinction between the overtones which pass through and those which do not.

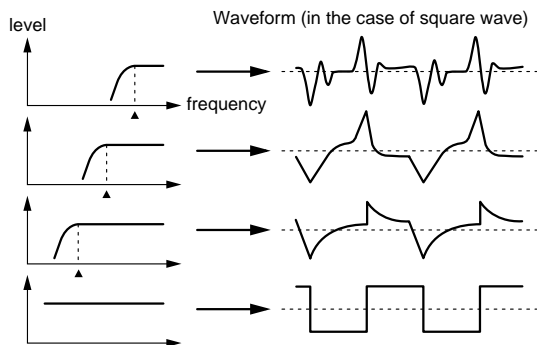


#### [CUTOFF FREQ] (Cutoff Frequency)

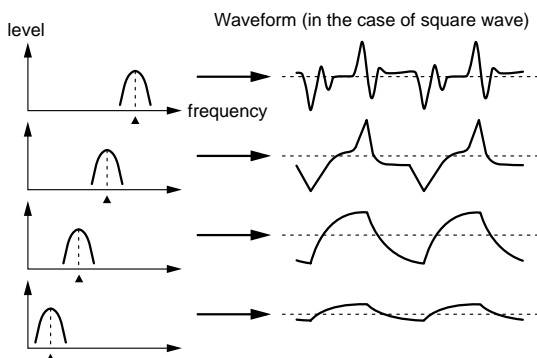
This sets the cutoff frequency of the filter. Cutoff frequency is the parameter which specifies the frequency at which the filter will begin restricting (cutting off) the partials. By modifying the cutoff frequency you can control the brightness of the sound. As the slider is raised, the cutoff frequency will become higher, producing a brighter tone.

## ● Filter Type and Cutoff Frequency

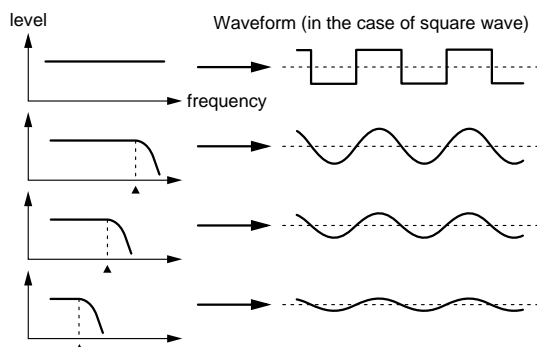
When the filter is set to HPF, raising the cutoff frequency will decrease the lower partials, making the sound brighter. At the same time, the volume will also decrease. With high settings of this parameter, some waveforms may produce no sound at all.



When the filter is set to BPF, only the partials in the frequency range specified by the cutoff frequency will be allowed to pass. With high settings of this parameter, some waveforms may produce no sound at all.

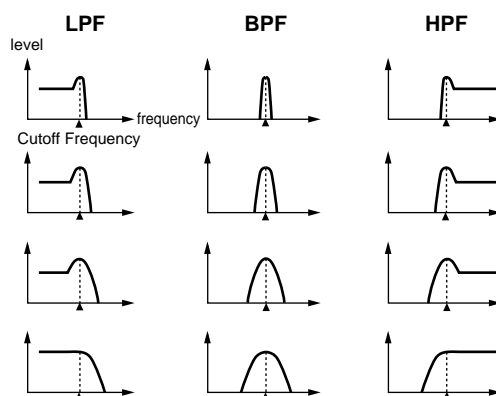


When the filter is set to LPF, lowering the cutoff frequency will decrease the upper partials, making the sound more mellow. At the same time, the volume will also decrease.



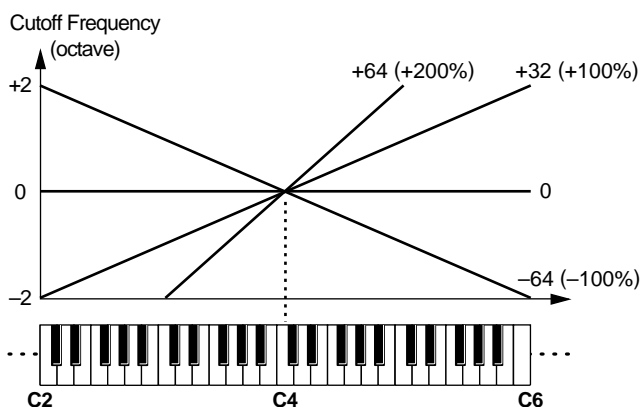
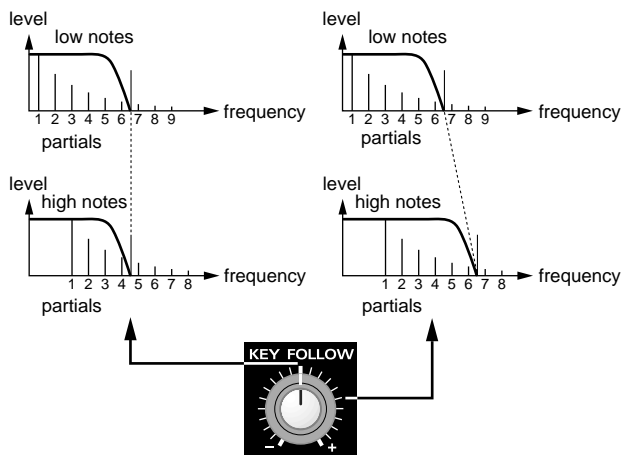
## [RESONANCE]

As this slider is raised, the partials in the region of the cutoff frequency will be emphasized, producing a distinctive sound. If the slider is raised even further, a new sound will be heard in addition to the sound of OSC 1 and OSC 2 (this is known as oscillation), so normally you should avoid excessively high settings of this parameter.



## [KEY FOLLOW]

This sets the Key Follow depth for the filter. When the filter is a LPF, a central setting of Key Follow will cause the cutoff frequency to remain fixed, and unaffected by the pitch of the sound (i.e., the note that you played). This means that as you play higher notes, there will be fewer partials in the sound, making it increasingly more mellow in comparison to lower notes. As the knob is rotated toward the right, higher notes will have a correspondingly higher cutoff frequency, allowing high notes to remain bright. Key Follow to +32 (set while viewing the value in Edit Scope, p.64), the sound will be the same brightness for all keys. Conversely, when the knob is rotated toward the left of center, playing higher notes will cause the cutoff frequency to become lower, meaning that high notes will be even more mellow than when the knob is in the center position.



For both HPF and BPF, setting the Key Follow to +32 will allow you to play all notes with the same brightness.

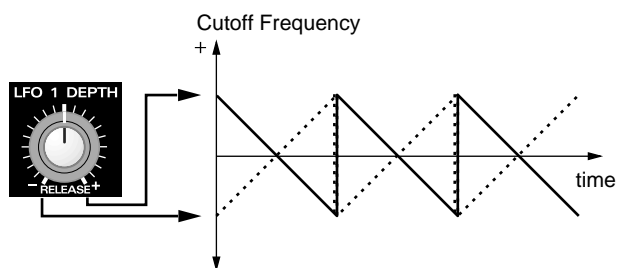
- \* When [CUTOFF FREQ] is set to the center position, the Key Follow effect will be clearly noticeable.

### ● Ways to use Key Follow

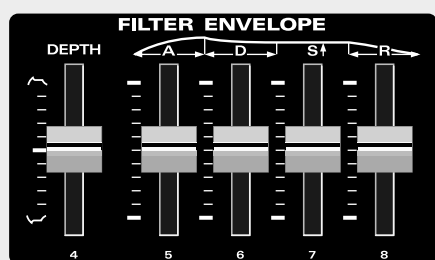
If you are playing a brass-type sound for a solo, you might rotate [KEY FOLLOW] to the left of center so that high notes will be more mellow. If you are playing the brass sound as a backing part, you might rotate [KEY FOLLOW] to the right of center so that the tone will remain flat.

### [LFO 1 DEPTH]

When LFO 1 (p.77) is applied to cutoff frequency, this parameter determines the depth of the effect. As the knob is rotated to the right of center, the effect will increase. As the knob is rotated to the left of center, the LFO 1 waveform will be inverted, and the effect will increase. With a setting in the center position, LFO 1 will not affect the cutoff frequency (brightness).

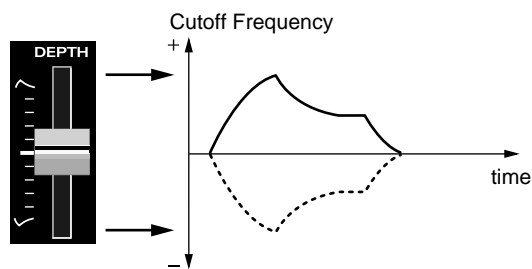


## FILTER ENVELOPE Section



### [DEPTH] (Envelope Depth)

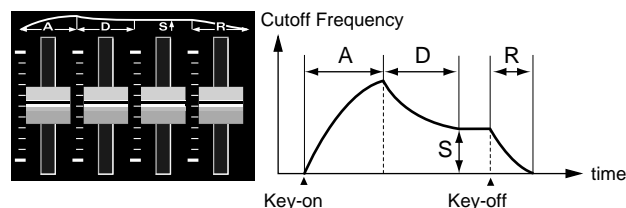
This adjusts the depth of the filter envelope. As the slider is raised above the center position, the change will increase. As the slider is lowered below the center position, the change will increase in the opposite direction. With a setting in the center position, the filter envelope will not affect the brightness.



- \* Please note the following caution when Individual Trigger (p.116) or External Trigger (p.121) is turned ON. If the Trigger Destination is either FILTER or FILTER&AMP, playing without receiving a trigger may not produce the intended sound, since the filter envelope effect will not apply.
- \* When applying a positive (+) envelope, the effect will be more apparent if [CUTOFF FREQ] is set to a low setting. When applying a negative (-) envelope, the effect will be more apparent if [CUTOFF FREQ] is set to a high setting.

### [A] (Attack Time) / [D] (Decay Time) [S] (Sustain Level) / [R] (Release Time)

These parameters set the Attack Time, Decay Time, Sustain Level, and Release Time of the filter envelope. Raising a slider will increase the corresponding value.



- A: The time from when the note is played until the maximum brightness is reached
- D: The time until the brightness reaches a steady level
- S: The level at which the brightness will remain steady
- R: The time from when the key is released until the sound returns to its original brightness

## Modifying the Volume

The parameters of the AMP (Amplifier) section and the AMP ENVELOPE (Amplifier Envelope) section modify the volume, and how the sound begins and ends.

### AMP (Amplifier) Section



#### [LEVEL]

Specify the volume of the Patch. The volume will increase as the knob is rotated toward the right.

The [LEVEL] setting is saved in the Patch, so if you want each Patch to have a different volume, you can set each Patch accordingly. In contrast, the VOLUME [LEVEL] is used to adjust the volume of the entire JP-8080.

#### [PAN] (Auto Pan/Manual Pan Switch)

Select one of three ways in which the volume or pan (stereo position) will change.

##### OFF (dark):

LFO 1 (p.77) will cyclically modulate the volume.

##### AUTO (Auto Pan):

LFO 1 will cyclically shift the panning between left and right.

##### MANUAL (Manual Pan):

Adjust [LFO1 DEPTH] to pan the sound to left or right.

- \* The LFO 1 Fade Time setting has no effect on Auto Pan.
- \* In the following cases, the Auto Pan and Manual Pan effects will be unavailable.
  - When the sound is being sent from the output jacks in MONO.
  - When Output Assign (p.115) is set to PARALLEL OUT.

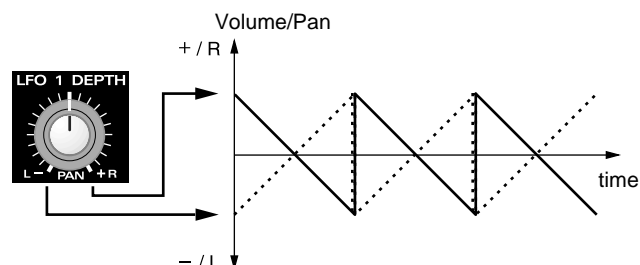
#### [LFO 1 DEPTH]

When [PAN] is OFF (dark) or set to AUTO, this parameter determines how greatly LFO 1 (p.77) will be applied to Level or Pan. Rotating the knob toward the right of center will produce greater change. Rotating the knob toward the left of center will invert the LFO 1 waveform, and produce

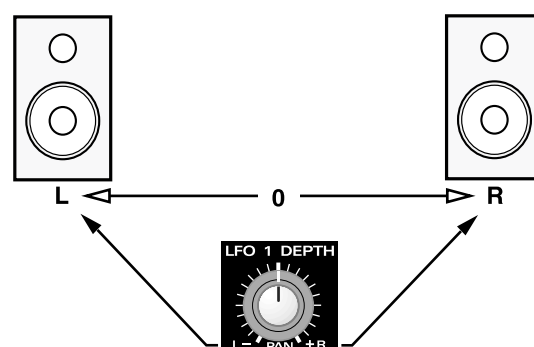
greater change in the opposite direction. With a central setting, LFO 1 will not affect level or pan.

When [PAN] is set to MANUAL, rotating the knob toward the right of center will pan the sound toward the right, and rotating it toward the left of center will pan the sound toward the left. With a central setting, the sound will be heard from the center.

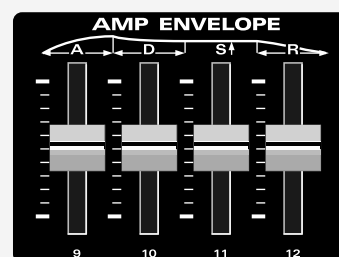
#### ◆ When [PAN] is OFF (dark) or set to AUTO



#### ◆ When [PAN] is set to MANUAL



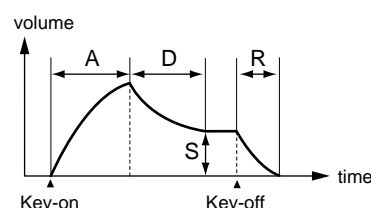
## AMP ENVELOPE (Amplifier Envelope) Section



#### [A] (Attack Time) / [D] (Decay Time)

#### [S] (Sustain Level) / [R] (Release Time)

These parameters set the Attack Time, Decay Time, Sustain Level, and Release Time of the amplifier envelope. Raising a slider will increase the corresponding value.



- A:** The time from when the note is played until the maximum volume is reached
- D:** The time until the volume reaches a steady level
- S:** The level at which the volume will remain steady
- R:** The time from when the note is released until the sound disappears
- \* Please note the following caution when Individual Trigger (p.116) or External Trigger (p.121) is turned ON. If the Trigger Destination is either AMP or FILTER&AMP, playing without receiving a trigger may not produce the intended sound, since the amplifier envelope effect will not apply.

### ● Example of different envelopes

The following two Patches of the JP-8080 contain typical amplifier envelope settings.

If you wish to create a decay-type sound like that of a piano, or a sustain-type sound like that of an organ, an easy way to do so is to select one of the following Patches and adjust the sliders and knobs to your liking.

**P1: B87: Decay-type envelope**

**P1: B88: Sustain-type envelope**

## Modulating the Sound (LFO 1)

The LFO 1 (Low Frequency Oscillator) section outputs a waveform, just as the OSC 1 and OSC 2 sections. However while the OSC 1 and OSC 2 waveforms are used to produce the sound itself, the LFO 1 waveform is used to cyclically modulate the pitch, brightness, or volume of the sound.

- \* The depth of LFO 1 for each of these is set by the [LFO 1 DEPTH] knobs of the OSC COMMON section, FILTER section, and AMP section.



### [WAVEFORM]

Select one of the following four choices as the LFO 1 output waveform. The sound will be modulated in the way indicated by the selected LFO 1 waveform.

#### △△ (Triangle wave):

The sound will be modulated continuously. This waveform is suitable for vibrato effects, etc.

#### ∇∇ (Sawtooth wave):

When the sound reaches its minimum setting, it will then return to the maximum, and then begin to fall again. If the [LFO 1 DEPTH] in the OSC COMMON, FILTER, and AMP sections is rotated to the left of center, the direction will be inverted. (When the sound reaches its maximum setting, it will return to the minimum and then begin to rise again.)

#### □□ (Square wave):

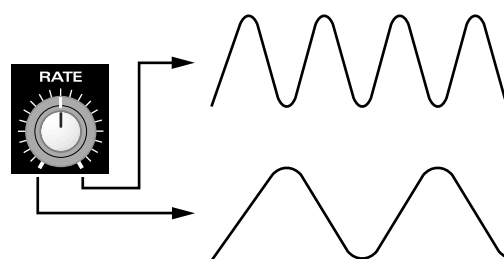
The sound will alternate between two settings.

#### ⏏⏏ (Sample and hold):

The sound will switch randomly between various settings.

### [RATE]

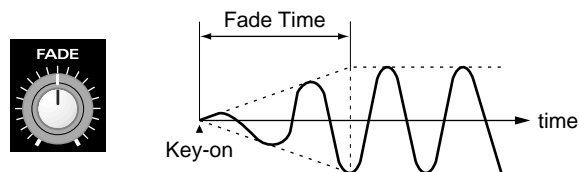
This sets the modulation speed for LFO 1. At the knob is rotated to the right, the modulation speed will increase.



- \* The LFO 1 Rate can be synchronized to the MIDI Clock messages of a sequencer, etc. For details refer to “Synchronizing LFO 1 Rate to the Tempo (LFO Sync)” (p.120), and “Synchronizing Chorus, Delay, LFO 1, Ensemble or Voice Modulator Delay” (p.144).

### [FADE] (Fade Time)

Specify the time from when you press the key and the LFO 1 begins to apply until the modulation reaches the amount specified by the Depth setting of each section. Rotating the knob toward the right will lengthen the time until the full amount of modulation is reached.



# Making Effect Settings (Effects)

## Adjusting the High and Low Tone (Tone Control)

The TONE CONTROL lets you emphasize or attenuate the low or high ranges of the sound to adjust the tone to your preference.

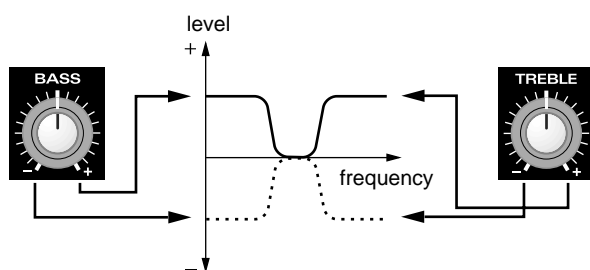


### [BASS]

This knob emphasizes/attenuates the low frequency range. Rotating the knob toward the right of center will emphasize the low frequency range, producing a more solid sound. Rotating it toward the left of center will attenuate the low frequency range.

### [TREBLE]

This knob emphasizes/attenuates the high frequency range. Rotating the knob toward the right of center will emphasize the high frequency range, producing a more crisp sound. Rotating it toward the left of center will attenuate the high frequency range.



## Adding Spaciousness and Depth to the Sound (Multi Effects Level)

Multi Effects Level is a function that adds spaciousness and depth to the sound. You can also select the type of multi effects in the [PATCH] (BANK [4]) setting in the lower line of the display.



### [MULTI-FX LEVEL] (Multi Effects LEVEL)

Specify the amount of the multi effects. As the knob is rotated toward the right, effect will be applied more heavily.

### ■ Changing the type of Multi Effects (Multi Effects Type)

The type of multi effects can be changed as appropriate for the sound or song that you are playing. The JP-8080 provides 13 types of multi effects.

**SUPER CHORUS SLW:** Slow chorus with deep modulation.

**SUPER CHORUS MID:** Chorus with medium modulation.

**SUPER CHORUS FST:** Fast chorus with shallow modulation.

**SUPER CHORUS CLR:** Chorus with a transparent feeling. More chorus will be applied to the high range, producing a light sensation.

**FLANGER SLOW:** Flanger with delayed modulation.

**FLANGER DEEP:** Flanger with deep modulation.

**FLANGER FAST:** Flanger with fast modulation.

**DEEP PHASING SLW:** Slow phasing with deep modulation.

**JET PHASING:** An effect reminiscent of a jet airplane taking off and landing.

**TWISTING:** An effect as though the sound were being twisted.

**FREEZE PHASE 1/2:** A short delay. This is effective in adding a metallic resonance.

**DISTORTION:** This effect distorts the sound.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [PATCH] (BANK [4]) several times to access the Multi Effects Type display.

The [PATCH] indicator will light.

Multi-FX Type  
SUPER CHORUS SLW

### 3 Use [DEC]/[INC] to select the desired Multi Effects Type.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Multi Effects Type setting has now been made.

\* The chorus Rate (speed of modulation) can be synchronized to MIDI Clock messages from a sequencer, etc.

For details refer to “Synchronizing Chorus Modulation to the Tempo/LFO 1 (Chorus Sync)” (p.119), and “Synchronizing Chorus, Delay, LFO 1, Ensemble or Voice Modulator Delay” (p.144).

## Adding an Echo Effect (Delay)

Delay is an effect that adds echoes to the sound. The settings of the DELAY section affect how the delay sound is heard. You can also select the type of delay in the [PATCH](BANK[4]) setting in the lower line of the display.

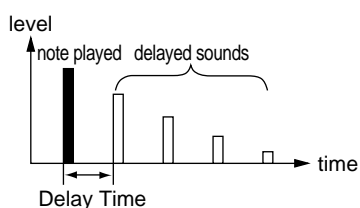


### [LEVEL]

Specify the amount of the delay sound relative to the original (undelayed) sound. As the knob is rotated toward the right, the delay sound will become louder.

### [TIME]

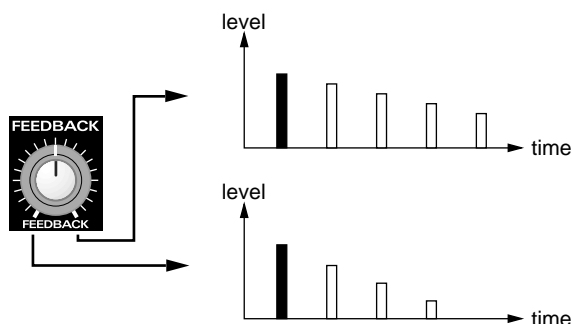
Specify the time (interval between delays) from when a key is pressed to play a sound until when the delayed sound is heard. As the knob is rotated toward the right, the time will become longer.



- \* It is also possible to synchronize the Delay Time to the MIDI Clock messages from a sequencer, etc. For details refer to "Synchronizing Delay Time to the Tempo (Delay Sync)" (p.119), and "Synchronizing Chorus, Delay, LFO 1, Ensemble or Voice Modulator Delay" (p.144).

### [FEEDBACK]

Specify the amount of feedback for the delayed sound; i.e., the way in which the delayed sounds will gradually diminish over time. With small amounts of feedback, the delayed sounds will diminish quickly after you release the key. As the knob is rotated toward the right, the feedback will increase, and the delayed sounds will diminish over a longer interval after you release the key.



## Changing the type of delay (Delay Type)

The type of delay can be changed as appropriate for the sound or song that you are playing. The JP-8080 provides 5 types of delay.

**PANNING L->R:** The delayed sound is assigned to left and right in the order of left -> right.

**PANNING R->L:** The delayed sound is assigned to left and right in the order of right -> left.

**PANNING SHORT:** The delayed sound is assigned to left and right in the order of right -> left. The delay time is 1/4 of PANNING L->R/R->L.

**MONO SHORT:** The delayed sound is assigned to the center. The delay time is the same as PANNING SHORT.

**MONO LONG:** The delayed sound is assigned to the center. The delay time is twice that of PANNING L->R/R->L.

- \* The delay time will differ depending on the delay type. When [TIME] is rotated fully toward the right, the delay time for each delay type will be as follows.
  - MONO LONG= 1250 ms (1.25 seconds)
  - PANNING L->R/R->L= 625 ms
  - PANNING SHORT, MONO SHORT= 156 ms
- \* In the following cases, the panning delay effect cannot be obtained.
  - When the sound is being sent from the output jacks in MONO.
  - When Output Assign (p.115) is set to PARALLEL OUT.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK[1]-[8] indicators will blink.

### 2 Press [PATCH] (BANK[4]) several times to access the Delay Type display.

The [PATCH] indicator will light.

Delay Type  
PANNING L->R

### 3 Use [DEC]/[INC] to select the desired Delay Type.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Delay Type setting has now been made.

# Chapter 4. Taking Advantage of the Performance Functions

In addition to the parameters which were explained in chapter 3, the JP-8080 provides a variety of functions that you can use to modify the sound in real-time.

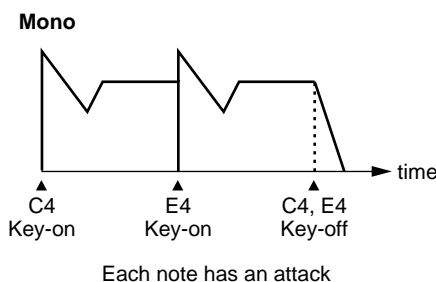
## Playing Single Notes (Solo Switch)

When using a solo instrument sound or when playing single-note solos, it is convenient to select Mono, Legato or Unison so that even if two keys are pressed simultaneously, notes will not overlap or be blurred.

Mono/Legato/Unison can be set independently for each Patch.

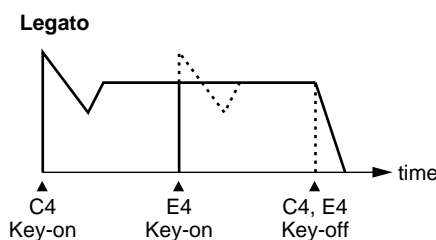
### MONO:

Notes will be articulated individually and cleanly. If you combine this setting with Portamento, your playing will be smoothed.



### LEGATO:

Notes will sound one at a time, and will be joined smoothly to the next note only when you play legato (i.e., pressing the next key before releasing the previous key).



### UNISON:

All voices will sound together. The number of voices which can be sounded simultaneously when the Key Mode is Dual or Split will be according to the Voice Assign setting. (p.116) If both [LEGATO] and [UNISON] are pressed together, notes will be sounded in Legato Unison.

You can also skew the pitches of the voices to create thick sounds. (Unison Detune)

## Solo Switch On/Off

\* When all button indicators for the Solo switch are dark, the JP-8080 is in Polyphonic mode (normal playing condition).

**1 To select the desired mode, press one of the [MONO]/[LEGATO]/[UNISON] buttons to make the indicator light.**

**2 To turn off the selected mode, press the button once again to make the indicator go dark.**

**3 To select Legato Unison, simultaneously press [LEGATO] and [UNISON] to make the indicators of both buttons light.**

\* If at this time you press [MONO]/[LEGATO]/[UNISON], the mode of the button you pressed will be selected.

**4 To turn off Legato Unison, simultaneously press [LEGATO] and [UNISON] to make the indicators of the two buttons go dark.**

\* When Mono or Legato are used, the sound may appear lower in volume than when you play polyphonically. In this case, increase the Patch Gain (p.121).

\* If you select FEEDBACK OSC for the WAVEFORM of OSC 1, [MONO] or [LEGATO] will automatically be turned on. It is not possible to turn this off. Nor will it be possible to turn [UNISON] on.

## Thickening the Unison Sound (Unison Detune)

This setting specifies the difference between the highest and lowest-pitched voices that are sounded simultaneously. This can be set to a maximum of 50 cents (1/2 semitone). Higher settings will produce a thicker sound.

Unison Detune settings can be set independently for each patch.

**1 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

**2 Press [PATCH] (BANK [4]) several times to access the Unison Detune display.**

The [PATCH] indicator will light.



Unison Detune 0

- 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose setting you wish to modify.**

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the settings of both Parts.

In this case, the panel will show the settings of the Upper Patch.

- 4 Use [DEC]/[INC] to set the value.**

- 5 When you finish making settings, press [EDIT] or [EXIT].**

The previous display will reappear.

The Unison Detune settings have now been made.

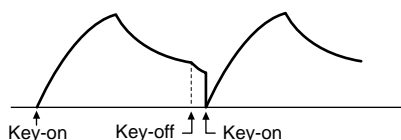
## Playing Analog Synthesizer-like Solos (Envelope Type In Solo)

Analog synthesizers have the characteristic that when key is newly pressed, the sound does not begin from zero, but continues sounding from the continuation of the envelope of the previous sound.

The JP-8080 can simulate this characteristic to add an analog synthesizer-like feel to solos that are played using mono/legato/unison.

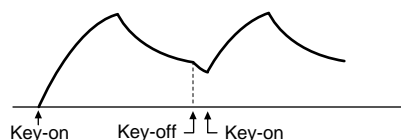
### STANDARD:

The note will begin sounding from envelope zero.



### ANALOG:

The note will begin by continuing the envelope of the previous note.



The Envelope Type In Solo setting can be set independently for each patch.

- 1 Press [EDIT].**

The [EDIT] indicator will light and the BANK[1]–[8] indicators will blink.

- 2 Press [PATCH] (BANK [4]) several times to access the Envelope Type in Solo display.**

The [PATCH] indicator will light.

Env Type in Solo  
STANDARD

- 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose setting you wish to modify.**

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the settings of both Parts.

In this case, the panel will show the settings of the Upper Patch.

- 4 Use [DEC]/[INC] to select STANDARD or ANALOG.**

- 5 When you finish making settings, press [EDIT] or [EXIT].**

The previous display will reappear.

The Envelope Type in Solo settings have now been made.

## Using Key Dynamics to Affect Parameters (Velocity)

You can use velocity (the force (speed) at which notes are played/released) to simultaneously control multiple parameters.

Velocity settings can be made independently for each Patch.



### ■ Part which can be controlled

#### ● When connected to REMOTE KBD IN

The part which will be controlled will depend on the Key Mode

**Single:** The effect will apply to the Patch of the Part selected by Panel Select.

**Split:** Playing keys to the right of (and including) the split point will control the Upper patch, and playing keys to the left of the split point will control the lower patch.

**Dual:** Regardless of the Panel Select setting, the effect will apply to the Patches of both Parts. If you wish to apply an effect only to the Patch of one or the other Part, you can erase the velocity assign settings of the other Patch.

#### ● When connected to MIDI IN

The patch of the part that is set to the same channel as the transmit channel of the external MIDI device will be controlled. (Part MIDI channel: p.118)

## ■ Parameters that can be controlled

The parameters of all sliders/knobs **other than the following** can be controlled by velocity.

- VOLUME [LEVEL]
- [TEMPO]
- VOICE MODULATOR [CONTROL 1] and [CONTROL 2]
- EXTERNAL INPUT [INST/LOWER] and [VOCAL/UPPER]
- Voice Modulator parameters sliders/knobs when both [UPPER] and [LOWER] are blinking

The [R] of the Filter Envelope and Amp Envelope sections are controlled by Note-off velocity. All other parameters are controlled by Note-on velocity.

When using velocity to control the following parameters, the change will occur only upward (or toward the right) if the knob/slider is positioned in the center or toward the right. The change will occur only downward (toward the left) if the knob/slider is positioned at the left or downward. It is not possible to control the parameter through the center (zero) position.

- [LFO1 DEPTH] of the OSC Common section
- [DEPTH] of the Pitch Envelope section
- [LFO1 DEPTH] of the Filter section
- [DEPTH] of the Filter Envelope section
- [LFO1 DEPTH] of the Amp section (except when Manual Pan)
- [DEPTH] of the LFO2 section

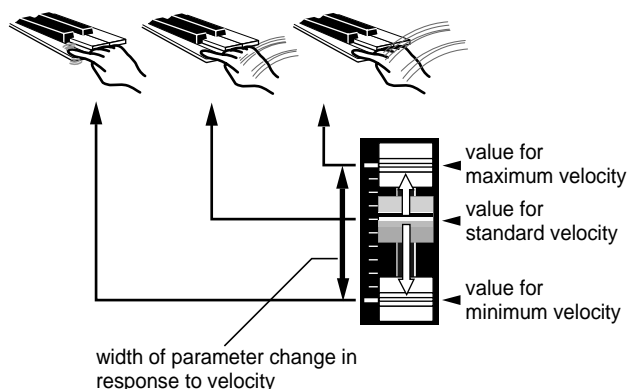
## ■ Velocity On/Off

Pressing [VELOCITY] will toggle Velocity on/off. When this is On, the indicator will light, and velocity will affect the sound as specified by your settings (see the following paragraphs). When this is Off, the sound will not change in response to your playing dynamics.

- \* When Velocity is Off, sound will be produced as though the Note On velocity (the speed at which the key was pressed) and the Note Off velocity (the speed at which the key was released) were 80 (in a range of 127 steps). On the JP-8080, these are referred to as the standard velocity values.

## ■ Specifying the Width of Parameter Change

When you set the width of the parameter change that will occur when velocity changes from the standard value (80) to the maximum value (127), the width of the parameter change that will occur when velocity changes from the standard value (80) to the minimum value (0) will be set automatically.



By moving the slider/knob in the opposite direction, you can also make settings that cause the parameter value to decrease as velocity increases.

- 1 Press [VELOCITY] to turn Velocity On.
- 2 Move the sliders/knobs to create the sound that will be produced by notes played with the standard velocity value.

- 3 Press MORPHING [VELOCITY ASSIGN].

The indicator will blink, and the velocity assign page will appear.



if settings have already been made

Velocity Assign  
All Clear[WRITE]

if settings have not yet been made

Velocity Assign  
(Not Assigned)

To cancel the settings, press [VELOCITY ASSIGN] or [EXIT].

- 4 Create the sound that will be produced by notes played with the maximum velocity.

These operations will determine the width over which the parameters will change.

If you move a slider/knob for which the width of change has already been set, the previous setting will be overwritten and changed.

- 5 Press [VELOCITY ASSIGN] or [EXIT].

The indicator will change to lit, and the previous display will reappear.

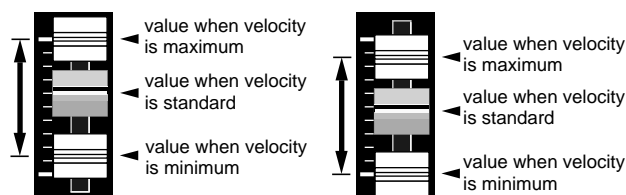
This completes velocity settings.

If velocity settings have been made, the [VELOCITY ASSIGN] indicator will always be lit. Conversely, if the [VELOCITY ASSIGN] indicator is dark, no parameter changes have been assigned, and the sound will not change in response to your playing dynamics even if the [VELOCITY] indicator is lit.

- 6 Return the sliders/knobs to the positions in which they were set for step 2.

When the MIDI keyboard is played with different velocities, the various parameter values will change in the amount specified by step 4, relative to the current slider/knob positions.

This means that if you move the sliders/knobs after making settings, this will change the parameter values that are produced when you play at the standard velocity. The width of the change will not be affected.



moved while keeping the same range of change

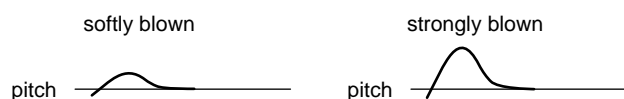
- \* When you wish to check the width of the parameter change, press [VELOCITY ASSIGN] while appearing the Temporary Scope display, and then move the sliders/knobs (Velocity Scope: p.63).
- \* If you wish to view the width of parameter change in the display as you adjust the setting, press [VELOCITY ASSIGN] when the Edit Scope page is desired, and then move the slider/knob (Velocity Edit Scope: p.64).
- \* If velocity is used simultaneously with Control Assign (p.84), Vocal Morph Control (p.104) or Motion Control (p.98), any overlapping parameters will have their values added to produce the resulting change.

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#### ● Brass instrument attacks

On brass instruments such as the trumpet, an “instability in pitch” occurs when breath is first blown into the instrument. The degree of this instability depends on the force of the breath.

By setting OSC COMMON [LFO 1 & ENV DESTINATION] to OSC 1+2, and setting PITCH ENVELOPE [DEPTH] and AMP [LEVEL] for velocity, softly played notes will have little pitch change, and strongly played notes will have a large pitch change, producing a more realistic simulation of a brass instrument.

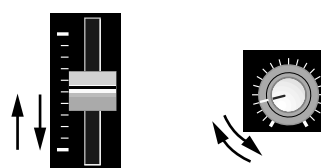


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## Canceling the Settings of a Parameter

If you wish to cancel the settings only for a specific parameter of the parameters being controlled, use the following procedure to set the width of change to 0 for that parameter.

- 1 **Move the slider/knob to the lowest (or the far left) position for the parameter whose settings you wish to cancel.**
- 2 **Press MORPHING [VELOCITY ASSIGN].**  
The indicator will blink, and the velocity assign page will appear.
- 3 **Slightly raise (or rotate to the right) the slider/knob, and then return it to the lowest (far left) position.**



- 4 **Press [VELOCITY ASSIGN] or [EXIT].**  
The indicator will light (or go dark if all parameters were canceled), and the previous display will reappear.  
The parameter settings have now been canceled.
  - 5 **Move the slider/knob to the desired position.**
- \* It is also possible to use Velocity Edit Scope (p.64) to set the width of parameter change to zero.

## Canceling the Settings of All Parameters

- 1 **Press MORPHING [VELOCITY ASSIGN].**  
The indicator will blink, and the velocity assign page will appear.
- 2 **Press [WRITE].**  
The display will indicate “Completed.”  
All parameter settings have now been canceled.
- 3 **Press [VELOCITY ASSIGN] or [EXIT].**  
The indicator will go dark, and the previous display will reappear.

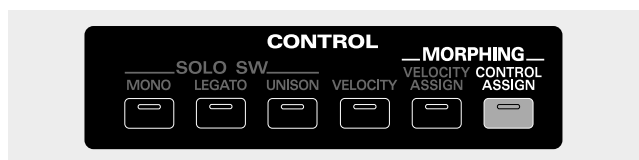
## Controlling Multiple Parameters Simultaneously (Control Assign)

MIDI messages (aftertouch and breath) can be used to simultaneously control multiple parameters. Make settings on your external MIDI device so that moving a controller (slider, etc.) will transmit aftertouch/breath messages. This will allow you to modify the sound as if many sliders/knobs were moved simultaneously.

- \* The ribbon controller of the Roland JP-8000 synthesizer will transmit aftertouch messages when you touch the right side, and breath messages when you touch the left side. This provides an easy way to control the control assign settings of the JP-8080.

You can also modify the settings so that MIDI messages other than aftertouch or breath can be used for control. (p.86)

Control assign settings are made independently for each patch.



### ■ Part which will be controlled

#### ● When connected to REMOTE KBD IN

The part which will be controlled will depend on the key mode.

**Single, Split:** The effect will apply to the Patch of the Part selected by Panel Select.

**Dual:** Regardless of the Panel Select setting, the effect will apply to the Patches of both Parts. If you wish to apply an effect only to the Patch of one or the other Part, you can erase the control assign settings of the other Patch.

#### ● When connected to MIDI IN

The patch of the part that is set to the same channel as the transmit channel of the external MIDI device will be controlled. (Part MIDI channel: p.118)

### ■ Parameters which can be controlled

The parameters of all sliders/knobs **other than the following** can be controlled by MIDI messages (aftertouch and breath).

- VOLUME [LEVEL]
- [TEMPO]
- VOICE MODULATOR [CONTROL 1] and [CONTROL 2]
- EXTERNAL INPUT [INST/LOWER] and [VOCAL/UPPER]
- Sliders/knobs of the Voice Modulator parameters when both [UPPER] and [LOWER] are blinking

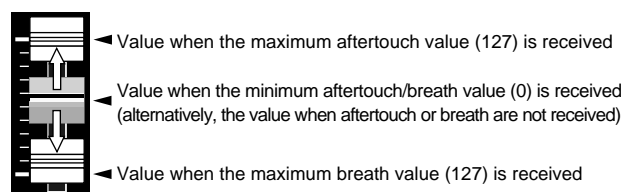
When using Control Assign to control the following parameters, the change will occur only upward (or toward the right) if the knob/slider is positioned in the center or toward the right. The change will occur only downward (toward the left) if the knob/slider is positioned at the left or downward. It is not possible to control the parameter through the center (zero) position.

- [LFO1 DEPTH] of the OSC Common section
- [DEPTH] of the Pitch Envelope section
- [LFO1 DEPTH] of the Filter section
- [DEPTH] of the Filter Envelope section
- [LFO1 DEPTH] of the Amp section (except when Manual Pan)
- [DEPTH] of the LFO2 section

## Specifying the Width of Parameter Change

Of the specified width of parameter change, half will be controlled by aftertouch, and half by breath.

When you set the width of the parameter change that will occur when aftertouch changes from minimum value (0) to the maximum value (127), the width of the parameter change that will occur when breath changes from the minimum value (0) to the maximum value (127) will be set automatically.



By moving the slider/knob in the opposite direction, you can make settings so that the parameter value will decrease when aftertouch is received.

#### 1 Move the sliders/knobs to create the sound that will be heard when the aftertouch/breath value of zero is received (or when aftertouch or breath have not been received).

These operations will determine the basic values from which the various parameters will begin to change.

#### 2 Press MORPHING [CONTROL ASSIGN].

The indicator will blink, and the control assign page will appear.



if settings have already been made

Control Assign  
All Clear[WRITE]

if settings have not yet been made

Control Assign  
(Not Assigned)

To cancel the settings, press [CONTROL ASSIGN] or [EXIT].

### 3 Create the sound that will be heard when the maximum value (127) of aftertouch is received.

These operations will determine the width over which the parameters will change.

Moving a slider/knob for which the width of change has already been set will overwrite and modify the previously made settings.

By operating the controller of the external MIDI device, you can audition the current settings (the change in sound). Conversely, when the [CONTROL ASSIGN] indicator is blinking, the sound will not change even if you move the sliders/knobs, unless the controller of the external MIDI device is operated.

### 4 Press [CONTROL ASSIGN] or [EXIT].

The indicator will change to lit, and the previous display will reappear.

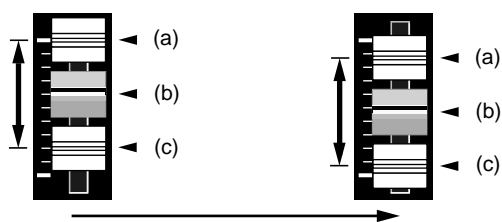
This completes control assign settings.

If control assign settings have been made, the [CONTROL ASSIGN] indicator will always be lit. Conversely, if the [CONTROL ASSIGN] indicator is dark, no parameter changes have been assigned, and the sound will not change even if you operate the controller of the external MIDI device.

### 5 Return the sliders/knobs to the positions in which they were set for step 1.

When you operate the controller of the external MIDI device, the values of each parameter will change in the amount specified in step 3, centered at the current positions of the sliders/knobs.

This means that if you move the sliders/knobs after making settings, the parameter values which correspond to an aftertouch/breath value of zero will change. The width of change will not change.



moved while keeping the same range of change

- (a) Value when the maximum aftertouch value (127) is received
- (b) Value when the minimum aftertouch/breath value (0) is received (alternatively, the value when aftertouch or breath are not received)
- (c) Value when the maximum breath value (127) is received

- \* When you wish to check the width of the parameter change, press [CONTROL ASSIGN] while appearing the Temporary Scope display, and then move the sliders/knobs (Control Scope: p.63).
- \* If you wish to view the width of parameter change in the display as you make settings, press [CONTROL ASSIGN] when the Edit Scope page is displayed, and move the sliders/knobs (Control Edit Scope: p.64).

- \* If the Control Assign is used simultaneously with Velocity (p.81) or Motion Control (p.98), any overlapping parameters will have their values added to produce the resulting change.
- \* Vocal Morph Control (p.104) parameters can also be controlled by aftertouch or breath. Thus, if these are controlled simultaneously, the last-arriving control message will change the parameter value.

## Modifying the Pitch (Morph Bend Assign Switch)

If you turn on the Morph Bend Assign Switch, the pitch will change simultaneously with the other parameters.

When Aftertouch messages are received, the pitch will change according to the value specified for Bend Range Up (p.89). When Breath messages are received, the pitch will change according to the value specified for Bend Range Down (p.89).

However, this is only for reception from REMOTE KBD IN. In the case of reception from MIDI IN, there will no change.

You can change this so that MIDI messages other than Aftertouch or Breath can be used for control (p.86).

This parameter can be set independently for each patch.

### 1 Press [EDIT].

The [EDIT] indicator will light, and the BANK[1]–[8] indicators will blink.

### 2 Press [PATCH] (BANK [4]) several times to select the Morph Bend Assign Switch page.

The [PATCH] indicator will light.

Morph Bend Assign  
OFF

### 3 Press PANEL SELECT [LOWER]/[UPPER] to select the part whose settings you wish to change.

If you press [LOWER]/[UPPER] simultaneously, both indicators will light and you can simultaneously modify the settings of both parts.

In this case, the panel will indicate the settings of the Upper patch.

### 4 Press [DEC]/[INC] to turn this ON.

### 5 When you have finished making settings, press [EDIT] or [EXIT].

You will return to the previous display.

The Morph Bend Assign Switch setting has now been made.

## Canceling the Settings of a Parameter

If you wish to cancel the settings only for a specific parameter of the parameters being controlled, use the following procedure to set the width of change to 0 for that parameter.

- 1 Move the slider/knob to the lowest (far left) position for the parameter whose settings you wish to cancel.
- 2 Press MORPHING [CONTROL ASSIGN].  
The indicator will blink, and the control assign page will appear.
- 3 Slightly raise (or rotate to the right) the slider/knob, and then return it to the lowest (far left) position.



- 4 Press [CONTROL ASSIGN] or [EXIT].  
The indicator will light (or go dark if all parameters were canceled), and the previous display will reappear.

The parameter settings have now been canceled.

- 5 Move the slider/knob to the desired position.

\* You can also use the Control Edit Scope (p.64) to set the width of parameter change to zero.

## Canceling the Settings of All Parameters

- 1 Press MORPHING [CONTROL ASSIGN].  
The indicator will blink, and the control assign page will appear.

- 2 Press [WRITE].

The display will indicate "Completed."

All parameter settings have now been canceled.

Also, the Morph Bend Assign Switch will be turned OFF.

- 3 Press [CONTROL ASSIGN] or [EXIT].

The indicator will go dark, and the previous display will reappear.

## Control Using MIDI Messages Other Than Aftertouch and Breath (Control Up/Down)

You can make settings in order to control using MIDI messages other than aftertouch and breath (MODULATION: CC01–CC31, CC33–PHASER: CC95, AFTERTOUCH). If this is turned OFF, control assign settings will have no effect even when the controllers of your external MIDI device are operated.

Control Up/Down settings are common to the entire JP-8080.

- 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

- 2 Press [MIDI] (BANK [5]) several times to access the Control Up or Control Down display.

The [MIDI] indicator will light.

Control Up  
AFTERTOUCH

Control Down  
BREATH: CC02

- 3 Use [DEC]/[INC] to set the value.

- 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Control Up/Down settings have now been made.

## Adding Cyclic Change (MODULATION (LFO 2))

Chapter 3 explained how to use LFO 1 to cyclically modulate the sound, but you can also use the modulation lever of a MIDI keyboard to apply modulation from LFO 2 at a different frequency than LFO 1. Since the sound will be affected only when you move the modulation lever, this is a useful way to add accents to your performance.

The LFO 2 waveform is triangle wave. When the modulation lever is moved, the pitch, brightness, and volume will be modified simultaneously, each according to the Rate and the various Depth settings that you have made.

LFO 2 settings are made independently for each Patch.



### ■ Part(s) which can be controlled

#### ● When connected to REMOTE KBD IN

The part(s) which will be controlled will depend on the key mode.

**Single, Split:** The effect will apply to the Patch of the Part selected by Panel Select.

**Dual:** Regardless of the Panel Select setting, the effect will apply to the Patches of both Parts. If you wish to apply an effect only to the Patch of one or the other Part, you can erase the control assign settings of the other Patch.

#### ● When connected to MIDI IN

The patch of the part which is set to the same channel as the transmit channel of the external MIDI device will be controlled. (Part MIDI channel: p.118)

### [DEPTH SELECT]

Press [DEPTH SELECT] to select one of the following three objects for which you will set the depth of modulation.

**PITCH:** Set the depth of the LFO 2 effect on pitch. This produces vibrato.

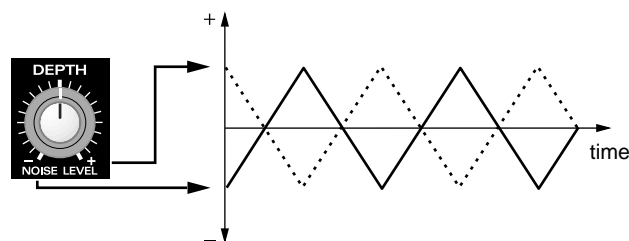
**FILTER:** Set the depth of the LFO 2 effect on the filter (brightness). This produces a wah effect.

**AMP (amplifier):** Set the depth of the LFO 2 effect on the amplifier (volume). This produces tremolo.

### [DEPTH]

Rotate [DEPTH] to set the depth of the LFO 2 effect on the currently selected Depth Select item (PITCH, FILTER, or AMP).

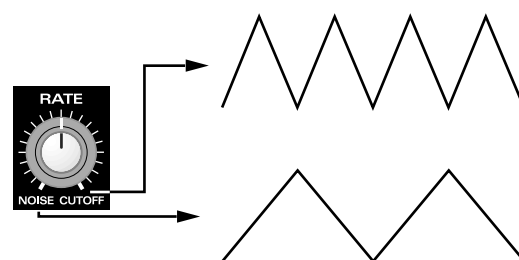
Rotating the knob to the right of center will produce a greater effect. Rotating the knob to the left of center will invert the LFO 2 waveform and produce a greater effect. With a setting of center, LFO 2 will not affect the sound.



### [RATE]

Rotate [RATE] to set the speed of modulation for LFO 2. Rotating the knob toward the right will produce faster modulation.

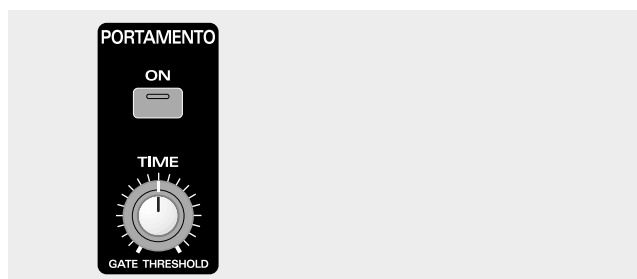
The Rate setting is common to PITCH, FILTER, and AMP. These cannot be set separately.



## Smoothly Changing the Pitch Between Notes (Portamento)

Portamento is a function that smoothly changes the pitch from the first-played note to the pitch of the next-played note. It is effective to use Portamento when playing in Mono mode.

Portamento settings can be made independently for each Patch.

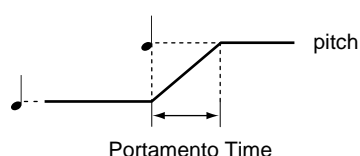


### [ON] (Portamento Switch)

Each time you press [ON], the Portamento effect will be turned on/off. When it is on the indicator will light, and the pitch of the sound will change smoothly, similarly to the way in which notes on a string instrument such as a violin can be shifted smoothly by sliding the finger which is pressing the string along the fingerboard without releasing the string. This effect is especially effective when playing sounds such as whistle or trombone.

### [TIME]

Rotate [TIME] to set the time over which the pitch will change (Portamento Time). As the knob is rotated toward the right, the Portamento Time will become longer, and the pitch change will be slower.



## Transposing Your Performance (Part Transpose)

Part Transpose allows you to modify the pitch that is produced when you play the MIDI keyboard, over a range of  $\pm 2$  octaves. When you need to adjust the key to other instruments or a vocal performer, you can use the Part Transpose function to change the pitch while still using the same fingering as before. This function also allows songs in a difficult key (with many sharps or flats) to be played in a simple key with easier fingering. Since Part Transpose can be set independently for each Part of a Performance, you can use it to create pitch differences between the pitch of the Parts to produce parallel harmony at a 4th or 5th interval.

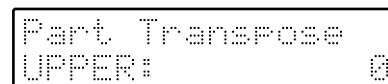
\* Note messages transmitted from MIDI OUT are not transposed.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [PART] (BANK [3]) several times to access the Part Transpose display.

The [PART] indicator will light.



### 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose setting you wish to modify.

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the settings of both Parts.

In this case, the panel will show the settings of the Upper Patch.

### 4 Use [DEC]/[INC] to set the value.

### 5 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Part Transpose settings have now been made.



## Changing the Pitch (Bend Range Up/Down)

When the pitch bend lever of a MIDI keyboard is moved left/right (or up/down, in the case of a wheel), the pitch of the notes you play will change. The bend range (width of pitch change) can be set in semitone steps, up to a maximum of  $\pm 2$  octaves.

Bend Range Up/Down settings can be made independently for each patch.

### Bend Range Up 0– +24

the pitch bend lever is moved to the far right position (or for a wheel, the fully upward position).

### Bend Range Down -24–0

the pitch bend lever is moved to the far left position (or for a wheel, the fully downward position).

## ■ Part(s) which can be controlled

### ● When connected to REMOTE KBD IN

The part(s) which will be controlled will depend on the key mode.

**Single, Split:** The effect will apply to the Patch of the Part selected by Panel Select.

**Dual:** Regardless of the Panel Select setting, the effect will apply to the Patches of both Parts. If you wish to apply an effect only to the Patch of one or the other Part, you can erase the control assign settings of the other Patch.

### ● When connected to MIDI IN

The patch of the part that is set to the same channel as the transmit channel of the external MIDI device will be controlled. (Part MIDI channel: p.118)

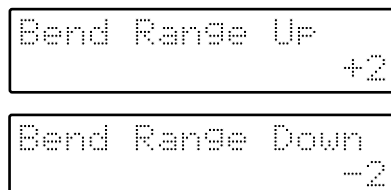
## ■ Setting the Bend Range Up/Down

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [PATCH] (BANK [4]) several times to access the Bend Range Up or Bend Range Down display.

The [PATCH] indicator will light.



### 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose setting you wish to modify.

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the settings of both Parts.

In this case, the panel will show the settings of the Upper Patch.

### 4 Use [DEC]/[INC] to set the value.

### 5 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Bend Range settings have now been made.

### ● Guitar vibrato tailpiece simulation

If the Bend Range Down is set to the maximum (2 octaves), you will be able to produce a sudden drop in pitch similar to that produced by leaning on the vibrato arm of an electric guitar.

# Chapter 5. Producing Arpeggios When Chords are Played (Arpeggiator)

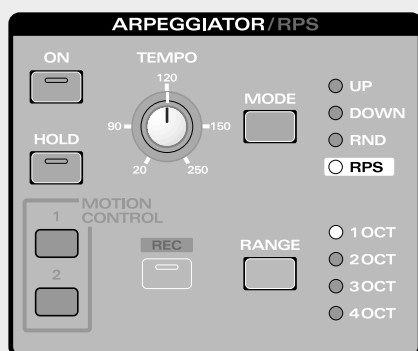
Here's how to use the arpeggiator to play arpeggios automatically.

- \* The arpeggiator is controlled by note messages received at REMOTE KBD IN. It is not possible to control the arpeggiator from MIDI IN.

## Playing Arpeggios

The arpeggiator (UP, DOWN, UP&DOWN, RANDOM) allows you to play arpeggios (broken chords) simply by holding a chord.

- \* The data of the arpeggios will be transmitted from the MIDI OUT connector.



### Parts which will be arpeggiated

The Part(s) which will be arpeggiated will depend on the key mode.

**SINGLE:** The Part selected by Panel Select can be arpeggiated.

**DUAL:** The sound of only the Upper/Lower, only the Upper, or both the Lower and Upper Parts can be layered. For details refer to "Selecting the Part for Arpeggiation in Dual Mode (Arpeggio Destination)" (p.91).

**SPLIT:** Only the Lower Part will be arpeggiated. By setting Oscillator Shift (p.71) to a positive (+) setting, you can cause the arpeggio to be played with notes higher than the Lower keyboard area.

## Settings for Playing

Arpeggiator settings are made in the ARPEGGIATOR/RPS section.

These settings can be made independently for each Performance.

### [ON] (Arpeggio/RPS Switch)

Turn the arpeggiator on/off. When this is On the indicator will light, and the MIDI keyboard will play arpeggios. When this is Off the indicator will be dark, and the MIDI keyboard can be played normally.

- \* When RPS is selected for [MODE], the [ON] button will turn RPS on/off.

### [MODE]

Select one of the following four modes for the arpeggiator.

**UP:** The keys you press will sound in order of pitch beginning with the lowest.

**DOWN:** The keys you press will sound in order of pitch beginning with the highest.

**UP&DOWN:** The keys you press will sound in order of pitch, going from lowest to highest, and then back down to lowest. For this setting, both the UP and the DOWN indicators will light.

**RND:** The keys you press will sound in random order.

- \* If RPS is selected, you will be able to use RPS (p.92), but the arpeggiator will not be available.
- \* The Mode setting can be changed even when arpeggiator is off.

### [RANGE] (Arpeggio Range)

Select one of the following four ranges in which the arpeggio will sound.

**1 OCT:** The arpeggio will sound in a one octave range (only the notes of the chord that you press).

**2 OCT:** The arpeggio will sound in a two-octave range.

**3 OCT:** The arpeggio will sound in a three-octave range.

**4 OCT:** The arpeggio will sound in a four-octave range.

- \* The Range setting can be changed even when arpeggiator is off.

## [HOLD] (Arpeggio/RPS Hold Switch)

This switches Hold on/off for the arpeggiator. When Hold is On the indicator will light, and the arpeggio will continue playing even if you take your fingers off the keys. If you play a different chord while the arpeggio is being held, the arpeggio will change.

To stop the arpeggio, press [HOLD] to turn Hold off. When Hold is off, the arpeggio will play only while you continue pressing the key(s).

## [TEMPO]

This sets the tempo of the arpeggio. Rotating the knob toward the right will speed up the tempo.

- \* It is also possible to synchronize the tempo to MIDI Clock messages transmitted by a sequencer etc. For details refer to "MIDI Sync" (p.123), and "Synchronizing Arpeggio, Pattern or Motion" (p.144).

## Changing the Beat of the Arpeggio (Arpeggio Beat Pattern)

This setting determines the Beat Pattern of the arpeggio. The location of the accents and the note lengths of the arpeggio will change, modifying the beat (rhythm).

The Beat Pattern can be set independently for each Performance.

### Beat Pattern types

1/4, 1/6, 1/8, 1/12, 1/16, 1/32, PORTA-A1-11, PORTA-B1-15, SEQUENCE-A1-7, SEQUENCE-B1-5, SEQUENCE-C1-2, SEQUENCE-D1-8, ECHO1-3, MUTE1-16, STRUMMING1-8, REFRAIN1-2, PERCUSSION1-4, WALKING BASS, HARP, RANDOM

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK[1]-[8] indicators will blink.

### 2 Press [PFM COMMON] (BAN [1]) several times to access the Arpeggio Beat Pattern display.

The [PFM COMMON] indicator will light.

Arpeggio Beat Pattern  
1/4

### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Arpeggio Beat Pattern setting has now been made.

## Selecting the Part for Arpeggiation in Dual Mode (Arpeggio Destination)

When the Key mode is Dual, you can select one of three ways in which the Upper or Lower Part will be arpeggiated.

The Arpeggio Destination can be set independently for each Performance.

**LOWER & UPPER:** Arpeggios will be played with the layered sounds of both the Upper and Lower Parts.

**LOWER:** Arpeggios will be played only in the Lower Part. For example, this would allow you to play chords in the Upper Part and play arpeggios in the Lower Part.

**UPPER:** Arpeggios will be played only in the Upper Part.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]-[8] indicators will blink.

### 2 Press [PFM COMMON] (BANK [1]) several times to access the Arpeggio Destination display.

The [PFM COMMON] indicator will light.

Arpeggio Dest  
LOWER & UPPER

### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Arpeggio Destination setting has now been made.

.....

### ● Technique for simultaneously playing chords and arpeggios in Dual mode

If you wish to set the arpeggio destination to LOWER and play chords and arpeggios simultaneously, we recommend that you use the Voice Assign parameter (p.116) to decrease the number of voices assigned to the arpeggio (Lower), and increase the number of voices assigned to the chord (Upper).

.....

# Chapter 6. Playing Original Patterns with One Finger (RPS)

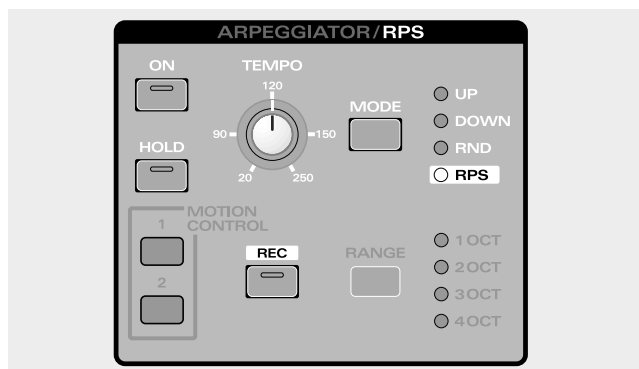
RPS is a function which lets you playback a pattern simply by pressing a single note.

