

To ensure long, trouble-free operation, please read this manual carefully.

Precautions

Location

Using the unit in the following locations can result in a malfunction.

- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration

Power supply

Please connect the designated AC/AC power supply to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

This product contains a microcomputer. Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

- Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.
- Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC/AC power supply from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

THE FCC REGULATION WARNING (for U.S.A.)

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 user's authority to operate this equipment.

CE mark for European Harmonized Standards

CE mark which is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC). And, CE mark which is attached after January 1, 1997 means it conforms to EMC Directive (89/336/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (73/23/EEC).

Also, CE mark which is attached to our company's products of Battery operated apparatus means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

Data handling

Malfunctions due to incorrect operation may cause the contents of memory to be lost, so we recommend that you save important data on a floppy disk. Please be aware that Korg will accept no responsibility for any damages which may result from loss of data.

Also, when digitally recording copyrighted audio material from a DAT or CD etc., you must obtain permission for use. Please be aware that Korg will accept no responsibility for any copyright violations which may occur through your use of this product.

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* mLAN is a trademark of Yamaha Corporation.

* Company names, product names, and names of formats etc. are the trademarks or registered trademarks of their respective owners.

Thank you for purchasing the **Korg TRITON-Rack expandable HI module/sampler**. To ensure trouble-free enjoyment, please read this manual carefully and use the instrument as directed.

About this manual

The owner's manuals and how to use them

The TRITON-Rack come with the following owner's manuals.

- Basic Guide
- Parameter Guide
- Voice Name List

Basic Guide

First read this manual carefully to gain a basic understanding of the instrument and to learn basic operation.

“**Introduction**” explains the function of each part, how to make connections, basic operation, and gives an overview of each mode.

“**Setup**” explains how to make connections for power, audio, and MIDI, and how to play back the demo songs.

“**Quick Start**” explains basic topics (selecting sounds, convenient functions for performance). If you wish to begin playing immediately, read this section first.

“**Basic Functions**” contains mode-by-mode explanations of what you need to know to edit sounds, record on the sequencer, and record samples. This section also explains how to use the arpeggiator, effects.

“**Appendices**” contains information on troubleshooting, specifications, and various other information.

Parameter Guide

The Parameter Guide contains explanations and other information regarding the operations of the parameters and settings on the TRITON-Rack. The explanations are organized by mode, and page. Explanations and other information on the effects and their parameters are also provided for each effect.

Refer to this guide when an unfamiliar parameter appears in the display, or when you need to know more about a particular function.

Voice Name List

This lists the multisamples and drumsamples that are built into the TRITON-Rack, and the factory preset combinations, programs, drum kits, and user arpeggio patterns.

Refer to these lists when you wish to know more about the preloaded sounds.

Conventions in this manual

Abbreviations for the manuals BG, PG, VNL

References to the manuals included with the TRITON-Rack are abbreviated as follows in this document.

BG: Basic Guide

PG: Parameter Guide

VNL: Voice Name List

Switches and knobs []

References to the switches, dials, and knobs on the TRITON-Rack's panel are enclosed in square brackets []. References to **buttons** or **tabs** indicate objects in the LCD display screen.

Parameters in the LCD display screen “ ”

Parameters displayed in the LCD screen are enclosed in double quotation marks “ ”.

Boldface type

Parameter values are printed in boldface type.

Content that is of particular importance is also printed in boldface type.

Procedure steps ① ② ③ ...

Steps in a procedure are listed as ① ② ③ ...

☞p.■, ☞PG p.■

These symbols indicate a reference page number in the Basic Guide or in the Parameter Guide.

Symbols , ,

These symbols respectively indicate cautions, advice, and MIDI-related explanations.

Example screen displays

The values of the parameters shown in the example screens of this manual are only for explanatory purposes, and may not necessary match the values that appear in the LCD screen of your instrument.

MIDI-related explanations

CC# is an abbreviation for Control Change Number.

In explanations of MIDI messages, **numbers in square brackets []** always indicate hexadecimal numbers.

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Introduction

Main features

Overview

The TRITON-Rack is an expandable Hi-modele/sampler that features the **HI (Hyper Integrated) synthesis system** as its tone generator.

Its numerous functions include high-quality preset multisamples/programs/combinations, an effect section, sampling, multis, a dual polyphonic arpeggiator, RPPR, analog two-channel audio input/six-channel audio output, and digital two-channel audio output.

By operating the REALTIME CONTROLS [1]–[4] knobs you can control filter or effects to vary the sounds in realtime as you perform. These knobs can also be used to control the gate and velocity of the arpeggiator, and the tempo of the arpeggiator and RPPR.

Options such as a MOSS tone generator, PCM/sampling memory expansions, SCSI port, ADAT digital output, and mLAN interface board can be installed to further expand the capabilities of the TRITON-Rack.

The TRITON-Rack is a powerful tool for music production or live performance.

HI (Hyper Integrated) synthesis system

The HI (Hyper Integrated) synthesis system is a PCM tone generator system with full digital signal processing that guarantees pristine sound, and featuring enormous flexibility in musical extensibility, modulation, and effect routing.

Tone generator section:

- 32 Mbytes of preset PCM ROM contains 425 multisamples and 413 drumsamples.
Up to eight separately sold EXB-PCM series PCM expansion boards (16 Mbyte PCM ROM) can optionally be installed to add even more PCM data.
- 16 Mbytes of RAM is standard (expandable to a maximum of 96 Mbytes). Samples/multisamples that you sampled or edited in Sampling mode or loaded in Disk mode can be used as sound sources.
- The sampling frequency is 48 kHz, and the maximum polyphony is 60 voices.

Filter/synthesis section:

- 24 dB/oct Low Pass Resonance type or 12 dB/oct Low Pass & High Pass type filters can be used. A wide variety of filter effects can be achieved, from active sounds with aggressive resonance to subtle tones using a high pass filter.
- A broad range of editing parameters gives you minute control over every aspect of the sound.

Effect section:

- Five insertion effects (stereo-in/stereo-out), two master effects (mono-in/stereo-out), and a three-band master EQ (stereo-in/stereo-out) can all be used simultaneously. You can select from 102 types of effect algorithm, and edit them.
- Highly flexible effect routing is possible. Effects can also be routed freely to the individual outputs.

Alternate Modulation and

Effect Dynamic Modulation:

- The synthesis section (filter etc.) provides Alternate Modulation functionality, and the effect section provides Effect Dynamic Modulation functionality. This allows you to freely apply modulation to parameters that affect the pitch, filter, amp, EG, LFO, and effects etc.
- LFO and delay time etc. can be synchronized to MIDI clock/tempo. You can synchronize sounds or effects to the tempo of the sequencer or the arpeggiator.

Programs and combinations

- In **Program**, the TRITON-Rack provides 1,664 user programs, and 256 programs + 9 drumsets for GM2 compatibility. When the separately sold EXB-MOSS option is installed, 128 programs for the Korg MOSS tone generator will also be available.

You can use a wide range of editing parameters, effects, and arpeggiator settings to create your own original program, and save it as a user program. For the oscillator of the program, you can select from 425 PCM ROM multisamples, or use samples/multisamples that you recorded in Sampling mode. You can also create drum programs using the 144 user drum kits or the nine GM2-compatible ROM drum kits. User drum kits can be created using the 413 preset drum samples or samples that you recorded in Sampling mode.

With the factory settings, 512 user programs suitable for a wide range of styles are preloaded in banks INT-A–INT-D. For these preloaded programs and for the preset programs in banks G, g(1)–g(d), you can use the **Audition function** to hear the program played using an appropriate riff (phrase). This provides a convenient way to audition or edit programs.

- The **Combination** provides 1,664 user combinations.
A combination allows you to use layers, splits, or velocity switches etc. to combine up to eight programs together with effects and two arpeggiators, in order to create complex sounds that could not be

produced by a program. You can also make settings that include external tone generators.

With the factory settings, 512 user combinations suitable for a wide range of styles are preloaded in banks INT-A-INT-D.

- When one or more separately sold EXB-PCM options are installed (up to eight boards), programs and combinations for the corresponding EXB-PCM can be loaded into user program banks/ user combination banks EXB-A-EXB-H.

Sampling

Rivaling dedicated sampling devices, the TRITON-Rack features 48 kHz 16-bit linear mono/stereo sampling with a maximum of 96 Mbytes of memory, allowing you to create original sounds from your own audio material.

For more on the sampling features of the TRITON-Rack (⇒p.65).

Multi

Multi-track musical data can be received from an external sequencer etc. to play the TRITON-Rack as a 16-track MIDI multi-timbral tone generator. The effects, two arpeggiators, and the RPPR function can be used together, allowing the TRITON-Rack to function as a sophisticated sound-generating system with capabilities far beyond those of conventional tone generator modules.

For more about the TRITON-Rack's multis, refer to p.56.

Dual polyphonic arpeggiator

In addition to providing conventional arpeggiator functionality, the polyphonic arpeggiator of the TRITON-Rack can respond to the pitches or timing at which you play the keyboard, and produce a diverse range of chords or phrases. This can be used to play a variety of drum phrases, bass phrases, or guitar and keyboard backing riffs. The arpeggiator is also effective for use with subtly moving pads, synth sounds, or sound effects.

Five preset arpeggio patterns and 328 user arpeggio patterns are provided. With the factory settings, these contain a wide variety of 200 preloaded user arpeggio patterns.

In Combination mode, and Multi mode, the TRITON-Rack provides dual arpeggiators that can simultaneously play two arpeggio patterns. You can apply separate arpeggio patterns to drum and bass programs, or use keyboard splits or velocity to switch between arpeggio patterns for an even more dynamic performance.

RPPR

The TRITON-Rack features a RPPR (Realtime Pattern Play/Recording) function. In Multi mode, this function allows you to assign preset patterns or user patterns (with a specified playback track) to individual notes of the keyboard, and playback or record that pattern in realtime simply by pressing the assigned note. The TRITON-Rack provides 150 preset patterns that can be shared by all multis. In addition, each multi can use

100 user patterns.

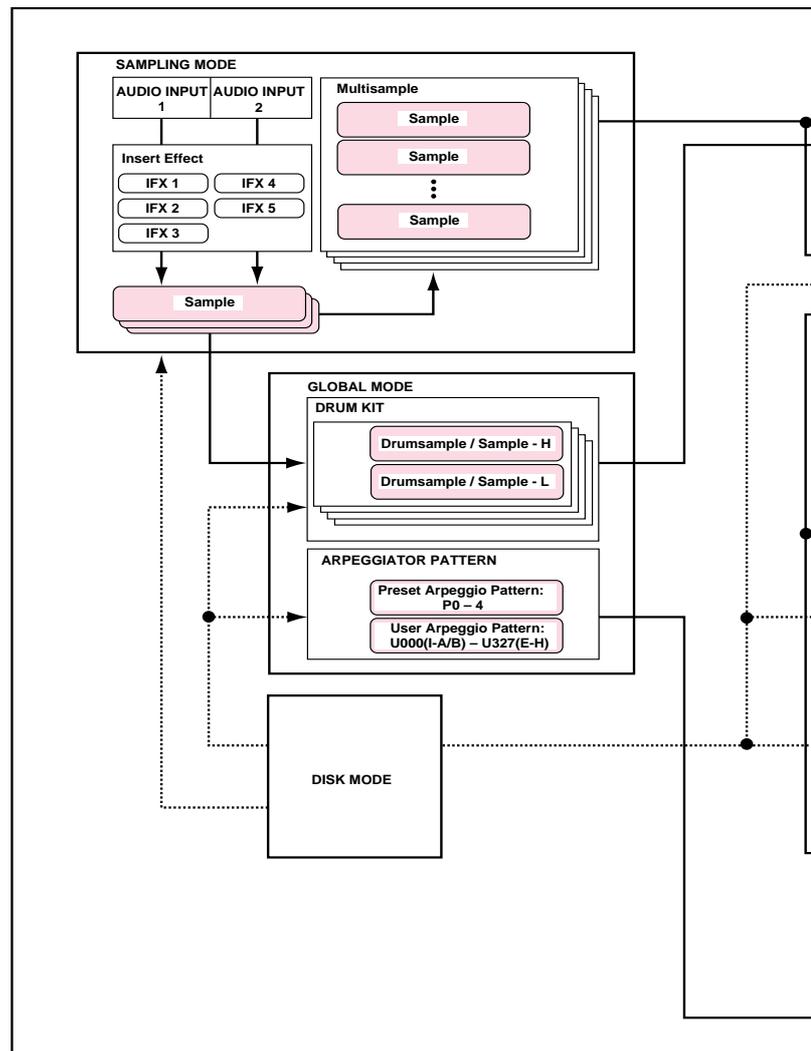
When you execute the Time Slice function of Sampling mode, a drum phrase or similar sample will be divided into beats, and simultaneously a corresponding pattern will be created and assigned to RPPR.

2 channel audio input/6 channel audio output, S/P DIF OUT

- The two channel audio input allows you to record samples in stereo. The MIC/LINE level select switch and the level adjustment knob can be used to support a wide range of external audio sources from mic level to line level.

The audio inputs can also be routed through the effects. You can apply effects while sampling, use the TRITON-Rack as a 2-in/6-out effect processor, or use it as a vocoder effect that joins the external source with the TRITON-Rack's internal sounds.

- In addition to the L/MONO and R main stereo audio outputs, the TRITON-Rack provides four individual audio outputs, for a total of six channels of audio output. The sound from each oscillator, drum, timbre/track, or insertion effect can be routed freely to any output.
- S/P DIF OUT is standard, for digital (48 kHz) output of the same audio signal as the L/MONO and R main stereo audio outputs.



Overview of the modes

The TRITON-Rack has numerous functions: playing and editing programs, combinations, or multis; recording and playing pattern data; recording samples; and managing disk data. The largest unit used to organize these functions is called a **mode**. The TRITON-Rack has six modes.

Program mode

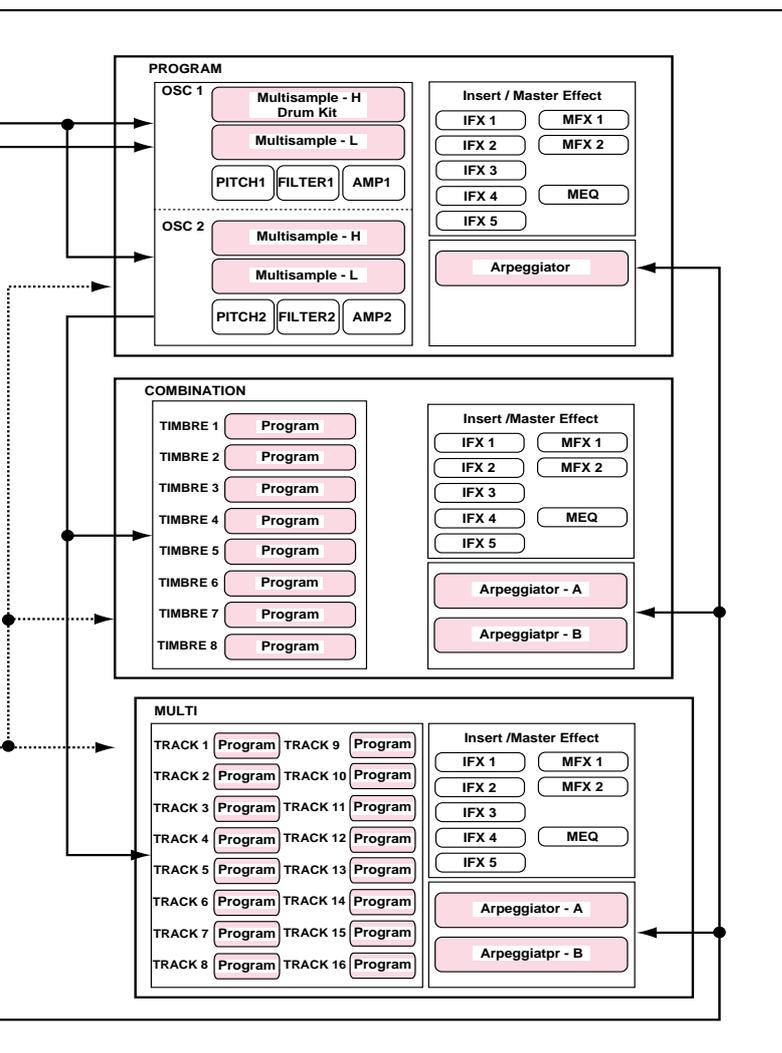
- Select and play programs
- Edit a program
 - Make settings for the oscillator, filter, amp, EG, LFO, effects, and arpeggiator.
- The Audition function can be used.

Combination mode

- Select and play combinations
- Edit a combination
 - Make settings for volume, pan, layer/split etc. for each timbre (program), and make settings for effects and the two arpeggiators etc.

Multi mode

- The TRITON-Rack will function as a 16-track multi-timbral tone generator.



- For each of the 16 tracks, you can select a program, and make level, pan, and effect settings.
- Up to 200 multis can be used, with 150 preset patterns shared by all multis, and 100 user patterns for each multi.
- Your playing can be recorded in a user pattern. The performance generated by the arpeggiator can also be recorded.
- You can play and make settings for the RPPR (Realtime Pattern Play/Recording) function. Song data included with the EXB-PCM03 etc. that uses RPPR can also be played.

Sampling mode

- Sample sounds from an external audio device or mic connected to the rear panel AUDIO INPUT jacks. Insert effects can be applied to the external input sound while you sample.
- Edit the waveform data you sampled or waveform data that you loaded in Disk mode, and set loop points etc.
- Edit multisamples consisting of two or more samples.
- A multisample can be converted into a program, so that a multisample created in Sampling mode can be used in Program, Combination, or Multi modes.

Global mode

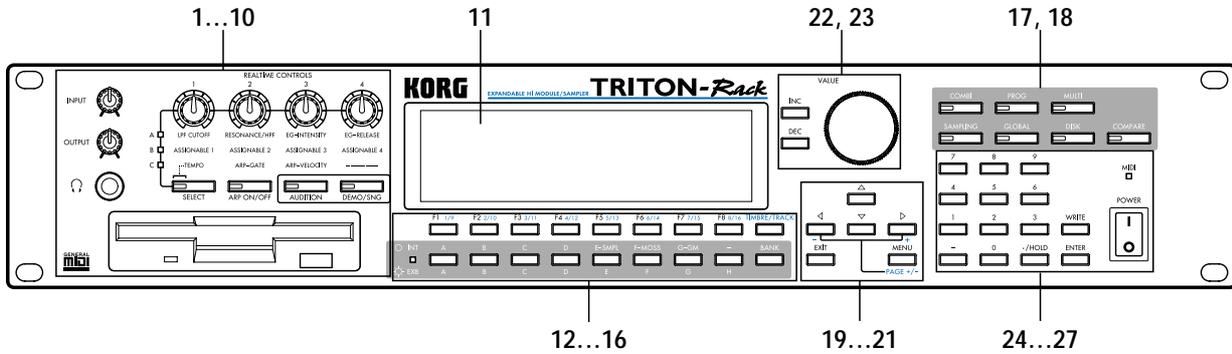
- Make settings that affect the entire TRITON-Rack, such as master tune and global MIDI channel.
- Create drum kits (144 kits), arpeggio user patterns (328 patterns), and user scales (16 one-octave scales and 1 all-note scale).
- Create drum kits using the 413 internal drumsamples (ROM). You can also use drumsamples from an optional EXB-PCM series board (if installed), or samples (RAM) that you created in Sampling mode.
- Adjust the input level etc. from the AUDIO INPUT 1 and 2. These settings are valid in modes other than Sampling mode. The TRITON-Rack's effects can be applied to the external input sound. (The settings for Sampling mode are made independently within Sampling mode.)
- Transmit data dumps of MIDI exclusive data.

Disk mode

- Data of each mode can be saved and loaded using the floppy disk drive or an external SCSI device (when the separately sold EXB-SCSI option is installed).
- Media such as floppy disks or hard disks (when the separately sold EXB-SCSI option is installed) can be formatted, and data can be managed by copying etc.
- Korg format sample data can be loaded and saved. AKAI, AIFF, and WAVE format sample data can be loaded. Sample data can be saved in Korg format, or exported as AIFF or WAVE data.
- Songs that you created in Multi mode can be saved in SMF format. SMF files can be loaded as Multi mode patterns.
- You can use the Data Filer function (to save/load MIDI exclusive data).

Front and rear panel

Front panel



1. [INPUT] knob

This knob adjusts the input level of the AUDIO INPUT 1 and 2 jacks.

2. [OUTPUT] knob

This knob adjusts the volume of the AUDIO OUTPUT (MAIN) L/MONO and R jacks, as well as the headphone jack.

3. Headphone jack

A set of headphones (standard 1/4" stereo phone plug) can be connected here (⇨p.13). The output from the AUDIO OUTPUT (MAIN) L/MONO and R jacks can be monitored in stereo through the headphones.

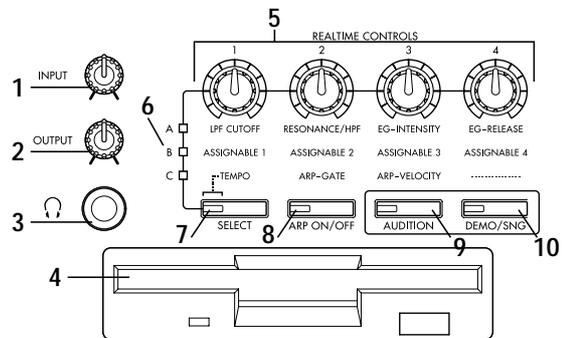
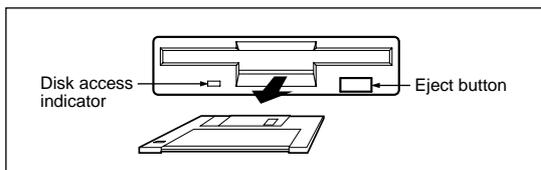
4. Floppy disk drive

The TRITON-Rack includes a 3.5 inch disk drive, capable of reading both 2DD (double-side double-density) and 2HD (double-side high density) floppy disks. Edited data can be saved on a floppy disk, and the factory preset data, SMF data, or multisampling/sampling data etc. can be loaded from a floppy disk.

For details on handling floppy disks, refer to “Cautions when handling floppy disks” (⇨p.84).

Eject button

To remove a floppy disk, first make sure that the **disk access indicator** is dark, and then press this button. If the disk does not eject when you press this button, do not attempt to remove the disk by force. Please contact your dealer.



5. REALTIME CONTROLS [1], [2], [3], [4] knobs

Use the [SELECT] key to select realtime controller mode A/B/C, and use knobs [1]-[4] to control the tone, effects, MIDI control changes, and arpeggiator etc. while you perform. (⇨p.19, p.21)

A-mode

[1] LPF CUTOFF:

Controls the cutoff frequency of the low pass filter.

[2] RESONANCE/HPF:

Controls the filter resonance level or the high pass filter cutoff frequency.

[3] EG-INTENSITY:

Controls the filter EG intensity.

[4] EG-RELEASE:

Controls the filter/amp release time.

B-mode

Controls the functions that are assigned in each mode (Program, Combination, Multi, or Sampling).

C-mode**[1] TEMPO:**

Controls the tempo of the arpeggiator or of the Multi mode RPPR.

[2] ARP-GATE:

Controls the gate time (note duration) of the arpeggiated notes. At the center position (12 o'clock), the setting of the arpeggiator "Gate" parameter will be used. Rotating the knob toward the left will shorten the time, and rotating it toward the right will lengthen the time.

[3] ARP-VELOCITY:

Controls the velocity (playing strength) of the arpeggiated notes. At the center position (12 o'clock), the setting of the arpeggiator "Velocity" parameter will be used. Rotating the knob toward the left will weaken the velocity, and rotating it toward the right will strengthen the velocity.

[4] ———: not used

6. [A/B/C] LEDs

The currently selected REALTIME CONTROLS mode will light. Use the [SELECT] key to select modes A/B/C.

7. [SELECT] key

This key selects mode A, B, or C for the realtime controllers. Each time you press the key, the [A/B/C] indicators at the upper left will light alternately, and A, B, or C mode will be selected.

The indicator of this key will blink at the currently specified tempo.

8. [ARP ON/OFF] key

This key turns the arpeggiator on/off. When on, the LED will light.

9. [AUDITION] key

This key plays a riff (phrase) appropriate for each of the preloaded or preset program sounds. (**Audition function**)

In Program mode, pressing the [AUDITION] key to make the indicator light will cause the audition riff to play repeatedly. In Sampling mode, this key is used to sound the selected sample.

10. [DEMO/SNG] key

This key accesses a page where you can listen to demo songs.

11. LCD screen

Here you can select pages, and parameters, and set values. (⇒p.9)

12. [F1 1/9], [F2 2/10], [F3 3/11], [F4 4/12], [F5 5/13], [F6 6/14], [F7 7/15], [F8 8/16] keys**Function [F1]–[F8] keys**

These keys select the tabs that are displayed in each page. They are also used to execute utilities and other functions.

Timbre/track select [1/9]–[8/16] keys

By holding down the [TIMBRE/TRACK] key and pressing a [1/9]–[8/16] key, you can select the parameter of the corresponding timbre/track.

When the parameters of Combination timbres 1–8 or Multi mode tracks 1–8 or 9–16 are displayed in a single page, these keys select one of these timbres/tracks.

13. [TIMBRE/TRACK] key

⇒(The above "Timbre/track select [1/9]–[8/16] keys")

14. [BANK] key

This key switches between internal (INT) and external (EXB) banks.

15. [INT/EXB] LED

This indicates whether the currently selected program or combination is from an internal (INT) or external (EXB) bank. The indicator will light if an external bank (EXB) is selected. Use the [BANK] key to switch between INT/EXB banks.

**16. INT: [A], [B], [C], [D], [E-SMPL], [F-MOSS], [G-GM] keys
EXB:[A], [B], [C], [D], [E], [F], [G], [H] keys**

In **Program mode**, these keys select the program bank.

For the internal banks, pressing the [A], [B], [C], [D], [E-SMPL], [F-MOSS], [G-GM] keys will select INT-A (I-A), INT-B (I-B), INT-C (I-C), INT-D (I-D), INT-E (I-E), INT-F (I-F)*, or G* banks.

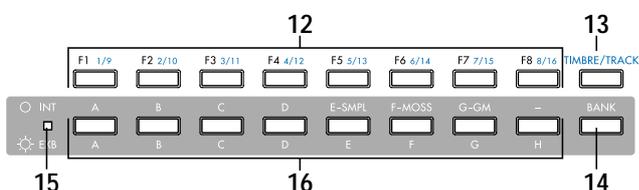
* [F-MOSS] can be selected if the EXB-MOSS is installed. Each time you press the [G-GM] key, you will successively select G, g(1), g(2)–g(8), g(9), g(d), G... and GM(2) variation banks and drum banks.

For the external banks, pressing the [A], [B], [C], [D], [E], [F], [G], or [H] keys will select the EXB-A (E-A), EXB-B (E-B), EXB-C (E-C), EXB-D (E-D), EXB-E (E-E), EXB-F (E-F), EXB-G (E-G), and EXB-H (E-H) banks. Normally, the external banks are used to load the included programs when the EXB-PCM series options are installed.

In **Combination mode**, these keys select the combination bank.

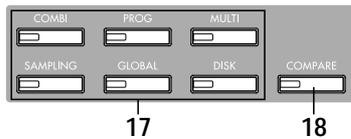
For the internal banks, pressing the [A], [B], [C], [D], and [E-SMPL] keys will select INT-A (I-A), INT-B (I-B), INT-C (I-C), INT-D (I-D), or INT-E (I-E) banks.

For the external banks, pressing the [A], [B], [C],



[D], [E], [F], [G], or [H] keys will select the EXB-A (E-A), EXB-B (E-B), EXB-C (E-C), EXB-D (E-D), EXB-E (E-E), EXB-F (E-F), EXB-G (E-G), and EXB-H (E-H) banks. Normally, the external banks are used to load the included combinations when the EXB-PCM series options are installed.

When the program of a **Combination mode** or **Multi mode** timbre/track is selected, these keys are used to select the program bank. In dialog boxes such as **Write Program** or **Write Combination**, these keys are used to specify the program or combination bank that will be the writing destination, etc.



17. Mode keys

Use these keys to enter the desired mode. When you press a key, the LED will light, and you will enter the mode whose key you pressed (⇨p.3, p.34).

[COMBI] key

Combination mode will be selected.

[PROG] key

Program mode will be selected.

[MULTI] key

Multi mode will be selected.

[SAMPLING] key

Sampling mode will be selected

[GLOBAL] key

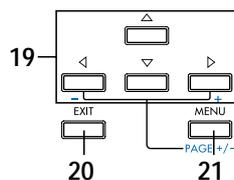
Global mode will be selected

[DISK] key

Disk mode will be selected.

18. [COMPARE] key

Use this key to compare the edited sound of a program or combination with the sound that was written into memory before editing. This key is also used in Multi mode when recording a pattern and to make before- and after-editing comparisons. (⇨p.35)



19. CURSOR keys [◀ -], [▲], [▼], [▶ +]

Use these keys to select different parameters on screen.

By holding down the [MENU] key and using cursor keys [◀], [▶] you can switch pages in the order of 1.1→2.1→2.2→2.3. (⇨p.10)

20. [EXIT] key

In Program, Combination, Multi, Sampling, and Global modes, pressing this key from anywhere other than page 1.1 will take you to page 1.1 of that mode.

When a dialog box is open, this key will cancel the settings made in the dialog box and close the dialog box (corresponds to the "Cancel"). If a Utility menu or page menu is open, pressing [EXIT] will close the menu.

21. [MENU PAGE +/-] key

Use this key to select different pages on screen.

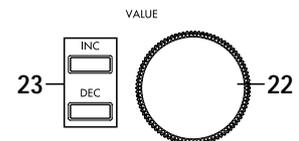
When you press this key, a list of the pages within the mode will appear in the LCD screen. Use [F1]–[F7] or cursor keys [◀], [▲], [▼], [▶] to select the desired page, and press the [F8] key to move to the selected page.

You can also move to a desired page by holding down the [MENU] key and using numeric keys [0]–[9] to enter a two-digit page number.

In addition, you can hold down the [MENU] key and use cursor keys [◀], [▶] to switch pages in the order of 1.1→2.1→2.2→2.3. (⇨p.34)

VALUE controllers

The following VALUE controllers are used to set the value of a selected parameter (⇨p.35).

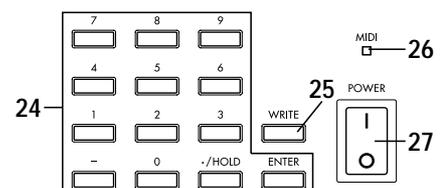


22. [VALUE] dial

Use this to increase or decrease the value of a parameter. It is convenient to use the dial when you wish to change the value of a parameter by a large amount.

23. [INC], [DEC] keys

Use these keys to increment or decrement a parameter value in steps of one. It is convenient to use these keys when you wish to change the value of a parameter in small steps.



24. Numeric keys [0], [1], [2], [3], [4], [5], [6], [7], [8], [9]

[-] key
[./HOLD] key

[ENTER] key

Use these keys to numerically input a parameter value. Use numeric keys [0]–[9], the [-] key, and the [./HOLD] key to enter the value, and press the [ENTER] key to confirm it. The [-] key inverts the sign (+/-) of the parameter value. The [./HOLD] key lets you input a value with a decimal point.

The [./HOLD] key is also used when you wish to hold the 10's place while selecting programs or combinations. (⇨PG p.2)

By holding down the [ENTER] key and pressing a numeric key [0]–[9], you can select up to ten Utility menu commands in the current page.

25. [WRITE] key

In Program, Combination, and Global modes, this key is used to write data into memory. Pressing the [WRITE] key in these modes will open a dialog box. Then press the [F8] ("OK") key to write the edited content. (⇨p.37, p.39)

26. [MIDI] LED

This will light when the TRITON-Rack receives MIDI messages.

27. [POWER] switch

This switch turns the power on/off (⇨p.15).

.....
Rear panel

1. AC power supply connector (~AC9V)

Connect this to the included AC/AC power supply.

After connecting the power supply cable to the TRITON-Rack, connect the other end to an AC outlet (⇨p.12).

2. MIDI THRU connector

MIDI data and sound settings etc. that are received at the MIDI IN connector are re-transmitted without change from the MIDI THRU connector.

You can use this to connect multiple MIDI devices via MIDI cables.

OUT connector

MIDI data and sound settings etc. are transmitted from this connector.

Use this to control another connected MIDI device from the TRITON-Rack.

IN connector

MIDI data and sound settings etc. are received at this connector.

Use this to play the TRITON-Rack from another connected MIDI device (⇨p.13).

3. S/P DIF OUT(MAIN) jack

This is an optical type S/P DIF format (IEC60958, EIAJ CP-1201) digital output jack (stereo).

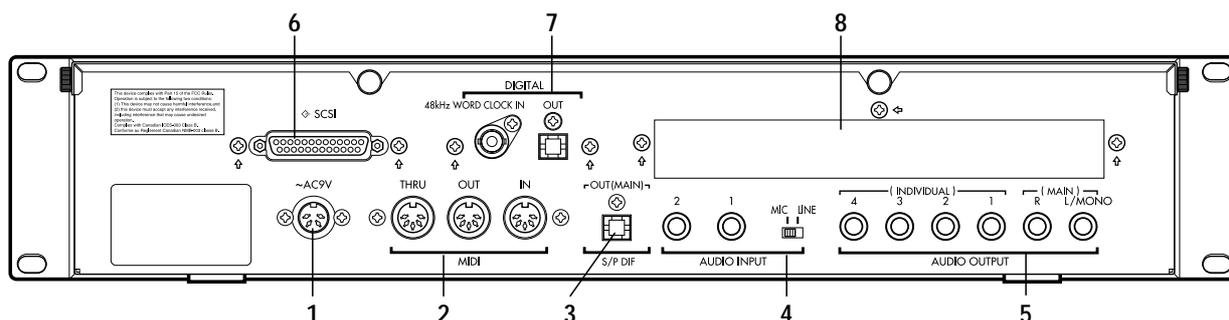
It digitally outputs the same audio signal as the AUDIO OUTPUT (MAIN) L/MONO and R jacks, at sampling rate of 48 kHz.

Use an optical cable to connect this to the optical digital input jack of a DAT or MD, etc.

⚠ The [OUTPUT] knob does not adjust the output level of this jack.

4. AUDIO INPUT

These two audio inputs are used when recording a mono/stereo sample from a mic or external audio source (⇨p.29), or when applying the TRITON-Rack's internal effects to an external audio source (⇨p.97).



The MIC/LINE level select switch ([MIC/LINE] switch) and the level adjustment knob ([INPUT] knob) allow you to use a wide range of external audio sources, from mic level to line level.

AUDIO INPUT 1/2 jacks

These are unbalanced 1/4" phone jacks. (⇨p.107).

[MIC/LINE] switch

This switches the input level of the AUDIO INPUT 1/2 jacks (⇨p.107).

5. AUDIO OUTPUT

Connect these outputs to the input jacks of your amp or mixer. In addition to the L/MONO and R main stereo audio outputs, the TRITON-Rack provides four individual audio outputs. The sound from each oscillator, drum, timbre/track, or insertion effect can be freely routed to any output (⇨p.95-).

(MAIN) L/MONO, R jacks

These are unbalanced phone jacks (⇨p.106).

These are the main audio output jacks. By setting "Bus Select" to L/R, the output from an oscillator, an insertion effect, an individual drum part, or the metronome can be output to the (MAIN) L/MONO and R jacks.

When making connections in stereo, use L/MONO and R. When making connections in mono, use the L/MONO jack.

(INDIVIDUAL) 1, 2, 3, 4 jacks

These are unbalanced phone jacks (⇨p.106).

These are individual (independent) audio output jacks. By several times to make the "Bus Select" to 1, 2, 3, 4, 1/2, or 3/4, an oscillator, an insertion effect, an individual drum part, or the metronome etc. can be assigned to be output from the (INDIVIDUAL) 1, 2, 3, 4, jacks. The output from the 1, 2, 3, 4 jacks is not affected by the [OUTPUT] knob.

6. SCSI connector (separately sold EXB-SCSI option)

Use a SCSI cable to connect SCSI-compatible devices (hard disk drives, CD-ROM drives etc.) here (⇨p.14, PG p.243).

7. DIGITAL (separately sold EXB-DI option)

OUT jack

This is an ADAT optical format digital output connector.

It outputs the six channels of the TRITON-Rack's AUDIO OUTPUT jacks (MAIN) L/MONO, R, (INDIVIDUAL) 1, 2, 3, 4 (analog audio outputs) as digital audio with a sampling rate of 48 kHz.

These signals are output as channels 1 through 6 of the ADAT optical format.

By connecting this to the DIGITAL IN jack of an ADAT Optical format compatible mixer, amp, or recorder etc., you can send the audio signal output of the TRITON-Rack in digital form to an external mixer, amp, or recorder etc. Use an optical cable made by the Alesis Corporation or an optical cable for CD/DAT (both sold separately) to make this connection (⇨p.14, PG p.243, p.273).

⚡ The [OUTPUT] knob does not adjust the output level of this connector.

48 kHz WORD CLOCK IN jack

Connect this to the WORD CLOCK OUT jack of an ADAT Optical format compatible mixer or remote controller. Use this when you want the connected device to be the word clock master and the TRITON-Rack to be the word clock slave for synchronization. Use an BNC coax cable made by the Alesis Corporation or a video BNC cable (both sold separately) to make this connection.

8. mLAN (separately sold EXB-mLAN option)

A special cable is used to connect mLAN-compatible devices or computers. (⇨p.14, PG p.243)

mLAN (IEEE 1394) 1, 2, 3 jacks

SERIAL I/O connector

For details refer to the manual included with the EXB-mLAN.

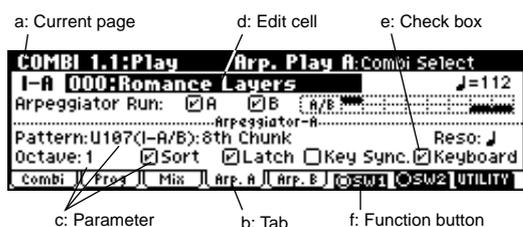
What is mLAN?



mLAN is a new standard for musical instruments that uses the general-purpose IEEE 1394 interface (a general-purpose interface with a wide range of uses including current and digital AV devices) with a special transmission protocol for musical data. It allows high quality digital audio and MIDI data to be simultaneously transmitted and received over a single cable. At a transmission speed of 200 Mbps, approximately 100 channels of audio data or 256 ports of MIDI data (i.e., 16 channels x 256 connectors) can be transmitted and received over a single cable.

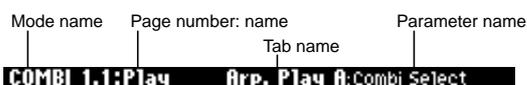
mLAN provides unprecedented flexibility, allowing you to daisy-chain up to 63 devices, and even to reconfigure the input and output connections between devices without actually disconnecting the mLAN cable. Even sophisticated setups in the studio or on stage are made easy by mLAN.

Objects and functions in the LCD screen



a: Current page

This indicates the currently selected page within the mode. From the left, this area shows the **mode name**, **page number:name**, **tab name**, and the **parameter name** of the edit cell.



b: Tab

Most pages are divided into two or more tabs. By pressing the closest function key [F1]–[F7], you can select a tab to access the corresponding page.

c: Parameters

The parameters for various settings are displayed in the LCD screen. Use cursor keys [◀], [▲], [▼], [▶] to select the desired parameter.

d: Edit cell

When you use the cursor keys [◀], [▲], [▼], [▶], the selected **parameter** will be highlighted in the LCD screen. This area is called the **edit cell**, and your editing will affect the highlighted area. The parameter value of the edit cell can be modified using VALUE controllers such as the [VALUE] dial or the [INC], [DEC] keys (p.35). For parameters that require you to enter a key or a velocity value, you can input the value by holding down the [ENTER] key and playing a note on a connected MIDI instrument.

e: Check box

Use cursor keys [◀], [▲], [▼], [▶] to select a check box (edit cell), and use a VALUE controller such as the [VALUE] dial or the [INC], [DEC] keys to add or remove the check mark. When **checked**, the parameter will function, when **unchecked**, the parameter will not function.

f: Function buttons

By pressing the function key [F1]–[F8] nearest this button, you can turn various functions on/off.

OSW1 OSW2 :

SW1 and SW2 in Program, Combination, Multi, or Sampling modes.

REC START, REC STOP :

Starts/stops pattern recording in Multi mode, starts/stops sample recording in Sampling mode.

UTILITY :

Accesses the utility menu where you can execute **utility menu** commands.

Other function buttons examples

Multi mode: REVERT (copy and paste RPPR settings)

Sampling mode: INSERT, CUT, COPY, CREATE (create multisample), L/R, ZOOM

Global mode: TEXT, KEY+, -

Disk mode: UP, OPEN

Demo: START, STOP

* Utility menu



In each page, you can press the “UTILITY” function button (the [F8] key) to access the utility menu. The utility menu contains commands that can be used in that page. The utility menu that appears will differ depending on the page that is selected.

You can also select up to ten utility menu commands by holding down the [ENTER] key and pressing a numeric key [0]–[9]. Press the [EXIT] key to close the utility menu.

For , press the [F7] key to select the desired utility menu command. You can also use the cursor keys [◀], [▲], [▼], [▶] to make your selection. For , press the [F8] key to open the dialog box of the selected utility menu command. This key also switches the status of commands that you check or uncheck.

* **Dialog boxes**

When you select a utility menu command etc., a **dialog box** will open.
 Use the cursor keys [◀], [▲], [▼], [▶] to select parameters. Use the VALUE controllers (p.35) to input the parameter values. When selecting program or combination numbers in a dialog box, you can use the [BANK] and [A]-[H] keys in addition to the VALUE controllers.
 As in the utility menu, press the function key [F1]-[F8] nearest  etc. (function button 2) to access the execution or operation screen. In some cases, a dialog box will appear. Follow the directions shown in the dialog box.
 To execute, select  (press the [F8] key). To cancel without executing, select  (press the [F7] key). The dialog box will close. The [EXIT] key is equivalent to "Cancel," "Done," or "Exit."



* **Function buttons 2**

Press the function key [F1]-[F8] nearest this button to execute the function.
 
 Utility menu, etc.

* **Text dialog box**

When you use the function keys to select , a **text dialog box** will appear.
 In this dialog box you can rename text (e.g., the name of a program, combination, or multi). (p.38)

* **Scroll bar**

This indicates that the list contains selections or parameters that cannot all be shown in the screen at once. Use the cursor keys [◀], [▲], [▼], [▶] to move within the list.

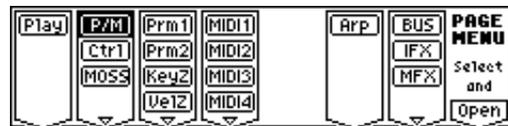


* **Page menu**

In Combination, Program, Multi, Sampling, or Global modes, pressing the [MENU] key will display a list of the pages in that mode. (The page in which you were when you pressed the [MENU] key will be highlighted.)

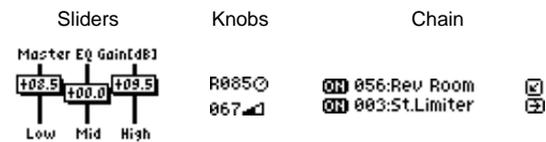
To select a page, press the nearest function key [F1]-[F7]. By pressing the same key you can move consecutively downward. You can also use cursor keys [◀], [▲], [▼], [▶] to move left/up/down/right.

You can also move to the desired page by holding down the [MENU] key and using numeric keys [0]-[9] to enter a two-digit page number. In addition, you can hold down the [MENU] key and use the cursor keys [◀] [▶] to move in steps of one page; in the example shown below, this would be Play → P/M → Ctrl → MOSS (if the EXB-MOSS is installed) → Prm1 → ... etc.

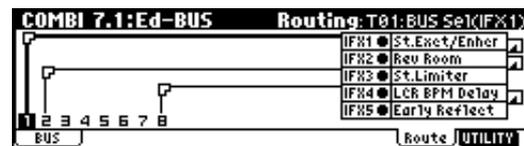


* **Other objects**

To use slider- or knob-shaped objects, or chain parameter values, use the cursor keys [◀], [▲], [▼], [▶] to select the desired item, and use the VALUE controllers to adjust the value.
 Other types of objects are shown in the effect routing screen. (p.96)



Routing



Setup

Connecting audio equipment etc.

- ⚠ Connections must be made with the power turned off. Please be aware that careless operation may damage your speaker system or cause malfunctions.

1. Connecting the power cable

- Connect the included AC/AC power supply to the AC power supply inlet of the TRITON-Rack, and then connect the other end of the cable to an AC outlet.

2. Connecting audio output devices

AUDIO OUTPUT (MAIN) L/MONO, R (INDIVIDUAL) 1, 2, 3, 4

Here, you can connect a set of amplified monitor speakers or your audio system to output the TRITON-Rack's sound.

If you wish to use the AUDIO OUTPUT (INDIVIDUAL) 1-4 jacks of the TRITON-Rack, we recommend that you use a mixer.

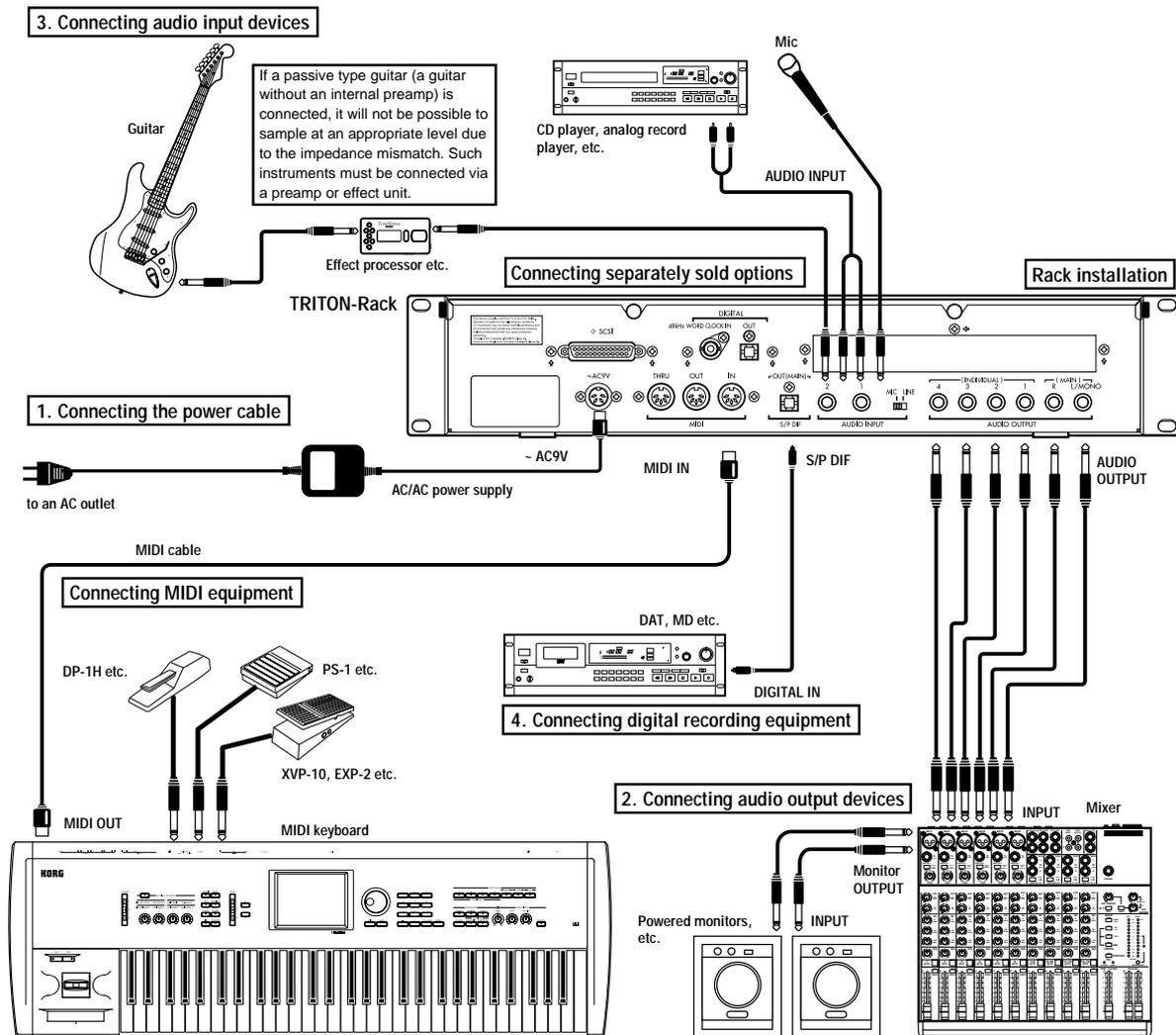
- ⚠ If you playback the TRITON-Rack through your stereo audio system, be aware that high volumes may damage your speakers. Be careful not to raise the volume excessively.

- Connect the AUDIO OUTPUT (MAIN) L/MONO and R jacks to the INPUT jacks of your powered monitor system, mixer etc.

L/MONO and R are the main outputs. If you are outputting in stereo, make connections to the (MAIN) L/MONO jack and the R jack. If you are outputting in monaural, make connections to the (MAIN) L/MONO jack. We recommend that you playback in stereo if possible.

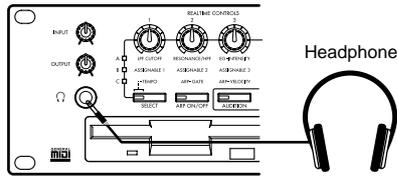
- If you wish to output from the AUDIO OUTPUT (INDIVIDUAL) 1, 2, 3, 4 jacks, connect these jacks to your mixer, and then connect the mixer output to the INPUT of your powered monitor system etc.

For details on the output of each jack (p.95- "Routing").



Headphones

- When using headphones, plug them into the headphones jack located on the front panel.



3. Connecting audio input devices

Here, you can connect or the OUTPUT jacks of external audio devices to the AUDIO INPUT 1, 2 jacks.

- In **Sampling mode** these jacks sample the sound input from an external source.
For details on settings in Sampling mode, refer to p.29, p.68.
- In **Program, Combination, and Multi modes**, the sound input from an external source can be monitored, processed by effects, and output to the OUTPUT jacks.
For details on the settings in these modes for routing sound to the OUTPUT jacks, refer to p.97.

4. Connecting digital recording equipment

- Connect the S/P DIF OUT (MAIN) jack of the TRITON-Rack to a DAT or MD that has an S/P DIF IN jack.
The S/P DIF OUT (MAIN) jack outputs the same audio signal as the AUDIO OUTPUT (MAIN) L/MONO and R jacks, at a sampling frequency of 48 kHz.

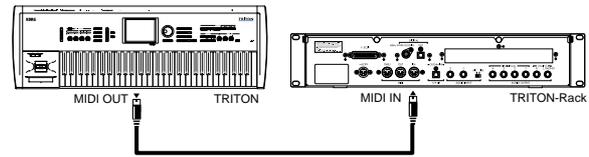
Connecting MIDI equipment

The TRITON-Rack produces sound when it receives MIDI messages from another MIDI device such as a MIDI keyboard or sequencer (computer). Use a MIDI cable to make these connections.

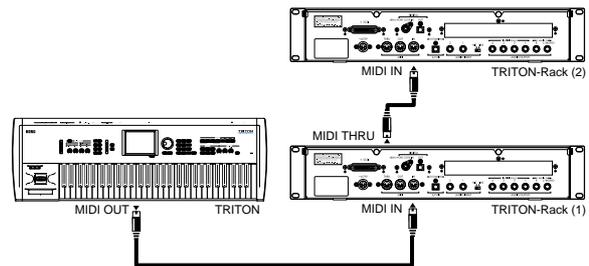
Connecting a MIDI keyboard

Controlling the tone generator of the TRITON-Rack from a MIDI keyboard →

- MIDI OUT connector of the MIDI keyboard → MIDI IN connector of the TRITON-Rack



- MIDI OUT connector of the MIDI keyboard → MIDI IN connector of the TRITON-Rack (1) → MIDI THRU connector of the TRITON-Rack (1) → MIDI IN connector of the TRITON-Rack (2)



MIDI channel settings

MIDI messages are conveyed when the transmitting and receiving devices are set to matching MIDI channels. There are sixteen MIDI channels, 1–16. Channels are handled differently, depending on the mode.

- Initially, select MIDI channel 1 on the MIDI instrument that is connected to the TRITON-Rack to control it.

With the factory settings, the **global MIDI channel** (GLOBAL 2.1: MIDI “MIDI Channel”) is set to 1. In **Program mode** and **Sampling mode**, MIDI messages are transmitted and received on the global MIDI channel. With the factory settings, the various combinations in **Combination mode** are also set to be operated on the global MIDI channel. **Multi mode** is usually used to receive channel messages transmitted from a sequencer (computer) so that multiple channels can be controlled independently. (PG p.221)

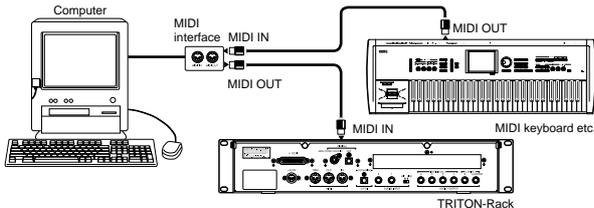
.....

Connecting a sequencer (computer)

Basic settings for using the TRITON-Rack as the MIDI tone generator for monitoring and playback when recording on an external sequencer or computer

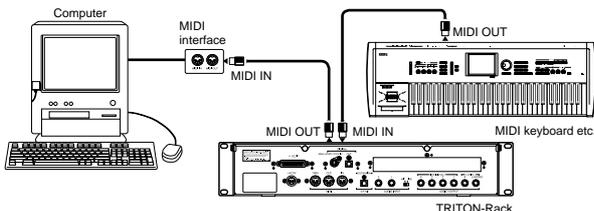
- MIDI OUT connector of the MIDI keyboard → computer with MIDI interface → TRITON-Rack

For details on connecting the computer and MIDI interface, and making MIDI port settings, refer to the owner's manual for your MIDI interface.



When recording the MIDI output of the TRITON-Rack's controllers, arpeggiator, and RPPR into the external sequencer or computer

- MIDI OUT connector of the TRITON → MIDI IN connector of the TRITON-Rack, MIDI OUT connector of the TRITON-Rack → MIDI IN connector of the MIDI interface

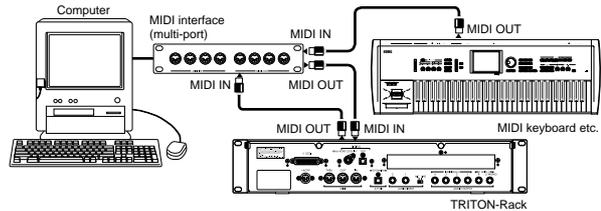


When recording the MIDI output of the TRITON-Rack's controllers, arpeggiator, and RPPR into the external sequencer or computer, and using the TRITON-Rack as the monitor and playback MIDI tone generator during recording

- MIDI OUT connector of the MIDI keyboard → MIDI IN connector of the MIDI interface (multi-port), MIDI OUT connector of the MIDI interface (multi-port) → MIDI IN connector of the TRITON-Rack, MIDI OUT connector of the TRITON-Rack → MIDI IN connector of the MIDI interface (multi-port)

Make the appropriate settings for the Local Control parameter of the TRITON-Rack and for the Echo Back* parameter of the external sequencer (computer), so that the TRITON-Rack's controllers, arpeggiator, and RPPR are not applied to the tone generator in duplicate. (⇒PG p.228)

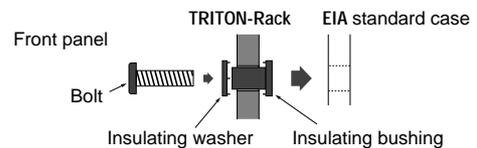
- * Echo Back is a function by which data received at MIDI IN is re-transmitted without change from MIDI OUT.



Rack installation

If you intend to mount the TRITON-Rack in a rack, insert insulating washers and insulating bushings into the holes of the TRITON-Rack's faceplate, as shown below.

- ⚠ If you place the TRITON-Rack directly on a table for use, please do not place other racks or a computer etc. on top of it.



About separately sold options

The TRITON-Rack can be upgraded with user installable options, which add features.

If the separately sold EXB-SCSI option is installed, you can connect SCSI devices such as hard disks or CD-ROM drives.

If the separately sold EXB-DI option is installed, you can connect ADAT Optical format compatible mixers, amps, or recorders.

By installing the optional EXB-mLAN, you can connect the TRITON-Rack to the new digital network designed specifically for musical applications --- mLAN. This allows a single IEEE 1394 cable to handle MIDI input/output signals and all audio output signals of the TRITON-Rack (which would otherwise require eight cables), for easy connection to another mLAN-compatible device or computer. mLAN makes it easy to construct sophisticated systems that exchange large volumes of high-quality digital audio data and MIDI data.

For details on installing the EXB-SCSI, EXB-DI, or EXB-mLAN refer to PG p.243.

- ⚠ A CD-ROM drive can be connected to only load. You cannot save to a CD-ROM drive from the SCSI port.

Turning the power on/off

 Before you turn on the power, make sure that the desired connections have been made as described in “Setup” (⇒p.12–p.14).

1. Turning the power on

① Press the TRITON-Rack’s [POWER] switch to turn on the power.

The LCD screen will show the model name and software version of your TRITON-Rack.

(The following graphic shows the factory-set LCD screen of the TRITON-Rack. The version number is subject to change without notice.)

EXPANDABLE HI MODULE/SAMPLER		TRITON-Rack				
OPTIONS	SIMM	EXB-PCM		Version		
----	Slot1 (16MB)	Slot1	----	Slot5	----	1.0.0
----	Slot2	Slot2	----	Slot6	----	
----	Slot3	Slot3	----	Slot7	----	
----		Slot4	----	Slot8	----	

KORG

- ② Turn on your powered monitors or stereo amp.
- ③ Raise the TRITON-Rack’s [OUTPUT] knob to an appropriate level, and adjust the volume of your powered monitors or stereo amp.

2. Turning the power off

- ① Set the TRITON-Rack’s [OUTPUT] knob and the volume of your powered monitor or stereo amp to zero.
- ② Turn off the power of your powered monitor or stereo amp.
- ③ Press the TRITON-Rack’s [POWER] switch to turn off the power.

 Never turn off the power while data is being written into internal memory.

If the power is turned off while processing is being performed, memory write operations will not be completed correctly. If this occurs, the TRITON-Rack will automatically initialize its internal memory so that it will operate correctly. This is not a malfunction.

Data is written into internal memory by the following operations.

While data is being written, the LCD screen will indicate “Now writing into internal memory.”

- Writing (updating) a Program, Combination, Global Setting, Drum Kit, or Arpeggio Pattern
- Loading Program, Combination, Global Setting, Drum Kit, or Arpeggio Pattern data in Disk mode
- Receiving a MIDI data dump for Program, Combination, Global Setting, Drum Kit, or Arpeggio Pattern data

- When using a Sampling mode utility menu command (“Move Sample,” “Move MS,” “Conv. To Prog,” “Time Slice” etc.) to simultaneously modify programs or drum kits.

The mode and page that will be selected when the power is turned on

The state of the TRITON-Rack when the power is turned on will depend on the setting of “Power On Mode” (GLOBAL 1.1: System, Preference page).

If “Power On Mode” is **Reset** (factory setting), the TRITON-Rack will automatically select the Combination mode 1.1: Play.

If “Power On Mode” is **Memorize**, the TRITON-Rack will be in the mode and page that were last selected when the power was turned off.

The **Memorize** setting will remember the mode and page that were last selected, the combination number that was last selected in Combination mode, and the program number that was last selected in Program mode. If another mode is selected when the power is turned on, you can press the [COMBI] key or [PROG] key to select the 1.1: Play page with the last-selected combination number or program number.

The LCD screen when separately sold options or SIMM modules are installed (When the power on)

The TRITON-Rack series allows you to install separately sold options or SIMM (sampling memory) boards.

When the power is turned on, the type of installed options will be displayed. After installing an option, be sure to check this display to verify that the option was installed correctly. If the option is not displayed here even though it was installed, it was not installed correctly. Turn off the power and re-install the option.

(⇒For details on installing an option, refer to PG p.243)

OPTIONS	SIMM	EXB-PCM	
EXB-MOSS	Slot1 (16MB)	Slot1 (EXB1)	Slot5 (EXB5)
EXB-SCSI	Slot2 (32MB)	Slot2 (EXB2)	Slot6 ----
EXB-DI	Slot3 ----	Slot3 (EXB3)	Slot7 ----
EXB-mLAN		Slot4 (EXB4)	Slot8 ----

OPTIONS

EXB-MOSS: The EXB-MOSS option is installed.

EXB-SCSI: The EXB-SCSI option is installed.

EXB-DI: The EXB-DI option is installed.

EXB-mLAN: The EXB-mLAN option is installed

SIMM

Slot 1...3 (MB):** SIMM’s are installed in SIMM slots 1–3. The capacity of each SIMM is shown in parentheses. When shipped from the factory, a 16 MB SIMM is already installed in SIMM slot 1.

EXB-PCM

Slot 1...8 (**):** PCM expansion boards are installed in EXB-PCM series slots 1–8. The type of each board is shown in parentheses.

Listening to the demo songs

Here's how to listen to the demo songs of the TRITON-Rack.

- 1 Press the [DEMO/SNG] key. (LED lit)  You will enter the Demo/Song, Play page.

- 2 In "Demo Song Select," select a demo song.

Use the [◀], [△], [▽], [▶] keys to highlight a song name in "Demo Song Select."



- 3 Use the VALUE controllers ([VALUE] dial, [INC], [DEC] keys, numeric keys [0]–[9] and the [ENTER] key) to select the demo song that you wish to hear.
- 4 Press the [F5] ("START") key.

Playback will begin.



- 5 To stop during playback, press the [F6] ("STOP") key.



note If "Play Mode" is set to "Continue to next song," the next demo song will begin playing after the currently selected demo song finishes playing. If "Play Mode" is set to "Stop at end of selected song," playback will stop when the currently selected demo song ends.

If "Play Mode" is "Continue to next song," checking "Repeat All" will cause all songs to be played back repeatedly.

Demo song "004: Deep Cut"

For the demo song "004: Deep Cut," you can load the included sampling data so that multisampled audio will be played together with the demo playback.

As described in p.29 ①, load the included sampling data. Then select and play "004: Deep Cut" in the Demo/Song, Play page.

Quick Start



Playing from a MIDI keyboard (Program, Combination mode)

When you wish to play the TRITON-Rack from a MIDI keyboard and take advantage of performance functions such as its realtime controllers or arpeggiator, you should use **Program** and **Combination modes**. The following section explains how to use Program and Combination mode.

Before you begin trying the operations described here, make the appropriate connections etc. as described in the preceding chapter "Setup." For "Connecting MIDI equipment," follow the instructions for "Connecting a MIDI keyboard."

1. Listening to the sound of a program

① Press the [PROG] key. (LED lit)

You will enter Program mode. Make sure that the upper line of the LCD screen indicates "PROG 1.1: Play."

Selecting a program number

② Make sure that "Program Select" is selected.

If it is not selected, use the [◀], [△], [▽], [▶] keys to highlight the program name in "Program Select."

③ Use the VALUE controllers to select the program that you wish to play.

You can use the following methods to select a program.

- Rotate the [VALUE] dial.
- Press the [INC] or [DEC] key.
- Use numeric keys [0]–[9] to specify the number, and press the [ENTER] key.

④ Audition the sound.

Play a note on the connected MIDI instrument to hear the sound you selected.

Alternatively, you can press the [AUDITION] key (the LED will light) to turn on the Audition function and automatically play a riff (phrase) suitable for the program.

With the factory settings, the Audition function can be used only on the preloaded programs of banks INT-A–INT-D. and the preset programs G, g(1)–g(d).

Selecting a program bank

In Program mode you can select and play programs from banks INT-A–g(d) and EXB-A–EXB-H. (See the table below.)

⑤ Press the [BANK] key to select INT banks or EXB banks.

INT ([INT/EXB] LED dark): Pressing the [A]–[G] keys will select banks INT-A–INT-F and G–g(d).

EXB ([INT/EXB] LED lit): Pressing the [A]–[H] keys will select banks EXB-A–EXB-H.

⑥ Press one of the [A]–[H] keys to select a bank.

By changing banks you can select programs from another bank.

With the factory settings, the INT-A–INT-D and G–g(d) banks contain programs.

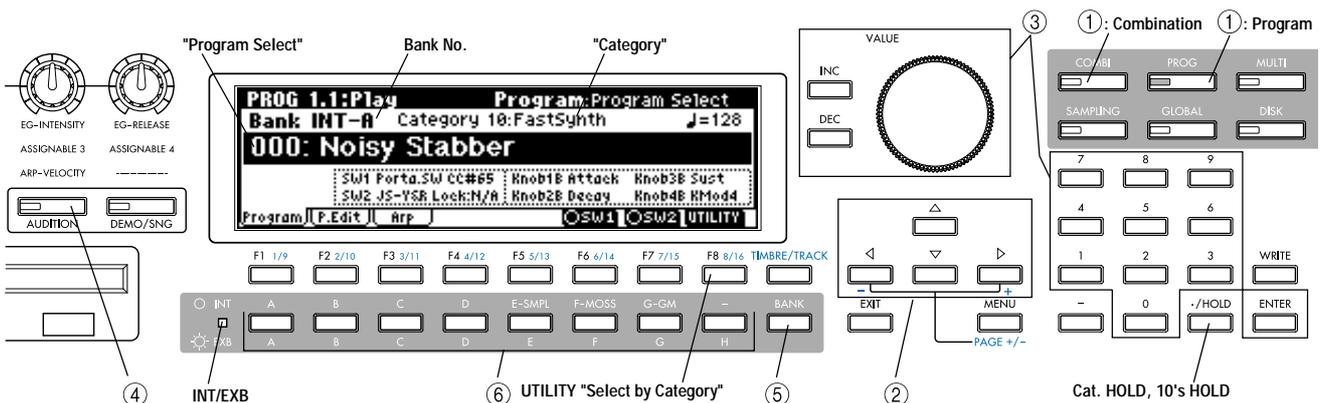
The selected bank number is shown in the left of the LCD screen. For example if you wish to select **bank INT-B**, press the [BANK] key to make the [INT/EXB] LED go dark, and then press the [B] key. (The upper left of the LCD screen will indicate **Bank INT-B**.)

Bank INT-F can be selected if the separately sold EXB-MOSS option is installed. When bank INT is selected, the [H] key cannot be used.

When the [INT/EXB] LED is dark, repeatedly pressing the [G-GM] key will cycle through banks in the following order.

G → g(1) → g(2) → g(3) → g(4) → g(5) → g(6) → g(7) → g(8) → g(9) → g(d) → G

Bank	Prog. No.	Explanation
INT-A...INT-D (I-A...I-D)	000...127	Preloaded programs (≠VNL)
INT-E (I-E)	000...127	User programs (programs that use multisamples created in Sampling mode, etc.)
INT-F (I-F)	000...127	EXB-MOSS programs
G	001...128	GM2 capital programs (≠VNL)
g(1)...(9)	(≠VNL)	GM2 variation programs
g(d)	(≠VNL)	GM2 drum programs
EXB-A...EXB-H (E-A...E-H)	000...127	User programs, EXB-PCM series programs



2. Listening to the sound of a combination

- 1 Press the [COMBI] key. (LED lit)

You will enter Combination mode. Make sure that the upper line of the LCD screen indicates “COMBI 1.1: Play.”

Selecting a combination number

- 2 Make sure that “Combi Select” is selected.

If it is not selected, use the [◀], [△], [▽], [▶] keys to highlight the combination name in “Combi Select.”



- 3 Use the VALUE controllers to select the combination that you wish to play.

⇨ “1. Listening to the sound of a program” ③

- 4 Audition the sound.

Play a note on the connected MIDI instrument to hear the sound you selected.

Selecting a combination bank

In Combination mode, you can select and play combinations from banks INT-A–INT-E and EXB-A–EXB-H. (⇨ Table below)

- 5 Press the [BANK] key to select either INT banks or EXB banks.

INT ([INT/EXB] LED dark): Pressing the [A]–[E] keys will select banks INT-A–INT-E.

EXB ([INT/EXB] LED lit): Pressing the [A]–[H] keys will select banks EXB-A–EXB-H.

- 6 Press one of the [A]–[H] keys to select a bank.

By changing banks you can select combinations from another bank.

With the factory settings, the INT-A–INT-D banks contain combinations.

The selected bank number is shown in the left of the LCD screen. For example if you wish to select bank INT-B, press the [BANK] key to make the [INT/EXB] LED go dark, and then press the [B] key. (The upper left of the LCD screen will indicate Bank INT-B.)

- ⚠ When bank INT is selected, the [F]–[H] keys cannot be used.

Bank	Prog. No.	Explanation
INT-A...INT-D (I-A...I-D)	000...127	Preloaded combinations (⇨ VNL)
INT-E (I-E)	000...127	User combinations, EXB-MOSS combinations
EXB-A...EXB-H (E-A...E-H)	000...127	User combinations, EXB-PCM series combinations

Other ways to select programs or combinations

Selecting by category

Programs or combinations can be selected from sixteen categories.

With the factory settings, these are organized by instrument, such as keyboard, organ, bass, and drums. (⇨ PG p.2 “Cat.HOLD,” “Select by Category”)

Selecting with the 10’s Hold function

You can fix the 10’s place of the program number or combination number, so that pressing a numeric key once will change only the one’s place of the program number and select it accordingly. (⇨ PG p.2 “10’s HOLD”)

Selecting from an external MIDI device

The TRITON-Rack can receive MIDI program change messages from an external MIDI device to select programs. (⇨ PG p.221)

3. Using controllers to modify the sound

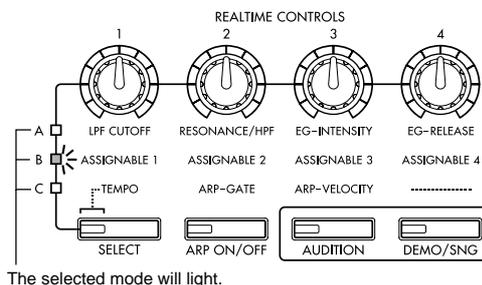
The TRITON-Rack provides numerous controllers that allow you to control the tone, pitch, volume, effects, and arpeggiator etc. in realtime while you play.

REALTIME CONTROLS [1], [2], [3], [4]

These knobs can be used to control the filter cutoff frequency and resonance, the amp and filter EG, volume, portamento time, pan, pitch LFO, or the send levels to the master effects, etc.

- 1 Press the [SELECT] key to switch the function of the realtime controllers to A-mode, B-mode or C-mode.

Each time you press the key, A-mode, B-mode or C-mode will be selected alternately, and the corresponding LED will light.



The selected mode will light.

- 2 Rotate the desired knob to control the sound, etc.

A-mode controls

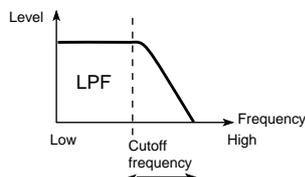
In A-mode, knobs [1]–[4] will control/edit the following functions.

Placing the knobs in the center (12 o’clock) position will produce the values specified by the program parameters.

Knob [1]: LPF CUTOFF

Adjusts the cutoff frequency of the low pass filter.

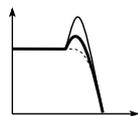
When you adjust the cutoff frequency of the filter, the brightness of the sound will change. The effect will depend on the settings of the program parameters, but normally, rotating the knob toward the left will darken the sound, and rotating it toward the right will brighten it.