- \* RPS is controlled by note messages received at REMOTE KBD IN. It is not possible to control RPS from MIDI IN.

## Playing Patterns

RPS (Realtime Phrase Sequence) is a function that lets you assign various musical patterns to each of the keys on the MIDI keyboard, and play them with just one finger. The forty-eight keys from C#2 (note number 37)–C6 (note number 84) can be assigned an original pattern that you record, and at any time you can play a desired pattern using just one finger.

- \* The data of the RPS Patterns will be transmitted from the MIDI OUT connector.



### ■ Parts which will play Patterns

The Part(s) which will play the Patterns will depend on the Key Mode.

**SINGLE:** The Part selected by Panel Select will play the pattern.

**DUAL:** The sound of both Upper and Lower parts will be layered and will play the pattern.

**SPLIT:** Only the Lower Part will play the pattern.

### ■ Cautions when playing Patterns in Split mode

When in Split mode, only the Lower keyboard area can playback patterns. This means that when playing patterns in Split mode, the patterns you wish to use must be assigned to the keys in the Lower area (“Copying a Pattern” (p.97)).

Also, when playing patterns in Split mode, you must make Voice Assign settings (p.116) so that the number of voices assigned to Lower is greater than the number of notes which occur at the same timing within the pattern.

If the number of voices assigned to Lower is less than the number of notes which occur at the same timing within the pattern, the pattern cannot be played back correctly.

## Settings for Playing

RPS settings are made in the ARPEGGIATOR/RPS section.

These settings can be made independently for each Performance.

### [ON] (Arpeggio/RPS Switch)

Turn the RPS on/off. When this is On the indicator will light, and the MIDI keyboard will play patterns. When this is Off the indicator will be dark, and the MIDI keyboard can be played normally.

- \* When a setting other than RPS is selected for [MODE], the [ON] button will turn the arpeggiator on/off.

### [MODE]

To use RPS, turn on the RPS indicator.

- \* With a selection other than RPS, the arpeggiator will be available (p.90), but RPS cannot be used.
- \* The Mode setting can be changed even when RPS is off.

### [HOLD] (Arpeggio/RPS Hold Switch)

This switches Hold on/off for the RPS. When Hold is On the indicator will light, and the pattern will continue playing even if you take your fingers off the keys. If you play a different key while the pattern is being held, the pattern will change.

To stop a pattern, either press [HOLD] to turn it off, or press a key outside the C#2 (note number 36)–C6 (note number 84) range. By pressing such a key you can stop the pattern without turning Hold off.

When Hold is off, the pattern will play only while you continue pressing the key(s).

### [TEMPO]

This sets the tempo of the pattern. Rotating the knob toward the right will speed up the tempo.

- \* It is also possible to synchronize the tempo to MIDI Clock messages transmitted by a sequencer etc. For details refer to “MIDI Sync” (p.123), and “Synchronizing Arpeggio, Pattern or Motion” (p.144).

## Setting the Timing at Which Patterns Will Switch (Pattern Trigger Quantize)

If while a certain pattern is playing back you press another key, the pattern of the later-pressed key will be selected. The Pattern Trigger Quantize setting determines the timing at which the next pattern is selected.

Pattern Trigger Quantize is common to the entire JP-8080.

**OFF:** Patterns will switch at the moment that a key is pressed.

**BEAT:** Patterns will switch at the beginning of the next beat that occurs after the key is pressed.

**MEASURE:** Patterns will switch at the beginning of the measure beat that occurs after the key is pressed.

While Pattern 1 is playing back, press the key for Pattern 2 at this timing

**OFF**

**BEAT**

**MEASURE**

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [SETUP] (BANK [6]) several times to access the Pattern Trigger Quantize display.

The [SETUP] indicator will light.

```
Pattern Trig Qtz
          BEAT
```

### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Pattern Trigger Quantize setting has now been made.

- \* When MIDI Sync (p.123) is set to either MIDI IN or REMOTE KBD IN, you can apply Trigger Quantize in synchronization with the beginning of a pattern or an arpeggio.

## Playing a Pattern That was Saved on a Memory Card

Forty-eight patterns that were recorded into internal memory can be saved on a memory card. (p.131)

Patterns that have been saved on a memory card can be selected and played back directly.

### 1 Make sure that memory card is inserted in the card slot.

- \* If a card is not inserted, turn off the power before inserting it.

### 2 Hold down [SHIFT] and press [CARD] (NUMBER [2]).

While you hold down [SHIFT], the [CARD] indicator will light.

Now you can playback patterns that have been saved on the memory card.

Make settings for playback (p.92), and play the pattern.

### 3 To return to playing internal patterns, hold down [SHIFT] and press [USER] (NUMBER [1]).

- \* If no patterns have been stored in the memory card, it will not be possible to select [CARD] RPS.
- \* When playing a pattern that has been saved in a memory card, there may be cases in which the timing may become incorrect. If this occurs, restore the data to internal memory (p.135) before playing it.

# Recording a Pattern

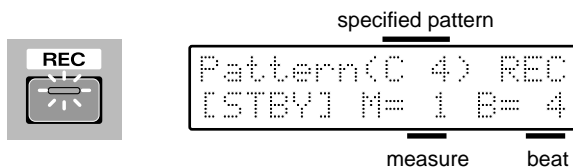
This section explains the procedure for recording a pattern.

- \* Patterns are recorded into internal memory. It is not possible to record a pattern directly into a memory card.

## Settings for Recording

Before you record a pattern, you must set recording-related parameters.

- 1 Press **ARPEGGIATOR/RPS [ON]**.  
The indicator will light.
- 2 Press **[MODE]** several times to select **RPS**.  
The RPS indicator will light.
- 3 If a card pattern is selected, hold down **[SHIFT]** and press **[USER]** (NUMBER [1]) to select an internal pattern.
- 4 Hold down **[REC]**, and press the key for which you wish to record a pattern.  
The indicator will blink, and you will enter Recording Standby mode. The MIDI keyboard will be in normal playing condition.



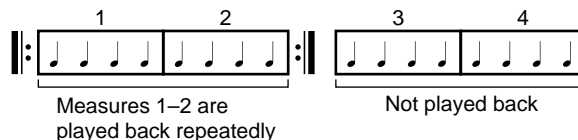
- \* In Recording Standby mode (while **[REC]** is blinking), your playing on the MIDI keyboard will not be recorded.
- 5 Press **[LOOP LENGTH]–[METRONOME]** (NUMBER [1]–[4]) to select a parameter.  
    - \* When in Preview mode, press **[PREVIEW]** to exit Preview mode, and then press the desired button.
  - 6 Use **[DEC]/[INC]** to set the value.  
    - The indicator of the button you pressed will light.
  - 7 To return to the recording standby page, press a **[LOOP LENGTH]–[METRONOME]** button whose indicator is lit, or press **[EXIT]**.  
    - Now you can record a pattern. (p.95)
    - To exit recording standby mode, press **[EXIT]**.
- \* These settings can also be made during recording (**[REC]** lit). (p.95)
  - \* The time signature is fixed at 4 beats.

## ■ [LOOP LENGTH] 1–4 (measures)

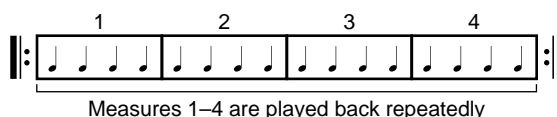
Specify the number of measures in the pattern for recording/playback.

The pattern will be played/recorded repeatedly from the first measure to the number of measures that you specify.

### ◆ Loop Length: setting of 2 measures



### ◆ Loop Length: setting of 4 measures



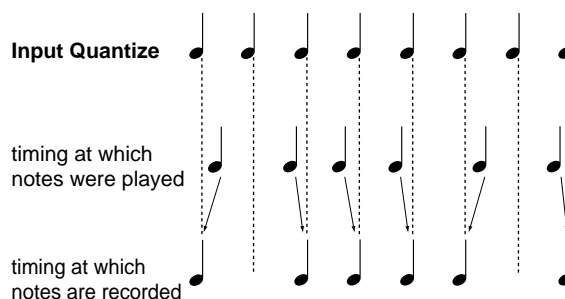
- \* Even if you shorten the Loop Length, the data of the measures not played back will not disappear. If you once again lengthen the Loop Length, the original data will still be played back.

## ■ [QUANTIZE] (Input Quantize)

Input Quantize is a function that aligns the timing of notes played on the MIDI keyboard, moving their timing to precise intervals as they are recorded. If you use Input Quantize, your recording will be rhythmically “tight” even if the timing of your playing is slightly off.

**OFF** : Quantization will not be applied. Notes will be recorded at the timing that you played them.

- ♪ : Notes will be aligned to the nearest 16th note triplet.
- ♪ : Notes will be aligned to the nearest 16th note.
- ♪ : Notes will be aligned to the nearest 8th note triplet.
- ♪ : Notes will be aligned to the nearest 8th note.
- ♪ : Notes will be aligned to the nearest quarter note triplet.
- ♪ : Notes will be aligned to the nearest quarter note.



## ■ [GATE TIME] (Gate Time Ratio)

This sets the length of the notes being recorded, relative to the Input Quantize setting. This will cause notes to have a uniform length regardless of how they were played, and is useful when you wish to record mechanical-sounding phrases.

\* If Input Quantize is turned Off, the Gate Time Ratio setting is ignored, and notes will be recorded with the length that they were played.

**REAL:** Notes will be recorded with the length that they were played.

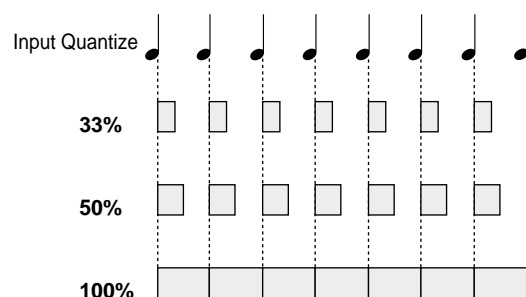
**STACCATO:** Notes will be recorded with a short length (staccato).

**33%:** Notes will be recorded with a length that is 33% of the Input Quantize setting.

**50%:** Notes will be recorded with a length that is 50% of the Input Quantize setting.

**66%:** Notes will be recorded with a length that is 66% of the Input Quantize setting.

**100%:** Notes will be recorded with a length that is 100% of the Input Quantize setting.



## ■ [METRONOME]

This selects the type of metronome sound and its volume.

**Beep: VOLUME 4-1:**

An electronic sound (chirp) metronome will be heard.

**OFF:** The metronome will not sound.

**Click: VOLUME 1-4:**

A pulse sound (blip) metronome will be heard.

## Recording a Pattern

Patterns can be recorded to the forty-eight notes in the range C#2 (note number 37)–C6 (note number 84).

Pattern recording will occur using a method called Loop Mix Recording, in which a pattern of a fixed length will be played back repeatedly, and new notes added to the previously-recorded notes.

**Make settings for recording, and if you are in record standby mode, continue reading from step 6.**

\* Do not turn off the power during pattern recording. Pattern or Motion data (including previously-recorded data) may be lost.

### 1 Press ARPEGGIATOR/RPS [ON].

The indicator will light.

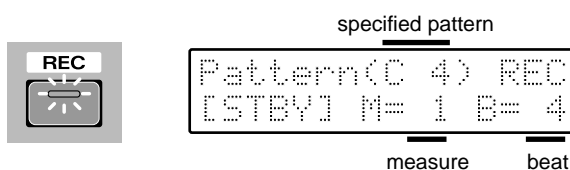
### 2 Press [MODE] several times to select RPS.

The RPS indicator will light.

### 3 If a card pattern is selected, hold down [SHIFT] and press [USER] (NUMBER [1]) to select an internal pattern.

### 4 Hold down [REC], and press the key for which you wish to record a pattern.

The indicator will blink, and you will enter Recording Standby mode. The MIDI keyboard will be in normal playing condition.



### 5 Press [LOOP LENGTH]–[METRONOME] (NUMBER[1]–[4]) to set the recording parameters (“Settings for Recording”, p.94).

After making settings, return to Recording Standby mode by pressing a button [LOOP LENGTH]–[METRONOME] whose indicator is lit or by pressing [EXIT].

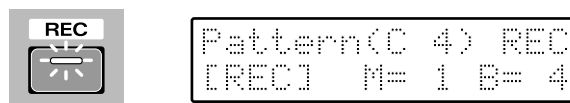
### 6 Use [TEMPO] to specify a tempo that is comfortable for recording.

In Recording Standby mode (while [REC] is blinking), your playing on the MIDI keyboard will not be recorded. You can practice to try out the tempo.

\* If you record a pattern when the Key Mode is Split, all keys will use the sound of the Lower Patch.

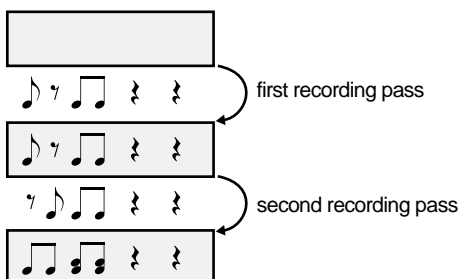
### 7 Press [REC].

The [REC] indicator will change to being lit, and recording will begin.



### 8 Listen to the metronome, and record in time with the count.

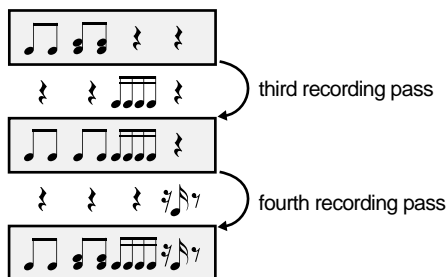
The notes you play will be successively layered.



\* Up to 10 notes can be recorded at the same timing.

## 9 During recording (while [REC] is lit) you can also modify the recording parameters.

By modifying Input Quantize and/or Gate Time Ratio setting etc., you can record notes of different length.



After you make settings, you can return to the recording display by pressing a button [LOOP LENGTH]–[METRONOME] whose indicator is lit or by pressing [EXIT].

## 10 To stop recording, press [REC] or [EXIT].

When you press [REC], the JP-8080 will enter record-ready status ([REC] blinking). You can return once again to step 7 and record. To return from record-ready status to the normal condition, press [EXIT].

Press [EXIT] to return to normal playing condition ([REC] dark).

The pattern has now been recorded.

- \* Patterns that were recorded to internal memory can be stored on a memory card. (p.131)

## Erasing Unwanted Notes

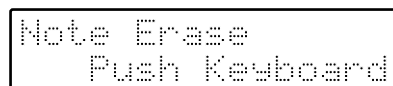
During recording you can erase unwanted notes to correct your pattern. Use the MIDI keyboard to specify the note and duration that you wish to erase.

- \* Do not turn off the power during the Pattern Erase operation. Pattern or Motion data (including previously-recorded data) may be lost.
- \* It is not possible to erase unwanted notes during Recording Standby.

### 1 Enter record mode with the pattern that you wish to correct (p.95).

### 2 Press [ERASE] (NUMBER [5]).

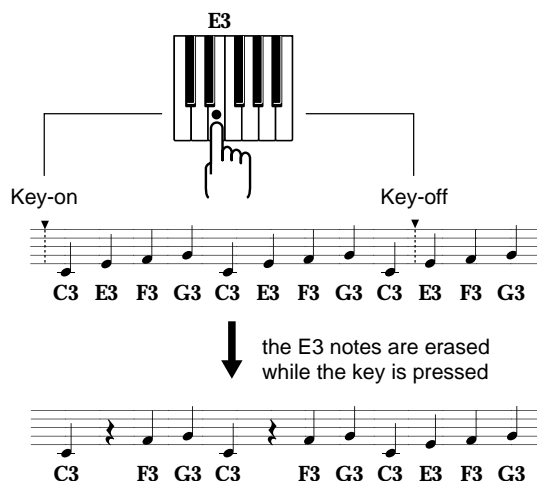
The following display will appear.



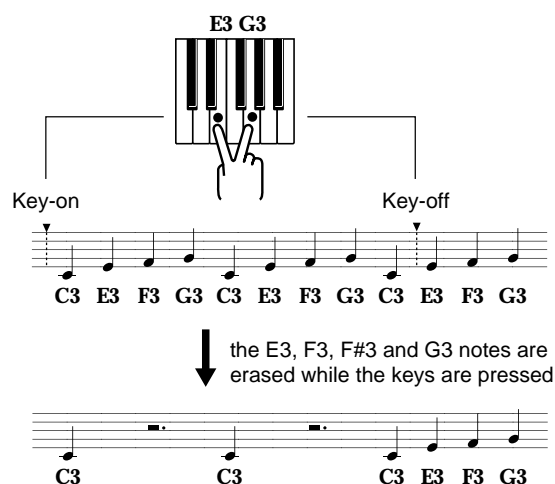
### 3 Erase the unwanted note(s).

If you wish to erase only a specific note, press that key. Notes of that key will be erased while you continue holding the key. If you wish to erase a specific range of notes, press the top and bottom key of that range. Notes in that range will be erased while you continue holding the key.

### ◆ Erasing the note(s) of just one key



### ◆ Erasing the notes of a specific area



### 4 To resume recording, press [ERASE] or [EXIT].

You will return to recording mode.

### 5 To end recording, press [EXIT].

The [REC] indicator will go dark, and recording will end.



## Copying a Pattern

The pattern of any key (internal or memory card) can be copied to a different internal key. At this time, you can specify that the data be copied with a transposition of up to  $\pm 2$  octaves in semitone steps.

- \* Since the copied pattern will overwrite the pattern that is currently stored for the copy destination key.
- \* Do not turn off the power during the Pattern Copy operation. Pattern or Motion data (including previously-recorded data) may be lost.

### 1 Press ARPEGGIATOR/RPS [ON].

The indicator will light.

### 2 Press [MODE] several times to select RPS.

The RPS indicator will light.

### 3 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 4 Press [INIT/UTIL] (BANK [7]) several times to access the Copy display.

The [INIT/UTIL] indicator will light.

### 5 Use [DEC]/[INC] several times to choose “PATTERN.”

```
Copy      [WRITE]
Type:     PATTERN
```

### 6 Press [WRITE].

### 7 Press the key for the copy source pattern.

To switch between internal and card, hold down [SHIFT] and press [USER] (NUMBER [1]) or [CARD] (NUMBER [2]).

You can also use [DEC]/[INC] to select the key.

```
From:     [WRITE]
Pattern USER C#4
```

### 8 Press [WRITE].

### 9 Press the copy destination key.

You can also use [DEC]/[INC] to select the key.

```
To:       [WRITE]
Pattern USER G 3
```

### 10 Press [WRITE].

### 11 Use [DEC]/[INC] to specify the transposition value.

With a setting of “0,” the pattern will be copied with its original key.

```
KeyShift: [WRITE]
          +1
```

To cancel the Pattern Copy operation, press [EXIT].

### 12 Press [WRITE].

The display will indicate “Completed.”

This completes the Pattern Copy operation.

### 13 Press [EXIT] to return to the previous display.

- \* For details on copying UPPER > LOWER, LOWER > UPPER and SWAP U<-> L, refer to page 61.

## Erasing a Pattern

In cases such as when you wish to re-record a pattern from scratch, you can erase a specified internal pattern.

- \* If you perform the following procedure, a pattern you created will be cleared (erased). If you wish to keep the pattern, you can copy it to another key beforehand or save it to a memory card (p.131) before erasing it.
- \* Do not turn off the power during the Pattern Clear operation. Pattern or Motion data (including previously-recorded data) may be lost.

### 1 Enter Recording Standby or recording mode for the pattern that you wish to clear (erase) (p.95).

### 2 Press [CLEAR] (NUMBER [6]).

The following display will appear.

```
Pattern Clear
          [WRITE]
```

To cancel the Pattern Clear operation without erasing the pattern, press [CLEAR] or [EXIT].

### 3 Press [WRITE].

The display will indicate “Completed,” and then the previous display will reappear.

This completes the Pattern Clear operation.

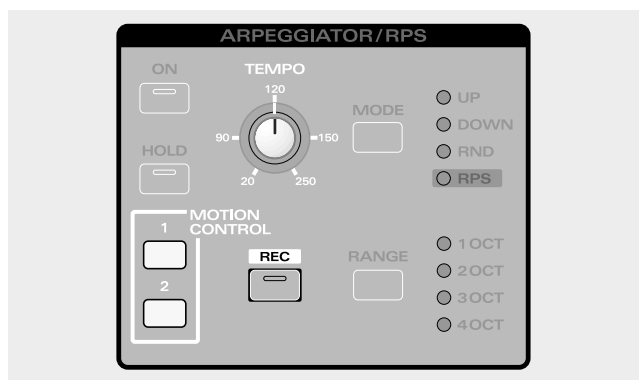
### 4 To end recording, press [EXIT].

The [REC] indicator will go dark, and recording will end.

- \* It is possible to restore an erased pattern to the factory settings. (p.140)

# Chapter 7. Easily Controlling Complex Tonal Changes (Motion Control)

The JP-8080 is able to record slider/knob movements, and play them back. By playing back the recorded slider/knob movements (Motions) in time with your music, you can add a variety of tonal changes to your playing. This function is called “**Motion Control**.”



## Playing Back a Motion

Motions allow you to apply complex tonal changes to arpeggio or pattern playback, or to your normal MIDI keyboard playing.

Motions will apply to the Part selected by Panel Select.

Press MOTION CONTROL [1]/[2], and the indicator will blink, and the motion will playback.

**When LOOP LENGTH (p.100) is "1-8 (measures)" :**  
The specified measures will be played back repeatedly.

**When LOOP LENGTH (p.100) is "99 (PLAY ONCE)" :**  
When playback reaches the measures 99, the indicator will change to light, and playback will stop. If you wish to playback once again from the beginning, press [1]/[2] to turn the indicator off, and then press [1]/[2] once again. Alternatively, if Motion Restart (p.99) has been turned on, pressing a key will cause playback to start again from the beginning.

To turn the motion off, press the button whose indicator is blinking (or lit) to make the indicator go dark.

If a motion is turned off during playback, the sound will not return to the settings of the original patch, and will continue to play with the settings that were in effect at the moment that the motion was turned off. If you wish to restore the original sound of the patch, re-select the patch.

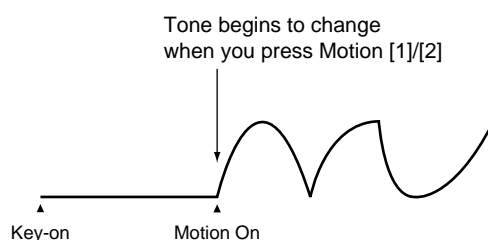
\* Motion data will be transmitted from the MIDI OUT connector.

\* If motion control is used at the same time as velocity (p.81) or controller assign (p.84) or vocal morph control (p.104), parameters for which control overlaps will change according to the sum of the overlapping control values.

Depending on the timing at which MOTION CONTROL [1]/[2] are pressed, the following techniques are possible.

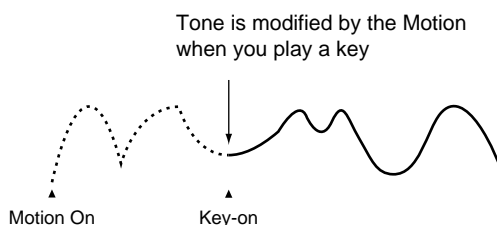
### ■ Playing back a Motion to modify the tone while you continue playing

If you wish to playback a Motion to modify the tone while you continue to play, press [1]/[2] at the desired moment while you continue playing, and the Motion will playback. The tone will begin changing at the moment that the Motion is played back.



### ■ Playing back a Motion to modify the tone at the beginning of your playing

If you wish to playback a Motion to modify the tone from the beginning of your playing, first press [1]/[2] to start the Motion playing back, and then press a key to play the keyboard or playback a pattern. You may also make settings so that the Motion begins to playback at the moment that you press a key (“Playing Back a Motion From the Beginning Each Time a Key is Pressed (Motion Restart),” p.99).



## Moving Sliders or Knobs While Playing Back Motions

You can also move sliders or knobs to add further tonal changes while a Motion is playing back.

If you move a slider/knob whose movement was recorded in the Motion, the movement of the slider/knob will take priority, and the Motion-controlled tonal change will switch to the change being controlled by the slider/knob. If you then stop moving the slider/knob, the tone will again change according to the Motion when the Motion returns to the beginning.

If you move a slider/knob whose movement was not recorded in the Motion, the sound will change in the way that it normally does.

### ● Switching between Motions and Slider/Knob Movements

The sliders/knobs of the JP-8080 have 11 switch points. When a slider/knob is moved past one of these switch points, control over the parameter change will be transferred from the Motion to the slider/knob movement.



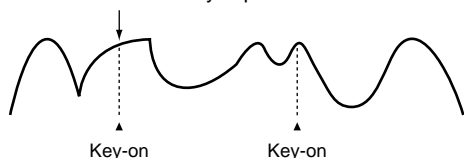
## Playing Back a Motion From the Beginning Each Time a Key is Pressed (Motion Restart)

This setting lets you specify whether a Motion will be played back from the beginning each time a key is pressed.

Motion Restart is common to the entire JP-8080.

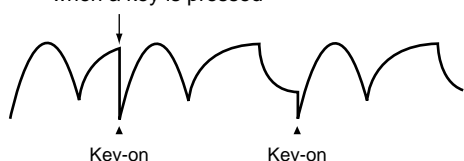
**OFF:** The Motion will continue playing back even if you press a key again.

Motion continues playing even if a new key is pressed



**ON:** If a key is pressed after all keys are released, the Motion will be played back from the beginning.

Motion plays back from the beginning when a key is pressed



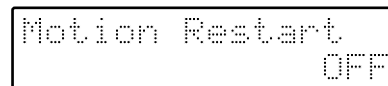
\* This means that when you record a Motion while playing back a Pattern, the Pattern and Motion will begin playback simultaneously when you press the key of the Pattern if Motion Restart is turned On. This is a convenient way to ensure that the start timing of the Pattern and Motion are aligned.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [SETUP] (BANK [6]) several times to access the Motion Restart display.

The [SETUP] indicator will light.



### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The Motion Restart setting has now been made.

## Switching Motion Sets

The JP-8080 has two Motion Sets (SET A/SET B), with two motions in each set. Also, up to four sets (CARD1: SET A/SET B, CARD2: SET A/SET B) can be saved in a memory card. (p.131)

These Motion Sets can be easily switched and used.

Motion Sets are common to the entire JP-8080.

### 1 Make sure that a memory card is inserted in the card slot.

\* If the card is not inserted, turn the power off, and insert the card with the side without contacts (gold colored) facing upward.

### 2 Hold down [SHIFT] and press MOTION [USER] (NUMBER [3]), [CARD 1] (NUMBER [4]) or [CARD 2] (NUMBER [5]).

**USER:** Internal motion sets

**CARD 1:** Memory card motion sets

**CARD 2:** Memory card motion sets

### 3 Hold down [SHIFT] and press MOTION [SET A] (NUMBER [7]) or [SET B] (NUMBER [8]).

While you hold down [SHIFT], the indicator of the button that you pressed will light.

The Motion Set has now been changed.

\* If no motions have been saved on the memory card, it will not be possible to select [CARD 1]/[CARD 2] motions.

# Recording a Motion

Motions can be recorded into internal memory.

## Settings for Recording

Before you record a Motion, you must set recording-related parameters.

**1** If a card motion is selected, hold down [SHIFT] and press MOTION [USER] (NUMBER [3]) to select an internal motion.

**2** Hold down [SHIFT] and press MOTION [SET A] / [SET B] (NUMBER [7]/[8]) to select the motion set that you wish to record.

Select an internal Motion.

**3** Hold down [REC] and press the button ([1]/[2]) to which the Motion will be recorded.

The [REC] and Motion button indicators will blink, and you will enter Recording Standby mode.



**4** Press [LOOP LENGTH] or [METRONOME] (NUMBER [1] or [4]) to select a parameter.

\* When in Preview mode, press [PREVIEW] to exit Preview mode, and then press the desired button.

The indicator of the button you pressed will light.

**5** Use [DEC]/[INC] to set the value.

**6** To return to the recording standby page, press the [LOOP LENGTH] or [METRONOME] button whose indicator is lit, or the [EXIT] button.

Now you can record a Motion. (p.101)

To exit recording standby mode, press [EXIT].

\* The time signature is fixed at 4 beats.

### ■ [LOOP LENGTH]

Specify the number of measures over which the motion will be played back/recorded.

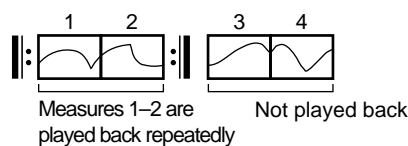
**1–8 (measure):** Playback/recording will continue repeatedly from the first measure from the specified number of measures.

**99 (PLAY ONCE):** Up to 99 measures can be recorded. Playback will occur once only, for as many measures as data exists.

.....  
(Example)

Recording a motion with a loop length of 4 measures, and then changing the loop length for playback

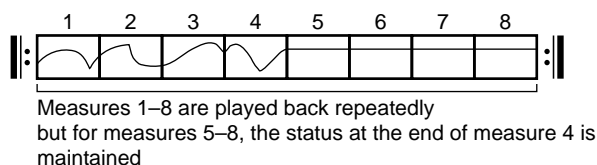
### ◆ Loop Length: setting of 2 measures



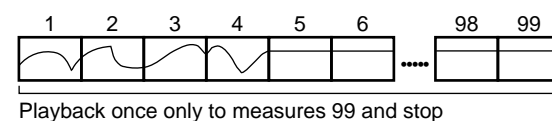
### ◆ Loop Length: setting of 4 measures



### ◆ Loop Length: setting of 8 measures



### ◆ Loop Length: setting of 99 (PLAY ONCE)



### ■ [METRONOME]

This selects the type of metronome sound and its volume.

#### Beep: VOLUME 4–1:

An electronic sound (chirp) metronome will be heard.

**OFF:** The metronome will not sound.

#### Click: VOLUME 1–4:

A pulse sound (blip) metronome will be heard.

## Recording a Motion

Four motions can be recorded in internal memory (SET A: [1]/[2], SET B: [1]/[2]).

It is best to use Hold to playback an arpeggio or pattern while you record the motion.

Motion recording allows you to “layer” the movements of two or more knobs/sliders. Since recording will take place repeatedly over the measures that were specified by Loop Length, you can easily layer the movements of two or more knobs/sliders by operating them separately. However, moving a previously recorded knob/slider will cause the

previously recorded motion to be overwritten.

Recording will begin when you move a slider/knob, and will end automatically at the end of the last measure.

**If you have already made settings for recording and are in recording standby mode, begin reading from step 5.**

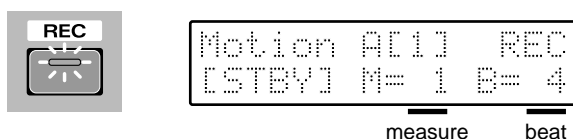
- \* Movements of the following sliders/knobs cannot be recorded in a Motion.
  - VOLUME [LEVEL]
  - [TEMPO]
  - VOICE MODULATOR [CONTROL 1] and [CONTROL 2]
  - EXTERNAL INPUT [INST/LOWER] and [VOCAL/UPPER]
  - Sliders/knobs for the Voice Modulator parameters when [UPPER] and [LOWER] are blinking
- \* If you turn the Motion Restart (p.99) before you record, when you record a Motion while playing back a Pattern, the Pattern and Motion will begin playback simultaneously when you press the key of the Pattern. This is a convenient way to ensure that the start timing of the Pattern and Motion are aligned.
- \* Do not turn the power off while recording a Motion. Doing so could cause Pattern or Motion data (including previously recorded data) to be lost.

**1 If a card motion is selected, hold down [SHIFT] and press MOTION [USER] (NUMBER [3]) to select an internal motion.**

**2 Hold down [SHIFT] and press MOTION [SET A] / [SET B] (NUMBER [7]/[8]) to select the motion set that you wish to record.**

**3 Hold down [REC] and press the button ([1]/[2]) to which the Motion will be recorded.**

The [REC] and Motion button indicators will blink, and you will enter Recording Standby mode.



**4 Press [LOOP LENGTH] and [METRONOME] (NUMBER [1], [4]) to set the recording parameters ("Settings for Recording", p.100).**

After making settings, return to Recording Standby by pressing the [LOOP LENGTH] or [METRONOME] button whose indicator is lit or by pressing [EXIT].

**5 Playback an arpeggio or pattern.**

If you turn [HOLD] on, the arpeggio or pattern will continue playing even if you release the keyboard.

Of course, you may record a Motion along with conventional playing if you wish.

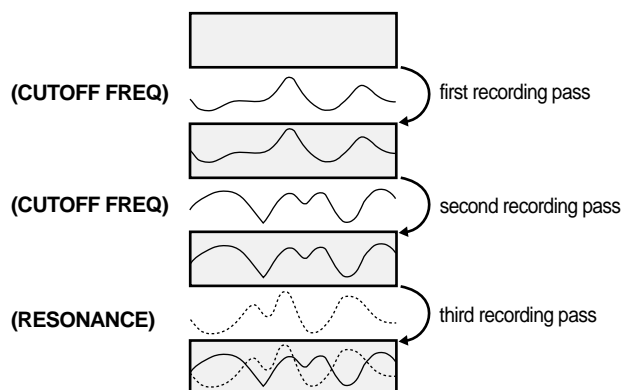
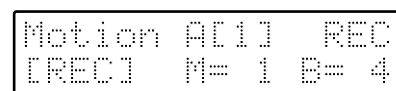
**6 Use [TEMPO] to set a tempo that will be comfortable for recording.**

**<With a LOOP LENGTH of 1-8 measures:>**

**7 Recording will begin when you move a slider/knob or press [REC].**

If you move a slider/knob that has already been recorded, the previously recorded data will be erased as recording takes place.

Movements of other sliders/knobs will be added to the existing data.



If at the end of the Motion you return the slider/knob to the same position it was in at the beginning of the Motion, the beginning and end of the Motion will be smoothly connected when the Motion is played back repeatedly.

- \* When recording a motion, do not move the slider/knob before the motion reaches the first measure of the second cycle. After recording is begun, if you continue to move the slider through the beginning of the second cycle, you will once again enter record mode, and the data of the first cycle will be erased as the data of the second cycle is recorded.

**8 If you continue recording to the end of the last measure, you will automatically exit recording and return to Recording Standby.**

The [REC] indicator will change to blinking.

- \* If you press [REC] at one of the intermediate measures, you will enter record-ready status, and if you press [EXIT] you will return to normal playing status ([REC] dark).

**9 Repeat steps 7-8 to record more slider/knob movements.**

**10 Press [EXIT].**

The indicator will go dark, and recording will end.

This completes Motion recording.

## <With a Loop Length of 99 (PLAY ONCE)>

### 7 Recording will begin when you move a slider/knob or press [REC].

If you move a previously-recorded slider/knob, the previously recorded data will be replaced as the newly recorded data is recorded.

The movements of other sliders/knobs will be recorded in addition to the existing data.

### 8 If you wish to stop recording before you reach measure 99, press [REC].

You will return to measure 1, and enter recording standby condition ([REC] blinking).

When you record to measure 99, you will automatically return to measure 1 and enter recording standby condition ([REC] blinking).

- \* If you press [EXIT], you will be in normal playing condition ([REC] dark).

### 9 Repeat steps 7–8 to record the movements of multiple sliders/knobs.

### 10 Press [EXIT].

The indicator will go dark, and recording will end.

The motion has now been recorded.

- \* Motions that were recorded to internal memory can be saved on a memory card. (p.131)

## Erasing the Movement of a Slider or a Knob

A specific parameter can be erased from a Motion. Use the corresponding slider/knob to specify the parameter to be erased.

- \* Do not turn the power off while erasing a slider/knob movement from a Motion. Doing so could cause Pattern or Motion data (including previously recorded data) to be lost.

### 1 Enter recording standby for the Pattern that you wish to modify (p.101).

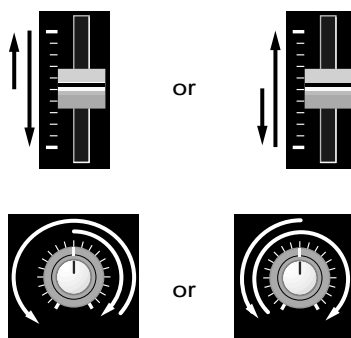
### 2 Press [ERASE] (NUMBER [5]).

The following display will appear.

```
Motion Erase
Select Knob
```

### 3 For the parameter you wish to erase, move the corresponding slider or knob through its full range.

When the slider/knob is moved from end to end, its data will be erased.



### 4 To resume recording, press [ERASE] or [EXIT].

You will return to Recording Standby mode.

### 5 To end recording, press [EXIT].

The [REC] indicator will go dark, and recording will end.

## Erasing a Motion

You may erase an internal Motion, for example when you wish to re-record a Motion from scratch.

- \* If you perform the following procedure, a Motion you created will be cleared (erased). If you wish to keep the Motion, you can first save it to a memory card (p.131), or use Bulk Dump (p.137) to save it on a sequencer, etc. before you erase it.
- \* Do not turn off the power during the Motion Clear operation. Pattern or Motion data (including previously-recorded data) may be lost.

### 1 Enter Recording Standby mode for the Motion that you wish to clear (erase) (p.101).

### 2 Press [CLEAR] (NUMBER [6]).

The following display will appear.

```
Motion Clear
[WRITE]
```

To cancel the Motion Clear operation without erasing the Motion, press [EXIT].

### 3 Press [WRITE].

The display will indicate “Completed,” and then the previous display will reappear.

This completes the Motion Clear operation.

### 4 To end recording, press [EXIT].

The [REC] indicator will go dark, and recording will end.

- \* A Motion that has been erased can be restored to the factory setting. (p.140)

# Chapter 8. Using Voice Modulator

The term “Voice Modulator” collectively indicates the three functions “formant filter,” “filter bank,” and “vocal morph control.”

## How Voice Modulator Work

### ■ Formant Filter

A formant filter analyzes “a human voice” (an audio signal) that is input, and uses multiple band pass filters to simulate the effects of throat shape or mouth movement. Instead of the vibrations of the vocal chords, an “instrumental sound” is input, is creating an impression as though the instrument were talking.

The Voice Modulator of the JP-8080 provide an Inst Input for inputting the “instrumental sound,” and a Vocal Input for inputting the “human voice.” In order to use the formant filter, you must simultaneously input an “instrumental sound” and a “human voice.”

As shown in the following diagram, the JP-8080 provides band pass filters for each frequency range, and twelve filters make up one set. (Two sets are provided.) Each of these two sets of band pass filters have the same characteristics.

A “human voice” is input to the Vocal Input and analyzed by frequency band, and the amplitude of each band is detected. An “instrumental sound” is input to the Inst Input, and similarly disassembled into frequency bands. The sound which has been processed through the filters of the Inst Input is modulated by the amplitudes detected by the Vocal Input filters, producing the impression that the instrumental sound is talking.

When an instrumental sound is input to the Vocal Input, the amplitude of that instrumental sound will modulate the sound from the Inst Input, which will produce yet a different effect from when a voice is used to modulate the sound. Try inputting break beats or percussion instrument sounds.

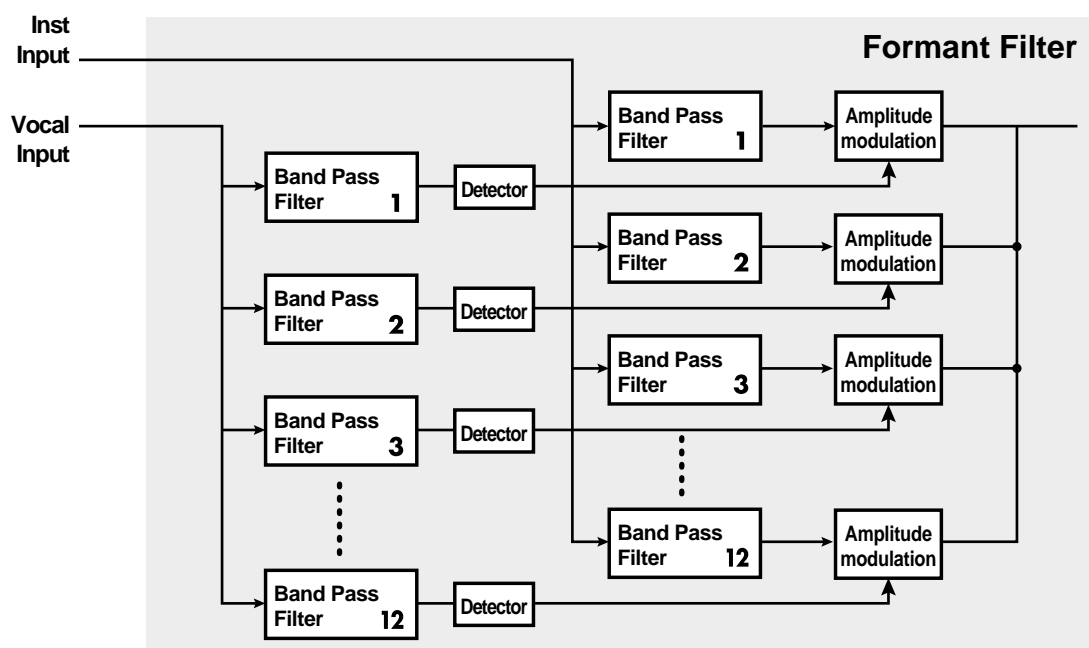
As the “instrumental sound,” you can use not only the Upper patch or Lower patch of the JP-8080, but also any sound that is input from the EXT IN INST/LOWER jack. The optimum effect will be produced with sustain-type sounds which contain large numbers of overtones.

As the “audio signal,” you can use the input from the MIC jack or the input from the EXT IN VOCAL/UPPER jack.

### ■ Filter Banks

When the algorithm (p.108) is set to “FLT BANK WIDE” or “FLT BANK NARROW,” the two sets of filters can be used as volume adjustments (filter banks) for each frequency band.

If the filters are used as a filter bank, Inst Input and Vocal Input will have the same function, and can be used as stereo input or stereo output. In this case, Inst Input will be left (L) and Vocal Input will be right (R). Of course, it is also possible to use this with input only to one side.



## ■ Vocal Morph Control

This analyzes the human voice (audio) which is input to the Vocal Input of the Voice Modulator, and converts the characteristics of that human voice into MIDI messages. These MIDI messages can be used to modify multiple patch parameters simultaneously.

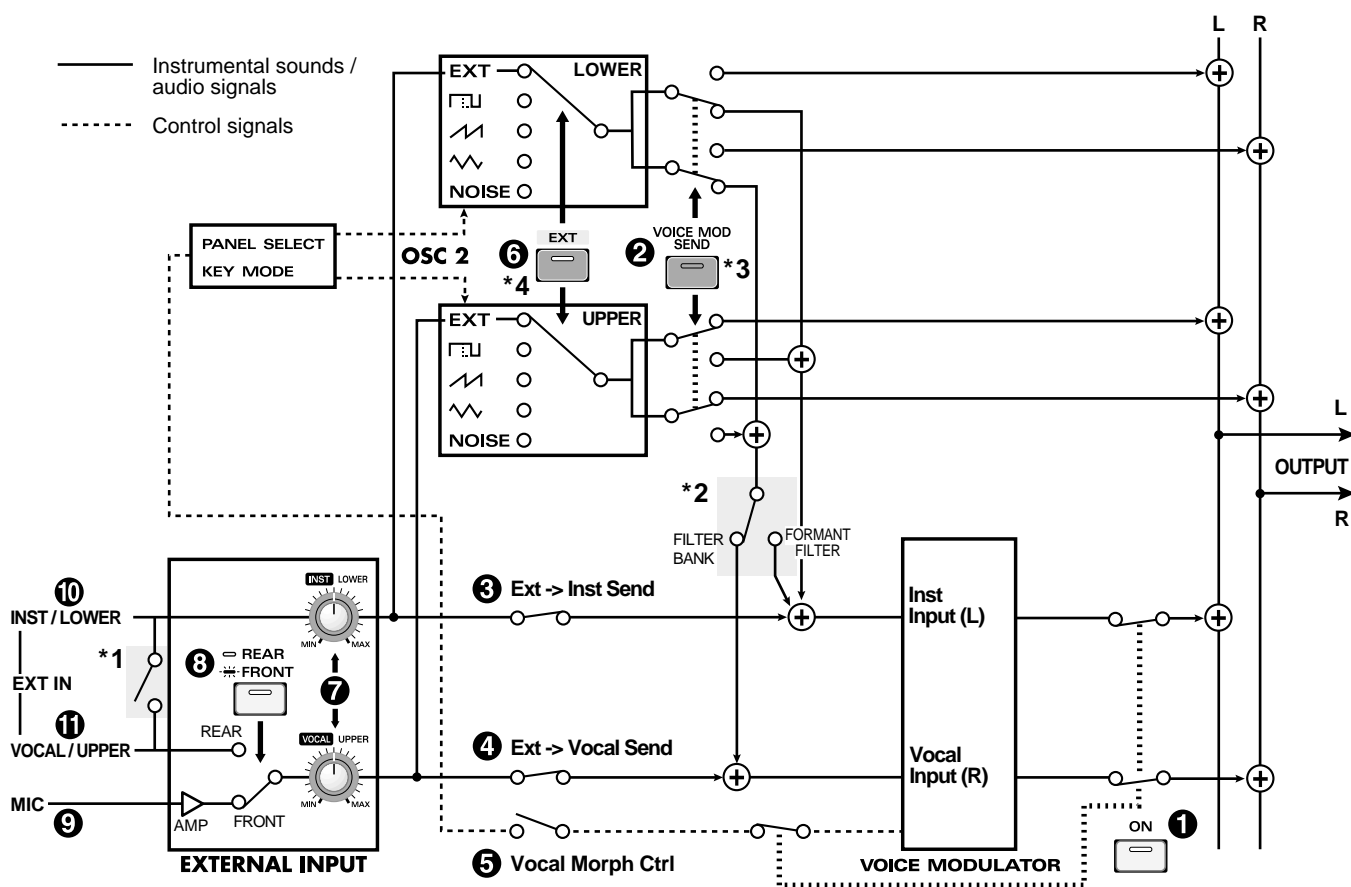
The width of parameter change will be the same as specified by Control Assign (p.84).

If the Morph Bend Assign Switch (p.85) is turned on, pitch can be modified at the same time as other parameters.

The characteristics of the human voice will be converted into the MIDI messages specified by Control Up (p.86) if Vocal Morph Sens (p.111) is set to "+," or converted into the MIDI messages specified by Control Down (p.86) if Vocal Morph Sense is set to "-."

## Internal Structure of The JP-8080

The following diagram shows the internal structure of the JP-8080.



\*1 When only one jack is connected

VOCAL/UPPER: The sound will be input only to the UPPER part.

INST/LOWER: The same sound will be input to both parts (UPPER/LOWER).

\*2 This switch will automatically change depending on the algorithm setting.

If the algorithm is "SOLID," "SMOOTH" or "WIDE," it will be set to FORMANT FILTER.

If the algorithm is "FLT BANK WIDE" or "FLT BANK NARROW," it will be sent to FILTER BANK.

\*3 If the Voice Modulator switch ① is turned off, the result will be the same as "off" even if [VOICE MOD SEND] is on.

\*4 Even if [EXT] is turned on and an external sound is input, sound will be produced only while note-on messages are being received, in the same way as when the OSC 2 was selected. However, the pitch cannot be controlled.



## ■ VOICE MODULATOR section

### ① [ON] (Voice Modulator Switch)

This is the on/off switch for Voice Modulator. When you wish to use the formant filter / filter bank / vocal morph control, press the button to make the indicator light.

When this button is turned on, the sound source of the JP-8080 will have a maximum polyphony of eight notes. When off, the polyphony is ten notes.

The on/off setting of this switch is stored as part of each performance.

## ■ EFFECTS section

### ② [VOICE MOD SEND] (Voice Modulator Send Switch)

When you wish to input the sound of the JP-8080's Upper patch or Lower patch into the Voice Modulator, press this button to turn on the indicator.

The internal connection will change automatically depending on the algorithm (p.108) setting. If the algorithm is "SOLID," "SMOOTH" or "WIDE," the signal will be input only for the Inst Input. If the algorithm is "FLT BANK WIDE" or "FLT BANK NARROW," both the Inst Input and Vocal Input will be input.

At this time, if the Voice Modulator Switch is turned off, turning [VOICE MOD SEND] on will have the same result as if it is off. The formant filter/filter bank effect will not apply to the patch, and the sound of the patch will be output without modification.

The on/off setting of this switch can be set for each patch. Before you set this switch, use PANEL SELECT [UPPER]/[LOWER] to select the patch for which you wish to make settings.

- \* It is not necessary to turn on this switch when you wish to use Vocal Morph Control.

## ■ [VOICE MOD] (BANK [2])

### ③ Ext->Inst Send (External To Instrumental Send Switch)

Turn this on when you want the sound from the EXT IN INST/LOWER jack to be input directly into the Inst Input of the Voice Modulator.

This setting is made in Edit mode. (p.108)

This parameter is set independently for each performance.

### ④ Ext->Vocal Send (External To Vocal Send Switch)

Turn this on when you want the sound from the EXT IN VOCAL/UPPER jack or the MIC jack to be input to the Vocal Input of the Voice Modulator. Be sure to turn this on when using the formant filter and vocal morph control.

This setting is made in Edit mode. (p.108)

This parameter is set independently for each performance.

### ⑤ Vocal Morph Ctrl (Vocal Morph Control Switch)

This is the on/off switch for the vocal morph control. Turn this on when you wish to use the vocal morph control.

This setting is made in Edit mode. (p.108)

This parameter is set independently for each performance.

## ■ OSC 2 (oscillator 2) section

### ⑥ [EXT] (External Input Switch)

When [EXT] is turned on, [WAVEFORM] will automatically be turned off, and the sound from the EXT IN jack or MIC jack will be input to the corresponding part. When you wish to use an external input sound that was synthesized on the JP-8080, press the button to turn on the indicator.

In order to turn [EXT] off, press [WAVEFORM] to select the OSC 2 waveform.

The on/off setting of this switch is set independently for each patch. Before making this setting, use PANEL SELECT [UPPER]/[LOWER] to select the patch for which you are making the setting.

- \* If you wish to use only the external input sound, set the OSC COMMON [OSC BALANCE] to OSC 2.

Also, if [EXT] is on, you can use [CONTROL 1] to set the following parameter.

#### [1] GATE THRESHOLD:

This sets the minimum input level. Sound will be input only if it exceeds the level you specify here.

- \* No parameter is assigned to [CONTROL 2].

## ■ EXTERNAL INPUT section

### ⑦ [INST/LOWER]/ [VOCAL/UPPER] input levels

These adjust the volume of each external input.

[INST/LOWER] adjusts the input sound from the INST/LOWER jack. [VOCAL/UPPER] adjusts the input sound from the VOCAL/UPPER jack or from the MIC jack.

If even a small amount of sound is input, the SIG/LIMITER indicator will light green. Above a certain level, the limiter will operate automatically to adjust the level, in order to keep the sound from distorting. When this happens, the SIG/LIMITER indicator will light red.

If you wish to vary the dynamics of the sound, adjust these controls so that the SIG/LIMITER indicator lights red occasionally.

### ⑧ [REAR/FRONT] (Vocal Input Select Switch)

This specifies which jack will be used; the VOCAL/UPPER jack or the MIC jack. When off (REAR) the VOCAL/UPPER jack will be used, and when on (FRONT) the MIC jack will be used.

The on/off setting of this switch is set independently for each performance.

### ⑨ MIC jack

The sound which is input from the MIC jack is amplified by the mic amp, and sent to the Vocal input of the Voice Modulator and to OSC 2 of the Upper part.

- \* When inputting sound from the MIC jack, be sure to set the [REAR/FRONT] switch to the “on” (FRONT) setting.

## ■ EXT IN jacks

### ⑩ INST/LOWER (MONO) jack

The sound which is input from the INST/LOWER jack is sent to the Inst Input of the Voice Modulator and to OSC 2 of the Lower part. A line level sound must be input here.

Also, if you set [REAR/FRONT] to the “off” (REAR) setting and input a sound only from the INST/LOWER jack without inserting a plug into the VOCAL/UPPER jack, the sound will be split, and input to both Upper and Lower. Use this when you wish to input the same sound to both parts.

### ⑪ VOCAL/UPPER jack

The sound which is input from the VOCAL/UPPER jack is sent to the Vocal Input of the Voice Modulator and to OSC 2 of the Upper part. A line level sound must be input here.

- \* When inputting a sound from the VOCAL/UPPER jack, you must set [REAR/FRONT] to “off” (REAR).

## Setting Up the Voice Modulator for Immediate Use (Voice Modulator Initialize)

In order to use the format filter/filter bank/vocal morph control, you must consider what type of sounds you will input to the Inst Input and Vocal Input of the Voice Modulator, and set the various switches appropriately. The JP-8080 provides a convenient “Voice Modulator Initialize” function which makes these settings automatically.

When you execute the Voice Modulator Initialize function, the Voice Modulator parameters of the performance in the temporary area will be set to the recommended values.

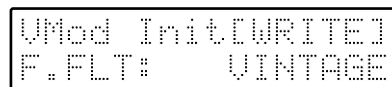
After executing Voice Modulator Initialize, you can set the various Voice Modulator parameters to easily control the sound using the formant filter/filter bank/vocal morph control.

#### 1 Press [EDIT].

The [EDIT] indicator will light, and the BANK [1]–[8] indicators will blink.

#### 2 Press [INIT/UTIL] (BANK [7]) several times to access the Voice Modulator Initialize page.

The [INIT/UTIL] indicator will light.



#### 3 Use [DEC]/[INC] to select the type of Voice Modulator Initialize (refer to the following page).

If you decide not to initialize, press [EXIT].

#### 4 Press [WRITE].

The display will indicate “Completed,” and the previous display will reappear.

Voice Modulator Initialize has now been completed.

### ■ After initializing to “F.FLT: VINTAGE,” “F.FLT: SILKY,” “F.FLT: HUSKYVOICE,” “F.FLT: BREAKBEATS”

Connect a mic (sold separately) to the MIC jack, and use [VOCAL/UPPER] to adjust the input volume.

While playing your MIDI keyboard, input some sound from the mic, and a formant filter effect will be produced using the sound of the Upper patch or Lower patch, according to the KEY MODE and PANEL SELECT settings.

### ■ After initializing to “F.FLT: ROBOT” or “F.FLT: HUSKYROBOT”

Connect a mic (sold separately) to the MIC jack, and use [VOCAL/UPPER] to adjust the input volume.

Simply input some sound from the mic, and a formant filter effect will be produced using the robot oscillator (p.113).

If you input sound from the mic while you play your MIDI keyboard, a formant filter effect will be produced using a mixture of the Upper patch or Lower patch with the robot oscillator, according to the KEY MODE and PANEL SELECT settings.

### ■ After initializing to “F.BANK: STANDARD” or “F.BANK: RADIO”

You can use the filter bank to adjust the Upper patch or Lower patch according to the KEY MODE and PANEL SELECT settings.

Since the Voice Modulator Panel (p.111) will be selected, you will be able to adjust the volumes of the twelve filters immediately.

### ■ After initializing to “VOCAL MORPH CTRL”

If Control Assign (p.84) or Morph Bend Assign (p.85) are not set, you must set them. Then connect a mic (sold separately) to the MIC jack, and use [VOCAL/UPPER] to adjust the input volume.

If you input sound from the mic while you play your MIDI keyboard, the specified parameters or pitch will change.

When the KEY MODE is SINGLE or SPLIT, the patch of the part selected by PANEL SELECT will be controlled.

When the KEY MODE is DUAL, the patch of both Upper and Lower parts will be controlled, regardless of the PANEL SELECT setting.

The ease of control will depend on the type of vowel. The “a” sound is easiest to control. Also, the parameter will change more greatly as the volume is increased.

- \* If you use Vocal Morph Control at the same time as Velocity (p.81) or Motion Control (p.98), parameters which overlap will have their values added, and will change accordingly.
- \* Control Assign (p.84) also uses MIDI messages to control parameters. This means that if Control Assign is used simultaneously with Vocal Morph Control, the last-received control message will determine the parameter value.

.....

### ● How Vocal Morph Control works

Of the sound which is input to the Vocal Input of Voice Modulator, the signal level in the 1.2 kHz frequency region is detected, and this result is used for control. Since the “a” sound is strong in the 1.2 kHz frequency region, control is easiest for the “a” sound. Only small changes can be produced with vowels other than “a.”

This means that by inputting sounds such as “a-u-a-u” or “a-i-a-i” you can alternately produce large change and small change.

.....

- \* For actual examples of using external input with the formant filter / filter bank etc., refer to “Various Ways to Use Voice Modulator” (p.146).

## Types of Voice Modulator Initialize

Nine types of Voice Modulator Initialize are provided.

**F.FLT: VINTAGE:** This is a formant filter which uses the SOLID algorithm. It produces a tight and strong sound.

**F.FLT: SILKY:** This is a formant filter which uses the SMOOTH algorithm. It produces a smooth and delicate sound.

**F.FLT: HUSKYVOICE:** This is a formant filter which uses the SOLID algorithm. Noise (p.113) is mixed in.

**F.FLT: BREAKBEATS:** This is a formant filter which uses the WIDE algorithm. It is ideal for use when a sound other than voice (such as break beats) is being input to the Vocal Input.

**F.FLT: ROBOT:** This is a formant filter which uses the robot oscillator (p.113). A formant filter can be obtained even when no instrumental sound is input to the Inst Input.

**F.FLT: HUSKYROBOT:** This is a formant filter which uses the robot oscillator (p.113). It produces a husky robot voice. A formant filter can be obtained even when no instrumental sound is input to the Inst Input.

**F.BANK: STANDARD:** This is the standard filter bank.

**F.BANK: RADIO:** This is a filter bank which produces an effect similar to an AM radio.

**VOCAL MORPH CTRL:** This produces settings that allow you to use the Vocal Morph Control function.

When you execute Voice Modulator Initialize, the algorithm and the parameters assigned to [CONTROL 1] and [CONTROL 2] of the Voice Modulator section will be as follows.

Voice Modulator Initialize	Algorithm	[CONTROL 1]	[CONTROL 2]
F.FLT: VINTAGE	SOLID	VOCAL MIX	ENSEMBLE LEVEL
F.FLT: SILKY	SMOOTH	VOCAL MIX	ENSEMBLE LEVEL
F.FLT: HUSKYVOICE	SOLID	V NOISE LEVEL	ENSEMBLE LEVEL
F.FLT: BREAKBEATS	WIDE	GATE THRESHOLD	V RELEASE
F.FLT: ROBOT	SOLID	ROBOT PITCH	ROBOT CONTROL
F.FLT: HUSKYROBOT	SOLID	ROBOT PITCH	V NOISE CUTOFF
F.BANK: STANDARD	FLT BANK WIDE	V RESONANCE	ENSEMBLE LEVEL
F.BANK: RADIO	FLT BANK NARROW	V RESONANCE	CHARACTER12
VOCAL MORPH CTRL	SOLID	VOCAL MIX	ENSEMBLE LEVEL

\* For other Voice Modulator parameter setting values, refer to “Voice Modulator Initialize Setting List” (p.189).

## Making Voice Modulator Settings in Edit Mode

All Voice Modulator parameters you set in Edit mode can be set independently for each performance.

### 1 Press [EDIT].

The [EDIT] indicator will light, and the BANK [1]–[8] indicators will blink.

### 2 Press [VOICE MOD] (BANK [2]) several times to select the parameter whose setting you wish to change.

\* If you hold down [SHIFT] and press [VOICE MOD], you will return to the previous page.

The [VOICE MOD] indicator will light.

### 3 Use [DEC]/[INC] to set the value.

\* In the case of “Control1 Assign” and “Control2 Assign,” you can hold down [SHIFT] and press [UPPER] to select the Voice Modulator panel, so that you can use the knobs and sliders to set the values.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous page will reappear.

A total of twelve parameters can be set.

## Setting the Type of The Formant Filter/Filter Bank (Algorithm)

### ■ Algorithm

This specifies the type of the formant filter / filter bank.

#### <Formant Filter>

**SOLID:** A tight and strong sound.

**SMOOTH:** A clean and smooth sound.

**WIDE:** The frequency range is wider than SOLID or SMOOTH. This is ideal when sound other than voice are being input to the Vocal Input.

#### <Filter Bank>

**FLT BANK WIDE:** A filter bank with wide frequency bands.

**FLT BANK NARROW:** A filter bank with narrow frequency bands. An effect similar to an AM radio is produced.

When using the formant filter, select either SOLID, SMOOTH or WIDE.

When using the filter bank, select either FLT BANK WIDE or FLT BANK NARROW.

## Changing the Parameter Assigned to [CONTROL 1]/[CONTROL 2]

### ■ Control1 Assign

### ■ Control2 Assign

When you use panel select to select the Voice Modulator Panel (p.111), you can use the knobs/sliders labeled in blue characters to set Voice Modulator parameters.

These Voice Modulator parameters can be freely assigned to [CONTROL 1]/[CONTROL 2] of the Voice Modulator section.

[CONTROL 1]/[CONTROL 2] of the Voice Modulator section are always valid if the Voice Modulator [ON] switch is turned on.

This means that regardless of the panel select status, you will always be able to adjust two Voice Modulator parameters in realtime.

The following parameters can be assigned.

ENSEMBL LEVEL

V DELAY TIME (Voice Modulator Delay Time)

V DELAY FEEDBACK

(Voice Modulator Delay Feedback)

V DELAY LEVEL (Voice Modulator Delay Level)

\* VOCAL MIX

V RESONANCE (Voice Modulator Resonance)

\* V RELEASE

(Voice Modulator Envelope Release Time)

V PAN (Voice Modulator Pan)

V LEVEL (Voice Modulator Level)

\* V NOISE CUTOFF

(Voice Modulator Noise Cutoff)

\* GATE THRESHOLD

\* ROBOT PITCH (Robot Oscillator Pitch)

\* ROBOT CONTROL (Robot Oscillator Control)

\* ROBOT LEVEL (Robot Oscillator Level)

CHARACTER 1-12

\* Parameters marked by an asterisk (\*) are ignored when the algorithm is set to "FLT BANK WIDE" or "FLT BANK NARROW." The display will indicate an "x" to indicate that these parameters are invalid.

```
Control1 Assign
x          VOCAL MIX
```

\* For the meaning of each parameter, refer to p.112-114.

## Setting the Switches

Here's how to set switches ③ and ④ which were explained in "Internal structure of the JP-8080" (p.104).

### ■ Ext->Inst Send OFF, ON (External To Instrumental Send Switch)

Turn this on when you want the sound from the EXT IN INST/LOWER jack to be input directly to the Inst Input of the Voice Modulator.

### ■ Ext->Vocal Send OFF, ON (External To Vocal Send Switch)

Turn this on when you want the sound from the EXT IN VOCAL/UPPER jack or the sound from the MIC jack to be input to the Vocal Input of the Voice Modulator. Be sure to turn this on when you want to use the formant filter and the vocal morph control.

## Making Voice Modulator Delay Settings

This delay is dedicated to the Voice Modulator, and is separate from the delay provided in the EFFECTS section.

### ■ V Delay Type (Voice Modulator Delay Type)

Select the type of delay that will be applied to the output of the Voice Modulator.

**PANNING L->R:** Pan the delayed sound to left and right in the order of left->right.

**PANNING R->L:** Pan the delayed sound to left and right in the order of right->left.

**PANNING SHORT:** Pan the delayed sound to left and right in the order of right->left. The delay time is one quarter that of PANNING L->R/R->L.

**MONO SHORT:** The delay sound will be heard from the center. The delay time is the same as for PANNING SHORT.

**MONO LONG:** The delay sound will be heard from the center. The delay time is double the length of PANNING L->R/R->L.

## ■ V Delay Sync (Voice Modulator Delay Sync)

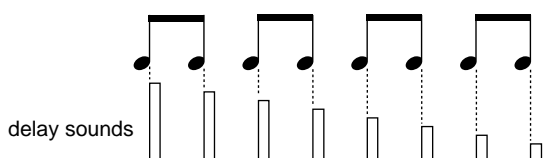
This specifies whether or not the Voice Modulator delay time will be synchronized with the tempo of the internal sequencer.

**OFF:** The Voice Modulator delay time will not be synchronized with the tempo of the internal sequencer. The delay time will sound according to the DELAY [TIME] setting when the Voice Modulator panel was selected.

♪ (16th note)	♪ (8th note triplet)
♪ (dotted 16th note)	♪ (8th note)
♪ (quarter note triplet)	♪ (dotted 8th note)
♪ (quarter note)	♪ (half note triplet)
♪ (dotted quarter note)	♪ (half note) :

The delay time will be synchronized to the tempo of the internal sequencer, so that the delay will sound at intervals of the specified note value.

\* If the MIDI Sync (p.123) setting is set to MIDI IN or REMOTE KBD IN, the delay time will synchronize to the external MIDI clock (p.144).



\* On the JP-8080, the delay time cannot be set longer than 1250 ms (1.25 seconds) for a mono delay, nor longer than 625 ms for a panning delay. If you attempt to set the delay time longer than this, the delay time will be halved, and the delays will sound at half the interval.

The delay time will also sound at half the length if the tempo is slower than the following values.

♪ Pan = 24	
♪ Pan = 32	
♪ Pan = 36	
♪ Pan = 8, 24	Mono = 24
♪ Pan = 64, 32	Mono = 32
♪ Pan = 72, 36	Mono = 36
♪ Pan = 96, 48, 24	Mono = 48, 24
♪ Pan = 128, 64, 32	Mono = 64, 32
♪ Pan = 144, 72, 36	Mono = 72, 36
♪ Pan = 192, 96, 48, 24	Mono = 96, 48, 24

## Making Ensemble Settings

Ensemble is an effect dedicated to the Voice Modulator, and is entirely separate from the multi-effects provided in the EFFECTS section.

### ■ Ensemble Type

Select the type of ensemble that will be applied to the output of the Voice Modulator. Ensemble is a type of chorus effect, and is deeper than the corresponding effect produced by the multi-effects. It allows you to choose other effects in addition to ensemble.

**ENSEMBLE MILD:** A conventional ensemble effect.

**ENSEMBLE CLEAN:** An ensemble with an extended high frequency range.

**ENSEMBLE FAST:** An ensemble with rapid modulation.

**SUPER CHORUS SLW:** A chorus with deep and slow modulation.

**SUPER CHORUS MID:** A chorus with moderate modulation.

**SUPER CHORUS FST:** A chorus with light and rapid modulation.

**SUPER CHORUS CLR:** A clear chorus. Since more chorus is applied to the high range, a light feeling is produced.

**FLANGER SLOW:** A flanger with deep modulation.

**FLANGER FAST:** A flanger with rapid modulation.

**DEEP PHASING SLW:** A phaser with deep and slow modulation.

**JET PHASING:** An effect reminiscent of a jet airplane taking off and landing.

**TWISTING:** An effect producing a twisting impression.

**FREEZE PHASE 1/2:** A short delay. This is effective in adding a metallic character to the sound.

### ■ Ensemble Sync

This specifies whether or not the ensemble rate (the speed of modulation for the ensemble) will be synchronized with the tempo of the internal sequencer.

**OFF:** The ensemble rate will not be synchronized with the tempo of the internal sequencer. The ensemble will be applied according to the specified Ensemble Type (see previous item).

♪ (16th note)	♪ (8th note triplet)
♪ (dotted 16th note)	♪ (8th note)
♪ (quarter note triplet)	♪ (dotted 8th note)
♪ (quarter note)	♪ (half note triplet)
♪ (dotted quarter note)	♪ (half note)
♩ (whole note triplet)	♩ (dotted half note)
♩ (whole note)	♩ (double note triplet)
♩ (dotted whole note)	♩ (double note)

### 3–8 MEASURES:

The ensemble rate will be synchronized to the tempo of the internal sequencer, and ensemble will be applied at the interval of the specified note or measure.

- \* If the MIDI Sync (p.123) setting is set to MIDI IN or REMOTE KBD IN, the ensemble rate will synchronize to the external MIDI clock (p.144).

## Making Vocal Morph Control Settings

### ■ Vocal Morph Ctrl OFF, ON (Vocal Morph Control Switch)

This is the on/off switch for vocal morph control. Turn this on when you wish to use vocal morph control.

### ■ Vocal Morph Sens -64–+63 (Vocal Morph Sensitivity)

This specifies how deeply vocal morph control will be affected by your voice. With a setting of 0, there will be no effect. With a setting of +63, the control will change from 0 to the maximum positive value in response to even a slight input sound. With a setting of -64, the control will change from 0 to the maximum negative value in response to even a slight input sound. Normally you should use this with a setting in the range of +32 to -32.

When Vocal Morph Sens is set to a positive value (+), the characteristics of the input voice will be converted into the MIDI messages specified for Control Up (p.86). When Vocal Morph Sens is set to a negative value (-), the characteristics of the input voice will be converted into the MIDI messages specified for Control Down (p.86).

### ■ Vocal Morph Thrsh 0–127 (Vocal Morph Threshold)

This sets the minimum input level for the voice. The parameter will be controlled by sound that is greater than the level specified here.

#### ● Example of Vocal Morph Control

Select the performance P2:81 VOCAL MORPH FBK, and input an “a” sound from the mic. The Upper patch will be modified by your voice. At the same time, a formant filter effect will be produced in the Lower patch.

- \* Refer to page 163 for an example of creating a sound which uses Vocal Morph Control.

## Controlling Voice Modulator Parameters in Realtime

### Use Panel Select to Select The Voice Modulator Panel

You can use sliders/knobs to modify the Voice Modulator parameters in realtime. In order to do this, the panel must be switched to the Voice Modulator Panel.

#### 1 Hold down [SHIFT] and press PANEL SELECT [UPPER].

PANEL SELECT [LOWER] and [UPPER] will both blink, and the Voice Modulator panel will be in effect. The Voice Modulator [ON] will always be on. In this condition, you can operate the front panel sliders/knobs labeled in blue characters to modify Voice Modulator parameters. (Refer to the following item.)

- \* While the Voice Modulator panel is selected, it is not possible to modify patch parameters (except for [VOICE MOD SEND] in the EFFECTS section) from the front panel.

#### 2 To return to the previous state, hold down [SHIFT] once again and press PANEL SELECT [UPPER], or press [EXIT].

- \* If, while the Voice Modulator Panel is selected, you use Edit mode (p.108) to set [PART] and [PATCH], the PANEL SELECT [LOWER] and [UPPER] will blink only for the button of the part which you are setting.

## Types of Voice Modulator Parameters

The following Voice Modulator parameters can be edited in realtime from the Voice Modulator panel. When you move a slider/knob, the display will indicate the parameter name.

These parameters can be set independently for each performance.

- \* Parameters marked by an asterisk (\*) are ignored when the algorithm is set to “FLT BANK WIDE” or “FLT BANK NARROW.” If the corresponding slider/knob is moved, the display will indicate an “x” to indicate that these parameters are invalid.

VOICE MODULATOR  
x VOCAL MIX

■ **ENSEMBLE LEVEL** 0-127

**[ENSEMBLE]**

Specify the depth of the ensemble. Ensemble is a type of chorus which is applied more deeply. Rotating the knob toward the right will deepen the effect.

■ **VOICE MODULATOR DELAY LEVEL** 0-127

**[LEVEL]**

Specify the volume of the Voice Modulator delay sound relative to the original sound. Rotating the knob toward the right will make the delay sound louder.

■ **VOICE MODULATOR DELAY TIME** 0-127

**[TIME]**

Specify the time from when the original sound is heard until the Voice Modulator delay sound is heard (i.e., the interval between delay repeats). Rotating the knob toward the right will lengthen the time.

■ **VOICE MODULATOR DELAY FEEDBACK** 0-127

**[FEEDBACK]**

Specify the amount of feedback for the Voice Modulator delay sound (i.e., how the repeating delay sounds will diminish over time). With low amounts of feedback, the delay sound will diminish rapidly and disappear. As the knob is moved toward the right, the amount of feedback will increase, and the delay will continue repeating longer.

■ \* **VOCAL MIX** 0-127

**[VOCAL MIX]**

Specify the amount of the consonants which will be extracted from the sound before it is input to the Vocal Input of the Voice Modulator, and combined with the output sound of the Voice Modulator. As the slider is raised, a greater amount of the extracted consonants will be mixed into the output sound.

If you want the output sound of the Voice Modulator to be distinct, raise the slider toward the upper range.

■ **VOICE MODULATOR RESONANCE** 0-127

**[RESONANCE]**

Raising the slider will cause the sound in the regions of each of the twelve band pass filters to be emphasized simultaneously, producing a distinctive character.

Normally you will leave this slider in the lowest position.

Raise the slider only when you wish to give the sound a distinctive character.

\* As the slider is raised, the volume will increase. To avoid excessive volume which could damage your amp or speaker, be careful not to raise the slider excessively.

● **Cautions when using Vocal Morph Control**

If the Voice Modulator resonance value is increased, the detection sensitivity of the vocal morph control will also increase. This means that the output of the vocal morph control will rapidly reach the maximum value, and you may have difficulty in creating subtle changes.

In such cases, reduce the Vocal Morph Sensitivity (p.111). When the Voice Modulator Resonance is 0, the Vocal Morph Sensitivity should normally be +32 or -32, but if you have increased the Voice Modulator Resonance, you should set this in the range of +10-+20 or -10- -20.

■ \* **VOICE MODULATOR RELEASE** 0-127  
(Voice Modulator Envelope Release Time)

**[RELEASE]**

Specify the time until the Voice Modulator output sound disappears. Rotating the knob toward the right will lengthen the time.

■ \* **VOCAL HOLD** OFF, ON  
(Vocal Hold Switch)

**[VOCAL HOLD]**

If you turn this button on while a voice is being input to the Vocal Input, the analyzed result of the input sound at the moment the button was pressed will be held. Subsequently, the formant filter effect will be applied even if a voice is no longer input.

Pressing this button when no voice is being input to the Vocal Input will have no effect.

\* When Hold-1 (CC#64) is received on the Performance Control Channel (p.124), it will have the same result as if the Vocal Hold Switch had been turned on.

\* The on/off setting of the Vocal Hold Switch cannot be stored in a performance. When you select a performance, this switch will always be in the "off" condition.

\* If the algorithm (p.108) is set to "FLT BANK WIDE" or "FLT BANK NARROW," the Vocal Hold Switch will be forced "off."



## ■ VOICE MODULATOR PAN -64--+63

### [PAN]

#### when Algorithm is SOLID, SMOOTH, or WIDE

This sets the pan (stereo location) of the output sound of the Voice Modulator. When the knob is in the center position, the sound will be located in the center. When the knob is rotated fully left the sound will be located at the far left, and when rotated fully right the sound will be located at the far right.

#### when Algorithm is FLT BANK WIDE or FLT BANK NARROW

The sound which is input to the Inst Input will be output from OUTPUT L, and the sound which is input to the Vocal Input will be output from OUTPUT R. This parameter will adjust the balance of these output sounds.

When the knob is in the center position, the L and R outputs will be equal. When the knob is rotated fully left the L output will be maximum and the R output will be zero. When the knob is rotated fully right the L output will be zero and the R output will be maximum.

## ■ VOICE MODULATOR LEVEL 0-127

### [LEVEL]

Adjust the output volume of the Voice Modulator. The volume will increase as you rotate the knob toward the right.

## ■ \* VOICE MODULATOR NOISE LEVEL 0-127

### [NOISE LEVEL]

Specify the level of the noise which will be mixed into the sound that is input to the Inst Input. When the knob is in the far left position, no noise will be mixed in. As you rotate the knob toward the right, more noise will be mixed in.

Rotate the knob toward the right when you want a husky sound.

## ■ \* VOICE MODULATOR NOISE CUTOFF 0-127

### [NOISE CUTOFF]

Specify the cutoff frequency of the high pass filter that is applied to the noise in the Voice Modulator. As you rotate the knob toward the right, the cutoff frequency will rise.

If you want sharp and light noise, rotate the knob toward the right.

If you want thick and heavy noise, rotate the knob toward the left.

## ■ \* GATE THRESHOLD

0-127

### [GATE THRESHOLD]

Specify the minimum level of the Vocal Input sound at which the formant filter will begin to operate. When the knob is in the far left position, the formant filter will operate regardless of how low the input level is. When the knob is in the far right position, the formant filter will not operate, regardless of how high the input level is.

## ■ \* ROBOT LEVEL

0-127

### (Robot Oscillator Level)

### [ROBOT LEVEL]

The Voice Modulator of the JP-8080 provide an internal oscillator (robot oscillator) which allows you to obtain a formant filter effect even without inputting sound into the Inst Input. This parameter sets the level of this oscillator.

When the knob is in the far left position the level will be zero, and there will be no formant filter effect unless sound is input to Inst Input. As you rotate the knob toward the right, the level will increase.

If this level is raised, you can obtain a formant filter effect simply by inputting sound to the Vocal Input without inputting sound to the Inst Input.

## ■ \* ROBOT PITCH

0-127

### (Robot Oscillator Pitch)

### [ROBOT PITCH]

This sets the pitch of the Voice Modulator robot oscillator. Rotating the knob toward the left will lower the pitch, and rotating it toward the right will raise the pitch.

To obtain a mechanical sound typical of the formant filter, use a lower pitch.

## ■ \* ROBOT CONTROL

0-127

### (Robot Oscillator Control)

### [ROBOT CONTROL]

This sets the tonal character of the robot oscillator. Rotating the knob toward the left will make the sound thicker, but it will be more difficult to understand the words. Rotating the knob toward the right will make the sound thinner, but it will be easier to understand the words.

To obtain a mechanical sound typical of the formant filter, set the knob in approximately the center position.

## [1]-[12]

**when Algorithm is SOLID, SMOOTH, or WIDE**

The sound that is input to the Vocal Input is divided by twelve band pass filters into twelve frequency bands, and the volume of each band is adjusted by these sliders.

Raising a slider will increase the volume of that frequency band.

Lowering a slider to the minimum position will cause the volume of that frequency band to be zero.

To create a low-fi sound, raise the volumes of the mid-range bands, and lower the volumes of the other frequency bands.

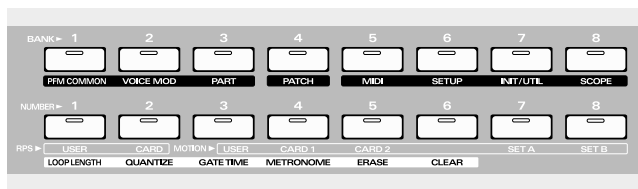
**when Algorithm is FLT BANK WIDE or FLT BANK NARROW**

The sounds that are input to the Inst Input and Vocal Input are divided by twelve band pass filters into twelve frequency bands, and the volume of each band is adjusted by these sliders. The Inst Input and Vocal Input input sounds will simultaneously be set to the same volumes.

# Chapter 9. Other Settings

In addition to the parameters that are edited directly by the sliders or knobs, the JP-8080 allows you to set a variety of other parameters.

These parameters are assigned to [PFM COMMON]–[SETUP] (BANK [1]–BANK [6]) located below the display.



## Settings for the Entire Performance (Performance Common)

- 1 Press [EDIT].  
The [EDIT] indicator will light and the BANK[1]–[8] indicators will blink.
- 2 Press [PFM COMMON] (BANK [1]) several times to select the parameter whose settings you wish to modify.  
\* If you hold down [SHIFT] and press [PFM COMMON], you will return to the previous display page.  
The [PFM COMMON] indicator will light.
- 3 Use [DEC]/[INC] to set the value.
- 4 When you finish making settings, press [EDIT] or [EXIT].  
The previous display will reappear.

In addition to the Key Mode, Panel Select, and Arpeggiator/RPS settings that are set directly from the front panel, the following eleven parameters can also be set for each Performance.

- \* For details on ☐ parameters, refer to the given page.
- ☐ Performance Name  
“Assigning a Name” (p.127)
- Part Detune
- Output Assign
- Voice Assign
- Split Point
- ☐ Arpeggio Dest (Arpeggio Destination)  
“Selecting the Part for Arpeggiation in Dual Mode (Arpeggio Destination)” (p.91)

- ☐ Arp Beat Pattern (Arpeggio Beat Pattern)  
“Changing the Beat of the Arpeggio (Arpeggio Beat Pattern)” (p.91)
- Indv Trig Switch (Individual Trigger Switch)
- Indv Trig Dest (Individual Trigger Destination)
- Indv Trig Src CH  
(Individual Trigger Source Channel)
- IndvTrigSrc Note  
(Individual Trigger Source Note)

## Create a Pitch Difference Between Parts (Part Detune)

- Part Detune -50- +50  
When the Key Mode is Dual, adjust the pitch difference between the Upper Part and Lower Part, up to a maximum of +/-50 cents (1/2 semitone). Positive (+) settings will raise the Upper pitch and lower the Lower pitch. Negative (-) settings will have the opposite effect.

- .....
- Creating a more spacious sound (2)  
If you select the same Patch for both Upper and Lower and set Detune to approximately 20, the sound will appear more spacious.
- .....

## Output Destination for Each Part (Output Assign)

- Output Assign  
This specifies how the Upper and Lower sounds will be output from the output jacks and the headphone jack.  
**MIX OUT:** Both the Upper and Lower sounds will be output from both L and R.  
**PARALLEL OUT:** The Lower sound will be output from L, and the Upper sound from R.  
\* With PARALLEL OUT is selected, the Auto Pan/Manual Pan (p.76) and Panning Delay (p.79) effects will not be obtained.

## Setting the Number of Voices for Each Part (Voice Assign)

### Voice Assign

(6) 8-2 (2), (5) 7-3 (3), (4) 6-4 (4), (4) 5-5 (4), (4) 4-6 (4), (3) 3-7(5), (2) 2-8 (6)

\* Numbers in ( ) are for when the Voice Modulator is on

When the Key Mode is Dual or Split, this setting specifies the number of voices that will be assigned to the Lower and Upper Parts respectively.

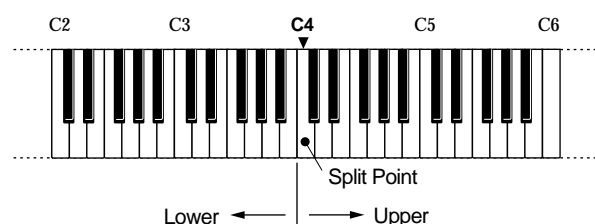
The maximum simultaneous polyphony will differ depending on whether the Voice Modulator is on/off. When the Voice Modulator is on, eight voices are available; when off, ten voices are available. The combinations of numbers of voices when the Voice Modulator is on or off are fixed.

## Setting the Split Point

### Split Point

C-1-G9

When the Key Mode is Split, this setting specifies the split point. The keyboard will be divided into upper and lower areas around the specified split point.



## Starting an Individual Envelope While a Key Remains Pressed (1) (Individual Trigger)

In normal playing, the pitch, filter, and amplitude envelopes will start at the moment that you play the MIDI keyboard, causing the sound to begin changing. However on the JP-8080, you can cause just the filter or the amplitude envelope to start at a different timing than the other envelopes.

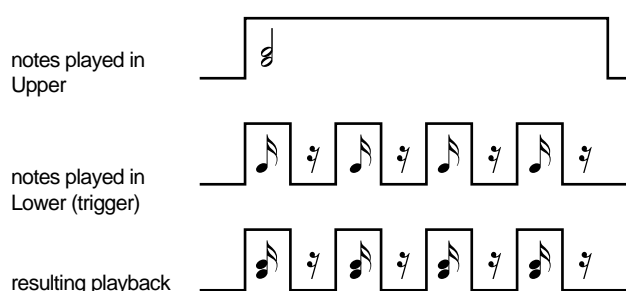
The factor or event which causes the envelope of the filter or amplifier to start is called the "trigger."

If the trigger is note data, this function is called "individual trigger."

If you vary the velocity of the trigger note data, the sound will change according to the Velocity Assign (p.81) settings.

### <Example>

Connect a MIDI keyboard to the REMOTE KBD IN, and use only your playing on the keyboard to control the Individual Trigger function (Key Mode: Split)



\* If the Individual Trigger Switch is ON, and you play without having received trigger note data, the filter envelope or amplifier envelope will not take effect, and the sound may not be produced as you intend.

There are four parameters for Individual Trigger.

### Indv Trig Switch (Individual Trigger Switch)

This switches Individual Trigger on/off.

**OFF:** Individual Trigger will not be used. For normal playing, leave this turned off.

**ON:** Individual Trigger will be used.

### Indv Trig Dest (Individual Trigger Destination)

Select the envelope that will be started by the note messages.

At this time, the result will be clearly noticeable if you adjust the envelope to produce a sharply defined sound.

For example if FILTER is selected, increase the FILTER ENVELOPE [DEPTH] to a high setting, and lower the FILTER [CUTOFF FREQ]. If AMP is selected, raise the AMP [LEVEL] setting.

**FILTER:** The filter envelope will be started.

**AMP:** The amplifier envelope will be started.

**FILTER&AMP:** The filter and amplifier envelopes will be started.

## ■ Indv Trig Src CH 1-16 (Individual Trigger Source Channel)

Specify the MIDI channel on which the note messages used as triggers will be transmitted and received. Set this to a MIDI channel that is different than the Part MIDI channel (p.118).

## ■ IndvTrigSrc Note (Individual Trigger Source Note)

When note messages from an external device are used as the trigger, you can specify the keys of the note messages that will be treated as triggers.

**C-1-G9:** Note messages of the specified key will function as triggers. Note messages of other keys can be used for normal playing.

**ALL:** Note messages of all keys will function as triggers.

A variety of applications are possible depending on whether you receive the trigger note data and performance note data from the MIDI IN connector or from the REMOTE KBD IN connector.

### ◆ Receiving trigger note messages from the MIDI IN

If you wish to receive triggers from the MIDI IN, set the Key Mode to SINGLE or DUAL.

- \* This function can be used even when the Key Mode is SPLIT, but only the envelopes of the Upper Patch will start. It will not be possible to apply triggers to the envelopes of the Lower Patch.

### ● Receiving note messages for performance from REMOTE KBD IN

- \* Note messages for performance will be received on the Remote Keyboard Channel (p.124).

When the Key Mode is SINGLE, the envelope(s) of the part selected by panel select will start at the timing that the trigger is received.

When the Key Mode is DUAL, the envelope(s) of the patches for both Upper and Lower parts will start at the timing that the trigger is received.

**For example,** you might connect your MIDI keyboard (musical performance) to REMOTE KBD IN, and connect a sequencer (trigger) to MIDI IN.

### ● Receiving musical performance note messages from MIDI IN

- \* Note messages from musical performance must be received on the Part MIDI channel (p.118).

If trigger note messages and upper/lower note messages are received on different channels, the envelope(s) of the patch which receives the note messages will start at the timing that the triggers are received.

**For example,** you might use this capability to receive note messages for both the musical performance and the triggers from a sequencer.

### ◆ Receiving trigger note messages from the REMOTE KBD IN

If you wish to receive triggers from the REMOTE KBD IN, set the Key Mode to SPLIT.

- \* If the Key Mode is SINGLE or DUAL, triggers can be received only from the MIDI IN connector. Triggers cannot be received from REMOTE KBD IN.

In this case, triggers will be received on the Remote Keyboard Channel (p.124), and not received on the Individual Trigger Source Channel. However, trigger note messages which are received will be transmitted from the MIDI OUT connector on the Trigger Source Channel.

Also, the Individual Trigger Source Note setting will be ignored. All note messages below the Split Point (p.116) will be triggers. However, the trigger note messages which are received will be transmitted from the MIDI OUT connector according to the Individual Trigger Source Note settings. I.e., with a setting of "ALL," the received note messages will be transmitted without change, but with a setting of "C-1-G9," the received note messages will be converted to the specified note numbers and then transmitted.

In the case of SPLIT, the envelope(s) of only the Upper Patch will start. It will not be possible to apply triggers to the envelope(s) of the Lower Patch.

### ● Receiving musical performance note messages from REMOTE KBD IN

- \* Note messages for musical performance must be received on the Remote Keyboard Channel (p.124).

Note messages for the Split Point and above will be used for musical performance. When these note messages are received, the envelope(s) of the Upper Patch will start at the timing that the trigger is received.

**For example,** you might connect your MIDI keyboard to REMOTE KBD IN and play using the Upper Part, and use the Lower Part to play the trigger notes.

### ● Receiving note messages for musical performance from MIDI IN

- \* Note messages for musical performance must be received on the Upper Part MIDI Channel.

If trigger note messages and the Upper note messages are received on different channels, the envelope(s) of the Upper Patch will start at the timing that the trigger is received.

**For example,** you could connect your MIDI keyboard (trigger) to REMOTE KBD IN, and connect a sequencer (musical performance) to MIDI IN.

### ◆ An example of using Individual Trigger

Let's try out the Individual Trigger function by playing a MIDI keyboard connected to REMOTE KBD IN.

#### 1 Select Performance P1:83.

#### 2 Press and hold any desired notes in the Upper Part.

#### 3 Play keys in the Lower Part.

The Upper Part will sound at the timing that the Lower arpeggio sounds.

If you wish to create a sound using Individual Trigger, an easy way to do so is to select the above Performance and then adjust the sliders and knobs to your liking to create the desired Performance.

## Settings for Each Part (Performance Part)

#### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK[1]–[8] indicators will blink.

#### 2 Press [PART] (BANK[3]) several times to select the parameter whose settings you wish to modify.

\* If you hold down [SHIFT] and press [PART], you will return to the previous display page.

The [PART] indicator will light.

#### 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose settings you wish to modify.

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the Patches of both Parts.

In this case, the panel will show the settings of the Upper Patch.

#### 4 Use [DEC]/[INC] to set the value.

#### 5 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The following five parameters can be set independently for each part of the performance.

\* For details on □ parameters, refer to the page given.

#### □ Part Transpose

“Transposing Your Performance (Part Transpose)”  
(p.88)

#### ■ Part MIDI CH (Part MIDI Channel)

#### ■ Chorus Sync

#### ■ Delay Sync

#### ■ LFO Sync

## Setting the MIDI Channel for Each Part

#### ■ Part MIDI CH 1–16, OFF (Part MIDI Channel)

If you use the MIDI IN/OUT connectors, the musical data for each part will be transmitted/received on this MIDI channel. If you do not wish to use MIDI messages to select the Patch of a Part, or to transmit/receive musical data via MIDI, turn this setting OFF.

MIDI messages received at the REMOTE KBD IN will follow the Remote Keyboard Channel settings (p.124), and have no relation to the Part MIDI Channel setting.

- \* If you wish to select patches for each part via the MIDI IN connector, set the Part MIDI Channel to a setting different from the Performance Control Channel (p.124). If these are set to the same MIDI channel, the Performance Control Channel setting will take priority, meaning that when a program change is received, the performance will be switched.
- \* If you wish to play the patches of each part using the MIDI IN connector, set the Part MIDI Channel to a setting different from the Individual Trigger Source Channel (p.117). If these are set to the same MIDI channel, the Individual Trigger Source Channel setting will take priority, meaning that the patch may not sound even if note messages are received.

## Synchronizing Chorus Modulation to the Tempo/LFO 1 (Chorus Sync)

### ■ Chorus Sync

This setting lets you synchronize the Chorus Rate (speed of modulation) to the tempo of the internal sequencer or to LFO 1.

Chorus Sync is valid for multi-effects types other than destination.

**OFF:** Chorus Rate will not be synchronized to the tempo of the internal sequencer. The chorus will be applied according to the Multi-FX Type setting (p.78).

♪ (16th note)	♪ (8th note triplet)
♪ (dotted 16th note)	♪ (8th note)
♪ (quarter note triplet)	♪ (dotted 8th note)
♪ (quarter note)	♪ (half note triplet)
♪ (dotted quarter note)	♪ (half note)
♩ (whole note triplet)	♪ (dotted half note)
♩ (whole note)	♩ (double note triplet)
♩ (dotted whole note)	♩ (double note)

### 3-8 MEASURES:

Chorus Rate will be synchronized to the tempo of the internal sequencer, and the chorus will be applied at intervals of the specified note value or number of measures.

- \* If MIDI Sync (p.123) is set to MIDI IN or REMOTE KBD IN, the Chorus Rate can be synchronized to the tempo of an external MIDI device. (p.144)

**LFO 1:** Chorus Rate will be synchronized to the LFO 1 Rate.

### ■ An example of using Chorus Sync

Let's try out the Chorus Sync effect.

- 1 Select Performance P1: 84.**
- 2 Press [LOWER].**  
The Lower Patch will be selected.
- 3 Play the MIDI keyboard to sound an arpeggio.**

### 4 Move [TEMPO].

The Chorus Rate will change in synchronization with the tempo.

If you wish to create a sound using Chorus Sync, an easy way to do so is to select the above Performance and then use the sliders and knobs to modify the sound to your liking.

## Synchronizing Delay Time to the Tempo (Delay Sync)

### ■ Delay Sync

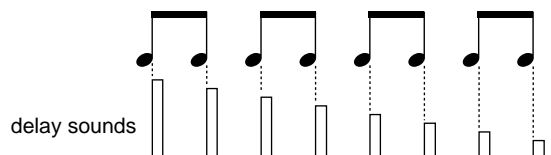
Specify whether or not the Delay Time will be synchronized to the tempo of the internal sequencer.

**OFF:** Delay Time will not be synchronized to the tempo of the internal sequencer. The delay will sound according to the DELAY section [TIME] setting.

♪ (16th note)	♪ (8th note triplet)
♪ (dotted 16th note)	♪ (8th note)
♪ (quarter note triplet)	♪ (dotted 8th note)
♪ (quarter note)	♪ (half note triplet)
♪ (dotted quarter note)	♪ (half note) :

Delay Time will be synchronized to the tempo of the internal sequencer, producing delayed sounds at intervals of the specified note value.

- \* If MIDI Sync (p.123) is set to MIDI IN or REMOTE KBD IN, the Delay Time can be synchronized to an external MIDI Clock. (p.144)



- \* On the JP-8080, it is not possible to make the delay time longer than 1250 ms (1.25 seconds) for a mono delay, or longer than 625 ms for a panning delay. If you attempt to set a Delay Time longer than that, the Delay Time will be halved, and the delays will sound at half the specified interval.

For tempo values slower than the following, the Delay Time will be halved.

♪ Pan = 24	
♪ Pan = 32	
♪ Pan = 36	
♪ Pan = 48, 24	Mono = 24
♪ Pan = 64, 32	Mono = 32
♪ Pan = 72, 36	Mono = 36
♪ Pan = 96, 48, 24	Mono = 48, 24
♪ Pan = 128, 64, 32	Mono = 64, 32
♪ Pan = 144, 72, 36	Mono = 72, 36
♪ Pan = 192, 96, 48, 24	Mono = 96, 48, 24

## ■ An example of using Delay Sync

Let's try out the Delay Sync effect.

### 1 Select Performance P1: 84.

The Upper Patch will be selected.

### 2 Play the keyboard to sound an arpeggio.

### 3 Move [TEMPO].

The Delay Time will change in synchronization with the tempo.

If you wish to use Delay Sync as part of a sound that you create, you can do so easily by selecting the above Performance and moving the sliders or knobs to create the desired Performance.

## Synchronizing LFO 1 Rate to the Tempo (LFO Sync)

### ■ LFO Sync

This setting specifies whether or not the LFO 1 Rate will be synchronized to the tempo of the internal sequencer.

**OFF:** LFO 1 Rate will not be synchronized to the tempo of the internal sequencer. The sound will be modulated according to the LFO 1 section [RATE] setting.

♪ (16th note)	♪ (8th note triplet)
♪ (dotted 16th note)	♪ (8th note)
♪ (quarter note triplet)	♪ (dotted 8th note)
♪ (quarter note)	♪ (half note triplet)
♪ (dotted quarter note)	♪ (half note)
♩ (whole note triplet)	♩ (dotted half note)
♩ (whole note)	♩ (double note triplet)
♩ (dotted whole note)	♩ (double note)

### 3-8 MEASURES:

LFO 1 Rate will be synchronized to the tempo of the internal sequencer, modulating the sound at intervals of the specified note value or number of measures.

- \* If MIDI Sync (p.123) is set to MIDI IN or REMOTE KBD IN, the LFO 1 Rate can be synchronized to the tempo of an external MIDI device (p.144).

## ■ An example of using LFO Sync

Let's try out the LFO Sync effect.

### 1 Select Performance P1: 85.

The Upper Patch is selected.

### 2 Play the keyboard to sound an arpeggio.

LFO 1 will shift the panning between left and right (Auto Pan).

### 3 Move [TEMPO].

The LFO 1 Rate will change in synchronization with the tempo.

If you wish to create a sound using LFO Sync, an easy way to do so is to select the above Performance and then use the sliders and knobs to modify the sound to your liking.

## Making Settings for Each Patch (Patch)

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK[1]-[8] indicators will blink.

### 2 Press [PATCH] (BANK [4]) several times to select the parameter whose settings you wish to modify.

- \* By holding down [SHIFT] and pressing [PATCH], you can return to the previous display page.

The [PATCH] indicator will light.

### 3 Press PANEL SELECT [LOWER]/[UPPER] to select the Part whose settings you wish to modify.

If you press both [LOWER] and [UPPER] simultaneously, both indicators will light, and you can simultaneously edit the Patches of both Parts.

In this case, the panel will show the settings of the Upper Patch.

### 4 Use [DEC]/[INC] to set the value.

When setting the Patch Name, you can also use Group [DOWN]/[UP] to move the cursor to the location where you wish to input a character.

### 5 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The following ten parameters can be set independently for each patch.

- \* For details on □ parameters, refer to the given page.

#### □ Patch Name

"Assigning a Name" (p.127)

#### □ Multi-FX Type (Multi Effect Type)

"Changing the type of Multi Effects (Multi Effects Type)" (p.78)

#### □ Delay Type

"Changing the type of delay (Delay Type)" (p.79)

#### □ Bend Range Up

"Changing the Pitch (Bend Range Up/Down)" (p.89)

#### □ Bend Range Down

"Changing the Pitch (Bend Range Up/Down)" (p.89)

#### □ Morph Bend Assign

"Modifying the Pitch (Morph Bend Assign Switch)" (p.85)



- ❑ **Unison Detune**  
“Thickening the Unison Sound (Unison Detune)” (p.80)
- ❑ **Env Type in Solo (Envelope Type in Solo)**  
“Playing Analog Synthesizer-like Solos (Envelope Type In Solo)” (p.81)
- **Patch Gain**
- **Ext Trig Switch (External Trigger Switch)**
- **Ext Trig Dest (External Trigger Destination)**

## Increasing the Volume of a Specific Patch (Patch Gain)

### ■ Patch Gain      0dB, +6dB, +12dB

When Mono or Legato are used, one voice will be played one note at a time, meaning that in comparison with polyphonic playing (normal playing condition), the volume may appear to be softer. In such cases, you can use Patch Gain to boost the volume of a specific patch. A setting of +6dB will be double the gain (amplitude) of 0dB, and a setting of +12dB will be four times that of 0dB.

- \* Depending on the patch, a setting of +6dB or +12dB may cause the sound to crack. If this occurs, return the setting to 0dB.

## Starting an Individual Envelope While a Key Remains Pressed (2) (External Trigger)

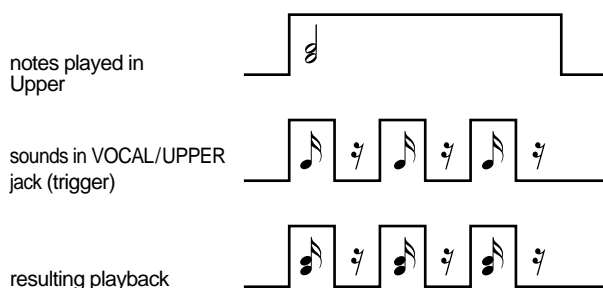
In normal playing, the pitch, filter, and amplitude envelopes will start at the moment that you play the MIDI keyboard, causing the sound to begin changing. However on the JP-8080, you can cause just the filter or the amplitude envelope to start at a different timing than the other envelopes.

The factor or event which causes the envelope of the filter or amplifier to start is called the “trigger.”

If the trigger is an external input sound, this function is called “external trigger.”

### <Example>

Input a trigger sound to the EXT IN VOCAL/UPPER jack (Key Mode: Single, Panel Select: Upper)



- \* If the External Trigger Switch is ON, and you play without having input a trigger sound, the filter envelope or amplifier envelope will not take effect, and the sound may not be produced as you intend.

There are two parameters for External Trigger. You will also need to make settings for the external input.

### ■ Ext Trig Switch (External Trigger Switch)

This switches External Trigger on/off.

**OFF:** External triggers will not be used. For normal playing, leave this turned off.

**ON:** External triggers will be used.

### ■ Ext Trig Dest (External Trigger Destination)

Specify the envelope(s) which will be started by the external input sound.

At this time, the result will be clearly noticeable if you adjust the envelope to produce a sharply defined sound.

For example if FILTER is selected, increase the FILTER ENVELOPE [DEPTH] to a high setting, and lower the FILTER [CUTOFF FREQ]. If AMP is selected, raise the AMP [LEVEL] setting.

**FILTER:** The filter envelope will be started.

**AMP:** The amplifier envelope will be started.

**FILTER&AMP:** The filter and amplifier envelopes will be started.

### ■ External input settings

Make the following four settings.

#### ● Input a trigger sound from the EXT IN jack or the MIC jack

The sound from the EXT IN INST/LOWER jack will be input as the OSC2 of the Lower Patch. The envelope(s) of the Lower Patch will start at the timing that this input sound occurs.

The sound from the EXT IN VOCAL/UPPER jack or the MIC jack will be input as the OSC2 of the Upper Patch. The jack which will be used is determined by the EXTERNAL INPUT [REAR/FRONT] setting. When off (REAR), the EXT IN VOCAL/UPPER jack is used, and when on (FRONT) the MIC jack is used. The envelope(s) of the Upper Patch will start at the timing that this input sound occurs.

The sound which is input from the MIC jack will be amplified by the mic amp. The sound which is input from the EXT IN jack will be used at its original level.

Also, if [REAR/FRONT] is turned off (REAR), and sound is input only from the INST/LOWER jack without inserting a plug into the VOCAL/UPPER jack, the sound will be split, and input to both upper and lower. This is convenient when you wish to input the same sound to both parts.

## ● Turn [EXT] on for OSC 2

If the sound is being input from the INST/LOWER jack, turn on [EXT] for the Lower Patch. If the sound is being input from the VOCAL/UPPER jack or MIC jack, turn on [EXT] for the Upper Patch.

## ● Adjusting the level of the external input sound

Use EXTERNAL INPUT [INST/LOWER]/[VOCAL/UPPER] to adjust the volume of the external input.

If even a small amount of sound is input, the SIG/LIMITER indicator will light green.

The limiter will operate on sounds which exceed a specified level, automatically adjusting the volume to keep the sound from distorting. When this happens, the SIG/LIMITER indicator will light red.

Also, use the OSC 2 [CONTROL 1] to specify the input level at which the envelope will start. The envelope attack will start when the input level exceeds the specified value, and the envelope release will start when the input level falls below the specified value.

## ● Adjust the OSC COMMON [OSC BALANCE]

If sound is being input from the INST/LOWER jack, adjust [OSC BALANCE] for the Lower Part. If sound is being input from the VOCAL/UPPER jack or MIC jack, adjust [OSC BALANCE] for the Upper Patch.

For example if this is set to OSC 1, the external input sound will be used only as a trigger, and will not be heard.

Also, if this is set to OSC 2, the external input sound will start the envelope of the external input sound itself.

# MIDI Settings (MIDI)

These settings are common to the entire JP-8080.

\* For details on MIDI, refer to “What is MIDI?” (p.168).

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [MIDI] (BANK [5]) several times to select the parameter whose settings you wish to modify.

\* If you hold down [SHIFT] and press [MIDI], you will return to the previous display page.

The [MIDI] indicator will light.

### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

## ■ Local Switch

This switch determines whether or not the JP-8080's controllers (knobs, sliders, buttons), will be connected to its sound generator (p.54), and whether the controller (keyboard, sliders etc.) connected to the REMOTE KBD IN will be connected to the sound source.

\* To avoid problems such as failure to sound, the Local Switch will automatically be turned ON when the JP-8080 is powered on.

**OFF:** The JP-8080's controllers will not control its built-in sound source. Nor will it be possible for MIDI messages from the REMOTE KBD IN connector to control the sound source.

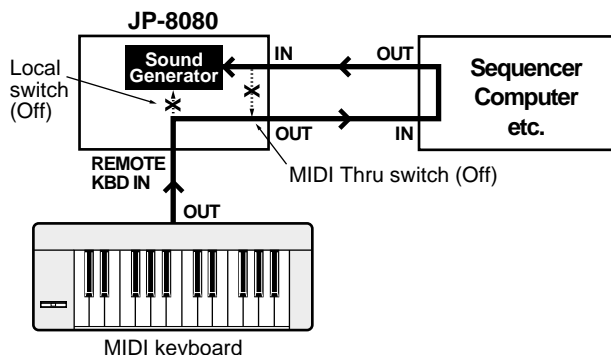
Only MIDI messages from the MIDI IN connector will control the sound source.

\* However if the Edit Transmit/Receive Switch (p.124) is off, messages from the JP-8080's controllers and MIDI messages (other than note messages) from the REMOTE KBD IN connector will control the sound source.

**ON:** The JP-8080's controllers will control its built-in sound source. MIDI messages from both REMOTE KBD IN and MIDI IN will also control the sound source.

### ● When should I turn the Local Switch OFF?

If you wish to play a MIDI keyboard connected to REMOTE KBD IN and record your playing on an external MIDI device (sequencer, etc.), then turn the Local Switch OFF. This will prevent identical MIDI messages received at REMOTE KBD IN and MIDI IN from being transmitted to the sound source in duplicate.



\* In the case of the connections shown above, you will also need to turn the MIDI Thru Switch OFF. (p.124)

### ■ MIDI Sync

This specifies whether or not the tempo will be synchronized to MIDI Clock messages received from an external device.

**OFF:** The internal sequencer will operate using the [TEMPO] setting. Any MIDI Clock messages received from an external device will be ignored.

**MIDI IN:** While MIDI Clock is being received from the MIDI IN connector, the internal sequencer will synchronize to MIDI Clock. If you move the [TEMPO] while not receive MIDI Clock, the internal sequencer will operate using the [TEMPO] setting.

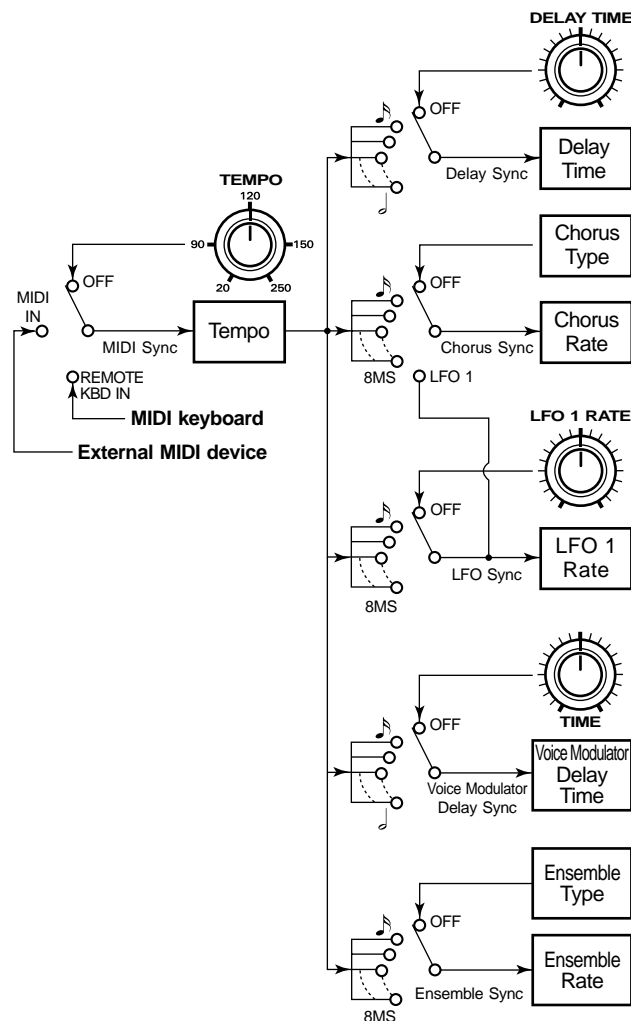
**REMOTE KBD IN:** While MIDI Clock is being received from the REMOTE KBD IN, the internal sequencer will synchronize to MIDI Clock. If you move the [TEMPO] while not receive MIDI Clock, the internal sequencer will operate using the [TEMPO] setting.

\* Some external MIDI devices do not transmit MIDI Clock messages unless they are recording or playing back. If such an external MIDI device is connected, be aware that the tempo cannot be synchronized to MIDI Clock unless the external MIDI device is recording or playing back.

Also, if the JP-8080 is being synchronized to an external MIDI device which transmits Stop (FC) at the end of the loop during loop playback (or recording), the synchronization may become skewed. In particular when synchronizing to an external MIDI device as you record Patterns or Motions, do not transmit Stop during recording. If Stop is transmitted, the performance can not be recorded correctly.

### ● About Chorus/Delay/LFO Sync/Voice Modulator delay/Ensemble Sync and MIDI Sync

When Chorus/Delay/LFO Sync (p.119, 120) and Voice Modulator Delay/Ensemble Sync (p.110) is set to a note value or measure interval, the MIDI Sync setting will determine whether Chorus Rate, Delay Time, LFO 1 Rate, Voice Modulator Delay Time, and Ensemble Rate will be synchronized to the tempo specified by the JP-8080's [TEMPO] or to the tempo of an external MIDI device.



## ■ Rx Exclusive SW OFF, ON (Exclusive Receive Switch)

This specifies whether or not exclusive messages will be received from MIDI IN connector.

- \* Regardless of the Exclusive Receive Switch setting, REMOTE KBD IN will always receive exclusive messages for the parameters of the patch/performance in the temporary area. However, patch parameters and performance part parameters will be received by the part that is selected by Panel Select. No other exclusive messages will be received.

## ■ Perform Ctrl CH 1-16, OFF (Performance Control Channel)

This selects the MIDI channel on which MIDI Program Change messages will be transmitted and received to select Performances. If you do not wish to select Performances via MIDI, turn this OFF.

## ■ Remote KBD CH 1-16, ALL (Remote Keyboard Channel)

MIDI messages received at the REMOTE KBD IN connector will be received on this MIDI channel. With a setting of ALL, MIDI messages of all channels will be received.

The MIDI messages transmitted and received by the MIDI IN/OUT connectors will follow the Part MIDI Channel settings (p.118), and have no relation to the Remote Keyboard Channel setting.

Operations performed on an external MIDI device connected to REMOTE KBD IN will be handled exactly in the same way as when JP-8080 controllers are operated (including test playing in preview mode).

This means that when an external MIDI device is connected to REMOTE KBD IN, the following things are possible. (These things cannot be controlled from the MIDI IN connector.)

- Playback arpeggios (p.90)
- Record/playback RPS patterns (p.92, 94)
- Record controller messages from an external MIDI device as Motion Control (p.100)

## ■ MIDI Thru (MIDI Thru Switch)

This setting specifies whether or not MIDI messages received at the MIDI IN connector will be transmitted from the MIDI OUT connector.

**OFF:** No MIDI messages will be transmitted.

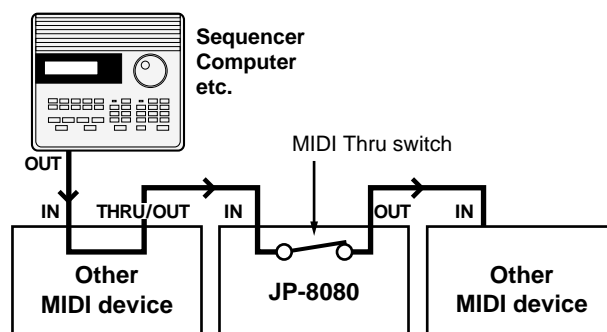
**ON (w/o SysEx):** MIDI messages except for exclusive messages will be transmitted.

**ON (ALL):** All MIDI messages will be transmitted.

.....

## ● When should I turn the MIDI Thru Switch ON?

When two or more sound sources are connected as shown below, and you wish to use different channels to play sounds on different sound sources, turn the MIDI Thru Switch to ON (w/o SysEx) or ON (ALL).



.....

## ■ Tx/Rx Edit SW OFF, ON (Edit Transmit/Receive Switch)

This setting specifies whether MIDI messages will be transmitted/received when panel buttons, sliders and knobs are used to edit a Patch or Performance, or System settings. However, reception of exclusive messages will be determined by the setting of the Exclusive Receive Switch.

## ■ Tx/Rx Edit Mode (Edit Transmit/Receive Mode)

When JP-8080 sliders/knobs **other than the following** are moved, this setting specifies whether or not the edited data will be transmitted as MIDI messages.

- VOLUME [LEVEL]
- [TEMPO]
- VOICE MODULATOR [CONTROL 1], [CONTROL 2]
- EXTERNAL INPUT [INST/LOWER], [VOCAL/UPPER]
- When both [UPPER] and [LOWER] are blinking, sliders / knobs for Voice Modulator parameters

**MODE1:** Editing data of the sliders/knobs will be transmitted and received using the prescribed MIDI messages.

**MODE2:** Editing data of the sliders/knobs, you can specify the MIDI messages that will be used to transmit and receive editing data. The MIDI message that will be assigned to each controller is set by the Transmit/Receive Settings.

For the MIDI messages that are assigned to each slider/knob in MODE1 and for the factory setting of MODE2, refer to "Transmit/Receive Setting List" (p.188).

- \* If MODE2 is used to transmit and receive slider/knob movements, the communication method will fall outside of the MIDI Specification. Be aware that this mode uses MIDI in a non-standard way.

- \* If you want the JP-8080 to receive the MIDI message that it transmitted, the Edit Transmit/Receive Mode must be the same during both transmission and reception. If different settings are used, the MIDI messages cannot be received.

## ■ Tx/Rx Setting (Transmit/Receive Setting)

The MIDI message assigned to each slider/knob when the Edit Transmit/Receive Mode is MODE2.

While this setting page is displayed, moving a slider or knob will cause the MIDI message assigned to that controller to appear in the display. Now you can use [DEC]/[INC] to specify the desired MIDI message.

The following MIDI messages can be assigned to each controller.

**OFF:** No MIDI message will be assigned. Moving the controller will not cause MIDI message to be transmitted.

**MODULATION: CC01–CC31, CC33–PHASER: CC95, AFTERTOUCH, EXCLUSIVE:**

The corresponding MIDI message will be assigned.

- \* CC indicate the controller number (p.169).
- \* While the setting screen is displayed, moving sliders/knobs will not edit the various parameters. Also, the MIDI messages assigned to the various controllers will not be transmitted.
- \* If you want the JP-8080 to receive the MIDI message of the slider/knob that it transmitted, the Transmit/Receive Setting must be the same during both transmission and reception. If different settings are used, the MIDI messages cannot be received.

## ■ Tx/Rx ProgChg SW (Program Change Transmit/Receive Switch)

If you want to select sounds on an external MIDI device remotely from the JP-8080, or to select JP-8080 patches or performances from an external MIDI device connected to the JP-8080's MIDI IN connector, you must make settings to specify whether program change and bank select messages will be received and transmitted.

**OFF:** Program Change and Bank Select messages will be neither transmitted nor received.

**PC:** Only Program Change messages will be transmitted and received.

**BANK SEL + PC:** Program Change and Bank Select messages will be transmitted and received.

- \* These messages will be received at the REMOTE KBD IN connector if the Remote KBD CH is ALL, or if the MIDI channel of the program change or bank select matches the MIDI channel setting.

## ■ Control Up/Control Down

Some MIDI messages are able to modify multiple parameters simultaneously. You can select which MIDI messages will modify parameters. For details refer to “Control Using MIDI Messages Other than Aftertouch and Breath (Control Up/Down)” (p.86).

# Making Overall Setting (Setup)

These settings are common to the entire JP-8080.

### 1 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 2 Press [SETUP] (BANK [6]) several times to select the parameter whose settings you wish to modify.

- \* If you hold down [SHIFT] and press [SETUP], you will return to the previous display page.

The [SETUP] indicator will light.

### 3 Use [DEC]/[INC] to set the value.

### 4 When you finish making settings, press [EDIT] or [EXIT].

The previous display will reappear.

The following five parameters can be set.

- \* For details on □ parameters, refer to the page given.

## ■ LCD Contrast

## ■ Master Tune

## ■ Power Up Mode

## □ Pattern Trig Qtz (Pattern Trigger Quantize)

“Setting the Timing at Which Patterns Will Switch (Pattern Trigger Quantize)” (p.93)

## □ Motion Restart (Motion Restart)

“Playing Back a Motion From the Beginning Each Time a Key is Pressed (Motion Restart)” (p.99)

# Setting the LCD Contrast

## ■ LCD Contrast

1–8

This adjust the brightness of the display. Adjust it for best visibility.

---

## Master Tuning

### ■ Master Tune      427.5–452.9 (Hz)

1cent steps for a pitch adjustment of +/- 50 cents. This is displayed as a frequency (Hz).

.....

#### ● Concerning tuning

The setting 427.5 Hz–452.9 Hz indicates the pitch of A4 (middle A). This is referred to as “standard pitch,” and is the note that is normally used to indicate the pitch of an instrument. Two or more instruments can be tuned by setting their A4 pitches to match.

.....

## Setting the Power-On Condition (Power Up Mode)

### ■ Power Up Mode

This specifies the state that the panel settings will be in when the power is turned on.

**PERFORM U:11:** The U:11 Performance will be selected.

**LAST-SET:** The panel will be in the state it was when the power was turned off.

# Chapter 10. Saving Your Settings

- Performances/patches that you create can be saved either in internal memory, a memory card, or on an external sequencer. Also, performances/patches that have been saved in internal memory can be saved on a memory card or an external sequencer in groups.
- RPS patterns cannot be directly recorded to a memory card, but RPS patterns that have been recorded into internal memory can be saved to a memory card.
- Motion Control cannot be recorded directly to a memory card. However, Motion Control that has been recorded to internal memory can be saved either on a memory card or on an external sequencer.
- System settings (all parameters set by [MIDI] and [SETUP] (p.122–126)) can be saved either on a memory card or on an external sequencer.

## Storing a Performance/Patch

Once you modify the sound with a slider/knob and button, then “\*” (asterisk) will appear in the display, indicating that the settings of the selected Performance have been modified.

```
PERFORM* P1:E3E3  
TenPlete6
```

```
PATCH * UPPER  
Tnp6:Upper
```

If you select a different Performance/Patch while the asterisk is displayed, the current settings will be lost. If you wish to keep the current settings, you must use the following procedure to write them to internal memory or optional memory card.

You can assign a name of up to 16 characters to your Performance/Patch.

- \* Performances/patches can also be saved on an external sequencer. (p.137)

## Assigning a Name

Before you save data, it is a good idea to modify the name so that the data can be distinguished.

- 1 Press [EDIT].  
The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.
- 2 In the case of a performance, press [PFM COMMON] (BANK [1]) to select the Performance Name page.  
In the case of a patch, press [PATCH] (BANK [4]) to select the Patch Name page.

The following display will appear, and the “\_” (cursor) will appear below the name.

```
Performance Name  
TenPlete6
```

```
Patch Name  
Tnp6:Upper
```

- 3 In the case of a patch, you will also need to press **PANEL SELECT [LOWER]/[UPPER]** to select the part.  
If you decide not to modify the name, press [EXIT].
- 4 Use **GROUP [DOWN]/[UP]** to move the cursor to the location where you wish to input a character.
- 5 Use **[DEC]/[INC]** to specify the character.

- \* If you hold down one of the [DEC]/[INC] buttons and then press the other button, the change will become more rapid in the direction of the first-pressed button. You can use this function whenever using the [DEC]/[INC] buttons to specify a value.

The following characters can be selected.

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

.....  
When inputting characters, the NUMBER [1]–[8] buttons have the following convenient functions.

- [1]: Display an “.” at the cursor location.
- [2]: Display a space at the cursor location.
- [3]: Display an “A” at the cursor location.
- [4]: Display an “a” at the cursor location.
- [5]: Display a “0” at the cursor location.
- [6]: Switch between uppercase and lowercase characters.
- [7]: Insert a space at the cursor location.
- [8]: Delete the character at the cursor location, and shift subsequent characters to the left.

.....

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

## 7 Press [EDIT] or [EXIT].

The name has now been modified.

## Saving Data

Specify the save destination (internal USER/memory card), and save the performance or patch.

If you wish to save data on a memory card, make sure that a formatted memory card (p.129) is inserted in the card slot.

### 1 Press [PERFORM/PATCH SELECT] to specify whether you are saving a performance or patch.

In the case of a performance, the upper left of the display will read "PERFORM," and in the case of a patch it will read "PATCH."

### 2 If you are saving a patch, you will also need to press PANEL SELECT [LOWER]/[UPPER] to select the part.

### 3 Press [WRITE].

### 4 Use GROUP [DOWN]/[UP] to select the save destination group.

<When saving a performance>

U: USER  
C01: CARD01  
:  
C32: CARD32  
:  
C64: CARD64

<When saving a patch>

U: A, U: B: USER A, USER B  
C01: A, C01: B: CARD01 A, CARD01 B  
:  
C01: A, C01: B: CARD01 A, CARD01 B  
:  
C01:A, C01:B: CARD01 A, CARD01 B

### 5 Press BANK [1]–[8] to select a Bank (1–8).

### 6 Press NUMBER [1]–[8] to select a Number (1–8).

- \* You can also use [DEC]/[INC] to select the bank and number.