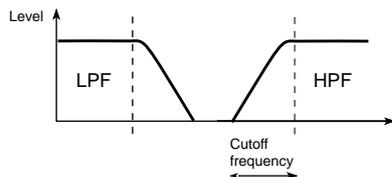
Knob [2]: RESONANCE/HPF

Adjusts the resonance level of a low pass filter or the cutoff frequency of a high pass filter. The content that is controlled will depend on the filter type specified by the program.

By adjusting the filter resonance level, you can increase or decrease the resonance level to add a unique character to the sound.



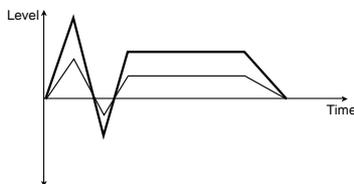
By adjusting the cutoff frequency of a high pass filter, you can modify the brightness of the sound.



Knob [3]: EG-INTENSITY

Adjusts the filter EG intensity (the depth at which the filter EG is applied).

Rotating the knob will affect the depth of the filter EG. Normally, rotating the knob toward the left will make the filter EG apply less deeply, and rotating it toward the right will make the filter EG apply more deeply. Since the filter EG will operate based on the cutoff frequency of the filter, knobs [1] and [3] will work together to control the tonal changes produced by the filter.

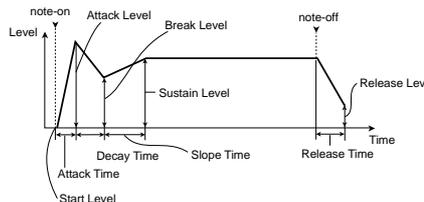


Knob [4]: EG-RELEASE

Adjust the EG release times of the filter and amp. This will determine the time from note-off until the sound disappears.

When you operate the knob, the release times of the filter EG and the amp EG will change. Normally, rotating the knob toward the left will shorten the release time, and rotating it toward the right will lengthen the release time.

When the arpeggiator is running, it is effective to use this in conjunction with the C-mode [ARP-GATE] knob to control the arpeggiated notes.



B-mode controls

You can control parameters such as volume, portamento time, pan or filter and amp EG, pitch LFO, and master effect send levels etc.

In each preloaded program, appropriate functions are assigned to the B-mode knobs.

The B-mode function settings are made for each individual program, combination, or multi. In Sampling mode, the B-mode functions are set for the entire mode.

For details on making these settings (p.100).

C-mode controls

You can control the arpeggiator in realtime. For details on operation, refer to the following page.

Viewing the parameters that are assigned to the B-mode REALTIME CONTROLS and "SW1," "SW2"

In Program, Combination, and Multi modes, the 1.1: Play page lets you view the parameters that are assigned to the B-mode of realtime control knobs [1], [2], [3], and [4] and to "SW1" and "SW2."



SW1, SW2

You can use these keys as sources for alternate modulation or effect dynamic modulation to control program parameters or effect parameters.

These switches can also be used to turn portamento on/off.

You can specify the way in which the "SW1" and "SW2" will operate: either **Toggle**, when the assigned function will be switched on/off each time the [F6], [F7] key is pressed, or **Momentary**, when the assigned function will be switched on only as long as you hold down the key.

note When you write a program or combination, the on/off status of the "SW1" and "SW2" is saved.

note For details on making these settings, refer to Setting the functions of "SW1" and "SW2" (p.100).

4. Using the arpeggiator while you play

The **arpeggiator** is a function that automatically generates arpeggios (broken chords). Most arpeggiators produce an arpeggio when you play a chord on the keyboard.



The chord you played on the keyboard is sounded as an arpeggio (broken chord)



In addition to this, the TRITON-Rack's arpeggiator is a polyphonic arpeggiator that is able to produce a variety of chordal transformations or phrases based on the pitch or timing of the notes you play on the keyboard. These functions let you use the arpeggiator to play a wide range of patterns including drum or bass phrases, and guitar or keyboard backing riffs. It is also effective to use the arpeggiator as part of the sound-creating process when creating subtly-moving pads, synth-sounds, or sound effects.

In addition, the TRITON-Rack features a Dual Arpeggiator that lets you simultaneously use two arpeggio patterns in Combination mode and Multi mode. You can take advantage of this in many ways, such as applying separate arpeggio patterns to a drums program and a bass program, or using keyboard split or velocity to switch between two arpeggio patterns.

The TRITON-Rack provides five preset arpeggio patterns (the standard **UP**, **DOWN**, **ALT1**, **ALT2**, and **RANDOM**), and lets you program and store 328 user arpeggio patterns. With the factory settings, these contain a wide variety of preload user arpeggio patterns (≡VNL). An arpeggio pattern that you create can also be stored as a user arpeggio pattern (≡p.89).

Using the arpeggiator in Program mode

- 1 Press the [PROG] key to enter Program mode, and select a program. (≡p.18 "1. Listening to the sound of a program")

As you select various programs, you will notice that the [ARP ON/OFF] key LED will light for some programs. (≡p.23 "Other settings for the arpeggiator") Play the keyboard of the connected MIDI instrument, and the arpeggio will start.

For other programs, you can press the [ARP ON/OFF] key (the LED will light) to turn on the arpeggiator. Arpeggios will begin sounding when you play the keyboard.

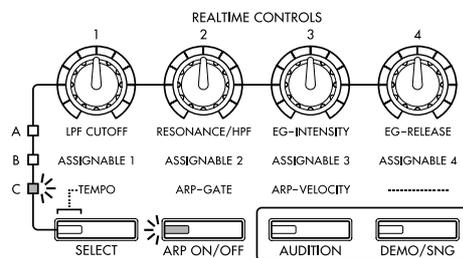
- 2 As described in the following sections "Settings using controllers" and "Settings in the LCD screen," move the controllers or modify the parameters to change the way in which the arpeggios are played.

Settings using controllers

Arpeggiator on/off

- Each time you press the [ARP ON/OFF] key, the arpeggiator will be switched on/off.

When this is on, the LED will light, and playing the keyboard of a connected MIDI instrument will start the selected arpeggio pattern.



- note** The on/off status is saved when you write the program, Combination.

- !** In Combination and Multi modes, depending on the arpeggiator A, B settings, the arpeggio may not start when you press the [ARP ON/OFF] key to turn it on (≡p.23).

Adjusting the arpeggiator tempo

- 1 Press the [SELECT] key to make the upper left "C" LED light.
- 2 Rotate the [TEMPO] knob to adjust the tempo.

The "♩=" value in the upper right of the LCD screen will change. You can set this in the range of **40–240**. The [SELECT] key LED will blink at quarter-note (♩) intervals.

You can also use the [◀], [△], [▽], [▶] keys to select "♩=" input the tempo using numeric keys [0]–[9], and press the [ENTER] key to set the tempo. Alternatively, you can set the tempo using the [VALUE] dial or the [INC], [DEC] keys. The tempo will blink at the specified tempo.

- note** The knob setting is saved when you write the program.

- note** The arpeggio playback speed is affected by the "Reso (Resolution)" setting (1.1: Play, Arp. Play page, 6.1: Ed-Arp., Arpeg. Setup page).

- !** If "MIDI Clock" (GLOBAL 2.1: MIDI) is set to **External**, the display will indicate "♩=" EXT. The tempo will be synchronized to an external MIDI device, and it will not be possible to adjust the tempo on the TRITON-Rack.

Adjusting the length of the arpeggiated notes

- 1 Press the [SELECT] key to make the upper left "C" LED light.
- 2 Rotate the [ARP-GATE] knob to adjust the duration of the arpeggiated notes.

Rotating the knob toward the left will shorten the notes, and rotating it toward the right will lengthen the notes. At the center position (12 o'clock), the note length will be as specified by the program parameter "Gate" (6.1: Ed-Arp., Arpeg. Setup page).

note The knob setting is saved when you write the program.

note You can control the effect by simultaneously adjusting the A-mode [EG-RELEASE] knob.

Adjusting the strength of the arpeggio notes

- 1 Press the [SELECT] key to make the upper left “C” LED light.
- 2 Rotate the [ARP-VELOCITY] knob to adjust the strength of the arpeggiated notes.

Rotating the knob toward the left will make the notes weaker, and rotating the knob toward the right will make the notes stronger. At the center position (12 o’clock), the velocity will be as specified by the program parameter “Velocity” (6.1: Ed-Arp., Arpeg. Setup page).

note The knob setting is saved when you write the program.

note You can control the tone effectively by simultaneously adjusting the A-mode [LPF CUTOFF], [RESONANCE/HPF], and [EG-INTENSITY] knobs.

Settings in the LCD screen

- In PROG 1.1: Play, press the [F3] key to select the Arp page.



Selecting an arpeggio pattern

An arpeggio pattern can be selected from preset arpeggio patterns P000–P004 and user arpeggio patterns U000 (I–A/B)–327 (E–H). With the factory settings, U000–199 contain a wide variety of preset user arpeggio patterns (⇒VNL)

- Use the [◀], [△], [▽], [▶] keys to select “Pattern,” and use the [VALUE] dial or the [INC], [DEC] keys to select the arpeggio pattern. To select a user arpeggio pattern, use numeric keys [0]–[9] to input the pattern number, and press the [ENTER] key.

Changing the interval of the arpeggio notes

The “Reso (Resolution)” parameter in the LCD screen lets you set the interval between arpeggio notes in a range of ♯₃–♭.

- Use the [◀], [△], [▽], [▶] keys to select “Reso,” and use the [VALUE] dial or the [INC], [DEC] keys to specify the spacing of the arpeggiated notes.

Selecting the octave range in which the arpeggio is sounded

Use the “Octave” in the LCD screen to specify the range of octaves in which the arpeggio will be sounded (⇒p.86).

- Use the [◀], [△], [▽], [▶] keys to select “Octave,” and use the [VALUE] dial or [INC], [DEC] keys to specify the range of octaves in which the arpeggio will be sounded.

Sounding an arpeggio in the order of the pitches in the chord you played

You can select whether the notes of the arpeggio will be sounded in the order of the pitches in the chord you played (regardless of the order in which you actually played the notes), or in the order in which you played the notes.

- Use the [◀], [△], [▽], [▶] keys to select the “Sort” check box, and use the [VALUE] dial or the [INC], [DEC] keys to make the setting.

Checked: the arpeggio will sound each note in the order of its pitch, regardless of the order in which you actually played the notes.

Unchecked: the arpeggio will sound each note in the order in which you actually played the notes.

Letting the arpeggio continue playing even after you take your hand off the keyboard

You can select whether the arpeggio will continue playing when you take your hand off the keyboard, or whether the arpeggio will stop playing when you take your hand off the keyboard.

- Use the [◀], [△], [▽], [▶] keys to select “Latch,” and use the [VALUE] dial or the [INC], [DEC] keys to make the setting.

Checked: The arpeggio will continue playing even after you remove your hand from the keyboard.

Unchecked: The arpeggio will stop playing when you remove your hand from the keyboard.

Synchronizing the arpeggiator to your keyboard timing

You can specify whether the arpeggio will begin at the moment you play the keyboard, or whether it will always play in synchronization to the MIDI clock tempo.

- Use the [◀], [△], [▽], [▶] keys to select “Key Sync.,” and use the [VALUE] dial or the [INC], [DEC] keys to make the setting.

Checked: When you take your hand completely off of the keyboard and then play the first note-on, the arpeggio pattern will start from the beginning. This setting is suitable when you want the arpeggio to start from the beginning of the measure as you are playing in realtime.

Unchecked: The arpeggio will always be synchronized to the MIDI clock tempo.

Sounding both the arpeggio notes and the notes you play

- Use the [◀], [△], [▽], [▶] keys to select “Keyboard” check box, and use the [VALUE] dial or the [INC], [DEC] keys to make the setting.

Checked: The notes you play on the keyboard and the notes played by the arpeggiator will both sound.

Unchecked: Only the arpeggio notes will sound.

Using the arpeggiator as you play in Combination mode

In Combination mode the TRITON-Rack provides dual arpeggiators, allowing you to run two arpeggio patterns simultaneously.

- 1 Press the [COMBI] key to enter Combination mode, and select a combination. (⇨ p.19 “2. Listening to the sound of a combination”)

As you select various combinations, you will notice that the [ARP ON/OFF] key LED will light for some combinations. (⇨ “Other settings for the arpeggiator”) When you press the keyboard, the arpeggiator will start.

For other combinations, you can press the [ARP ON/OFF] key (the LED will light) to turn on the arpeggiator.

- 2 As described in the preceding section “Settings using controllers” and the following section “Settings in the LCD screen,” move the controllers or modify the parameters to change the way in which the arpeggios are played.

- ▲ The [ARP ON/OFF] key and the C-mode [TEMPO], [ARP-GATE], and [ARP-VELOCITY] knobs are valid for both arpeggiators A and B. Their state will be memorized when the combination is written.

Settings in the LCD screen

- In COMBI 1.1: Play, press the [F4] key to select the Arp. Play A page, and make settings for arpeggiator A.

In COMBI 1.1: Play, press the [F5] key to select the Arp. Play B page, and make settings for arpeggiator B.



Select the arpeggiator(s) that will run

Use the “Arpeggiator Run” check boxes to specify the arpeggiator(s) that you want to run. The arpeggiator(s) that are checked here will operate when the [ARP ON/OFF] key is on.

However, the arpeggiator will play a timbre only if the table displayed beside the check boxes assigns arpeggiator A or B to a Timbre 1–8. These settings are made in COMBI 6.1: Ed-Arp., Setup page “Assign” (⇨ p.87).

Arpeggiator-A, Arpeggiator-B

For each arpeggiator A and B, you can make settings for “Pattern,” “Reso (Resolution),” “Octave,” “Sort,” “Latch,” “Key Sync,” and “Keyboard.” (⇨ p.85)

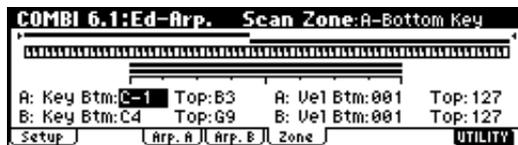
Checking the structure of a user arpeggio pattern

Let’s see how combination I-B 063: Echo Jamm is constructed.

- 1 Select combination I-B 063: Echo Jamm, and look at the Arp. Play A page and Arp. play B page.



- As you can see from the “Timbre Assign” table in the upper right, arpeggiator A is assigned to timbre 4, and arpeggiator B is assigned to timbre 2. When you play the keyboard of a connected MIDI instrument, the U168 (I-A/B): BigBeats 1 arpeggio pattern will play the program I-B068: Drum’n’Bass Kit of timbre 4. The U096 (I-A/B): Stab Rhythm arpeggio pattern will play the program I-B053: Funkin’ Guitar of timbre 2.
- If you **uncheck** “Arpeggiator Run A” or “Arpeggiator Run B,” the unchecked arpeggiator will stop. If you **check** it once again and play the keyboard, the arpeggiator will begin running.
- Look at the COMBI 6.1: Ed-Arp., Zone page, and you will see that the A keys “Btm” and “Top” are set so that arpeggiator A will operate only for B3 and lower keys, and that the B “Top Key” and “Bottom Key” are set so that arpeggiator B will operate only for C4 and higher keys.



Other settings for the arpeggiator

You can also set “Gate,” “Velocity,” “Swing,” and “Scan Zone.” These parameters are set in PROG 6.1: Ed-Arp, COMBI 6.1: Ed-Arp. (⇨ p.85).

Linking the arpeggiator to program, combinations

You can specify whether the arpeggiator settings written in a program or combination will also be selected when you switch programs or combinations, or whether the arpeggiator status will not change when you switch programs or combinations.

With the factory settings, the former is selected. Use the latter when you want to keep the same arpeggio pattern running, and change only the program sound. This setting is made in “Auto Arp.” (GLOBAL 1.1: System, Basic).

Creating an user arpeggio pattern

Arpeggio patterns that you create can be written to U000 (I-A/B)–327 (E–H).

These can be created in GLOBAL 6.1: Arp.Pattern (⇨ p.89).



Playing with a computer/sequencer (Multi mode)

Use **Multi mode** when you want the TRITON-Rack to simultaneously play multiple tracks of musical data sent from your computer/sequencer. This section explains basic operation of Multi mode.

☞ For details on controlling the TRITON-Rack via MIDI, refer to “MIDI applications” (☞PG p.221).

The TRITON-Rack can be used as a 16-channel multi-timbral tone generator. It has 16 tracks, and a different program sound can be assigned to each track. A track is analogous to a musician in a band. In other words, the TRITON-Rack is able to play up to 16-member ensembles. For example, you might assign drums to track 1, bass to track 2, and piano to track 3, etc. Settings such as volume and pan can also be adjusted independently for each track. In addition, the control track lets you use the realtime controllers or “SW1” and “SW2” to modify the sounds.

You can also use RPPR (Realtime Pattern Play/Recording) or the arpeggiator to perform in synchronization with your computer/sequencer.

Before you continue, you should make connections as described in the preceding chapter, “Setup.” For “Connecting MIDI equipment,” follow the example given for “Connecting a sequencer (computer).”

1. Playing in Multi mode

① Press the [MULTI] key. (LED lit)

You will enter Multi mode. Make sure that the upper line of the LCD screen indicates “MULTI 1.1: Play.”



② Specify the program, pan, and volume that you wish to use for each track.

You can use the “Load Template Multi” utility to load program, pan, volume, and effect settings etc. suitable for the desired style of music. Here we will explain how to use a Template Multi to specify the program, pan, and volume.

- 1) Press the [F8] (“UTILITY”) key to open the utility menu.
- 2) Press the [F7] key to select “Load Template Multi.”
- 3) Press the [F8] (“OK”) key to open the Load Template Multi dialog box.



- 4) Use the [VALUE] dial or the [INC], [DEC] keys to select the template multi that you wish to load. For this example, let's select **P00: Pop/Ballade**.
- 5) Press the [F8] (“OK”) key to load the template.



To change the programs of tracks 1–8, press the [F2] (“Prog..8”) key. To change the programs of tracks 9–16, press the [F3] (“Prog..16”) key.

P00: Pop/Ballade assigns the programs as shown below. By pressing the [▷], [◁] keys you can select the programs assigned to tracks 1–8.

The full name of the selected program is shown in the bottom line.

note You can directly select parameters by holding down the [TIMBRE/TRACK] key and pressing the nearest [F1]–[F8] key.



To change the program assigned to a track, select the program of that track, and use the [BANK], [A]–[H] keys, [VALUE] dial, [INC], [DEC] keys, numeric keys [0]–[9] and the [ENTER] key to specify the desired program. You can also use the “Select by Category” utility to select programs by category. (☞PG p.2)

MIDI If a GM System On system exclusive message is received, the TRITON-Rack will automatically be reset to the GM settings.

To change the pan and volume settings of tracks 1–8, press the [F4] (“Mix..8”) key. To change the pan and volume settings of tracks 9–16, press the [F5] (“Mix..16”) key.

P00: Pop/Ballade assigns pan and volume as shown below. By pressing the [◁], [△], [▽], [▷] keys you can change the pan and volume specified for each track 1–8.



To change the pan and volume settings of a track, select the pan or volume of that track, and use the [VALUE] dial, [INC], [DEC] keys, numeric keys [0]–[9] and the [ENTER] key to specify the desired pan or volume setting.

MIDI Program, pan, and volume can also be changed by receiving the appropriate MIDI message transmitted from a sequencer (computer). (☞PG p.221–)

③ Transmit musical data from your sequencer (computer) to play the tracks.

With the initial settings, tracks 1–16 correspond to MIDI channels 1–16; i.e., track 1 receives MIDI channel 1, and track 2 receives MIDI channel 2, etc.

2. Controlling tracks from your computer/sequencer

MIDI transmit/receive channel

Set the MIDI transmit channel of your computer/sequencer to match the “MIDI Channel” of the TRITON-Rack track that you wish to play.



When a track receives note data on a MIDI channel that matches its own channel, the program of that track will sound. MIDI messages such as control changes will affect only the track that is receiving the corresponding MIDI channel. The arpeggiator will operate when it receives note data within the range of the Scan Zone setting (⇒PG p.68) on the MIDI channel of the track. Operating the controllers of the TRITON-Rack will control the sound etc. of the track that is selected for “Control Track.”

Control of insert/master effect dynamic modulation or the pan and send 1 and 2 that follow the insert effects is performed on the MIDI channel specified for “Control Channel” (7.2: Insert FX, Setup page). However, effect on/off and exclusive data is received on the global MIDI channel “MIDI Channel” (GLOBAL 2.1: MIDI). (⇒PG p.221)

Selecting the sound number of a part

To select the sound number of a track from your computer/sequencer, transmit a program change message on the MIDI channel for the corresponding track.

To change the bank, you will have to transmit control change #0 and 32 bank select messages. The TRITON-Rack will not change the program sound immediately when a bank select message is received. The program sound of the specified bank will be selected when the program change message is received following the bank select message.

Transmit bank select [Bn, 00, mm] (control change #00) and [Bn, 20, bb] (control change #32) (mm: upper byte of the bank number, bb: lower byte of the bank number, n: channel) and program change [Cn, pp] (pp: program/combination number). Transmission and reception of bank select messages will vary, depending on the “Bank Map” (GLOBAL 1.1: System, Pref) setting. (⇒PG p.109)

⚠ The functionality for transmitting and specifying bank select and program numbers will differ depending on your sequencer or sequencer software. Refer to the owner’s manual for your sequencer or sequencer software for details on operation.

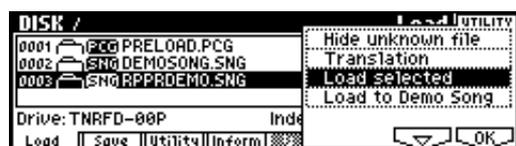
Using the RPPR (Realtime Pattern Play/Recording) function

The Multi mode of the TRITON-Rack provides an RPPR (Realtime Pattern Play/Recording) function. RPPR is a function in which pattern data and a track that will play it can be assigned to each note of the keyboard, allowing you to play patterns in realtime simply by pressing a note on a connected MIDI keyboard. (Internal memory contains preset patterns that are appropriate for use with drum tracks.)

Here’s how to load and play the RPPR demo .SNG data.

① Load “RPPRDEMO.SNG” from the included “TNRFD-00P” floppy disk.

- 1) Insert the included “TNRFD-00P” floppy disk into the floppy disk drive.
- 2) Press the [DISK] key (LED lit) to enter Disk mode.
- 3) Press the [F1] (“Load”) key to select the Load page.
- 4) Use the [▽], [△] keys to select “RPPRDEMO.SNG.”
- 5) Press the [F8] (“UTILITY”) key to access the utility menu.



- 6) Use the [F7] key to choose “Load Selected,” and press the [F8] (“OK”) key. The following dialog box will appear.



- 7) For “.SNG Allocation,” select **Clear**.

⚠ If you load with Clear selected, the multi data in memory will be erased. (⇒PG p.126)

- 8) Press the [F8] (“OK”) key to load the data.

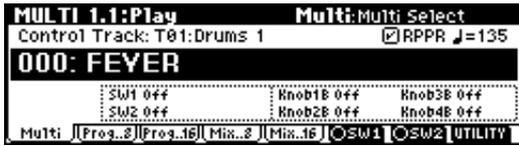
⚠ Never remove the media while data is being loaded.

⚠ If the “Memory Protected” dialog box appears, uncheck the memory protect setting, and load the data once again. (⇒p.37)

② Make sure that 000: FEVER is selected in Multi mode.

- 1) Press the [MULTI] key (LED lit) to enter Multi mode.
- 2) Press the [F1] (“Multi”) key to select the Multi page.

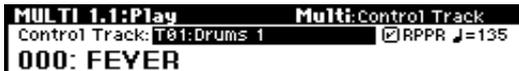
000: FEVER will be displayed.



- ③ Make sure that the RPPR check box is checked.

Checked: The selected RPPR (the setting of 5.1: RPPR, RPPR Setup) will operate.
Unchecked: RPPR will not operate. This is the normal state of Multi mode.

- ④ Set the “Control Track” MIDI channel and the channel of the transmitting MIDI device to the same setting.



In the illustration above, track 1 is the control track. Since track 1 of 000: FEVER is set to MIDI channel 1, set the transmitting MIDI device to MIDI channel 1.

- ⑤ Start playing patterns via RPPR.

For example if the transmitting MIDI device is a MIDI keyboard, pressing any key C#2 or above will start the pattern that is assigned to that key. Sometimes the pattern will continue playing even after you release the key, but in such cases you can stop the pattern by playing the same key once again or by playing C2 or a lower key.

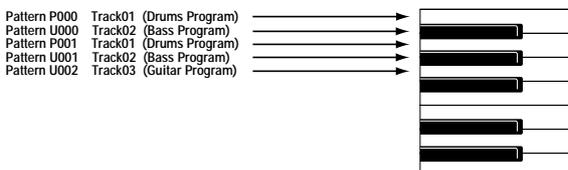
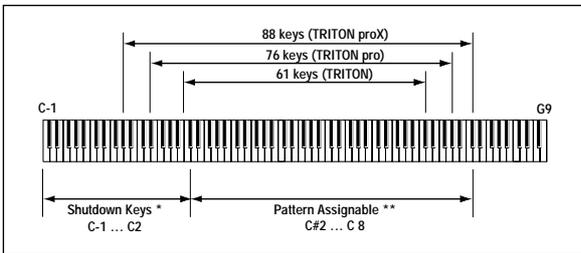
Shutdown Keys *:

When you play a key in the range of C-1 – C2, the currently-playing pattern will stop.

Pattern Assignable **:

A pattern and track can be assigned to each of the 72 keys in the range of C#2–C8. If you do not assign a key, it can be used to play as usual.

As in the example shown in the following diagram, you can make one key play a drums pattern, another key a bass phrase, and yet another key play guitar chords, all by specifying a different pattern and track for each key.



Simple program editing

Program sounds can be modified and created in PROG 2.1: Ed-Basic-7.3: Ed-MasterFx. However, you can also use the “Performance Editor” to perform simple editing in PROG 1.1: Play Perform. Edit page as well. You can also use REALTIME CONTROLS [1]–[4] knobs to modify the sound.

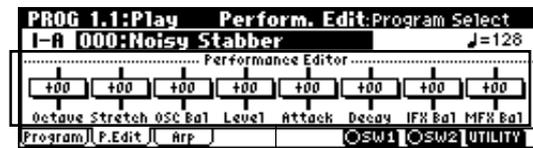
Program editing refers to the process of modifying the parameters that make up a program, in order to modify the sound or change the controller or effect settings.

- ⚠ The sound that you edit using the Performance Editor or using REALTIME CONTROLS knobs [1]–[4] in A-mode (or B-mode if CC#70–79 are assigned) can be saved by writing the program. The edits you make will be lost if you select another program or turn off the power. If you wish to keep your edited data, you must write it into memory. (⇒p.37)

Performance Edit

- ① Press the [PROG] key (LED lit) to enter Program mode.
- ② Press the [F2] (“P.Edit”) key.

The Perform. Edit page will appear.



Performance Editor

- ③ Use the Performance Editor to adjust the sound.

Use the [◀], [△], [▽], [▶] keys to select the desired performance editor slider, and use the [VALUE] dial or the [INC], [DEC] keys to adjust the setting.

By using the eight sliders of the Performance Editor, you can make overall adjustments to the sound. When you move a slider, multiple program parameters are adjusted simultaneously.

- ⚠ Depending on the settings of the program parameters, the result may not be noticeable.

Octave

Adjust the octave.

Pitch Stretch

Simultaneously adjust the transpose and tune settings of the oscillator. This allows you to produce a variety of tonal changes without losing the character of the original sound.

- ⚠ This Performance Edit function cannot be used on bank I-F.

OSC Balance

Adjusts the level balance between oscillators 1 and 2.

▲ For programs whose “Mode (Oscillator Mode)” (PROG 2.1: Ed-Basic, Prog Basic page) setting is **Single**, oscillator 2 will not sound. Only the level of oscillator 1 will change. For a **Drums** program, this performance editor will have no effect.

Amp Level

Adjusts the amp level. This will adjust the volume of the entire program.

Attack Time

Adjusts the attack time of the filter EG and amp EG. This will adjust the speed of the attack from note-on.

▲ In order to maximize the effect of the Attack Time adjustment, the amp EG Start Level, Attack Level, Start Level Modulation, and Attack Time Modulation parameters are also adjusted.

Decay Time

Adjusts the decay time and slope time of the filter EG and amp EG.

IFX Balance

This simultaneously adjusts the “W/D (Wet/Dry)” balance of all insert effects 1-5.

MFX Balance

This simultaneously adjusts the Return 1 and 2 parameters of the master effects.

Realtime controls

These can be used to edit parameters such as the filter cutoff frequency, resonance, the amp and filter EG, volume, portamento time, pan, pitch LFO, and master effect send level etc. (⇒p.19).

Simple combination editing

A combination is a set of multiple (up to eight) programs, and allows you to create complex sounds that could not be produced by a single program.

Combination editing is the process of modifying the parameters that make up the combination in order to change the program used by each timbre, to change the keyboard range or velocity values that sound each timbre, or to make controller settings etc.

You can edit a combination in COMBI 2.1: Ed-Prog/Mix-7.3: Ed-MasterFX, but can also make settings for “Program Select, “Pan,” and “Volume” in COMBI 1.1 Play as well.

▲ The edits you make will be lost if you select another combination or turn off the power. If you wish to keep your edited data, you must write it into memory. (⇒p.37)

An example of editing

As an example, here’s how to do some simple editing on combination **Bank I-A064: ModernPiano**.

- ① Press the [COMBI] key (LED lit) to enter **Combina-tion mode**.
- ② Select **Bank I-A064: ModernPiano**.

This combination **layers** (simultaneously sounds) the programs of timbre 1 and timbre 2. Timbre 1 sounds **I-B001: Attack Piano**, a piano with a crisp attack. Timbre 2 sounds **I-B081: Vintage EP**, a classic electric piano. These two programs are layered to produce a piano-type sound that you may have heard in various contexts.

note A **timbre** consists a of program together with multiple parameters that control that program. A combination can use up to eight of these timbres.

Selecting the program for a timbre

- ③ Press the **Prog page**.
Press the [F2] (“Prog”) key. Now you can specify the programs for timbres 1-8.
- ④ **Now let’s change the program of timbre 2 to a different program.**
Use the [◀], [△], [▽], [▶] keys to select “Program Select” for timbre 2 (it will be highlighted).



Timbre 1 Timbre 2 “Program Select”

note You can directly select the program for a timbre by holding down the [TIMBRE/TRACK] key and pressing the nearest [F1]–[F8] key. Similarly in steps ⑥ and ⑦, you can select pan or volume in the same way.

For this example, select **I-A003: Legato Strings**. This is a layered combination with piano and rich strings. Make sure that the [INT/EXB] LED is dark. (If it is lit, press the [BANK] key.) Then consecutively press the [A] key, the [3] key, and the [ENTER] key.

Alternatively, the program for a timbre can be selected by category.

Choose “Program Select,” press the [F8] (“UTILITY”) to access the utility menu, and press the [F7] key to choose “Select by Category.” Press the [F8] (“OK”) key.

The Select Program by Category dialog box will appear.



Choose “Cat” and use the [INC], [DEC] keys to select the category. For example if you wish to select strings programs instead of the “00: Keyboard” category shown in the screen above, press the [INC] key three times to select “03: Strings.”

You can use the [Δ], [▽] keys to successively select string-type programs.

When you are happy with the selected program, press the [F8] (“OK”) key to finalize your selection.

Listening to the program sound of just one timbre



- Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to choose “Solo Selected Timbre.” Press the [F8] (“OK”) key. Now you will hear only the program sound of the currently selected timbre. The lower part of the LCD screen will indicate [Solo]. To cancel this setting, choose “Solo Selected Timbre” once again and press the [F8] (“OK”) key.

Adjusting the stereo location of the sound

- ⑤ **Select the Mixer page.**

Press the [F3] (“Mix”) key. Here you can adjust the pan and volume for timbres 1–8.



- ⑥ **Adjust the stereo location in “Pan” of timbre 2.**

Use the [◀], [Δ], [▽], [▶] keys to choose “Pan” (highlighted) for timbre 2.

Use the [VALUE] dial, the [INC], [DEC] keys, or numeric keys [0]–[9] and the [ENTER] key to change the value.

A setting of **C064** is center, **L001** is far left, and **R127** is far right. With a setting of **RND**, the stereo location will change randomly between left and right each time a note is played.

Adjusting the volume

- ⑦ **Adjust the “Volume” of timbre 2.**

Use the [◀], [Δ], [▽], [▶] keys to choose “Volume” (highlighted) for timbre 2.

Use the [VALUE] dial, the [INC], [DEC] keys, or numeric keys [0]–[9] and the [ENTER] key to change the value.



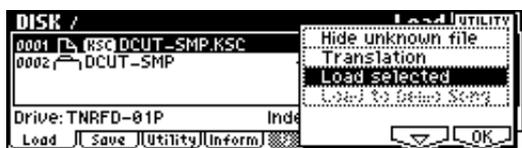
Adjusting the volume while preserving the volume balance between timbres

- Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to choose “Hold Balance.” Press the [F8] (“OK”) key. The upper right of the LCD screen will indicate “Hold Bal.” When you change the “Volume” value of any timbre, the volume of all timbres will also change to preserve the volume balance at the time you checked the Hold Balance setting. To cancel this setting, choose “Hold Balance” once again and press the [F8] (“OK”) key.

Listening to sampled sounds

Here's how to load demo multisample data and play it back in Sampling mode.

- 1) Load "DCUT_SMP.KSC" from the included "TNRFD-01P" floppy disk.
 - 1) Insert the included "TNRFD-01P" floppy disk into the floppy disk drive.
 - 2) Press the [DISK] key (LED lit) to enter Disk mode.
 - 3) Press the [F1] ("Load") key to select the Load page.
 - 4) Use the [▽], [△] keys to select "DCUT_SMP.KSC"
 - 5) Press the [F8] ("UTILITY") key to access the utility menu.



- 6) Press the [F7] key to choose "Load Selected," and press the [F8] ("OK") key. The following dialog box will appear.



- 7) For this example, select **Clear** for ".KSC Allocation"

⚠ When you select Clear and then load, the multisample data and sample data of Sampling mode will be erased (⇒PG p.130).

- 8) Press the [F8] ("OK") key to load the data.

⚠ Never remove the media while data is being loaded.

- 2) Make sure that multisample 000: Gospel Vocal L is selected in Sampling mode.

- 1) Press the [SAMPLING] key (LED lit) to enter Sampling mode.
- 2) If SMPL 1.1: Recording is not selected, press the [EXIT] key.
- 3) Press the [F1] ("Sample") key to select the Sample page.
- 4) If 000: Gospel Vocal L is not selected, use the [◀], [△], [▽], [▶] keys to choose "Multisample Select," and use the [INC], [DEC] keys to select it.



- 3) Set the channel of the transmitting MIDI device to match the global MIDI channel.

With the factory settings, the global MIDI channel is set to channel 1. Set the transmitting MIDI device to MIDI channel 1.

- 4) Play the samples of the multisample.

For example if the transmitting MIDI device is a MIDI keyboard, play any note in the range of C2, D2-F#2 to sound the sample that is assigned to that key.

You can also press the [AUDITION] key to hear the sample played. For "Index," use the [INC][DEC] keys to select another sample for assignment to the multisample, and press the [AUDITION] key.

Using a multisample in a program

Multisample data you sampled in Sampling mode or sample/multisample data you loaded in Disk mode can be converted to a program by executing the "Conv. To Prog" utility. (⇒p.32, PG p.83)

Alternatively, a multisample you created in Sampling mode can be assigned to the Program mode parameters "High MS Bank" and "High Multisample" or "Low MS Bank" and "Low Multisample," and used as a program.

When a multisample you created in Sampling mode is used as a program, you will be able to process its sound in various ways by using the filter and effects of the program.