### 7 Press [WRITE].

The display will indicate "Completed" and the previous display will reappear.

The Performance/Patch has now been stored into memory.

If you have modified the name, the data will be saved under that name.

- \* The Patches stored within a Performance are displayed as "UPPER" and "LOWER." Be aware that the original Patch numbers are not displayed.

- \* If you save sound data to a group into which no data was ever written before, initialized data (INIT PERFORMANCE: p.142, 143, INIT PATCH: p.143) will be automatically written into all other locations of that group.

## Using a Memory Card (SmartMedia)

JP-8080 can use an optional memory card (S2M-5 (2MByte) or S4M-5 (4MByte)).

Use this card when you wish to save data for which there is no more space in the internal USER group, or so that the data you created can be used on another JP-8080.

Memory card must be formatted before they can be used.

## Before Using a Memory Card

- \* The power of the JP-8080 must be turned off before inserting or removing a memory card. If a memory card is inserted when the power is turned on, the data in the memory card may be destroyed, or the memory card may become unusable.
- \* Be sure to insert the memory card all the way into the slot.
- \* Do not touch the contacts of the memory card, or allow them to become soiled.
- \* Never remove the memory card or turn off the power while an operation (formatting, or data read/write) is being performed on the memory card. Doing so will destroy the data in the memory card and/or render the memory card unusable.
- \* If you affix the write protect label to the write protect area of the memory card, it will be impossible to format the card or write data to it. If you wish to format the card or write data to it, do so without the label affixed. For details on the write protect label, refer to the instruction included with your memory card.

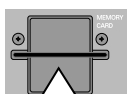
If you attempt to format the card or write data to it when the write protect label is affixed, the following message will appear.

Memory Card  
Protected!



## Formatting a Memory Card

- 1 With the power turned off, insert the memory card into the card slot.



The surface without gold contacts must face upward

- 2 Turn on the power.
- 3 Press [EDIT].  
The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.
- 4 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.  
The [INIT/UTIL] indicator will light.
- 5 Use [DEC]/[INC] several times to choose “FORMAT.”

```
Card      [WRITE]
Menu:     FORMAT
```

- 6 Press [WRITE].  
A confirmation message will appear.

```
Format CARD
OK? [WRITE/EXIT]
```

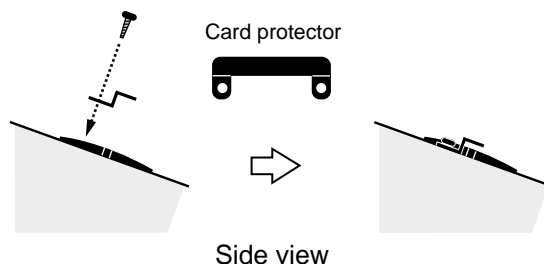
To cancel without formatting, press [EXIT].

- 7 Press [WRITE].  
When the formatting operation ends, the display will indicate “Completed.”  
The memory card has now been formatted.
- 8 Press [EXIT] to return to the previous display.

### ● Installing the Card Protector

A card protector to prevent theft of the memory card is included with the JP-8080. Use the following procedure to install the card protector.

- 1 Use a screwdriver to remove both screws at either end of the card slot.
- 2 Insert the memory card into the card slot.
- 3 As shown in the following diagram, use the screws to fasten the card protector.



## Saving to a Memory Card

- \* When you execute the Save operation, the data which existed at the save destination will be overwritten and lost.

A memory card can contain the following amounts of data.

	S2M-5 (2M bytes)	S4M-5 (4M bytes)
<b>Performances</b>	64 x 32 groups	64 x 64 groups
<b>Patches</b>	128 x 32 groups	128 x 64 groups
<b>RPS patterns</b>	1 set (48 patterns)	1 set (48 patterns)
<b>Motion control</b>	4 x 2 groups	4 x 2 groups
<b>System settings</b>	1 set	1 set
(all parameters that are set by [MIDI] and [SETUP] (p.122–126))		

### ■ Saving performances to a card (PERFORMANCE)

All user performances can be saved together to a memory card.

- \* To save the performance of the temporary area directly to the memory card, refer to “Saving Data (p.128).”

- 1 Make sure that a formatted memory card is inserted in the card slot.
- 2 Press [EDIT].  
The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

- 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

- 4 Use [DEC]/[INC] several times to choose "USER->CARD."**

```
Card      [WRITE]
Menu#    USER->CARD
```

- 5 Press [WRITE].**

- 6 Use [DEC]/[INC] several times to choose "PERFORMANCE."**

```
Type#    [WRITE]
          PERFORMANCE
```

- 7 Press [WRITE].**

- 8 Use [DEC]/[INC] several times to select the save destination.**

- 9 Press [WRITE].**

A confirmation message will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel without saving, press [EXIT].

- 10 Press [WRITE].**

The display will indicate "Completed."

The performance data has now been saved to the card.

- 11 Press [EXIT] to return to the previous display.**

Performances saved on a card can be directly selected and used. (p.59)

## ■ Saving patches to a card (PATCH)

All user patches can be saved together on a memory card.

The data can be saved in three ways: both USER A and B, only USER A, or only USER B.

- \* If you wish to save the patch in the temporary area directly to the memory card, refer to "Saving Data (p.128)."

- 1 Make sure that a formatted memory card has been inserted into the card slot.**

- 2 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]-[8] indicators will blink.

- 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

- 4 Use [DEC]/[INC] several times to choose "USER->CARD."**

```
Card      [WRITE]
Menu#    USER->CARD
```

- 5 Press [WRITE].**

- 6 Use [DEC]/[INC] several times to choose "PATCH."**

```
Type#    [WRITE]
          PATCH
```

- 7 Press [WRITE].**

- 8 Press [DEC]/[INC] several times to select the contents that will be saved.**

**USER A&B:** USER A,B patches

**USER A:** USER A patches

**USER B:** USER B patches

- 9 Press [WRITE].**

- 10 Use [DEC]/[INC] several times to select the save destination.**

- 11 Press [WRITE].**

A confirmation message will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel without saving, press [EXIT].

- 12 Press [WRITE].**

The display will indicate "Completed."

The patch data has now been saved to the card.

- 13 Press [EXIT] to return to the previous display.**

Patches that have been saved to a memory card can be directly selected and used. (p.61)

- \* If you save "USER A"/"USER B" patches to a group into which no data was ever written before, initialized patch data (INIT PATCH: p.143) will be automatically written into the other group (A or B).

## ■ Saving RPS patterns to a card (PATTERN)

Patterns that have been recorded to internal memory can be saved to a memory card.

Patterns can be saved in three ways: –all 48 patterns together,” –in groups of 24,” or –individually.”

- \* Depending on the contents of the data, some time may be required for the save operation to be completed when saving either “48” or “24” items.

**1 Make sure that a formatted memory card has been inserted in the card slot.**

**2 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

**3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

**4 Use [DEC]/[INC] several times to choose “USER->CARD.”**

```
Card      [WRITE]
Menu: USER->CARD
```

**5 Press [WRITE].**

**6 Use [DEC]/[INC] several times to choose “PATTERN.”**

```
Type: [WRITE]
      PATTERN
```

**7 Press [WRITE].**

**8 Press [DEC]/[INC] several times to select the data which will be saved.**

If you wish to save individual RPS patterns to a memory card, turn on ARPEGGIATOR/RPS [ON], and set [MODE] to RPS so that you can press a key to select the content to be saved.

**ALL PATTERNS:** all 48 patterns  
**USER C#2-C 4:** 24 patterns (C#2-C 4)  
**USER C#4-C 6:** 24 patterns (C#4-C 6)  
**USER C#2:** the C#2 pattern  
 :  
**USER C 6:** the C 6 pattern

**9 Press [WRITE].**

**10 Use [DEC]/[INC] several times to select the save destination.**

- \* If in step 7 you selected ALL PATTERNS, this setting will not appear.

**11 Press [WRITE].**

A confirmation will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel the Saving operation, press [EXIT].

**12 Press [WRITE].**

The display will indicate “Completed.”

The pattern data has now been saved to the card.

**13 Press [EXIT] to return to the previous display.**

Patterns that have been saved to a memory card can be directly selected and used. (p.93)

## ■ Saving Motion Control to a card (MOTION CONTROL)

Up to eight (four sets) of Motions that have been recorded in internal memory can be saved on a memory card.

Motion data can be saved in three ways: “all four (2 sets) together,” “two (1 set) together,” or “individually.”

- \* Depending on the contents of the data, some time may be required for the save operation to be completed.

**1 Make sure that a formatted memory card has been inserted into the card slot.**

**2 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

**3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

**4 Use [DEC]/[INC] several times to choose “USER->CARD.”**

```
Card      [WRITE]
Menu: USER->CARD
```

**5 Press [WRITE].**

**6 Use [DEC]/[INC] several times to choose “MOTION CONTROL.”**

```
Type: [WRITE]
      MOTION CONTROL
```

**7 Press [WRITE].**

**8 Press [DEC]/[INC] several times to select the contents that will be saved.**

**USER SET A&B:** All four motions

**USER SET A:** The two motions of SET A

**USER SET B:** The two motions of SET B

**USER SET A [1]:** Motion [1] of SET A

**USER SET A [2]:** Motion [2] of SET A

**USER SET B [1]:** Motion [1] of SET B

**USER SET B [2]:** Motion [2] of SET B

**9 Press [WRITE].**

**10 Use [DEC]/[INC] several times to select the save destination.**

### 11 Press [WRITE].

A confirmation message will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel the Saving operation, press [EXIT].

### 12 Press [WRITE].

The display will indicate "Completed."

The Motion has now been saved to the card.

### 13 Press [EXIT] to return to the previous display.

Motions that have been saved to a card can be directly selected and played. (p.99)

## ■ Saving System settings to a card (SYSTEM SETUP)

System settings refer to all parameters which are set by [MIDI] and [SETUP] (p.122-126). These settings can be stored as a whole to a memory card.

#### 1 Make sure that a formatted memory card has been inserted into the card slot.

#### 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]-[8] indicators will blink.

#### 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

#### 4 Use [DEC]/[INC] several times to choose "USER->CARD."

```
Card [WRITE]
Menu: USER->CARD
```

#### 5 Press [WRITE].

#### 6 Use [DEC]/[INC] several times to choose "SYSTEM SETUP."

```
Type: [WRITE]
SYSTEM SETUP
```

#### 7 Press [WRITE].

A confirmation message will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel without saving, press [EXIT].

#### 8 Press [WRITE].

The display will indicate "Completed."

System settings have now been saved to the card.

#### 9 Press [EXIT] to return to the previous display.

System settings which have been saved to a memory card cannot be used unless they are loaded back into internal memory. (p.136)

## ■ Saving all JP-8080 settings to a card simultaneously (ALL)

All settings (user performances, user patches, RPS patterns, motion control, and system) can be saved as a whole to a memory card.

When you save ALL data, performance, patch, and motion control data will automatically be saved to the last group of the memory card, as shown in the following table.

	For an S2M-5 (2M bytes)	For an S4M-5 (4M bytes)
Performances	CARD32	CARD64
Patches	CARD32	CARD64
Motion Control	CARD2	CARD2

\* If you save "ALL," several minutes will be required for the save operation to be completed.

#### 1 Make sure that a formatted memory card has been inserted into the card slot.

#### 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]-[8] indicators will blink.

#### 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

#### 4 Use [DEC]/[INC] several times to choose "USER->CARD."

```
Card [WRITE]
Menu: USER->CARD
```

#### 5 Press [WRITE].

#### 6 Use [DEC]/[INC] several times to choose "ALL."

```
Type: [WRITE]
ALL
```

#### 7 Press [WRITE].

A confirmation message will appear.

```
Overwrite CARD
OK? [WRITE/EXIT]
```

To cancel without saving, press [EXIT].

#### 8 Press [WRITE].

The display will indicate "Completed."

All settings of the JP-8080 have now been saved to the memory card.

#### 9 Press [EXIT] to return to the previous display.

## Erasing a Pattern/Motion That was Saved on a Memory Card

In some cases when you attempt to save data to a memory card, an indication of "Card Memory Full!" will appear, and it will not be possible to save the data. This occurs when the memory card contains patterns or motions which contain large amounts of data. In such cases, you can erase individual patterns or motions from a memory card.

- \* It is not possible to erase performance, patch, or system settings.

**1 Make sure that a memory card is inserted into the memory card slot.**

**2 Press [EDIT].**

The [EDIT] indicator will light, and the BANK [1]–[8] indicators will blink.

**3 Press [INIT/UTIL] (BANK [7]) several times to select the Card page.**

The [INIT/UTIL] indicator will light.

**4 Press [DEC]/[INC] several times to select "ERASE."**

```
Card      [WRITE]
Menu#     ERASE
```

**5 Press [WRITE].**

**6 Press [DEC]/[INC] several times to select "PATTERN" or "MOTION CONTROL."**

```
Type:     [WRITE]
          PATTERN
```

```
Type:     [WRITE]
          MOTION CONTROL
```

**7 Press [WRITE].**

**8 Press [DEC]/[INC] several times to select the contents which will be erased.**

(For a PATTERN)

CARD C#2: pattern C#2

:

CARD C 6: pattern C 6

(For a MOTION CONTROL)

CARD\* SET A[1]: CARD\* motion [1] of SET A

CARD\* SET A[2]: CARD\* motion [2] of SET A

CARD\* SET B[1]: CARD\* motion [1] of SET B

CARD\* SET B[2]: CARD\* motion [2] of SET B

\* : 1 or 2

**9 Press [WRITE].**

A message will ask for confirmation.

```
Erase your data
OK? [WRITE/EXIT]
```

If you decide not to erase the data, press [EXIT].

**10 Press [WRITE].**

The display will indicate "Completed."

The specified pattern or motion has now been erased.

**11 Press [EXIT] to return to the previous display.**

## Restoring Saved Settings to the JP-8080

If you wish to modify the settings that have been saved on a memory card, or to use the system settings that have been saved on a memory card, use the following procedure to restore the saved settings to internal memory.

- \* When data is restored to internal memory, the data which had been in internal memory will be overwritten and lost. However, the factory-set data can be recovered by performing the Factory Reset operation. (p.140)

### Restoring performance data to internal memory (PERFORMANCE)

- 1 Make sure that a memory card has been inserted into the card slot.

- 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

- 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

- 4 Use [DEC]/[INC] several times to choose “CARD->USER.”

```
Card      [WRITE]
Menu:    CARD->USER
```

- 5 Press [WRITE].

- 6 Use [DEC]/[INC] several times to choose “PERFORMANCE.”

```
Type:    [WRITE]
         PERFORMANCE
```

- 7 Press [WRITE].

- 8 Press [DEC]/[INC] several times to select the contents that will be restored.

CARD\*\*: Performances of CARD\*\*

\*\* : 01–32 (for the S2M-5 (2M bytes))

\*\* : 01–64 (for the S4M-5 (4M bytes))

- 9 Press [WRITE].

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

- 10 Press [WRITE].

The display will indicate “Completed.”

The performance data has now been restored to internal memory.

- 11 Press [EXIT] to return to the previous display.

### Restoring patch data to internal memory (PATCH)

Patch data can be restored to internal memory in three ways: both A and B, only A, or only B.

- 1 Make sure that a memory card has been inserted into the card slot.

- 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

- 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

- 4 Use [DEC]/[INC] several times to choose “CARD->USER.”

```
Card      [WRITE]
Menu:    CARD->USER
```

- 5 Press [WRITE].

- 6 Use [DEC]/[INC] several times to choose “PATCH.”

```
Type:    [WRITE]
         PATCH
```

- 7 Press [WRITE].

- 8 Press [DEC]/[INC] several times to select the content that will be restored.

CARD\*\* A&B: Patches of CARD\*\* A, B

CARD\*\* A: Patches of CARD\*\* A

CARD\*\* B: Patches of CARD\*\* B

\*\* : 01–32 (for the S2M-5 (2M bytes))

\*\* : 01–64 (for the S4M-5 (4M bytes))

- 9 Press [WRITE].

- 10 Press [DEC]/[INC] several times to select the restore destination.

- \* If you selected CARD\*\* A&B in step 8, this setting will not be necessary.

- 11 Press [WRITE].

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

- 12 Press [WRITE].

The display will indicate “Completed.”

The patch data has now been restored to internal memory.

- 13 Press [EXIT] to return to the previous display.

## ■ Restoring RPS patterns to internal memory (PATTERN)

RPS patterns can be restored to internal memory in three ways: all 48 together, in groups of 24, or one at a time.

- \* On the JP-8080, all patterns and motion share the same memory space. This means that depending on how the internal memory is used, an indication of “Memory Full!” may appear when pattern data is restored from memory card back to internal memory, and it will not be possible to restore the data correctly. If this occurs, delete unneeded patterns or motions from internal memory (p.97, 102), and restore the data to internal memory once again.

### 1 Make sure that a memory card has been inserted into the card slot.

### 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

### 4 Use [DEC]/[INC] several times to choose “CARD->USER.”

```
Card      [WRITE]
Menu:    CARD->USER
```

### 5 Press [WRITE].

### 6 Use [DEC]/[INC] several times to choose “PATTERN.”

```
Type:    [WRITE]
         PATTERN
```

### 7 Press [WRITE].

### 8 Press [DEC]/[INC] several times to select the content to be restored.

If you wish to restore individual RPS patterns from a memory card to internal memory, turn on ARPEGGIATOR/RPS [ON], and set [MODE] to RPS so that you can press a key to select the content to be restored.

<b>ALL PATTERNS:</b>	All 48 patterns
<b>CARD C#2-C 4:</b>	24 patterns (C#2–C 4)
<b>CARD C#4-C 6:</b>	24 patterns (C#4–C 6)
<b>CARD C#2:</b>	The C#2 pattern
<b>:</b>	
<b>CARD C 6:</b>	The C 6 pattern

### 9 Press [WRITE].

### 10 Press [DEC]/[INC] several times to select the restore destination.

- \* If you selected ALL PATTERNS in step 8, this setting will not appear.

### 11 Press [WRITE].

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

### 12 Press [WRITE].

The display will indicate “Completed.”

The pattern data has now been restored to internal memory.

### 13 Press [EXIT] to return to the previous display.

## ■ Restoring Motion Control data to internal memory (MOTION CONTROL)

Motion Control data can be restored to internal memory in three ways: all four (two sets) together, two (one set), or individually.

- \* On the JP-8080, all patterns and motions share the same memory space. This means that depending on how the internal memory is used, an indication of “Memory Full!” may appear when motion data is restored from memory card back to internal memory, and it will not be possible to restore the data correctly. If this occurs, delete unneeded patterns or motions from internal memory (p.97, 102), and restore the data to internal memory once again.

### 1 Make sure that a memory card has been inserted into the card slot.

### 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

### 3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.

The [INIT/UTIL] indicator will light.

### 4 Use [DEC]/[INC] several times to choose “CARD->USER.”

```
Card      [WRITE]
Menu:    CARD->USER
```

### 5 Press [WRITE].

### 6 Use [DEC]/[INC] several times to choose “MOTION CONTROL.”

```
Type:    [WRITE]
         MOTION CONTROL
```

### 7 Press [WRITE].

### 8 Press [DEC]/[INC] several times to select the contents that will be restored.

<b>CARD* SET A&amp;B:</b>	All four motions of CARD*
<b>CARD* SET A:</b>	The two motions of CARD* SET A

**CARD\* SET B:** The two motions of CARD\* SET B  
**CARD\* SET A [1]:** Motion [1] of CARD\* SET A  
**CARD\* SET A [2]:** Motion [2] of CARD\* SET A  
**CARD\* SET B [1]:** Motion [1] of CARD\* SET B  
**CARD\* SET B [2]:** Motion [2] of CARD\* SET B

\*: 1 or 2

**9 Press [WRITE].**

**10 Press [DEC]/[INC] several times to select the restore destination.**

\* If you selected CARD\* SET A&B in step 8, this setting will not appear.

**11 Press [WRITE].**

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

**12 Press [WRITE].**

The display will indicate "Completed."

The motion data has now been restored to internal memory.

**13 Press [EXIT] to return to the previous display.**

## ■ Restoring System settings to internal memory (SYSTEM SETUP)

**1 Make sure that a memory card has been inserted into the card slot.**

**2 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

**3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

**4 Use [DEC]/[INC] several times to choose "CARD->USER."**

```
Card      [WRITE]
Menu: CARD->USER
```

**5 Press [WRITE].**

**6 Use [DEC]/[INC] several times to choose "SYSTEM SETUP."**

```
Type:      [WRITE]
SYSTEM SETUP
```

**7 Press [WRITE].**

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

**8 Press [WRITE].**

The display will indicate "Completed."

System settings have now been restored to internal memory.

**9 Press [EXIT] to return to the previous display.**

## ■ Restoring all JP-8080 settings simultaneously to internal memory (ALL)

When you use ALL to restore data to internal memory, performance, patch, and motion control data will automatically be restored from the last group of the memory card into internal memory, as shown in the following table.

	For an S2M-5 (2M bytes)	For an S4M-5 (4M bytes)
<b>Performances</b>	CARD32	CARD64
<b>Patches</b>	CARD32	CARD64
<b>Motion Control</b>	CARD2	CARD2

In addition, all RPS patterns and System settings will also be restored to internal memory.

**1 Make sure that a memory card has been inserted into the card slot.**

**2 Press [EDIT].**

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

**3 Press [INIT/UTIL] (BANK [7]) several times to access the Card display.**

The [INIT/UTIL] indicator will light.

**4 Use [DEC]/[INC] several times to choose "CARD->USER."**

```
Card      [WRITE]
Menu: CARD->USER
```

**5 Press [WRITE].**

**6 Use [DEC]/[INC] several times to choose "ALL."**

```
Type:      [WRITE]
ALL
```

**7 Press [WRITE].**

A confirmation message will appear.

```
Overwrite USER
OK? [WRITE/EXIT]
```

To cancel without restoring, press [EXIT].

**8 Press [WRITE].**

The display will indicate "Completed."

All settings of the JP-8080 have now been restored to internal memory.



- 9 Press [EXIT] to return to the previous display.

## Saving Settings on an External Sequencer (Bulk Dump)

The JP-8080 is able to transmit a variety of settings to an external device as exclusive messages. This function is referred to as “**Bulk Dump**.” By transmitting this data to an external sequencer that is connected to the JP-8080, you can save various JP-8080 settings. Alternatively, you can connect another JP-8080 instead of a sequencer, and set the second JP-8080 to the same settings.

### Procedure

- 1 Use a MIDI cable to connect the JP-8080's MIDI OUT connector to the MIDI IN connector of the external sequencer.

- 2 Press [EDIT].

The [EDIT] indicator will light and the BANK [1]–[8] indicators will blink.

- 3 Press [INIT/UTIL] (BANK [7]) several times to access the Bulk Dump display.

The [INIT/UTIL] indicator will light.

```
Bulk Dump[WRITE]
ALL
```

- 4 Use [DEC]/[INC] to select the type of Bulk Dump (refer to the explanations that follow).

- 5 Put the external sequencer in record mode.

- 6 Press [WRITE] to transmit the data.

The following display will appear.

```
Transmitting...
```

- \* Do not play the MIDI keyboard during Bulk Dump. If you play the MIDI keyboard, Note messages will be transmitted from the MIDI OUT connector.

To halt the Bulk Dump operation, press [EXIT].

- 7 When the Bulk Dump is completed, the display will indicate “Completed,” and then the previous display will reappear.

- 8 Stop the external sequencer.

## Types of Bulk Dump

The types of data which can be bulk dumped and the transmitted contents are as follows.

- \* When ALL, PERFORM: USER ALL, PATCH: USER ALL, PATCH: USER A or PATCH: USER B are executed, the temporary settings will not be transmitted.

**ALL:** All User Patches, All User Performances, All Motion Controls, and System settings (Parameters which are set by [MIDI] and [SETUP] (p.122–126).)

**PERFORM: USER ALL:** All User Performances

**PERFORM: TEMP:** The currently selected Performance

**PATCH: USER ALL:** All User Patches

**PATCH: USER A:** User Patches of group A

**PATCH: USER B:** User Patches of group B

**PATCH: TEMP UPPER:**

The Patch currently selected for Upper

**PATCH: TEMP LOWER:**

The Patch currently selected for Lower

**PATCH: TEMP UP&LO:**

The Patches currently selected for Upper and Lower

**MOTION: ALL:** All Motions

**MOTION: SET A [1]:** Motion [1] of Motion Set A

**MOTION: SET A [2]:** Motion [2] of Motion Set A

**MOTION: SET B [1]:** Motion [1] of Motion Set B

**MOTION: SET B [2]:** Motion [2] of Motion Set B

**SYSTEM SETUP:** System settings (parameters set by [MIDI] and [SETUP] (P.122–126))

- \* If you wish to bulk dump data from a memory card, you must first restore the data to internal memory (p.134–136), and then bulk dump that data.

- \* It is not possible to bulk dump RPS patterns.

---

## Restoring Saved Settings to the JP-8080

When you wish to restore settings saved by Bulk Dump back to internal memory, connect the external MIDI device to the MIDI IN connector of the JP-8080.

\* When data is restored to internal memory, the data which had been in internal memory will be overwritten and lost. However, the factory-set data can be recovered by performing the Factory Reset operation. (p.140)

**1 Use a MIDI cable to connect the MIDI OUT connector of the external sequencer to the MIDI IN connector of the JP-8080.**

**2 Set the Device ID Number to the same setting as when the Bulk Dump was executed.**

[MIDI]: Device ID (p.123)

**3 Turn the Exclusive Receive Switch ON.**

[MIDI]: Rx Exclusive SW (p.124)

**4 Transmit (playback) the data from the external sequencer.**

\* Playback the external sequencer at the same tempo that was used when recording the bulk dump. If the playback tempo is faster, it may be impossible to restore the settings correctly.

\* On the JP-8080, all Motions and Patterns share the same memory space. This means that depending on the current memory usage, a Motion that was dumped may cause a "Memory Full!" display to appear when it is sent back to the JP-8080, and that it will not be possible to send the data back to the JP-8080. If this occurs, delete unneeded Patterns or Motions from memory (p.97, 102), and transmit the bulk data back to the JP-8080 once again.

.....

### ● Hints

When recording your playing on an external sequencer, it is convenient to use Bulk Dump to record the JP-8080's PERFORMANCE: TEMP settings at the beginning of the recording.

If this is done, the JP-8080 will automatically be given those Performance settings when the song is played back, so that you will not need to select the Performance before playback. Furthermore, even if the Performance settings are modified after the song is recorded, the playback will still use exactly the same settings.

.....

## ■ Notes when bulk dumping sound data from the Roland JP-8000 sequencer to the JP-8080

The JP-8080 has parameters which do not exist on the JP-8000 (Unison, Voice Modulator etc.). When JP-8000 data is bulk dumped to the JP-8080, parameters unique to the JP-8080 will not be overwritten, but will remain with their previous settings.

Thus, if you wish to bulk dump JP-8000 sounds to the JP-8080 and reproduce the identical settings, please use the following procedure.

The procedure will depend on the type of bulk dump.

- \* If you are bulk dumping JP-8000 motion settings to the JP-8080, no special operations are required before bulk dumping.
- \* The JP-8080 cannot receive JP-8000 pattern settings as a bulk dump.

## ● Bulk dumping a performance/patch from the JP-8000's temporary area to the JP-8080

Refer to the table below, and initialize the performance/patch in the JP-8080's temporary area (p.140). Then execute the bulk dump.

Bulk dump performed on the JP-8000	Data initialized on the JP-8080
PERFORM: TEMP	PERF: TEMPORARY
PATCH: TEMP UPPER	PATCH: TEMPORARY (upper only)
PATCH: TEMP LOWER	PATCH: TEMPORARY (lower only)
PATCH: TEMP UP&LO	PATCH: TEMPORARY (both upper and lower)

## ● Bulk dumping JP-8000 user area data to the JP-8080

Refer to the following table, and restore the data in the JP-8080's user area to the factory settings (Factory Reset: p.140). Then execute the bulk dump.

Bulk dump transmitted from the JP-8000	Restoring the factory reset on the JP-8080
ALL	JP-8000 ALL
PERFORM: USER ALL	JP-8000 PERF
PATCH: USER ALL	JP8000 PATCH
PATCH: USER A	JP8000 PAT.A
PATCH: USER B	JP8000 PAT.B

- \* Even if you select ALL on the JP-8000 and execute bulk dump, the JP-8080 will not receive RPS pattern settings.

# Chapter 11. Setting Sounds to Basic Values (Initialize) Restoring the Factory Settings (Factory Reset)

The “Initialize” function lets you restore JP-8080 performances or patches to certain basic values.

The “Factory Preset” function lets you restore performances, patches, patterns, motions and system settings to their factory settings.

## Setting Performances/Patches to Basic Values (Initialize)

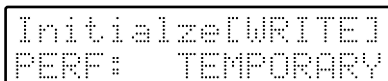
The performance or patch in the temporary can be set to a standard set of basic values (p.142, 143). This is convenient when you wish to create your own sounds from scratch.

**1 Press [EDIT].**

The [EDIT] indicator will light, and the BANK [1]–[8] indicators will blink.

**2 Press [INIT/UTIL] (BANK [7]) several times to select the Initialize page.**

The [INIT/UTIL] indicator will light.



Initialize[WRITE]  
PERF: TEMPORARY

**3 Use [DEC]/[INC] to select the type of initialization.**

**PERF: TEMPORARY:**

the performance in the temporary area

**PATCH: TEMPORARY:**

the patch in the temporary area

If you decide not to initialize, press [EXIT].

**4 If you selected PATCH: TEMPORARY, use PANEL SELECT [UPPER]/[LOWER] to select the part that you wish to initialize.**

If you press both [LOWER]/[UPPER] simultaneously, both indicators will light, and the patches of both parts will be initialized.

**5 Press [WRITE].**

The display will indicate “Completed,” and the previous display will reappear.

The initialize operation has been completed.

- \* For details on Voice Modulator Initialize which sets the performance in the temporary area to settings which allow you to use the Voice Modulator, refer to p.106.

## Restoring the Factory Settings (Factory Reset)

Using this function, the data in the JP-8080's user memory (performances, patches, patterns, motions) and the data in system memory (all parameters which are set by [MIDI] and [SETUP]) can be restored to the factory settings.

A menu item is also provided which sets the user performances/patches to the JP-8000 preset performance/patch settings, for use when you wish to bulk dump (p.139) sound data from a Roland JP-8000 synthesizer to the JP-8080.

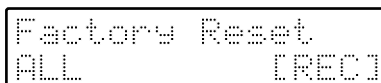
- \* When you perform the Factory Reset operation, the data in memory will return to the factory settings (or the JP-8000 settings). Before executing this operation, be sure that any important data has been saved on a memory card (p.129–132) or on an external MIDI device via bulk dump (p.137).

**1 Press [EDIT].**

The [EDIT] indicator will light, and the BANK [1]–[8] indicators will blink.

**2 Press [INIT/UTIL] (BANK [7]) several times to select the Factory Reset page.**

The [INIT/UTIL] indicator will light.

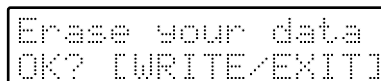


Factory Reset  
ALL [REC]

**3 Use [DEC]/[INC] to select the type of factory reset (refer to the explanations that follow).**

**4 Press [REC].**

A message will ask you for confirmation.



Erase your data  
OK? [WRITE/EXIT]

If you decide not to perform the Factory Reset operation, press [EXIT].

**5 Press [WRITE].**

The display will indicate “Completed,” and the previous display will then reappear.

This completes the Factory Reset operation.

## Types of Factory Reset

### ● Data which will be returned to the factory settings

**ALL:** All user performances, user patches, user patterns, user motions, and system settings (all parameters set by [MIDI] and [SETUP] (p.122–126))

**PERF ALL:** All user performances

**PATCH ALL:** All user patches

**PTN ALL:** All user patterns

**PTN C#2-C4:** user patterns C#2–C4

**PTN C#4-C6:** user patterns C#4–C6

**PTN CURRENT:** the currently selected user pattern (the pattern of previously pressed key)

**MOTION ALL:** all user motions

**MOTION A1:** user motion [1] of SET A

**MOTION A2:** user motion [2] of SET A

**MOTION B1:** user motion [1] of SET B

**MOTION B2:** user motion [2] of SET B

**SYS SETUP:** system settings (all parameters set by [MIDI] and [SETUP] (p.122–126))

### ● Resetting to JP-8000 sounds

**JP8000PATCH:** All user patches will be set to JP-8000 preset patches.

**JP8000PAT.A:** All user patches A will be set to JP-8000 preset patches A.

**JP8000PAT.B:** All user patches B will be set to JP-8000 preset patches B.

**JP8000 PERF:** All user performances will be set to JP-8000 preset performances.

**JP8000 ALL:** All user performances, user patches, motions, and system settings will be set to JP-8000 preset performances, preset patches, motions, and system settings.

\* If you execute the factory reset operation with “JP8000 ALL,” the MIDI Thru settings (a parameter not found on the JP-8000) will be turned OFF.

## Returning Only a Specific User Performance or User Patch to the Factory Settings

The factory-set user performances and user patches contain the same performance and patch settings as Preset 2.

If you wish to return only a specific User Performance or User Patch to the factory setting, use the following procedure.

- 1 **Select the Preset 2 performance/patch of the same number as the user performance / user patch that you wish to return to the factory settings.**
- 2 **Save the settings in the user performance / user patch of the same number.**

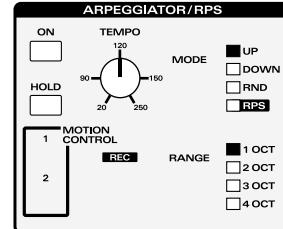
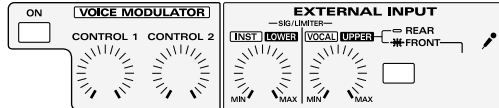
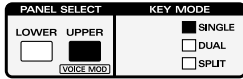
## ● Standard Settings

When **PERFORM: TEMPORARY** is executed, the Upper/Lower Patch parameters and Performance parameters will be set as follows.

When **PATCH: TEMPORARY** is executed, Patch parameters will be set as follows.

## ◆ Performance parameters

- \* The Voice Modulator parameters ([VOICE MOD] (BANK [2])) and Voice Modulator panel parameters) are the same as when Voice Modulator Initialize is executed to “F.FLT: VINTAGE.”

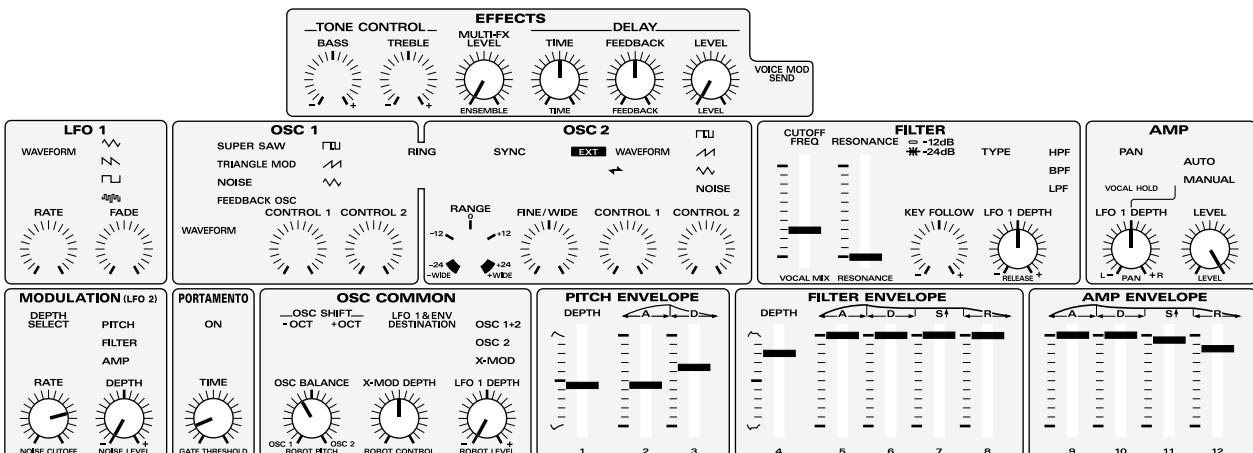


[PFM COMMON] ( BANK [1] )	
Performance Name	INIT PERFORMANCE
Part Detune	0
Output Assign	MIX OUT
Voice Assign	(4) 5-5 (4)
Split Point	C 4
Arpeggio Dest	LOWER&UPPER
Arp Beat Pattern	1/16
Indv Trig Switch	OFF
Indv Trig Dest	FILTER
Indv Trig Src CH	15
IndvTrigSrc Note	ALL

[VOICE MOD] ( BANK [2] )	
Algorithm	SOLID
Control1 Assign	VOCAL MIX
Control2 Assign	ENSEMBLE LEVEL
Ext->Inst Send	ON
Ext->Vocal Send	ON
V Delay Type	PANNING L->R
V Delay Sync	OFF
Ensemble Type	ENSEMBLE MILD
Ensemble Sync	OFF
Vocal Morph Ctrl	OFF
Vocal Morph Sens	+32
Vocal Morph Thrsh	10

[PART] ( BANK [3] )		
	L	U
Part Transpose	0	0
Part MIDI CH	2	1
Chorus Sync	OFF	OFF
Delay Sync	OFF	OFF
LFO Sync	OFF	OFF

## ◆ Performance parameters (Voice Modulator panel)



◆ Patch parameters

Multi-FX Type

SUPER CHORUS SLW

TONE CONTROL

BASS

TREBLE

EFFECTS

MULTI-FX LEVEL

DELAY

TIME

FEEDBACK

LEVEL

Delay Type

PANNING L->R

LFO 1

WAVEFORM

RATE

FADE

OSC 1

☐ SUPER SAW

☐ TRIANGLE MOD

☐ NOISE

☐ FEEDBACK OSC

CONTROL 1

CONTROL 2

OSC 2

☐ EXT

WAVEFORM

☐ NOISE

CONTROL 1

CONTROL 2

MODULATION (LFO 2)

DEPTH SELECT

PITCH

FILTER

AMP

RATE

DEPTH

NOISE CUTOFF

NOISE LEVEL

PORTAMENTO

ON

TIME

GATE THRESHOLD

OSC COMMON

-OSC SHIFT

-OCT

+OCT

LFO 1 & ENV DESTINATION

☐ OSC 1+2

☐ OSC 2

☐ X-MOD

OSC BALANCE

X-MOD DEPTH

LFO 1 DEPTH

OSC 1 ROBOT PITCH

OSC 2 ROBOT PITCH

ROBOT CONTROL

ROBOT LEVEL

PITCH ENVELOPE

DEPTH

1

2

3

FILTER ENVELOPE

DEPTH

4

5

6

7

8

AMP ENVELOPE

DEPTH

9

10

11

12

CONTROL

SOLO SW

MONO

LEGATO

UNISON

VELOCITY

MORPHING

VELOCITY CONTROL ASSIGN

CONTROL ASSIGN

[PATCH] ( BANK [4] )			
Patch Name	INIT PATCH	Env Type in Solo	STANDARD
Bend Range Up	+ 2	Patch Gain	0 dB
Bend Range Down	- 2	Ext Trig Switch	OFF
Morph Bend Assign	OFF	Ext Trig Dest	FILTER
Unison Detune	5		

# Chapter 12. Example Applications

Chapters 1 through 11 explained mainly how you can connect a MIDI keyboard to the JP-8080 and perform. Now that you understand this method of use, let's try playing the JP-8080 from other types of MIDI device. When just a single JP-8080 is used, a maximum of ten simultaneous notes can be sounded (a maximum of eight notes when Voice Modulator are on), and there is the limitation that only two Parts can be received. However by using MIDI, you can control multiple MIDI devices as though they were a single synthesizer, such as playing a different sound source in the background while you play a solo on the JP-8080, or using another synthesizer to layer sounds while you play the JP-8080.

Chapter 12 will discuss various examples of how the JP-8080 can be connected to MIDI devices.

\* MIDI cables are not included with the JP-8080. They can be purchased from your dealer.

## Synchronizing to an External MIDI Device

### Synchronizing Arpeggios, Patterns, or Motions

- 1 Use a MIDI cable to connect the MIDI OUT connector of your external MIDI device to the REMOTE KBD IN connector of the JP-8080.
- 2 Set MIDI Sync to REMOTE KBD IN.  
[MIDI]: MIDI Sync (p.123)
- 3 Set your external MIDI device so that it will transmit MIDI clock messages.
- 4 Start playback on your external MIDI device.
- 5 While listening to the external MIDI device play back, start a pattern or motion.

The arpeggio, pattern, or motion will playback at the same tempo as the playback of the external MIDI device. If you modify the tempo of the external MIDI device, the tempo of the arpeggio, pattern, or motion will also change.

\* Some external MIDI devices may not transmit MIDI Clock (F8) messages unless they are recording or playing back. If such a device is connected, be aware that the arpeggio, pattern, or motion will not synchronize unless the external MIDI device is recording or playing back.

Also, if the JP-8080 is synchronized to an external MIDI device which transmits Stop (FC) at the end of the loop during loop playback (or loop recording), the synchronization may become skewed. In particular, if you record a pattern or motion in synchronization with an external MIDI device, do not transmit Stop (FC) during recording. The performance cannot be recorded correctly.

### Synchronizing Chorus, Delay, LFO 1, Ensemble, or Voice Modulator Delay

- 1 Use a MIDI cable to connect the MIDI OUT connector of your external MIDI device to the REMOTE KBD IN connector of the JP-8080.
- 2 Make the desired settings for chorus sync, delay sync, LFO sync, ensemble sync, or Voice Modulator delay sync.  
[PART]: Chorus Sync/Delay Sync/LFO Sync (p.119, 120)  
[VOICE MOD]: Ensemble Sync/V Delay Sync (p.110)
- 3 Set MIDI Sync to REMOTE KBD IN.  
[MIDI]: MIDI Sync (p.123)
- 4 Set your external MIDI device so that it will transmit MIDI clock messages.
- 5 Start playback on your external MIDI device.
- 6 While listening to the external MIDI device play back, play the JP-8080.

The delay, or the rate of the chorus/LFO 1/ensemble, will sound at the same tempo as the playback of the external MIDI device. If you modify the tempo of the external MIDI device, the delay time, or the rate of the chorus/LFO 1/ensemble will also change.

\* Some external MIDI devices may not transmit MIDI Clock (F8) messages unless they are recording or playing back. If such a device is connected, be aware that chorus sync/delay sync/LFO sync is not possible unless the external MIDI device is recording or playing back.

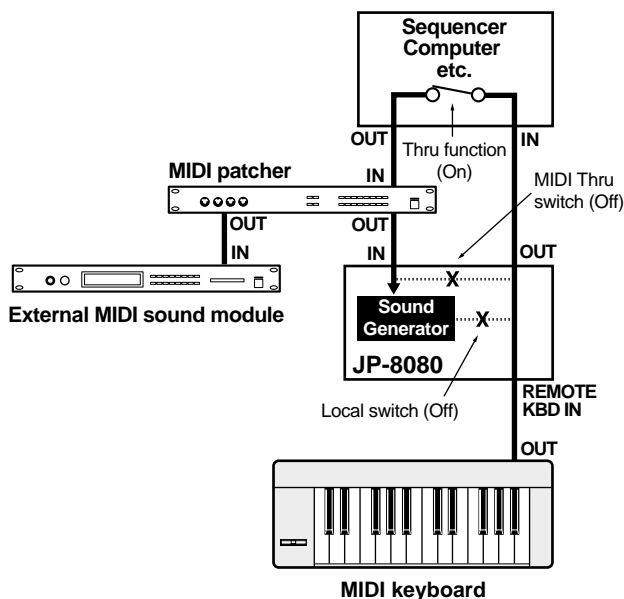
Also, if the JP-8080 is synchronized to an external MIDI device which transmits Stop (FC) at the end of the loop during loop playback (or loop recording), the synchronization may become skewed.



## Recording a Performance on an External Sequencer

This section will explain the procedure for using the JP-8080, a MIDI keyboard, an external MIDI sound source, and an external sequencer to layer performances in multiple tracks.

The JP-8080's sound source can play either one part or two tracks (parts). The other tracks must be played on an external sound source.



## Settings for Recording

Before you record, you need to check the settings of each device. In order for your performance to be recorded correctly, the following parameters must be set correctly.

### <JP-8000 settings>

#### ■ Key Mode/Panel Select

If you want to use the internal sound generator to play up to ten voices (eight voices if Voice Modulator is on) on one track (part), set the Key Mode to single, and use panel select to choose the part that you wish to play. If you want two tracks to be sounded by the JP-8080's sound generator, set the Key Mode to split. The number of voices allocated to each part is determined by the Voice Assign (p.116) setting.

#### ■ Part MIDI Channel ([PART]: Part MIDI CH) (p.118)

Select the MIDI channel of the track which will play each part of the JP-8080.

- \* Select a channel which does not coincide with the Performance Control Channel or the receive channel for each part of your external MIDI sound module.

#### ■ Local Switch ([MIDI]: Local Switch) (p.122)

Turn this off.

This will prevent identical MIDI messages from REMOTE KBD IN and MIDI IN to be sent to the sound generator in duplicate.

#### ■ Exclusive Receive Switch ([MIDI]: Rx Exclusive SW) (p.124)

Turn this on.

This will allow exclusive messages recorded on the external sequencer to be received in order to control various parameters.

#### ■ Performance Control Channel ([MIDI]: Perform Ctrl CH) (p.124)

Select the MIDI channel which will be used to select performances.

- \* Select a channel which does not coincide with the Part MIDI Channel or the receive channel for each part of your external MIDI sound source.

#### ■ Remote Keyboard Channel ([MIDI]: Remote KBD CH) (p.124)

Select the MIDI channel which will receive MIDI messages from REMOTE KBD IN. Set this either to the same setting as the transmit channel of your MIDI keyboard, or to ALL.

#### ■ MIDI Thru Switch ([MIDI]: MIDI Thru) (p.124)

Turn this off.

This will prevent the "loop" of MIDI messages which would otherwise occur if MIDI messages received at MIDI IN were re-transmitted from MIDI OUT.

#### ■ Edit Transmit/Receive Switch ([MIDI]: Tx/Rx Edit Switch) (p.124)

Turn this on.

When a controller is moved or a motion is played back, control change or exclusive messages will be transmitted and recorded on your external sequencer.

- \* The edit transmit/receive mode and the transmit/receive setting must be the same for both recording and playback. If these settings differ between recording and playback, the data cannot be played back correctly.

#### ■ Program Change Transmit/Receive Switch ([MIDI]: Tx/Rx ProgChg SW) (p.125)

Set this to BANK SEL+PC.

When you switch patches or performances during recording, program change and bank select messages will be transmitted and recorded on your external sequencer. Also, program changes recorded on the external sequencer will be received to select patches or performances on the JP-8080.

- \* The program change receive switch for each part of the external MIDI sound source must also be turned on.

## <External sequencer settings>

- \* For the procedure of making each setting, refer to the owner's manual for your external sequencer.

### ■ Transmit Channel

The transmit channel of the track you want the JP-8080 to play must be set to match the Part MIDI channel of the JP-8080. The transmit channels of tracks you want the external MIDI sound module to play must be set to match the receive channels for each part of the external MIDI sound module.

### ■ Thru Function

Turn this on. Musical data received at the MIDI IN of the external sequencer will be transmitted from MIDI OUT without modification.

- \* If your external sequencer does not have a Thru function, turn on the Local Switch of the JP-8080.

### ■ Tempo

Play the metronome and set a tempo that will be comfortable for recording.

## Recording Procedure

- 1 Use MIDI cables to connect the JP-8080, MIDI keyboard, and external sequencer as shown on page 145.
- 2 Make settings on the JP-8080, MIDI keyboard, and external sequencer as explained in the above section "Settings for Recording."
- 3 Put the external sequencer in record mode, and record your performance.  
While listening to the metronome of the external sequencer, record the rhythm parts etc. first.
- 4 In the same way, record the remaining parts.

For the track(s) to be played on the JP-8080, you can record JP-8080 control movements and motions in the same way.

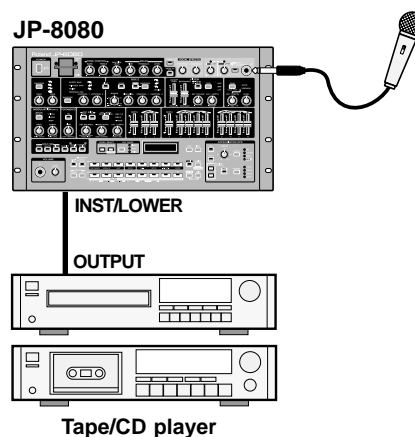
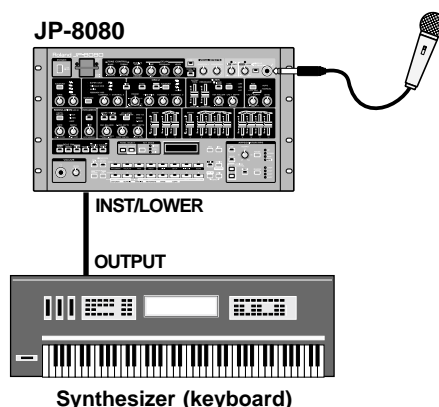
- \* Some sequencers are not able to record exclusive messages. In this case, assign MIDI messages such as control changes to the controller whose movements you wish to record. ("Tx/Rx Setting (Transmit/Receive Setting)" (p.125).)
- \* You can also record arpeggios, patterns, motions, and chorus/delay/LFO 1/ensemble/Voice Modulator delay in synchronization to the MIDI Clock of the external sequencer. For details on synchronization, refer to "Synchronizing to an External MIDI Devices" (p.144).

## Various Ways to Use Voice Modulator

This section explains the settings that will be necessary when you wish to use external sounds or sounds that were synthesized by the JP-8080 to obtain formant filter or filter bank effects.

### Inputting an External Sound Directly Into the Voice Modulator

#### (1) Formant filter



- 1 As shown in the diagram, connect your external device or mic to the JP-8080.
- 2 Execute the Voice Modulator Initialize operation.  
[INIT/UTIL]: VMod Init (p.106)  
Initialize to one of the following: F.FLT: VINTAGE/  
F.FLT: SILKY/F.FLT: HUSKYVOICE/F.FLT: BREAK-  
BEATS.
- 3 Use the EXTERNAL INPUT [INST/LOWER] to adjust the volume of the external input, and use [VOCAL/UPPER] to adjust the volume of the mic input.

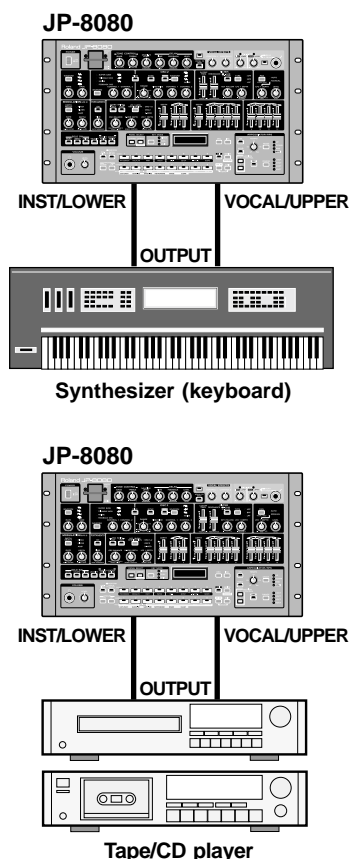
To obtain a formant filter effect, simultaneously input an external sound (by playing a note or playing back a tape or CD) and input your voice from the mic.

#### 4 Hold down [SHIFT] and press PANEL SELECT [UPPER].

The Voice Modulator panel will be selected. Move the sliders/knobs to modify various Voice Modulator parameter values.

- \* If you wish to input audio from a tape or CD instead of from a mic, input the sound from the VOCAL/UPPER jack. In this case, turn [REAR/FRONT] off (REAR).

### (2) Filter Bank

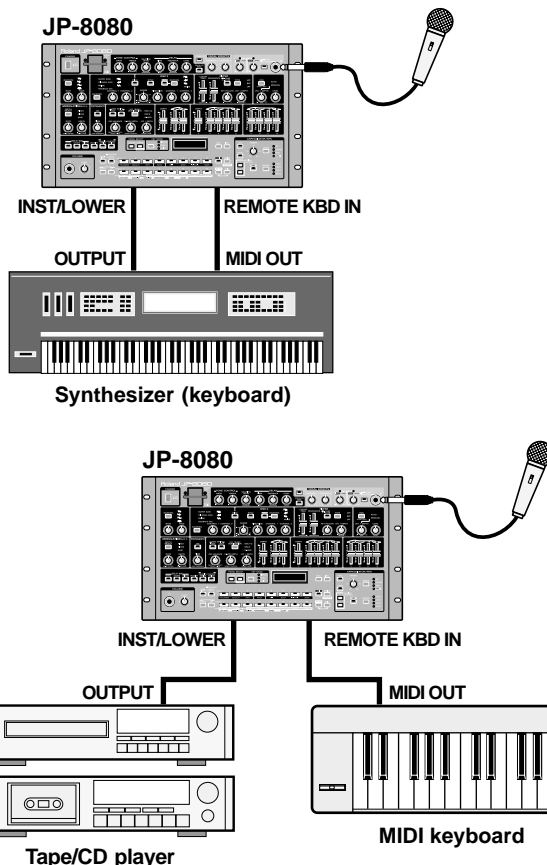


- 1 As shown in the diagram, connect your external equipment to the JP-8080.
- 2 Execute the Voice Modulator Initialize operation.  
[INIT/UTIL]: VMod Init (p.106)  
Initialize to either F.BANK: STANDARD or F.BANK: RADIO.  
At this time, the Voice Modulator panel will be selected.
- 3 Use the EXTERNAL INPUT [INST/LOWER] / [VOCAL/UPPER] to adjust the volume of the external inputs.  
To obtain a filter bank effect, input an external sound (by playing a note or playing back a tape or CD) and move [1]–[12].

## Inputting an External Sound Synthesized on the JP-8080 Into the Voice Modulator

### (1) Formant Filter

Here's how you can use the Lower part to synthesize an external sound, and input that sound into the Voice Modulator.



- 1 As shown in the diagram, connect your external device or mic to the JP-8080.
- 2 Initialize the performance to a standard set of settings.  
[INIT/UTIL]: Initialize: PERF: TEMPORARY (p.140)
- 3 Press PANEL SELECT [LOWER] to select the Lower part.
- 4 Turn OSC 2 [EXT] on.  
The external sound will be input to the Lower part.
- 5 Set OSC COMMON [OSC BALANCE] to OSC 2.  
The Lower part will sound using the external sound.
- 6 Use EXTERNAL INPUT [INST/LOWER] to adjust the volume of the external input.
- 7 Move the panel sliders/knobs to edit the external sound.
- 8 Execute the Voice Modulator Initialize operation.  
[INIT/UTIL]: VMod Init (p.106)

Initialize to one of the following: F.FLT: VINTAGE / F.FLT: SILKY/F.FLT: HUSKYVOICE/F.FLT: BREAK-BEATS.

VOICE MODULATOR [ON] will be turned on.

[VOICE MOD SEND] for the Lower part will also be on, and the external sound synthesized by the Lower part will be input to the Voice Modulator.

## 9 Turn Ext->Inst Send off.

[VOICE MOD]: Ext->Inst Send (p.109)

The external sound will no longer be input directly to the Voice Modulator, and only the external sound synthesized by the Lower part will be input.

## 10 Use the EXTERNAL INPUT [VOCAL/UPPER] to adjust the volume of the mic input.

To obtain a formant filter effect, simultaneously input an external sound (by playing a note or playing back a tape or CD) and input your voice from the mic.

## 11 Hold down [SHIFT] and press PANEL SELECT [UPPER].

The Voice Modulator panel will be selected. Move the sliders/knobs to modify the values of various Voice Modulator parameters.

- \* If you wish to input audio from a tape or CD instead of from a mic, input the sound from the VOCAL/UPPER jack. In this case, turn [REAR/FRONT] off (REAR).

.....

### ● If you input a tape or CD from the INST/LOWER jack

The effect will be obtained only while you are playing a note. If you wish to obtain the effect simply by inputting the sound without having to play a note, make the following settings.

## 1 Press PANEL SELECT [LOWER] to select the Lower part.

- \* If the Voice Modulator panel is selected, press [EXIT] and then press [LOWER].

## 2 Turn on the Ext Trig Switch.

[PATCH]: Ext Trig Switch (p.121)

## 3 Set Ext Trig Dest to either AMP or FILTER&AMP.

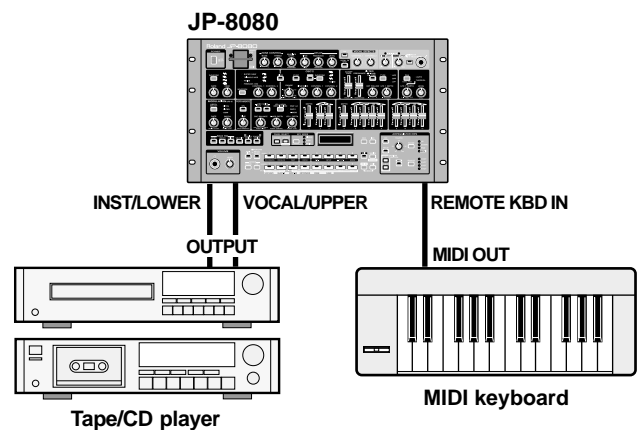
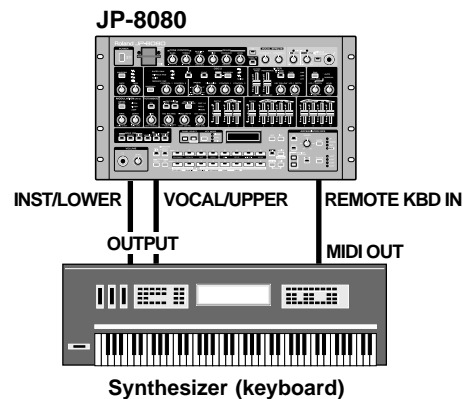
[PATCH]: Ext Trig Dest (p.121)

## 4 Set OSC 2 [CONTROL 1] to the minimum position.

.....

## (2) Filter Bank

Here's how you can synthesize an external sound using both the Upper and Lower parts, and input that sound into the Voice Modulator.



## 1 As shown in the diagram, connect your external device to the JP-8080.

## 2 Initialize the performance to a standard set of settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY (p.140)

## 3 Set [KEY MODE] to DUAL.

Upper and Lower will sound simultaneously.

## 4 Make sure that PANEL SELECT is set to UPPER.

## 5 Set AMP [PAN] to MANUAL, and set AMP [LFO 1 DEPTH] to the R position.

The Upper sound will be assigned to the right.

## 6 Press PANEL SELECT [LOWER] to select the Lower part.

## 7 Set AMP [PAN] to MANUAL, and set AMP [LFO 1 DEPTH] to the L position.

The Lower sound will be assigned to the left.

## 8 Simultaneously press PANEL SELECT [UPPER] and [LOWER].

Now you can edit the sound of both parts simultaneously.

## 9 Turn OSC 2 [EXT] on.

The external sound will be input to both parts.

## 10 Set OSC COMMON [OSC BALANCE] to the OSC 2 position.

Both parts will sound using the external sound.

Since the pan is set appropriately, the sound will be stereo.

## 11 Use EXTERNAL INPUT [INST/LOWER] / [VOCAL/UPPER] to adjust the volume of the external inputs.

## 12 Move the panel sliders/knobs to edit the external sound.

## 13 Perform the Voice Modulator Initialize operation.

[INIT/UTIL]: VMod Init (p.106)

Initialize to either F.BANK: STANDARD or F.BANK: RADIO.

At this time, the Voice Modulator panel will be selected.

VOICE MODULATOR [ON] will be on.

[VOICE MOD SEND] will also be on for both parts, and the external sound synthesized by both parts will be input to the Voice Modulator.

## 14 Turn off Ext->Inst Send and Ext->Vocal Send.

[VOICE MOD]: Ext->Inst Send (p.109)

[VOICE MOD]: Ext->Vocal Send (p.109)

The external sound will no longer be input directly into the Voice Modulator, and only the external sound that has been synthesized by both parts will be input.

To obtain a filter bank effect, input an external sound (by pressing a note or playing back a tape or CD) and move [1]–[12].

.....

### ● If you input a tape or CD from the INST/LOWER jack / VOCAL/UPPER jack

The effect will be obtained only while you are playing a note. If you wish to obtain the effect simply by inputting the sound without having to play a note, make the following settings.

## 1 Simultaneously press PANEL SELECT [UPPER] and [LOWER] to select both parts.

\* If the Voice Modulator panel is selected, press [EXIT] and then simultaneously press [UPPER] and [LOWER].