By selecting the preloaded program **I-E 000: Sampler Waves**, you can listen to the various samples of a program that uses the multisample you heard in step 4. You can hear the result of using the compressor or delay etc. to process the sound of the multisample.

note Samples can be used in a drum kit. ⇒p.78

⚠ The multisamples and samples of Sampling mode will disappear when the power is turned off. If you wish to use them after turning the power on once again, you must reload them.

Sampling (recording a sample)

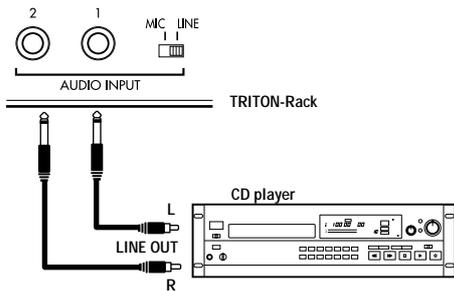
Here's how you can use Sampling mode to sample a drum phrase from an audio CD etc., and convert it into a program.

1. Sample a drum phrase

You will need to provide a rhythm loop sample such as a drum phrase from a CD or other audio source. To start with, let's use a rhythm loop sample with a relatively simple beat.

As an example here, we will sample two one-measure drum phrases in 4/4 time at 140 BPM and 100 BPM.

Connect your external audio device and make input settings



- ① Connect the AUDIO INPUT 1, 2 jacks on the rear panel of the TRITON-Rack to the AUX OUT L and R jacks of your CD player.
- ② Set the AUDIO INPUT [MIC/LINE] switch to the LINE position.
- ③ Press the [SAMPLING] key (LED lit) to enter Sampling mode.

If SMPL 1.1: Recording is not selected, press the [EXIT] key.

- ④ Press the [F3] (“In/Pref”) key to select the Input/Pref page.



- ⑤ Set various parameters so that the signal from the AUDIO INPUT jacks will be input to the TRITON-Rack.

Make the following settings.

- Input 1: “Lvl” 127, “Pan” L000, “BUS” L/R
- Input 2: “Lvl” 127, “Pan” R127, “BUS” L/R

⚠ When you change the setting from Off to L/R or IFX1-5, the volume level of the AUDIO OUT L/MONO and R jacks or the headphone volume may rise abruptly. Please use caution.

With these settings, the sound from the AUDIO INPUT 1 and 2 jacks will be output in stereo from the AUDIO OUTPUT L/MONO and R jacks, and from the headphones. The sound from AUDIO INPUT 1 will be output from the L side, and 2 from the R side.

- ⑥ Adjust the [INPUT] knob to set an appropriate input level.

Adjust the [INPUT] knob or the output level of the external audio device so that the level just avoids triggering the “ADC OVER!” display (i.e., the highest possible level that does not produce an overload).

⚠ If an overload occurs in the input stage of the TRITON-Rack, an indication of “ADC OVER!” (ADC converter input overload!) will appear at the right of the level meter.

Manual sampling

There are two ways to record a sample: **manual** and **auto**. In this example we will use **manual** sampling.

- ⑦ Press the [F2] (“Rec.”) key to access the Recording page.



- ⑧ Set “Mode (REC Mode)” to Manual

This will select manual recording mode.

- ⑨ Set “Mode (Sample Mode)” to Stereo.

- ⑩ Press the [F4] (“REC”) key.

When an input sound is present, the “Recording Level” L and R meters will move. The TRITON-Rack is in recording standby condition.

Set “Recording Level” to +0.0.

- ⑪ At the moment that you wish to start sampling, press the [F5] (“START”) key.

Sampling will start.

note It is a good idea to allow a bit of extra time before you start and after you stop sampling.

- ⑫ At the moment that you wish to stop sampling, press the [F5] (“STOP”) key.

Sampling will stop.

⚠ Sampling will stop automatically if the remaining amount of memory reaches zero.

- ⑬ Listen to the sound you sampled.

Press the [AUDITION] key or play the C2 note on a connected MIDI keyboard, and you will hear the sound that was sampled.

This completes sampling for the 140 BPM drum phrase. Now repeat steps ⑩-⑫ to sample the 100 BPM drum phrase.

2. Assign samples to a multisample

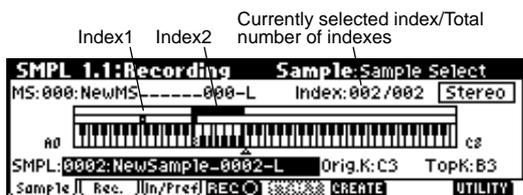
- ① Press the [F1] (“Sample”) key to access the Sample page.



- ② Assign the first sample in “SMPL.”

Press the [▽] key to select “SMPL,” and use the [DEC] key to select 0000:NewSample_0000-L (the 140 BPM drum phrase).

- ③ Press the [F6] (“CREATE”) key to create another index.



- ④ Assign the second sample in “SMPL.”
Select “SMPL,” and press the [INC] key to select **0002: NewSample_0002-L** (the 100 BPM drum phrase).
- ⑤ Listen to the samples that you assigned to the multisample.

Press the C2 key on a connected MIDI keyboard and the 140 BPM drum phrase sample will play. Press the C3 key and the 100 BPM drum sample will play.

- ⑥ Assign a name to each sample.

Choose “Index” in the upper right of the LCD screen, and press the [DEC] key to select **001**.

Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to choose “Rename SMPL.” Press the [F8] (“OK”) key to open the Rename Sample dialog box.

Press the [F5] (“Name”) key to open the text dialog box.

Let’s name the 140 BPM drum phrase **LOOP1-140BPM**.

Press the [F1] (“Clear”) key. Now we will input the first character, “L.” Use the [VALUE] dial, [INC], [DEC], or [◀], [△], [▽], [▶] keys to select “L.”

Press the [F6] key and input the second character. Use the [VALUE] dial, [INC], [DEC], or [◀], [△], [▽], [▶] keys to select “O.” Repeat these steps to input all the characters, and then press the [F8] (“OK”) key twice (⇨p.38).



Next, let’s name the 100 BPM drum phrase **LOOP2-100BPM**.

Select “Index,” press the [INC] key to select **002**, and use “Rename SMPL” to assign a name using the same procedure as above.

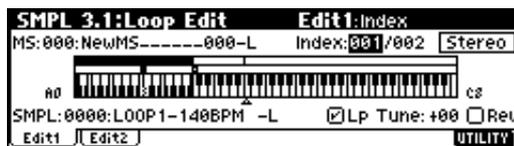
3. Make loop settings

Next we will delete unwanted portions from the sample, and make settings so that the sample will be looped smoothly.

note By default when the power is turned on, sampled sounds will be looped automatically. (1.1: Recording, Input/Pref page “Auto Loop On” On)

- ① Select **3.1: Loop Edit**.

Press the [MENU] key to open the page menu, and press the [F3] key. Press the [F8] (“Open”) key.



- ② Select “Index” **001**, and make sure that “SMPL” is set to **0000: LOOP1-140BPM-L**.

- ③ Press the [F2] (“Edit2”) key to access the Edit2 page.

The waveform data of the currently selected sample will be displayed.



note The selected sample is a stereo sample. The L and R waveforms will be displayed alternately when you press the [F3] (“L/R”) key.

- ④ Use “S (Start)” to set the start address, “LpS (Loop Start)” to set the loop start address, and “E (End)” to set the end address.

The sample will sound as follows.

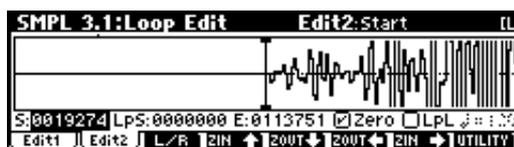
When looping is on: S → E → LpS → E → (continue repeating LpS → E)

When looping is off: S → E

Use the [◀], [▶] to select “S (Start)” (highlighted), and use the [VALUE] dial etc. to specify the location at which the sample will begin sounding. The vertical line in the display will move accordingly.

note As necessary, you can press the [F4]–[F7] keys to expand or shrink the waveform display. Zoom will expand/shrink the display starting at the selected “S (Start),” “LpS (Loop Start),” or “E (End)” points.

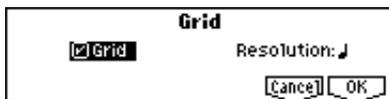
If you check “Zero (Use Zero),” locations where the waveform is at zero will automatically be found and selected when you use the [VALUE] dial etc. to set “S (Start),” “LpS (Loop Start),” or “E (End)” points. This makes it easy to set these points to addresses that will not produce clicks or noise.



For this example, set “LpS (Loop Start)” and “S (Start)” to the same value.

note If desired, you can make a dotted vertical line appear in the sample waveform display to indicate the BPM. If you use this function with waveforms that have a specific BPM, it will be easier to make accurate settings for “E (End).”

Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to select “Grid.” Press the [F8] (“OK”) key. The following dialog box will appear.



Check “Grid,” set “Resolution” to \downarrow , and press the [F8] (“OK”) key. Set \downarrow (Grid Tempo) to 140. With these settings, vertical dotted lines will be displayed at 140 BPM quarter note intervals.



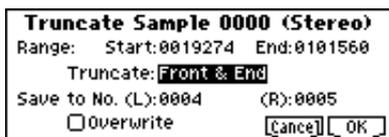
Set “E (End).”

When “Lp (Loop)” is On, the dotted vertical “Grid” lines will start at “LpS (Loop Start).” If you want to set “End” at the end of one 4/4 measure, the fourth vertical line from the “LpS (Loop Start)” line will be the end of the first measure. Place “E (End)” at this vertical line.



- ⑤ Use “Truncate” to delete the unwanted data that is outside of the start (or loop start) and end addresses.

Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to select “Truncate.” Press the [F8] (“OK”) key. The following dialog box will appear.



Set “Truncate” to **Front & End**. In this example, we will not change the settings of the “Save to No.” and “Overwrite” check boxes, so press the [F8] (“OK”) key to execute. When you execute the operation, the truncated samples **0004: LOOP1-140B0004-L** and **0005: LOOP1-140B0004-R** will be automatically assigned to Index 1.

- ⚠ Please refer to “A note on saving samples” (⇒p.73) for a cautionary note regarding the “Save to No.” and “Overwrite” check boxes.
- ⑥ In the Edit1 page, select “Index” 002, make sure that “SMPL” is set to 0002:LOOP2-100BPM-L, and repeat steps ③–⑤ to make loop settings for the 100 BPM sample.

4. Convert to a program

Next we will convert the samples and multisample to a program.

- ① Press the [F1] (“Edit1”) key to access the Edit1 page.

Alternatively, you may also use the 1.1: Recording page.

- ② Execute the “Conv. To Prog” utility.

Press the [F8] (“UTILITY”) key to access the utility menu, and press the [F7] key to select “Conv. To Prog.” Press the [F8] (“OK”) key. The following dialog box will appear.



In “To,” specify the conversion destination program. In the above illustration, the I-E005 initial program has been selected.

If you execute the Convert operation with “Use Destination Program Parameter” **unchecked**, the sound as it was in Sampling mode will be created as a program. If you wish to use the program parameters of a preloaded program (I-A 000–I-D 127), and execute this operation with “Use Destination Program Parameters” **checked**.

- ⚠ When you execute the Convert operation, the convert destination (“To”) program will be overwritten, and replaced by the converted program.
- ⚠ If you wish to execute the conversion with “Use Destination Program Parameters” **checked** for a stereo multisample, you must first set the convert destination (“To”) program “Mode (Oscillator Mode)” parameter to **Double** in the PROG 2.1: Ed-Basic, Prog Basic page.

If necessary, press the [F5] (“Name”) key to access the text dialog box, and assign a program name.

Press the [F8] (“OK”) key. A dialog box will appear, asking you for confirmation. Press the [F8] (“OK”) key once again to execute the conversion.

- ③ Listen to the converted program.

Move to Program mode, select the program (I-E 005 in this example), and play the keyboard etc. of the connected MIDI instrument to hear the sound.

- ⚠ The sample and multisample data you create will be lost when you turn off the power, but a converted program will automatically be written into internal memory. If you wish to reproduce these settings after you turn on the power again, you will need to first save the samples or multisamples to external media in Disk mode. Then after turning on the power again, load the data with **Clear** selected for the “.KSC Allocation” parameter. We recommend that you use “Save All” to save the data, so that the samples, multisamples, and the converted programs are saved together. When you load, load the data together in the same way. (⇒p.40, PG p.134)

Basic functions

Basic operation of the TRITON-Rack

Selecting modes, pages and tabs; setting parameters

1. Selecting modes

- In order to use a particular function on the TRITON-Rack, you must first select the appropriate mode. Press one of the front panel mode keys ([COMBI] key – [DISK] key) to enter the corresponding mode.

[COMBI] key:	Combination mode
[PROG] key:	Program mode
[MULTI] key:	Multi mode
[SAMPLING] key:	Sampling mode
[GLOBAL] key:	Global mode
[DISK] key:	Disk mode



2. Selecting pages and tabs

Each mode has a large number of parameters, which are grouped into pages. Each page is further divided into as many as seven groups. These are referred to as “tabs.”

Selecting a page

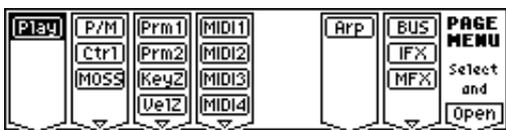
- ① Make sure that the desired mode is selected.

To select a mode, press the appropriate mode key ([COMBI] – [DISK]). Here we will use Combination mode as an example for our explanation. Press the [COMBI] key.



- ② Press the [MENU] key.

The page menu will appear.



note In Disk mode there is only one page, so the page menu will not appear.

- ③ Press the function key [F1]–[F7] that is nearest the page you wish to select.

If multiple pages are assigned to one function key, press the same key to move the cursor downward. You can also use the [◀], [△], [▽], [▶] cursor keys to move.

- ④ Press the [F8] (“Open”) key.

When you press the [F8] key, you will jump to the selected page, and that page will appear.

As an example here, press the [F3] key three times to select “KeyZ,” and then press the [F8] (“Open”) key. The 3.3: Ed-Key Zone page will appear.



note You can also use the following alternative methods to select a page.

- Press the [MENU] key, and then use the [◀], [▶] keys to move forward or backward through the pages in the order of 1.1→2.1→2.2→2.3 etc.
- Hold down the [MENU] key, and use numeric keys [0]–[9] to enter a two-digit page number to move directly to the corresponding page. (To select the page shown above, you would press [3], [3].)

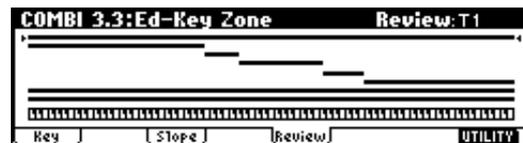
The page selected at this time will be the page that was last selected. If there is no corresponding page, nothing will happen.

note When you press the [EXIT] key, you will return to 1.1 from any page.

Selecting a tab

- ⑤ Press the function key [F1]–[F7] that is nearest the tab displayed at the bottom of the LCD screen.

As an example here, we will select the “Review” tab. Press the [F5] key.



- Some pages have no tabs.

- ⑥ To move to another page, press the [MENU] key and repeat the procedure from step ③.

3. Selecting parameters

Use the [◀], [△], [▽], [▶] cursor keys to select the parameter that you wish to edit.

In Combination mode pages that display timbres 1–8, or in Multi mode pages that display tracks 1–8 or 9–16, you can hold down the [TIMBRE/TRACK] key and press the nearest function key [F1]–[F8] to select the desired timbre or track.



4. Setting a parameter

The parameter value in the edit cell can be set by using the front panel VALUE controllers ([INC] key, [DEC] key, [VALUE] dial, numeric keys [0]–[9], [-] key, [./HOLD] key, and [ENTER] key). As necessary, you can also use the [BANK] keys, [A]–[H] keys, and the [COMPARE] key.

In the case of parameters that require you to enter a note or velocity value, you can enter the value by playing a key on a connected MIDI keyboard while holding down the [ENTER] key.

VALUE controllers

[VALUE] dial

Use this when you wish to make large changes in a value.

[INC] key, [DEC] key

Use these when you wish to make fine adjustments to the value.

Numeric keys [0]–[9], [ENTER] key, [-] key, [./HOLD] key

Use these when you know the parameter value that you wish to input.

After using the numeric keys [0]–[9] to input a number, press the [ENTER] key to finalize the parameter value. Use the [-] key to enter negative numbers.

Use the [./HOLD] key to enter a decimal point. In Program and Combination mode 1.1: Play page, the [./HOLD] key performs the 10's Hold function. (PG p.2, 32)

[BANK] keys, [A]–[H] keys

The [BANK] keys and [A]–[H] keys are used in Program mode to select the program bank and in Combination mode to select the combination bank. In Combination mode, they are also used to select the program bank for each timbre of the combination. In Multi mode, these keys are used to select the bank of the program used by each track of the multi.

These keys are also used to specify the bank in dialog boxes such as Write Program or Write Combination.

[COMPARE] key

Use this key when you wish to compare an edited **program** or **combination** sound with the un-edited original (i.e., the sound that is written into memory).

When editing a program or combination, press this key. The LED will light, and the last-written settings for that program number or combination number will be recalled. When you press the [COMPARE] key once again, the LED will go dark and you will return to the settings that you were editing etc.

If you edit the settings that are recalled by pressing the [COMPARE] key (i.e., the settings that are written into memory), the LED will go dark, and it will not be possible to return to the previous settings by pressing the [COMPARE] key again.

In **Multi mode**, the [COMPARE] key is used to compare the “before” and “after” states of pattern realtime recording, step recording, or event editing.

As an example, here's how you can use Compare when recording a pattern in realtime.

- ① Realtime-record a pattern. (Take 1)
- ② Once again, realtime-record on the same pattern. (Take 2)
- ③ Press the [COMPARE] key. The LED will light, and take 1 will be recalled.
- ④ Press the [COMPARE] key once again. The LED will go dark, and take 2 will be recalled.
- ⑤ If at step ③ you once again realtime-record on the same pattern (take 3), the object of the Compare function will now be take 1. If at step ④ you once again realtime-record on the same pattern (take 3), the object of the Compare function will be take 2.

In this way, the Compare function lets you recall the previous recording or the previous state of event editing.

⚠ The Compare function is not available in Sampling or Global modes.

Keyboard input

When inputting a note name or velocity value as the value of a parameter, you can use a key on a connected MIDI instrument to input the setting. Hold down the [ENTER] key and play the note that you wish to enter as a value. The note name (number) or velocity value will be input.

When the GLOBAL 5.1: DKit page or MULTI 5.1: RPPR, RPPR Setup page is displayed, you can hold down the [ENTER] key and play a note to recall the settings that have been assigned to the note you played. In Sampling mode, you can hold down the [ENTER] key and play a note to recall the index that is assigned to the note you played.

Saving data

Types of data that can be saved

On the TRITON-Rack, there are three ways to save data: **writing to internal memory**, **saving on external media (floppy disk etc.)**, and **MIDI data dump**.

Writing to internal memory

The following data that you edit can be written into internal memory.

- **Program**
Programs 0–127 in banks I-A–I-F, E-A–E-H (However, bank I-F is available only if the separately sold EXB-MOSS option is installed.)
- **Combination**
Combinations 0–127 in banks I-A–I-E, E-A–E-H
- **Global settings** (1.1–4.1 page)
- **User drum kits** 000(I-A/B)–143(E-H)
- **User arpeggio patterns** U000(I-A/B)–U327(E-H)
- **User template multis** U00–U15
Song settings such as the multi name and tempo etc., track settings (⇒p.58), arpeggiator settings, and effect settings can be saved (Write) to internal memory.
Use the Multi mode Utility “Save Template Multi” to write this data (⇒PG p.51).

⚠ If multisamples or samples from the **RAM** bank are used in the **Multisample** or **Drum Kit** of a program, you should be aware that these multisamples or samples cannot be written into memory. This means that if you turn the power off and then on once again, programs or combinations that use such multisamples or samples will not sound as intended. To reproduce such programs or combinations, the necessary multisamples or samples must be saved on external media (such as floppy disk), and then reloaded.

⚠ User pattern and RPPR settings for a multi in Multi mode and the various settings of Sampling mode cannot be written into internal memory by the Write operation.

DEMO/SNG song data that you loaded can be written into internal memory. Execute the Disk mode utility “Load to Demo Song” to write this data. (⇒p.42, PG p.132)

Saving to external media (floppy disk etc.)

The following data can be saved on external media (floppy disk etc.). If the separately sold EXB-SCSI option is installed, this data can also be saved on high-capacity media such as a hard disk etc.

For details on the file format when saving (⇒PG p.133).

- **Programs, combinations, global settings, user drum kits, and user arpeggio patterns from internal memory**
- **Multi and user patterns**
- **Multisamples and sample data created in Sampling mode**
- **Standard MIDI Files (SMF)**
Save one pattern of Multi mode as SMF data.
- **System exclusive data**
System exclusive data received by the TRITON-Rack from an external MIDI device (The TRITON-Rack can function as a data filer.)

MIDI data dump

The following types of data can be transmitted as a MIDI data dump and saved on an external data filer or other device.

- **Internal memory programs, combinations, global settings, user drum kits, and user arpeggio patterns**
- **Multis, user patterns**

About preloaded data and preset data

Preloaded data is the data that is loaded into memory at the factory. This data can be rewritten, and is written into the various locations listed in the preceding section “Writing to internal memory.” This data is also stored on the included floppy disk.

- **Program** banks INT-A–INT-D: 000–127, INT-E: 000–002
- **Combination** banks INT-A–INT-D: 000–127
- **User drum kits** 000 (I-A/B)–015 (I-A/B)
- **User arpeggio patterns** U000 (I-A/B)–U199 (I-A/B)
- **Demo songs** 000–004

Preset data is data that cannot be rewritten by the Write operation. This includes the following data.

- **Program** banks G, g(1)–g(9), g(d) 001–128
 - **Preset drum kits** 144 (GM)–152 (GM)
 - **Preset arpeggio patterns** P000–P004
 - **Preset template multis** P00–P15
 - **Preset patterns** P000–P149
 - **Program audio riffs** 001–382
-

Writing to internal memory

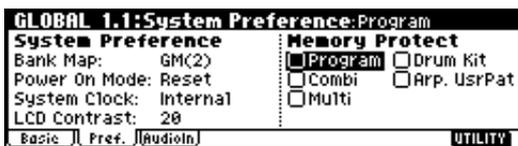
Memory protect

To prevent programs, combinations, multis, drum kits and user arpeggio patterns from being overwritten accidentally, the TRITON-Rack provides a Memory Protect setting that prohibits writing to memory.

Before you save edited data or load data from floppy disk or other external media, use the following procedure to turn off memory protect (uncheck the appropriate check box).

You should also turn memory protect off if you want to load the above data from external media or via MIDI data dump, or if you wish to record or edit patterns in Multi mode.

- ① Press the [GLOBAL] key to enter Global mode (LED lit), and press the [EXIT] key to select 1.1: System.
- ② Press the [F2] ("Pref.") key to access the 1.1: System, Preferences page.



- ③ Uncheck the appropriate "Memory Protect" check box for the data that you wish to write into internal memory.

Writing a program or combination

The programs or combinations that you create by using the Performance Editor or by editing parameters in the various edit (Ed) pages can be saved in the internal memory of the TRITON-Rack. This action is referred to as "writing a program" or "writing a combination." If you want your edited data to be preserved after the power is turned off, you must write it.

There are two ways to write a program or combination.

- ⚠ Before you write data into memory, you must turn off the memory protect setting in Global mode. (⇨ "Memory protect")

Using a Utility menu command to write

- ① Select the Utility "Write Program" or "Write Combination."

The Write Program/Write Combination dialog box will appear.

note You can also access the same dialog box by holding down the [ENTER] key and pressing the [0] key.

The screen shown is for Program mode



- ② In "Category," specify the category of the program/combination.

If the category you specify here is for a program, you can use it when selecting by category in the Cat. Hold function or the "Select by Category" utility in PROG 1.1: Play, "Program Select" in the COMBI 1.1: Play, Prog page, the COMBI 2.1: Ed-Prog/Mix.Prog page, or the MULTI 1.1: Play, Program page utility "Select by Category."

In the case of a Combination, the category you specify here can be selected when you use the "Select by Category" utility or the Cat. Hold function in COMBI 1.1: Play: ("Combi Select").

- ③ Use "To" to specify the bank and number of the writing destination program/combination.

Use the [VALUE] dial, [BANK], [A]-[H], [INC], [DEC] keys, or numeric keys [0]-[9] and the [ENTER] key to specify the destination.

- ④ If you wish to change the name of the program/combination, press the [F5] ("Name") key.

The text dialog box will appear. Input the name of the program/combination. ⇨ "Assigning a name (Rename)"

After you have input the name, press the [F8] ("OK") key to return to the Write Program/Write Combination dialog box.

- ⑤ To execute the Write operation, press the [F8] ("OK") key. To cancel without executing press the [F7] ("Cancel") key.

When you press the [F8] ("OK") key, the display will ask "Are you sure?" When you press the [F8] ("OK") key once again, the data will be written.

Using the [WRITE] key to write

This method can only be used to write to the selected program/combination number.

- ① Press the [WRITE] key.

The following dialog box will appear.

The screen shown is for Program mode



- ② To write the data, press the [F8] ("OK") key. To cancel without writing, press the [F7] ("Cancel") key.

Assigning a name (Rename)

You can modify the name of an edited program, combination, multi, drum kit, user arpeggio pattern, multi-sample or sample etc.

You can also modify the category names for programs and combinations.

These renaming operations can be performed in the following pages.

Programs	PROG 1.1...7.3 Utility: Write Program
Combinations	COMBI 1.1...7.3 Utility: Write Combination
Multis	MULTI 1.1...4.4, 6.1 Utility: Rename Multi
Tracks	MULTI 1.1, 5.1 Utility: Rename Track
Patterns	MULTI 5.1 Utility: Rename Pattern
Multisamples	SMPL 1.1...4.1, 5.2 Utility: Rename MS
Samples	SMPL 1.1...4.1, 5.2 Utility: Rename SMPL
Drum kits	GLOBAL 5.1 Utility: Rename Drum Kit
User arpeggio patterns	GLOBAL 6.1 Utility: Rename Arpeggio Pattern
Program categories	GLOBAL 4.1: TEXT
Combination categories	GLOBAL 4.1: TEXT
File	DISK, Save Utility: Save All...Export Smpl AIF/WAV

① Open the text dialog box.

Refer to the above table for the relevant page. In the utility commands, press “Name” (the [F5] key) in the dialog box that appears. In GLOBAL 4.1, select “TEXT” (press the [F5] key).



For example if you wish to input the text shown in the screen shown above, you would use the following procedure.

② Press the [F1] (“Clear”) key.

All text of the text box will be erased.

③ Input “A”

Use the [VALUE] dial, the [INC], [DEC] keys, or [◀], [△], [▽], [▶] keys to select “A.” Press the [ENTER] key or [F6] (“▶”) key. The cursor will move.

④ Input “.”

Use the [VALUE] dial, the [INC], [DEC] keys, or [◀], [△], [▽], [▶] keys to select “.” Press the [ENTER] key or [F6] (“▶”) key. The cursor will move.

Repeat this step to input all the characters.

⑤ Press the [F8] (“OK”) key.

If you selected “Name” in the dialog box of step ① to access the text dialog box, you will return to the previous dialog box. Press the [F8] (“OK”) key in that dialog box to execute the Rename operation. If you selected “TEXT” in step ① to access the text dialog box, the Rename operation will be executed.

The function buttons will have the following functions.

Clear: Erase all text.

Del (Delete): Delete the character at the cursor location.

Ins (Insert): Insert a space at the cursor location.

Cap. ⇄ (Capital): Switch between uppercase and lowercase letters.

◀: Move the cursor to the left.

▶: Move the cursor to the right.

The following input operations can also be performed.

“0”–“9,” “-,” and “.” can be input using the numeric keys. When you input these, the cursor will advance automatically.

To input successive spaces (blanks), press the [ENTER] key at the last-selected text.

About the Edit Buffer

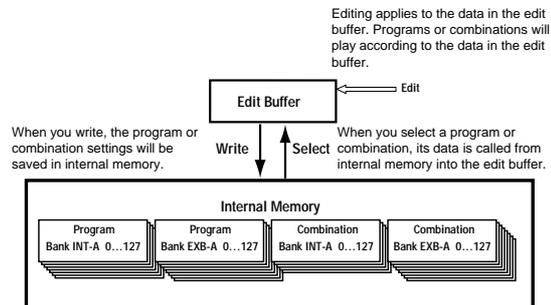
When you select a program or combination in PROG 1.1: Play and COMBI 1.1: Play, the program or combination data is called into the “edit buffer.”

When you modify the parameters in 1.1: Play or in the edit pages 2.1–7.3 of Program mode or Combination mode, the changes you make will affect the data in the edit buffer.

If you wish to save this modified data into internal memory, you must perform the Write operation. When you perform the Write operation, the data in the edit buffer is written to the specified program number or combination number of the specified bank.

If you select another program or combination without writing, the data of the newly selected program or combination will be called into the edit buffer, and your changes will be lost.

⚠ When you press the [COMPARE] key in the edit pages 2.1–7.3 of Program mode or Combination mode, the data from memory (i.e., the contents that were written into memory) will be temporarily called into the edit buffer. This allows you to compare the settings you are editing with the original un-edited settings.



Writing global settings, user drum kits, and user arpeggio patterns

The settings you edit in Global mode can be written into internal memory. This is done using the operations **Write Global Setting**, **Write User Drum Kits**, and **Write User Arpeggio Patterns**. If you wish to use these settings after turning the power off, be sure to write the data.

There are two ways to write global settings, user drum kits, and user arpeggio patterns.

- 1 Before you write a user drum kit or user arpeggio pattern, the Global mode memory protect setting must be turned off (⇨“Memory protect”).
- 2 The **user arpeggio pattern** settings “Tempo,” “Pattern,” “Octave,” “Resolution,” “Sort,” “Latch,” “Key Sync,” and “Keyboard” are parameters that are set independently in Program, Combination, and Multi mode. These settings are not saved when you perform the Write operation described here.
If you moved from Program or Combination mode and set these parameters, you must return to the original mode and write them.

Using a Utility menu command to write

- 1 To write global settings (the various settings in GLOBAL 1.1–4.1), select the “Write Global Setting” utility in GLOBAL 1.1–4.1, and press the [F8] (“OK”) key.

The Write Global Setting dialog box will appear.

To write user drum kits, select the Utility “Write Drum Kits” in GLOBAL 5.1, and press the [F8] (“OK”) key.

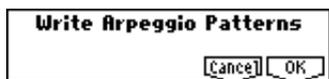
The Write Drum Kits dialog box will appear.

To write user arpeggio patterns, select the Utility “Write Arpeggio Patterns” in GLOBAL 6.1, and press the [F8] (“OK”) key.

The Write Arpeggio Patterns dialog box will appear.

- note** The same dialog box will also appear if, in each of the above pages, you hold down the [ENTER] key and press the [0] key.

The example shown is for Write Arpeggio Patterns



- 2 To execute the Write operation, press the [F8] (“OK”) key. To cancel, press the [F7] (“Cancel”) key.

When you press the [F8] (“OK”) key, the display will ask “Are you sure?” Press the [F8] (“OK”) key once again to write the data.

Using the [WRITE] key to write

- 1 In the following pages, press the [WRITE] key. A dialog box will appear.

Global settings:	GLOBAL 1.1–4.1
User drum kits:	GLOBAL 5.1
User arpeggio patterns:	GLOBAL 6.1

The example shown is for Update Arpeggio Patterns



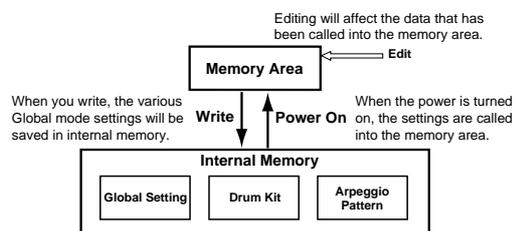
- 2 To execute the Write operation, press the [F8] (“OK”) key. To cancel, press the [F7] (“Cancel”) key.

Memory in Global mode

When the power is turned on, the Global mode data is called from internal memory into the Global mode memory area. Then when you modify the parameters in Global mode, the data in the memory area will be modified. If you wish to save this modified data in internal memory, you must write it.

When you write, the data in the memory area will be written into the global settings, drum kits, and arpeggio patterns of internal memory.

If you turn off the power without writing, the modified data in the memory area will be lost.



Saving on external media

For details on the data that can be saved on external media (floppy disk etc.) (⇒p.36 “Types of data that can be saved”).

⚡ The user patterns or RPPR settings of Multi mode and the multisamples and samples of Sampling mode cannot be written into internal memory. This data will disappear when the power is turned off. If you wish to keep this data, you must save it on a floppy disk or on other external SCSI storage media (if the separately sold EXB-SCSI option is installed).

Other types of data can also be saved on a floppy disk, or (if the separately sold EXB-SCSI option is installed) on external SCSI storage media (maximum 4 GB), and loaded to restore the original settings even if they have been modified. It is a good idea to save favorite settings that you create.

As an example, we will explain how to save the following data.

- Internal memory programs, combinations, global settings, user drum kits, user arpeggio patterns
- Multi, user patterns
- Multisamples and samples created in Sampling mode

⚡ Multiple floppy disks may be required to save all requested data.

① If you wish to save the data on a floppy disk, insert a floppy disk into the TRITON-Rack's floppy disk drive.

For details on floppy disk handling, be sure to refer to “Cautions when handling floppy disks” (⇒p.84).

If the separately sold EXB-SCSI option is installed and you wish to save the data on a hard disk or other external SCSI media, refer to the EXB-SCSI owner's manual, and make sure that the external SCSI drive etc. is connected correctly.

Format the disk if necessary (⇒PG p.137)

② Press the [DISK] key. You will enter Disk mode.



Drive Select

③ Press the [F2] (“Save”) key to access the Save page.

④ When saving to external SCSI media, choose Drive Select, and specify the save destination drive.

⑤ If the media contains directories, select the directory in which you wish to save the data.

To move to a lower directory level, press the [F6] (“OPEN”) key. To move to a higher level, press the [F5] (“UP”) key.

⑥ Select the “Save All” utility.



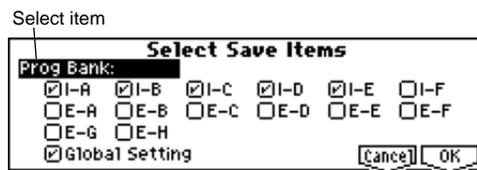
Press the [F8] (“UTILITY”) key to access the utility menu. Press the [F7] key to select “Save All,” and then press the [F8] (“OK”) key.

A dialog box will appear. The contents of the dialog box and the settings etc. will differ depending on the type of data that you are saving. For details on each type of file (⇒PG p.133).



⑦ Press the [F5] (“Name”) key to access the text dialog box, and input the name. (⇒p.38)

⑧ Press the [F6] (“S.Item”) key, and un-check the items that you do not need to save.



Use “Select Item” to select Prog Bank, Combi Bank, Drum Kit, or Arpeggio Pattern, and select the items (banks) that you wish to save. The items whose check boxes are checked will be saved. After making your selection(s), press the [F8] (“OK”) key.

⑨ Press the [F8] (“OK”) key to execute the Save operation.

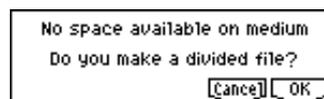
If the data fits on one volume of media

The data will be saved on the specified media, and you will return to the Save page. The amount of time required will depend on the amount of data.

If a file with the same name already exists on the floppy disk, you will be asked whether you want to overwrite. If you wish to overwriting, press the [F8] (“OK”) key. If you wish to save without overwriting, press the [F7] (“Cancel”) key, re-do the operation from step ⑥, and rename the data in step ⑦ before saving it.