## 2 Turn on the Ext Trig Switch.

[PATCH]: Ext Trig Switch (p.121)

## 3 Set Ext Trig Dest to either AMP or FILTER&AMP.

[PATCH]: Ext Trig Dest (p.121)

## 4 Set OSC 2 [CONTROL 1] to the minimum position.

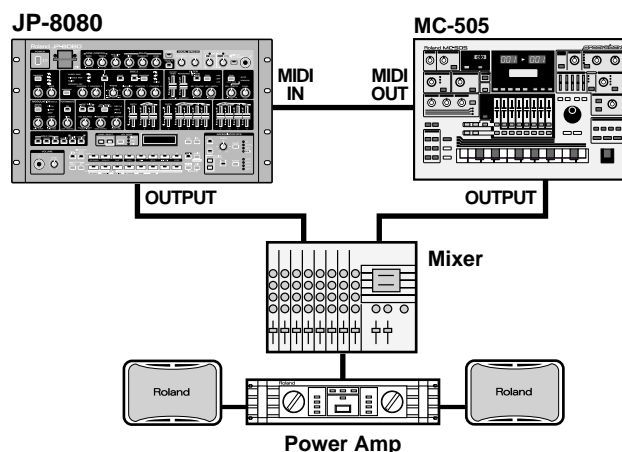
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## Using the JP-8080 with the MC-505

Here's how you can connect the Roland MC-505 groove box to the JP-8080 and use both devices together.

This allows an additional range of possibilities, such as using a JP-8080 patch to play one part of an MC-505 pattern, or using the D Beam controller to control a JP-8080 patch.

Make the following connections.



Here we are going to use the bass part (part 2) of the MC-505 pattern to play the Lower patch of the JP-8080. The remaining parts will be played by MC-505 sounds.

We will also use the MC-505 to play arpeggios that will be sounded by the Upper patch of the JP-8080. The D Beam controller and knobs and sliders of the MC-505 will control the Upper patch.

From the factory settings, make the following settings on the MC-505.

<b>Pattern:</b>	P: 009 Psy Trance 9
<b>SEQ OUT:</b>	Part 2 to EXT
<b>SYS: MIDI Local Tx:</b>	Part 1 = EXT
<b>PART SELECT:</b>	Part 1
<b>D BEAM CONTROLLER:</b>	ON
<b>D BEAM CTRL TYPE:</b>	08: Cut + Reso2-S
<b>ARPEGGIATOR:</b>	ON
<b>ARPEGGIATOR RANGE:</b>	+1
<b>ARP: Style:</b>	HEAVY SLAP
<b>KEYBOARD PAD HOLD:</b>	ON

### 1 Select performance P2: 88.

### 2 On the MC-505, press [PLAY] to playback the pattern.

The bass part of the pattern will be sounded by the JP-8080's Lower patch.

- 
- 3 On the JP-8080, use PANEL SELECT to choose LOWER, and slowly move the FILTER [CUTOFF FREQ] or [RESONANCE].**

The bass sound will change in various ways.

- 4 Simultaneously press the MC-505 keyboard pads 6, 7, 11, and 12 (= E, F, A, A#).**

The MC-505 will begin playing an arpeggio, which will be sounded by the JP-8080's Upper patch.

- 5 On the JP-8080, use PANEL SELECT to choose UPPER, and move OSC1 [CONTROL 1].**

The sound of the feedback oscillator (Upper patch) will change.

After you have moved it, leave OSC 1 [CONTROL 1] at the maximum position.

- 6 Set the JP-8080's MIDI Sync to MIDI IN.**

[MIDI]: MIDI Sync (p.123)

- 7 On the JP-8080, move DELAY [LEVEL].**

Delay synchronized to the MC-505's tempo will be applied to the Upper patch.

- 8 Move your hand over the D Beam controller of the MC-505.**

This will control the Upper patch.

- 9 On the MC-505, move [CUTOFF] and [RESONANCE].**

The sound of the Upper patch will change.

You can also use the ENVELOPE sliders of the MC-505 to control the Upper part. (However, the JP-8080 does not have PITCH ENVELOPE [S] and [R], so these cannot be controlled.)

In the same way, by setting the MC-505's PART SELECT to Part 2, you can use the MC-505's knobs and sliders to control the Lower patch.

**JP-8080**

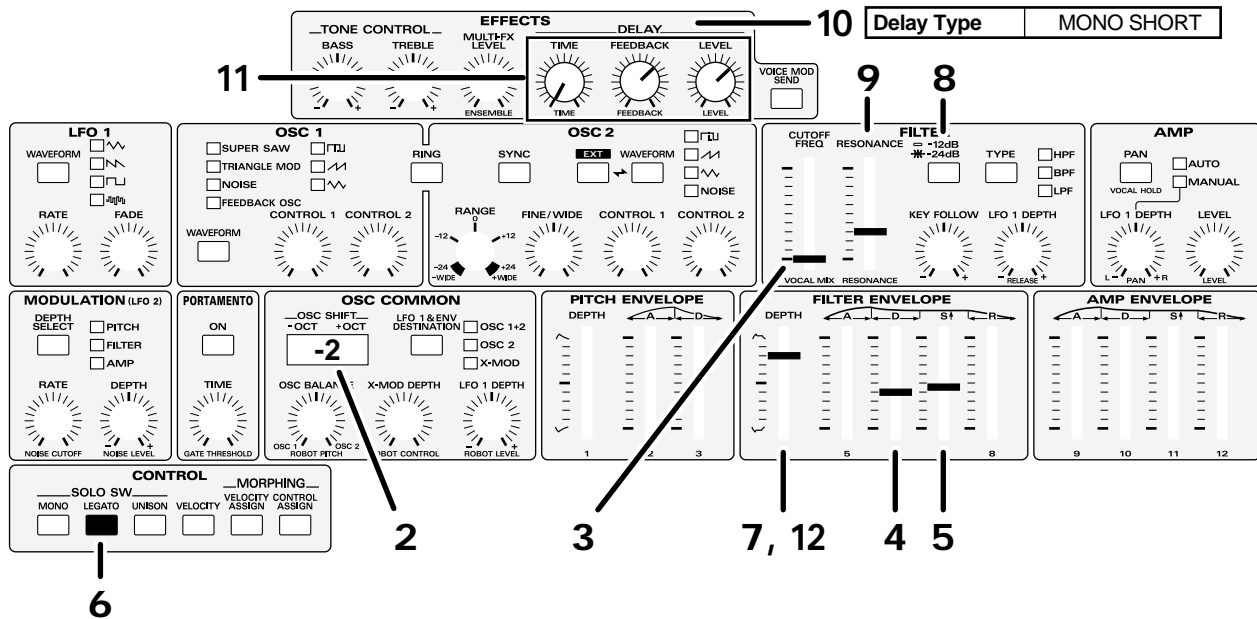
# **Appendices**

# Sound-Creating Tips

This section will give you know-how and tips for editing a Patch to create various types of sounds. Refer to the explanations and the panel diagrams, and actually operate your JP-8080 to hear the results.

\* Items for which a setting is not given in the panel diagram do not need to be set.

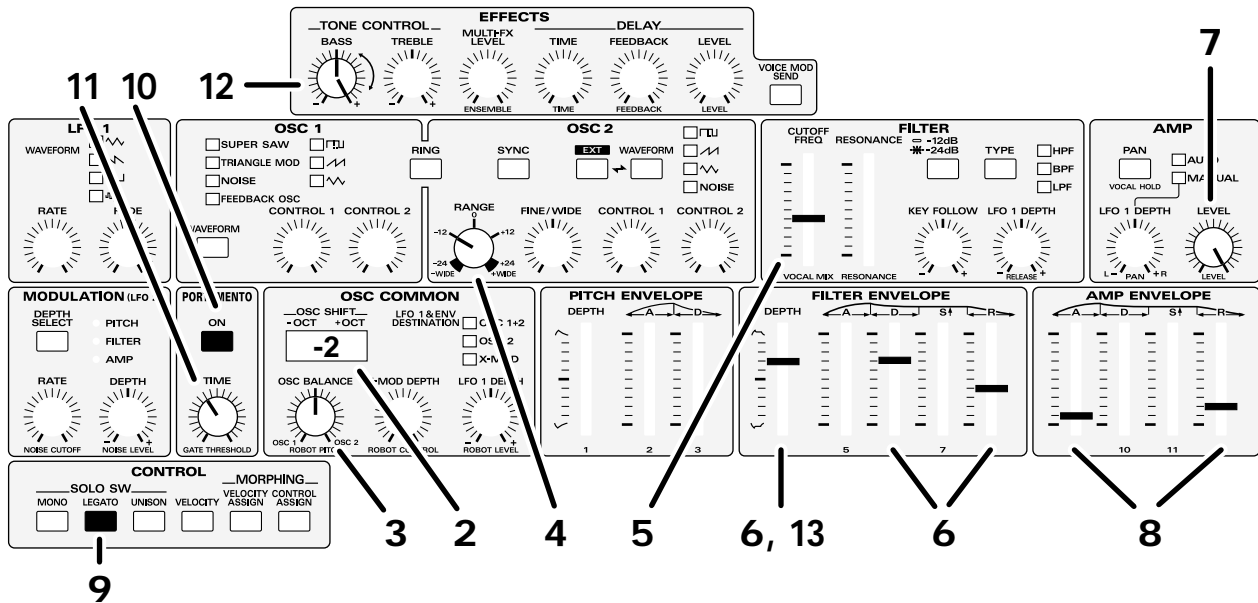
## Bass (1)



- 1 Use the Initialize operation to set the Performance to the basic settings.  
[INIT/UTIL]: Initialize: PERF: TEMPORARY
- 2 Since bass is a low-range instrument, set the OSC COMMON section OSC SHIFT to “-2 OCT.”
- 3 Set the FILTER section [CUTOFF FREQ] to the minimum setting.  
There will be no sound.
- 4 Move the FILTER ENVELOPE section [D] to the position shown in the diagram to create the attack portion of the sound.
- 5 Move the FILTER ENVELOPE section [S] to the position shown in the diagram to specify the tone for the sustain portion of the sound.
- 6 Make SOLO SW [LEGATO] light to turn it on.  
With a setting of legato, you will be able to produce a legato feeling similar to that which occurs when a finger is slid to another fret without releasing the string.
- 7 Move the FILTER ENVELOPE section [DEPTH] to the position shown in the diagram to determine the overall tone.  
The sense of attack will lessen somewhat, and the tone will become a bit darker.
- 8 Make the [-12dB/-24dB] indicator go dark, to select -12 dB.  
The core of the sound will remain unchanged, but the tone will be less bright.
- 9 If desired, you can adjust the FILTER section [RESONANCE] to add a distinctive character to the tone.
- 10 Set the Delay Type to MONO SHORT.  
[PATCH]: Delay Type: MONO SHORT
- 11 Set the DELAY [TIME] to the minimum setting, and move [FEEDBACK] and [LEVEL] to the positions shown in the diagram.
- 12 Adjust the FILTER ENVELOPE section [DEPTH] once again to adjust the overall tone to your taste.



## Bass (2)



- 1 Use the Initialize operation to set the performance to the standard settings.

[INIT/UTIL]: Initialize: FPERF: TEMPORARY

- 2 Since the bass has a low pitch range, set the OSC COMMON section OSC SHIFT to “-2OCT.”

- 3 In the OSC COMMON section, move OSC BALANCE to the position shown in the diagram.

OSC1 and OSC2 will have the same volume.

- 4 In the OSC2 section, move [RANGE] to the position shown in the diagram.

OSC2 will sound one octave lower.

- 5 In the FILTER section, move [CUTOFF FREQ] to the position shown in the diagram.

The sound will become more muted.

- 6 In the FILTER ENVELOPE section, move [DEPTH] [D] [R] to the position shown in the diagram.

- 7 In the AMP section, set [LEVEL] to the maximum.

- 8 In the AMP ENVELOPE section, move [A] and [R] to the position shown in the diagram.

- 9 Make SOLO SW [LEGATO] light to turn it on.

When you play legato, the pitch will change without a new attack, similarly to the result of sliding a finger on a string without releasing the fretboard.

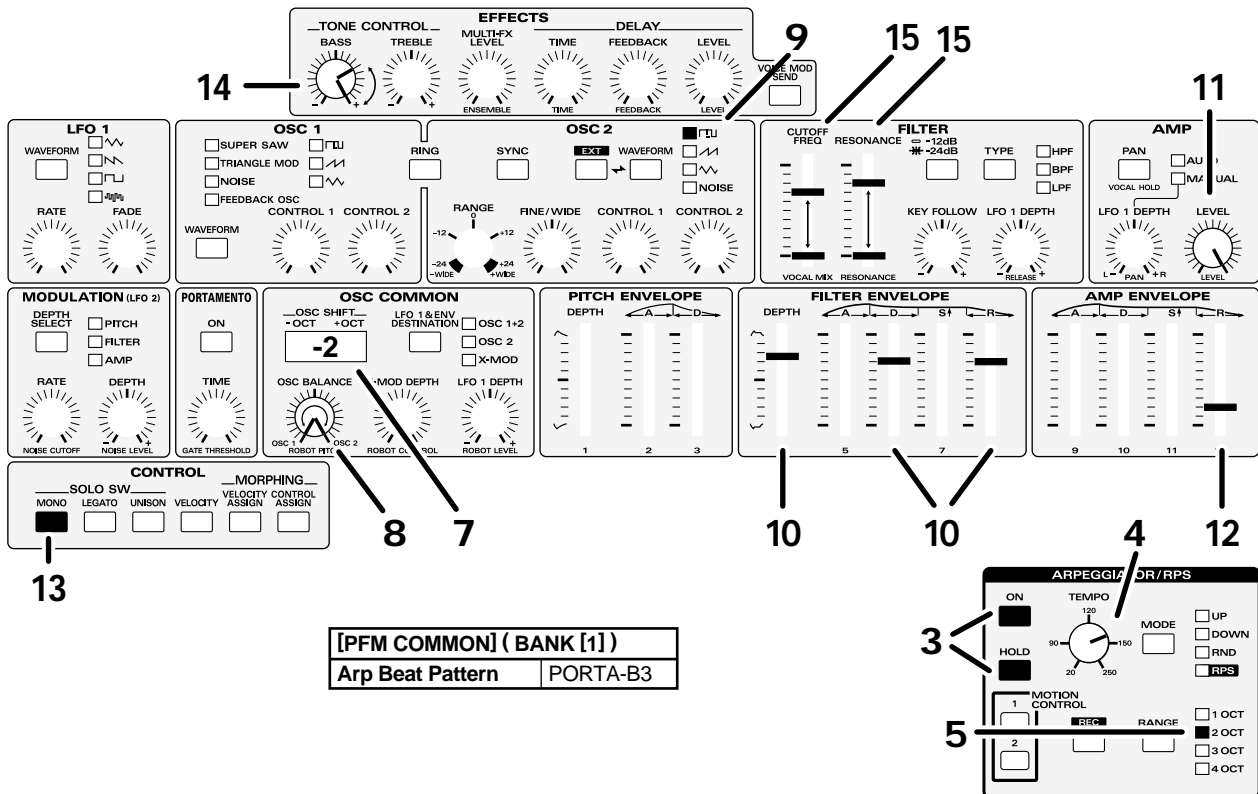
- 10 Make PORTAMENTO [ON] light to turn in on.

- 11 Move PORTAMENTO [TIME] to the position shown in the diagram.

- 12 Increase TONE CONTROL [BASS] as desired to boost the low range.

\* Be careful, since increasing this excessively may damage your speakers etc.

- 13 Increasing the FILTER ENVELOPE section [DEPTH] will produce a “plucked” character.



Let's create a TB-303 simulation with a minimal techno feel.

We will sound an arpeggio as we create the sound.

- 1 Use the initialize operation to set the performance to the basic settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 Set the arpeggio beat pattern to "PORTA-B3."

[PFM COMMON]: Arp Beat Pattern: PORTA-B3

- 3 Make the ARPEGGIATOR/RPS [ON] and [HOLD] indicators light to turn them on.

- 4 Move the ARPEGGIATOR/RPS [TEMPO] to the position shown in the diagram.

- 5 Set the ARPEGGIATOR/RPS [RANGE] to "2 OCT."

- 6 Play C 4.

The sound will begin playing.

- 7 In the OSC COMMON section, set OSC SHIFT to "-2OCT."

- 8 In the OSC COMMON section, move OSC BALANCE as desired to adjust the volume balance of OSC1 and OSC2.

- 9 In the OSC2 section, set [WAVEFORM] to a square wave.

- 10 In the FILTER ENVELOPE section, move [DEPTH] [D] [R] to the positions shown in the diagram.

- 11 In the AMP section, increase [LEVEL] to the maximum.

- 12 In the AMP ENVELOPE section, move [R] to the position shown in the diagram.

- 13 Make SOLO SW [MONO] light to turn it on.

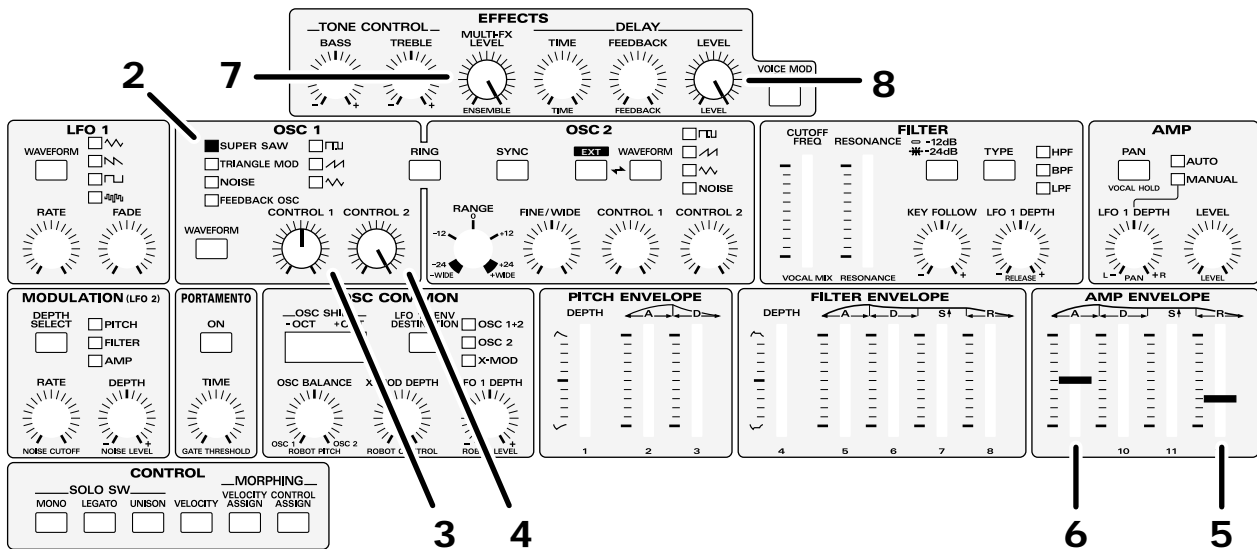
- 14 Increase TONE CONTROL [BASS] as desired to boost the low range.

\* Be careful, since increasing this excessively may damage your speakers etc.

- 15 In the FILTER section, gradually move [CUTOFF FREQ] and [RESONANCE].

Enjoy the sound as it changes in a variety of ways.

# Strings



While you are creating a strings sound, it is a good idea to audition the sound by playing chords of four notes or so. This will give you a better idea of the character of the sound than if you play only an individual note.

**1** Use the Initialize operation to set the Performance to the basic settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

**2** For the OSC1 section [WAVEFORM], select SUPER SAW.

**3** Move the OSC1 section [CONTROL 1] (DETUNE) to the position shown in the diagram.

**4** Move the OSC1 section [CONTROL 2] (MIX) to the maximum position.

This will produce the impression of a larger ensemble of strings.

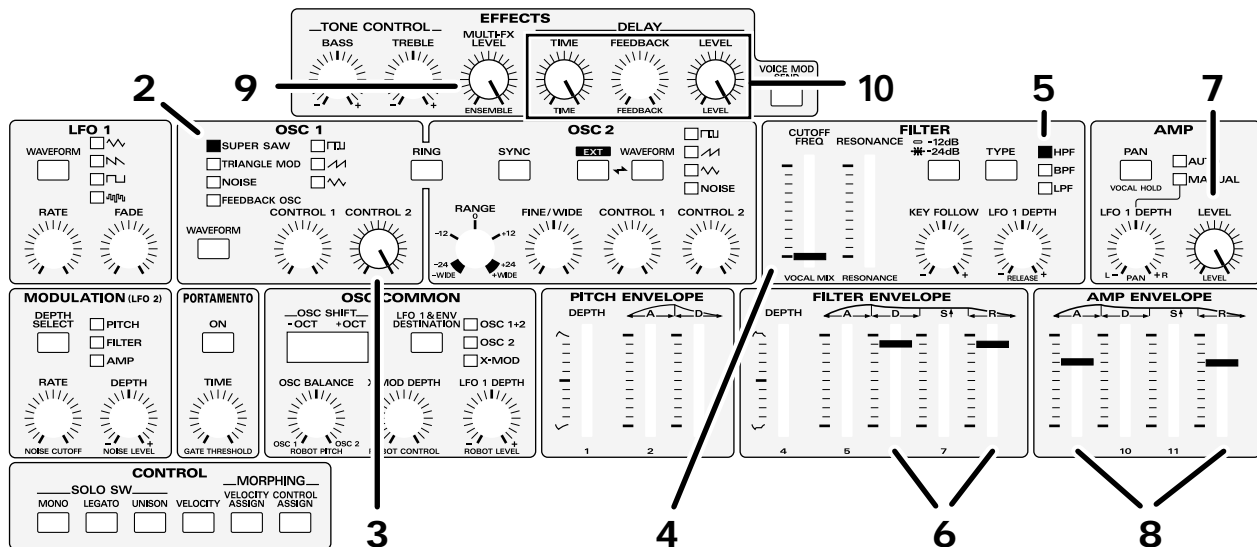
**5** Move the AMP ENVELOPE section [R] to the position shown in the diagram, so that the sound will linger for a time after the key is released.

**6** Move the AMP ENVELOPE section [A] to the position shown in the diagram, so that the attack will be a bit slower.

**7** Set [MULTI-FX LEVEL] to the maximum setting. This will give the sound greater breath and depth.

**8** Set the DELAY [LEVEL] to the maximum setting. This will add reverberation.

# Sweep Pad



Lets create a pad using the HPF.

- 1 Use the Initialize operation to set the performance to the standard settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 In the OSC1 section, set [WAVEFORM] to SUPER SAW.

- 3 In the OSC1 section, set [CONTROL 2](MIX) to the maximum setting.

- 4 In the FILTER section, set [CUTOFF FREQ] to the minimum setting.

You will no longer hear sound.

- 5 In the FILTER section, set [TYPE] to "HPF."

You will hear sound once again.

- 6 In the FILTER ENVELOPE section, move [D] and [R] to the positions shown in the diagram.

[D] will determine the time until the sound reaches a steady brightness. You may change this setting as desired.

- 7 In the AMP section, set [LEVEL] to the maximum.

- 8 In the AMP ENVELOPE section, set [A] and [R] to the positions shown in the diagram.

The sound will linger for a time after the note is released.

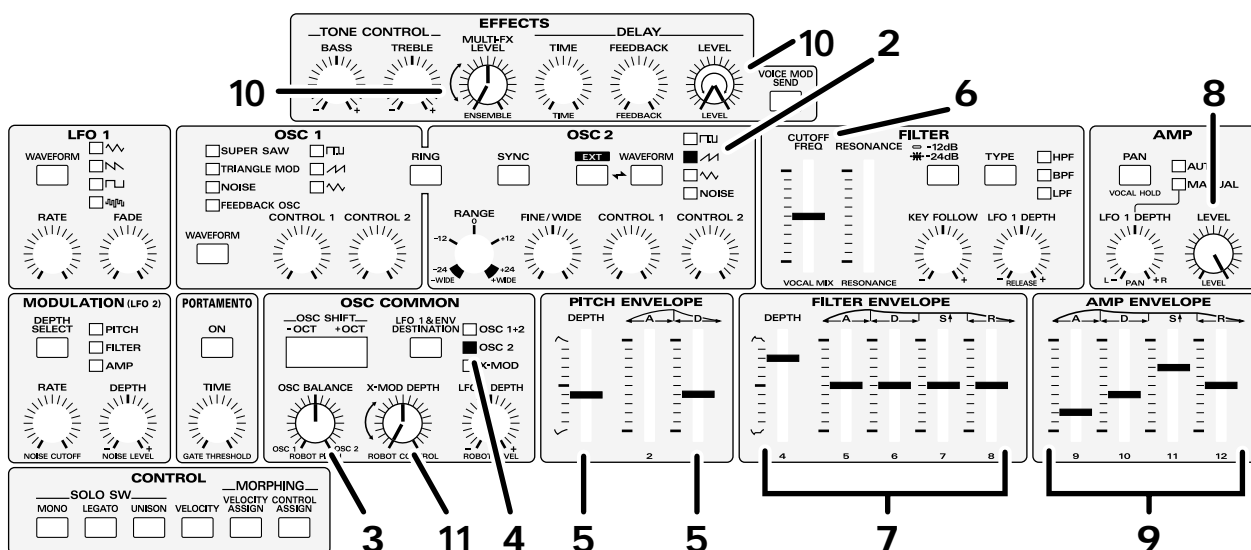
- 9 Set [MULTI-FX LEVEL] to the maximum setting.

The chorus effect will add spaciousness to the sound.

- 10 Set the DELAY [TIME] and [LEVEL] to the maximum settings.

The delay effect will add richness to the sound.

# Synth Brass



By skillfully using the pitch envelope, you can create a synth brass sound.

- 1 Use the Initialize operation to set the performance to the standard settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 In the OSC2 section, set [WAVEFORM] to sawtooth wave.

- 3 In the OSC COMMON section, move OSC BALANCE to the position shown in the diagram.

OSC1 and OSC2 will be at the same volume.

- 4 In the OSC COMMON section, set [LFO 1 & ENV DESTINATION] to "OSC 2."

This will make the envelope apply only to OSC2.

- 5 In the PITCH ENVELOPE section, set [DEPTH] and [D] to the positions shown in the diagram.

The beginning of the note will have the characteristic of a brass sound. The secret of creating brass sounds is to apply a slight pitch envelope only to OSC2.

- 6 In the FILTER section, set [CUTOFF FREQ] to the position shown in the diagram.

The sound will become muted.

- 7 In the FILTER ENVELOPE section, set all sliders to the positions shown in the diagram.

The sound will become brighter.

- 8 In the AMP section, set [LEVEL] to the maximum value.

- 9 In the AMP ENVELOPE section, set all sliders to the positions shown in the diagram.

The sound will linger after the note is released.

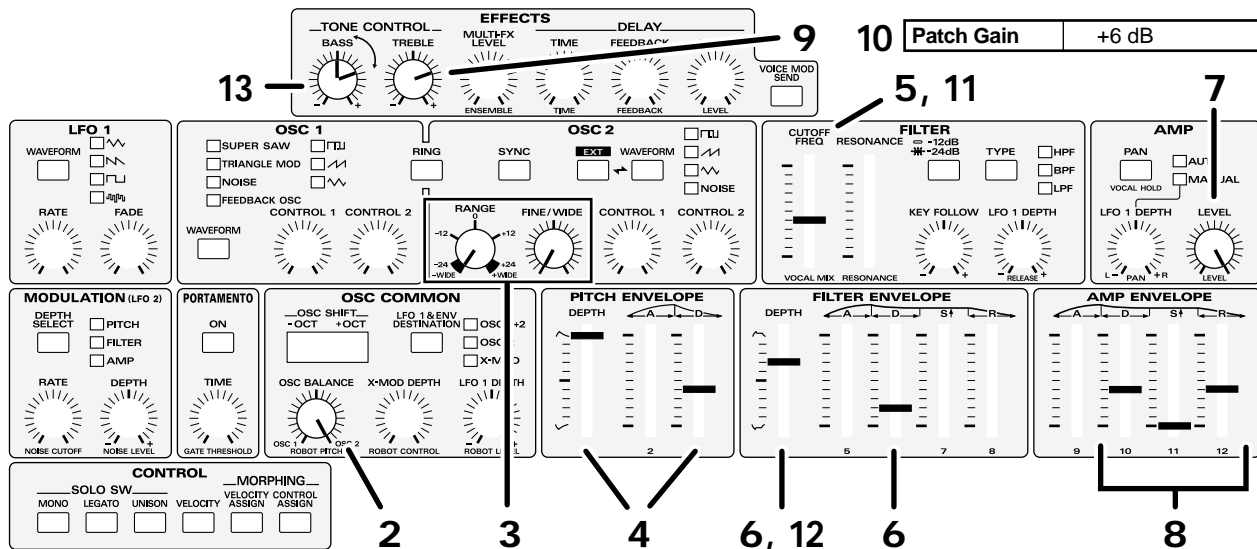
- 10 Increase [MULTI-FX LEVEL] and DELAY [LEVEL] to your liking.

The sound will become more spacious.

- 11 In the OSC COMMON section, increase [X-MOD DEPTH] as desired.

The sound will be most powerful when the knob is in the center position.

# Synth Kick Drum



**1 Use the Initialize operation to set the performance to the standard settings.**

[INIT/UTIL]: Initialize: PERF: TEMPORARY

**2 In the OSC COMMON section, set OSC BALANCE to the far right position.**

Only the OSC2 sound will be used.

**3 In the OSC2 section, set [RANGE] and [FINE/WIDE] to the far left position.**

This will produce an ultra-low sound.

**4 In the PITCH ENVELOPE section, set [DEPTH] and [D] to the positions shown in the diagram.**

This will produce a synth drum-like sound.

**5 In the FILTER section, set [CUTOFF FREQ] to the position shown in the diagram.**

**6 In the FILTER ENVELOPE section, set [DEPTH] and [D] to the positions shown in the diagram.**

**7 In the AMP section, set [LEVEL] to the maximum position.**

**8 In the AMP ENVELOPE section, set [D][S][R] to the positions shown in the diagram.**

**9 Set TONE CONTROL [TREBLE] to the position shown in the diagram.**

**10 Set the Patch Gain to “+6dB.”**

[PATCH]: Patch Gain: +6dB

\* Be careful not to damage your speakers, etc.

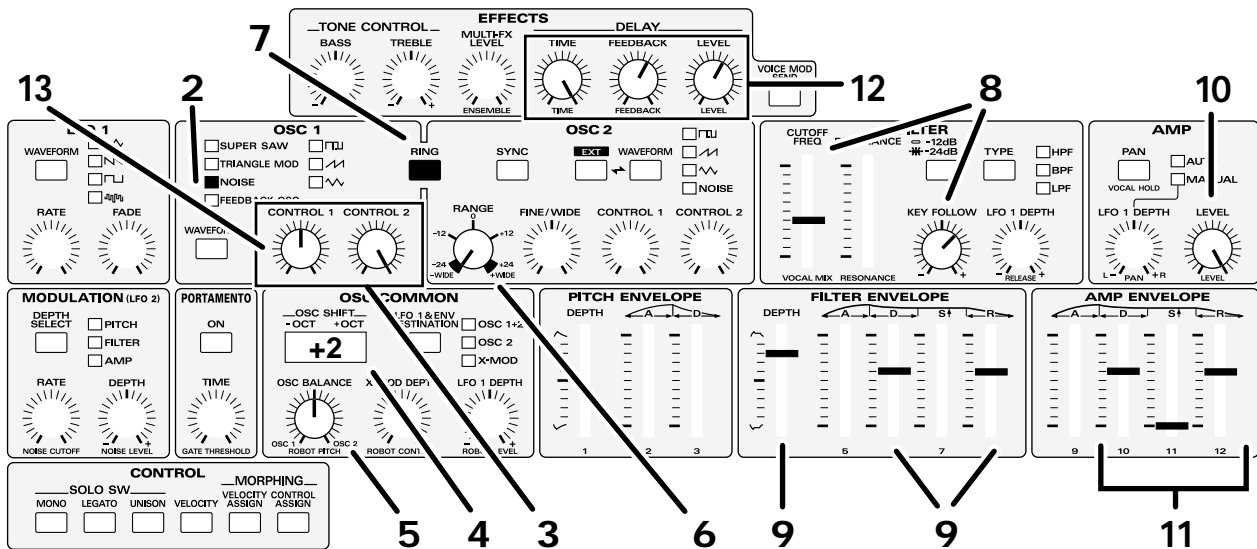
**11 In the FILTER section, move [CUTOFF FREQ] and notice how the tonal character of the kick is affected.**

**12 In the FILTER ENVELOPE section, increase [DEPTH] to add an attack.**

**13 Increase TONE CONTROL [BASS] as desired to apply a low boost.**

\* Avoid increasing this excessively, since this may damage your speakers, etc.

# Tubular Bells



Let's use the ring modulator to create the sound of a bell.

- 1 Use the Initialize operation to set the performance to the standard settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 In the OSC1 section, set [WAVEFORM] to "NOISE."
- 3 In the OSC1 section, set [CONTROL 1](CUTOFF FREQ) and [CONTROL 2](RESONANCE) to the positions shown in the diagram.
- 4 In the OSC COMMON section, set OSC SHIFT to "+2OCT."
- 5 In the OSC COMMON section, set OSC BALANCE to the position shown in the diagram.  
OSC1 and OSC2 will have the same volume.
- 6 In the OSC2 section, set [RANGE] to the position shown in the diagram.
- 7 In the OSC2 section, turn [RING] on by making it light.  
This will produce a sound similar to a bell.
- 8 In the FILTER section, set [RESONANCE] and [KEY FOLLOW] to the positions shown in the diagram.

- 9 In the FILTER ENVELOPE section, set [DEPTH] [D] [R] to the positions shown in the diagram.

The sound will become brighter.

- 10 In the AMP section, set [LEVEL] to the maximum position.

- 11 In the AMP ENVELOPE section, set [D] [S] [R] to the positions shown in the diagram.

The sound will linger after the note is released.

- 12 Move DELAY [TIME] and [FEEDBACK] to the positions shown in the diagram, and increase [LEVEL] as desired.

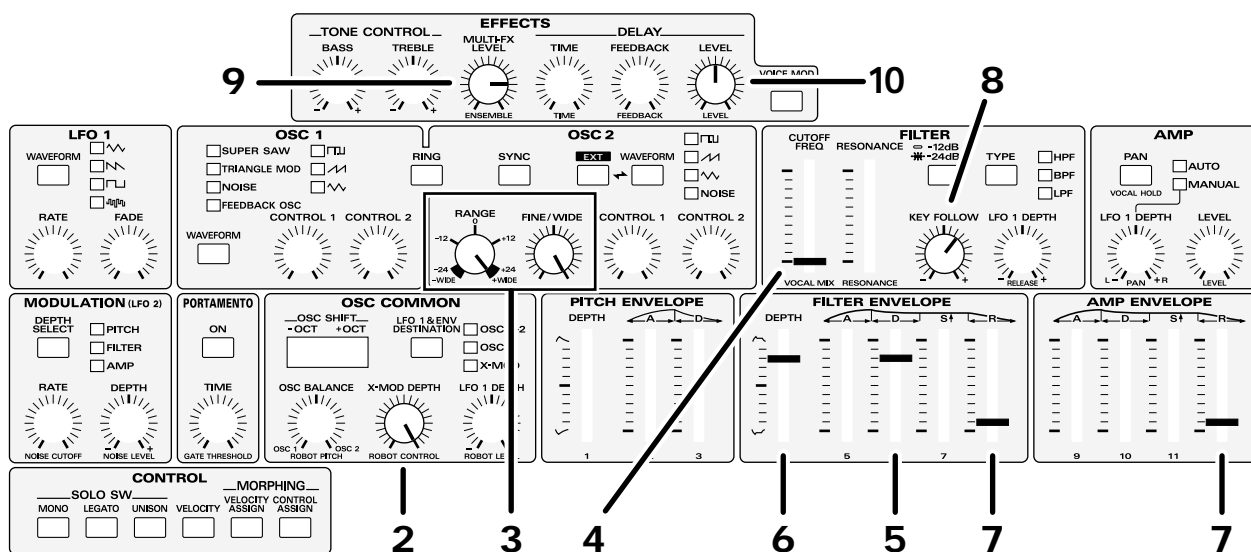
A delay will be applied, making the sound even more bell-like.

- 13 In the OSC1 section, you can move [CONTROL 1] (CUTOFF FREQ) to change the pitch.

You can also change the pitch by moving OSC2 [RANGE]. Try this out.



# Electric Piano



There are inevitable limitations in using conventional subtractive synthesis to attempt to simulate the sound of an electric piano, but by using X-MOD (cross modulation) you can produce the complex waveform that is required.

- 1 Use the Initialize operation to set the Performance to the basic settings.

[INIT/UTIL]: Initialze: PERF: TEMPORARY

- 2 Set the OSC COMMON section [X-MOD DEPTH] to the maximum setting.

- 3 In the OSC2 section, set [RANGE] and [FINE/WIDE] to the maximum settings.

- 4 Set the FILTER section [CUTOFF FREQ] to the minimum setting.

The sound will no longer be heard.

- 5 Move the FILTER ENVELOPE section [D] to the position shown in the diagram, to specify how the brightness will decay.

- 6 Adjust the FILTER ENVELOPE section [DEPTH] to modify the tone to your taste.

- 7 Move the FILTER ENVELOPE section and AMP ENVELOPE section [R] settings to the positions shown in the diagram.

This will eliminate the click that is heard when a key is released.

- 8 Set the FILTER section [KEY FOLLOW] to the desired position.

Play and compare notes in the high and low keyboard ranges as you adjust this setting.

- 9 Move [MULTI-FX LEVEL] to the position shown in the diagram.

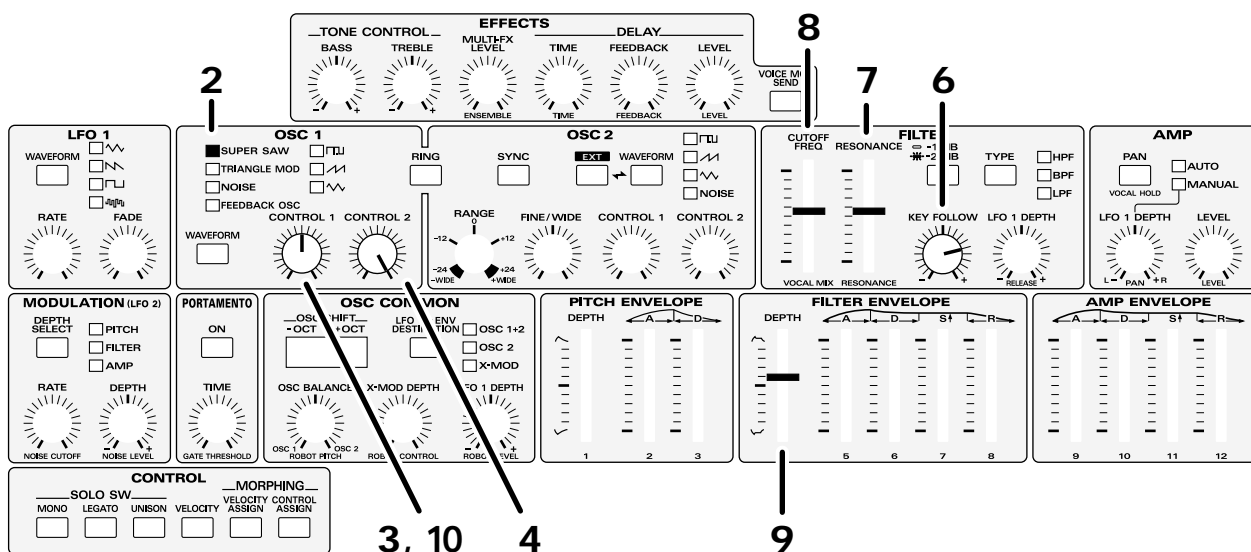
This will give the sound more spaciousness and depth, making it more mellow.

- 10 Move the DELAY [LEVEL] to the position shown in the diagram to add reverberation to the sound.

- 11 If you want keyboard playing dynamics to affect the brightness (FILTER ENVELOPE section [DEPTH]) and volume (AMP section [LEVEL]), adjust the Velocity settings (p.81). Before you make these adjustments, turn on [VELOCITY] in the CONTROL section.



# Organ



- 1 Use the Initialize operation to set the Performance to the basic settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 In the OSC1 section [WAVEFORM], select SUPER SAW.

- 3 Move the OSC1 section [CONTROL 1] (DETUNE) to the position shown in the diagram.

- 4 Move the OSC1 section [CONTROL 2] (MIX) to the maximum position.

- 5 The Edit Scope page will appear.

[SCOPE]: Edit Scope

By moving the sliders/knobs, you can set the various parameters while you watch the values. If you wish to make precise changes, you can use [DEC]/[INC] to change the value in steps of one.

- 6 In the FILTER section, set the [KEY FOLLOW] value to +32.

- 7 In the FILTER section, set the [RESONANCE] value in the range of 65–75.

- 8 In the FILTER section, set the [CUTOFF FREQ] value to 71.

This will use filter oscillation to add a parallel fifth harmony.

Changing the cutoff frequency value in steps of 1 will change the pitch of the oscillation in semitone steps. If you wish, you can select a different pitch as desired.

Examples) 64 → 1 octave

68 → third

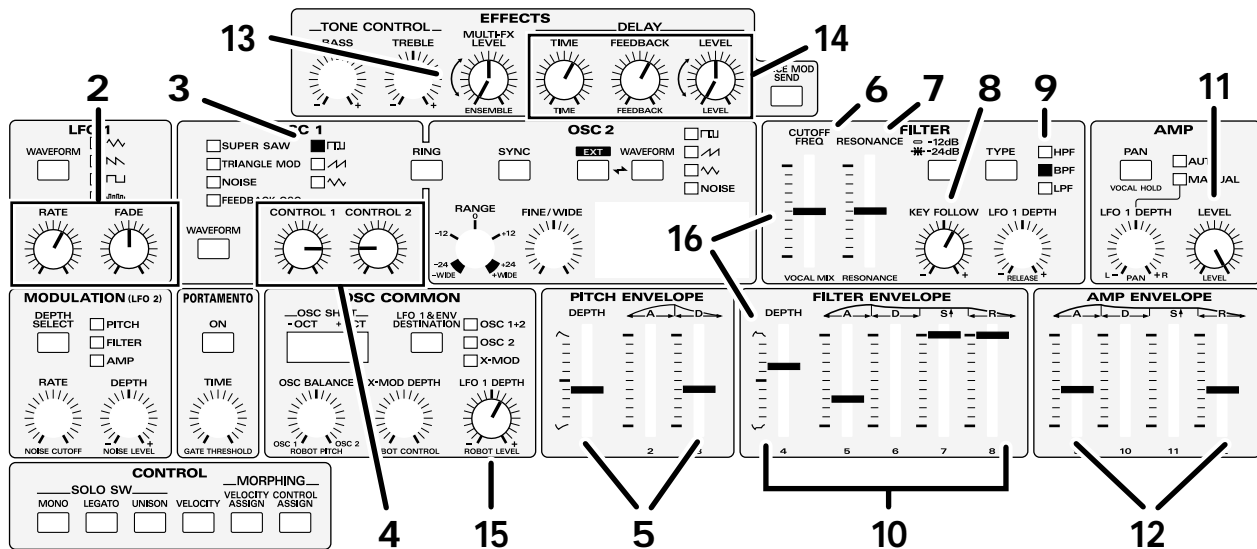
75 → seventh

- 9 Move the FILTER ENVELOPE section [DEPTH] to the position shown in the diagram.

This will adjust the click sound which occurs when a key is released.

- 10 As desired, you can move the OSC1 section [CONTROL 1] (DETUNE) to adjust the rotational speed of the rotary speaker.

# Synth Voice



Let's use the BPF to create a human voice (synth voice).

- 1 Use the Initialize operation to set the performance to the basic settings.

[INIT/UTIL]: Initialize: PERF: TEMPORARY

- 2 In the LFO1 section, set [RATE] and [FADE] to the positions shown in the diagram.

- 3 In the OSC1 section, set [WAVEFORM] to a square wave.

- 4 In the OSC1 section, set [CONTROL 1] (PULSE WIDTH) and [CONTROL 2] (PWM DEPTH) to the positions shown in the diagram.

- 5 In the PITCH ENVELOPE section, set [DEPTH] and [D] to the positions shown in the diagram.

You can use [D] to make the voice "hiccup."

- 6 In the FILTER section, set [CUTOFF FREQ] to the position shown in the diagram.

The sound will become muted.

- 7 In the FILTER section, set [RESONANCE] to the position shown in the diagram.

The cutoff frequency and resonance settings are the keys to simulating the characteristics of a human voice.

- 8 In the FILTER section, set [KEY FOLLOW] to the position shown in the diagram.

- 9 In the FILTER section, set [TYPE] to "BPF."

- 10 In the FILTER ENVELOPE section, set [DEPTH] [A] [S] [R] to the positions shown in the diagram.

- 11 In the AMP section, set [LEVEL] to the maximum.

- 12 In the AMP ENVELOPE section, set [A] [R] to the positions shown in the diagram.

The sound will linger even after the note is released.

- 13 Increase the [MULTI-FX LEVEL] as desired.

- 14 Adjust DELAY [TIME] and [FEEDBACK] to the positions shown in the diagram, and increase [LEVEL] as desired.

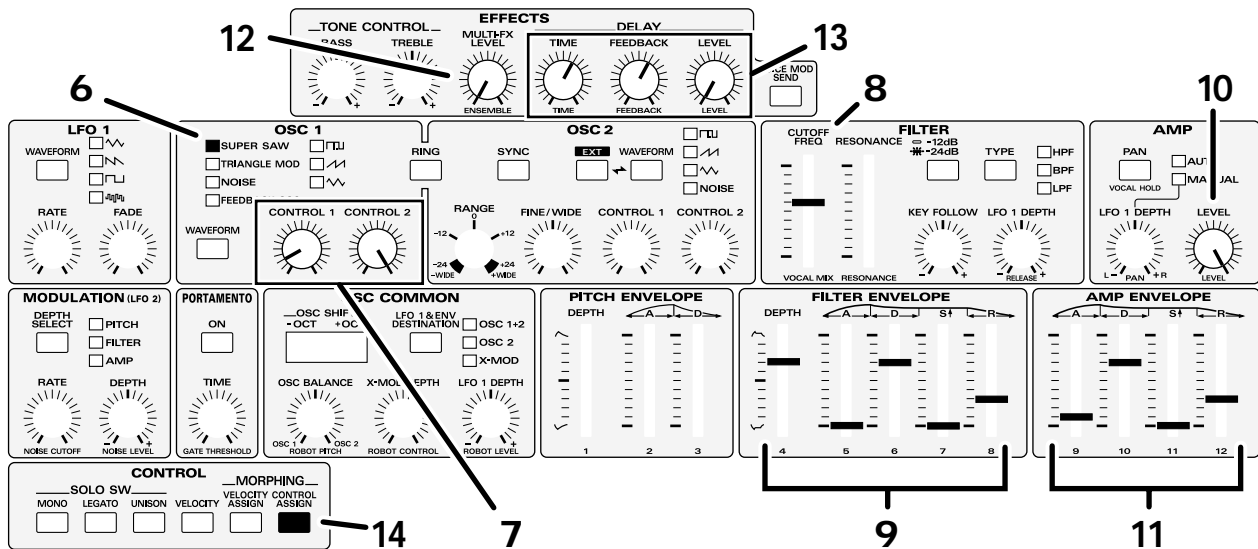
The sound will become more spacious.

- 15 In the OSC COMMON section, set [LFO 1 DEPTH] to the position shown in the diagram.

Vibrato will be applied to the sound.

- 16 By moving the FILTER section [CUTOFF FREQ] or the FILTER ENVELOPE section [DEPTH], you can modify the degree to which the mouth is open, in this way varying the vocalization.

# Morphing



Let's create a sound using the Vocal Morph Control.

We will create a sound which allows you to transform an electric piano sound into a strings sound by inputting your voice.

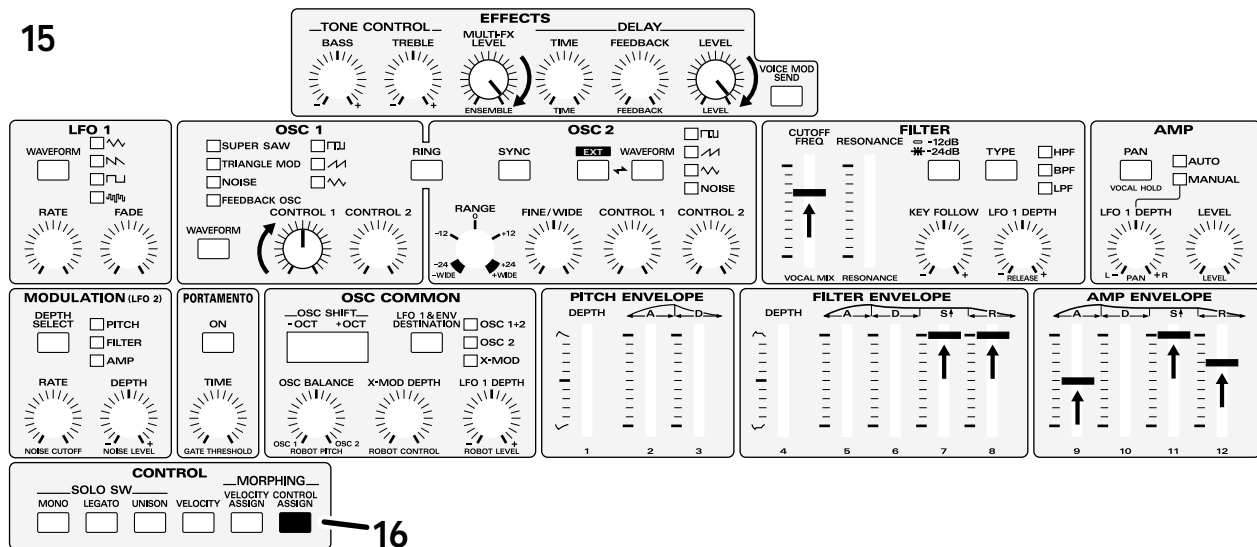
- 1 Connect a mic (sold separately) to the MIC jack.
- 2 In the EXTERNAL INPUT section, turn [REAR/FRONT] on (FRONT) to make the indicator light.
- 3 In the EXTERNAL INPUT section, use [VOCAL/UPPER] to adjust the input level of your voice.
- 4 Execute the Initialize operation to set the performance to the basic settings.  
[INIT/UTIL]: Initialize: PERF: TEMPORARY
- 5 Execute the Voice Modulator Initialize operation to make settings so that Vocal Morph Control can be used immediately.  
[INIT/UTIL]: VMod Init: VOCAL MORPH CTRL

Now let's create the electric piano sound.

- 6 In the OSC1 section, set [WAVEFORM] to "SUPER SAW."
- 7 In the OSC1 section, set [CONTROL 1](DETUNE) and [CONTROL 2](MIX) to the positions shown in the diagram.
- 8 In the FILTER section, set [CUTOFF FREQ] to the position shown in the diagram.
- 9 FILTER ENVELOPE section, set all sliders to the positions shown in the diagram.
- 10 In the AMP section, set [LEVEL] to the maximum position.
- 11 In the AMP ENVELOPE section, set all sliders to the positions shown in the diagram.
- 12 Set [MULTI-FX LEVEL] to the minimum position.
- 13 Move DELAY [TIME] and [FEEDBACK] to the positions shown in the diagram, and set [LEVEL] to the minimum position.  
This completes our electric piano sound.
- 14 Press [CONTROL ASSIGN] to make the indicator blink.

## Morphing (continued)

15



**15** Next we will specify the width of change for the parameters that will be controlled by changes in your voice.

The following parameters will be modified. Make settings as shown in the diagram.

- OSC1 section [CONTROL 1] (DETUNE)
- FILTER section [CUTOFF FREQ]
- FILTER ENVELOPE section [S] [R]
- AMP ENVELOPE section [A] [S] [R]
- [MULTI-FX LEVEL]
- DELAY [LEVEL]

If you input an “a” sound from the mic as you make these settings, you will be able to hear the way in which the settings affect the sound.

**16** Press [CONTROL ASSIGN] to make the indicator light.

**17** Return the sliders/knobs which you set in step 15 to the positions in which they were for the electric piano sound.

**18** Sing or speak an “a” sound into the mic.

The electric piano sound will change into a strings sound.

This same effect can also be produced by receiving the MIDI messages specified for Control Up ([MIDI]) (Control Assign: p.84). When using MIDI messages to produce this change, turn off the VOICE MODULATOR section [ON], so that noise picked up by the mic does not cause the sound to change.

# Understanding Sound

Since moving the controllers on the JP-8080's front panel will modify the sound, it's easy to make new sounds. However if you have a certain sound in mind, moving the controllers at random will not get you any closer to the desired sound. In order to create the sound you want, you will need a basic understanding of sound. This section will provide the basic understanding of "sound" that you need. Reading and understanding it will help you create the sounds you want.

## The Basics of Sound

In our lives we are surrounded by all types of sound. These sounds exist as "waves," or vibrations in the air. When these vibrations reach our ear and are conveyed to the brain, they are interpreted as "sound." The shape of these "waves" determines the type of sound that they are perceived as.

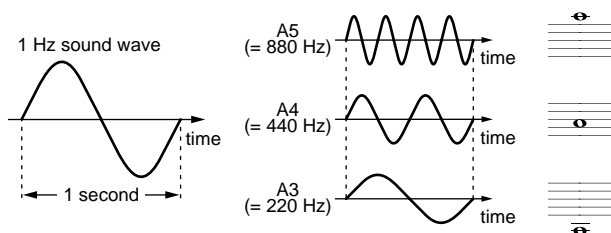
## The Three Elements of Sound

The three elements of sound are "pitch," "brightness," and "volume."

### ■ Pitch

Pitch is determined by the speed at which the wave repeats. A wave which repeats at a frequency of once each second is referred to as a "1 Hz" (Hertz) wave.

As the frequency increases, the pitch will rise. As the frequency decreases, the pitch will be lower. For example, A4 (middle A) has a frequency of 440.0 Hz, but if this is raised an octave the frequency will be doubled (A5 = 880.0 Hz), and if it is lowered an octave the frequency will be halved (A3 = 220.00 Hz).

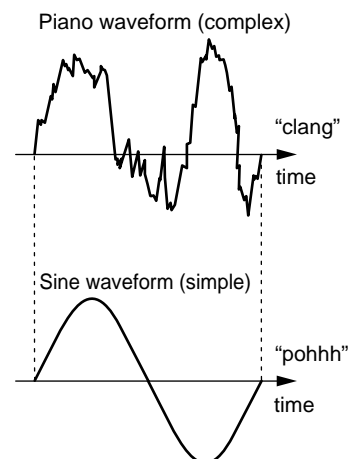


→ OSC COMMON OSC SHIFT [-OCT]/[+OCT] (p.71)

### ■ Brightness

Brightness is determined by the form (shape) of the wave. For example if you compare a piano waveform with a sine waveform, you will see that the piano waveform is much more complex than the sine waveform. Such differences in complexity are interpreted by our ears as the "brightness" of the sound.

Brightness is also closely related to the "partials" (overtones) that will be discussed later.

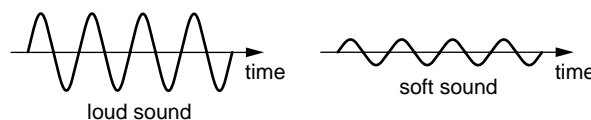


→ OSC 1 [WAVEFORM] (p.66)

→ OSC 2 [WAVEFORM] (p.68)

### ■ Volume

Volume is determined by the amplitude (size) of the waveform. Greater amplitude means louder volume, and lesser amplitude means softer volume.



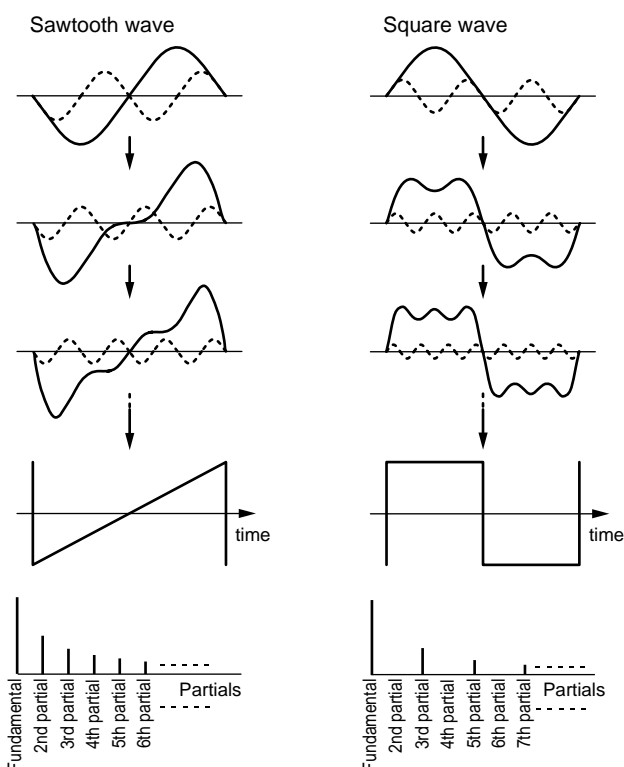
→ AMP [LEVEL] (p.76)

## Partials

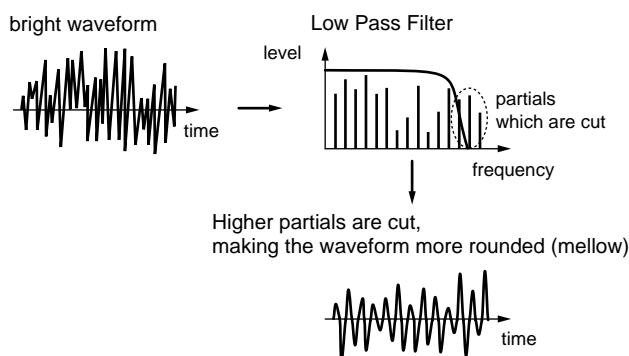
We have mentioned that the brightness is determined by the shape of the waveform, but how is the shape of the waveform determined?

It is generally known that waveforms are made up of multiple sine waves. For example, sawtooth waves or square waves consist of a fundamental (the "basic" frequency) plus integer multiples of the fundamental frequency such as 2x, 3x, ... and so on. These multiples of the fundamental frequency are referred to as "overtones" or "partials."

Partials which are integer multiples of the fundamental are referred to as "harmonic partials," and partials which are not integer multiples of the fundamental are referred to as "inharmonic partials." By combining these partials, an infinite range of sounds can be created.



The more high-frequency partials are included in a sound, the brighter it will appear. The more low-frequency partials are included in a sound, the mellower (darker) it will appear. The technique of cutting these partials to modify the brightness (= waveform) of the sound is known as “subtractive synthesis,” and is one of the most common methods of synthesis. This means that synthesizers which use this method of synthesis need to contain waveforms which include a rich assortment of partials. By using a filter to selectively cut these partials, the brightness of the sound can be modified.



→ **FILTER [TYPE]/[CUTOFF FREQ]/[RESONANCE] [-12dB/-24dB]/[KEY FOLLOW] (p.73, 74)**

In addition to the filter, the waveform can be modified by Sync, Ring Modulator, or Cross Modulation to modify the waveform in various ways.

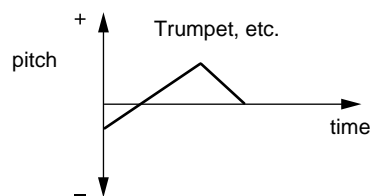
## Time-Variant Changes in the Sound (Envelope)

On any acoustic instrument, the waveform goes through various changes between the beginning and the end of the

note. This is because each of the three elements of sound (pitch, brightness and volume) change as time passes.

These time-variant changes are referred to as the “envelope,” and every natural instrument has its own characteristic envelope.

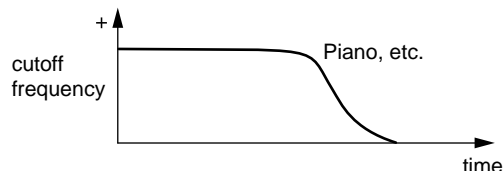
### ■ Pitch envelope



Brass instruments such as the trumpet often have a slight variance in pitch when the musician first begins to blow. On a synthesizer, this “time-variant pitch change” is created by the Pitch Envelope.