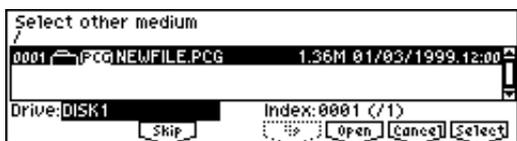
If the data does not fit on one volume of media (floppy disk)

The “No space available on medium” dialog box will appear. (⇒PG p.133)



You can divide the file and save the data on multiple volumes of media. If you do not want to divide the data, press the [F7] (“Cancel”) key, and re-save the data on media that has more free area or on a different drive (if the separately sold EXB-SCSI option is installed).

- 1) Make sure that you have a sufficient number of floppy disks, and press the [F8] (“OK”) key. Saving will begin.
- 2) When the disk is full, the following dialog box will appear.



- 3) Insert the next floppy disk into the TRITON-Rack’s floppy disk drive.
- 4) Press a function key etc. to make the TRITON-Rack detect the next floppy disk.
- 5) Press the [F8] (“Select”) key. Saving will begin.
- 6) If the “No Space available on medium” dialog box appears again, repeat steps 1)–5).
If you decide to cancel the Save operation, press the [F7] (“Cancel”) key.
The dialog box of step 2) will appear. Press the [F7] (“Cancel”) key will appear.
The display will ask “Are you sure?” Press the [F8] (“OK”) key. This will cancel the Save operation.
- 7) When saving is complete, you will return to the Save page.

⑩ **When saving ends and you return to the Save page, the LCD screen will show the file that was saved.**

The data will be saved as the following files.

.PCG file

Programs, combinations, drum kits, user arpeggio patterns, and global settings that were saved in internal memory

.SNG file

Multi and user patterns

.KSC file

A file which lists the multisamples and samples used

Directory

A directory containing the multisamples (.KMP files) and samples (.KSF files) that are listed in the .KSC file

note When loading files that were saved across multiple volumes of media, a “Where is a ...” dialog box will appear during the loading process. Insert the disk containing the specified file, select the directory, and press the [F8] (“Select”) key to load the data. (⇒PG p.125)

Other ways to save

In addition to “Save All,” the Utility menu commands include “Save PCG” which saves programs, combinations, drum kits, user arpeggio patterns, and global settings; “Save Multi” which saves only multi and user patterns; and “Save Sampling Data” which saves only multisamples and samples. Select the appropriate Utility menu command for the data that you wish to save on external media.

note When using “Save All,” “Save PCG & Multi,” and “Save PCG” to save combinations, you should also remember to save the programs used by each timbre (and the drum kits used by the programs) and user arpeggio patterns at the same time. Similarly when saving programs, you should also remember to save the drum kits and user arpeggio patterns used by the programs.

note If your programs or drum kits use multisamples and samples that were created in Sampling mode, we recommend that you use “Save All” to save the data.

When you use “Save PCG” or “Save Sampling Data” to individually save a program or drum kit, or a multisample or sample that you created in Sampling mode, we recommend that you save them under the same filename in the same directory.

When you use “Load PCG” to load a .PCG file, the identically-named .KSC file will also be loaded so that the correct multisamples/samples will correspond automatically.

MIDI data dump

The programs (I-A-I-F, E-A-E-H), combinations (I-A-I-E, E-A-E-H), drum kits, arpeggio patterns and global settings of internal memory, and multi and user arpeggio patterns can be transmitted as MIDI exclusive data and saved on a connected MIDI data filer, computer, or another TRITON-Rack. (⇒PG p.113)

Restoring the factory settings

Loading the preloaded data and demo songs

1. Loading programs, combinations, global settings, arpeggio patterns, and drum kits

Here's how to restore the preloaded data (⇨ p.36) for programs, combinations, global settings, user arpeggio patterns, and user drum kits to the factory settings.

⚠ When you perform the Load operation described below, the data that had been previously written will be overwritten (and lost).

- 1 Insert the included TNRFD-00P floppy disk into the floppy disk drive.

For the contents of the included floppy disks, refer to p.81. For details on handling and inserting floppy disks, refer to p.84.

- 2 Press the [DISK] key to enter Disk mode.
- 3 Press the [F1] ("Load") key.

File information will be displayed in the Load page.



- 4 Select "PRELOAD.PCG"

It will be highlighted.

A .PCG file contains programs, combinations, drum kits, arpeggio patterns, and global setting data.

- 5 Press [F8] ("UTILITY") key, and select Utility "Load Selected."

A dialog box will appear.



- 6 Set ".PCG Contents" to All. (⇨ p.81)

- 7 Press the [F8] ("OK") key to begin loading.

2. Loading the demo songs

Here's how to restore the demo song data played in the DEMO/SNG page to the factory settings.

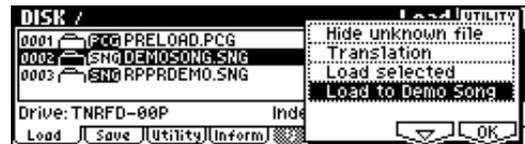
⚠ When you load this data, the multi data in Multi mode will be overwritten. Please save it before you continue. Any editing you did on the drum kit or arpeggio pattern data in the Global mode memory area will also be lost. (⇨ PG p.132)

- 1 Insert the included TNRFD-00P floppy disk into the floppy disk drive.

For the contents of the included floppy disks, refer to p.81. For details on handling and inserting floppy disks, refer to p.84.

- 2 Press the [DISK] key to enter Disk mode.
- 3 Press the [F1] ("Load") key.

File information will be displayed in the Load page.



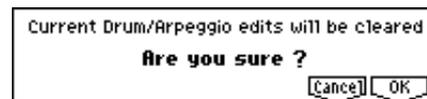
- 4 Select "DEMOSONG.SNG"

It will be highlighted.

The DEMOSONG.SNG file contains demo song data.

- 5 Press the [F8] ("UTILITY") key, and select the "Load to Demo Song" utility.

The following dialog box will appear.



- 6 Press the [F8] ("OK") key to begin loading.

Program mode

In Program mode you can select and edit programs. Program mode consists of pages 1.1: Play-7.3: Ed-MasterFX.

In 1.1: Play you can select and play programs. You can also edit the sound in simple ways, and make arpeggiator settings. (p.26)

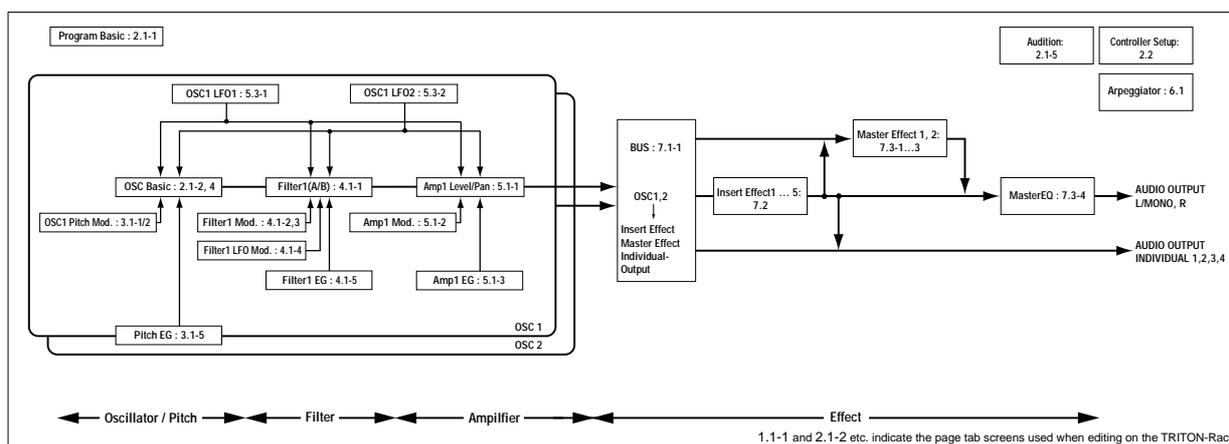
In 2.1: Ed-Basic-7.3: Ed-MasterFX, you can edit the parameters of the program that was selected in 1.1: Play.

note The TRITON-Rack provides AUDIO INPUT jacks that allow an external audio source to be input. In addition to sampling the external audio input in Sampling mode, you can apply the TRITON-Rack's effect section to the external audio input in other modes such as Program mode, or even use vocoder effects that combine the sound of an oscillator with an external audio source (p.97, PG p.197)

note All transmission and reception of MIDI data in Program mode is performed on the Global MIDI channel. The global MIDI channel is set in GLOBAL 2.1: MIDI "MIDI Channel."

How a program is organized

A program consists of the many parameters of 2.1: Ed-Basic-7.3: Ed-MasterFX. The diagram below shows the structure of a program.



Basic program editing

With the factory settings, the TRITON-Rack's INT-A-INT-D contain preloaded programs. You can modify these programs, or create your own original programs from an initialized state.

You can also create original programs using samples/multisamples that you sampled in Sampling mode (or loaded into memory in Disk mode).

Programs you edit or create can be written to 1,664 program memory locations: bank INT-A-INT-E, and EXB-A-EXB-H. Programs can also be saved in Disk mode on external media such as floppy disk. (p.36)

note For parameters in 2.1: Ed-Basic-5.3: Ed-LFOs that are set independently for each oscillator 1 and 2, you can use the Utility "Copy Oscillator" to copy settings from one oscillator to the other. This is a convenient way to make the same settings for two oscillators, or to copy settings from one oscillator to the other.

⚠ If you wish to save an edited program into internal memory, be sure to Write the program. (p.37)

⚠ If the separately sold EXB-MOSS option is installed, you will be able to use bank F. The parameter structure of bank INT-F programs is different than that of the other banks. Refer to the EXB-MOSS owner's manual.

In this section we will give examples of how to modify representative parameters in each page. For details on all parameters, refer to in the PG p.1-.

- ① **Specify different multisamples for “High Multisample” and “Low Multisample.”**
- ② **Specify a velocity value for “Velocity SW L→H.”**
Notes played on a connected MIDI keyboard at a velocity less than the value you specify will sound the **Low** multisample; velocities at or above this velocity value will sound the **High** multisample. For example if you set “Velocity SW L→H” to 100, playing the keyboard softly will sound the “Low” multisample, and playing strongly will sound the “High” multisample.
- ③ **Adjust the “Level” for High and Low multisamples to set their volume balance.**

Note If you do not wish to use this function, set the “Velocity SW L → H” value to **001**. Only the High multisample will sound.

Rev (Reverse) check box

If this is **checked**, the multisample will be played backward. This can produce interesting results when used on sound-effects, etc. Normally you will not **check** this.

When “Oscillator Mode” = Double

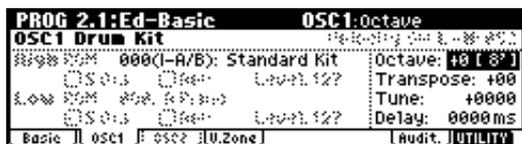
To use OSC2, set “Mode (Oscillator Mode)” to **Double** in the Basic (Prog Basic) page.

In the same way as for OSC1, you can set High and Low multisamples for OSC2.

The playback pitch can be set independently. By using the same multisample with slightly different “Tune” settings, you can “detune” the oscillators to produce a richer sound.

note It will be convenient to use the Utility “Copy Oscillator” to make the oscillator settings match each other.

When “Oscillator Mode” = Drums



In the Basic (Prog Basic) page, set “Mode (Oscillator Mode)” to **Drums**. When this is set to **Drums**, you will be able to create a drum program.

This will select a **drum kit** instead of a multisample. The TRITON-Rack provides sixteen factory preset drum kits that are suitable for a wide variety of music. (⇒Drumkit name, VNL)

Here you can only select a drum kit. To edit or create a drum kit, use GLOBAL 5.1: DKit (⇒p.78).

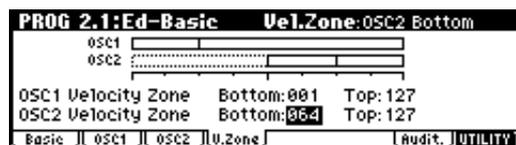
The following multisamples or drum kits can be used for the oscillator.

- 425 internal multisamples (ROM)
- Expansion multisamples (if separately sold EXB-PCM options are installed)
- Multisamples created in Sampling mode (RAM)

(It is easy to create programs using samples that were recorded in Sampling mode, or multisamples/samples that were loaded in Disk mode.)

- Nine internal drum kits (ROM)
- 143 user drum kits created in Global mode (Drum samples or original samples you recorded can be freely assigned to each key to create a drum kit. For the sound of each key, you can make filter and amp settings, and specify routing to the effects and to the individual audio outputs.)
- Expansion drum sets (if separately sold EXB-PCM options are installed)

V.Zone (Velocity Zone) page



Here you can specify the range of velocities that will sound oscillators 1 and 2. In the example shown above, the velocity ranges are as follows.

- OSC1 will sound for all velocity values.
- OSC2 will sound only for strongly played notes (64 and above).
- You can use Velocity Multisample Switching in addition to this (⇒“High Multisample, Low Multisample”). For this example, set “OSC1” in “Velocity SW L→H” to **32** and “OSC2” to **96**. The settings are shown as vertical lines in the velocity zone display.

In this example, the multisamples will sound over four levels.

Velocity values 001–031:

sound only the OSC1 Low multisample.

Velocity values 032–063:

sound only the OSC1 High multisample.

Velocity values 064–095:

sound the OSC1 High multisample and the OSC2 Low multisample.

Velocity values 096–127:

sound the OSC1 High multisample and the OSC2 High multisample.

Controller settings 2.2: Ed-Ctrl

Ctrls (Controls) page

For each program, this tab lets you make settings for the “SW1” and “SW2,” and for the B-mode of REAL-TIME CONTROLS knobs [1]–[4] (⇒p.100, PG p.10, 213, 214)

Pitch settings 3.1: Ed-Pitch

Here you can specify how the pitch of the multisample selected for the oscillator will change. Pitch EG and LFO settings allow the pitch to varied over time.

The parameters of the OSC2 page and OSC2lfo page are valid if “Mode (Oscillator Mode)” is set to **Double**.

OSC1 page

PROG 3.1:Ed-Pitch		OSC1:Pitch Slope	
Pitch	Pitch Slope: +1.0	JS(+X): +02	AMS: Off
	Ribbon(#16): +00	JS(-X): -02	Intensity: +00.00
Pitch EG	Intensity: +00.00	AMS: Off	Intensity: +00.00
Portamento	<input type="checkbox"/> Enable	<input type="checkbox"/> Fingered	Time: 000
osc1 0s11f0 osc2 0s21f0 EG			UTILITY

Pitch

The “**JS (+X)**” and “**JS (-X)**” settings specify the amount of pitch change (in semitones) that will occur when MIDI pitch bend messages are received or when the joystick etc. of a MIDI-connected TRITON or other instrument is moved to left or right. A setting of **+12** allows the pitch to be controlled a maximum of one octave upward; a setting of **-12** allows the pitch to be controlled a maximum of one octave downward.

“**Ribbon (#16)**” specifies the amount of pitch change (in semitones) that will occur when MIDI control change (CC) #16 messages are received or when the ribbon controller of a TRITON or other MIDI-connected instrument is moved to left or right. With a setting of **+12**, the pitch will rise one octave at the far right of the ribbon controller, and fall one octave downward at the far left of the ribbon controller.

Pitch EG

When the “**Intensity**” value is set to **+12.00**, the pitch EG specified in the Pitch EG page will produce a maximum of ± 1 octave of pitch change.

Portamento

If “**Enable**” is checked, portamento will be applied. Portamento makes the pitch change smoothly when you play the next note before releasing the previous note.

The “**Time**” parameter specifies the portamento time. As this value is increased, the pitch will change over a longer time. With a value of **000**, there will be no portamento.

⚡ If **Porta.SW (CC#65)** is assigned as the function of “**SW1**” or “**SW2**,” the portamento effect can be switched on/off by “**SW1**” or “**SW2**.”

OS1lfo (OSC1 LFO) page

PROG 3.1:Ed-Pitch		OSC1 LFO:LF01 Intensity	
Pitch LF01/2 Modulation			
LF01	Intensity: +00.00	AMS: AfterT	
	JS+Y Int.: +01.00	Intensity: +00.25	
LF02	Intensity: +00.00	AMS: Off	
	JS+Y Int.: +00.00	Intensity: +00.00	
osc1 0s11f0 osc2 0s21f0 EG			UTILITY

LFO 1/2

An LFO can be used to cyclically modulate the pitch (the “vibrato” effect).

“**Intensity (LFO Intensity)**” sets the depth to which the LFO specified in 5.3: Ed-LFOs will affect the pitch. With a setting of **+12.00**, vibrato will produce a maximum of ± 1 octave of pitch change.

“**JS+Y Int.**” specifies the depth of vibrato that will be applied by the LFO when a joystick etc. is operated on a MIDI-connected TRITON or other instrument, or when CC#1 is received.

“**Intensity (AMS Intensity)**” specifies the depth of vibrato that will be applied by the LFO when AMS (Alternate Modulation Source) is operated. For example if “**AMS (LFO1 AMS)**” is set to **AfterT** and you set an appropriate value for “**Intensity (AMS Intensity)**,” vibrato will be applied when you apply pressure to the keyboard of a connected MIDI instrument or when MIDI aftertouch messages are received.

EG (Pitch EG) page

Here you can make settings for the pitch EG.

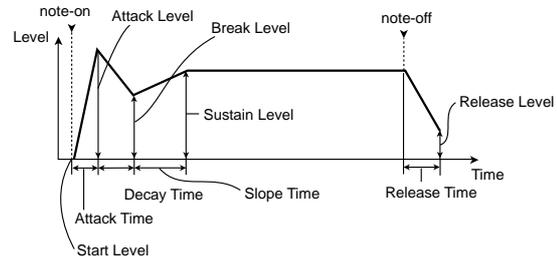
When you wish to create sound effects etc., set the pitch EG to make major changes in pitch over time. To realistically simulate the slight change in pitch that occurs when a string is plucked or at the attack of a brass or vocal sound, you can use the EG to create a subtle change in pitch at the attack (⇨PG p.12).

EG and LFO

By using an **EG** (envelope generator) to apply time-varying change or by using an **LFO** (Low Frequency Oscillator) to apply cyclic change to pitch, filter, or amp, you can create changes in the pitch, tone, and volume.

EG (Envelope Generator)

The TRITON-Rack provides a Pitch EG, Filter EG, and Amplifier EG, which produce time-varying changes in pitch, tone, and volume respectively.



LFO (Low Frequency Oscillator)

For each oscillator, the TRITON-Rack provides two LFO's that can be used to apply cyclical change in pitch, tone, and volume.

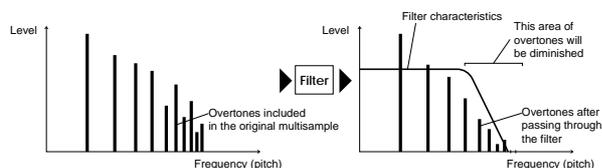
Examples of this are **vibrato** (cyclical change in pitch), **wah** (cyclical change in tone), and **tremolo** or **auto-pan** (cyclical change in volume).

Filter settings

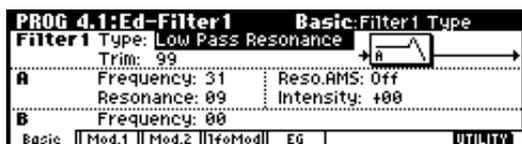
4.1: Ed-Filter1, 4.2: Ed-Filter2

The filter allows you to diminish or emphasize specified frequency areas of the multisample selected for the oscillator. **The tone of the sound will depend significantly on the filter settings.**

The TRITON-Rack provides Filter 1 for OSC1 and Filter 2 for OSC2. For each of these filters, you can select from two types (**Low Pass Resonance or Low Pass & High Pass**). Filter 2 can be used if “Mode (Oscillator Mode)” is set to **Double**.



Basic page



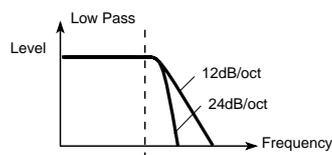
Filter Type, Filter A, Filter B

Selects the type of filter, and specify the “**Frequency**” (cutoff frequency) and “**Resonance**” (resonance level).

- **Low Pass Resonance** (24 dB/oct low pass filter with resonance): Make settings for filter A.
- **Low Pass & High Pass** (12 dB/oct low pass filter and 12 dB/oct high pass filter in series connection): Make low pass filter settings in filter A, and high pass filter settings in filter B.

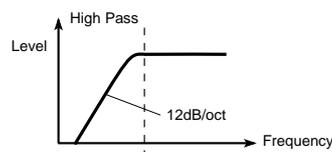
Low pass filter

This is the most common type of filter, which passes the low frequency range and cuts the high frequency range. When the overtones of the high range are cut, a bright sound will become darker (more mellow). 24 dB/oct and 12 dB/oct refer to the steepness of the cut. 24 dB/oct means that the gain will decrease 24 dB in one octave (i.e., as the frequency doubles). A 12 dB/oct filter would decrease the gain 12 dB in one octave. The 24 dB/oct filter produces a steeper cut.



High pass filter

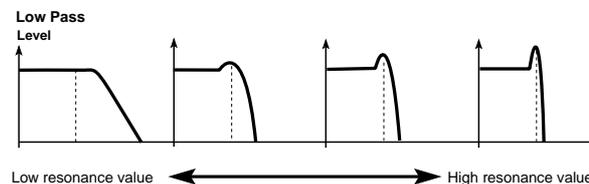
This type of filter passes the high frequency range and cuts the low frequency range. Use this when you wish to make the sound thinner. However if the cutoff frequency (Frequency) is raised excessively high, the volume will become very low.



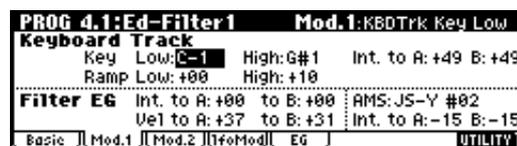
Resonance

When “**Resonance**” is set to a higher value, the overtones in the region of the cutoff frequency will be boosted as shown in the diagram below, giving a distinctive character to the sound.

When resonance is applied



Mod.1, Mod.2 page



Controllers and the filter EG can be used to modulate the filter cutoff frequency that was specified in the Basic page. By using a controller to vary the tone or by using an EG to create time-varying changes, you can add a rich variety of tonal change to the sound.

Keyboard Track (Mod.1 page)

The cutoff frequency can be adjusted by the position at which a note is played on a connected MIDI keyboard.

- When Ramp “**Low**” is set to a positive (+) value, the cutoff frequency will rise as you play lower on the keyboard, making the sound brighter. When set to a negative (-) value, the cutoff frequency will fall as you play lower on the keyboard, making the sound darker.
- When Ramp “**High**” is set to a positive (+) value, the cutoff frequency will rise as you play higher on the keyboard, making the sound brighter. When set to a negative (-) value, the cutoff frequency will fall as you play higher on the keyboard, making the sound darker.
- **Int. “to A” and “to B”** adjust the effect that keyboard tracking will have on filters A and B (⇒PG p.15).

Filter EG (Mod.1 page)

Adjusts the effect produced by the filter EG, whose settings are made in the EG page.

- Use the **Int. “to A” and “to B”** settings to specify the depth of the filter EG.
- Use the **Vel “to A” and “to B”** settings to specify the effect of velocity on the filter EG.
- “**AMS**” and “**Int to A, B**” adjust the effect that AMS will have on the filter EG depth.

These three settings will determine the depth of the tonal change produced by the filter EG.

Filter Modulation (Mod.2 page)

Set this when you wish to produce tonal change by using controllers etc. to vary the cutoff frequency.

lfoMod (LFO Mod.) page

Indicates settings that allow the LFO to produce cyclic changes in tone (a “wah” effect).

Intensity: “to A (LFO1 Int. to A)” and “to B (LFO1 Int. to B)” specify how greatly the LFO will change the tone.

JS-Y Int.: “to A” and “to B” specify the depth of the wah effect that will be produced by the LFO when the joystick of a MIDI-connected TRITON or other instrument is moved toward yourself, or when CC#2 is received.

“**Int. to A**” and “**Int. to B**” specify the depth of the wah effect that will be produced by the LFO when “AMS” (Alternate Modulation Source) is operated. For example if “AMS” is set to **AfterT**, applying pressure to the keyboard of a connected MIDI instrument (that has aftertouch) will apply a wah effect.

EG page

Indicates settings for the filter EG, which controls time-variant changes in tone (⇒PG p.17). Make settings for the EG here, and set the depth of its effect in the Mod.1 page “Filter EG” parameter.

Filter EG and Amplifier EG

When the Filter EG changes the cutoff frequency, the tone will change. However depending on the volume changes produced by the Amplifier EG, this can be heard in different ways. For example by changing the speed at which the tone and volume begin (attack) or decay, you can significantly vary the character of the tonal change. It is a good idea to adjust the changes of both the Filter EG (tone) and the Amplifier EG (volume) as you proceed with editing. (⇒“5.1: Ed-Amp1, EG page, 5.2: Ed-Amp2, EG page)

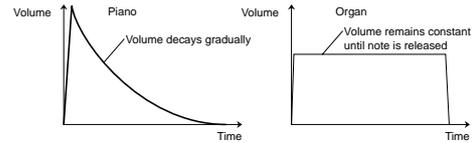
Amplifier settings

5.1: Ed-Amp1, 5.2: Ed-Amp2

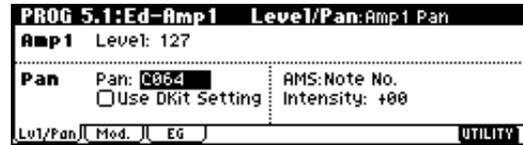
These settings affect the volume. Here you can adjust the way in which the Amp EG and LFO produce time-varying and cyclic changes in volume, and how the controllers etc. will affect the volume.

Amp1 applies to OSC1, and Amp2 applies to OSC2. Amp2 can be used if “Mode (Oscillator Mode)” is set to **Double**.

For example, the volume of a piano note begins at a high volume the instant you play the note, and then decreases gradually. The volume of an organ note remains constant as long as you continue pressing the key. The volume of a note on a violin or wind instrument can be varied during the note by the musician (i.e., by regulating the amount of pressure on the bow or the force of the breath).



Lvl/Pan (Level/Pan) page



Amp1 Level, Amp2 Level

Adjusts the volume of the sound that has passed through the oscillator, filter, and amp.

Pan

Specifies the pan (stereo position) after the signal has passed through the oscillator, filter, and amp. Normally you will set this to **C064**. If “**Mode (Oscillator Mode)**” is **Double** and you wish to create a sense of stereo, set the 5.1: Ed-Amp1 and 5.2: Ed-Amp2 parameter “**Pan**” to left and right for oscillators 1 and 2 respectively. With a setting of **Random**, the pan will change randomly each time you play a note on a connected MIDI keyboard, producing an interesting effect.

AMS Intensity

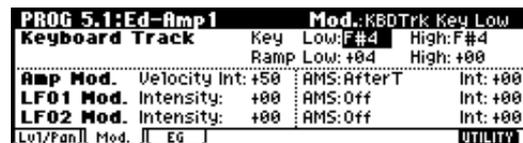
“**Intensity**” specifies the depth of the panning effect that will occur when “AMS” is operated.

If you set “AMS” to **Note No.**, the pan will change according to the keyboard position at which you play a note on a connected MIDI keyboard. With a setting of **LFO1** or **2**, the pan will sweep from side to side (auto pan). Other settings allow you to move the oscillator pan by operating a controller.

Use DKit Setting

This is valid when “**Mode (Oscillator Mode)**” is set to **Drums**. If this is **checked**, the pan location specified by the Drum Kit for each drum sound will be used. If this is **unchecked**, all drum sounds will sound at the same location. Preload and GM drum kits are set to stereo settings. Normally you will leave this **checked**.

Mod. page



Keyboard Track

This varies the volume according to the keyboard position at which you play a note on a connected MIDI keyboard.

- When Ramp “**Low**” has a positive (+) value, the volume will increase as you play lower on the

keyboard. With a negative (-) value, the volume will decrease as you play lower on the keyboard.

- When Ramp “High” has a positive (+) value, the volume will increase as you play higher on the keyboard. With a negative (-) value, the volume will decrease as you play higher on the keyboard.

Amp Mod.

“Velocity Int” is used by most programs to decrease the volume of softly played notes and increase the volume of strongly played notes, and this Amp Modulation parameter adjusts the depth of this control. Normally you will set Amp Modulation to positive (+) values. As this setting is increased, there will be greater volume difference between softly played and strongly played notes.

LFO1 Mod., LFO2 Mod.

Specify how the LFO’s will produce cyclic changes in volume (the tremolo effect).

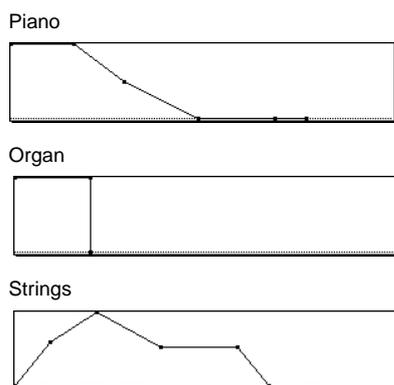
The volume will be affected by the LFO(s) for which you set an “Intensity (LFO1 Intensity, LFO2 Intensity)” value.

“Int (AMS Intensity)” adjusts the depth by which the tremolo effect produced by the LFO will be affected when you operate an “AMS (LFO1 AMS, LFO2 AMS).” For example if you set “AMS” to JS-Y #02, tremolo will be applied when you move the joystick of a MIDI-connected TRITON etc. toward yourself, or when CC#02 is received.

EG page

Here you can make settings for the amp EG, which changes the volume over time.

Every instrument has its own characteristic curve of volume change. This is part of what gives each instrument its identifiable character. Conversely, by applying a strings-type Amp EG curve to an organ-type multi-sample, you can produce a sound with a character unlike a typical organ.



LFO settings 5.3: Ed-LFOs

For each oscillator, you can use two LFO (Low Frequency Oscillator) units: LFO1 and LFO2. You are free to select the type of each LFO and set its speed. The depth of the LFO1 and LFO2 that you specify here is adjusted by the settings of the 3.1: Ed-Pitch, 4.1: Ed-

Filter1, 4.2: Ed-Filter2, 5.1: Ed-Amp1, and 5.2: Ed-Amp2 pages.



OSC1 LFO1, OSC1 LFO2, OSC2 LFO1, OSC2 LFO2

“Waveform” selects the type of LFO. You can choose from a variety of waveforms, including standard waveforms such as Triangle, Saw, Square, and Sine, as well as Step or Random PG waveforms that produce a sample-and-hold effect (⇒PG p.23).

You can create a wide variety of effects by adjusting the “Ofs,” “Fade,” and “Dly” settings, and by changing the sign (+/-) of the “Intensity” setting in the 3.1: Ed-Pitch, 4.1: Ed-Filter1, 4.2: Ed-Filter2, 5.1: Ed-Amp1, and 5.2: Ed-Amp2 pages. “Frequency” specifies the speed of the LFO.

Freq.Mod (Frequency Modulation)

“AMS” can be used to vary the LFO speed. This lets you change the LFO speed by operating a controller, or by the EG or Keyboard Track settings.

MIDI/Tempo Sync.

If “MIDI/Tempo Sync” is checked, the “Frequency” setting will be ignored, and the LFO will synchronize to the tempo of the arpeggiator etc. This lets you produce vibrato, wah, auto-pan, or tremolo that is synchronized to the playback speed of the arpeggiator.

Arpeggiator settings 6.1: Ed-Arp.

Here you can make arpeggiator settings (⇒p.85).

BUS settings 7.1: Ed-BUS

You can specify the oscillator routing (the signal sent to the insert effects, master effects, and independent outputs) (⇒p.95).

Insert Effect settings 7.2: Ed-InsertFX

Here you can select insert effects and make settings for them (⇒p.95).

Master Effect settings 7.3: Ed-MasterFX

Here you can select master effects and make settings for them. The master EQ is also set here (⇒p.96).

More about Alternate Modulation

Alternate Modulation is a type of modulation that can be used to control various aspects of the sound.

AMS (Alternate Modulation Source) refers to any of the numerous sources that can control alternate modulation, and includes controllers such as the realtime controller that you physically operate, incoming MIDI data, as well as modulators such as the EG or LFO. Since the TRITON-Rack allows you apply modulation to a modulator, this type of control is referred to as “alternate modulation.”

Intensity is a parameter that sets the degree (speed or depth) to which AMS will control alternate modulation.

Combinations of modulations that are frequently used in on the TRITON etc. performance (such as using the joystick or ribbon controller to vary the pitch) are also provided as special parameters separately from alternate modulation.

The TRITON-Rack provides 29 types of alternate modulation.

In single mode you can use 29 alternate modulation destinations of 29 types, and in double mode you can use 55 alternate modulation destinations of 29 types. There are 42 AMS sources. (However depending on the type of modulation, some sources cannot be selected.) For details on alternate modulation and AMS, refer to PG p.205.

Suggestions on using alternate modulation

When making settings for alternate modulation, think of the effect that you wish to produce, what type of modulation will be necessary to produce that effect, and what parameter of the oscillator, filter, or amplifier needs to be controlled. Then select a source (“AMS”) and set the “**Intensity**.” If you proceed logically in this way, you will achieve the desired effect.

For example if you want to “control a guitar-like sound so that it appears to be approaching feedback when the joystick is moved away,” you will make settings so that the joystick controls filter modulation or the resonance level.

Combination mode

In Combination mode you select and play combinations and edit them. Combination mode consists of pages 1.1: Play–7.3: Ed–MasterFX. In 1.1: Play you can select and play combinations. You can also do some overall editing, and make arpeggiator settings (p.27). In 2.1: Ed–Basic–7.3: Ed–MasterFX you can edit the parameters of the combination that was selected in 1.1: Play.

- ▲ If a program being edited in Program mode is used in a combination, it will sound according to the settings being edited.
- ▲ If you wish to save an edited combination in internal memory, you must write it. (p.37)
- ▲ If the separately sold EXB-MOSS option is installed, bank INT-F programs can be used for the timbres of a combination. For details on the parameters of bank INT-F programs, refer to the EXB-MOSS owner’s manual and PG p.251.

How a combination is organized

A combination consists of a variety of parameters that can be accessed in 2.1: Ed–Basic–7.3: Ed–MasterFX. The diagram below shows how a combination is structured.

Basic combination editing

Banks INT-A–INT-D of the TRITON-Rack contain a wide variety of combinations that use the preloaded programs (bank INT-A and INT-B) and the preset and preloaded user arpeggio patterns and effects. You can edit these combinations, or create your own original combinations from an initialized state. Programs using sample waveforms/multisamples that you sampled in Sampling mode (or loaded into memory in Disk mode) can also be used in a combination. A combination that you edited or created can be written into one of 1,664 combination memory locations in banks INT-A–INT-E or EXB-A–EXB-H. Combinations can also be stored or organized on external media such as floppy disk in Disk mode. (p.36)

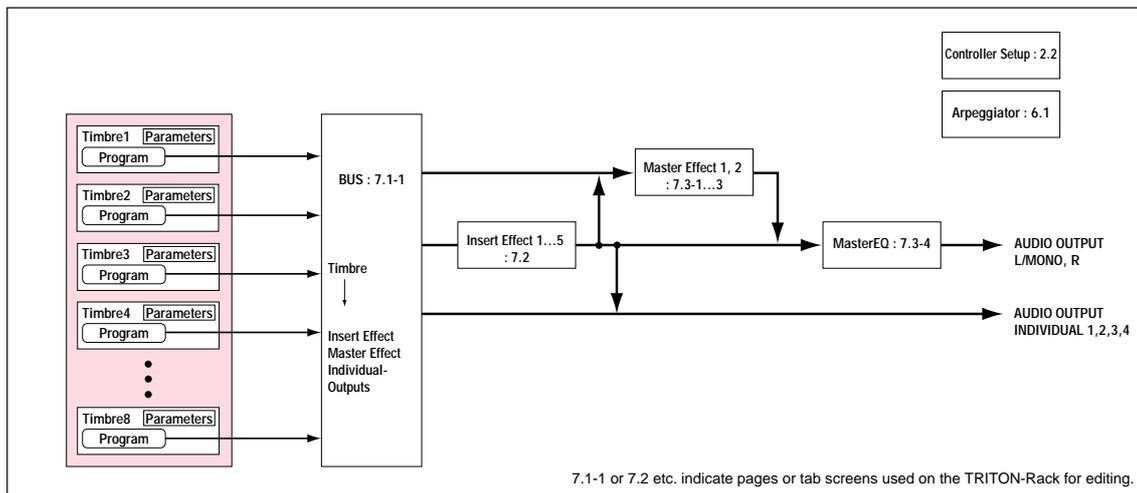
Suggestions for editing procedure

The parameters of each timbre are set in 2.1: Ed-Prog/Mix–4.4: MIDI Filter4. This is where you create the basic combination consisting of the programs you select here.