→ **PITCH ENVELOPE [A]/[D] (p.72)**

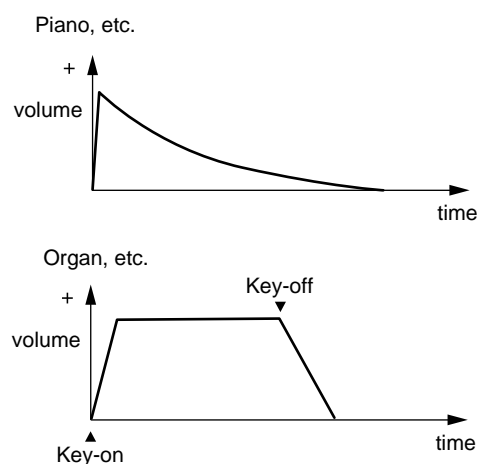
### ■ Filter envelope



Notes on a piano etc. contain the most partials (i.e., are brightest) when the note begins, and as the sound decays, the upper partials gradually diminish, causing the tone to become more mellow (darker). On a synthesizer, this “time-variant change in brightness” is created by the Filter Envelope.

→ **FILTER ENVELOPE [A]/[D]/[S]/[R] (p.75)**

### ■ Amplifier envelope



On a piano, the sound begins the instant that the key is pressed, and gradually diminishes in volume. However on an organ, the same volume is maintained as long as the key is pressed. On a synthesizer, this type of “time-variant change in volume” is created by the Amplifier Envelope.

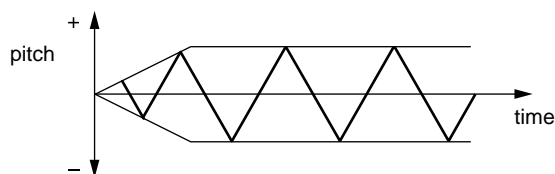
→ **AMP ENVELOPE [A]/[D]/[S]/[R] (p.76)**

# Adding Expression to Sound

In addition to the “three elements of sound,” there are many ways in which expression can be added. This section explains some of these ways.

## Using the LFO

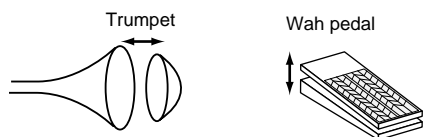
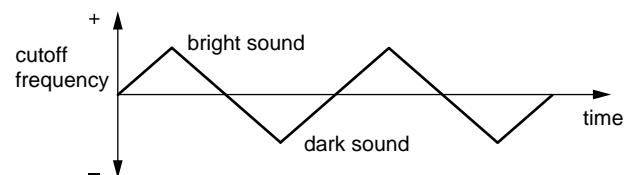
### Vibrato



Vibrato is a cyclic modulation of the pitch. This is a performance technique often used by vocalists and on violin or flute to add expression to the sound.

→ LFO 1 [RATE] (p.77) +OSC COMMON [LFO 1 DEPTH] (p.72) etc.

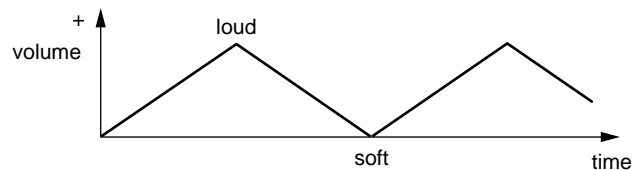
### Wah



Wah is a cyclic modulation of the brightness. This is a performance technique that can be heard when a cup mute is used on a brass instrument, or when a wah pedal is used on an electric guitar.

→ LFO 1 [RATE] (p.77) +FILTER [LFO 1 DEPTH] (p.75) etc.

### Tremolo



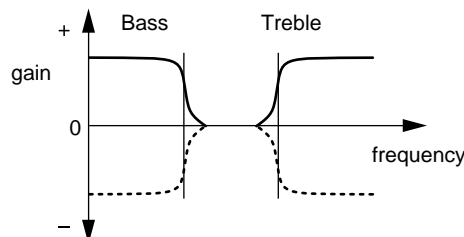
Tremolo is a cyclic modulation of the volume. This is an effect that is frequently used on electric pianos.

→ LFO 1 [RATE] (p.77) + AMP [LFO 1 DEPTH] (p.76) etc.

## Effects

Effects can be categorized into two types: those which modify the overtone (partial) structure to modify the original sound itself, and those which add sound to the original sound.

### Tone Control

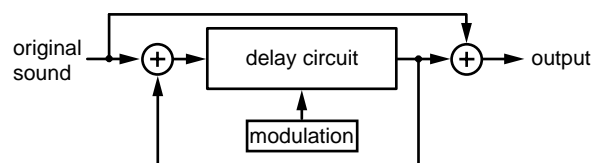


This effect adjusts the balance between the high and low frequencies by emphasizing/attenuating the high/low frequency ranges.

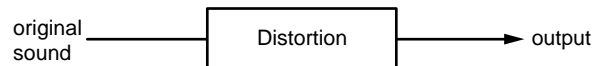
→ TONE CONTROL [BASS]/[TREBLE] (p.78)

### Multi Effects

(Except Distortion)



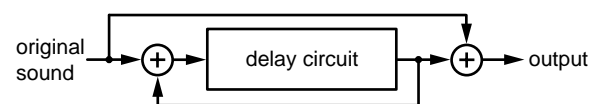
(Distortion)



This effect adds a slightly time-delayed sound to the original sound, making the sound depth and spaciousness.

→ [MULTI-FX LEVEL] (p.78)

### Delay



This effect adds a time-delayed sound to the original sound, creating an echo-like effect.

→ DELAY [TIME]/[FEEDBACK]/[LEVEL] (p.79)

# What is MIDI?

MIDI (Musical Instrument Digital Interface) is a worldwide standard for exchanging musical data between electronic musical instruments and computers, etc. MIDI does not handle the “audio” data itself, but instead handles musical performance data and commands in digital form. The digital signals handled by MIDI are referred to as MIDI messages.

## MIDI Connectors

Any devices that have MIDI connectors can be connected via MIDI cables to exchange musical data, regardless of their manufacturer or model.

### REMOTE KBD IN:

This connector receives MIDI messages from an external MIDI device. The MIDI messages which are received at this connector can control RPS or the arpeggiator.

### MIDI IN:

This connector receives MIDI messages from an external MIDI device. RPS and the arpeggiator cannot be controlled via this connector.

### MIDI OUT:

MIDI messages from the JP-8080 are transmitted from this connector.

Musical data produced by MIDI messages received at REMOTE KBD IN are also transmitted from this connector. For example if you play RPS or the arpeggiator, this musical data will be transmitted.

Also, if MIDI Thru is turned ON (ALL), MIDI messages received from MIDI IN will be re-transmitted from this connector without change. If MIDI Thru is ON (w/o SysEx), any exclusive messages will be omitted from the MIDI messages which are re-transmitted.

## MIDI Channels

MIDI is able to transmit many streams of data over a single cable. This is made possible by the concept of “MIDI channels.” There are 16 MIDI channels: 1–16. MIDI messages will be received when the channels of the receiving and transmitting devices match.

On the JP-8080, the MIDI OUT transmit channel and the MIDI IN receive channel are the same. If you set the MIDI channel of the Upper and Lower Parts to match the channel settings of an external MIDI device, MIDI messages can be transmitted and received on that channel. The REMOTE KBD IN receive channel is set by the Remote Keyboard Channel.

## Main MIDI Messages Used by the JP-8080

MIDI includes a wide variety of messages that can be used to convey various types of data. MIDI messages can be broadly classified into those which are handled separately by channel (Channel messages) and those which are handled regardless of channel (System messages). The main types of MIDI message used by the JP-8080 are as follows.

### Channel Messages

These messages are used to convey musical performance operations, and make up the greater part of MIDI messages.

#### ■ Note-on

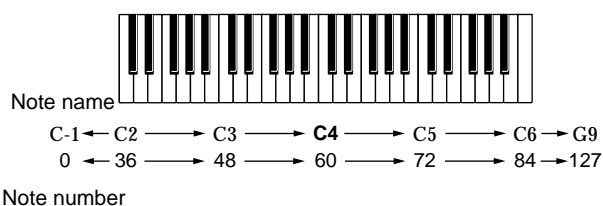
This message is transmitted when a key is played. Each Note-on message includes the following three pieces of data, which are transmitted as one message.

**Note-on:** a key was played

**Note number:** the key (number) that was played

**Velocity:** how strongly (quickly) it was played

Note numbers are expressed as a number in the range of 0–127, with middle C (C4) as 60.



#### ■ Note-off

This message is transmitted when a key is released. When this message is received, the sound for that key will be turned off. Each Note-off message includes the following three pieces of data, which are transmitted as one message.

**Note-off:** a key was released

**Note number:** the key (number) that was released

**Velocity:** how strongly (quickly) it was released



## ■ Pitch Bend Change

This message indicates the position to which the pitch bend lever was moved.

## ■ Aftertouch

This message indicates how strongly pressure was applied to the keyboard after a note was played. There are two types of aftertouch message: Channel Aftertouch which controls an entire channel, and Polyphonic Aftertouch which controls individual notes independently.

On the JP-8080 you can use the Transmit/Receive Setting (p.125) to assign aftertouch to a panel controller.

With the factory settings, the aftertouch message is selected as the control assignment for Control Up. (p.86)

## ■ Program Change

This message is used to select sounds. On the JP-8080, the program numbers 1–128 of this message will select Patches or Performances (p.60, 62).

## ■ Control Change

These messages are used to create musical expression.

On the JP-8080, Bank Select (CC# (Controller Number) 0, CC#32) are used in conjunction with Program Change messages to select Patches or Performances (p.60, 62).

Modulation (CC#1), Pan (CC#10), Expression (CC#11), and Hold (CC#64) can be controlled via pedals or the modulation lever to add expressiveness to your playing (p.87).

A variety of other control change messages can be assigned to various sliders/knobs by the Transmit/Receive Setting (p.125).

## System Messages

This category includes exclusive messages, messages used for synchronization, and messages that keep a MIDI system running correctly.

### ■ Exclusive Messages

Exclusive messages are used to convey information between devices of the same manufacturer and model (or compatible model), so that data unique to these devices (such as sound data settings) can be exchanged.

If MIDI could be used only to convey messages that were defined in the MIDI specification, it would not be possible to convey messages unique to a manufacturer or unique to a particular instrument. Thus, each manufacturer defines its own exclusive message format, and uses this format to convey proprietary data.

On the JP-8080, Transmit/Receive Setting (p.125) allow exclusive messages to be assigned to the sliders/knobs. Also, exclusive messages can be used to transmit data such as Patch settings to a sequencer for storage ("Saving Settings on an External Sequencer (Bulk Dump)" p.137).

### ● About the MIDI Implementation Chart

MIDI handles a wide variety of performance-related messages, but the types of messages that can be transmitted or received by each type of device will differ. The MIDI Implementation Chart that is included in the owner's manual of every MIDI device tells you at a glance which types of MIDI message can be transmitted and received by that particular device. Message types marked by "O" in both charts can be exchanged between the two devices.

# Troubleshooting

If there is no sound, or if the instrument does not operate the way that you expect, check the following points first. If this does not resolve the problem, contact your dealer or a nearby Roland service center.

\* Roland will take no responsibility for the recovery of any settings or data, nor for any damages incurred thereby.

## Power does not turn on

- **Is the Power cord connected correctly to the JP-8080 and to an AC outlet?**

Check the Power cord connections.

## No sound/Volume is low

- **Is the power of the connected devices turned on?**  
Make sure that the power of your amp or mixer system is turned on.
- **Is the volume turned down?**  
Check the volume of the JP-8080 and of the connected amp or mixer.
- **Is there sound in the headphones?**  
If there is sound in the headphones, it is possible that the connection cables are broken, or that the amp or mixer is malfunctioning. Check the connection cables and your other equipment once again.
- **Is the Demo Song playback selected?**  
Press [EXIT] to exit Demo Song playback mode (p.121).
- **Is the Local Switch turned OFF?**  
Turn the Local Switch ON (p.122).
- **Are the AMP section levels at a low setting?**  
Check the [LEVEL] settings of the AMP section (p.76).
- **Is the Sustain level of the AMP ENVELOPE section set too low?**  
Check the [S] setting of the AMP ENVELOPE section (p.76).
- **Is the frequency of the FILTER section set too low?**  
Check the [CUTOFF FREQ] setting of the FILTER section (p.73).
- **Is the rate of the LFO1 section set to slow?**  
Check the [RATE] setting of the LFO1 section (p.77).

- **Have volume messages been received from an external MIDI device to lower the volume?**

Check the volume.

- **Do the transmit channel and the receive channel match?**

Make sure that the transmit and receive channels of the JP-8080 and the external MIDI device match (p.118, 124).

- **Is the Individual Trigger Switch turned ON?**

Turn the Individual Trigger Switch OFF (p.116).

- **Is the External Trigger Switch turned ON?**

Turn the External Trigger Switch OFF (p.121).

## No sound even though you are inputting an external sound

- **Has the volume of the external device been turned down?**  
Check the volume of the connected external device.
- **Has the level of the EXTERNAL INPUT section [INST/LOWER]/[VOCAL/UPPER] been turned down?**  
Check the setting of the EXTERNAL INPUT section [INST/LOWER]/[VOCAL/UPPER] (p.71).
- **Is the EXTERNAL INPUT section [REAR/FRONT] set correctly?**  
If inputting from the VOCAL/UPPER jack, turn this off (REAR). If inputting from the MIC jack, turn this on (FRONT) (p.71).
- **Has the OSC 2 section [EXT] been turned off?**  
If inputting from the INST/LOWER jack, turn the Lower [EXT] on. If inputting from the VOCAL/UPPER jack, turn the Upper [EXT] on (p.71).
- **Has the OSC COMMON section [OSC BALANCE] been set to the OSC 1 position?**  
If inputting from the INST/LOWER jack, set the Lower [OSC BALANCE] to the OSC 2 position. If inputting from the VOCAL/UPPER jack, set the Upper [OSC BALANCE] to the OSC 2 position (p.71).

- **Has the OSC 2 section [CONTROL 1] (GATE THRESHOLD) been increased?**

If inputting from the INST/LOWER jack, check the setting of the Lower OSC 2 [CONTROL 1]. If inputting from the VOCAL/UPPER jack, check the setting of the Upper OSC 2 [CONTROL 1] (p.71).

- **Are PANEL SELECT and KEY MODE set correctly?**  
Think about the part into which you are inputting the external sound, and the part whose sound you wish to use, and check the settings of PANEL SELECT and KEY MODE (p.60).
- **Are note-on messages not being received?**  
If [EXT] is on and an external sound is being input, sound will be heard only while note-on messages are received, in the same way as when the OSC2 waveform is selected.

## Formant Filter does not function

- **Has the VOICE MODULATOR section [ON] been turned off?**  
Turn on the VOICE MODULATOR section [ON] (p.105).
- **Is the mic switch off?**  
Turn on the mic switch.
- **Has the EXTERNAL INPUT section [VOCAL/UPPER] level been turned down?**  
Check the setting of the EXTERNAL INPUT section [VOCAL/UPPER] (p.106).
- **Is the EXTERNAL INPUT section [REAR/FRONT] set correctly?**  
If inputting from the VOCAL/UPPER jack, turn this off (REAR). If inputting from the MIC jack, turn this on (FRONT) (p.106).
- **Has Ext->Vocal Send been turned off?**  
Turn on Ext->Vocal Send (p.109).
- **Has [VOICE MOD SEND] been turned off?**  
When inputting the sound of the Upper patch or Lower patch into the Voice Modulator, turn on the [VOICE MOD SEND] of each part (p.105).
- **Has Ext->Inst Send been turned off?**  
When inputting sound from the INST/LOWER jack directly into the Voice Modulator, turn this on (p.109).
- **Is the Algorithm set correctly?**  
For the formant filter, set this to "SOLID," "SMOOTH," or "WIDE" (p.108).

- **Are a human voice and an instrumental sound not being input simultaneously?**

In order to use the formant filter, you must input both a human voice and an instrumental sound simultaneously (p.103).

- **Has the gate threshold been raised?**  
Select the Voice Modulator panel, and check the [GATE THRESHOLD] setting (p.113).
- **Are PANEL SELECT and KEY MODE set correctly?**  
Keeping in mind the part whose sound you wish to use, check the PANEL SELECT and KEY MODE settings (p.60).

## Filter Bank does not function

- **Has the VOICE MODULATOR section [ON] been turned off?**  
Turn on the VOICE MODULATOR section [ON] (p.105).
- **Has the [VOICE MOD SEND] been turned off?**  
If you are inputting the sound of the Upper patch or Lower patch into the Voice Modulator, turn on the [VOICE MOD SEND] of each part (p.105).
- **Has Ext->Inst Send been turned off?**  
If you want the sound from the INST/LOWER jack to be input directly to the Voice Modulator, turn this on (p.109).
- **Has Ext->Vocal Send been turned off?**  
If you want the sound from the VOCAL/UPPER jack or MIC jack to be input directly to the Voice Modulator, turn this on (p.109).
- **Is the EXTERNAL INPUT section [REAR/FRONT] set correctly?**  
If inputting from the VOCAL/UPPER jack, turn this off (REAR). If inputting from the MIC jack, turn this on (FRONT) (p.106).
- **Is the algorithm set correctly?**  
When using the filter bank, set this to either "FLT BANK WIDE" or "FLT BANK NARROW" (p.108).
- **Are PANEL SELECT and KEY MODE set correctly?**  
Keep in mind the part whose sound you wish to use, and check the PANEL SELECT and KEY MODE settings (p.60).

## Vocal Morph Control does not function

- **Has the VOICE MODULATOR section [ON] been turned off?**  
Turn on the VOICE MODULATOR section [ON] (p.105).
- **Is the mic switch off?**  
Turn on the mic switch.
- **Has the EXTERNAL INPUT section [VOCAL/UPPER] level been turned down?**  
Check the setting of the EXTERNAL INPUT section [VOCAL/UPPER] (p.106).
- **Is the EXTERNAL INPUT section [REAR/FRONT] set correctly?**  
If inputting from the VOCAL/UPPER jack, turn this off (REAR). If inputting from the MIC jack, turn this on (FRONT) (p.106).
- **Has Ext->Vocal Send been turned off?**  
Turn on Ext->Vocal Send (p.109).
- **Have you specified the width of parameter change for Vocal Morph Control?**  
Specify the width of parameter change (p.84).

## The external input sound is heard mixed with the sound of the JP-8080

When using the formant filter or the filter bank, some settings may cause the external input sound to be heard mixed with the sound of the JP-8080.

- **I want to use only the sound of the JP-8080**
- **Has Ext->Inst Send been turned on?**  
Turn off Ext->Inst Send (p.109).  
If you wish to leave Ext->Inst Send turned on, set the EXTERNAL INPUT section [INST/LOWER] to the minimum position (p.106), or turn the volume of the external device to the minimum position.
- **Has Ext->Vocal Send been turned on? (only for Filter Bank)**  
Turn off Ext->Vocal Send (p.109).  
If you wish to leave Ext->Vocal Send turned on, set the EXTERNAL INPUT section [VOCAL/UPPER] to the minimum position (p.106), or turn the volume of the external device to the minimum position.

- **I want to use only the external sound synthesized by the JP-8080.**
- **Turn off Ext->Inst Send?**  
Turn off Ext->Inst Send (p.109).
- **Has Ext->Vocal Send been turned on? (only for Filter Bank)**  
Turn off Ext->Vocal Send (p.109).
- **I want to input the external sound directly to the Voice Modulator.**
- **Are note-on messages being received?**  
If note-on messages are received, the sound of the JP-8080 will always be heard. Make sure that note-on messages are not received.  
Alternatively, set the AMP section [LEVEL] to the minimum value for the corresponding part, so that the JP-8080 sound will not be heard (p.76).

## Pitch is wrong

- **Are the Range settings of the OSC2 section correct?**  
Check the [RANGE] settings of the OSC2 section (p.69).
- **Are the Fine tune/Wide settings of the OSC2 section correct?**  
Check the [FINE/WIDE] settings of the OSC2 section (p.69).
- **Is the Part Transpose setting correct?**  
Check the Part Transpose Setting (p.88).
- **Is the Master Tune setting correct?**  
Check the Master Tune setting (p.126).
- **Has a Pitch Bend message been received from an external device, leaving the pitch “hanging”?**  
Try moving the pitch bend lever of the connected MIDI keyboard.

## Cannot select sounds

- **Is the Local Switch OFF?**  
Turn the Local Switch ON (p.122).
- **Is the Program Change Transmit/Receive Switch OFF?**  
Turn the Program Change Transmit/Receive Switch ON (p.125).

## Notes drop out (are broken off)

- **Is Mono/Legato/Unison selected?**

When Mono, Legato or Unison is selected, only one note at a time will sound even if two or more keys are pressed. If you wish to play two or more notes at a time, press [MONO], [LEGATO] or [UNISON] to make the indicator go dark, selecting Poly (p.80).

- **Is the OSC1 section [WAVEFORM] set to FEEDBACK OSC?**

If the OSC1 section [WAVEFORM] is set to FEEDBACK OSC, the Mono or Legato switch will be set to on. If you wish to play two or more notes at a time, set the OSC1 section [WAVEFORM] to the waveform except FEEDBACK OSC (p.67).

- **Is the maximum simultaneous polyphony being exceeded?**

The JP-8080 can produce up to 10 simultaneous notes (voices) when the Voice Modulator is off, and up to 8 notes (voices) when the Voice Modulator is on. No more notes than this can be sounded at once.

## Sound is cracked (distorted)

- **Is the level of the AMP section set to high?**

Check the [LEVEL] setting of the AMP section (p.76).

- **Has the Patch Gain been set to +6dB or +12dB?**

Set the Patch Gain to 0 (p.121).

## Click is heard when key is pressed / released

For some sounds, a click or “blip” noise may be heard when a key is pressed or released. (This will be noticeable for some sounds but not for others.) This is due to extremely fast Attack Time or Release Time settings for the filter/amplifier, and is useful for creating the click sound of an organ attack.

If you want to avoid the click sound, raise the Attack Time and Release Time settings of the filter section and amplifier section, and lower the Envelope Depth of the filter section.

## MIDI messages are not transmitted / received correctly

- **Are the various MIDI channel settings correct?**

Check the Remote Keyboard Channel, Part MIDI channel and Performance Control channel settings (p.118, 124).

- **Are the various transmit/receive switch settings correct?**

Check the settings of the Program Change Transmit/Receive Switch (p.125) and the Exclusive Receive Switch (p.124).

- **Is the Device ID Number setting correct?**

Set the Device ID Number that was used when recording the exclusive data to the sequencer (p.123).

- **Is the Bulk Dump setting (type) correct?**

Check the Bulk Dump setting (p.137).

- **Is the sequencer being played back at a correct tempo?**

Playback the sequencer at the tempo that was used when recording the exclusive data (p.138).

# Error Messages

If an incorrect operation is performed or if the operation cannot be executed correctly, an error message will be displayed.

Refer to the explanations below and take the appropriate action.

## Battery Low!

- The internal backup battery (the battery which maintains the data in the user memory) is running down.
- **Contact your dealer or a nearby Roland service center to have the battery replaced.**

## Can't Change Data on Card!

- Since memory card data (RPS) is selected, it was not possible to execute the Factory Preset operation.
- **Select internal data (RPS), and then execute the Factory Reset operation.**

## Can't Record Data on Card!

- Since a data (RPS or Motion Control) on memory card was selected, it was not possible to enter record-ready mode.
- **Select an internal data (RPS or Motion Control), and then enter record-ready mode (p.95, 101).**

## Card Damaged!

- The card is damaged.
- **Either the memory card has reached the end of its lifespan, or has been damaged for some reason. Please purchase a new memory card.**

## Card Data Empty!

- You attempted to select a type of data (performance, patch, RPS pattern, motion control, or system setup) which had never been saved to the memory card.
- **Save data to the memory card before selecting it.**

## Card Memory Full!

- Since there was insufficient capacity on the memory card, it was not possible to store a motion control or pattern. Since motion controls and patterns share the same memory area on a memory card, it may be impossible to write an additional motion control or pattern if the card already contains motion controls or patterns which occupy a large amount of memory.
- **Delete unneeded motions or patterns from the memory card (p.133).**

## Card Not Ready!

- A memory card is not inserted into the card slot. Alternatively, the card is not inserted all the way into the slot.
- **Turn the power off, and insert one of the recommended memory cards all the way into the card slot.**

## Check Sum Error!

- Exclusive data was not received correctly. It is possible that the Check Sum value was incorrect, or there is something wrong with the MIDI cable.
- **Check the value of the Check Sum. If it is incorrect, correct the value and re-do the operation.**

If the Check Sum in the transmitted data is correct, take the following procedure.

- **Try the operation once again using a different MIDI cable as short as possible.**
- **If another MIDI device (such as a device with a MIDI Thru function) is connected between the transmitting device and the JP-8080 (receiving device), disconnect that MIDI device, and connect the transmitting device and the JP-8080 (receiving device) directly. Then try the operation once again.**

If the same error message appears in spite of this, contact a nearby qualified Roland service personnel.

### Memory Card Protected!

- Since a write protect sticker is affixed to the memory card, data could not be saved to the memory card.
- **Remove the write protect sticker from the memory card.**

### Memory Damaged!

- The data in user memory has been damaged.
- **Contact your dealer or a nearby Roland service center to repair.**

### Memory Full!

- User memory is full, and further recording or editing is not possible.
- **Delete unneeded data (p.97, 102).**

### MIDI Buffer Full!

- More MIDI data was received at once than could be handled by the JP-8080.
- **Reduce the amount of MIDI data that is being received by the JP-8080.**

### MIDI Off Line!

- There is a problem with the MIDI cable connection.
- **Check that the MIDI cable has not been disconnected or broken.**

### Not Available in U.Mod Panel!

- When the Voice Modulator panel was selected, you moved an invalid slider/knob or pressed an invalid button.
- **When the Voice Modulator panel is selected, only the sliders/knobs/buttons labeled in blue characters are valid. (With the exception of the EFFECTS section [VOICE MOD SEND].) (p.111)**

### Rx Data Error!

- MIDI messages could not be received correctly.
- **If this error message appears repeatedly, there is a problem with the content of the MIDI messages.**

### Wrong Card!

- The manufacturer/type of the memory card is not one that is specified for the JP-8080.
- **Please use either an S2M-5 (2 M byte) or an S4M-5 (4 M byte) memory card (p.128).**
- The memory card has not been formatted for the JP-8080.
- **Format the memory card (p.129).**
- It is possible that the contents of the memory card have been damaged.
- **Format the memory card (p.129).**
- The card does not contain JP-8080 data.
- **Use a card which contains JP-8080 data.**

# Performance List

## ■ Preset1 (CC# = 51H, CC#32 = 00H)

No. (PC#) Performance Name	Lower Patch Name	Upper Patch Name	No. (PC#) Performance Name	Lower Patch Name	Upper Patch Name
P1:11 (001) Chariots	Chariots L	Chariots U	P1:51 (033) Wicked	Wicked L ★★	Wicked U ★★
P1:12 (002) Fizzoid Bass	Fizzoid Bass L	Fizzoid Bass U ★★	P1:52 (034) Velo NRG	Velo NRG L ★★	Velo NRG U
P1:13 (003) Skreachy	Skreachy L	Skreachy U	P1:53 (035) Circuit Bent	Circuit Bent L	Circuit Bent U
P1:14 (004) Feedback Lead	INIT PATCH	Feedback Lead U ★★	P1:54 (036) Arpegg<>Juno Pad	Arp<>Juno Pad L ★	Arp<>Juno Pad U
P1:15 (005) Trancer	Trancer L ★★	Trancer U	P1:55 (037) Didjeribbon	Didjeribbon L ★★	Didjeribbon U ★★
P1:16 (006) Whisper	Whisper L	Whisper U	P1:56 (038) Faze Strings	Faze Strings L	Faze Strings U
P1:17 (007) Dance Split	Dance Split L	Dance Split U	P1:57 (039) Dual SynthKlavs	DualSynthKlavs L	DualSynthKlavs U
P1:18 (008) Comb Strings	Comb Strings L	Comb Strings U	P1:58 (040) Pulsing Sweep	Pulsing Sweep L	Pulsing Sweep U
P1:21 (009) Descender	Descender L	Descender U	P1:61 (041) Mini 5th	Mini 5th L ★★	Mini 5th U ★★
P1:22 (010) Glass Columns	Glass Columns L ★	Glass Columns U	P1:62 (042) Tubular	Tubular L	Tubular U
P1:23 (011) BPM Pulsating	BPM Pulse L	BPM Pulse U	P1:63 (043) Synthboy Split	Synthboy Split L ★★	Synthboy Split U
P1:24 (012) 1979!	1979 L	1979 U	P1:64 (044) Water Orchestra	WaterOrchestra L	WaterOrchestra U
P1:25 (013) Elliptical	Elliptical L	Elliptical U	P1:65 (045) Split of 5ths	Split of 5ths L ★★	Split of 5ths U
P1:26 (014) MKS80 Bell/Space	MKS80Bell/SpaceL	MKS80Bell/SpaceU	P1:66 (046) Road To Goa	Road To Goa L ★★	Road To Goa U ★
P1:27 (015) Legato TB-303	Legato TB-303 L ★	Legato TB-303 U ★★	P1:67 (047) Rain Drops	Rain Drops L	Rain Drops U
P1:28 (016) Massive Pad	Massive Pad L	Massive Pad U	P1:68 (048) Wide Quark Rings	WideQuarkRings L	WideQuarkRings U
P1:31 (017) AKS Sweep	AKS Sweep L ★	AKS Sweep U	P1:71 (049) Tritouch Layer	Tritouch Layer L	Tritouch Layer U
P1:32 (018) Sweepers	Sweepers L	Sweepers U	P1:72 (050) Aquapeggios	Aquapeggios L	Aquapeggios U
P1:33 (019) Juliano	Juliano L	Juliano U	P1:73 (051) OB Eight	OB Eight L	OB Eight U
P1:34 (020) Stargate	Stargate L	Stargate U	P1:74 (052) Swynk	Swynk L ★	Swynk U
P1:35 (021) Dual Mini's	Dual Mini's L ★★	Dual Mini's U ★★	P1:75 (053) GR-300 Solo	GR-300 Solo L ★	GR-300 Solo U ★
P1:36 (022) Spacescapes	Spacescapes L	Spacescapes U	P1:76 (054) Ring Split	Ring Split L	Ring Split U
P1:37 (023) Trance Floor	Trance Floor L	Trance Floor U	P1:77 (055) Observatory	Observatory L	Observatory U
P1:38 (024) Arctic E-know	INIT PATCH	Arctic E-know U	P1:78 (056) Tron Strings	Tron Strings L	Tron Strings U
P1:41 (025) Smooth Split	Smooth Split L ★★	Smooth Split U ★★	P1:81 (057) Mirror Balls	Mirror Balls L	Mirror Balls U
P1:42 (026) Fanfare	Fanfare L	Fanfare U	P1:82 (058) Entropy	Entropy L	Entropy U
P1:43 (027) Touchy Alarmist	TouchyAlarmist L	TouchyAlarmist U	P1:83 (059) Template1 ♦	Tmp1:Trig Src.	Tmp1:Trig Dst.
P1:44 (028) Last Emperor	Last Emperor L	Last Emperor U ★★	P1:84 (060) Template2	Tmp2:ChorusSync	Tmp2:DelaySync
P1:45 (029) Euroneuro	Euroneuro L	Euroneuro U	P1:85 (061) Template3	INIT PATCH	Tmp3:LFO Sync
P1:46 (030) Babylon	Babylon L	Babylon U	P1:86 (062) Template4	Tmp4:Lower	Tmp4:Upper ★★
P1:47 (031) Str/Whistle	Str/Whistle L	Str/Whistle U ★★	P1:87 (063) Template5	Tmp5:Lower	Tmp5:Upper
P1:48 (032) Back To The 60's	BackToThe60's L	BackToThe60's U	P1:88 (064) Template6	Tmp6:Lower	Tmp6:Upper

♦: Indiv Trig Switch = ON (p.116)

★: MONO

★★: LEGATO

\* About P1: 83 (Template1)–P1: 88 (Template6), refer to page 16 in the owner's manual.

\* P1: 83 (Template1) is a sound which uses the Individual Trigger function. It is effective to press a key below B3 and play chords in the Upper part.

### Bank Select table

PERFORM	CC#0	CC#32
USER	50H	00H
PRESET1	51H	00H
PRESET2	51H	01H
PRESET3	51H	02H
CARD01	52H	00H
⋮	⋮	⋮
CARD32	52H	1FH
⋮	⋮	⋮
CARD64	52H	3FH

\* In the case of a S2M-5 (2M bytes) memory card these will be CARD01–32; in the case of a S4M-5 (4M bytes) card these will be CARD01–64.



## ■ Preset2 (CC# = 51H, CC#32 = 01H)

No. (PC#)	Performance Name	Lower Patch Name	Upper Patch Name	No. (PC#)	Performance Name	Lower Patch Name	Upper Patch Name
P2:11 (001)	Sand Storm	Sand Storm L	Sand Storm U	P2:51 (033)	Danger Zone	Danger Zone L	Danger Zone U
P2:12 (002)	Morph Trance	Morph Trance L	Morph Trance U	P2:52 (034)	Space Drum	Space Drum L ★	Space Drum U
P2:13 (003)	Jay Age Syncope	JayAgeSyncope L ★★	JayAgeSyncope U ★	P2:53 (035)	Unison Bass	Unison Bass L	Unison Bass U ☆
P2:14 (004)	Hard Sync	Hard Sync L	Hard Sync U	P2:54 (036)	Bio Feedback	Bio Feedback L ★	Bio Feedback U ★★
P2:15 (005)	Paradise Pad	Paradise Pad L	Paradise Pad U	P2:55 (037)	Brassy Strings	Brassy Strings L	Brassy Strings U
P2:16 (006)	Sonar	Sonar L	Sonar U	P2:56 (038)	High Tides	High Tides L	High Tides U
P2:17 (007)	Ambient Strings	AmbientStrings L	AmbientStrings U	P2:57 (039)	Club Chord	Club Chord L	Club Chord U
P2:18 (008)	Outland	Outland L	Outland U	P2:58 (040)	Battlefield	Battlefield L	Battlefield U
P2:21 (009)	Reezo Pad	Reezo Pad L	Reezo Pad U	P2:61 (041)	Morphecho	Morphecho L	Morphecho U
P2:22 (010)	Groove 4U	Groove 4U L	Groove 4U U	P2:62 (042)	Ambient Bassline	AmbientBasslineL	AmbientBasslineU
P2:23 (011)	Distorted TB	Distorted TB L ★	Distorted TB U ★★	P2:63 (043)	Fat Bass Synth	Fat Bass Synth L	Fat Bass Synth U
P2:24 (012)	Guitar Killer	Guitar Killer L	Guitar Killer U	P2:64 (044)	Slim Fuzz	Slim Fuzz L ★★	Slim Fuzz U ★★
P2:25 (013)	Click Strings	Click Strings L	Click Strings U	P2:65 (045)	Cosmic Strings	Cosmic Strings L	Cosmic Strings U ★
P2:26 (014)	Divin'	Divin' L	Divin' U	P2:66 (046)	Trance Pulses	Trance Pulses L ★	Trance Pulses U
P2:27 (015)	Letterbox	Letterbox L	Letterbox U	P2:67 (047)	Hybrid Bass	Hybrid Bass L ★★	Hybrid Bass U ★
P2:28 (016)	Pool	Pool L	Pool U	P2:68 (048)	Den	Den L	Den U ★★
P2:31 (017)	Quasar	Quasar L	Quasar U	P2:71 (049)	Wide Synbrass	Wide Synbrass L	Wide Synbrass U
P2:32 (018)	Contact	Contact L	Contact U	P2:72 (050)	Meteor	Meteor L	Meteor U
P2:33 (019)	Throb	Throb L	Throb U ★	P2:73 (051)	Staccato Synth	Staccato Synth L	Staccato Synth U
P2:34 (020)	Sync Detune	Sync Detune L	Sync Detune U ★★ ☆	P2:74 (052)	Splitter	Splitter L ★★	Splitter U
P2:35 (021)	Down 2 Earth	Down 2 Earth L	Down 2 Earth U	P2:75 (053)	Raving Dutchman	RavingDutchman L	RavingDutchman U
P2:36 (022)	Cherry Blossom	Cherry Blossom L	Cherry Blossom U ★	P2:76 (054)	Burn	Burn L	Burn U
P2:37 (023)	LullabyLand	LullabyLand L	LullabyLand U	P2:77 (055)	Methods ofMayday	MethodsofMaydayL ★	MethodsofMaydayU ★
P2:38 (024)	Morph RSS	Morph RSS L	Morph RSS U	P2:78 (056)	No Arpeggio!	No Arpeggio! L	No Arpeggio! U
P2:41 (025)	Scape	Scape L	Scape U	P2:81 (057)	VOCAL MORPH FBK	VOCALMORPH FBK L	VOCALMORPH FBK U★
P2:42 (026)	One finger Rave	Onefinger Rave L	Onefinger Rave U	P2:82 (058)	FILTER BANK	FILTER BANK L	FILTER BANK U
P2:43 (027)	Talking Bass	Talking Bass L ★★	Talking Bass U ★	P2:83 (059)	VOICE + ARPEGGIO	VOICE + ARPGIO L	VOICE + ARPGIO U
P2:44 (028)	Lite Lead	Lite Lead L	Lite Lead U ★★	P2:84 (060)	ROBOT VOICE	ROBOT VOICE L	ROBOT VOICE U
P2:45 (029)	Riff Synth	Riff Synth L	Riff Synth U	P2:85 (061)	RPS + VOICE MD	RPS + VOICE MD L	RPS + VOICE MD U
P2:46 (030)	Two Tribes	Two Tribes L	Two Tribes U	P2:86 (062)	FORMANT FILTER	FORMANT FILTER L	FORMANT FILTER U
P2:47 (031)	Trance Mission ◆	Trance Mission L	Trance Mission U	P2:87 (063)	AUDIO SYNTHESIS	AUDIO SYNTHESIS L ★	AUDIO SYNTHESIS U ★
P2:48 (032)	Hold it!	Hold it! L	Hold it! U	P2:88 (064)	With MC-505	With MC-505 L ★★	With MC-505 U ★

◆: Indiv Trig Switch = ON (p.116)

★: MONO

★★: LEGATO

☆: UNISON

\* When the JP-8080 is shipped from the factory, the User Performances contain the same settings as the corresponding-numbered Preset2 Performances.

\* About P2: 81(VOCAL MORPH FBK), P2: 82 (FILTER BANK), P2: 86 (FORMANT FILTER), P2: 87 (AUDIO SYNTHESIS), P2: 88 (With MC-505), refer to page 16 in the owner's manual.

\* P2: 47 (Trance Mission) is a sound which uses the Individual Trigger function. It is effective to press a key below B2 and play chords in the Upper part.

## ■ Preset3 (CC# = 51H, CC#32 = 02H)

No. (PC#)	Performance Name	Lower Patch Name	Upper Patch Name	No. (PC#)	Performance Name	Lower Patch Name	Upper Patch Name
P3:11 (001)	PlyLowC,ThenChrd ◆	PlyLoCthenChrd L	PlyLoCthenChrd U	P3:51 (033)	Fommrujebo	Fommrujebo L	Fommrujebo U
P3:12 (002)	Str/Onde	Str/Onde L	Str/Onde U ★★	P3:52 (034)	Deviant	Deviant L	Deviant U ★★
P3:13 (003)	La Fiesta	La Fiesta L	La Fiesta U	P3:53 (035)	Swallowtail	Swallowtail L ★	Swallowtail U ★
P3:14 (004)	Pad<=>Feedbacky	Pad<=>FeedbackyL	Pad<=>FeedbackyU ★	P3:54 (036)	Adrenaline II	Adrenaline II L	Adrenaline II U
P3:15 (005)	Garage Chord	Garage Chord L	Garage Chord U	P3:55 (037)	Minor Seven	Minor Seven L	Minor Seven U
P3:16 (006)	Rich Strings	Rich Strings L	Rich Strings U	P3:56 (038)	Atomic Split	Atomic Split L ★★	Atomic Split U
P3:17 (007)	Nova	Nova L	Nova U	P3:57 (039)	Perc Clavi&Bass	Perc Clavi&BassL ★	Perc Clavi&BassU
P3:18 (008)	Ghost Sine	Ghost Sine L	Ghost Sine U	P3:58 (040)	X hits the spot.	X hitsTheSpot. L	X hitsTheSpot. U
P3:21 (009)	Experience	Experience L	Experience U	P3:61 (041)	Move your S	Move your S L ★★	Move your S U ★
P3:22 (010)	Tresor of Age	Tresor of Age L	Tresor of Age U	P3:62 (042)	Arpeg<>Dream Pad	Arpeg<>DreamPadL	Arpeg<>DreamPadU
P3:23 (011)	Love Rise	Love Rise L	Love Rise U	P3:63 (043)	Animated Audio	Animated Audio L	Animated Audio U
P3:24 (012)	Vive la Goa	Vive la Goa L	Vive la Goa U ★★	P3:64 (044)	Blip Pad	Blip Pad L	Blip Pad U
P3:25 (013)	Rasta Blaster	Rasta Blaster L	Rasta Blaster U	P3:65 (045)	Bells of Life	Bells of Life L	Bells of Life U
P3:26 (014)	Fiberoptics	Fiberoptics L	Fiberoptics U	P3:66 (046)	Eros Synth	Eros Synth L	Eros Synth U
P3:27 (015)	Soft Techno	Soft Techno L ★★	Soft Techno U	P3:67 (047)	Cosmic Terror	Cosmic Terror L	Cosmic Terror U
P3:28 (016)	Miditation Zone	Miditation ZoneL	Miditation ZoneU	P3:68 (048)	Mechanic Love	Mechnic Love L	Mechnic Love U
P3:31 (017)	Tunnel of Pirate	TunnelofPirate L	TunnelofPirate U	P3:71 (049)	Arpeggiatornado	ArpeggiatornadoL	ArpeggiatornadoU
P3:32 (018)	Ambi Split	Ambi Split L	Ambi Split U	P3:72 (050)	Dimension 8000	Dimension 8000 L	Dimension 8000 U
P3:33 (019)	Phenomena	Phenomena L	Phenomena U ★	P3:73 (051)	Dirty at Work	Dirty at Work L	Dirty at Work U
P3:34 (020)	Dreamboat	Dreamboat L	Dreamboat U	P3:74 (052)	Pizz Bass	Pizz Bass L	Pizz Bass U
P3:35 (021)	Dance 7th	Dance 7th L	Dance 7th U ★	P3:75 (053)	Euro Percussion2	EuroPercussion2L	EuroPercussion2U
P3:36 (022)	Euro Synchro	Euro Synchro L	Euro Synchro U	P3:76 (054)	Suspense	Suspense L	Suspense U
P3:37 (023)	Maniac	Maniac L	Maniac U	P3:77 (055)	Nautilus	Nautilus L	Nautilus U
P3:38 (024)	Birdy Sweep	Birdy Sweep L ★	Birdy Sweep U	P3:78 (056)	LFO Boy	LFO Boy L	LFO Boy U
P3:41 (025)	L:rhythm R:chord ◆	L:rhyM R:chrd L	L:rhyM R:chrd U	P3:81 (057)	Arptrigger C2 ◆	Arptrigger C2 L	Arptrigger C2 U
P3:42 (026)	Talisman	Talisman L	Talisman U	P3:82 (058)	Arlequin	Arlequin L	Arlequin U
P3:43 (027)	Avengers	Avengers L	Avengers U	P3:83 (059)	Our Friend Digit	Our FriendDigitL	Our FriendDigitU
P3:44 (028)	Eastern Dawn	Eastern Dawn L	Eastern Dawn U ★★	P3:84 (060)	Compu Bass	Compu Bass L	Compu Bass U ★★
P3:45 (029)	Bounce	Bounce L	Bounce U ★★	P3:85 (061)	FM System	FM System L	FM System U
P3:46 (030)	Big Analog	Big Analog L	Big Analog U	P3:86 (062)	Meditate	Meditate L	Meditate U
P3:47 (031)	Top Organ	Top Organ L	Top Organ U	P3:87 (063)	Arp Perc	Arp Perc L	Arp Perc U ★
P3:48 (032)	Signals	Signals L	Signals U	P3:88 (064)	Octopus Garden	Octopus Garden L	Octopus Garden U

◆: Indiv Trig Switch = ON (p.116)

★: MONO

★★: LEGATO

- \* P3: 11 (PlyLowC,ThenChrd), P3: 41 (L: rhythm R:chord), and P3: 81(Arptrogger C2) are sounds which use the Individual Trigger function. For P3: 11 and P3: 81, it is effective to press a key below C2 and play chords in the Upper part. For P3: 41, it is effective to play rhythm in the Lower part and chords in the Upper part.

# Patch List

## ■ Preset1 (CC# = 51H, CC#32 = 00H)

No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name
P1:A11 (001) Spit'n Slide Bs ★★	P1:A51 (033) Intervalic ★★	P1:B11 (065) Whammy Mammy ★★	P1:B51 (097) Stargate
P1:A12 (002) Velo Decay Bass ★★	P1:A52 (034) Squared Away	P1:B12 (066) Wicked Lead ★★	P1:B52 (098) Lost in Time
P1:A13 (003) Wall Bob ★★	P1:A53 (035) Velo Syncoïd	P1:B13 (067) Drefull Dr.	P1:B53 (099) Circular
P1:A14 (004) Juno Sub Bass ★★	P1:A54 (036) Resonance Chord	P1:B14 (068) Wiggle Mod	P1:B54 (100) Space Choir
P1:A15 (005) Subsonic Bass ★★	P1:A55 (037) Resorelease	P1:B15 (069) Feedback Lead ★★	P1:B55 (101) Hypass Sweep
P1:A16 (006) Big & Dark ★★	P1:A56 (038) Waspy Synth	P1:B16 (070) Crunch ★★	P1:B56 (102) BPF Tides
P1:A17 (007) Bass Flow ★★	P1:A57 (039) Euro SAW	P1:B17 (071) Chaos Lead ★★	P1:B57 (103) Matrix Sweep
P1:A18 (008) Juno Bass Vel ★★	P1:A58 (040) Dance Sweep	P1:B18 (072) Out of Control ★	P1:B58 (104) MKS80 Bells
P1:A21 (009) Dubb Bass ★★	P1:A61 (041) Trance Food	P1:B21 (073) String Machine	P1:B61 (105) Tiny bells
P1:A22 (010) Juice Bass ★★	P1:A62 (042) One Shot Reso	P1:B22 (074) Tron Vlns	P1:B62 (106) Chimey
P1:A23 (011) Dreams Are Made ★★	P1:A63 (043) The Fat Guy	P1:B23 (075) Luxury Symph	P1:B63 (107) Juno Arp
P1:A24 (012) Reso Bass Line ★★	P1:A64 (044) Spit Brass	P1:B24 (076) Debussy	P1:B64 (108) Sonar Ping
P1:A25 (013) Bass Pedals ★★	P1:A65 (045) Poly Sync	P1:B25 (077) BPF Velo Strings	P1:B65 (109) Air Harp
P1:A26 (014) Hard Core Bass ★★	P1:A66 (046) Rave 5th	P1:B26 (078) Detuned Str.	P1:B66 (110) Velo FX Percs
P1:A27 (015) MC-202 Bass ★★	P1:A67 (047) UK Shorty	P1:B27 (079) Juno B81 Pad	P1:B67 (111) Quizzled
P1:A28 (016) Rubber SH-2 ★	P1:A68 (048) Old Rhodes	P1:B28 (080) Richland	P1:B68 (112) Intermittent
P1:A31 (017) Raging Bass ★	P1:A71 (049) Wurly Piano 1	P1:B31 (081) MOD Strings	P1:B71 (113) Brain Static
P1:A32 (018) Blipper Bass ★★	P1:A72 (050) Wurly Piano 2	P1:B32 (082) Jupiter Pad	P1:B72 (114) Computone
P1:A33 (019) JP-303 ★★	P1:A73 (051) Moody Organ	P1:B33 (083) Soft Strings	P1:B73 (115) Pin Matrix
P1:A34 (020) Rave Time	P1:A74 (052) Org/Rotary>Ribon	P1:B34 (084) Shan-gri-la	P1:B74 (116) Space Cheese
P1:A35 (021) Fretless Bass ★★	P1:A75 (053) VK09 PercEchoes	P1:B35 (085) Fine Wine	P1:B75 (117) Rough Day
P1:A36 (022) Digi Strat	P1:A76 (054) Sine Lead ★★	P1:B36 (086) Glue Pad	P1:B76 (118) The Etruscan. ★
P1:A37 (023) Fire Wire	P1:A77 (055) Wichita Lead	P1:B37 (087) True Pad	P1:B77 (119) Varese
P1:A38 (024) Proflike Clavit	P1:A78 (056) Creamy ★★	P1:B38 (088) Foreboding	P1:B78 (120) Pipe Dream
P1:A41 (025) Withmod Comp	P1:A81 (057) Smoothy ★★	P1:B41 (089) Skreachea	P1:B81 (121) Meteor
P1:A42 (026) Juno Clav	P1:A82 (058) Soaring Mini ★★	P1:B42 (090) BPM Pulse 1	P1:B82 (122) Snowman
P1:A43 (027) Gritty Power	P1:A83 (059) Ribn F/B Lead ★	P1:B43 (091) BPM Pulse 2	P1:B83 (123) Space Ghost
P1:A44 (028) Separate ways	P1:A84 (060) Sup-Jup Lead ★★	P1:B44 (092) Hi-Pass Puls	P1:B84 (124) Ozone
P1:A45 (029) For RPS	P1:A85 (061) Modular Lead ★★	P1:B45 (093) Sample&Hold Me	P1:B85 (125) Cool-a little...
P1:A46 (030) Bread'n Butter	P1:A86 (062) Syncrosolo ★★	P1:B46 (094) MKS80 Space	P1:B86 (126) Electro Gulls
P1:A47 (031) Silk 5ths	P1:A87 (063) Ripper ★★	P1:B47 (095) Arctic Sweep	P1:B87 (127) Template 1
P1:A48 (032) Ancient Asia	P1:A88 (064) Phantom Lead ★★	P1:B48 (096) Replicant CS	P1:B88 (128) Template 2

★: MONO

★★: LEGATO

\* About P1: B87 (Template1), P1: B88 (Template2), refer to page 16 in the owner's manual.

### Bank Select table

PATCH	CC#0	CC#32
USER A/B	50H	00H
PRESET1 A/B	51H	00H
PRESET2 A/B	51H	01H
PRESET3 A/B	51H	02H
CARD01 A/B	52H	00H
:	:	:
CARD32 A/B	52H	1FH
:	:	:
CARD64 A/B	52H	3FH

\* In the case of a S2M-5 (2M bytes) memory card these will be CARD01-32; in the case of a S4M-5 (4M bytes) card these will be CARD01-64.

## ■ Preset2 (CC# = 51H, CC#32 = 01H)

No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name
P2:A11 (001) MG Bass ★	P2:A51 (033) WONDERLAND 1	P2:B11 (065) Virtual Voltage ★★	P2:B51 (097) Open 54
P2:A12 (002) Trance Bass 4 ★★	P2:A52 (034) WONDERLAND 2	P2:B12 (066) DAD or alive ★★	P2:B52 (098) Kling Klang 4
P2:A13 (003) Trance Bass 5 ★★	P2:A53 (035) Jupiter8Arpeggio	P2:B13 (067) Freeze Frame	P2:B53 (099) Epic
P2:A14 (004) Trance Bass 6 ★★	P2:A54 (036) Fuel	P2:B14 (068) Rave2theRhythm	P2:B54 (100) Multiples 1
P2:A15 (005) Bone Sa Mo	P2:A55 (037) Shake	P2:B15 (069) Cheesy Lead 1	P2:B55 (101) Lodelity
P2:A16 (006) Bone Yall	P2:A56 (038) Model	P2:B16 (070) Cheesy Lead 2 ★	P2:B56 (102) Lode in Stereo
P2:A17 (007) PHM 1	P2:A57 (039) Vanishing Key	P2:B17 (071) Cheesy Lead 3	P2:B57 (103) Wonderland Brs
P2:A18 (008) PHM 2	P2:A58 (040) Fade Away	P2:B18 (072) Cheesy Lead 4	P2:B58 (104) Hard Pad
P2:A21 (009) PHM 3	P2:A61 (041) Hard Key 1	P2:B21 (073) Cheesy Lead 5	P2:B61 (105) Gate in Stereo 1
P2:A22 (010) Static Bass 1 ★★	P2:A62 (042) Hard Key 2	P2:B22 (074) Coreline Nine ★	P2:B62 (106) Gate in Stereo 2
P2:A23 (011) Static Bass 2	P2:A63 (043) Hard Key 3	P2:B23 (075) Wonderland Pad 1	P2:B63 (107) Gate in Stereo 3
P2:A24 (012) M Bass	P2:A64 (044) Cheesy Key 1	P2:B24 (076) Wonderland Pad 2	P2:B64 (108) S/H in Stereo
P2:A25 (013) PHM 4	P2:A65 (045) Cheesy Key 2	P2:B25 (077) Wonderland Pad 3	P2:B65 (109) Bub
P2:A26 (014) PHM 5	P2:A66 (046) DM 1	P2:B26 (078) seqaT nortoleM	P2:B66 (110) Simple E.Drums
P2:A27 (015) Mini Bass	P2:A67 (047) DM 2	P2:B27 (079) Venusian Strings	P2:B67 (111) Boom your Woofer
P2:A28 (016) Wonderland Bass	P2:A68 (048) Hard Key 4	P2:B28 (080) Wonderland Pad 4	P2:B68 (112) Multiples 2
P2:A31 (017) Hard Bass	P2:A71 (049) Hard Key 5	P2:B31 (081) GRAMMAPHONE 1	P2:B71 (113) Midnight 1-900
P2:A32 (018) Fretless Synth ★★	P2:A72 (050) Hard Key 6	P2:B32 (082) GRAMMAPHONE 2	P2:B72 (114) 100% After
P2:A33 (019) Lead Bass	P2:A73 (051) DM 3	P2:B33 (083) GRAMMAPHONE 3	P2:B73 (115) Time and Space
P2:A34 (020) JP Fat Synbrass	P2:A74 (052) Arpy 3 ★	P2:B34 (084) Oil Canvas 1	P2:B74 (116) LFO 1
P2:A35 (021) Gate me!	P2:A75 (053) Arpy 4 ★	P2:B35 (085) Oil Canvas 2	P2:B75 (117) LFO 2
P2:A36 (022) Kling Klang 2	P2:A76 (054) J Echo	P2:B36 (086) Oil Canvas 3	P2:B76 (118) HLAH
P2:A37 (023) Rising Key	P2:A77 (055) Mini Seq. 1	P2:B37 (087) Oil Canvas 4	P2:B77 (119) Blade
P2:A38 (024) Flat Out 1	P2:A78 (056) Mini Seq. 2	P2:B38 (088) Oil Canvas 5	P2:B78 (120) Cyborg
P2:A41 (025) Flat LFO	P2:A81 (057) Pulsar 88	P2:B41 (089) Blossoms 1	P2:B81 (121) Fall
P2:A42 (026) Flat Out 2	P2:A82 (058) Kling Klang 3	P2:B42 (090) Blossoms 2	P2:B82 (122) Rise
P2:A43 (027) Flat Out 3	P2:A83 (059) Straight Jacket	P2:B43 (091) Broom	P2:B83 (123) Radioactive 1
P2:A44 (028) MiniSynth 1	P2:A84 (060) DM 4	P2:B44 (092) J Pad	P2:B84 (124) Radioactive 2
P2:A45 (029) AW/DM Resonance1	P2:A85 (061) CHEM 1 ★	P2:B45 (093) Dream Kate	P2:B85 (125) DroneOn
P2:A46 (030) AW/DM Resonance2	P2:A86 (062) CHEM 2	P2:B46 (094) Temple 1	P2:B86 (126) Duss ★★
P2:A47 (031) AW/DM Resonance3	P2:A87 (063) Dusseldorf 1	P2:B47 (095) Temple 2	P2:B87 (127) Hydro Noise
P2:A48 (032) AW/DM Resonance4	P2:A88 (064) Dusseldorf 2	P2:B48 (096) Thick	P2:B88 (128) From Space...

★: MONO

★★: LEGATO

\* When the JP-8080 is shipped from the factory, the User Patches contain the same settings as the correspondingly-numbered Preset2 Patches.