First use 2.1: Ed-Prog/Mix to select the program for each timbre, and then use 3.3: Ed-Key Zone and 3.4: Ed-Vel Zone to specify the range in which each program will sound (layer, split, velocity switch, etc.). Then adjust the volume of each timbre, and set various other parameters.

To add finishing touches to the sound, you can make **insert effect** settings (in 7.2: Ed-Insert FX) and **master effect** and **master EQ** settings (in 7.3: Ed-Master FX) that are separate from the effect settings of Program mode. In addition, you can make arpeggiator settings (in 6.1: Ed-Arp.) and controller settings (in 2.2: Ed-Ctrl) to create the finished **combination**.

- note** By using the “Solo Selected Timbre” utility, you can listen only to the selected timbre. This is a convenient way to audition individual sounds of timbres that are layered. (p.28)
- note** In pages that display all timbres 1–8, such as 2.1: Ed-Prog/Mix, you can use the [◀], [▶] keys to select timbres. You can also select timbres directly by holding down the [TIMBRE/TRACK] key and pressing one of the [F1 1/9]–[F8 8/16] keys.

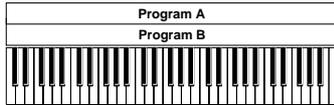


Layer, split, and velocity switch

Within a combination, you can use keyboard location and velocity to change the program that sounds. The programs assigned to each timbre can sound in three ways: as a **layer**, a **split**, or a **velocity switch**. A combination can be set to use any one of these methods, or to use two or more of these methods.

Layer

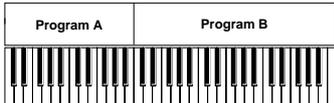
A setting that causes two or more programs to sound simultaneously when you play a note on a connected keyboard is called a **Layer**.



Layer:
Two or more programs sound simultaneously.

Split

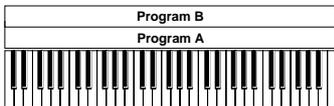
A setting that causes different programs to sound when you play in different areas of a connected keyboard is called a **Split**.



Split:
Different programs will sound in different areas of the keyboard.

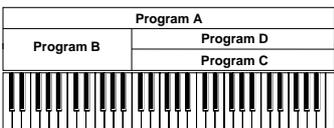
Velocity switch (Velocity SW)

Velocity Switch (Velocity SW) refers to settings which cause different programs to sound depending on the velocity (keyboard playing dynamics).



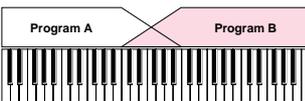
Strong ↑ Keyboard playing dynamics
Soft ↓
Velocity Switch:
Keyboard playing dynamics (velocity) switches between different programs.

In Combination mode, you can use a different program for each of up to eight timbres, and combine two or more of the above methods to create even more complex setups.

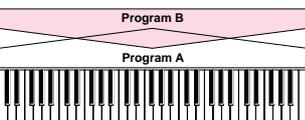


Strong ↑ Keyboard playing dynamics
Soft ↓
Example:
B and C, D are split. In the lower keyboard range, A and B are layered. In the higher keyboard range, C and D are switched by velocity and layered with A.

As an additional possibility, you can set the slope for a key zone or velocity zone so that the volume diminishes gradually. This lets you change a split into a **keyboard crossfade**, or a velocity switch into a **velocity crossfade**.



Keyboard X-Fade (keyboard crossfade):
As you play from low notes to high notes, the volume of A will fade out, and the volume of B will fade in.



Strong ↑ Keyboard playing dynamics
Soft ↓
Velocity X-Fade (velocity crossfade):
As you play with increasingly stronger velocity, the volume of A will fade out, and the volume of B will fade in.

The Compare function

When 2.1: Ed-Basic-7.3: Ed-MasterFX are displayed, you can press the [COMPARE] key to make the LED light. This will recall the combination that had been written before you began editing. When you press the [COMPARE] key once again the LED will go dark, and you will return to the sound that you had been editing. Use this when you wish to compare the edited sound with the un-edited sound.

▲ If you continue editing when the [COMPARE] key LED is lit, the LED will go dark, and the current sound will now be the sound that is recalled when the [COMPARE] key LED is dark.

In the section below, we will edit typical parameters in each page while listening to the effect of each parameter.

For a more detailed explanation of these parameters, refer to PG p.31-.

Timbre 1-8 program, pan and volume 2.1: Ed-Prog/Mix

Here you can assign programs to each timbre 1-8, and set pan and volume for each. (These settings can also be made in the Prog and Mix pages of 1.1: Play.)



Prog page

Program Select

Assigns a program to each timbre.

note You can use the "Select by Category" utility to select programs from 16 categories. (⇨ p.28)

note You can also use the [BANK] and [A]-[H] keys to select the bank of the program.

▲ If you wish to select programs by receiving MIDI program changes, do so in P1.1: Play.

Mix (Mixer) page



Pan

Specifies the panning (stereo location) for each timbre. A setting of **C064** will reproduce the oscillator pan setting of the program. Moving this to left or right will move the sound to left or right while preserving the pan relationship between the oscillators. A setting of **L000** is far left, and **R127** is far right. (⇨ PG p.34)

Volume

Adjusts the volume of each timbre. Create the overall sound by adjusting the volume balance between timbres. The “Volume” setting is an important aspect of creating the sound, and this setting will have a significant effect on the overall impression produced by the combination.

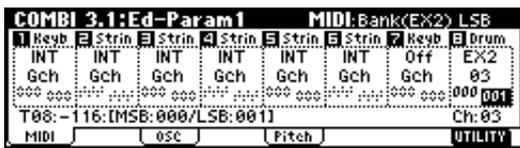
Controller settings 2.2: Ed-Ctrl

Ctrls (Controls) page

For each combination, you can specify the functions of the B-mode functions of REALTIME CONTROLS knobs [1]–[4], and the “SW1” and “SW2.” (⇒p.100, PG p.36, 213, 214)

Settings for status, MIDI channel, and playing mode 3.1: Ed-Param1

MIDI page



Status

Here you can specify the state of MIDI and the internal tone generator for each timbre. Normally when sounding the internal tone generator of the TRITON-Rack, you will set this to **INT**. Set this to **Off** for timbres that you are not using. With settings of **Off**, **EXT**, or **EX2**, the TRITON-Rack will not sound. With settings of **EXT** or **EX2**, you can control an external tone generator connected via MIDI. (⇒PG p.36)

MIDI Channel

Sets the MIDI channel of the timbres that you wish to sound to match the MIDI channel of the transmitting device. When note data is received on a matching channel, the corresponding channel of the TRITON-Rack will sound (if “Status” is set to **INT**).

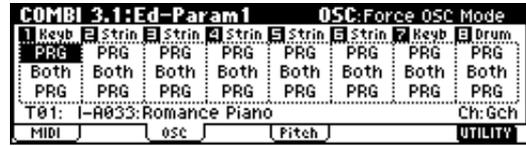
Normally, you will set the MIDI channel of the transmitting device to match the global MIDI channel of the TRITON-Rack, and set this “MIDI Channel” parameter to **Gch**. If this parameter is set to **Gch**, the MIDI channel of the timbre(s) will always match the global MIDI channel even if you change the global MIDI channel.

- On some preloaded combinations that use the arpeggiator, timbres assigned to the arpeggiator may not have a “Status” of **INT** and “MIDI Ch” of **Gch**. The reason for this is that these settings are for timbres that sound only when the arpeggiator is on. This is a very useful technique for creating combinations that use the arpeggiator. Refer to “Arpeggiator settings in Combination and Multi modes” (⇒p.87, PG p.43), and study the relationship between arpeggiator assignments, “Status,” and “MIDI Channel.”

Bank(EX2) MSB, Bank(EX2) LSB

This setting is valid when “Status” is set to **EX2**. It specifies the Bank Select message that will be transmitted from the TRITON-Rack.

OSC page



Force OSC Mode

Normally you will set this to **PRG**. If you wish to force a polyphonic program to sound monophonically, set this either to **Mono** or **LGT (Legato)**. Conversely, set this to **Poly** if you wish to force a monophonic program to play polyphonically (⇒PG p.37).

OSC Select

Normally you will set this to **Both**. If the timbre is using a program whose “Mode (Oscillator Mode)” is **Double**, and you want only OSC1 or OSC2 (not both) to sound, set this to **OSC1** (only OSC1 will sound) or **OSC2** (only OSC2 will sound).

Portamento

Normally you will set this to **PRG**. If you want the portamento setting specified for the program of the timbre to be forced off, set this parameter to **Off**. Conversely, if you want to forcibly turn the portamento on, or to change the portamento time, set this to a value of **001–127** to specify the portamento time.

Pitch page



Transpose, Detune (BPM Adj.)

These parameters adjust the pitch of the timbre.

- In a layer-type combination, you can set two or more timbres to the same program, and create a richer sound by using “**Transpose**” to shift their pitch apart by an octave or by using “**Detune**” to create a slight difference in pitch between the two.
- In split-type combinations, you can use “**Transpose**” to shift the pitch (in semitone units) of the programs specified for each key zone.
- If you wish to change the playback pitch of a drum program, use “**Detune**.” If you change the “**Transpose**” setting, the correspondence between notes and drum sounds will change.

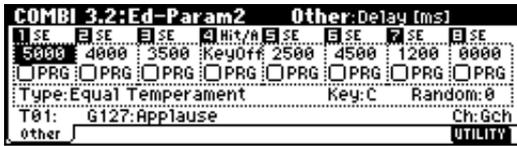
Adjusting the BPM of multisamples or samples created in Sampling mode

If a timbre program uses multisamples or samples that you created in Sampling mode (or loaded in Disk mode) to a specific BPM value, you can use the “**Detune BPM Adj.**” utility with a specified BPM value. This changes the BPM by changing the playback pitch. (⇨PG p.38)

Note timing and scale settings

3.2: Ed-Param2

Other page



Delay [ms]

Specifies the timing at which the program of each timbre will sound.

Select the preload combination **INT-A127: One FingerTVShow**, and play a single note on a connected MIDI instrument. Timbres will sound consecutively, according to their Delay setting. If you select **KeyOff** for this parameter, the timbre will sound when the note is released.

Use Prog's Scale, Combi's Scale

Specifies the scale for each timbre. If you check “**Use Prog's Scale**,” the scale specified by the program will be used. Timbres for which this is **not checked** will use the “**Combi's Scale**” setting.

Layer and split settings

3.3: Ed-Key Zone

Indicates settings such as layer, split, and keyboard crossfade.

Key page

Specifies the range of notes that will sound each timbre.

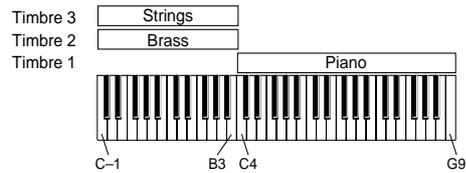
Each area that sounds a timbre is referred to as a **Key Zone**. By setting key zones, you can create a combination in which different programs sound in different areas of the keyboard.

By combining key zones specified for each timbre, you can create **layered** or **split** combinations.

The upper and lower limits for the key zone of each timbre are set by the “**Top Key**” and “**Bottom Key**” respectively.

For example in the following diagram, timbres 1–3 are set to create a layered and split combination. This is specified by the key zone settings.

Timbres 2 and 3 create a layer. Timbre 1 and timbres 2/3 are split between the B3 and C4 note numbers.



As an example here, we will explain how to create a combination like the one shown above.

- ① **In 1.1: Play or 2.1: Ed-Prog/Mix**, select the programs that timbres 1–3 will use.

Select a piano program for timbre 1.

Select a brass program for timbre 2.

Select a strings program for timbre 3.

- ② **In the MIDI page of 3.1: Ed-Param1**, set “**Status**” to **INT** for all the timbres that you wish to use, and set “**MIDI Channel**” to either **Gch** or to match the global MIDI channel (a “**G**” will be displayed after the channel number).

- ③ **In the Key page of 3.3: Edit-Key Zone**, set “**Top Key**” and “**Bottom Key**.”

Set timbre 1 to a “**Top Key**” of **G9** and a “**Bottom Key**” of **C4**.

Set timbres 2 and 3 to a “**Top Key**” of **B3** and a “**Bottom Key**” of **C-1**.

You can also enter these values by holding down the [ENTER] key and playing a note on a connected MIDI instrument.

Slope page

Here you can specify the range of keys over which the original volume will be reached, starting at the top key and bottom key.

In the case of the above example, you could set the key zones so that a portion of timbres 1 and 2 overlaps (i.e., is layered) with timbre 3, and set “**Top Slope**” and “**Bottom Slope**” so that the sound changes gradually, instead of changing suddenly between **B3** and **C4**.

Velocity switch settings

3.4: Ed-Vel Zone

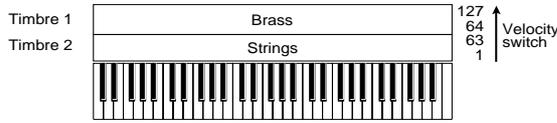
Here you can make settings for velocity switching and velocity crossfading.

Vel (Velocity) page

For each timbre, you can specify a range of velocities for which it will sound. The range of velocities for which a timbre will sound is called the **Velocity Zone**. By setting a velocity zone, you can set up a timbre which will be sounded only by notes played at a certain strength, and not by stronger or weaker notes. By combining timbres that have differing velocity zone settings, you can create **velocity switched** combinations.

The upper and lower limits of the velocity zone of each timbre are determined by the “**Top Velocity**” and “**Bottom Velocity**” respectively. The following diagram

shows an example of a velocity switched combination in velocity will switch between timbres 1 and 2 to play different programs. Such combinations are created by setting the velocity zone.



As an example, we will explain how to create a combination like the one shown above.

- ① **In 1.1: Play or 2.1: Ed-Prog/Mix, select the programs that timbres 1-2 will use.**
 Select a brass program for timbre 1.
 Select a strings program for timbre 2.
- ② **In the MIDI page of 3.1: Ed-Param1, set "Status" to INT for all the timbres that you wish to use, and set "MIDI Channel" to either Gch or to match the global MIDI channel (a "G" will be displayed after the channel number).**
- ③ **In 3.4: Ed-Vel Zone Vel page, set the "Top Velocity" and "Bottom Velocity."**
 Set timbre 1 to a "Top Velocity" of 127 and a "Bottom Velocity" of 64.
 Set timbre 2 to a "Top Velocity" of 63 and a "Bottom Velocity" of 1.
 You can also enter these values by holding down the [ENTER] key and playing a note on a connected MIDI instrument.

Slope page

Here you can specify the range of values over which the original volume will be reached, starting from the top velocity and bottom velocity.

In the case of the above example, you could set the velocity zones of the two timbres so that they partially overlap, and set "Top Slope" and "Bottom Slope" so that the sound changes gradually, instead of changing suddenly between velocity values of 63 and 64.

MIDI filter settings

4.1: Ed-MIDI Filter1-4.4: Ed-MIDI Filter4

For each MIDI Filter item, you can specify whether or not the corresponding MIDI message will be transmitted and received. The **checked** items will be transmitted and received.

- 🔊 The MIDI Filter settings do not switch the corresponding function on/off, but merely specify whether or not that MIDI message is transmitted and received. Some of the MIDI filters apply only to reception. (⇒PG p.41)



For example if you selected a bass program for timbre 1 and a piano program for timbre 2 to create a split-type combination, you could make the following settings so that pressing the damper pedal of a connected MIDI keyboard would apply the damper effect only to the piano program of timbre 2.

- **Set "Damper CC#64" in 4.1: Ed-MIDI Filter1, MIDI 1-2 page.**
 Timbre 1 "Damper CC#64": unchecked
 Timbre 2 "Damper CC#64": checked

Arpeggiator settings

6.1: Ed-Arp.

Indicates settings for the arpeggiator (⇒p.87).

Bus settings

7.1: Ed-BUS

Specifies the routing for each timbre (i.e., how it is sent to the insert effects, master effects, and individual outputs). (⇒p.96)

Insert Effect settings

7.2: Ed-InsertFX

Selects insert effects, and make settings for them. (⇒p.95, p.97).

Master Effect settings

7.3: Ed-MasterFX

Selects master effects, and make settings for them. Here you can also make master EQ settings (⇒p.96, p.97).

Multi mode

In Multi mode the TRITON-Rack functions as a MIDI multi-timbral tone generator that receives multiple tracks of musical data from an external MIDI sequencer and plays them. Up to sixteen tracks of musical data can be played.

In addition, the RPPR or arpeggiator functions of the TRITON-Rack can be used simultaneously with this playback, which is useful in a variety of music production or live performance situations.

⚠ When you turn off the power, the Multi mode settings and user pattern data you recorded will be lost. If you wish to keep this data, you must save it on a floppy disk or external SCSI device (if the separately sold EXB-SCSI option is installed) before turning off the power, or perform a MIDI data dump to save the data on an external data filer etc. If you wish to save the programs, track parameters and effects etc. selected for a multi as a template multi, use the Utility "Save Template Multi." Immediately after the power is turned on, the TRITON-Rack will contain no multi data, so if you wish to play back patterns or RPPR, you must first load the necessary data or receive it via MIDI data dump. (☞p.36, PG p.113)

Features of the Multi mode

- You can use up to **200 multis**, **100 user patterns** (maximum of 99 measures) for each multi, and a **maximum of 140,000 events** (note data etc.).
- The **RPPR** (Realtime Pattern Play/Recording) **function** can be used for playback.
- The **dual polyphonic arpeggiator** can be used for playback or pattern recording.
- **Sixteen different template multis** are built-in, and contain program and effect settings suitable for various musical styles. Up to sixteen original templates that you create can be registered as user template multis.
- **Five stereo insertion effects**, **two master effects**, and a **stereo master EQ** can be used for each song.
- Programs that were converted from sample waveforms sampled in Sampling mode or sample files loaded in Disk mode can be used in a multi.
- If the separately sold EXB-MOSS option is installed, **MOSS tone generator programs can be played multi-timbrally**. (For example, you could use two bass voices and four electric piano voices. However, effect settings cannot be made separately.)
- **150 preset patterns** ideal for drum tracks are built in. In addition, you can create up to 100 user patterns for each multi. These patterns can be used as musical data within a multi, or can be played by the RPPR function.
- Patterns can be recorded in two ways: realtime recording in which the performance you play using

the keyboard and controllers of a connected MIDI instrument (including the various MIDI control events) is **recorded in realtime**, and **step recording** in which you can individually input the note timing, note duration and velocity etc. in the LCD screen and enter the pitches from a keyboard. **The maximum resolution is ♩ / 192.**

- The musical data and control events that you recorded can be edited in various ways (including event editing etc.).
- When the "Status" of a track is set to INT or BTH, an external sequencer can be used to play the TRITON-Rack as a **multi-timbral tone generator**. When the "Status" of a track is set to BTH, EXT, or EX2, the RPPR of the TRITON-Rack can **play external tone generators**.
- RPPR or the arpeggiator can be **synchronized** to an external MIDI device.
- The TRITON's **AMS (Alternate Modulation)** capability lets you use control changes for realtime control of the parameters of the programs used in a program. Its **MIDI Sync. functionality** lets you synchronize the LFO speed to changes in the tempo.
- **Dmod (Dynamic Modulation) functionality** lets you control effect parameters in realtime. You can also use **MIDI Sync.** to synchronize the LFO speed or delay time to changes in the tempo.
- You can assign names not only to the multi, but also to each pattern and track.
- Combination settings can be copied to a multi.
- A multi pattern or RPPR data that you create can be saved in the TRITON-Rack's native format, or transmitted as a MIDI data dump.
- Programs or sample files can be linked and saved on external media. This data can be loaded when desired.
- Musical data from a SMF (Standard MIDI File) can be loaded into a user pattern. A user pattern can also be saved on external media as an SMF.
- Using the Time Slice function of Sampling mode, rhythm loop samples of differing tempo can automatically be assigned to RPPR. This lets you use the RPPR function to simultaneously play multiple rhythm loop samples of different tempo without changing their pitch, or to change the tempo in realtime. The playback can also be switched on/off in realtime from a connected MIDI keyboard.

Data that can be loaded into a multi

The following types of song data can be loaded from floppy disk or other external media into the TRITON-Rack's multi.

- **.SNG data saved on the TRITON-Rack**
All multi data (parameter settings such as program, pan, volume, and status; user pattern data, RPPR

Each pattern consists of musical data for one track. It is not possible to create patterns that contain multiple tracks.

These patterns are used by the **RPPR function**.

The RPPR (Realtime Pattern Play/Recording) function:

For each multi, you can assign a pattern to each note of a connected MIDI keyboard, and play multiple patterns in realtime by playing notes on the keyboard. (p.25, p.63)

Multi settings

Program, pan, and volume settings for each track 1–16 1.1: Play

Here you can receive and play performance data from an external sequencer. Select a multi, and make program, pan, and level settings. (p.24)

▲ If the separately sold EXB-MOSS option is installed, bank INT-F programs can also be used in Multi mode. For details on the parameters of bank INT-F programs, refer to the EXB-MOSS owner’s manual and PG p.251.

Template Multi

The TRITON-Rack contains sixteen template multis. These contain program and effect settings etc. that are suitable for various styles of music. You can load these settings into a multi. See p.24 for the loading procedure.

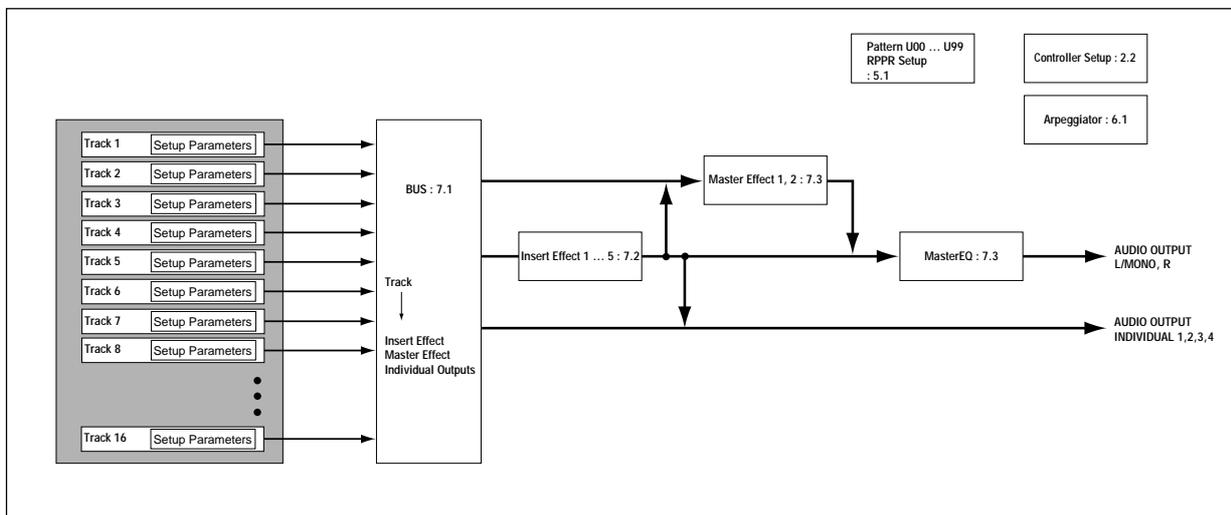
You can also modify the settings of a template multi that you load, or save frequency-used settings as a user template multi. See PG p.51 for the saving procedure.

▲ User patterns and RPPR settings are not saved in a user template multi.

Copying combination sounds to multiple tracks

You can copy combination sounds to multiple tracks and use them. See PG p.51 for the copy procedure.

▲ If you wish to play the arpeggiator using arpeggiator settings from a combination you copied, set the MIDI channel of the external MIDI device to match the global MIDI channel. When you play the keyboard of the external MIDI device, it will sound simultaneously with the combination.

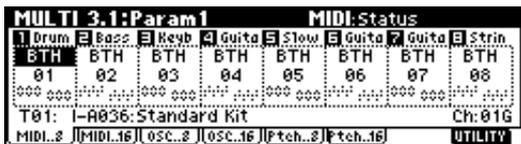


.....
Controller settings **2.2: Controller**

For each multi, specify the functions for the B-mode of the REALTIME CONTROLS knobs [1]–[4] and for “SW1” and “SW2.” (⇒p.100, PG p.53, 213, 214)

.....
Status, MIDI channel, and note mode settings **3.1: Param1**

MIDI page



Status

If you are using the TRITON-Rack in Multi mode as a 16-track multi-timbral tone generator, set the Status to either **INT** or **BTH**. (⇒PG p.54)

If the track “Status” is set to **INT**, the internal tone generator will sound when you play RPPR or the arpeggiator. When you operate the controllers of the TRITON-Rack, they will control the track selected for “Control Track.”

If the track status is set to **EXT** or **EX2**, an external tone generator will sound when you play RPPR or the arpeggiator. When you operate the controllers of the TRITON-Rack, they will control the external tone generator on the track selected for “Control Track.” You will need to set the MIDI channel of the external tone generator to match the “MIDI Channel” of the **EXT** and **EX2** tracks of the TRITON-Rack.

If the status is set to **BTH**, the operations of both **INT** and **EXT** will occur. Both the external tone generator and the TRITON-Rack’s tone generator will sound and be controlled simultaneously.

MIDI Channel

Sets the MIDI channel of the track you wish to play so that it matches the MIDI channel of the transmitting device. For example if note data is received on MIDI channel 01, the track(s) set to “MIDI Channel” 01 will sound (if “Status” is **INT**).

Bank (EX2) MSB, Bank (EX2) LSB

These settings are valid if “Status” is **EX2**; they specify the bank select messages that will be transmitted from the TRITON-Rack.

OSC page

Force OSC mode

OSC Select

Portamento

For each track, specify whether the program will be polyphonic/monophonic, the oscillator(s) that will be sounded, and the portamento time. (⇒PG p.54)

Pitch page

Transpose, Detune (BPM Adj.)

For each track, specify the pitch of the program. (⇒PG p.55)

.....
Note timing and scale settings
3.2: Param2

Other page

Delay [ms]

Use Prog’s Scale, Multi’s Scale

Specifies the timing at which the program of each track will sound, and the scale that it will use. (⇒PG p.56)

.....
Layer and split settings
3.3: Key Zone

Specifies the range of keys for which each track will sound, and the range of keys over which the original volume will be reached from the top key and bottom key. (⇒PG p.56)

.....
Velocity switch settings
3.4: Vel Zone

Specifies the range of velocities for which each track will sound, and the range of velocity values over which the original volume will be reached from the top velocity and bottom velocity. (⇒PG p.57)

.....
MIDI filter settings
4.1: MIDI Filter1–4.4: MIDI Filter4

For each MIDI filter, specify whether MIDI messages will be received. Messages that are **checked** will be received.

The MIDI filter does not turn the corresponding function on/off, but simply specifies whether that MIDI message will be received. (⇒PG p.58)

For tracks whose “Status” is **BTH**, **EXT**, or **EX2**, these settings will apply to the MIDI messages that are transmitted when you change the settings of the program, pan, volume, portamento, or send 1/2 parameters.



.....
Pattern and RPPR settings 5.1: RPPR

Here you can record and play user patterns, and make RPPR settings. Refer to the subsequent sections “Recording a pattern,” “Editing,” and “RPPR (Real-time Pattern Play/Recording) function.”

⚡ If you wish to keep the user patterns and RPPR settings, you must save them on external media such as a floppy disk. This data cannot be written to a template multi.

.....
Arpeggiator settings 6.1: Arp.

Indicates arpeggiator settings. (☞p.87)

.....
Bus settings 7.1: BUS

Specifies the routing for each timbre (i.e., how it is sent to the insert effects, master effects, and individual outputs). (☞p.96)

.....
Insert effect settings 7.2: InsertFX

Selects insert effects and make settings for them. (☞p.95, p.97)

.....
Master effect settings 7.3: MasterFX

Selects master effects and make settings for them. You can also make master EQ settings. (☞p.97)

Recording on a pattern

Your performance on the keyboard of a connected MIDI instrument and/or the controllers of the TRITON-Rack can be recorded as pattern data.

There are two ways to record on a pattern: **realtime recording** and **step recording**. Realtime recording a method of recording in which your playing on the keyboard and your operations of controllers such as the REALTIME CONTROLS are recorded in realtime. Step recording a method of recording where you specify the note timing, note length, and velocity etc. in the LCD screen, and use the keyboard to input the pitches. Only note-on/off data can be recorded with this method.

In addition, you can use **event edit** operations to modify data that has been recorded or to insert data. Event editing allows you to edit the recorded data, or add to it. In addition to note data, you can also insert data such as control changes.

.....
Realtime recording to a pattern

⚡ Before you begin recording a pattern, turn off the protect setting in Global mode (☞p.37).

When realtime-recording a pattern, a pattern of the specified number of measures will playback repeatedly, allowing you to continue adding musical data to it.

Track settings

- ① Select the **MULTI 5.1 RPPR, Pattern page**.

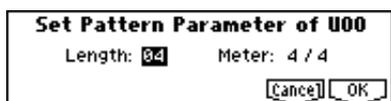


- ② Use “Control Track” to select a track.
The pattern will sound using the program and settings of the selected track.
- ③ If you will be recording a performance from a MIDI-connected keyboard, set the MIDI channel transmitted from the keyboard so that it matches the “Control Track” MIDI channel.
You can verify the MIDI channel of the track by checking the “MIDI Channel” parameter in 3.1: Param1, MIDI.

Select the pattern to record

- ④ Set “Pattern Bank” to User, and use “Pattern Select” to select a user pattern number U00–U99.

- ⑤ Use the “Pattern Parameter” utility to specify the number of measures in the pattern and its time signature.



When you have finished making these settings, press the [F8] (“OK”) key.

- ⑥ Use “J (Tempo)” to specify the recording tempo.
 ⑦ Use “Resolution” to specify the recording resolution. (“Realtime quantize “Resolution””)

Metronome settings

- ⑧ Set “Metronome Sound,” “Precount,” “Level,” and “Bus Select.”

These settings specify how the metronome will sound during recording and playback. (⇨PG p.61)

Recording

- ⑨ Press the [F4] (“REC”) key.

You will enter recording standby mode.

- ⑩ Press the [F5] (“START”) key.

Pattern recording will begin. Play the keyboard of a connected MIDI instrument or operate controllers such as the REALTIME CONTROLS to record the desired performance.

When you record to the end of the pattern, you will return to the beginning of the pattern, and recording will continue.

The newly recorded data will be added to the data that was previously recorded in the pattern.

- ⑪ You can erase specific data during pattern recording.

While still in pattern recording, you can press the [F4] (“REC”) key to erase all the data that is played while you continue holding down the key.

Alternatively, if you check the “Remove Data” check box and hold down a key on a connected MIDI instrument, that note (note number) will be deleted from the data that is played back while you continue holding the key.

Similarly, the corresponding controller data will be deleted while you operate one of the following controllers. Ribbon controller (CC#16) data will be deleted while the data value is other than 64 (center), and other controller data will be deleted while the data value is other than 0 (zero).

Modulation 1 (CC#01), modulation 2 (CC#02), damper (CC#64), ribbon controller (CC#16), after-touch, bender change

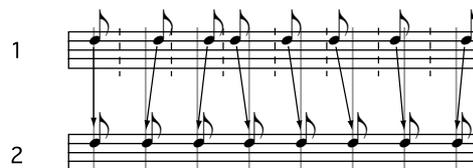
If you wish to add data to the pattern, uncheck this box.

- ⑫ To stop pattern recording, press the [F5] (“STOP”) key.

Realtime quantize “Resolution”

The TRITON-Rack provides a **realtime quantize “Resolution”** setting (step ⑦) that lets you correct the timing of performance data recorded using realtime recording.

For example, suppose that during realtime recording you intended to play eighth notes, but that the rhythm was slightly inaccurate, as shown in figure 1 below. In such cases, you could set “Reso” (resolution) to ♩, so that when you realtime-record, the notes will automatically be adjusted to the correct timing as shown in figure 2.



Recording the performance of the arpeggiator

The performance of the arpeggiator can be recorded into a pattern.

If arpeggiator A or B is assigned to the track selected as the “Control Track,” and the arpeggiator is set to run, the notes generated by the arpeggiator can be recorded.

Preset template multis and preset patterns

A drum category program is specified for **track 1** of all sixteen preset template multis. (For preset template multis P02, P04, P08 and P15, drum category programs are specified for more than one track.)

The pattern names of the 150 preset patterns indicate the musical genre and part of the program name of the most suitable drum category. (⇨Lower diagram on following page)

For example in the case of **P00: Pop&Balad 1/Std**, “Pop&Balad 1” indicates the musical genre, and “Std” is part of the program name of the most suitable drum category.

You can use this as a guideline when making RPPR settings with preset template multis and preset patterns.

Loading SMF (Standard MIDI File) performance data into a user pattern

By using the “Load Selected” utility in the Load page of Disk mode, you can load SMF data (filename extension .MID) into a user pattern. You can also save a user pattern on external media as SMF data.

Recording controllers such as the REALTIME CONTROLS

Although you may operate controllers etc. to record control data in a pattern, you should restore the control data to its normal value within the pattern. If you fail to restore the normal value, unnecessary control data may remain in a “stuck” position when you place the pattern in a song or use the RPPR function to play the pattern. However, the following control data will be automatically reset to the following values when the song or RPPR function finishes playing the pattern, or when playback is halted.

Control data	Reset value
Modulation 1 (CC#01)	00 (zero)
Modulation 2 (CC#02)	00 (zero)
Expression (CC#11)	127 (max)
Ribbon controller (CC#16)	64 (center)
Damper (CC#64)	00 (zero)
Sostenuto switch (CC#66)	00 (zero)
Soft switch (CC#67)	00 (zero)
EG sustain level (CC#70)	64 (center)
Resonance level (CC#71)	64 (center)
EG release time (CC#72)	64 (center)
EG attack time (CC#73)	64 (center)
Low pass filter cutoff (CC#74)	64 (center)
EG decay level (CC#75)	64 (center)
LFO1 speed (CC#76)	64 (center)
LFO1 depth (pitch) (CC#77)	64 (center)
LFO1 delay (CC#78)	64 (center)
Filter EG intensity (CC#79)	64 (center)
SW1 modulation (CC#80)	00 (zero)
SW1 modulation (CC#81)	00 (zero)
Channel after touch	00 (zero)
Bender change	00 (zero)

Step recording on a track or pattern

To step record on a pattern, use the 5.1: RPPR, Pattern Utility “Step Recording (Loop).”

For details on step recording on a pattern, refer to PG p.62.

Editing

Pattern editing

Using the Utility menu commands of the 5.1: RPPR, Pattern, you can use **event editing** to modify the recorded data or insert new data, and execute commands to **delete**, **copy**, or **bounce** patterns (⇒PG p.63).

Preset Template Song	Track No.: Name	Program	Corresponding Preset Pattern No.: Name
P00: Pop/Ballade	Track01: Drums	A036:Standard Kit	P00: Pop&Balad 1/Std ... P10: Pop(6/8) 3/Std
P01: Rock/Metal Rock	Track01: Drums	B020:Processed Kit	P11: Rock 1/Process ... P21: Rock11/Process
P02: R & B	Track01: Drums 1(Std 2)	B036:Standard Kit 2	P22: R&B 1/Std2 ... P27: R&B 6/Std2
	Track09: Drums 2(Std)	A036:Standard Kit	P28: R&B 7/Std ... P32: R&B11/Std
P03: Jazz	Track01: Drums	B004:Jazz/Brush Kits	P33: Jazz 1/Jazz ... P39: Jazz 7/Jazz
P04: Latin	Track01: Drums	B004:Jazz/Brush Kits	P40: Latin 1/Jazz ... P42: Latin 3/Jazz
	Track08: Percussion	B116:Percussion Kit	P46: Latin 7/Jazz ... P47: Latin 8/Jazz
P05: Reggae	Track01: Drums	B068:Drum'nBass Kit	P43: Latin 4/Perc ... P45: Latin 6/Perc
P06: Country	Track01: Drums	A036:Standard Kit	P48: Reggae 1/D'n'B ... P53: Reggae 6/D'n'B
P07: Folk	Track01: Drums	A036:Standard Kit	P54: Country 1/Std ... P57: Country 4/Std
P08: European Trad.	Track01: Drums	A036:Standard Kit	P58: Folk 1/Std ... P61: Folk 4/Std
	Track08: Percussion	B116:Percussion Kit	P62: E.Trad 1/Std ... P67: E.Trad(3/4)2/Std
P09: Orchestral	Track01: Percussion	A116:Orchestra&Ethnic	—
P10: Techno/Euro Beat	Track01: Drums	A020:House Kit	P68: Techno 1/House ... P78: Techno11/House
P11: House	Track01: Drums	A020:House Kit	P79: House 1/House ... P92: House14/House
P12: Drum'n'Bass	Track01: Drums	B068:Drum'n'Bass Kit	P93: Drum'nBs 1/D'n'B ... P108: Drum'nBs16/D'n'B
P13: Acid Jazz	Track01: Drums	B036:Standard Kit 2	P109: AcidJazz 1/Std2 ... P120: AcidJazz12/Std2
P14: Hip Hop/Rap	Track01: Drums	A068:HipHop Kit	P121: HipHop 1/HipHop ... P135: HipHop15/HipHop
P15: Big Beats	Track01: Drums 1(Hip/Hop)	A068:HipHop Kit	P136: Bigbeat 1/HipHop ... P143: Bigbeat 8/HipHop
	Track09: Drums 2(Tricky)	A004:!(Tricky) Kit!	P144: Bigbeat 9/Tricky ... P149: Bigbeat14/Tricky

RPPR (Realtime Pattern Play/Recording) function

For details on the RPPR function, refer to “Playing with the RPPR function” (p.25). Here we will give an example of how to make RPPR settings, and how to playback and record.

RPPR settings

RPPR settings are made individually for each multi. To use RPPR playback, check the 1.1: Play Multi page “RPPR” check box. If this is **checked**, the RPPR function will be turned on, and playing the keyboard on a connected MIDI instrument will cause patterns to playback according to the RPPR settings. If the “RPPR” check box is **not checked**, the multi will play normally even if RPPR settings have been made.

- 1 Specify multi settings such as program, pan, and level for the track that will use RPPR. (p.24)

The illustration in step 2 shows an example of using the “Load Template Multi” utility to load **P00: Pop/Ballade**.

- 2 Select the 5.1 RPPR, RPPR Setup page

In this page, the RPPR function will automatically be on.



- 3 In “Control Track,” select the track that will trigger the RPPR patterns.

When note data is received on the MIDI channel of the selected track, the specified pattern will playback. Set this to match the MIDI channel of the external MIDI device.

- 4 Use “KEY” to select the note number to which you wish to assign a pattern.

You can also enter these values by holding down the [ENTER] key and playing a note on a connected MIDI instrument.

- 5 Check the “Assign” check box.

You can make assignments for keys C#2–C8. Keys C2 and below are used for stopping the pattern playback, and cannot be assigned.

- 6 Select the pattern that will playback when you press the key selected in step 4.

Use “Pat (Pattern Bank)” to select the pattern type (either **Pre** (Preset) or **User**), and use “Pattern Select” to select the pattern.

A user pattern (**User**) selected here must have already been recorded or copied in the 5.1: RPPR, Pattern page.

- 7 Select the track that will play this pattern.

The pattern will play according to the program and other settings of the track that you specified in “Track.”

If you wish to play a drum pattern, choose a track for which a drum program is selected. If you wish to play a bass pattern, select a track for which a bass program is selected.

- 8 Set “M (Mode),” “Shift” and “Sync” to specify how the pattern will play, and how it will synchronize.

The method of stopping playback will depend on the “M (Mode)” setting, but pressing the **C2** or lower key will stop all patterns.

For keys whose “Sync” setting is **Beat** or **Measure**, the pattern playback will synchronize with the pattern playback of the first key. For keys that are set to **ARP (SEQ)**, the pattern playback will synchronize to the arpeggiator.

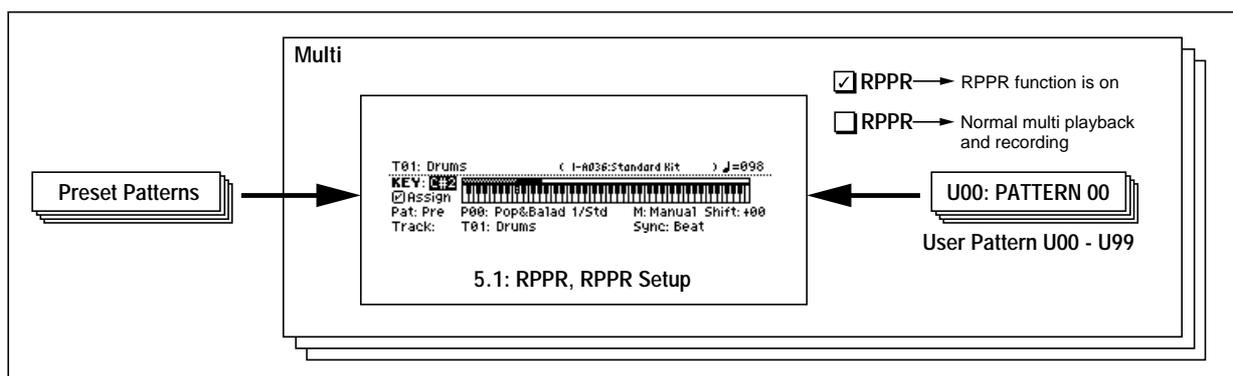
For details on these parameters and on how to stop the playback, refer to PG p.64.

The assigned keys will be shown as a keyboard graphic in the LCD screen.

- 9 When a key to which a pattern is assigned is played on a connected MIDI instrument, that pattern will begin playing.

Play a key corresponding to the “KEY” note number, on the MIDI channel of the “Control Track” that you selected in step 3.

Keys to which RPPR is not assigned can be used for normal keyboard performance. If you wish to change the track used for normal keyboard performance, set the MIDI channel of your MIDI keyboard



etc. to match the MIDI channel of the track you wish to play. Also set the “Control Track” to match the track you wish to play.

note For example you might assign backing patterns such as drums and bass to the **C#2–B2** keys and use these keys to control pattern playback, and use keys **C3** and above to play solos in realtime. It is a good idea to keep the assigned keys together in this way.

Using REVERT to copy RPPR settings

By using “REVERT” (press the [F4] key), you can copy the “Pat (Pattern Bank),” “Pattern Select,” and “Track” settings of the previously-edited “KEY” whose “Assign” was checked. This allows you to work more efficiently when the patterns you are assigning to the keys are numbered consecutively or are nearby each other, and you are using them in the same track.

For example if you have started from the state shown in the foregoing illustration for step ② and followed the steps through ⑦, the settings will be as follows.

“KEY”: **C#2**

“Pat (Pattern Bank)”: **Pre**

“Pattern Select”: **P01: Pop&Balad 1/Std**

“Track”: **T01: Drums**

Now let’s suppose that we want to make the following settings.

“KEY”: **D2**

“Pat (Pattern Bank)”: **Pre**

“Pattern Select”: **P01: Pop&Balad 2/Std**

“Track”: **T01: Drums**

① Follow steps ①–⑨ of “RPPR settings” to assign the first RPPR to “KEY” **C#2**.

② Assign the second RPPR to “KEY” **D2**.

Set “KEY” to **D2**.

③ Press the [F4] (“REVERT”) key.

The settings of ① for “Pat (Pattern Bank),” “Pattern Select,” and “Track” will be copied.

④ Set “Pattern Select” to **P01: Pop& Balad 2/Std**.

By repeating steps ②–④ in this way, you can make RPPR settings more efficiently.

RPPR playback

Here’s how you can use the RPPR function to perform in the 1.1: Play, Multi page.

① Select the 1.1 Play, Multi page.



② Check the “RPPR” check box.

The RPPR function will be turned on.

The on/off setting is memorized for each multi.

③ Play the keyboard on a connected MIDI instrument, and patterns will begin playing according to the RPPR settings.

④ To turn off the RPPR function, uncheck the RPPR check box.

RPPR performance techniques

The pattern will start accurately if you play the note on the connected MIDI instrument slightly ahead of the beat or measure. Also, even if the timing of the note you play is slightly after the beat or measure (but within a 32nd note of it), the pattern will be played as though it started on the beat or measure, but the beginning of the pattern will be “squeezed” by the amount of this delay.

Recording RPPR performance on an external sequencer

A multi-track performance played using RPPR can be recorded on an external sequencer.

For tracks whose track status is set to **BTH**, **EXT**, or **EX2**, the pattern playback will be transmitted via MIDI.

The playback will be recorded on the tracks of the sequencer whose channels match the MIDI channels of the tracks being used for RPPR. (⇒PG p.228)

Sampling mode

The TRITON-Rack provides high-performance mono/stereo sampling.

- None of the multisample or sample data in Sampling mode is backed up when the power is turned off. If you wish to keep this data, you must save it onto a floppy disk or external SCSI device (if the separately sold EXB-SCSI option is installed) before turning off the power. Immediately after the power is turned on, memory will not contain multisample or sample data. You must first load previously-saved data before you can play back or edit it.

Features of sampling mode

- 48 kHz 16 bit linear mono/stereo sampling**
- 16 Mbytes** of sample (waveform) data memory is standard, allowing you to sample for approximately 2 minutes 54 seconds in monaural, or approximately 1 minute 27 seconds in stereo. By installing 72 pin SIMM modules, you can expand the memory to a **maximum of 96 Mbytes**, which will allow you to record up to six 2 minute 54 second samples in mono (or four 1 minute 27 second samples in stereo), for a maximum total of approximately 17 minutes 28 seconds of sampling time. (For details on expansion, refer to PG p.243.)
- A **maximum of 1,000 multisamples and 4,000 samples** can be created.
- In Disk mode you can load multisample/sample data from a floppy disk or SCSI media (when the separately sold EXB-SCSI option is installed).
- Korg format or Akai (S1000/3000) format sample data, and AIFF or WAVE format sample data can be loaded. (Once data has been loaded into the TRITON-Rack, it will all be treated as Korg format sample data.)
Sample data created on the TRITON-Rack can be exported (output) as an AIFF or WAVE format sample file.
- The external audio source that you are sampling can be processed by the **five insertion effects** to apply effects such as compressor, EQ, or lo-fi. The LFO frequency or delay time of the effect can be specified as a BPM value, which is highly effective when sampling phrase loops etc.
- Both **auto sampling** and **manual sampling** can be performed. With auto sampling, recording will begin automatically when the input level exceeds a specified threshold. In either method of sampling, you can make pre-trigger settings.
- The audio input supports both mic and line level signals.
- Data you sampled can be played immediately from the keyboard of a connected MIDI instrument or by pressing the [AUDITION] key. It is also easy to **convert sampled data into a program**, and use it as

material for the TRITON-Rack's HI synthesis system. Multisamples/samples that have been converted into a program can be used in a combination or multi.

- The waveform can be viewed in the LCD screen, and edited by a variety of waveform editing commands that include **rate convert** (down-sampling) and reverse playback.

The following commands are also provided.

Time Slice

This automatically detects the attack portions of a kick or snare etc. in a rhythm loop sample (a looped pattern of drums etc.), and divides it into separate rhythm instrument sounds. A pattern corresponding to the divided samples is created automatically, so that you can immediately use the Multi mode RPPR function to play the pattern and adjust the tempo without changing the pitch. You can also do things such as adjusting the pitch of only the snare, replacing it with a different sample, or changing the playback timing on the sequencer, in this way creating a new rhythm loop based on the rhythm loop you started with. (Stereo samples are supported.)

Time Stretch

This lets you modify the tempo without changing the pitch of a sample. You can select either **Sustaining** (suitable for sustain-type instruments such as strings or vocals), or **Slice** (suitable for rhythm loops on decay-type instruments such drums). Stereo samples are supported.

Crossfade Loop

An important looping tool that helps smooth out irregularities in long loops which contain complex material. By executing Crossfade Loop, you can eliminate this problem and create natural-sounding loops.

Link (with Crossfade)

This allows you to join two samples into a single sample. You can also crossfade the overlapping portion of the samples at this time, so that the volume changes gradually, producing a natural-sounding transition.

- The **BPM Adjust function** (playback pitch adjust) lets you adjust the playback pitch of each index so that the loop frequency matches the desired BPM value.
- Start, loop start, and end addresses can be specified in units of a single sample. **Loop tune, reverse playback, and loop lock functions** are also supported.
- The **Use Zero function** automatically searches for zero-cross points, making it easy to find the beginning or end of the waveform, or locations that will not produce noise when the sample is played back.

- The **grid function** displays a BPM-based grid on the waveform display, helping you to create loops or make waveform edits that match the desired BPM.
- Each multisample allows you to create up to **128 indices**. Each index consists of a sample assignment, a key zone, an original key, a playback pitch, and settings such as level.
- The “Keyboard & Index” display lets you edit a multisample while viewing the assignments and zones of each sample.
- Sample names and multisample names of up to 16 characters can be assigned. Sample names and multisample names can also be viewed in Disk mode (⇒PG p.124 “Translation”).

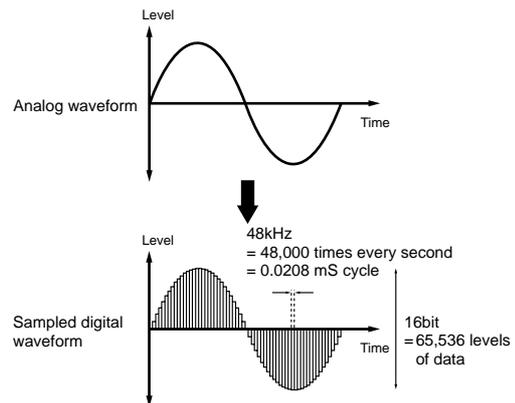
How Sampling mode is organized

In Sampling mode

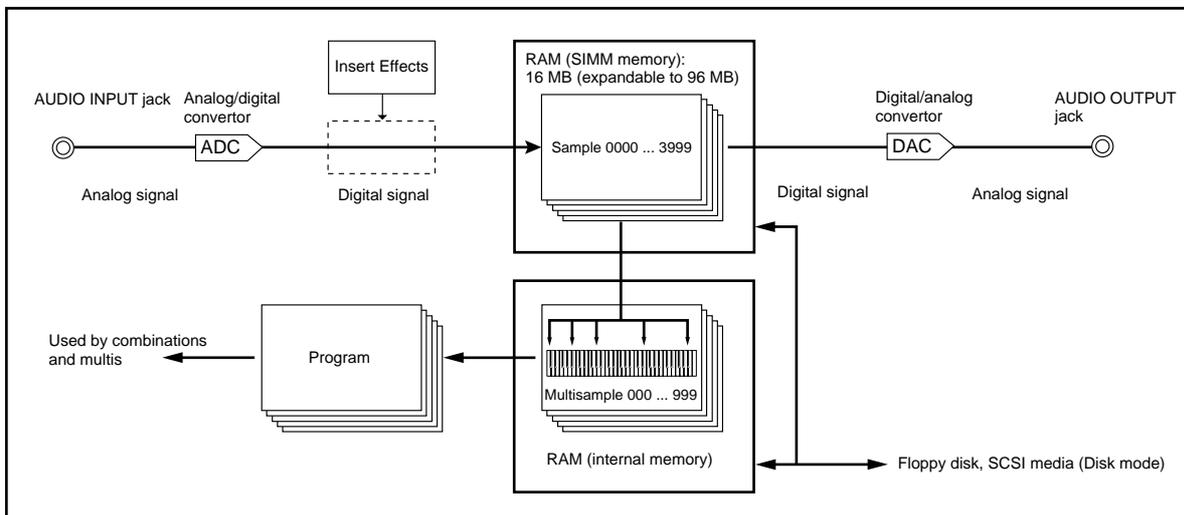
- An external audio signal from an external audio device or microphone connected to the AUDIO INPUT 1 and 2 jacks is passed through an analog/digital convertor, and recorded (sampled).
- You can edit the waveform and loop settings etc. of sample data that you sampled or that you loaded from a floppy disk, CD-ROM etc., in Disk mode.
- You can assign samples to the keyboard to create a multisample. These samples and multisamples can be easily converted to a program using the Utility “Conv. To Program,” and these programs can be used immediately in a combination or multi.

Sampling frequency and bit resolution

As shown in the diagram, sampling reads the level of the analog signal at fixed intervals along the time axis, and stores the levels in memory as digital data.



The “fixed intervals” mentioned above are generally expressed as the “sampling frequency.” 48 kHz (kilohertz) means that sampling is performed 48,000 times each second, and that the interval is $1 \text{ (second)} / 48,000 \text{ (times)} = \text{approximately } 0.00002083 \text{ (seconds)} = \text{approximately } 0.02083 \text{ mS (millisecond)}$.



The higher the sampling frequency is, the closer to the original analog signal the waveform in memory will be.

Each level is read, and converted into digital data. The accuracy at this time is determined by the bit resolution. This process converts an analog signal with infinite resolution into a digital signal with finite resolution. With 16 bit resolution, each level is indicated in 65,536 steps (the sixteenth power of two).

The greater the bit resolution is, the closer to the original analog signal the waveform in memory will be.

48 kHz 16 bit sampling is the same quality as in audio devices such as DAT. A CD uses 44.1 kHz 16 bit sampling, which is a slightly lower sampling frequency.

••••• Samples and Multisamples

Samples

The data that is recorded (sampled) into internal memory or loaded from a file is referred to as a sample or sample file. Samples consist of the actual waveform data, and parameters that specify how the data will be played back, such as Start, Loop Start, and End Address. Samples can be used by multisamples and drum kits.

The TRITON-Rack can hold a maximum of 4,000 samples in its internal memory.

note The TRITON-Rack can share a single waveform among multiple samples. This allows you to create multiple samples with different playback addresses from the same waveform without wasting internal memory. For example, suppose that you have waveform data that records a voice saying “One-Two-Three.” This single piece of waveform data could be shared by three samples, with the playback of sample A producing “One-Two-Three,” sample B producing “One-Two,” and sample C producing “Two-Three.” (PG p.80).

Multisamples

A multisample consists of settings that make one or more sample sound in different areas of the keyboard. A multisample consist of between one and 128 “indexes.” Each index contains parameters that specify the sample that will playback, the zone for which it will playback, the original pitch key, the playback pitch, and level etc.

Using multisamples

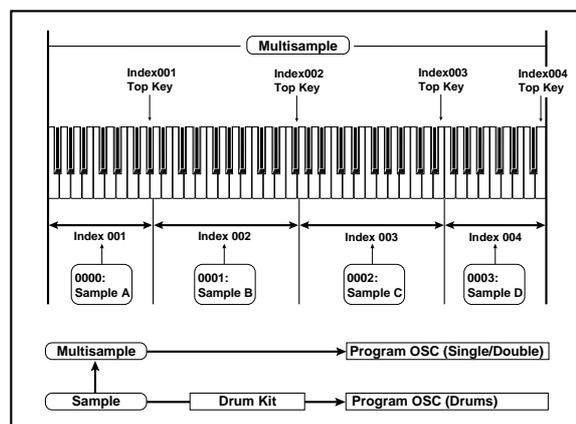
When sampling an instrument that is able to produce a wide range of pitches, such as a piano, recording just one sample and using it (playing it back) over the entire pitch range will not produce a natural-sounding result. By using a multisample you can record separate samples for each pitch range, and assign these samples to their respective pitch ranges to avoid any unnatural sounds during playback. For example, you might

record one sample per octave, and assign each of these samples to an index (keyboard area). All of the instrumental sounds in the TRITON-Rack’s internal preset ROM multisamples are constructed in this way.

By assigning multiple samples such as phrase samples or rhythm loops to a multisample and arranging them across the keyboard, you can play multiple samples simultaneously. Since a different phrase could be assigned to each key, you can perform just as though you were using a pad-type sampler. Alternatively, these samples could be assigned at one-octave intervals, and played as phrase variations with different playback pitches.

The TRITON-Rack can hold a maximum of 1,000 multisamples in its internal memory.

A multisample can be selected as the oscillator for a program, and played as a program. In a combination, they can be combined with preset programs, and used in a multi. They can be used with the arpeggiator to produce interesting results (for example, by using the arpeggiator to automatically play sound effects or spoken samples).



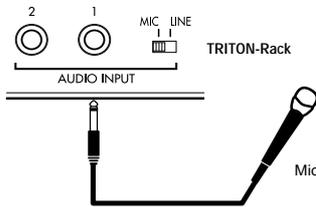
Sampling

Preparations for sampling

Connections and settings for a monaural source

When sampling in monaural from a mic, the output of an external audio device or mixer, or an instrumental sound such as guitar or synthesizer, connect the source to the AUDIO INPUT 1 or 2.

note Guitars and other instruments with active pickups can be input directly, but instruments with passive pickups (i.e., without internal preamps) cannot be recorded at an appropriate level, due to impedance mismatching. When connecting such instruments, use a preamp or effect device.



- ① Connect the mic or external audio device to the AUDIO INPUT 1 jack.
- ② Set the AUDIO INPUT [MIC/LINE] switch to match the input source. For input sources with a low input level, such as a microphone, select the MIC position. For other sources, select the LINE position.

⚠ The AUDIO INPUT [MIC/LINE] switch affects both the AUDIO INPUT 1 and 2 jacks.

- ③ The [INPUT] knob will be adjusted later. For now, set it near the center.
- ④ In Sampling mode 1.1 Recording, select the Input/Ptfef page.



- ⑤ In “Input 1,” set various parameters to specify how the signal from the AUDIO INPUT jacks will be input to the TRITON-Rack.
 - “Lvl” adjusts the volume. Normally you will set this to 127.
 - “Pan” adjust the panning. For this example set it to L000.
 - Set “BUS.” If you wish to use the TRITON-Rack’s insert effects to process the incoming sound, select IFX1-5 here. For this example, select L/R. The input sound will be sampled just as it is.

⚠ Be aware that when you change the setting from Off to L/R or IFX1-5, the volume level in the AUDIO OUTPUT L/MONO and R jacks and in the headphones may rise excessively.

“Input 1” controls the AUDIO INPUT 1 jack, and “Input 2” controls the AUDIO INPUT 2 jack.

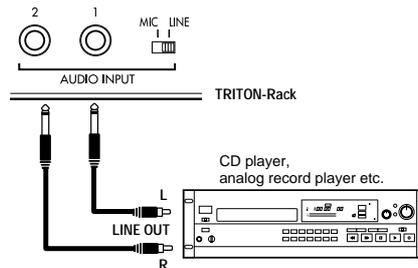
The settings up to this point will cause the sound from the AUDIO INPUT 1 jack to be output from the AUDIO OUTPUT L/MONO jack and from the L channel of the headphones.

- ⑥ Use the [INPUT] knob to set an appropriate level.

If an overload occurs in the input stage of the TRITON-Rack, “ADC OVER!” (AD converter overload!) will be displayed above the “Recording Level” slider. Adjust the [INPUT] knob or the output level of the external audio device just low enough so that the “ADC OVER!” does not appear (i.e., the maximum level that does not cause an overload).

Connections and settings for a stereo source

When sampling in stereo from a stereo mic, the output of an external audio device or mixer, or synthesizer, connect the source to the AUDIO INPUT 1 and 2 jacks.



- ① Connect the L source to AUDIO INPUT jack 1, and the R source to jack 2.
- ② Make the settings described in steps ②-④ of “Connections and settings for a monaural source.”
- ③ Set the “Input 1” and “Input 2” parameters to specify how the signal from the AUDIO INPUT jacks will be input to the TRITON-Rack.

- “Lvl” adjusts the volume. Set both Input 1 and Input 2 to 127.
- “Pan” adjust the panning. Set Input 1 to L000, and Input 2 to R127.
- Set “BUS.” For this example, select L/R for both Input 1 and Input 2.

The settings up to this point will cause the sound from the AUDIO INPUT 1 and 2 jacks to be output in stereo from the AUDIO OUTPUT L/MONO and R jacks and from the headphones. The sound of AUDIO INPUT 1 will be output from the left, and AUDIO INPUT 2 from the right.

- ④ Use the [INPUT] knob to adjust a suitable input level. (Refer to step ⑥ of “Connections and settings for a monaural source”)

The [INPUT] knob adjusts both AUDIO INPUT 1 and 2.

Using an insert effect

The TRITON-Rack's insert effects can be applied to the sound that is being input from the AUDIO INPUT 1 and 2 jacks, allowing you to record a sample with effects applied. As an example, we will explain the procedure for applying an insert effect to a stereo source and sampling the result.

- ① Make the settings of step ① and ② in “Connections and settings for a stereo source.”
- ② Set the various “Input 1” and “Input 2” parameters.
 - Set “BUS” to IFX1 for both Input 1 and 2.
 - Set “Lvl” and “Pan” to the same settings as in step ③ of “Connections and settings for a stereo source.” With these settings, the stereo source will be sent to insert effect 1 (IFX 1).
- ③ Use the [INPUT] knob to adjust a suitable input level. (Refer to step ⑥ of “Connections and settings for a monaural source.”)
- ④ Select the 7.2: Insert Effect, Setup page.



Up to five insert effects can be connected in series. Make settings for “Insert Effect,” “Chain,” and the “Pan (CC#8)” of the sound after it has passed through the insert effect. (⇒PG p.28, 104)

Examples of settings using the insert effects are given in “Mode (Sample Mode)” (⇒PG p.77).

Manual sampling

There are two methods of sampling: manual and auto.

In **manual** mode, sampling is started by pressing the [F5] (“START”) key from the recording standby condition (entered by pressing the [F4] (“REC”) key once). For the sampling procedure in **auto** mode, refer to “Auto sampling” (⇒p.70).

- ① Select the 1.1: Recording, Recording page.
- ② For “Mode (REC Mode),” select Manual.

This will select manual recording mode.



- ③ Select the 1.1: Recording, Sample page.



- ④ For “MS (Multisample Select),” select 000: NewMS_000.

Immediately after the power is turned on, **000: NewMS_000** will be created automatically. Use the numeric keys [0]–[9] to input the multisample number that you wish to record, and press the [ENTER] key.

If you select a new number, the Create New Multi-sample dialog box will appear. Press the [F8] (“OK”) key, and the new multisample will be created.



To specify the name, use the Utility “Rename MS.”

- ⑤ In “SMPL (Sample Select),” select the sample that you wish to record. For this example, select ----: ---No Assign----.

Immediately after the power is turned on, this will be set to ----: ---No Assign----. You may sample even in this condition. The sample will be automatically recorded to a vacant sample number.

If you wish to start by specifying the sample number to be sampled, use the [INC], [DEC] keys or numeric keys [0]–[9] and [ENTER] key to specify the desired number.

A sample will be created when you record. A sample name such as **0000: NewSample_0000** will be assigned automatically. This name can be edited using the Utility “Rename SMPL.”

If you execute sampling when an existing sample such as **0000: NewSample_0000** is selected, the new sample will be sampled to a vacant sample number. You do not need to be concerned with this setting even when you continue recording successive samples.

- ⑥ Select the 1.1: Recording, Recording page.



- ⑦ Set the “Mode (Sample Mode).”

Monaural source: If the “Input1” setting “Pan” is L000, set “Mode (Sample Mode)” to L-Mono. If “Pan” is R127, set “Mode (Sample Mode)” to R-Mono.

Stereo source: Set the “Mode (Sample Mode)” to Stereo.

- ⑧ Press the [F4] (“REC”) key.



If an input signal is present, the Recording Level [dB] meter will move according to the Pan setting in “Input1” and “Input2.” This is the recording-standby condition.

In the case of “Connections and settings for a monaural source,” the L meter will move. In the case of

“Connections and settings for a stereo source,” the L and R meters will move.

Use the “Recording Level [dB]” slider to adjust the level. For this example, set the slider to the 0.0 setting (⇒PG p.78).

- ⑨ At the moment that you wish to begin sampling, press the [F5] (“START”) key.

Sampling will begin.

- ⑩ Sampling will stop when you press the [F5] (“STOP”) key.

▲ Sampling will stop automatically when the remaining amount of memory reaches zero.

- ⑪ Either press the [AUDITION] key, or press the C2 key on a connected MIDI keyboard.

The sample you recorded will play back.

If you wish to continue recording samples, repeat steps ⑦–⑩.

Auto sampling

There are two ways to record a sample: manual and auto.

With auto, sampling will begin when the input signal exceeds the specified threshold level.

- ① Select the 1.1: Recording, Recording page.



- ② For “Mode (REC Mode),” select Auto.

This will select auto recording mode.

- ③ Set the “Threshold.”

When the input signal exceeds the “Threshold” level, sampling will begin automatically. The black triangles at both sides of the Recording Level [dB] meter display will indicate the specified level.

note When you use auto sampling, the attack portion of the sampled input sound may be lost, depending on the “Threshold” setting. If this occurs, you can use “Pre Trigger” to sample the sound that occurs before sampling actually begins. Normally you will set this to 0, and use it only when necessary.

- ④ Select the 1.1: Recording, Sample page.

- ⑤ Select the “MS (Multisample Select).”

(⇒“Manual sampling” step ④)

- ⑥ Select the sample in “SMPL (Sample Select)” that you wish to record.

(⇒“Manual sampling” step ⑤)

- ⑦ Select the 1.1: Recording, Recording page.

- ⑧ Set the “Mode (Sample Mode).”

(⇒“Manual sampling” ⑥ ⑦)

- ⑨ Press the [F4] (“REC”) key.

- ⑩ Press the [F5] (“START”) key.

When the input signal exceeds the “Threshold” level, sampling will begin automatically.

- ⑪ Sampling will stop when you press the [F5] (“STOP”) key.

▲ Sampling will end automatically if the remaining amount of memory reaches zero.

- ⑫ Either press the [AUDITION] key, or press the C2 key on a connected MIDI keyboard.

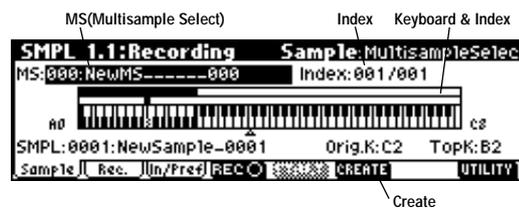
The sample you recorded will play back.

Creating multisample indexes and sampling

Here’s how to create indexes for a multisample, and assign a sample to each index.

If desired, you can first create several indexes for a multisample, and then record a sample for each index.

- ① Select the 1.1: Recording, Sample page.



- ② Select “MS (Multisample Select),” and create a multisample. (Refer to “Manual sampling” ④)

- ③ Press the [F6] (“Create”) key to create an index.

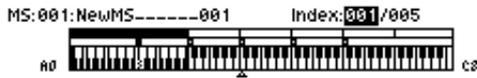
Immediately after the power is turned on, the “Index” will be indicated as 001/001. This means that there is only one index. The range that is highlighted in the keyboard & Index is the range of the selected index.

Press the [F6] (“Create”) key several times. Each time you press it, an index will be created. The keyboard display will indicate the zone and original key location of each index. The highlighted area is the currently selected index.

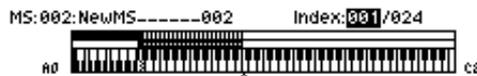
note The index that is created when you press the [F6] (“Create”) key is created according to the “Create (Create Zone Preference)” settings of the 1.1: Recording, Input/Pref page. (⇒PG p.79, p.102).



Immediately after the power is turned on, “Pstn (Position)” will be **R** (Right), “Range (Zone Range)” will be **012**(Keys), and “Orig.K (Original Key Position)” will be **Btm** (Bottom), so that indexes will be created as shown below.



note If you set “Range (Zone Range)” to **1**(Key), an index will be created for each note of the keyboard and a sample assigned to in index. You can then continue sampling. It is convenient to use **1**(Key) when you wish to sample numerous takes in succession, such as when recording phrases or rhythm loops.



④ Select “Index.”

“Index” can also be selected by holding down the [ENTER] key and playing a note on a connected MIDI keyboard. For this example, select **001**.

⑤ If you have been sampling previously and one or more samples already exist, use “SMPL (Sample Select)” to select the sample that you wish to assign.

Repeat steps ④ and ⑤ to assign a sample to each index. Complete the multisample in this way.

To hear the sampled sound, play a note on a connected MIDI keyboard in the range of the index to which the sample is assigned, or press the [AUDITION] key.

⑥ Alternatively, you can create several indexes for the multisample before you begin sampling, and then sample for each index.

In step ④, select the index for which you wish to sample, and use either manual sampling or auto sampling to record a sample. (⇨ “Manual sampling,” “Auto sampling”)

Create a multisample by selecting an index and then sampling.

note The number and order of the indexes in the multisample, the zone of each index, and the original key location can be edited later if desired (⇨ p.74 “Multisample editing”).

Loop settings

With the default settings after the power is turned on, the sounds you sample will automatically be looped (1.1: Recording, Input/Pref page “AutoLoop (Auto Loop On)” **On**)

To edit the loop and other playback address settings for the sample, use the 3.1: Loop Edit, Edit2 page.

① Select the sample for which you wish to make loop settings.

To select the sample, use the “SMPL (Sample Select)” or “Index” parameters of 3.1: Loop Edit, Edit 1 page or of the 1.1: Recording, Sample page. (⇨ p.70)

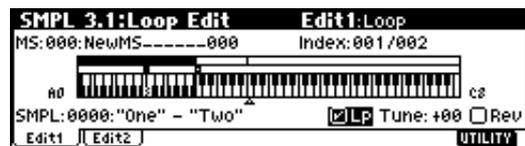
⚠ If you use “SMPL (Sample Select)” to select the sample, be aware that the assignment to the index will also change.

② In the 3.1: Loop Edit, Edit1 page, use the “Lp (Loop)” check box to turn loop playback on/off for the sample.

Looping will be turned on if the box is checked. This will operate between the addresses you specify in step ④.

Loop On: S→E→LpS→E→ (LpS→E is repeated)

Loop Off: S→E



③ Select the 3.1: Loop Edit, Edit2 page.



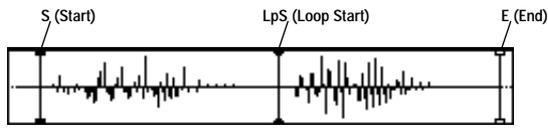
The waveform data of the currently selected sample will be displayed. You can play back the sample by playing a note on a connected MIDI keyboard in the range of keys to which the sample is assigned (the keyboard area highlighted in “Keyboard & Index”). You can also play the sample by pressing the [AUDITION] key.

note In the case of a sample that was sampled with a “Mode (Sample Mode)” setting of **Stereo**, the waveform display will alternate between L and R each time you press the [F3] (“L/R”) key. At this time, the upper right of the display will indicate [L] or [R].

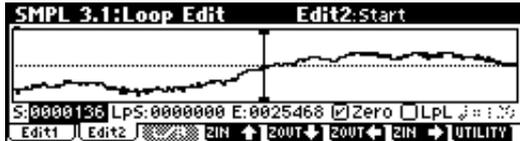
④ Specify the start address in “S (Start),” the loop start address in “LpS (Loop Start),” and the end address in “E (End).”