## ■ Preset3 (CC# = 51H, CC#32 = 02H)

No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name	No. (PC#) Patch Name
P3:A11 (001) Culture Bass	P3:A51 (033) Viking	P3:B11 (065) Eurodance Perc 2	P3:B51 (097) 70's Mono ★
P3:A12 (002) Techno Brie	P3:A52 (034) Nova Pad	P3:B12 (066) Lo-Fi Chops	P3:B52 (098) Mega HPF Lead ★
P3:A13 (003) Wired Funk	P3:A53 (035) HPF Saws	P3:B13 (067) Tranceients	P3:B53 (099) Siren's Song
P3:A14 (004) Deep Thought	P3:A54 (036) 5th Saws Key	P3:B14 (068) Voicetransformer	P3:B54 (100) Retro Strings
P3:A15 (005) Trance Bass ★★	P3:A55 (037) Eros Synth	P3:B15 (069) AW/DM	P3:B55 (101) Ambient Pad
P3:A16 (006) Baroque Bass	P3:A56 (038) Mov'Mov Synth !	P3:B16 (070) Braindead ★★	P3:B56 (102) Mystery Room
P3:A17 (007) Pulse 303	P3:A57 (039) Formula Stack 1	P3:B17 (071) I get a Kick	P3:B57 (103) ElectronicHarmon
P3:A18 (008) 101 Sub Bass	P3:A58 (040) Formula Stack 2	P3:B18 (072) Upside down	P3:B58 (104) Jungle Pad
P3:A21 (009) Serious Low Ant1 ★★	P3:A61 (041) Raveline	P3:B21 (073) Hoppy Lead	P3:B61 (105) Filtersweep 1
P3:A22 (010) Serious Low Ant2 ★★	P3:A62 (042) Ravers Delite	P3:B22 (074) Magic Ribbon ★★	P3:B62 (106) Filtersweep 2
P3:A23 (011) Bone	P3:A63 (043) Super Saw Soup	P3:B23 (075) Nice Lead ★★	P3:B63 (107) Sizzler
P3:A24 (012) JX Dyna Bass	P3:A64 (044) Chainsawmassacre	P3:B24 (076) Solo Sine&Square ★★	P3:B64 (108) Hi-Pass Saws
P3:A25 (013) Xa Bass	P3:A65 (045) Daft Five	P3:B25 (077) Vintage Voltage ★★	P3:B65 (109) Piping Pad
P3:A26 (014) Offbeat Bass ★	P3:A66 (046) Coming up	P3:B26 (078) Trusty Lead ★	P3:B66 (110) Odyssey Astral
P3:A27 (015) Drone Bass ★★	P3:A67 (047) Power of 80's	P3:B27 (079) Dream P5	P3:B67 (111) Agitation
P3:A28 (016) Clean Wow Bass ★	P3:A68 (048) Jericho Horns	P3:B28 (080) Eastern Lead 1 ★★	P3:B68 (112) Safari LFO
P3:A31 (017) FM Solid	P3:A71 (049) Milling Lead	P3:B31 (081) Eastern Lead 2 ★★	P3:B71 (113) Tricky LFO
P3:A32 (018) FM Tube Bass	P3:A72 (050) Dark Loonie ★	P3:B32 (082) Tri&Saw Lead	P3:B72 (114) Extra Hi-Fi
P3:A33 (019) FM Rave Bass	P3:A73 (051) X-Mod May-Day !	P3:B33 (083) Crystal Noise	P3:B73 (115) Rhythmic Synth
P3:A34 (020) Velo Organ	P3:A74 (052) Dirty Mania	P3:B34 (084) Happy Euro Lead ★	P3:B74 (116) Asteroid Mode
P3:A35 (021) Club Organ	P3:A75 (053) Vinyl Story	P3:B35 (085) Alphabet Lead	P3:B75 (117) Disaster 1
P3:A36 (022) Old Organ	P3:A76 (054) Zipper Hymn	P3:B36 (086) Feedbacky ★	P3:B76 (118) Fuzzy Logic
P3:A37 (023) PercussivToyPno	P3:A77 (055) Nova Attack	P3:B37 (087) Trance Lead ★★	P3:B77 (119) QZ Sub Naut
P3:A38 (024) Noise Toys	P3:A78 (056) Super Attack	P3:B38 (088) CheeseOscillator ★★	P3:B78 (120) Searing
P3:A41 (025) Apostle Piano	P3:A81 (057) Beep 8000	P3:B41 (089) Prod Lead ★	P3:B81 (121) Disaster 2
P3:A42 (026) Clavi-Club	P3:A82 (058) Optic Perc	P3:B42 (090) Dirty Electrons	P3:B82 (122) Scrapers ★
P3:A43 (027) Perc Clavsynth	P3:A83 (059) 8008-Cow Signal	P3:B43 (091) Kitch Vinyllead	P3:B83 (123) Trip in Stereo
P3:A44 (028) Cyber Cellopluck	P3:A84 (060) X-FM Metallic	P3:B44 (092) Killerbeez ★	P3:B84 (124) CHEM
P3:A45 (029) Pulse Key	P3:A85 (061) Pluck & Pray ★	P3:B45 (093) *¥ Ethnomad !	P3:B85 (125) Xform
P3:A46 (030) Nova Catch	P3:A86 (062) Bermuda Triangle ★★	P3:B46 (094) P5 Sync ★	P3:B86 (126) Amuck
P3:A47 (031) Eurodance Perc 1	P3:A87 (063) Home of the Rave	P3:B47 (095) Ergot Rye Seed ★★	P3:B87 (127) Cat Conversation
P3:A48 (032) Tribal Party	P3:A88 (064) Paris spirit	P3:B48 (096) FB 5th ★	P3:B88 (128) Pulsing Sweep

★: MONO

★★: LEGATO

# Parameter List

## Patch Parameters

Parameter	Full Name of Parameter		Value
EFFECTS Section			
TONE CONTROL	BASS	Tone Control Bass	-64--+63
	TREBLE	Tone Control Treble	-64--+63
MULTI-FX LEVEL		Multi Effects Level	0-127
DELAY	TIME	Delay Time	0-127
	FEEDBACK	Delay Feedback	0-127
	LEVEL	Delay Level	0-127
	VOICE MOD SEND	Voice Modulator Send Switch	OFF, ON
LFO 1 Section			
	WAVEFORM	LFO 1 Waveform	TRI, SAW, SQR, S/H
	RATE	LFO 1 Rate	0-127
	FADE	LFO 1 Fade Time	0-127
MODULATION	RATE	LFO 2 Rate	0-127
(LFO 2) Section	DEPTH SELECT	Depth Select	PITCH, FILTER, AMP
	DEPTH (PITCH)	Pitch LFO 2 Depth	-64--+63
	DEPTH (FILTER)	Filter LFO 2 Depth	-64--+63
	DEPTH (AMP)	Amplifier LFO 2 Depth	-64--+63
PORTAMENTO Section			
	ON	Portamento Switch	OFF, ON
	TIME	Portamento Time	0-127
OSC1 Section			
	WAVEFORM	Oscillator 1 Waveform	SUPER SAW, TRIANGLE MOD, NOISE, FEEDBACK OSC, SQR (PWM), SAW, TRI
	CONTROL 1	Oscillator 1 Control 1	0-127
	CONTROL 2	Oscillator 1 Control 2	0-127
OSC2 Section			
	WAVEFORM	Oscillator 2 Waveform	SQR (PWM), SAW, TRI, NOISE
	EXT	External Input Switch	OFF, ON
	SYNC	Sync Switch	OFF, ON
	RANGE	Oscillator 2 Range	-WIDE, -24--+24, +WIDE
	FINE/WIDE	Oscillator 2 Fine Tune/Wide	-50--+50cent/-4-0oct/0--+4oct
	CONTROL 1	Oscillator 2 Control 1	0-127
	CONTROL 2	Oscillator 2 Control 2	0-127
	RING	Ring Modulator Switch	OFF, ON
OSC COMMON Section			
	OSC BALANCE	Oscillator Balance	-64 (OSC1)--+63 (OSC2)
	X-MOD DEPTH	Cross Modulation Depth	0-127
	LFO 1&ENV DESTINATION	LFO 1& Envelope Destination	OSC1+2, OSC2, X-MOD
	LFO 1 DEPTH	Oscillator LFO 1 Depth	-64--+63
	OSC SHIFT	Oscillator Shift	-2OCT--+2OCT
PITCH ENVELOPE Section			
	DEPTH	Pitch Envelope Depth	-64--+63
	A	Pitch Envelope Attack Time	0-127
	D	Pitch Envelope Decay Time	0-127
FILTER Section			
	TYPE	Filter Type	HPF, BPF, LPF
	-12dB/-24dB	Cutoff Slope	-12dB/oct, -24dB/oct
	CUTOFF FREQ	Cutoff Frequency	0-127
	RESONANCE	Resonance	0-127
	KEY FOLLOW	Cutoff Frequency Key Follow	-64--+63
	LFO 1 DEPTH	Filter LFO 1 Depth	-64--+63

<b>FILTER ENVELOPE Section</b>	DEPTH	Filter Envelope Depth	-64--+63
	A	Filter Envelope Attack Time	0-127
	D	Filter Envelope Decay Time	0-127
	S	Filter Envelope Sustain Level	0-127
	R	Filter Envelope Release Time	0-127
<b>AMP Section</b>	LEVEL	Amplifier Level	0-127
	PAN	Auto Pan/Manual Pan Switch	OFF, AUTO, MANUAL
	LFO 1 DEPTH	Amplifier LFO 1 Depth	-64 (L)--+63 (R)
<b>AMP ENVELOPE Section</b>	A	Amplifier Envelope Attack Time	0-127
	D	Amplifier Envelope Decay Time	0-127
	S	Amplifier Envelope Sustain Level	0-127
	R	Amplifier Envelope Release Time	0-127
<b>CONTROL Section</b>			
SOLO SW	MONO	Mono Switch	OFF, ON
	LEGATO	Legato Switch	OFF, ON
	UNISON	Unison Switch	OFF, ON
VELOCITY		Velocity Switch	OFF, ON
MORPHING	VELOCITY ASSIGN	Velocity Assign	-127--+127/-100--+100/-50--+50
	CONTROL ASSIGN	Control Assign	-127--+127/-100--+100/-50--+50
<b>[PATCH] (BANK [4])</b>	Patch Name	Patch Name	ASCII Character (max.16)
	Multi-FX Type	Multi Effects Type	SUPER CHORUS SLW/MID/FST/ CLR, FLANGER SLOW/DEEP/ FAST, DEEP PHASING SLW, JET PHASING, TWISTING, FREEZE PHASE 1/2, DISTORTION PANNING L->R/R->L/SHORT, MONO SHORT/LONG
	Delay Type	Delay Type	
	Bend Range Up	Bend Range Up	0--+24 semitone
	Bend Range Down	Bend Range Down	-24-0 semitone
	Morph Bend Assgn	Morph Bend Assign Switch	OFF, ON
	Unison Detune	Unison Detune	0-50
	Env Type in Solo	Envelope Type in Solo	STANDARD, ANALOG
	Patch Gain	Patch Gain	0dB, +6dB, +12dB
	Ext Trig Switch	External Trigger Switch	OFF, ON
	Ext Trig Dest	External Trigger Destination	FILTER, AMP, FILTER&AMP

## Performance Common Parameters

Parameter		Full Name of Parameter	Value
<b>PANEL SELECT Section</b>	LOWER, UPPER	Lower, Upper	LOWER, UPPER, LOWER & UPPER, VOICE MOD
<b>KEY MODE Section</b>	KEY MODE	Key Mode Select	SINGLE, DUAL, SPLIT
<b>ARPEGGIATOR/RPS Section</b>	ON	Arpeggio/RPS Switch	OFF, ON
	MODE	Mode	UP, DOWN, UP & DOWN, RANDOM, RPS
	RANGE	Arpeggio Range	1OCT-4OCT
	HOLD	Arpeggio/RPS Hold Switch	OFF, ON
	TEMPO	Tempo	20-250
<b>VOICE MODULATOR Section</b>	ON	Voice Modulator Switch	OFF, ON
<b>EXTERNAL INPUT Section</b>	REAR/FRONT	Vocal Input Select Switch	OFF (REAR), ON (FRONT)
<b>[PFM COMMON]</b>	Performance Name	Performance Name	ASCII Character (max.16)
<b>(BANK [1])</b>	Part Detune	Part Detune	-50-+50
	Output Assign	Output Assign	MIX OUT, PARALLEL OUT
	Voice Assign	Voice Assign	(6) 8-2 (2), (5) 7-3 (3), (4) 6-4 (4), (4) 5-5 (4), (4) 4-6 (4), (3) 3-7 (5), (2) 2-8 (6)
	(Only DUAL & SPLIT Mode) *( ) = Voice Modulator is ON		
	Split Point	Split Point	C-1-G 9
	(Only SPLIT Mode)		
	Arpeggio Dest	Arpeggio Destination	LOWER & UPPER, LOWER, UPPER
	(Only DUAL Mode)		
	Arp Beat Pattern	Arpeggio Beat Pattern	1/4, 1/6, 1/8, 1/12, 1/16, 1/32, PORTA-A1-11, PORTA-B1-15, SEQUENCE-A1-7, SEQUENCE-B1-5, SEQUENCE-C1-2, SEQUENCE-D1-8, ECHO1-3, MUTE1-16, STRUMMING1-8, REFRAIN1-2, PERCUSSION1-4, WALKING BASS, HARP, RANDOM
	Indv Trig Switch	Individual Trigger Switch	OFF, ON
	Indv Trig Dest	Individual Trigger Destination	FILTER, AMP, FILTER & AMP
	Indv Trig Src CH	Individual Trigger Source Channel	1-16
	IndvTrigSrc Note	Individual Trigger Source Note	C-1-G 9, ALL
<b>[VOICE MOD]</b>	Algorithm	Algorithm	SOLID, SMOOTH, WIDE, FLT BANK WIDE, FLT BANK NARROW
<b>(BANK [2])</b>	Control1 Assign	Control 1 Assign	ENSEMBLE LEVEL, V DELAY TIME, V DELAY FEEDBACK, V DELAY LEVEL, VOCAL MIX, V RESONANCE, V RELEASE, V PAN, V LEVEL, V NOISE CUTOFF, V NOISE LEVEL, GATE THRESHOLD, ROBOT PITCH, ROBOT CONTROL, ROBOT LEVEL, CHARACTER1-12
	Control2 Assign	Control 2 Assign	ENSEMBLE LEVEL, V DELAY TIME, V DELAY FEEDBACK, V DELAY LEVEL, VOCAL MIX, V RESONANCE, V RELEASE, V PAN, V LEVEL, V NOISE CUTOFF, V NOISE LEVEL, GATE THRESHOLD, ROBOT PITCH, ROBOT CONTROL, ROBOT LEVEL, CHARACTER1-12



	Ext->Inst Send	External To Instrumental Send Switch	OFF, ON
	Ext->Vocal Send	External To Vocal Send Switch	OFF, ON
	V Delay Type	Voice Modulator Delay Type	PANNING L->R/R->L/SHORT, MONO SHORT/LONG
	V Delay Sync	Voice Modulator Delay Sync	OFF, 1/16, 1/8 (3), 1/16 (.), 1/8, 1/4 (3), 1/8 (.), 1/4, 1/2 (3), 1/4 (.), 1/2
	Ensemble Type	Ensemble Type	ENSEMBLE MILD/CLEAN/FAST, SUPER CHORUS SLW/MID/FST/ CLR, FLANGER SLOW/DEEP/FAST, DEEP PHASING SLW, JET PHASING, TWISTING, FREEZE PHASE 1/2
	Ensemble Sync	Ensemble Sync	OFF, 1/16, 1/8 (3), 1/16 (.), 1/8, 1/4 (3), 1/8 (.), 1/4, 1/2 (3), 1/4 (.), 1/2, 1/1 (3), 1/2 (.), 1/1, 2/1 (3), 1/1 (.), 2/1, 3-8MEASURES
	Vocal Morph Ctrl	Vocal Morph Control	OFF, ON
	Vocal Morph Sens	Vocal Morph Sens	-64--+63
	VocalMorph Thrsh	Vocal Morph Threshold	0-127
<b>VOICE MODULATOR PANEL</b>	ENSEMBL LEVEL	Ensemble Level	0-127
	V DELAY LEVEL	Voice Modulator Delay Level	0-127
	V DELAY TIME	Voice Modulator Delay Time	0-127
	V DELAY FEEDBACK	Voice Modulator Delay Feedback	0-127
	VOCAL MIX	Vocal Mix	0-127
	V RESONANCE	Voice Modulator Resonance	0-127
	V RELEASE	Voice Modulator Envelope Release Time	0-127
	VOCAL HOLD	Vocal Hold Switch	OFF, ON
	V PAN	Voice Modulator Pan	-64--+63
	V LEVEL	Voice Modulator Level	0-127
	V NOISE LEVEL	Voice Modulator Noise Level	0-127
	V NOISE CUTOFF	Voice Modulator Noise Cutoff	0-127
	GATE THRESHOLD	Gate Threshold	0-127
	ROBOT LEVEL	Robot Oscillator Level	0-127
	ROBOT PITCH	Robot Oscillator Pitch	0-127
	ROBOT CONTROL	Robot Oscillator Control	0-127
	CHARACTER1-12	Character1-12	0-127

## Performance Part Parameters

Parameter		Full Name of Parameter	Value
[PFM PART] (BANK [3])	Part Transpose	Part Transepose	-24--+24 semitone
	Part MIDI CH	Part MIDI Channel	1-16, OFF
	Chorus Sync	Chorus Sync	OFF, 1/16, 1/8(3), 1/16(.), 1/8, 1/4(3), 1/8(.), 1/4, 1/2(3), 1/4(.), 1/2, 1/1(3), 1/2(.), 1/1, 2/1(3), 1/1(.), 2/1, 3-8MEASURES, LFO1
	Delay Sync	Delay Sync	OFF, 1/16, 1/8(3), 1/16(.), 1/8, 1/4(3), 1/8(.), 1/4, 1/2(3), 1/4(.), 1/2
	LFO Sync	LFO Sync	OFF, 1/16, 1/8(3), 1/16(.), 1/8, 1/4(3), 1/8(.), 1/4, 1/2(3), 1/4(.), 1/2, 1/1(3), 1/2(.), 1/1, 2/1(3), 1/1(.), 2/1, 3-8MEASURES

## System Parameters

Parameter		Full Name of Parameter	Value
[MIDI] (BANK [5])	Local Switch	Local Switch	OFF, ON
	MIDI Sync	MIDI Sync Switch	OFF, MIDI IN, REMOTE KBD IN
	Device ID	Device ID Number	17-32
	Rx Exclusive SW	Exclusive Receive Switch	OFF, ON
	Perform Ctrl CH	Performance Control Channel	1-16, OFF
	Remote KBD CH	Remote Keyboard Channel	1-16, ALL
	MIDI Thru	MIDI Thru Switch	OFF, ON (w/o SysEx), ON (ALL)
	Tx/Rx Edit SW	Edit Transmit/Receive Switch	OFF, ON
	Tx/Rx Edit Mode	Edit Transmit/Receive Mode	MODE1, MODE2
	Tx/Rx Setting	Transmit/Receive Setting	OFF, MODULATION: CC01-CC31, CC33-PHASER: CC95, AFTERTOUCH, EXCLUSIVE
	Tx/Rx ProgChg SW	Program Change Transmit/Receive Switch	ON, PC, BANK SEL + PC
	Control Up	Control Up	OFF, MODULATION: CC01-CC31, CC33-PHASER: CC95, AFTERTOUCH
	Control Down	Control Down	OFF, MODULATION: CC01-CC31, CC33-PHASER: CC95, AFTERTOUCH
[SETUP] (BANK [6])	LCD Contrast	LCD Contrast	1-8
	Master Tune	Master Tune	427.5-452.9 Hz
	Power Up Mode	Power Up Mode	PERFORM U: 11, LAST-SET
	Pattern Trig Qtz	Pattern Trigger Quantize	OFF, BEAT, MEASURE
	Motion Restart	Motion Restart Switch	OFF, ON

# Recording Parameters

Parameter	Full Name of Parameter		Value
Pattern	Loop Length	Pattern Loop Length	1–4 measures
	Input Quantize	Input Quantize	OFF, 1/16 (3), 1/16, 1/8 (3), 1/8, 1/4 (3), 1/4
	Gate Time Ratio	Gate Time Ratio	REAL, STACCATO, 33%, 50%, 66%, 100%
	Metronome	Pattern Metronome	Beep: VOLUME 4–1, OFF, Click: VOLUME 1–4
Motion	Loop Length	Motion Loop Length	1–8 measures, 99 (PLAY ONCE) measures
	Metronome	Motion Metronome	Beep: VOLUME 4–1, OFF, Click: VOLUME 1–4

# Transmit/Receive Setting List

Parameter		MODE1	MODE2
<b>EFFECTS Section</b>			
TONE CONTROL	BASS	TREMOLO: CC92	TREMOLO: CC92
	TREBLE	PHASER: CC95	PHASER: CC95
MULTI-FX LEVEL		CHORUS: CC93	CHORUS: CC93
DELAY	TIME	EFFECT-CTL1: CC12	EFFECT-CTL1: CC12
	FEEDBACK	EFFECT-CTL2: CC13	EFFECT-CTL2: CC13
	LEVEL	CELESTE: CC94	CELESTE: CC94
<hr/>			
<b>LFO 1 Section</b>	RATE	GENERAL1: CC16	GENERAL1: CC16
	FADE	EXCLUSIVE	CC20
<hr/>			
<b>MODULATION</b>	RATE	GENERAL2: CC17	GENERAL2: CC17
<b>(LFO 2) Section</b>	DEPTH (PITCH)	EXCLUSIVE	CC22
	DEPTH (FILTER)	EXCLUSIVE	CC23
	DEPTH (AMP)	EXCLUSIVE	CC24
<hr/>			
<b>PORTAMENTO Section</b>	TIME	PORTA-TIME: CC05	PORTA-TIME: CC05
<hr/>			
<b>OSC 1 Section</b>	CONTROL 1	FOOT-TYPE: CC04	FOOT-TYPE: CC04
	CONTROL 2	SOUND-CTL7: CC76	SOUND-CTL7: CC76
<hr/>			
<b>OSC 2 Section</b>	RANGE	EXCLUSIVE	CC21
	FINE/WIDE	SOUND-CTL8: CC77	SOUND-CTL8: CC77
	CONTROL 1	SOUND-CTL9: CC78	SOUND-CTL9: CC78
	CONTROL 2	SOUND-CTL10: CC79	SOUND-CTL10: CC79
<hr/>			
<b>OSC COMMON Section</b>	OSC BALANCE	BALANCE: CC08	BALANCE: CC08
	X-MOD DEPTH	SOUND-CTL1: CC70	SOUND-CTL1: CC70
	LFO 1 DEPTH	GENERAL3: CC18	GENERAL3: CC18
<hr/>			
<b>PITCH ENVELOPE Section</b>	DEPTH	EXCLUSIVE	CC25
	A	EXCLUSIVE	CC26
	D	EXCLUSIVE	CC27
<hr/>			
<b>FILTER Section</b>	CUTOFF FREQ	SOUND-CTL5: CC74	SOUND-CTL5: CC74
	RESONANCE	SOUND-CTL2: CC71	SOUND-CTL2: CC71
	KEY FOLLOW	EXCLUSIVE	CC30
	LFO 1 DEPTH	GENERAL4: CC19	GENERAL4: CC19
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<b>FILTER ENVELOPE Section</b>	DEPTH	GENERAL6: CC81	GENERAL6: CC81
	A	GENERAL7: CC82	GENERAL7: CC82
	D	GENERAL8: CC83	GENERAL8: CC83
	S	EXCLUSIVE	CC28
	R	EXCLUSIVE	CC29
<hr/>			
<b>AMP Section</b>	LFO 1 DEPTH	GENERAL5: CC80	GENERAL5: CC80
	LEVEL	VOLUME: CC07	VOLUME: CC07
<hr/>			
<b>AMP ENVELOPE Section</b>	A	SOUND-CTL4: CC73	SOUND-CTL4: CC73
	D	SOUND-CTL6: CC75	SOUND-CTL6: CC75
	S	EXCLUSIVE	CC31
	R	SOUND-CTL3: CC72	SOUND-CTL3: CC72

\* With the factory settings, Edit Transmit/receive Mode is set to MODE1. When you set the Edit Transmit/receive Mode to MODE2, you can set the MIDI messages of each parameter by the Transmit/Receive Setting (p.125). The factory settings of Transmit/receive Setting is according to “MODE2” in this table.

# Voice Modulator Initialize Setting List

	FORMANT FILTER			
	VINTAGE	SILKY	HUSKYVOICE	BREAKBEATS
REAR/FRONT	ON (FRONT)	ON (FRONT)	ON (FRONT)	ON (FRONT)
VOICE MOD SEND (UPPER)	ON	ON	ON	ON
VOICE MOD SEND (LOWER)	ON	ON	ON	ON
VOICE MOD ON/OFF SW	ON	ON	ON	ON
PANEL SELECT	LOWER/UPPER	LOWER/UPPER	LOWER/UPPER	LOWER/UPPER
Algorithm	SOLID	SMOOTH	SOLID	WIDE
Control1 Assign	VOCAL MIX	VOCAL MIX	V NOISE LEVEL	GATE THRESHOLD
Control2 Assign	ENSEMBLE LEVEL	ENSEMBLE LEVEL	ENSEMBLE LEVEL	V RELEASE
Ext->Inst Send	ON	ON	ON	ON
Ext->Vocal Send	ON	ON	ON	ON
V Delay Type	PANNING L->R	PANNING L->R	PANNING L->R	PANNING L->R
V Delay Sync	OFF	OFF	OFF	OFF
Ensemble Type	ENSEMBLE MILD	ENSEMBLE CLEAN	ENSEMBLE MILD	ENSEMBLE CLEAN
Ensemble Sync	OFF	OFF	OFF	OFF
Vocal Morph Ctrl	OFF	OFF	OFF	OFF
Vocal Morph Sens	+32	+32	+32	+32
VocalMorph Thrsh	10	10	10	10
ENSEMBLE LEVEL	0	0	0	0
V DELAY TIME	64	64	64	64
V DELAY FEEDBACK	64	64	64	64
V DELAY LEVEL	0	0	0	0
VOCAL MIX	32	32	0	0
V RESONANCE	0	0	0	0
V RELEASE	64	64	64	64
V PAN	0	0	0	0
V LEVEL	127	127	127	127
V NOISE CUTOFF	96	96	64	96
V NOISE LEVEL	0	0	96	0
GATE THRESHOLD	10	10	10	40
ROBOT PITCH	50	50	50	50
ROBOT CONTROL	64	64	64	64
ROBOT LEVEL	0	0	0	0
CHARACTER1	60	127	127	127
CHARACTER2	60	127	127	127
CHARACTER3	80	127	127	127
CHARACTER4	100	127	127	127
CHARACTER5	127	127	127	127
CHARACTER6	127	127	127	127
CHARACTER7	127	127	127	127
CHARACTER8	127	127	127	127
CHARACTER9	127	127	127	127
CHARACTER10	127	127	127	127
CHARACTER11	120	127	127	127
CHARACTER12	110	127	127	127

\* Only [VOICE MOD SEND] is a patch parameter. All other parameters are performance parameters.

	FORMANT FILTER		FILTER BANK		VOCAL MORPH CTRL
	ROBOT	HUSKYROBOT	STANDARD	RADIO	VOCAL MORPH CTRL
REAR/FRONT	ON (FRONT)	ON (FRONT)	OFF (REAR)	OFF (REAR)	ON (FRONT)
VOICE MOD SEND (UPPER)	ON	ON	ON	ON	OFF
VOICE MOD SEND (LOWER)	ON	ON	ON	ON	OFF
VOICE MOD ON/OFF SW	ON	ON	ON	ON	ON
PANEL SELECT	LOWER/UPPER	LOWER/UPPER	VOICE MOD	VOICE MOD	LOWER/UPPER
Algorithm	SOLID	SOLID	FLT BANK WIDE	FLT BANK NARROW	SOLID
Control1 Assign	ROBOT PITCH	ROBOT PITCH	V RESONANCE	V RESONANCE	VOCAL MIX
Control2 Assign	ROBOT CONTROL	V NOISE CUTOFF	ENSEMBLE LEVEL	CHARACTER12	ENSEMBLE LEVEL
Ext->Inst Send	ON	ON	ON	ON	OFF
Ext->Vocal Send	ON	ON	ON	ON	ON
V Delay Type	PANNING L->R	PANNING L->R	PANNING L->R	PANNING L->R	PANNING L->R
V Delay Sync	OFF	OFF	OFF	OFF	OFF
Ensemble Type	ENSEMBLE MILD	ENSEMBLE MILD	ENSEMBLE CLEAN	ENSEMBLE CLEAN	ENSEMBLE MILD
Ensemble Sync	OFF	OFF	OFF	OFF	OFF
Vocal Morph Ctrl	OFF	OFF	OFF	OFF	ON
Vocal Morph Sens	+32	+32	+32	+32	+32
VocalMorph Thrsh	10	10	10	10	10
ENSEMBLE LEVEL	0	0	0	0	0
V DELAY TIME	64	64	64	64	64
V DELAY FEEDBACK	64	64	64	64	64
V DELAY LEVEL	0	0	0	0	0
VOCAL MIX	0	0	0	0	32
V RESONANCE	0	0	0	0	0
V RELEASE	64	64	0	0	64
V PAN	0	0	0	0	0
V LEVEL	127	127	127	127	127
V NOISE CUTOFF	96	96	96	96	96
V NOISE LEVEL	0	96	0	0	0
GATE THRESHOLD	10	10	10	10	10
ROBOT PITCH	50	50	50	50	50
ROBOT CONTROL	64	64	64	64	64
ROBOT LEVEL	127	127	0	0	0
CHARACTER1	127	127	127	0	60
CHARACTER2	127	127	127	64	60
CHARACTER3	127	127	127	96	80
CHARACTER4	127	127	127	127	100
CHARACTER5	127	127	127	127	127
CHARACTER6	127	127	127	127	127
CHARACTER7	127	127	127	127	127
CHARACTER8	127	127	127	127	127
CHARACTER9	127	127	127	127	127
CHARACTER10	127	127	127	96	127
CHARACTER11	127	127	127	64	120
CHARACTER12	127	127	127	0	110

Mark	Meaning	Range
n:	MIDI channel	0H-FH (ch.1 - ch.16)
vv:	Value, Velocity etc.	00H-7FH (0 - 127) (Only for note-on velocity, this will be 01H-7FH (1 - 127).)
kk:	Note Number	00H-7FH (0 - 127): C-1 - G9
xx:	ON/OFF	00H-3FH (0 - 63): OFF 40H-7FH (64 - 127): ON

## 1. MIDI messages received at MIDI IN

### ■ Channel voice messages

- \* When MIDI Thru ([MIDI]) is other than OFF, MIDI messages arriving at MIDI IN will be re-transmitted from MIDI OUT.

#### ● Note Off

status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

- \* Notes of the part whose Part MIDI Ch ([PART]) matches the MIDI channel of the received note-off will be turned off.
- \* When the Individual Trigger Switch ([PFM COMMON]) is ON, and if MIDI channel number of received Note Off is coincident with Trigger Source Channel ([PFM COMMON]), and also the Note Number of received Note Off is coincident with Trigger Source Note ([PFM COMMON]), the Envelope of Trigger Destination ([PFM COMMON]) will be released.

#### ● Note On

status	2nd byte	3rd byte
8nH	kkH	vvH

- \* Notes of the part whose Part MIDI CH ([PART]) matches the MIDI channel of the received note-on will be sounded.
- \* When the Individual Trigger Switch ([PFM COMMON]) is ON, and if MIDI channel number of received Note On is coincident with Trigger Source Channel ([PFM COMMON]), and also the Note Number of received Note On is coincident with Trigger Source Note ([PFM COMMON]), the Envelope of Trigger Destination will be started.

### ● Control Change

- \* If Control Up/Control Down ([MIDI]) is set to a control change, this will function as controller up or down for the part whose Part MIDI CH ([PART]) matches the MIDI channel of the received control change message.
- \* If Tx/Rx Edit SW ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2, the Tx/Rx Setting ([MIDI]) setting will be valid. This will affect the value of the parameter which is assigned to the control change that was received by the part whose Part MIDI CH ([PART]) matches the MIDI channel of the received control change.
- \* Tx/Rx settings ([MIDI]) can be made for controller numbers 1 to 31 and 33 to 95. Refer to Transmit/Receive Setting List (p.188) for the default settings.

#### ○ Bank Select (Controller number 0, 32)

status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH

mm,ll=Bank number: 00 00H - 7F 7FH (bank.1 - bank.16384)

- \* This is received only when Tx/Rx ProgChg SW ([MIDI]) is BANK SEL + PC.
- \* If this is received on the Perform Ctrl CH ([MIDI]), it will specify the performance bank. If this is received on the Part MIDI CH ([PART]), it will specify the patch bank for that part. If the Perform Ctrl CH and the Part MIDI CH are the same, it will specify only the performance bank.
- \* Bank Select processing will be suspended until a Program Change message is received.

- \* If an unavailable (nonexistent) Bank Select number is received it will be ignored, and only the Program Change will be received.

\* The Patches corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Patch No.
50H	00H	00H - 3FH	User A	11 - 88
	00H	40H - 7FH	User B	11 - 88
51H	00H	00H - 3FH	Preset 1 A	11 - 88
	00H	40H - 7FH	Preset 1 B	11 - 88
	01H	00H - 3FH	Preset 2 A	11 - 88
	01H	40H - 7FH	Preset 2 B	11 - 88
	02H	00H - 3FH	Preset 3 A	11 - 88
	02H	40H - 7FH	Preset 3 B	11 - 88
52H	00H	00H - 3FH	Card 01 A	11 - 88
	00H	40H - 7FH	Card 01 B	11 - 88
	01H	00H - 3FH	Card 02 A	11 - 88
	01H	40H - 7FH	Card 02 B	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32 A	11 - 88
	1FH	40H - 7FH	Card 32 B	11 - 88
	*) 20H	00H - 3FH	Card 33 A	11 - 88
	20H	40H - 7FH	Card 33 B	11 - 88
	21H	00H - 3FH	Card 34 A	11 - 88
	21H	40H - 7FH	Card 34 B	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64 A	11 - 88
	3FH	40H - 7FH	Card 64 B	11 - 88

\*) Bank Select LSB 20H - 3FH are available only with the S4M-5.

\* The Performances corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Perform No.
50H	00H	00H - 3FH	User	11 - 88
	:	:	:	:
51H	00H	00H - 3FH	Preset 1	11 - 88
	01H	00H - 3FH	Preset 2	11 - 88
	02H	00H - 3FH	Preset 3	11 - 88
52H	00H	00H - 3FH	Card 01	11 - 88
	01H	00H - 3FH	Card 02	11 - 88
	02H	00H - 3FH	Card 03	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32	11 - 88
	*) 20H	00H - 3FH	Card 33	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64	11 - 88

\*) Bank Select LSB 20H - 3FH are available only with the S4M-5.

#### ○ Modulation (Controller number 1)

status	2nd byte	3rd byte
BnH	01H	vvH

- \* This will control the pitch, cutoff, or amplitude modulation depth for the respective PITCH/FILTER/AMP [DEPTH] parameter of the MODULATION (LFO2) in the patch of the part whose Part MIDI CH ([PART]) matches the channel on which the message was received.
- \* This is not reset to the default value when a patch program change is received.
- \* This will be reset to the default value when a performance program change is received.

#### ○ Breath type (Controller number 2)

status	2nd byte	3rd byte
BnH	02H	vvH

#### ○ Foot type (Controller number 4)

status	2nd byte	3rd byte
BnH	04H	vvH

#### ○ Portamento Time (Controller number 5)

status	2nd byte	3rd byte
BnH	05H	vvH

- \* This will modify the PORTAMENTO [TIME] value for the patch of the part whose Part MIDI CH ([PART]) matches the channel on which the message was received.

#### ○ Data Entry (Controller number 6, 38)

status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

mm,ll= the value of the parameter specified by RPN/NRPN  
mm=MSB, ll=LSB

## ○ Volume (Controller number 7)

status	2nd byte	3rd byte
BnH	07H	vvH

\* If this is received on the Perform Ctrl CH ([MIDI]), it will set the volume of the performance. If it is received on the Part MIDI CH ([PART]) it will set the volume of that part. If the Perform Ctrl CH and the Part MIDI CH are the same, only the volume of the performance will be set.

\* This is not reset to the default value when a patch program change is received.

\* This is reset to the default value when a performance program change is received.

## ○ Balance (Controller number 8)

status	2nd byte	3rd byte
BnH	08H	vvH

## ○ Panpot (Controller number 10)

status	2nd byte	3rd byte
BnH	0AH	vvH

## ○ Expression (Controller number 11)

status	2nd byte	3rd byte
BnH	0BH	vvH

\* When this is received on the Perform Ctrl CH ([MIDI]), it will adjust the volume of the performance. When this is received on the Part MIDI CH ([PART]), it will adjust the volume of that part. If the Perform Ctrl CH and the Part MIDI CH are the same, only the volume of the performance will be adjusted.

\* It can be used to independently from Volume messages. Expression messages are used for musical expression within a performance; e.g., expression pedal movements, crescendo and decrescendo.

\* This is not reset to the default value when a patch program change is received.

\* This is reset to the default value when a performance program change is received.

## ○ Effect Control1 (Controller number 12)

status	2nd byte	3rd byte
BnH	0CH	vvH

## ○ Effect Control2 (Controller number 13)

status	2nd byte	3rd byte
BnH	0DH	vvH

## ○ General Purpose Controller1–4 (Controller number 16–19)

status	2nd byte	3rd byte
BnH	10-13H	vvH

## ○ Hold1 (Controller number 64)

status	2nd byte	3rd byte
BnH	40H	xxH

\* This holds the notes which are currently in a note-on state.

## ○ Portamento (Controller number 65)

status	2nd byte	3rd byte
BnH	41H	xxH

\* This switches PORTAMENTO [ON] on/off.

## ○ Sound Controller1–10 (Controller number 70–79)

status	2nd byte	3rd byte
BnH	46-4FH	vvH

## ○ General Purpose Controllers 5–8 (Controller number 80–83)

status	2nd byte	3rd byte
BnH	50-53H	vvH

## ○ Portamento Control (Controller number 84)

status	2nd byte	3rd byte
BnH	54H	kkH

kk = Source Note Number: 00H - 7FH (C-1 - G9)

\* For the part whose Part MIDI CH ([PART]) is the same as the channel on which this message was received, the note-on received immediately after Portamento Control will be sounded with a pitch that changes smoothly from the pitch of 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).

Example 1.

On MIDI	Description	Result
90 3C 40	Note on C4	C4 on
B0 54 3C	(Portamento Control from C4)	no change (C4 voice still sounding)
90 40 40	Note on E4	glide from C4 to E4
80 3C 40	Note off C4	no change
80 40 40	Note off E4	E4 off

Example 2.

On MIDI	Description	Result
B0 54 3C	(Portamento Control from C4)	no change
90 40 40	(Note on E4)	E4 is played with glide from C4 to E4
80 40 40	(Note off E4)	E4 off

\* The speed of the pitch change caused by Portamento is determined by the PORTAMENTO TIME parameter value.

## ○ Effects Depth 2–5 (Controller number 92–95)

status	2nd byte	3rd byte
BnH	5C-5FH	kkH

## ○ RPN LSB/MSB (Controller number 100,101)

status	2nd byte	3rd byte
BnH	65H	mmH
BnH	64H	llH

mm=MSB of the parameter number specified by RPN

ll=LSB of the parameter number specified by RPN

<<< 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 a RPN parameter has been specified, all further Data Entry messages on that channel are considered to apply to that specified 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 - 18 H (0 - 24 semitones) ll : ignored (processed as 00H) Up to 1 octave can be specified in semitone steps.

\* On the part whose Part MIDI CH ([PART]) matches the channel on which this message was received, the Bend Range Up and Bend Range Down ([PATCH]) settings will change simultaneously.

00H 01H	mmH llH	Master Fine Tuning mm, ll: 20 00H - 40 00H - 60 00H (-8192 *50 / 8192 - 0 - +8192 * 50 / 8192 cent)
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\* When this is received on the Performance Control Channel ([MIDI]), the Master Tune setting ([SETUP]) will change. When this is received on the Part MIDI Channel ([PART]), it will be added to Master Tune and the Fine Tuning of the Part will change. If the Performance Control Channel matches the Part MIDI Channel, the Master Tune setting will change.

00H 02H	mmH llH	Master Coarse Tuning mm : 28H - 40H - 58H (-24 - 0 - +24 semitones) ll : ignored (processed as 00H)
---------	---------	---

\* This will change the Part Transpose ([PART]) setting of the part whose Part MIDI CH ([PART]) matches the channel of the data that was received.

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.) Parameter values that were previously set will not change.

mm, ll: ignored



## ● Program Change

status      2nd byte  
CnH          ppH

pp=Program number      : 00H - 7FH (prog.1 - prog.128)

- \* This is received when Tx/Rx ProgChg SW ([MIDI]) is PC or BANK SEL + PC.
- \* If this is received on the Perform Ctrl CH ([MIDI]), the performance will change. If this is received on the Part MIDI CH ([PART]), the patch of that part will change. If the Perform Ctrl CH and the Part MIDI CH are the same, only the performance will change.
- \* In the case of a performance change, program numbers outside the range of 00H - 3FH will be ignored.
- \* When this message is received, all voices will be turned off.

## ● Channel Pressure

status      2nd byte  
DnH          vvH

- \* The Tx/Rx Setting ([MIDI]) will be valid when Tx/Rx Edit SW ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2. In this case, this message will change the value of the parameter assigned to AFTERTOUC in the part whose Part MIDI CH ([PART]) matches the MIDI channel of the channel pressure message which was received.
- \* If Control Up/Control Down ([MIDI]) is set to AFTERTOUC, this message will operate as controller up or down for the part whose Part MIDI CH ([PART]) matches the MIDI channel on which the channel pressure message was received. With the factory settings, Control Up is set to AFTERTOUC.

## ● Pitch Bend Change

status      2nd byte      3rd byte  
EnH          llH          mmH

mm,ll=Pitch Bend value: 00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

- \* This will modify the pitch of the notes of the part whose Part MIDI CH ([PART]) matches the MIDI channel on which the pitch bend change was received.
- \* The width of pitch change will be according to the patch parameter Bend Range Up ([PATCH]) and Bend Range Down ([PATCH]). A pitch bend value in the range of 00 00H - 3F 7FH will follow the Bend Range Down setting, and a value in the range of 40 01H - 7F 7FH will follow the Bend Range Up setting.

## ■ Channel Mode messages

### ● All Sound Off (Controller number 120)

status      2nd byte      3rd byte  
BnH          78H          00H

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

### ● Reset All Controllers (Controller number 121)

status      2nd byte      3rd byte  
BnH          79H          00H

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

Controller	Reset value
Pitch Bend Change	±0 (center)
Modulation	0 (minimum)
Expression	127 (maximum)
Hold 1	0 (off)
RPN	Unset. Previously set data will not change (However, the Fine Tune of the Part is excepted.).
Control Up	0 (minimum) Default setting is Aftertouch.
Control Down	0 (minimum) Default setting is Breath.

### ● All Note Off (Controller number 123)

status      2nd byte      3rd byte  
BnH          7BH          00H

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

### ● Omni Off (Controller number 124)

status      2nd byte      3rd byte  
BnH          7CH          00H

- \* The same processing as when All Note Off is received will be done.

### ● Omni On (Controller number 125)

status      2nd byte      3rd byte  
BnH          7DH          00H

- \* The same processing as when All Note Off is received will be done.

### ● Mono (Controller number 126)

status      2nd byte      3rd byte  
BnH          7EH          mmH

mm=Mono number: 00H - 10H (0 - 16)

- \* The same processing as when All Note Off is received will be done, and the MONO Switch parameter will be set to ON.

### ● Poly (Controller number 127)

status      2nd byte      3rd byte  
BnH          7FH          00H

- \* The same processing as when All Note Off is received will be done, and the MONO Switch parameter will be set to OFF.

## ■ System Realtime messages

### ● Active Sensing

status  
FEH

- \* When an Active Sensing message is received, the unit will begin monitoring the intervals of all further messages. During monitoring, if more than 400 ms passes without a message being received, the same processing will be done as when All Sound Off, All Note Off, and Reset All Controllers messages are received. Then monitoring will be halted.

### ● Timing Clock

status  
F8H

- \* This is received when MIDI Sync ([MIDI]) is set to MIDI IN.

### ● Start

status  
FAH

- \* This is received when MIDI Sync ([MIDI]) is set to MIDI IN.

### ● Continue

status  
FBH

- \* This is received when MIDI Sync ([MIDI]) is set to MIDI IN.

### ● Stop

status  
FCH

- \* This is received when MIDI Sync ([MIDI]) is set to MIDI IN.

## ■ System Exclusive messages

- \* When MIDI Thru is ON (ALL), messages arriving at MIDI IN will be re-transmitted from MIDI OUT without change.
- \* These are not received when Rx Exclusive SW ([MIDI]) is OFF.

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)

### ● 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, 06H, 11H, aaH, bbH, ccH, ddH, ssH, ttH, uuH, vvH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H - 1FH, factory setting is 10H)
00H	model ID (JP-8080)
06H	model ID (JP-8080)
11H	command ID (RQ1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
ssH	size MSB
ttH	size
uuH	size
vvH	size LSB
sum	checksum
F7H	EOX (End Of Exclusive)

- \* The size of data that can be transmitted at one time is fixed for each type of data, and data requests must be made with a fixed starting address and size. Refer to the address and size given in "4. Parameter address map" (p.200)
- \* For details on the address, size, and checksum values, refer to "Examples of exclusive messages and calculating the checksum" (p.206).

### ● 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, 06H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H - 1FH, factory setting is 10H)
00H	model ID (JP-8080)
06H	model ID (JP-8080)
12H	command ID (DT1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
eeH	data: The actual data to be transmitted. Multi-byte data is transmitted in the order of the address.
:	:
ffH	data
sum	checksum
F7H	EOX (End Of Exclusive)

- \* For details on the address, size, and checksum values, refer to "Examples of exclusive messages and calculating the checksum" (p.206).
- \* Data whose size is greater than 256 bytes should be divided into packets of 256 bytes or less and transmitted. Successive "Data Set 1 messages should have at least 20 ms of time interval between them.

### ● Identity Request

status	data byte	status
F0H	7EH, dev, 06H, 01H	F7H

F0H	Exclusive status	
7EH	ID number	(Universal Non-Realtime Messages)
dev	device ID	(dev: 10H-1FH (1-32) or 7FH (Broadcast), default value is 10H (17))
06H	Sub ID#1	(General Information)
01H	Sub ID#2	(Identity Request)
F7H	EOX	(End Of Exclusive)

- \* "dev" matches the unit's own device ID, or is 7FH (Broadcast).
- \* Even if an identity request message is received with a setting of Broadcast, the reply will be sent using the unit's own device ID.

## 2. MIDI messages received at Remote Keyboard In

### ■ Channel voice messages

#### ● Note Off

status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the note-off matches.
- \* Note-off messages that are received will turn off notes of the part according to the PANEL SELECT and KEY MODE settings. At the same time, a note-off message will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.
- \* If ARPEGGIATOR/RPS [ON] is on, the received note-off messages can control the arpeggiator or RPS.
- \* If the Indv Trig Switch ([PFM COMMON]) is ON and KEY MODE is SPLIT, received note-off messages that are below the Split Point ([PFM COMMON]) will release the envelope specified by Indv Trig Dest ([PFM COMMON]).

#### ● Note On

status	2nd byte	3rd byte
9nH	kkH	vvH

- \* Received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the note-on message matches.
- \* Note-on messages that are received will sound notes on the part according to the PANEL SELECT and KEY MODE settings. At the same time, a note-on message will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.
- \* When ARPEGGIATOR/RPS [ON] is on, received note-on messages can control the arpeggiator or RPS.
- \* When Indv Trig Switch ([PFM COMMON]) is ON and KEY MODE is SPLIT, received note-on messages that are below the Split Point ([PFM COMMON]) will start the envelope specified by Indv Trig Dest ([PFM COMMON]).

### ● Control Change

- \* Received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the control change matches.
- \* If Control Up/Control Down ([MIDI]) is set to control change, this message will function as controller up or down for the part specified by PANEL SELECT (when KEY MODE is SINGLE or SPLIT) or for both the Upper and Lower parts regardless of PANEL SELECT (when KEY MODE is DUAL). At the same time, a control change message will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.

\* When Tx/Rx Editing ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2, the Tx/Rx Setting ([MIDI]) will be valid. In this case, this message will change the value of the parameter assigned to the received control change for the part specified by PANEL SELECT. Also, a control change will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.

\* Tx/Rx settings ([MIDI]) can be made for controller numbers 1 to 31 and 33 to 95. Refer to Transmit/Receive Setting List (p.188) for the default settings.

#### ○ Bank Select (Controller number 0, 32)

status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH

mm, ll = Bank number: 00 00H - 7F 7FH (bank.1 - bank.16384)

\* Regardless of the Tx/Rx ProgChg SW ([MIDI]) setting, this is received when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the bank select message matches.

\* If [PERFORM/PATCH SELECT] is off (PERFORM) when this message is received, the performance bank will be specified. If [PERFORM/PATCH SELECT] is on (PATCH), the bank of the patch for the part selected by PANEL SELECT will be specified.

\* Bank Select processing will be suspended until a Program Change message is received.

\* If an unavailable (nonexistent) Bank Select number is received it will be ignored, and only the Program Change will be received.

\* The Patches corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Patch No.
50H	00H	00H - 3FH	User A	11 - 88
	00H	40H - 7FH	User B	11 - 88
51H	00H	00H - 3FH	Preset 1 A	11 - 88
	00H	40H - 7FH	Preset 1 B	11 - 88
	01H	00H - 3FH	Preset 2 A	11 - 88
	01H	40H - 7FH	Preset 2 B	11 - 88
	02H	00H - 3FH	Preset 3 A	11 - 88
	02H	40H - 7FH	Preset 3 B	11 - 88
52H	00H	00H - 3FH	Card 01 A	11 - 88
	00H	40H - 7FH	Card 01 B	11 - 88
	01H	00H - 3FH	Card 02 A	11 - 88
	01H	40H - 7FH	Card 02 B	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32 A	11 - 88
	1FH	40H - 7FH	Card 32 B	11 - 88
	*) 20H	00H - 3FH	Card 33 A	11 - 88
	20H	40H - 7FH	Card 33 B	11 - 88
	21H	00H - 3FH	Card 34 A	11 - 88
	21H	40H - 7FH	Card 34 B	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64 A	11 - 88
	3FH	40H - 7FH	Card 64 B	11 - 88

\*) Bank Select LSB 20H - 3FH can be used only with the S4M-5.

\* The Performances corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Perform No.
50H	00H	00H - 3FH	User	11 - 88
51H	00H	00H - 3FH	Preset 1	11 - 88
	01H	00H - 3FH	Preset 2	11 - 88
	02H	00H - 3FH	Preset 3	11 - 88
52H	00H	00H - 3FH	Card 01	11 - 88
	01H	00H - 3FH	Card 02	11 - 88
	02H	00H - 3FH	Card 03	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32	11 - 88
	*) 20H	00H - 3FH	Card 33	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64	11 - 88

\*) Bank Select LSB 20H - 3FH can be used only with the S4M-5.

#### ○ Modulation (Controller number 1)

status	2nd byte	3rd byte
BnH	01H	vvH

\* This will control the pitch, cutoff, or amplitude modulation depth for the respective PITCH/FILTER/AMP[DEPTH] parameter of MODULATION(LFO2).

\* This is not reset to the default value when a patch program change is received.

\* This will be reset to the default value when a performance program change is received.

#### ○ Breath type (Controller number 2)

status	2nd byte	3rd byte
BnH	02H	vvH

#### ○ Foot type (Controller number 4)

status	2nd byte	3rd byte
BnH	04H	vvH

#### ○ Portamento Time (Controller number 5)

status	2nd byte	3rd byte
BnH	05H	vvH

\* This will modify the PORTAMENTO [TIME] value.

#### ○ Data Entry (Controller number 6, 38)

status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

#### ○ Volume (Controller number 7)

status	2nd byte	3rd byte
BnH	07H	vvH

#### ○ Balance (Controller number 8)

status	2nd byte	3rd byte
BnH	08H	vvH

#### ○ Panpot (Controller number 10)

status	2nd byte	3rd byte
BnH	0AH	vvH

#### ○ Expression (Controller number 11)

status	2nd byte	3rd byte
BnH	0BH	vvH

\* This adjusts the volume of the part. Expression messages are used to create variation in dynamics (expression pedal, crescendo, decrescendo etc.) while you play.

\* This is not reset to the default value when a patch program change is received.

\* This is reset to the default value when a performance program change is received.

#### ○ Effect Control1 (Controller number 12)

status	2nd byte	3rd byte
BnH	0CH	vvH

#### ○ Effect Control2 (Controller number 13)

status	2nd byte	3rd byte
BnH	0DH	vvH

#### ○ General Purpose Controller1-4 (Controller number 16-19)

status	2nd byte	3rd byte
BnH	10-13H	vvH

#### ○ Hold1 (Controller number 64)

status	2nd byte	3rd byte
BnH	40H	xxH

\* This will hold notes which are currently in a note-on state.

#### ○ Portamento (Controller number 65)

status	2nd byte	3rd byte
BnH	41H	xxH

\* This switches PORTAMENTO [ON] on/off.

#### ○ Sound Controller1-10 (Controller number 70-79)

status	2nd byte	3rd byte
BnH	46-4FH	vvH

#### ○ General Purpose Controllers 5-8 (Controller number 80-83)

status	2nd byte	3rd byte
BnH	50-53H	vvH

## ○ Portamento Control

(Controller number 84)

status	2nd byte	3rd byte
BnH	54H	kkH

kk = Source Note Number: 00H - 7FH (C-1 - G9)

- \* 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).

Example 1.

On MIDI	Description	Result
90 3C 40	Note on C4	C4 on
B0 54 3C	(Portamento Control from C4)	no change (C4 voice still sounding)
90 40 40	Note on E4	glide from C4 to E4
80 3C 40	Note off C4	no change
80 40 40	Note off E4	E4 off

Example 2.

On MIDI	Description	Result
B0 54 3C	(Portamento Control from C4)	no change
90 40 40	(Note on E4)	E4 is played with glide from C4 to E4
80 40 40	(Note off E4)	E4 off

- \* The speed of the pitch change caused by Portamento is determined by the PORTAMENTO TIME parameter value.

## ○ Effects Depth 2-5

(Controller number 92-95)

status	2nd byte	3rd byte
BnH	5C-5FH	kkH

## ● Program Change

status	2nd byte
CnH	ppH

pp=Program number: 00H - 7FH (prog.1 - prog.128)

- \* Regardless of the Tx/Rx ProgChg SW ([MIDI]) setting, this message is received if the system parameter Remote KBD CH ([MIDI]) is ALL or if the MIDI channel of the program change matches.
- \* When this is received, a performance change will occur if [PERFORM/PATCH SELECT] is off (PERFORM). If [PERFORM/PATCH SELECT] is on (PATCH), the patch will change for the part selected by PANEL SELECT.
- \* In the case of a performance change, program numbers outside the range of 00H - 3FH will be ignored.
- \* When this message is received, all voices will be turned off.

## ● Channel Pressure

status	2nd byte
DnH	vvH

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or if the MIDI channel of the channel pressure matches.
- \* When Tx/Rx Edit SW ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2, the Tx/Rx Setting ([MIDI]) will be valid. In this case, the message will change the value of the parameter which is assigned to AFTERTOUCH for the part specified by PANEL SELECT. At the same time, a channel pressure message will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.
- \* If Control Up/Control Down ([MIDI]) is set to AFTERTOUCH, this message will function as controller up or down for the part specified by PANEL SELECT (if KEY MODE is SINGLE or SPLIT), or for both Upper and Lower parts regardless of the PANEL SELECT setting (if KEY MODE is DUAL). With the factory settings, Control Up is set to AFTERTOUCH. At the same time, channel pressure messages will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) of that part.

## ● Pitch Bend Change

status	2nd byte	3rd byte
EnH	llH	mmH

mm,ll=Pitch Bend value: 00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the Pitch Bend Change matches.
- \* Pitch bend change messages that are received will modify the pitch of the part specified by PANEL SELECT (if KEY MODE is SINGLE or SPLIT) or of both Upper and Lower parts regardless of the PANEL SELECT setting (if KEY MODE is DUAL). At the same time, pitch bend change messages will be transmitted from MIDI OUT on the Part MIDI CH ([PART]) for that part.
- \* The range of pitch change will be according to the patch parameter Bend Range Up ([PATCH]) and Bend Range Down ([PATCH]). Pitch bend values in the range of 00 00H - 3F 7FH will apply according to Bend Range Down, and values in the range of 40 01H - 7F 7FH will apply according to Bend Range Up.

## ■ Channel Mode messages

### ● Reset All Controllers (Controller number 121)

status	2nd byte	3rd byte
BnH	79H	00H

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the Reset All Controllers matches.
- \* When this message is received, the values of the following controllers will be reset for the part selected by PANEL SELECT if KEY MODE is SINGLE or SPLIT, or for both Upper and Lower parts regardless of the PANEL SELECT setting if KEY MODE is DUAL.

Controller	Reset value
Pitch Bend Change	±0 (center)
Modulation	0 (minimum)
Expression	127 (maximum)
Hold 1	0 (off)
RPN	Unset. Previously set data will not change.
Control Up	0 (minimum) Default setting is Aftertouch.
Control Down	0 (minimum) Default setting is Breath.

### ● All Note Off (Controller number 123)

status	2nd byte	3rd byte
BnH	7BH	00H

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the All Note Off matches.
- \* When this message is received, all notes of the part specified by PANEL SELECT which are currently on will be turned off. However if Hold 1 is on, the sound will continue until this is turned off.

### ● Omni Off (Controller number 124)

status	2nd byte	3rd byte
BnH	7CH	00H

- \* The same processing as when All Note Off is received will be done.

### ● Omni On (Controller number 125)

status	2nd byte	3rd byte
BnH	7DH	00H

- \* The same processing as when All Note Off is received will be done.

### ● Mono (Controller number 126)

status	2nd byte	3rd byte
BnH	7EH	mmH

mm=Mono number: 00H - 10H (0 - 16)

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the Mono message matches.
- \* The mono number is always handled as 1.
- \* The same processing will be performed as when All Note Off is received, and [MONO] will be turned on for the patch of the part specified by PANEL SELECT.

## ● Poly

## (Controller number 127)

status	2nd byte	3rd byte
BnH	7FH	00H

- \* This is received only when Remote KBD CH ([MIDI]) is ALL or when the MIDI channel of the poly message matches.
- \* The same processing will be performed as when All Note Off is received, and [MONO] will be turned off for the patch of the part specified by PANEL.SELECT.

## ■ System Realtime messages

### ● Active Sensing

status
FEH

- \* When an Active Sensing message is received, the unit will begin monitoring the intervals of all further messages. During monitoring, if more than 400 ms passes without a message being received, the same processing will be done as when All Note Off and Reset All Controllers messages are received. Then monitoring will be halted.

### ● Timing Clock

status
F8H

- \* This is received when MIDI Sync ([MIDI]) is set to REMOTE KBD IN.

### ● Start

status
FAH

- \* This is received when MIDI Sync ([MIDI]) is set to REMOTE KBD IN.

### ● Continue

status
FBH

- \* This is received when MIDI Sync ([MIDI]) is set to REMOTE KBD IN.

### ● Stop

status
FCH

- \* This is received when MIDI Sync ([MIDI]) is set to REMOTE KBD IN.

## ■ System Exclusive messages

- \* Regardless of the Exclusive Receive Switch setting, REMOTE KBD IN will always receive exclusive messages for the parameters of the patch/performance in the temporary area. However, patch parameters and performance part parameters will be received by the part that is selected by Panel Select. No other exclusive messages will be received.

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)

## ● 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, 06H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H - 1FH, factory setting is 10H)
00H	model ID (JP-8080)
06H	model ID (JP-8080)
12H	command ID (DT1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
eeH	data: The actual data to be transmitted. Multi-byte data is transmitted in the order of the address.
:	:
ffH	data
sum	checksum
F7H	EOX (End Of Exclusive)

- \* Only data set 1 for patch parameters and performance parameters is received. For patch parameters, this message will affect the patch parameters of the part selected by PANEL.SELECT at that time, regardless of the parameter address which was received.
- \* For details on address, size, and checksum settings, refer to "Examples of exclusive messages and calculating the checksum" (p.206).
- \* Data whose size is greater than 256 bytes should be divided into packets of 256 bytes or less and transmitted. Successive "Data Set 1 messages should have at least 20 ms of time interval between them.

### 3. MIDI messages transmitted from MIDI OUT

\* When MIDI Thru is ON (ALL), messages received at MIDI IN will be re-transmitted from MIDI OUT except for Active Sensing messages.

\* When MIDI Thru is ON (w/o Sys.Ex), MIDI messages received at MIDI IN will be re-transmitted from MIDI OUT except for Active Sensing and System Exclusive messages.

#### ■ Channel voice messages

##### ● Note Off

status	2nd byte	3rd byte
8nH	kkH	vvH
9nH	kkH	00H

##### ● Note On

status	2nd byte	3rd byte
9nH	kkH	vvH

##### ● Control Change

\* When the Tx/Rx Edit SW ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2, the Tx/Rx Setting ([MIDI]) setting will be valid. In this case, operating the sliders/knobs will cause the control change assigned to that parameter to be transmitted on the Part MIDI CH ([PART]) of the part specified by PANEL SELECT.

\* Tx/Rx settings ([MIDI]) can be made for controller numbers 1 to 31 and 33 to 95. Refer to Transmit/Receive Setting List (p.188) for the default settings.

##### ○ Bank Select (Controller number 0,32)

status	2nd byte	3rd byte
BnH	00H	mmH
BnH	20H	llH

mm,ll=Bank number: 00 00H - 7F 7FH (bank.1 - bank.16384)

\* This is transmitted when Tx/Rx ProgChg SW ([MIDI]) is BANK SEL + PC.

\* The Patches corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Patch No.
50H	00H	00H - 3FH	User A	11 - 88
	00H	40H - 7FH	User B	11 - 88
51H	00H	00H - 3FH	Preset 1 A	11 - 88
	00H	40H - 7FH	Preset 1 B	11 - 88
	01H	00H - 3FH	Preset 2 A	11 - 88
	01H	40H - 7FH	Preset 2 B	11 - 88
	02H	00H - 3FH	Preset 3 A	11 - 88
	02H	40H - 7FH	Preset 3 B	11 - 88
52H	00H	00H - 3FH	Card 01 A	11 - 88
	00H	40H - 7FH	Card 01 B	11 - 88
	01H	00H - 3FH	Card 02 A	11 - 88
	01H	40H - 7FH	Card 02 B	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32 A	11 - 88
	1FH	40H - 7FH	Card 32 B	11 - 88
	*) 20H			Card 33 A 11 - 88
	20H	40H - 7FH	Card 33 B	11 - 88
	21H	00H - 3FH	Card 34 A	11 - 88
	21H	40H - 7FH	Card 34 B	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64 A	11 - 88
	3FH	40H - 7FH	Card 64 B	11 - 88

\*) Bank Select LSB 20H - 3FH is available only with the S4M-5.

\* The Performances corresponding to each Bank Select are as follows.

Bank MSB	Select LSB	Program No.	Group	Perform No.
50H	00H	00H - 3FH	User	11 - 88
51H	00H	00H - 3FH	Preset 1	11 - 88
	01H	00H - 3FH	Preset 2	11 - 88
	02H	00H - 3FH	Preset 3	11 - 88
52H	00H	00H - 3FH	Card 01	11 - 88
	01H	00H - 3FH	Card 02	11 - 88
	02H	00H - 3FH	Card 03	11 - 88
	:	:	:	:
	1FH	00H - 3FH	Card 32	11 - 88
	*) 20H			Card 33 11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64	11 - 88
	:	:	:	:
	3FH	00H - 3FH	Card 64	11 - 88

\*) Bank Select LSB 20H - 3FH is available only with the S4M-5.

##### ○ Modulation (Controller number 1)

status	2nd byte	3rd byte
BnH	01H	vvH

##### ○ Breath type (Controller number 2)

status	2nd byte	3rd byte
BnH	02H	vvH

\* When Control Up/Control Down ([MIDI]) is assigned to BREATH, settings of

VOICE MODULATOR [ON]	ON
Vocal Morph Ctrl	ON
Vocal Morph Sens	-64 ~ -1
VocalMorph Thrsh	0 - 126

will mean that when audio is input to VOCAL/UPPER, breath type messages will be transmitted on the Part MIDI CH of the part specified by PANEL SELECT (when KEY MODE is SINGLE or SPLIT) or of both Upper and Lower parts regardless of PANEL SELECT (when KEY MODE is DUAL). With the factory settings, BREATH is assigned to Control Down.

##### ○ Foot type (Controller number 4)

status	2nd byte	3rd byte
BnH	04H	vvH

##### ○ Portamento Time (Controller number 5)

status	2nd byte	3rd byte
BnH	05H	vvH

##### ○ Data Entry (Controller number 6, 38)

status	2nd byte	3rd byte
BnH	06H	mmH
BnH	26H	llH

mm,ll= the value of the parameter specified by RPN/NRPN

mm=MSB, ll=LSB

##### ○ Volume (Controller number 7)

status	2nd byte	3rd byte
BnH	07H	vvH

##### ○ Balance (Controller number 8)

status	2nd byte	3rd byte
BnH	08H	vvH

##### ○ Panpot (Controller number 10)

status	2nd byte	3rd byte
BnH	0AH	vvH

##### ○ Expression (Controller number 11)

status	2nd byte	3rd byte
BnH	0BH	vvH

##### ○ Effect Control1 (Controller number 12)

status	2nd byte	3rd byte
BnH	0CH	vvH

##### ○ Effect Control2 (Controller number 3)

status	2nd byte	3rd byte
BnH	0DH	vvH

##### ○ General Purpose Controller1-4 (Controller number 16-19)

status	2nd byte	3rd byte
BnH	10-13H	vvH

##### ○ Hold1 (Controller number 64)

status	2nd byte	3rd byte
BnH	40H	xxH

##### ○ Portamento (Controller number 65)

status	2nd byte	3rd byte
BnH	41H	xxH

##### ○ Sound Controller1-10 (Controller number 70-79)

status	2nd byte	3rd byte
BnH	46-4FH	vvH

## ○ General Purpose Controllers 5–8

(Controller number 80–83)

status	2nd byte	3rd byte
BnH	50-53H	vvH

## ○ Portamento Control

(Controller number 84)

status	2nd byte	3rd byte
BnH	54H	kkH

kk = Source Note Number: 00H - 7FH (C-1 - G9)

- \* This is transmitted when ARPEGGIATOR/RPS [ON] is turned on, ARPEGGIATOR / RPS [MODE] is set to UP/DOWN/UP&DOWN/RND, Arp Beat Pattern is set to PORTA-A1 - PORTA-B15 and you play an arpeggio.

## ○ Effects Depth 2-5

(Controller number 92–95)

status	2nd byte	3rd byte
BnH	5C-5FH	kkH

## ● Program Change

status	2nd byte
CnH	ppH

pp=Program number: 00H - 7FH (prog.1 - prog.128)

- \* This is transmitted when Tx/Rx ProgChg ([MIDI]) is PC or BANK SEL + PC.
- \* This is transmitted on the Perform Ctrl CH ([MIDI]) when a performance is changed, and on the Part MIDI CH ([PART]) of that part when a patch is changed.

## ● Channel Pressure

status	2nd byte
DnH	vvH

- \* When Tx/Rx Edit SW ([MIDI]) is ON and Tx/Rx Edit Mode ([MIDI]) is set to MODE2, the Tx/Rx Setting ([MIDI]) setting will be valid. In this case when AFTERTOUCH is assigned to a controller (slider or knob), operating that controller will transmit Channel Pressure messages on the Part MIDI CH ([PART]) of that part. With the factory settings, AFTERTOUCH is not assigned to controllers.
- \* When Control Up/Control Down ([MIDI]) is assigned to AFTERTOUCH, settings of  
VOICE MODULATOR [ON]      ON  
Vocal Morph Ctrl              ON  
Vocal Morph Sens              1 - 63  
VocalMorph Thrsh              0 - 126  
will mean that when audio is input to VOCAL/UPPER, Channel Pressure messages will be transmitted on the Part MIDI CH of the part specified by PANEL SELECT (when KEY MODE is SINGLE or SPLIT) or of both Upper and Lower parts regardless of PANEL SELECT (when KEY MODE is DUAL). With the factory settings, AFTERTOUCH is assigned to Control Up.

## ● Pitch Bend Change

status	2nd byte	3rd byte
EnH	llH	mmH

mm,ll=Pitch Bend value: 00 00H - 40 00H - 7F 7FH (-8192 - 0 - +8191)

- \* When performance parameters are set as follows,  
VOICE MODULATOR [ON]      ON  
Vocal Morph Ctrl              ON  
Vocal Morph Sens              other than 0  
VocalMorph Thrsh              other than 127  
and Morph Bend Assgn is also turned ON, inputting audio to VOCAL/UPPER will cause Pitch Bend Change messages to be transmitted on the Part MIDI CH of the part specified by PANEL SELECT (when KEY MODE is SINGLE or SPLIT) or of both Upper and Lower parts regardless of PANEL SELECT (when KEY MODE is DUAL).

## ■ System Realtime messages

### ● Active Sensing

status
FEH

- \* This is transmitted at intervals of approximately 200 msec.

## ■ 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)

### ● 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, 06H, 12H, aaH, bbH, ccH, ddH, eeH, ... ffH, sum	F7H

Byte	Remarks
F0H	Exclusive status
41H	ID number (Roland)
dev	device ID (dev: 10H - 1FH, factory setting is 10H)
00H	model ID (JP-8080)
06H	model ID (JP-8080)
12H	command ID (DT1)
aaH	address MSB
bbH	address
ccH	address
ddH	address LSB
eeH	data: The actual data to be transmitted. Multi-byte data is transmitted in the order of the address.
:	:
ffH	data
sum	checksum
F7H	EOX (End Of Exclusive)

- \* For details on setting the address, size, and checksum, refer to "Examples of exclusive messages and calculating the checksum" (p.206).
- \* Large-sized data must be divided into packets of 256 bytes or less, and transmitted at intervals of approximately 20 ms or longer.

### ● Identity Reply

status	data byte	status
F0H	7EH, dev, 06H, 02H, 41H, 06H, 01H, 00H, 01H, 00H, 02H, 00H, 00H	F7H

F0H	Exclusive status	
7EH	ID number	(Universal Non-Realtime Messages)
dev	device ID	(dev: 10H - 1FH, factory setting is 10H)
06H	Sub ID#1	(General Information)
02H	Sub ID#1	(Identity Reply)
41H	ID number	(Roland)
06H	Device Family Code	(LSB)
01H	Device Family Code	(MSB)
00H	Device Family Number Code	(LSB)
01H	Device Family Number Code	(MSB)
00H	Software Revision Level	
02H	Software Revision Level	
00H	Software Revision Level	
00H	Software Revision Level	
F7H	EOX	(End Of Exclusive)

- \* Even when an identity request message is received with a setting of Broadcast, the unit's own device ID will be used in the reply.

## 4. Parameter address map

### JP-8080 (Model ID = 00H 06H)

- \* Data of addresses marked by # is divided into two bytes for transmission. If the most significant bit of the original data is 1, transmit 01H and the remaining 7 bits as is. If the most significant bit is 0, transmit 00H and the remaining 7 bits as is.

Example)

If the original data is BCH, the binary expression of BCH is 10111100. Thus, 01H is transmitted as the first byte. As the next byte, we transmit the remaining 0111100 = 3CH without change. For reception, data will be ignored if the two bytes are not received together.

- \* Parameter names given as — are parameters which are used only by the JP-8000. They will be ignored if received by the JP-8080.

Start Address	Description	
00 00 00 00	System Area	4-1
01 00 00 00	Performance Temporary Area	4-2
02 00 00 00	User Patch (Patch U:All - U:B88)	4-4
03 00 00 00	User Performance (Performance U:11 - U:88)	4-5
09 00 00 00	Motion Control Data (Motion SET A)	4-6
0A 00 00 00	Motion Control Data (Motion SET B)	4-6

### 4-1. System Area

Offset Address	Description	
00 00 00 00	System Parameter	4-1-1
00 00 20 00	Motion Setup	4-1-2
00 00 30 00	Tx/Rx Setting	4-1-3

#### 4-1-1. System Parameter

size = 19H (25 byte)

Offset Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00	Performance Bank	01h - 03h	USER, PRESET, CARD
00 00 00 01	Performance No.	00h - 3Fh	11 - 88
00 00 00 02	Performance Control Channel	00h - 10h	1 - 16, OFF
00 00 00 03	Power Up Mode	00h - 01h	PERFORM U-11, LAST-SET
00 00 00 04	MIDI Sync	00h - 02h	OFF, MIDI IN, REMOTE KBD IN
00 00 00 05	Local Switch	00h - 01h	OFF, ON
00 00 00 06	Tx/Rx Edit Mode	00h - 01h	MODEL, MODE2
00 00 00 07	Tx/Rx Edit Switch	00h - 01h	OFF, ON
00 00 00 08	Tx/Rx Program Change Switch	00h - 02h	OFF, PC, BANK SEL + PC
00 00 00 09	---	---	---
00 00 00 0A	Master Tune	00h - 64h	427.5 - 452.9 [Hz]
00 00 00 0B	Pattern Trigger Quantize	00h - 02h	OFF, BEAT, MEASURE
00 00 00 0C	Motion Restart	00h - 01h	OFF, ON
00 00 00 0D	Motion Set	00h - 01h	SET A, SET B
00 00 00 0E	Gate Time Ratio	00h - 05h	REAL, STACCATO, 33%, 50%, 66%, 100%
00 00 00 0F	Input Quantize	00h - 06h	OFF, 1/16(3), 1/16, 1/8(3), ..., 1/4
00 00 00 10	Pattern Metronome	00h - 08h	Beep VOL4 - 1, OFF, Click VOL1 - 4
00 00 00 11	Motion Metronome	00h - 08h	Beep VOL4 - 1, OFF, Click VOL1 - 4
00 00 00 12	---	---	---
00 00 00 13	---	---	---
00 00 00 14	---	---	---
00 00 00 15	---	---	---
00 00 00 16	---	---	---
00 00 00 17	Performance Group No.	00h - 3Fh	Group 1..64 (*)
00 00 00 18	Remote Keyboard Channel	00h - 10h	1 - 16, ALL

(\*) The range of Performance Group numbers will be as follows depending on the Performance Bank value.

Perf. Bank	Perf Group No.
01H: USER	00H only
02H: PRESET	00H - 02H
03H: CARD (S2M-5)	00H - 1FH
(S4M-5)	00H - 3FH

#### 4-1-2. Motion Setup

size = 04H (4 byte)

Offset Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00	Motion Control A1 Loop length	00h - 08h	PLAY ONCE, 1 - 8 [measure]
00 00 00 01	Motion Control A2 Loop length	00h - 08h	PLAY ONCE, 1 - 8 [measure]
00 00 00 02	Motion Control B1 Loop length	00h - 08h	PLAY ONCE, 1 - 8 [measure]
00 00 00 03	Motion Control B2 Loop length	00h - 08h	PLAY ONCE, 1 - 8 [measure]



### 4-1-3. Tx/Rx Setting

size = 2AH (42 byte)

Offset	Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00		Tx/Rx Setting (LFO1 Rate)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 01		Tx/Rx Setting (LFO1 Fade)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 02		Tx/Rx Setting (LFO2 Rate)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 03		Tx/Rx Setting (Cross Modulation Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 04		Tx/Rx Setting (Oscillator Balance)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 05		Tx/Rx Setting (OSC LFO1 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 06		Tx/Rx Setting (Pitch LFO2 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 07		Tx/Rx Setting (Pitch Env. Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 08		Tx/Rx Setting (Pitch Env. Attack Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 09		Tx/Rx Setting (Pitch Env. Decay Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0A		Tx/Rx Setting (OSC1 Controll1)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0B		Tx/Rx Setting (OSC1 Controll2)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0C		Tx/Rx Setting (OSC2 Range)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0D		Tx/Rx Setting (OSC2 Fine Tune)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0E		Tx/Rx Setting (OSC2 Controll1)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 0F		Tx/Rx Setting (OSC2 Controll2)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 10		Tx/Rx Setting (Cutoff Frequency)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 11		Tx/Rx Setting (Resonance)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 12		Tx/Rx Setting (Cutoff Key Follow)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 13		Tx/Rx Setting (Filter LFO1 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 14		Tx/Rx Setting (Filter LFO2 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 15		Tx/Rx Setting (Filter Env Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 16		Tx/Rx Setting (Filter Env Attack Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 17		Tx/Rx Setting (Filter Env Decay Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 18		Tx/Rx Setting (Filter Env Sus. Level)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 19		Tx/Rx Setting (Filter Env Rel. Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1A		Tx/Rx Setting (Amplifier Level)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1B		Tx/Rx Setting (Amplifier LFO1 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1C		Tx/Rx Setting (Amplifier LFO2 Depth)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1D		Tx/Rx Setting (Amp. Env. Attack Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1E		Tx/Rx Setting (Amp. Env. Decay Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 1F		Tx/Rx Setting (Amp. Env. Sus. Level)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 20		Tx/Rx Setting (Amp. Env. Release Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 21		Tx/Rx Setting (Tone Control Bass)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 22		Tx/Rx Setting (Tone Control Treble)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 23		Tx/Rx Setting (Multi Effects Level)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 24		Tx/Rx Setting (Delay Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 25		Tx/Rx Setting (Delay Feedback)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 26		Tx/Rx Setting (Delay Level)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 27		Tx/Rx Setting (Portamento Time)	00h - 60h	OFF, CC#1-31, AFTER, CC#33-95, SYSEX
00 00 00 28		Tx/Rx Setting (Morph Control Up)	00h - 5Fh	OFF, CC#1-31, AFTER, CC#33-95
00 00 00 29		Tx/Rx Setting (Morph Control Down)	00h - 5Fh	OFF, CC#1-31, AFTER, CC#33-95

### 4-2. Performance

Offset	Address	Description
00 00 00 00		Performance Common 4-2-1
00 00 08 00		Voice Modulator 4-2-2
00 00 10 00		Part (Upper) 4-2-3
00 00 11 00		Part (Lower) 4-2-3
00 00 40 00		Patch (Upper) 4-3
00 00 42 00		Patch (Lower) 4-3

### 4-2-1. Performance Common

size = 25h (37 byte)

Offset	Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00		Performance Name 1	20h - 7Dh	ASCII Code
00 00 00 01		Performance Name 2	20h - 7Dh	ASCII Code
00 00 00 02		Performance Name 3	20h - 7Dh	ASCII Code
00 00 00 03		Performance Name 4	20h - 7Dh	ASCII Code
00 00 00 04		Performance Name 5	20h - 7Dh	ASCII Code
00 00 00 05		Performance Name 6	20h - 7Dh	ASCII Code
00 00 00 06		Performance Name 7	20h - 7Dh	ASCII Code
00 00 00 07		Performance Name 8	20h - 7Dh	ASCII Code
00 00 00 08		Performance Name 9	20h - 7Dh	ASCII Code
00 00 00 09		Performance Name 10	20h - 7Dh	ASCII Code
00 00 00 0A		Performance Name 11	20h - 7Dh	ASCII Code
00 00 00 0B		Performance Name 12	20h - 7Dh	ASCII Code
00 00 00 0C		Performance Name 13	20h - 7Dh	ASCII Code
00 00 00 0D		Performance Name 14	20h - 7Dh	ASCII Code
00 00 00 0E		Performance Name 15	20h - 7Dh	ASCII Code
00 00 00 0F		Performance Name 16	20h - 7Dh	ASCII Code
00 00 00 10		Key Mode	00h - 02h	SINGLE, DUAL, SPLIT
00 00 00 11		Split Point	00h - 7Fh	C-1 ~ G9 (only in SPLIT mode)
00 00 00 12		Panel Select	00h - 02h	UPPER, LOWER, UPPER&LOWER
00 00 00 13		Part Detune	00h - 64h	-50 ~ +50
00 00 00 14		Output Assign	00h - 01h	MIX OUT, PARALLEL OUT
00 00 00 15		Arpeggio Destination	00h - 02h	LOWER&UPPER, LOWER, UPPER (*)
00 00 00 16		Voice Assign	00h - 06h	8-2, 7-3, 5-5, 3-7, 2-8, 6-4, 4-6 (**)
00 00 00 17		Arpeggio Switch	00h - 01h	OFF, ON
00 00 00 18		Arpeggio Mode	00h - 04h	UP, DOWN, UP&DOWN, RANDOM, RPS
00 00 00 19		Arpeggio Beat Pattern	00h - 59h	1/4, 1/6, ... SEQUENCE-A1, ..., RANDOM
00 00 00 1A		Arpeggio Octave Range	00h - 03h	1 ~ 4 [octave]
00 00 00 1B		Arpeggio Hold	00h - 01h	OFF, ON
00 00 00 1C			-	-
00 00 00 1D		Individual Trigger Switch	00h - 01h	OFF, ON
00 00 00 1E		Individual Trigger Destination	00h - 02h	FILTER ENV, AMPLITUDE ENV, FILTER&AMP
00 00 00 1F		Individual Trigger Source Channel	00h - 0Fh	1 ~ 16
#00 00 00 20		Individual Trigger Source Note	00h - 80h	0 ~ 127 as C-1 ~ G9, and 128 as ALL
#00 00 00 22		Tempo	14h - FAh	20 ~ 250 [beat per minute]
00 00 00 24		Vocal/Upper Input Jack Front/Rear	00h - 01h	REAR, FRONT

(\*) "Arpeggio Destination" parameter is effective only when "Key Mode" parameter is DUAL.

(\*\*) "Voice Assign" parameter is effective only when "Key Mode" parameter is DUAL or SPLIT.

## 4-2-2. Voice Modulator

size = 29h (41 byte)

Offset	Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00		Voice Modulator Switch	00h - 01h	OFF, ON
00 00 00 01		Voice Modulator Panel Mode	00h - 01h	OFF, ON
00 00 00 02		Algorithm	00h - 04h	SOLID, SMOOTH, ..., FILTER BANK NARROW
00 00 00 03		Voice Modulator Delay Type	00h - 04h	PANNING L->R - MONO LONG
00 00 00 04		Ensemble Type	00h - 0Eh	ENSEMBLE MILD, ..., FREEZE PHASE 2
00 00 00 05		External to Inst Send Switch	00h - 01h	OFF, ON
00 00 00 06		External to Vocal Send Switch	00h - 01h	OFF, ON
00 00 00 07		Vocal Morph Control Switch	00h - 01h	OFF, ON
00 00 00 08		Vocal Morph Threshold	00h - 7Fh	0 - 127
00 00 00 09		Vocal Morph Sensitivity	00h - 7Fh	-64 - +63
00 00 00 0A		Control 1 Assign	00h - 1Ah	ENSEMBLE LEVEL - CHARACTER 12
00 00 00 0B		Control 2 Assign	00h - 1Ah	ENSEMBLE LEVEL - CHARACTER 12
00 00 00 0C		Character 1	00h - 7Fh	0 - 127
00 00 00 0D		Character 2	00h - 7Fh	0 - 127
00 00 00 0E		Character 3	00h - 7Fh	0 - 127
00 00 00 0F		Character 4	00h - 7Fh	0 - 127
00 00 00 10		Character 5	00h - 7Fh	0 - 127
00 00 00 11		Character 6	00h - 7Fh	0 - 127
00 00 00 12		Character 7	00h - 7Fh	0 - 127
00 00 00 13		Character 8	00h - 7Fh	0 - 127
00 00 00 14		Character 9	00h - 7Fh	0 - 127
00 00 00 15		Character 10	00h - 7Fh	0 - 127
00 00 00 16		Character 11	00h - 7Fh	0 - 127
00 00 00 17		Character 12	00h - 7Fh	0 - 127
00 00 00 18		Vocal Mix	00h - 7Fh	0 - 127
00 00 00 19		Voice Modulator Release	00h - 7Fh	0 - 127
00 00 00 1A		Voice Modulator Resonance	00h - 7Fh	0 - 127
00 00 00 1B		Voice Modulator Pan	00h - 7Fh	L64 - R63
00 00 00 1C		Voice Modulator Level	00h - 7Fh	0 - 127
00 00 00 1D		Voice Modulator Noise Cutoff	00h - 7Fh	0 - 127
00 00 00 1E		Voice Modulator Noise Level	00h - 7Fh	0 - 127
00 00 00 1F		Gate Threshold	00h - 7Fh	0 - 127
00 00 00 20		Robot Pitch	00h - 7Fh	0 - 127
00 00 00 21		Robot Control	00h - 7Fh	0 - 127
00 00 00 22		Robot Level	00h - 7Fh	0 - 127
00 00 00 23		Ensemble Level	00h - 7Fh	0 - 127
00 00 00 24		Voice Modulator Delay Time	00h - 7Fh	0 - 127
00 00 00 25		Voice Modulator Delay Feedback	00h - 7Fh	0 - 127
00 00 00 26		Voice Modulator Delay Level	00h - 7Fh	0 - 127
00 00 00 27		Ensemble Sync	00h - 16h	OFF, 1/16, 1/8(3), ..., 8MEASURES
00 00 00 28		Voice Modulator Delay Sync	00h - 0Ah	OFF, 1/16, 1/8(3), ..., 1/2

## 4-2-3. Part

size = 08h (8 byte)

Offset	Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00		Patch Bank	00h - 03h	IN PERFORMANCE, USER, PRESET, CARD (*)
00 00 00 01		Patch No.	00h - 7Fh	All - B88 (*)
00 00 00 02		MIDI Channel	00h - 10h	1 - 16, OFF
00 00 00 03		Part Transpose	00h - 30h	-24 - + 24 [semitone]
00 00 00 04		Delay Sync	00h - 0Ah	OFF, 1/16, 1/8(3), ..., 1/2
00 00 00 05		LFO Sync	00h - 16h	OFF, 1/16, 1/8(3), ..., 8 MEAS
00 00 00 06		Chorus Sync	00h - 17h	OFF, 1/16, 1/8(3), ..., 8 MEAS, LFO1
00 00 00 07		Patch Group No.	00h - 3Fh	Group 1 - Group 64 (**)

(\*) Patch No. is valid only when Patch Bank is other than IN PERFORMANCE.

(\*\*) The range of Patch Group numbers will depend on the Patch Bank value, as follows.

Patch Bank	Patch Group No.
00H: IN PERFORMANCE	invalid
01H: USER	00H only
02H: PRESET	00H - 02H
03H: CARD (S2M-5)	00H - 1FH
(S4M-5)	00H - 3FH

## 4-3. Patch

size = 01h 78h (248 byte)

Offset	Address	Parameter Name	Sys.Ex.Value	Meaning of Value
00 00 00 00		Patch Name 1	20h - 7Dh	ASCII Code
00 00 00 01		Patch Name 2	20h - 7Dh	ASCII Code
00 00 00 02		Patch Name 3	20h - 7Dh	ASCII Code
00 00 00 03		Patch Name 4	20h - 7Dh	ASCII Code
00 00 00 04		Patch Name 5	20h - 7Dh	ASCII Code
00 00 00 05		Patch Name 6	20h - 7Dh	ASCII Code
00 00 00 06		Patch Name 7	20h - 7Dh	ASCII Code
00 00 00 07		Patch Name 8	20h - 7Dh	ASCII Code
00 00 00 08		Patch Name 9	20h - 7Dh	ASCII Code
00 00 00 09		Patch Name 10	20h - 7Dh	ASCII Code
00 00 00 0A		Patch Name 11	20h - 7Dh	ASCII Code
00 00 00 0B		Patch Name 12	20h - 7Dh	ASCII Code
00 00 00 0C		Patch Name 13	20h - 7Dh	ASCII Code
00 00 00 0D		Patch Name 14	20h - 7Dh	ASCII Code
00 00 00 0E		Patch Name 15	20h - 7Dh	ASCII Code
00 00 00 0F		Patch Name 16	20h - 7Dh	ASCII Code
00 00 00 10		LF01 Waveform	00h - 03h	TRI, SAW, SQR, S/H
00 00 00 11		LF01 Rate	00h - 7Fh	0 - 127
00 00 00 12		LF01 Fade	00h - 7Fh	0 - 127
00 00 00 13		LF02 Rate	00h - 7Fh	0 - 127
00 00 00 14		LF02 Depth Select	00h - 02h	PITCH, FILTER, AMPLIFIER
00 00 00 15		Ring Modulator Switch	00h - 01h	OFF, ON
00 00 00 16		Cross Modulation Depth	00h - 7Fh	0 - 127
00 00 00 17		Oscillator Balance	00h - 7Fh	-64(OSC1) - +63(OSC2)
00 00 00 18		LF01 & Envelope Destination	00h - 02h	OSC1+2, OSC2, X-MOD DEPTH
00 00 00 19		OSC LF01 Depth	00h - 7Fh	-64 - +63
00 00 00 1A		Pitch LF02 Depth	00h - 7Fh	-64 - +63
00 00 00 1B		Pitch Envelope Depth	00h - 7Fh	-64 - +63
00 00 00 1C		Pitch Envelope Attack Time	00h - 7Fh	0 - 127
00 00 00 1D		Pitch Envelope Decay Time	00h - 7Fh	0 - 127
00 00 00 1E		OSC1 Waveform	00h - 06h	SUPER SAW, TWM, ..., PULSE, SAW, TRI
00 00 00 1F		OSC1 Control1	00h - 7Fh	0 - 127
00 00 00 20		OSC1 Control2	00h - 7Fh	0 - 127
00 00 00 21		OSC2 Waveform	00h - 03h	PULSE, TRI, SAW, NOISE (*)
00 00 00 22		OSC2 Sync Switch	00h - 01h	OFF, ON
00 00 00 23		OSC2 Range	00h - 32h	-WIDE, -24 - +24, +WIDE
00 00 00 24		OSC2 Fine/Wide	00h - 64h	-50 - +50 [cent]
00 00 00 25		OSC2 Control1	00h - 7Fh	0 - 127
00 00 00 26		OSC2 Control2	00h - 7Fh	0 - 127
00 00 00 27		Filter Type	00h - 02h	HFPF, BPF, LPF
00 00 00 28		Cutoff Slope	00h - 01h	-12, -24 [dB/oct]
00 00 00 29		Cutoff Frequency	00h - 7Fh	0 - 127
00 00 00 2A		Resonance	00h - 7Fh	0 - 127
00 00 00 2B		Cutoff Frequency Key Follow	00h - 7Fh	-64 - +63
00 00 00 2C		Filter LF01 Depth	00h - 7Fh	-64 - +63
00 00 00 2D		Filter LF02 Depth	00h - 7Fh	-64 - +63
00 00 00 2E		Filter Envelope Depth	00h - 7Fh	-64 - +63
00 00 00 2F		Filter Envelope Attack Time	00h - 7Fh	0 - 127
00 00 00 30		Filter Envelope Decay Time	00h - 7Fh	0 - 127
00 00 00 31		Filter Envelope Sustain Level	00h - 7Fh	0 - 127
00 00 00 32		Filter Envelope Release Time	00h - 7Fh	0 - 127
00 00 00 33		Amp Level	00h - 7Fh	0 - 127
00 00 00 34		Amp LF01 Depth	00h - 7Fh	-64 - +63 (**)
00 00 00 35		Amp LF02 Depth	00h - 7Fh	-64 - +63
00 00 00 36		Amp Envelope Attack Time	00h - 7Fh	0 - 127
00 00 00 37		Amp Envelope Decay Time	00h - 7Fh	0 - 127
00 00 00 38		Amp Envelope Sustain Level	00h - 7Fh	0 - 127
00 00 00 39		Amp Envelope Release Time	00h - 7Fh	0 - 127
00 00 00 3A		Auto Pan/Manual Pan Switch	00h - 02h	OFF, AUTO PAN, MANUAL PAN (**)
00 00 00 3B		Tone Control Bass	00h - 7Fh	-64 - +63
00 00 00 3C		Tone Control Treble	00h - 7Fh	-64 - +63
00 00 00 3D		Multi Effects Type	00h - 0Ch	SUPER CHORUS SLW, ..., DISTORTION
00 00 00 3E		Multi Effects Level	00h - 7Fh	0 - 127
00 00 00 3F		Delay Type	00h - 04h	PANNING L->R, ..., MONO LONG
00 00 00 40		Delay Time	00h - 7Fh	0 - 127
00 00 00 41		Delay Feedback	00h - 7Fh	0 - 127
00 00 00 42		Delay Level	00h - 7Fh	0 - 127
00 00 00 43		Bend Range Up	00h - 18h	0 - 24 [semitone]
00 00 00 44		Bend Range Down	00h - 18h	0 - 24 [semitone]
00 00 00 45		Portamento Switch	00h - 01h	OFF, ON
00 00 00 46		Portamento Time	00h - 7Fh	0 - 127
00 00 00 47		Mono Switch	00h - 01h	OFF, ON
00 00 00 48		Legato Switch	00h - 01h	OFF, ON
00 00 00 49		Oscillator Shift	00h - 04h	-2 - +2 [octave]
#00 00 00 4A		Control: LF01 Rate	00h - FEh	-127 - +127
#00 00 00 4C		Control: LF01 Fade	00h - FEh	-127 - +127
#00 00 00 4E		Control: LF02 Rate	00h - FEh	-127 - +127
#00 00 00 50		Control: Cross Modulation Depth	00h - FEh	-127 - +127
#00 00 00 52		Control: Oscillator Balance	00h - FEh	-127 - +127
#00 00 00 54		Control: Pitch LF01 Depth	00h - FEh	-127 - +127
#00 00 00 56		Control: Pitch LF02 Depth	00h - FEh	-127 - +127
#00 00 00 58		Control: Pitch Envelope Depth	00h - FEh	-127 - +127
#00 00 00 5A		Control: Pitch Envelope Attack Time	00h - FEh	-127 - +127
#00 00 00 5C		Control: Pitch Envelope Decay Time	00h - FEh	-127 - +127
#00 00 00 5E		Control: OSC1 Control1	00h - FEh	-127 - +127
#00 00 00 60		Control: OSC1 Control2	00h - FEh	-127 - +127
#00 00 00 62		Control: OSC2 Range	4Dh - B1h	- 50 - + 50
#00 00 00 64		Control: OSC2 Fine/Wide	1Bh - E3h	-100 - +100
#00 00 00 66		Control: OSC2 Control1	00h - FEh	-127 - +127
#00 00 00 68		Control: OSC2 Control2	00h - FEh	-127 - +127
#00 00 00 6A		Control: Cutoff Frequency	00h - FEh	-127 - +127
#00 00 00 6C		Control: Resonance	00h - FEh	-127 - +127
#00 00 00 6E		Control: Cutoff Freq. Key Follow	00h - FEh	-127 - +127
#00 00 00 70		Control: Filter LF01 Depth	00h - FEh	-127 - +127
#00 00 00 72		Control: Filter LF02 Depth	00h - FEh	-127 - +127
#00 00 00 74		Control: Filter Env. Depth	00h - FEh	-127 - +127
#00 00 00 76		Control: Filter Env. Attack Time	00h - FEh	-127 - +127
#00 00 00 78		Control: Filter Env. Decay Time	00h - FEh	-127 - +127
#00 00 00 7A		Control: Filter Env. Sustain Level	00h - FEh	-127 - +127
#00 00 00 7C		Control: Filter Env. Release Time	00h - FEh	-127 - +127
#00 00 00 7E		Control: Amp Level	00h - FEh	-127 - +127
#00 00 01 00		Control: Amp LF01 Depth	00h - FEh	-127 - +127
#00 00 01 02		Control: Amp LF02 Depth	00h - FEh	-127 - +127
#00 00 01 04		Control: Amp Env. Attack Time	00h - FEh	-127 - +127
#00 00 01 06		Control: Amp Env. Decay Time	00h - FEh	-127 - +127
#00 00 01 08		Control: Amp Env. Sustain Level	00h - FEh	-127 - +127
#00 00 01 0A		Control: Amp Env. Release Time	00h - FEh	-127 - +127
#00 00 01 0C		Control: Tone Control Bass	00h - FEh	-127 - +127
#00 00 01 0E		Control: Tone Control Treble	00h - FEh	-127 - +127
#00 00 01 10		Control: Multi Effects Level	00h - FEh	-127 - +127
#00 00 01 12		Control: Delay Time	00h - FEh	-127 - +127
#00 00 01 14		Control: Delay Feedback	00h - FEh	-127 - +127
#00 00 01 16		Control: Delay Level	00h - FEh	-127 - +127
00 00 01 18		Morph Bend Assign	00h - 01h	OFF, ON
#00 00 01 19		Control: Portamento Time	00h - FEh	-127 - +127

00 00 01 1B	Velocity Switch	00h - 01h	OFF, ON
#00 00 01 1C	Velocity: LFO1 Rate	00h - FEh	-127 - +127
#00 00 01 1E	Velocity: LFO1 Fade	00h - FEh	-127 - +127
#00 00 01 20	Velocity: LFO2 Rate	00h - FEh	-127 - +127
#00 00 01 22	Velocity: Cross Modulation Depth	00h - FEh	-127 - +127
#00 00 01 24	Velocity: Oscillator Balance	00h - FEh	-127 - +127
#00 00 01 26	Velocity: Pitch LFO1 Depth	00h - FEh	-127 - +127
#00 00 01 28	Velocity: Pitch LFO2 Depth	00h - FEh	-127 - +127
#00 00 01 2A	Velocity: Pitch Envelope Depth	00h - FEh	-127 - +127
#00 00 01 2C	Velocity: Pitch Envelope Attack Time	00h - FEh	-127 - +127
#00 00 01 2E	Velocity: Pitch Envelope Decay Time	00h - FEh	-127 - +127
#00 00 01 30	Velocity: OSC1 Control1	00h - FEh	-127 - +127
#00 00 01 32	Velocity: OSC1 Control2	00h - FEh	-127 - +127
#00 00 01 34	Velocity: OSC2 Range	4Dh - B1h	-50 - +50
#00 00 01 36	Velocity: OSC2 Fine/Wide	1Bh - E3h	-100 - +100
#00 00 01 38	Velocity: OSC2 Control1	00h - FEh	-127 - +127
#00 00 01 3A	Velocity: OSC2 Control2	00h - FEh	-127 - +127
#00 00 01 3C	Velocity: Cutoff Frequency	00h - FEh	-127 - +127
#00 00 01 3E	Velocity: Resonance	00h - FEh	-127 - +127
#00 00 01 40	Velocity: Cutoff Freq. Key Follow	00h - FEh	-127 - +127
#00 00 01 42	Velocity: Filter LFO1 Depth	00h - FEh	-127 - +127
#00 00 01 44	Velocity: Filter LFO2 Depth	00h - FEh	-127 - +127
#00 00 01 46	Velocity: Filter Env. Depth	00h - FEh	-127 - +127
#00 00 01 48	Velocity: Filter Env. Attack Time	00h - FEh	-127 - +127
#00 00 01 4A	Velocity: Filter Env. Decay Time	00h - FEh	-127 - +127
#00 00 01 4C	Velocity: Filter Env. Sus. Level	00h - FEh	-127 - +127
#00 00 01 4E	Velocity: Filter Env. Release Time	00h - FEh	-127 - +127
#00 00 01 50	Velocity: Amp Level	00h - FEh	-127 - +127
#00 00 01 52	Velocity: Amp LFO1 Depth	00h - FEh	-127 - +127
#00 00 01 54	Velocity: Amp LFO2 Depth	00h - FEh	-127 - +127
#00 00 01 56	Velocity: Amp Env. Attack Time	00h - FEh	-127 - +127
#00 00 01 58	Velocity: Amp Env. Decay Time	00h - FEh	-127 - +127
#00 00 01 5A	Velocity: Amp Env. Sustain Level	00h - FEh	-127 - +127
#00 00 01 5C	Velocity: Amp Env. Release Time	00h - FEh	-127 - +127
#00 00 01 5E	Velocity: Tone Control Bass	00h - FEh	-127 - +127
#00 00 01 60	Velocity: Tone Control Treble	00h - FEh	-127 - +127
#00 00 01 62	Velocity: Multi Effects Level	00h - FEh	-127 - +127
#00 00 01 64	Velocity: Delay Time	00h - FEh	-127 - +127
#00 00 01 66	Velocity: Delay Feedback	00h - FEh	-127 - +127
#00 00 01 68	Velocity: Delay Level	00h - FEh	-127 - +127
#00 00 01 6A	Velocity: Portamento Time	00h - FEh	-127 - +127
00 00 01 6C	Active Indicator of Bender	00h - 01h	NOT ACTIVE, ACTIVE (***)
00 00 01 6D	Active Indicator of Velocity Assign	00h - 01h	NOT ACTIVE, ACTIVE (***)
00 00 01 6E	Active Indicator of Control Assign	00h - 01h	NOT ACTIVE, ACTIVE (***)
00 00 01 6F	Envelope Type in Solo	00h - 01h	STANDARD, ANALOG
00 00 01 70	(reserved)	(reserved)	(reserved)
00 00 01 71	OSC2 External Input Switch	00h - 01h	OFF, ON (*)
00 00 01 72	Voice Modulator Send Switch	00h - 01h	OFF, ON
00 00 01 73	Unison Switch	00h - 01h	OFF, ON
00 00 01 74	Unison Detune	00h - 32h	0 - 50 [cent]
00 00 01 75	Patch Gain	00h - 02h	0dB, +6dB, +12dB
00 00 01 76	External Trigger Switch	00h - 01h	OFF, ON
00 00 01 77	External Trigger Destination	00h - 02h	FILTER, AMP, FILTER&AMP

(\*) OSC2 Waveform is invalid when OSC2 External Input Switch is ON.

(\*\*) Amp LFO1 Depth will be handled as Pan LFO Depth if Auto Pan/Manual Pan Switch is set to AUTO PAN. Amp LFO1 Depth will be handled as Pan if Auto Pan/Manual Pan is set to MANUAL PAN.

(\*\*\*) " Active Indicator of Bender ", " Active Indicator of Velocity Assign ", and " Active Indicator of Control Assign " messages can be transmitted, but can not be received.

## 4-4. User Patch Area

Offset	Address	Description
00 00 00 00	User Patch 1 (A11)	4-3
00 00 02 00	User Patch 2 (A12)	4-3
00 00 04 00	User Patch 3 (A13)	4-3
00 00 06 00	User Patch 4 (A14)	4-3
:	:	:
00 00 7C 00	User Patch 63 (A87)	4-3
00 00 7E 00	User Patch 64 (A88)	4-3
00 01 00 00	User Patch 65 (B11)	4-3
00 01 02 00	User Patch 66 (B12)	4-3
:	:	:
00 01 7C 00	User Patch 127 (B87)	4-3
00 01 7E 00	User Patch 128 (B88)	4-3

## 4-5. User Performance Area

Offset	Address	Description
00 00 00 00	User Performance 1 (11)	4-2
00 01 00 00	User Performance 2 (12)	4-2
00 02 00 00	User Performance 3 (13)	4-2
00 03 00 00	User Performance 4 (14)	4-2
:	:	:
00 3D 00 00	User Performance 62 (86)	4-2
00 3E 00 00	User Performance 63 (87)	4-2
00 3F 00 00	User Performance 64 (88)	4-2

## 4-6. Motion Control Data

Offset	Address	Description
00 00 00 00	Motion Control 1 Data	
00 40 00 00	Motion Control 2 Data	

## Address block map

00 00 00 00	+-----+   System Area   +-----+ refer to 4-1	00 00 00 00 00 00 20 00 00 00 30 00	+-----+   System   refer to 4-1-1 +-----+   Motion Setup   refer to 4-1-2 +-----+   Tx/Rx Setting   refer to 4-1-3 +-----+	
01 00 00 00	+-----+   Perf. Temporary   +-----+ refer to 4-2	00 00 00 00 00 00 08 00 00 00 10 00 00 00 11 00 00 00 40 00 00 00 42 00	+-----+   Perf. Common   refer to 4-2-1 +-----+   Voice Modulator   refer to 4-2-2 +-----+   Part (upper)   refer to 4-2-3 +-----+   Part (lower)   refer to 4-2-3 +-----+   Patch (upper)   refer to 4-3 +-----+   Patch (lower)   refer to 4-3 +-----+	
02 00 00 00	+-----+   User Patch   +-----+ refer to 4-4	00 00 00 00 00 00 02 00 00 00 04 00 : 00 01 7E 00	+-----+   Patch U:A11   refer to 4-3 +-----+   Patch U:A12   refer to 4-3 +-----+ : +-----+   Patch U:B88   refer to 4-3 +-----+	
03 00 00 00	+-----+   User Perf.   +-----+ refer to 4-5	00 00 00 00 00 01 00 00 00 02 00 00 00 03 00 00 : 00 3F 00 00	+-----+   Perf. U:11   00 00 00 00 +-----+   Perf. U:12   00 00 08 00 +-----+   Perf. U:13   00 00 10 00 +-----+   :   00 00 11 00 +-----+   :   00 00 40 00 +-----+   Perf. U:88   00 00 42 00 +-----+	+-----+   Perf. Common   refer to 4-2-1 +-----+   Voice Modulator   refer to 4-2-2 +-----+   Part (upper)   refer to 4-2-3 +-----+   Part (lower)   refer to 4-2-3 +-----+   Patch (upper)   refer to 4-3 +-----+   Patch (lower)   refer to 4-3 +-----+
09 00 00 00	+-----+   Motion Data   +-----+ refer to 4-6	00 00 00 00 00 40 00 00	+-----+   Motion Ctrl A   +-----+   Motion Ctrl B   +-----+	

## 5. 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 expressions such as used for MIDI channel, Bank Select, and Program Change will be the value 1 greater than the decimal value given in the above table.
- \* Since each MIDI byte carries 7 significant data bits, each byte can express a maximum of 128 different values. Data for which higher resolution is required must be transmitted using two or more bytes. For example a value indicated as a two-byte value of aa bbH would have a value of  $aa \times 128 + bb$ .

#### <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 of MIDI CH = 15, Program number 74 (in the GS sound map, Flute).

##### <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 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  $\pm 12$  semitones (1 octave) (GS sound sources ignore 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. In some sequencers, data events recorded in the same clock (or a nearby clock) can sometimes be transmitted in an order other than the order in which they were recorded. It is best to record such events at an appropriate interval (1 tick at TPQN=96, or 5 ticks at 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 values are indicated by a '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 Temporary Performance Upper Part Transpose to +5 (DT1).

The “Parameter address map” indicates that the starting address of the Temporary Performance is 01 00 00 00H, that Temporary Performance upper Part offset address is 10 00H, Part Transpose is 00 03H. Thus,the address is:

$$\begin{array}{r} 01\ 00\ 00\ 00H \\ \quad \quad 10\ 00H \\ +) \quad \quad 00\ 03H \\ \hline 01\ 00\ 10\ 03H \end{array}$$

Since +5 is parameter value 1DH,

F0	41	10	00 06	12	01 00 10 03	1D	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

- (1) Exclusive status      (2) ID number (Roland)      (3) device ID (17)  
(4) model ID (JP-8080)      (5) command ID (DT1)      (6) EOX

Next we calculate the checksum.

$01H + 00H + 10H + 03H + 1DH = 1 + 0 + 16 + 3 + 29 = 49$  (sum)  
 $49$  (total)  $128 \div 0$  (quotient) ...  $49$  (remainder)  
checksum =  $128 - 49$  (quotient) =  $79 = 4FH$

This means that the message transmitted will be F0 41 10 00 06 12 01 00 10 03 1D 4F F7 .

### <Example 2>

#### Retrieving data for Patch of Performance USER: 13 Lower Part.

The "Parameter address map" indicates that the starting address of the User Performance is 03 00 00 00H, the start address of Performance USER:13 is 03 00 00 00H, and that the offset address of Performance Lower Patch is 00 00 42 00H. Thus, the address is:

```
03 00 00 00H
00 02 00 00H
+) 00 00 42 00H
-----
03 02 42 00H
```

Since the size of the Performance Patch is 00 00 01 78H,

F0	41	10	00 06	11	03 02 42 00	00 00 01 78	??	F7
(1)	(2)	(3)	(4)	(5)	address	data	checksum	(6)

(1) Exclusive status      (2) ID number (Roland)      (3) device ID (17)  
(4) model ID (JP-8080)      (5) command ID (DT1)      (6) EOX

Next we calculate the checksum.

$03H + 02H + 42H + 00H + 00H + 00H + 01H + 78H = 3 + 2 + 66 + 0 + 0 + 0 + 1 + 120 = 192$  (sum)  
 $192$  (total)  $\div 128 = 1$  (quotient) ...  $64$  (remainder)  
checksum =  $128 - 64$  (quotient) =  $64 = 40H$

Thus, a message of F0 41 10 00 06 11 03 02 42 00 00 00 01 6D 40 F7 would be transmitted.

### <Example 3> Retrieving data for Temporary Performance (RQ1)

The "Parameter address map" gives the following start addresses for Temporary Performance data.

01 00 00 00H Temporary Performance Common  
01 00 08 00H Voice Modulator  
01 00 10 00H Part (Upper)  
01 00 11 00H Part (Lower)  
01 00 40 00H Patch(Upper)  
01 00 42 00H Patch(Lower)

Since Patch has a size of 00 00 01 78H, we add that size to the start address of the Temporary Patch Lower Part, resulting in:

```
01 00 42 00H
+) 00 00 01 78H
-----
01 00 43 78H
```

Thus, the Size for the retrieved data will be:

```
01 00 43 78H
-) 01 00 00 00H
-----
00 00 43 78H
```

F0	41	10	00 06	11	01 00 00 00	00 00 43 78	??	F7
(1)	(2)	(3)	(4)	(5)	address	size	checksum	(6)

(1) Exclusive status      (2) ID number (Roland)      (3) device ID (17)  
(4) model ID (JP-8080)      (5) command ID (RQ1)      (6) EOX

Calculating the checksum as shown in <Example 2>, we get a message of F0 41 10 00 06 11 01 00 00 00 00 43 6FH 44 F7 to be transmitted.

## ● ASCII code table

Char	Hex.	Char	Hex.	Char	Hex.	Char	Hex.
SP	20H						
A	41H	a	61H	0	30H	:	3AH
B	42H	b	62H	1	31H	;	3BH
C	43H	c	63H	2	32H	<	3CH
D	44H	d	64H	3	33H	>	3DH
E	45H	e	65H	4	34H	=	3EH
F	46H	f	66H	5	35H	?	3FH
G	47H	g	67H	6	36H	@	40H
H	48H	h	68H	7	37H	[	5BH
I	49H	i	69H	8	38H	\	5CH
J	4AH	j	6AH	9	39H	]	5DH
K	4BH	k	6BH	!	21H	^	5EH
L	4CH	l	6CH	"	22H	{	5FH
M	4DH	m	6DH	#	23H	~	60H
N	4EH	n	6EH	\$	24H	{	7BH
O	4FH	o	6FH	%	25H	}	7CH
P	50H	p	70H	&	26H	}	7DH
Q	51H	q	71H	'	27H		
R	52H	r	72H	(	28H		
S	53H	s	73H	)	29H		
T	54H	t	74H	*	2AH		
U	55H	u	75H	+	2BH		
V	56H	v	76H	,	2CH		
W	57H	w	77H	-	2DH		
X	58H	x	78H	.	2EH		
Y	59H	y	79H	/	2FH		
Z	5AH	z	7AH				

Note: SP indicates "space".

## MIDI Implementation Chart

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1-16 1-16	1-16 1-16	
Mode	Default Messages Altered	Mode 3 x *****	Mode 3 Mode 3, 4 (M=1)	* 1
Note Number :	True Voice	0-127 *****	0-127 * 3 0-127 * 3	
Velocity	Note ON Note OFF	O O (8n, v=1-127)	O * 3 O	
After Touch	Key's Ch's	x O	x O * 2, * 4	
Pitch Bend		O	O	
Control Change	1-31, 33-95	O * 2	O * 2, * 4	See page 191, 194 Bank Select Modulation Portamento Time Volume Panpot Expression Hold 1 Portamento Portamento Control NRPN LSB, MSB RPN LSB, MSB
	0, 32	O * 2	x * 2	
	1	O	O	
	5	O	O * 4	
	7	O	O	
	10	O	O	
	11	O	O	
	64	O	O	
	65	O	O * 4	
	84	O	O	
	98, 99	x	x	
	100, 101	x	O	
Prog Change	: True #	O * 2 *****	O * 2 0-127	Program Number 1-128
System Exclusive		O	O * 2	
System Common	: Song Pos : Song Sel : Tune	x x x	O x x	
System Real Time	: Clock : Command : Start : Continue : Stop	x x x x x	O * 2 x O * 2 O * 2 O * 2	
Aux Message	: All sound off : Reset all controllers : Local ON/OFF : All Notes OFF : Active Sense : Reset	x x x x O x	O * 5 O x O (123-127) O x	
Notes		* 1 Recognized as M=1 even if M≠1. * 2 O x is selectable. * 3 RPS patterns can record these messages received from REMOTE KBD IN connector. * 4 Motions can record these messages received from REMOTE KBD IN connector. * 5 Only received from MIDI IN.		

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

O : Yes

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

X : No



# Specifications

## Synthesizer Section

- **Parts**  
2 (Upper, Lower)
- **Key Mode**  
Single, Dual, Split
- **Maximum Polyphony**  
10 Voices (Voice Modulator OFF)  
8 Voices (Voice Modulator ON)
- **Waveform**  
**OSC 1**  
SUPER SAW  
TRIANGLE MOD  
NOISE  
FEEDBACK OSC  
SQUARE (PWM)  
SAW  
TRIANGLE  
  
**OSC 2**  
SQUARE (PWM)  
SAW  
TRIANGLE  
NOISE
- **Effects**  
Tone Control  
**Multi-FX (13 types)**  
SUPER CHORUS SLW, SUPER CHORUS MID, SUPER CHORUS FST, SUPER CHORUS CLR, FLANGER SLOW, FLANGER DEEP, FLANGER FAST, DEEP PHASING SLW, JET PHASING, TWISTING, FREEZE PHASE 1, FREEZE PHASE 2, DISTORTION  
**Delay (5 types)**  
PANNING L->R, PANNING R->L, PANNING SHORT, MONO SHORT, MONO LONG
- **Internal Memory**  
Performances User: 64  
Preset: 192  
Patches User: 128  
Preset: 384
- **Voice Modulator**  
Two 12-band band-pass filters  
Noise  
Robot Oscillator  
Dedicated effect unit for Voice Modulator  
(Ensemble, Delay)

## Arpeggiator/RPS Section

- **Arpeggio Mode**  
UP  
DOWN  
UP&DOWN  
RANDOM
- **Arpeggio Beat Patterns**  
1/4, 1/6, 1/8, 1/12, 1/16, 1/32, PORTA-A1—A11, PORTA-B1—B15, SEQUENCE-A1—A7, SEQUENCE-B1—B5, SEQUENCE-C1—C2, SEQUENCE-D1—D8, ECHO1—3, MUTE1—16, STRUMMING1—8, REFRAIN1—2, PERCUSSION1—4, WALKING BASS, HARP, RANDOM  
(total 90 types)
- **Arpeggio Range**  
1—4 octave
- **Hold**  
ON/OFF
- **RPS Pattern Data (Internal Memory)**  
Patterns: 48  
Maximum Loop Length (Measures): 4
- **Resolution**  
24 ticks per quarter note
- **Gate Time**  
REAL, STACCATO, 33%, 50%, 66%, 100%
- **Input Quantize**  
OFF, TRIPLET1/16, 1/16, TRIPLET1/8, 1/8, TRIPLET1/4, 1/4
- **Recording Method**  
Realtime (Loop Recording)
- **Tempo**  
20 to 250

## Motion Control Section

### ● Motion Data (Internal Memory)

Motions: 2 x 2 sets (SET A, B)

Maximum Loop Length (Measures): 8

Maximum Recording Length (Measures): 99

### ● Recording Method

Realtime (Loop Recording and One Shot Recording)

### ● Tempo

20 to 250

## Others

### ● External storage device (SmartMedia)

#### Storage:

#### •S2M-5 (2M byte)

Performances: 64 x 32

Patches: 128 x 32

RPS Patterns: 48

Motion Controls: 2 x 4

System Settings: 1

#### •S4M-5 (4M byte)

Performances 64 x 64

Patches 128 x 64

RPS Patterns 48

Motion Controls 2 x 4

System Settings 1

### ● Display

16 characters, 2 lines (backlit LCD)

### ● Connectors

MIDI connectors

REMOTE KBD IN

IN

OUT

Output jacks

L(MONO): 1/4 inch phone type

R: 1/4 inch phone type

External Input jacks

INST/LOWER(MONO): 1/4 inch phone type

VOCAL/UPPER: 1/4 inch phone type

MIC jack: 1/4 inch phone type

Headphone jack: Stereo 1/4 inch phone type

### ● Input Level

External Input jacks

INST/LOWER (MONO): -30dBm- +4dBm

VOCAL/UPPER: -30dBm- +4dBm

MIC jack: -60dBm- -20dBm

### ● Input Impedance

External Input jacks

INST/LOWER (MONO): 24 k $\Omega$

VOCAL/UPPER: 24 k $\Omega$

MIC jack: 5 k $\Omega$

### ● Output Impedance

Output jacks

L(MONO): 2.2 k $\Omega$

R: 2.2 k $\Omega$

Headphone jack: 100  $\Omega$

### ● Power Supply

AC 117 V, AC 230 V, AC 240 V

### ● Power Consumption

17 W (AC 117 V), 17 W (AC 230 V), 17 W (AC 240 V)

### ● Dimensions

482 (W) x 88 (D) x 264 (H) mm

19 (W) x 3-1/2 (D) x 10-7/16 (H) inches

### ● Weight

4.5 kg/9 lbs 15 oz (except Power cord)

### ● Accessories

Owner's Manual

Power Cord

Card Protector

### ● Options

SmartMedia: S2M-5 (2M bytes)

S4M-5 (4M bytes)

\* In the interest of product development, the specifications for this product are subject to change without prior notice.

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# Information

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

## ARGENTINA

**Instrumentos Musicales S.A.**  
Florida 638  
(1005) Buenos Aires  
ARGENTINA  
TEL: (01) 394 4029

## BRAZIL

**Roland Brasil Ltda.**  
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203 05522-010  
Sao Paulo BRAZIL  
TEL: (011) 843 9377

## CANADA

**Roland Canada Music Ltd.**  
(Head Office)  
5480 Parkwood Way Richmond  
B. C., V6V 2M4 CANADA  
TEL: (0604) 270 6626

**Roland Canada Music Ltd.**  
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Unit 2, 109 Woodbine Downs  
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M9W 6Y1 CANADA  
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## MEXICO

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MEXICO  
TEL: (525) 668 04 80

**La Casa Wagner de**  
**Guadalajara s.a. de c.v.**

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## AUSTRALIA

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TEL: (0212) 2499324

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**Zak Electronics & Musical**  
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Zabeel Road, Al Sherooq Bldg.,  
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P.O. Box 8050DUBAI, U.A.E  
TEL: (04) 360715

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(02) 4185531

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**Musik Land Limited**  
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Nairobi Republic of KENYA  
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7700  
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**TUSHE**  
UL. Rabkorovskaya 17  
220001 MINSK  
TEL: (0172) 764-911

## CYPRUS

**Radex Sound Equipment Ltd.**  
17 Diagorou St., P.O.Box 2046,  
Nicosia CYPRUS  
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**Roland Scandinavia A/S**  
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DK-1023 Copenhagen K.  
DENMARK  
TEL: 32 95 3111

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**Roland France SA**  
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Thibault Lagny Cedex FRANCE  
TEL: 01 600 73 508

## FINLAND

**Roland Scandinavia As,**  
**Filial Finland**  
Lauttasarentie 54 B  
Fin-00201 Helsinki, FINLAND  
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**Roland Elektronische**  
**Musikinstrumente**  
**Handelsgesellschaft mbH.**  
Oststrasse 96, 22844 Norderstedt,  
GERMANY  
TEL: (040) 52 60090

## GREECE

**V. Dimitriadis & Co. Ltd.**  
20, Alexandras St. & Bouboulinas  
54 St. 106 82 Athens, GREECE  
TEL: (01) 8232415

## HUNGARY

**Intermusica Ltd.**  
Warehouse Area 'DEPO' Pf.83  
H-2046 Torokbalint, HUNGARY  
TEL: (23) 511011

## IRELAND

**The Dublin Service Centre**  
**Audio Maintenance Limited**  
11 Brunswick Place Dublin 2  
Republic of IRELAND  
TEL: (01) 677322

## ITALY

**Roland Italy S. p. A.**  
Viale delle Industrie, 8  
20020 Arese Milano, ITALY  
TEL: (02) 937 781

## NORWAY

**Roland Scandinavia Avd.**  
**Kontor Norge**  
Lilleakerveien 2 Postboks 95  
Lilleaker N-0216 Oslo  
NORWAY  
TEL: 273 0074

## POLAND

**P. P. H. Brzostowicz Marian**  
UL. Blokowa 32, 03624 Warszawa  
POLAND  
TEL: (022) 679 44 19

## PORTUGAL

**Caius - Tecnologias Audio e**  
**Musica , Lda.**  
Rue de SANTA Catarina 131  
4000 Porto, PORTUGAL  
TEL: (02) 38 4456

## RUSSIA

**Slami Music Company**  
Sadojava-Triumfalnaja st., 16  
103006 Moscow, RUSSIA  
TEL: 095 209 2193

## SPAIN

**Roland Electronics**  
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Calle Bolivia 239 08020 Barcelona,  
SPAIN  
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Danvik Center 28, 2 tr.  
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As of December, 25, 1997



# Blank Chart (1)

## ■ Performance parameters

PANEL SELECT		KEY MODE	
LOWER	UPPER	<input type="checkbox"/> SINGLE	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> DUAL	
(VOICE MOD)		<input type="checkbox"/> SPLIT	

VOICE MODULATOR		EXTERNAL INPUT	
ON	<input type="checkbox"/>	CONTROL 1	CONTROL 2
<input type="checkbox"/>	<input type="checkbox"/>	INST LOWER	VOCAL UPPER
<input type="checkbox"/>	<input type="checkbox"/>	REAR	FRONT

ARPEGGIATOR/RPS	
ON	<input type="checkbox"/>
HOLD	<input type="checkbox"/>
TEMPO	120
MODE	<input type="checkbox"/> UP
	<input type="checkbox"/> DOWN
	<input type="checkbox"/> RND
	<input type="checkbox"/> RPS
MOTION CONTROL	1
	2
REC	<input type="checkbox"/>
RANGE	<input type="checkbox"/> 1 OCT
	<input type="checkbox"/> 2 OCT
	<input type="checkbox"/> 3 OCT
	<input type="checkbox"/> 4 OCT

[PFM COMMON] ( BANK [1] )	
Performance Name	
Part Detune	
Output Assign	
Voice Assign	
Split Point	
Arpeggio Dest	
Arp Beat Pattern	
Indv Trig Switch	
Indv Trig Dest	
Indv Trig Src CH	
IndvTrigSrc Note	

[VOICE MOD] ( BANK [2] )	
Algorithm	
Control1 Assign	
Control2 Assign	
Ext->Inst Send	
Ext->Vocal Send	
V Delay Type	
V Delay Sync	
Ensemble Type	
Ensemble Sync	
Vocal Morph Ctrl	
Vocal Morph Sens	
Vocal Morph Thrsh	

[PART] ( BANK [3] )		
Part Transpose	L	U
Part MIDI CH		
Chorus Sync		
Delay Sync		
LFO Sync		

## ■ Performance parameters (Voice Modulator panel)

TONE CONTROL		EFFECTS		DELAY		VOICE MOD SEND	
BASS	TREBLE	MULTI-FX LEVEL	TIME	FEEDBACK	LEVEL		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		ENSEMBLE	TIME	FEEDBACK	LEVEL		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

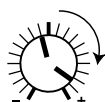
  

LFO 1	OSC 1	OSC 2	FILTER	AMP
WAVEFORM	SUPER SAW	WAVEFORM	CUTOFF FREQ	PAN
<input type="checkbox"/>	TRIANGLE MOD	<input type="checkbox"/>	RESONANCE	AUTO
<input type="checkbox"/>	NOISE	<input type="checkbox"/>	TYPE	MANUAL
RATE	FEEDBACK OSC	RING	HPF	VOCAL HOLD
FADE	CONTROL 1	SYNC	BPF	LFO 1 DEPTH
<input type="checkbox"/>	CONTROL 2	WAVEFORM	LPF	LEVEL
<input type="checkbox"/>	<input type="checkbox"/>	NOISE		
		NOISE		

MODULATION (LFO 2)	PORTAMENTO	OSC COMMON	PITCH ENVELOPE	FILTER ENVELOPE	AMP ENVELOPE
DEPTH SELECT	ON	OSC SHIFT	DEPTH	DEPTH	DEPTH
<input type="checkbox"/>	<input type="checkbox"/>	LFO 1 & ENV DESTINATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PITCH	TIME	OSC 1+2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FILTER		OSC 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AMP		X-MOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RATE		OSC BALANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DEPTH		X-MOD DEPTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>		LFO 1 DEPTH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NOISE CUTOFF		OSC 1 ROBOT PITCH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NOISE LEVEL		OSC 2 ROBOT PITCH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>		ROBOT CONTROL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>		ROBOT LEVEL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

\* An example of noting Velocity Assign and Control Assign settings





For EU Countries

## Apparatus containing Lithium batteries

### ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.  
Udskiftning må kun ske med batteri af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandøren.

### ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.  
Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.  
Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

### CAUTION

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type recommended by the manufacturer.  
Discard used batteries according to the manufacturer's instructions.

### VARNING

Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens instruktion.

### VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

For EU Countries



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

For the USA

## FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

For Canada

### NOTICE

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

### AVIS

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