Select “S (Start)” (highlighted), and use the [VALUE] dial or other VALUE controllers to modify the value. The corresponding vertical line will move. Set “LpS (Loop Start)” and “E (End)” in the same way. In the example shown below, “S (Start)” is set immediately

before the first waveform, “LpS (Loop Start)” is set immediately before the second waveform, and “E (End)” is set as desired.



note By using the ZOOM ([F4] key-[F7] key) you can change the range that is displayed. When “S (Start)” is highlighted, zoom will be performed from the start address (⇨PG p.85).



note If the “Zero (Use Zero)” check box is checked, only those addresses where the waveform data crosses the zero level will be found automatically when searching, and can be set. This lets you easily make address settings where noise is less likely to occur when looping.

- ⑤ If necessary, use the Utility “Truncate” to delete unwanted data that falls outside the start (or loop start) and end addresses.



Set the parameters, and press the [F8] (“OK”) key to execute the operation. (⇨PG p.93)

⚠ For cautions on the “Save to No.” and “Overwrite” check boxes, refer to “A note on saving samples” (⇨p.73).

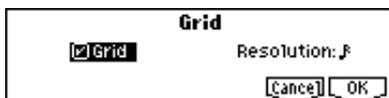
..... The grid display

The Utility “Grid” overlays the waveform display with a grid based on the BPM tempo value. This makes it easy to make loop settings that are synchronized to the tempo.

note In the same way, the grid display can also be used in 2.1: Sample Edit, Edit2 page. The grid can help you to edit the waveform in synchronization with the tempo.

- ① Select the “Grid” Utility.

The following dialog box will appear.



Check “Grid,” set “Resolution” as desired, and press the [F8] (“OK”) key. The dotted grid lines will appear.



- ② Set “♩ (Grid Tempo)” to the desired BPM tempo value.
- ③ Set the end address so that it coincides with a dotted line of the grid.

This will cause the loop interval to be the same length as the BPM value.

The grid display will be based at “LpS (Loop Start)” if looping is on. If looping is off, the grid will be based at “S (Start).”

- ④ To hide the grid display, select the “Grid” utility, uncheck “Grid,” and press the [F8] (“OK”) key.

⚠ The grid is displayed according to the playback pitch of the base key (the key shown in gray in the “Keyboard & Index” area). You can select the base key by holding down the [ENTER] key and playing a note on the keyboard of a connected MIDI instrument.

Sample (waveform data) editing

Editing the waveform data of the sample is done in 2.1: Sample Edit. You can use commands such as cut, copy, and normalize to edit the waveform data.

① Select the sample that you wish to edit.

Use “SMPL (Sample Select) or “Index” in the 2.1: Sample Edit, Edit 1 page or the 1.1: Recording, Sample page to select the sample. (⇒p.70)

- ⚠ If you use “SMPL Sample Select)” to select the sample, be aware that the index assignment will also change.

② Select the 2.1: Sample Edit, Edit2 page.



The waveform data of the currently selected sample will be displayed.

- ⚠ The waveform display of a sample that was sampled with a “Mode (Sample Mode)” setting of **Stereo** can be switched between the L and R waveforms by pressing the [F3] (“L/R”) key. When you do so, [L] or [R] will be displayed alternately in the upper right.

③ Use “Edit S (Edit Range Start)” and “Edit E (Edit Range End)” to specify the range that you wish to edit.

The selected range will be highlighted.



If you wish to hear the sound of the selected range, press the [AUDITION] key. The selected range will play back at the pitch of the base key (the key shown in gray on the keyboard display). You can select the base key by holding down the [ENTER] key and playing a note on your keyboard.

On your connected MIDI instrument, play a key to which the sample is assigned (the highlighted range of the keyboard displayed in “Keyboard & Index”), and the sample will be played back according to its loop settings.

- note** The procedure for using the ZOOM and “Zero (Use Zero)” check boxes is the same as for 3.1: Loop Edit.

④ From the list of Utility menu, select the desired editing command. Make the appropriate settings in the dialog box, and press the [F8] (“OK”) key to execute.

For details on each command (⇒PG p.84).

A note on saving samples

In the dialog boxes of some Utility menu, there is a “Save to No.” setting that lets you specify the sample number to which the edited sample will be saved. At this time, a vacant sample number will be selected automatically, so you will change the setting only if you want to specify the save destination number.

If you **check** “Overwrite” in the dialog box of the command, the data prior to editing will be deleted, and will be overwritten by the edited data. Normally, you will execute the Write operation without **checking** this, so that the unedited data is preserved. When you are completely finished with your editing, you can use the “Delete SMPL” utility to delete unneeded samples.

- ⚠ In Sampling mode, there is no Compare function that lets you compare the data before and after editing.

If you wish to preserve the unedited state of the multisample or sample, use “Copy SMPL” or “Copy MS” (⇒PG p.80, 81) to copy the multisample or sample before you begin editing it.

For some Utility menu commands in 2.1: Sample Edit or 3.1: Loop Edit, you can execute without **checking** the “Overwrite” setting in the dialog box, so that the sample data previous to editing will be preserved.

Multisample editing

Editing a multisample is accomplished with a number of operations i.e. creating indexes for the multisample and assigning a sample to each index, editing operations such as deleting, copying, and inserting indexes, and detailed settings such as sample level and pitch for each index.

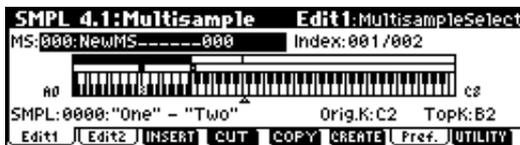
Multisample editing is performed in 4.1: Multisample.

note Basic settings such as creating indexes and assigning samples can also be made in the 1.1: Recording, Sample page.

Editing the indices

To change the number or order of the indexes, use the **Insert, Cut, Copy, and Create**.

- 1 Select 4.1: Multisample.



- 2 Use “MS (Multisample Select)” to select the multisample that you wish to edit.

- 3 Select the “Index.”

You can also select this by holding down the [ENTER] key and playing a note on a connected MIDI instrument.

- 4 Press the keys corresponding to the following function buttons to edit the multisample by changing the number or order of the indexes.

To delete the selected index, press the “Cut.” The “Insert” is used in conjunction with the Cut and “Copy.” The contents of the index that was Cut or Copied will be inserted.

The “Create” has the same function as the “Create” in 1.1 Recording, Sample (⇒p.70 “Creating multisample indexes and sampling”).

Modifying the settings of an index

- 1 Make the settings described in steps ①–③ of “Editing the indices.”

- 2 Set parameters for the selected index.

(⇒PG p.101)

- Changing the Edit1 page “Top K (Top Key)” will change the upper limit of the zone. Simultaneously, the lower limit of the next-numbered index will also change.
- If you **check** “Constant Pitch” in the Edit2 page, playing any note on a connected MIDI instrument within the zone of an index will always sound the original pitch.
- Edit2 page “Pitch” adjusts the sample pitch for each index. You can use the Utility “Pitch BPM

Adj.” to set the loop interval to a desired BPM value (⇒PG p.102).

Converting a multisample to a program

The “Conv. To Prog” utility can be selected and executed in the various pages of 1.1: Recording, in 2.1: Sample Edit, in Edit 1 of 3.1: Loop Edit, in the various pages of 4.1: Multisample, and in 5.2: Ctrl Setup. When you execute this utility, the state of the currently selected multisample will be converted into a program. In Program mode you can make filter, amp and effect settings etc., and play the sample as a program. The resulting program can be used in a combination or multi.

For details on using the “Conv. To Prog” utility, refer to p.32 and PG p.83.

Using samples in a drum kit

A sample you created in Sampling mode can be used as one of the instruments in a drum kit. In the GLOBAL 5.1: DKit, High Sample page and Low Sample page, set “Drumsample Bank” to RAM, and use “Drumsample” to select the sample that you created.

Using Time Slice to divide a sample, and playing it in Multi mode RPPR

Time Slice is a function that detects the attack of the kick or snare etc. in a rhythm loop sample (a sample consisting of a looped pattern of drums etc.), and automatically divides it into separate instrumental sounds. Each of the divided instrumental sounds is made a sample of its own, and then automatically expanded into a multisample and program. Pattern playback data for Multi mode and RPPR settings for the divided samples are also created automatically. (PG p.93)

The time-slices sample can be used in the following ways by the RPPR function of Multi mode.

- Multiple rhythm loop samples of differing tempo can be matched to the same tempo without changing their pitch.
- You can change the tempo in realtime without affecting the pitch.
- Multiple rhythm loop samples can be turned on/off in realtime from the keyboard of a connected MIDI instrument.

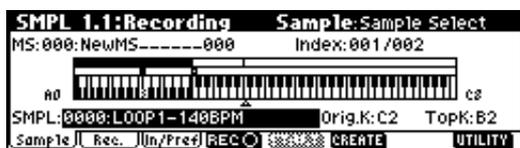
As an example, we will explain the procedure for using Sampling mode to time-slice two rhythm loop samples, and using the RPPR function of Multi mode to play them as rhythm loop samples.

Time Slice

You will need to provide rhythm loop samples of drums etc. You can either record these on the TRITON-Rack, or load them in Disk mode. Initially, you should try this using a one-measure pattern in 4/4 time with a fairly simple beat, and record the pattern as a monaural rhythm loop sample.

For this example, we will use a 140 BPM rhythm loop sample and a 100 BPM rhythm loop sample.

- ① Select "SMPL (Sample Select)" 140 BPM rhythm loop sample.



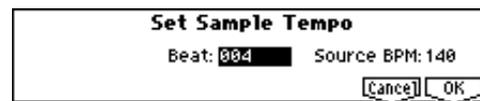
- ② Access the SMPL 3.1: Loop Edit, Edit 2 page.



- ③ Select and execute the "Time Slice" utility.

Press the [F8] ("UTILITY") key to access the Utility menu, and press the [F7] key to select "Time Slice."

Press the [F8] ("OK") key. The Set Sample Tempo dialog box will appear.



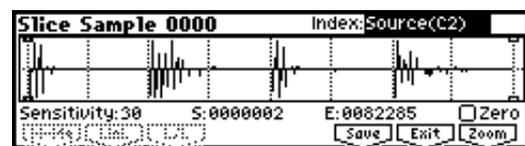
- ④ Specify the number of quarter-note beats in the sample, and its tempo.

If you know the BPM, set "Source BPM."

If you do not know the BPM, set "Beat" and the BPM will be calculated automatically. Since in this example we do know the beat, set "Source BPM" to 140.

- ⑤ Press the [F8] ("OK") key.

The sample will automatically be sliced, and a dialog box will appear.



When you play the keyboard of a connected MIDI instrument, C2 will play the original sample (Source), and D2 and subsequent keys will play the divided sample. You can change "Index" and press the [AUDITION] key to play the sample that is selected by "Index."

While listening to each divided sample, adjust "Sensitivity" so that each drum strike or other rhythm instrument sound is divided into its own sample. In some cases, it may not be possible to slice the sample cleanly even if you adjust "Sensitivity." If the attack of the next sound is included in the end of the preceding sample, or if one sample contains two notes, you will need to edit the samples. (PG p.95)

- ⑥ Press the [F6] ("Save") key.

The save dialog box will appear.



Here you can save the time-sliced sample and the automatically-created multisample. You can set the "With" items to specify the save destination for the program that uses the samples and multisample, and the pattern data for the rhythm loop sample used by the RPPR function of Multi mode.

For this example, set the "With" items as shown in the illustration.

Set "Program," "Seq. Event," "RPPR" to On (checked)

Program: I-E010

Multi: 000, Pattern: U00

RPPR Key: C#2, Track: 01

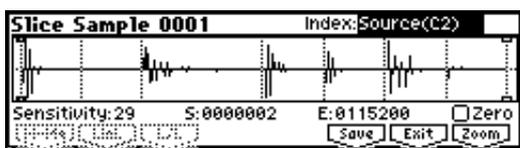
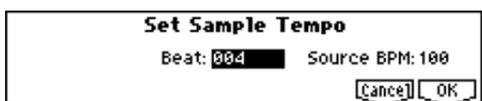
Press the [F8] ("Save") key to execute the save operation, and you will return to the dialog box of step ⑤. Press the [F7] ("Exit") key to return to the screen of step ②.

- ⑦ Next use “SMPL” to select the 100 BPM rhythm loop sample.



Repeat steps ②–⑤ to execute Time Slice and make any necessary adjustments.

In step ④, set “Source BPM” to 100.



- ⑧ As in step ⑥, press the [F6] (“Save”) key.

The save dialog box will appear.



For this example, set the “With” items as shown in the illustration.

Set “Program,” “Seq. Event,” “RPPR” to On

Program: I-E011

Multi: 000, Pattern: U01

RPPR Key: D2, Track: 02

Press the [F8] (“Save”) key to execute the save operation, and you will return to the dialog box of step ⑤. Press the [F7] (“Exit”) key to return to the screen of step ②.

RPPR (Multi mode)

- ⑨ Press the [MULTI] key to enter Multi mode, and select Multi: 000.



The following multi data that you specified in steps ⑥ and ⑧ will be specified and created automatically.

- 1.1: Play, Multi Multi: 000, “RPPR On/Off” On
- 1.1: Play, Prog. 8 Track 01 Program: I-E010 (set in step ⑥)
- 1.1: Play, Prog. 8 Track 02 Program: I-E011 (set in step ⑧)
- 5.1: RPPR, Pattern Pattern: U00 (created in step ⑥)
- 5.1: RPPR, Pattern Pattern: U01 (created in step ⑧)
- 5.1: RPPR, RPPR KEY: C#2, Assign: On, Pattern: User U00, Track: 01 (created in step ⑥)

- 5.1: RPPR, RPPR KEY: D2, Assign: On, Pattern: User U01, Track: 02 (set in step ⑧)

After making sure that RPPR is turned on, play C#2 and D2 on the keyboard of the connected MIDI instrument, and the time-sliced samples will play back at the tempo specified by “♪ (Tempo)” without their pitch being changed.

For example if you set “♪ (Tempo)” to 120, the 140 BPM rhythm loop sample of C#2 and the 100 BPM rhythm loop sample of D2 will both play at a tempo of 120 BPM.

note Set the MIDI channel of the connected MIDI instrument to match the MIDI channel selected for “Control Track.” By default, the multi will use channel 1.

note If, when you change the tempo, the beat of the rhythm loop sample is not reproduced correctly or noise is obtrusive, the slice has not been sliced optimally in step ⑤. The precision at which the rhythm instruments are **divided** will have a major impact on the quality of the playback. Please adjust the **divisions** of each sample in step ⑤. (⇒PG p.95)

note If the silent portion between the samples is obtrusive when you play back at a slower tempo, or if noise occurs between the samples when you play back at a faster tempo, the result may sound unnatural. To avoid such problems, you can execute Time Stretch to adjust the length of the individual samples to match the desired playback tempo in steps ⑥ and ⑧. (⇒PG p.96 ⑨)

note Depending on the end address settings etc. of the sample to be sliced, the number of measures in the pattern may increase, or the pattern playback in Multi mode may not loop accurately. In such cases, use the Multi mode utility “Pattern Parameter” (⇒PG p.64) to re-specify “Length.”

- ⑩ Settings for the RPPR function are made in the MULTI 5.1 RPPR, RPPR Setup page.



Use “M (Mode)” to specify the pattern playback mode that will be used when you play a note on a connected MIDI instrument, and set “Sync” to specify the pattern playback timing/synchronization mode when multiple keys are pressed. “Shift” is normally set to +00. (⇒PG p.65)

best to first select a drum kit program in Program mode, and then do your editing in Global mode.

Editing a drum kit

⚡ Before editing a drum kit, uncheck the Memory Protect (☞p.37).

- ① In **PROG 1.1: Play**, select the program that you wish to use while editing the drum kit.

Select a drum kit program from the preload programs etc. If the drum kit that you will be editing is already being used by a program, select that program. (In the separate “VNL,” programs that use a drum kit are marked by a @ symbol.)

- ⚡ Set “Octave” to +0 [8']. With a setting other than +0 [8'], the relation between the keys and the sounds will be incorrect.
- ⚡ The effects will sound using the settings of the last-selected program.
- ⚡ When you edit a drum kit, all programs that use that drum kit will be affected.

- ② Access the High Sample page of **GLOBAL 5.1: DKit**.



- ③ In “Drum Kit,” select the drum kit that you wish to edit.

If necessary, use the Utility “Copy Drum Kit” to copy settings from a preload drum kit or a GM drum kit.

- ⚡ GM drum kits **144 (GM) – 152 (GM)** cannot be selected here. (It is not possible to edit or write a GM drum kit.) If you wish to modify the settings of one of the drum kits **144 (GM) – 152 (GM)**, you can use “Copy Drum Kit” to copy it to **00 (I-A/B) – 143 (E-H)**, and then edit the copy.

- ④ Use “Key” to select the note number that you wish to edit.

The drum sample parameters for the selected note number will be displayed in the High Sample, Low Sample, and Voice/Mix pages. In addition to using the VALUE controllers, you can also use the following methods to select the note number.

- Hold down the [ENTER] key and play a key on a connected MIDI keyboard to input that note number.
- Use the [F6] (“Key-”) and [F7] (“Key+”) keys to increment or decrement the note numbers.

- ⑤ Use “Assign” to specify whether a drum sample will be assigned to the note number.

If this is **checked**, a drum sample will be assigned to that note number. Normally you will check this. If this is **not checked**, no drum sample will be assigned to that note number. That note number will sound the drum sample assigned at its right, but a semitone lower. Use this setting when you want only to change the pitch, such as with tom or cymbal sounds.

- ⑥ Use “Drumsample Bank” and “Drumsample” to select the drum sample that will be assigned to the note number.

Set the High Drumsample in the High Sample page, and the Low Drumsample in the Low Sample page. If you specify a Low Drumsample, use “Vel.SW L→H” to specify how velocity will switch between the High Drumsample and the Low Drumsample. (☞⑦)

By setting “Drumsample Bank” to **ROM** you can select ROM drum samples, to **RAM** to select sampled or loaded samples, or to **EXB*** to select drum samples from a separately sold EXB-PCM series option.

- ⚡ Some EXB-PCM series boards do not contain drumsamples.

About ROM drumsamples

The TRITON-Rack contains 413 drumsamples in its internal ROM memory.

You can use the “Select by Category” utility to select ROM drum samples from fifteen categories.

For the drumsample names, refer to the separate “VNL.”

- ⑦ Use “Vel. SW L→H” to specify how velocity will switch between drumsamples.

The drumsample that sounds when you perform will depend on the velocity (keyboard playing strength) of the incoming note. This is called **velocity drumsample switching**.

If you set this to **001**, only the High Drumsample will sound.

- ☞ This is the same type of function as the Velocity Multisample Switching in a program. (☞p.44 “High Multisample and Low Multisample”)

- ⑧ Set the parameters of the drumsamples that you assigned.

Set the High Drumsample parameters in the High Sample page, and the Low Drumsample parameters in the Low Sample page.

You can set parameters such as volume level (“Level”), pitch (“Trans,” “Tune”), and tone (“Fc,” “Reso”).

For details on each parameter, refer to PG p.116.

- ⑨ As necessary, repeat steps ④–⑧ to set drumsample parameters for each note number.

If you wish to use the settings of another “KEY,” select the “Copy Key Setup” utility.

- ⑩ **Select the Voice/Mixer page in GLOBAL 5.1: DKit.**



- ⑪ **Set the “Excl Group.”**

The “Excl Group” setting is used when you wish to group drumsamples of the same type.

For example if the note number to which a open hi-hat and a closed hi-hat drumsample are assigned are set to the same exclusive group number, they will be grouped so that the open hi-hat and closed hi-hat can not be sounded simultaneously, ensuring that the hi-hat performance will sound natural.

- ⑫ **Use “BUS” to specify the output routing.**

Set this when you wish to send the output of the drumsample assigned to each note number to its own insert effect or AUDIO OUTPUT (INDIVIDUAL) jack 1–4.

For example you might set snare-type sounds to **IFX1** and kick sounds to **IFX2**, so that these sounds would be sent to insert effects 1 and 2 respectively. If you wish to send only specific drumsamples to AUDIO OUTPUT (INDIVIDUAL) jacks 1–4, select **1–4**, **1/2**, or **3/4**.

These settings are valid if “Use DKit Setting” (PROG 7.1: Ed-BUS, BUS page) is **checked** in the Routing tab of Program P8 for the program that uses this drum kit (⇒PG p.27, 143, 144).

- ⑬ **Use “Pan” to specify the stereo output position.**

The setting you make here is valid if the “Use DKit Setting” is **checked** (PROG 5.1: Ed-Amp1, Level/Pan page) for the program that uses this drum kit.

- ⑭ **Use “S1 (Send1(MFX1))” and “S2 (Send2(MFX2))” to set the send levels to the master effects.**

The settings you make here are valid if the “Use DKit Setting” is **checked** (PROG 7.1: Ed-BUS, BUS page) for the program that uses this drum kit.

- ⑮ **Use the “Write Drum Kits” utility to save the data.**

If you wish to change the name of the drum kit before you save it, use the “Rename Drum Kit” utility (⇒p.38).

If you turn off the power before writing the data into memory, your edits will be lost (⇒p.39 “Memory in Global mode”).

Disk mode

How Disk mode is organized

In Disk mode you can use floppy disks or a connected external SCSI device (if the separately sold EXB-SCSI is installed) to save or load various types of data. You can also make settings related to saving and loading functionality.

For details on connecting an external SCSI device and setting the SCSI ID etc., refer to the owner's manual for the separately sold EXB-SCSI option.

Types of media that can be used

Floppy disks

The TRITON-Rack can use **MS-DOS format 3.5 inch 2HD** or **2DD** floppy disks. The capacity of a floppy disk after formatting will be 1.44 MB (18 sectors/track) for a 2HD disk, or 720 KB (9 sectors/track) for a 2DD disk. (⇒For details on formatting, refer to PG p.137.)

note We recommend that you use 2HD floppy disks.

External SCSI storage media (when the separately sold EXB-SCSI option is installed)

If the separately sold EXB-SCSI option is installed, the TRITON-Rack can save data on external SCSI media (maximum 4 GB) such as a hard disk, Zip, Jaz, ORB, or MO drive.

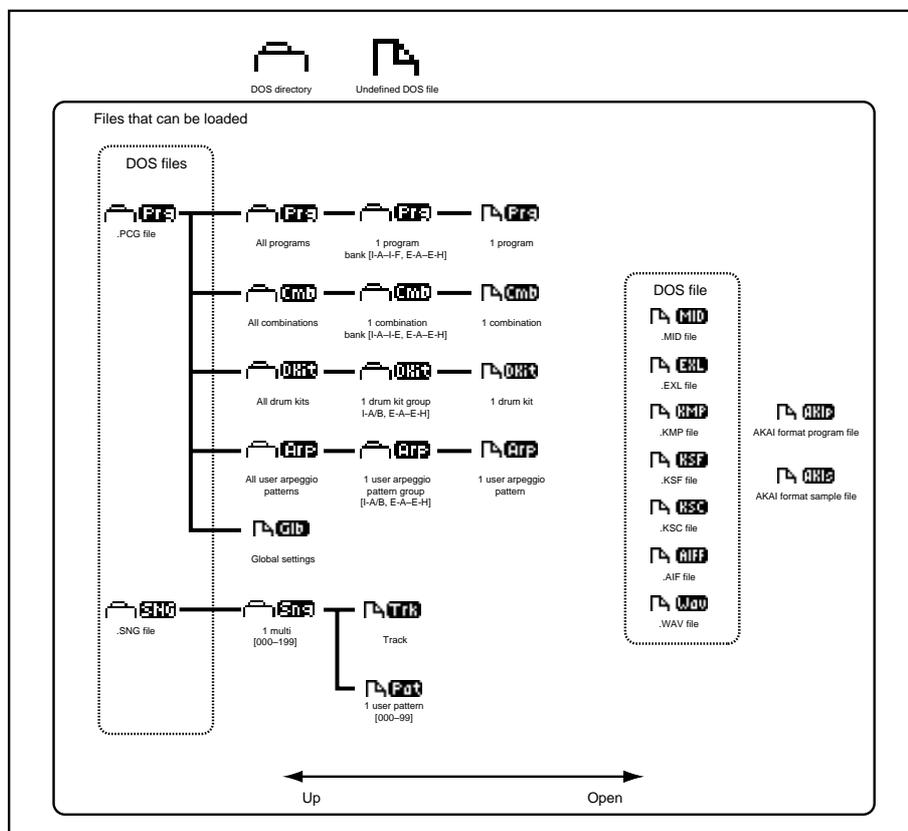
When the EXB-SCSI option is installed, an external SCSI device of up to 4 GB can be formatted.

note When you insert media for the first time after turning on the power, or after changing disks, you must press a function key etc. to make the TRITON-Rack detect the media. When the disk (or other media) is recognized, media information will appear in the LCD screen.

You can also make the TRITON-Rack recognize the media by pressing the [SELECT], [ARP ON/OFF], [AUDITION], or [DEMO/SNG] keys, or any key other than the mode keys.

note If more than one volume of media is currently recognized, select "Drive" and use the [INC], [DEC] keys to switch between media.

! The TRITON-Rack cannot format media with a format of other than 512 bytes/block (such as 640 MB, 1.3 GB MO disks etc.).



Loading data

Types of data that can be loaded

The data that can be loaded from external media (e.g., floppy disk) is shown in the diagram at the bottom of the previous page. (⇒ For details on each type of data, refer to PG p.123)

If the separately sold EXB-SCSI option is installed, data can also be loaded from media such as a hard disk or CD-ROM.

Data loading procedure

Loading Programs, Combinations, Drum kits, User arpeggio patterns, and Global settings (loading a .PCG file)

Select this when you wish to reload programs or combinations that you created and saved using “Save All” or “Save PCG,” or when you wish to restore the pre-loaded data (factory settings) from the included floppy disks.

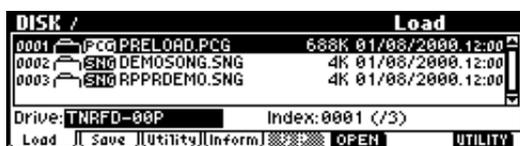
- Before loading programs, combinations, multis, user drum kits, and user arpeggio patterns, you must turn off memory protect in Global mode (⇒ p.37).

Here, as an example, we will load the PRELOAD.PCG file from the included floppy disk. A .PCG file contains programs, combinations, drum kits, user arpeggio patterns, and global settings. (⇒ lower diagram on previous page)

- Insert the floppy disk “TNRFD-00P” into the floppy disk drive of the TRITON-Rack.

For details on handling floppy disks, please be sure to read “Cautions when handling floppy disks” (⇒ p.84)

- Enter Disk mode, and press a function key etc. to make the TRITON-Rack detect the disk.



- Select the Load page.

File information will be displayed in the LCD screen.

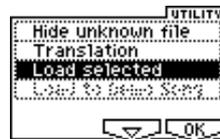
- Select a PRELOAD .PCG file.

The selected file will be highlighted in the display.

- note** If the data you wish to load is located in a lower or higher directory level, use [F6] (“OPEN”) or [F5] (“UP”) keys to display the desired data, and then select it.

- When you load a .PCG file, the data in the internal memory of the TRITON-Rack will be overwritten with the data of that .PCG file (programs, combinations, drum kits, user arpeggio patterns, global settings). If you wish to keep the data that is currently in internal memory, you must execute “Save All” or “Save PCG” to save it before you load other data.

- From the utility menu, choose “Load Selected.”



A dialog box will appear. The dialog box and its settings and operation will differ depending on the type of file that you load. For details on each file, refer to PG p.123.



- note** If you check “Load *****.SNG too” when loading, the .SNG file of the same name as the .PCG file will also be loaded. If you check “Load *****.KSC too” when loading, the .KSC file of the same name as the .PCG file will also be loaded. (⇒ PG p.125)

- In “.PCG Contents,” specify the data that will be loaded.

- If you wish to load all the data of the .PCG file, select All.

Normally you will select All. If you load PRELOAD.PCG from the included floppy disk using All, all the data of the .PCG file will be loaded as follows.

Programs

- Bank I-A file: loaded to bank I-A
- Bank I-B file: loaded to bank I-B
- Bank I-C file: loaded to bank I-C
- Bank I-D file: loaded to bank I-D
- Bank I-E file: loaded to bank I-E

Combinations

- Bank I-A file: loaded to bank I-A
- Bank I-B file: loaded to bank I-B
- Bank I-C file: loaded to bank I-C
- Bank I-D file: loaded to bank I-D

Drum Kits

- 00–15 (I-A/B) file: loaded to banks I-A/B

Arpeggio Patterns

- 000–199 (I-A/B) file: loaded to banks I-A/B

- If you wish to load the data of the .PCG file by individual banks, use “.PCG Contents” to select the load source bank, and “To” to select the load destination bank.

When you execute the load operation, only the programs, combinations, drum kits, and user arpeggio patterns of the specified bank will be loaded to the

specified load destination bank. Global setting data will not be loaded.

If you set “.PCG Contents” to **Bank I-A**, and set “To” to **Bank I-A**, the data will be loaded as follows.

Programs

- Bank I-A file: loaded to bank I-A

Combinations

- Bank I-A file: loaded to bank I-A

Drum Kits

- 00–15 (I-A/B) file: loaded to banks I-A/B

Arpeggio Patterns

- 000–199 (I-A/B) file: loaded to banks I-A/B

If you specify **different banks as the load source and load destination**, the data listed below will be automatically reassigned so that the various types of data will correspond correctly in each mode after being loaded.

Even if “Load .SNG too” is checked when you load, the data will automatically be reassigned so that the multi data will correspond correctly.

- Program bank used by the combinations
- Pattern number of the user arpeggio pattern used by the combinations/programs/multi
- Kit number of the drum kit used by the program
- Program bank used by each track of a multi
- If there are track/pattern events, the program bank within the events

⑦ Press the [F8] (“OK”) key to execute the Load operation.

⚠ If the specified data does not exist in the file, the load operation will be halted. (☞PG p.125)

⚠ Never remove the media while data is being loaded.

Contents of the included floppy disks

The TRITON-Rack comes with two floppy disks (TNRFD-00P, TNRFD-01P).

The contents of these disks are as follows.

“TNRFD-00P”

PRELOAD.PCG (already loaded with the factory settings)

- Programs (Bank I-A, I-B, I-C, I-D, I-E)
- Combinations (Bank I-A, I-B, I-C, I-D)
- Drum Kits (I-A/B: 16 kits)
- Arp Patterns (I-A/B: 200 patterns)

This is the preloaded data (programs, combinations, drum kits, arpeggio patterns, and global settings). Program bank I-E contains only I-E000–I-E004.

I-E000: Sampler Waves is a multisample program used by the demo song. I-E001–I-E004 are programs that use the vocoder effect (093: Vocoder).

PRELOAD.PCG can be loaded into the TRITON-Rack by the Disk mode utility “Load Selected.” This data is preserved even when the power is turned off.

⚠ When you load PRELOAD.PCG, any data that you had written previously will be overwritten and lost. If you do not want to lose your data, you must first save it on a floppy disk etc. (☞p.40)

DEMOSONG.SNG (already loaded with the factory settings)

- Demo songs (000...004)
This is demo song data for loading to DEMO/SNG. It can be loaded into internal DEMO/SNG memory by the Disk mode utility “Load to Demo Song.” (☞p.42, PG p.132)

⚠ When you load DEMOSONG.SNG, the DEMO/SNG and Multi data in the TRITON-Rack’s internal memory will be overwritten. If you do not want to lose your data, you must first save it on a floppy disk etc. (☞p.40). Since the arpeggio patterns and drum kit data in memory will also be erased, you should write this data if you do not want to lose it.

RPPRDEMO.SNG

- FEVER
This is RPPR data for loading into a multi. It can be loaded into a TRITON-Rack multi by the Disk mode utility “Load Selected.” (☞p.25, PG p.128)

⚠ When you load RPPRDEMO.SNG, the Multi data in the TRITON-Rack’s internal memory will be overwritten. If you do not want to lose your data, you must first save it on a floppy disk etc. (☞p.40)

“TNRFD-01P”

DCUT_SMP.KSC

DCUT_SMP-folder

This is multisample and sample data used by the demo song “Deep Cut.” (☞p.16, 29)

⚠ When DCUT_SMP.KSC is loaded, the “Select .KSC Allocation” setting will affect how the data is loaded into sample memory. (☞PG p.130)

Loading .PCG files or .SNG files from the floppy disks included with the separately sold EXB-PCM series options

The floppy disk included with each EXB-PCM series option contains PCG files and SNG files that match the bank structure of the TRITON/TRITONpro/TRITONproX (keyboard models of the TRITON).

(As of July 2000)

C_BANK.PCG (.SNG) and D_BANK.PCG (.SNG) have the same content, but use different banks.

C_BANK.PCG (.SNG) is for loading into bank C of a keyboard model TRITON, and D_BANK.PCG (.SNG) is for loading into bank D.

When loading these EXB-PCM series files into the TRITON-Rack, we recommend that you load them into banks **EXB-A–EXB-H**.

As an example, here’s how to load the files of the floppy disks included with the EXB-PCM01–04 into banks E-A, E-B, E-C, and E-D of the TRITON-Rack as follows.

- Load the EXB-PCM01 file for bank C of the TRITON keyboard model into bank E-A.
- Load the EXB-PCM02 file for bank C of the TRITON keyboard model into bank E-B.
- Load the EXB-PCM03 file for bank C of the TRITON keyboard model into bank E-C.
- Load the EXB-PCM04 file for bank C of the TRITON keyboard model into bank E-D.

note The loading destination banks can be ordered in a way other than as shown above. It is best to load the data into the bank(s) E-A–E-H that will be most convenient for you.

▲ EXB-PCM boards can be installed in any slot 1–8. (⇨PG p.249)

- ① If you have modified the settings or the order of the programs of banks I-A or I-B, load banks I-A and I-B from the disk included with the TRITON-Rack.

The EXB-PCM01, 02, and 04 combinations are created using programs for the EXB-PCM as well as preloaded programs from banks I-A and I-B. For this reason, you must also load the preloaded program banks I-A and I-B if you load EXB-PCM01, 02, or 04. (⇨p.81 “Data loading procedure”)

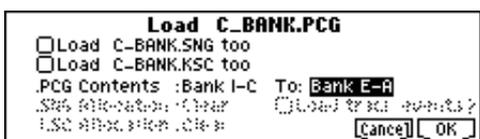
- ② Load C_BANK.PCG from the floppy disk included with EXB-PCM01–04.

As described in steps ①–⑤ of “Data loading procedure,” select “C_BANK.PCG,” and access the Load C_BANK.PCG dialog box.

Next, select “.PCG Contents” and “To” as described in step ⑥ part 2). Set these items as follows.

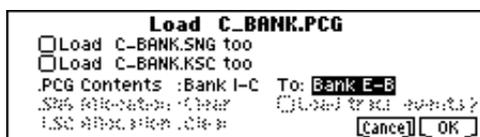
EXB-PCM01:

“.PCG Contents”: **Bank I-C**, “To”: **Bank E-A**



EXB-PCM02:

“.PCG Contents”: **Bank I-C**, “To”: **Bank E-B**

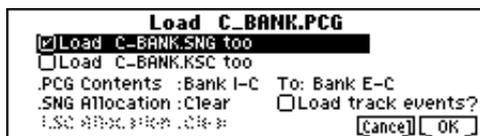


EXB-PCM03:

“.PCG Contents”: **Bank I-C**, “To”: **Bank E-C**

“Load C_BANK.SNG too”: **On** (checked)

“.SNG Allocation”: **Clear**



EXB-PCM04:

“.PCG Contents”: **Bank I-C**, “To”: **Bank E-D**

“Load C_BANK.SNG too”: **On** (checked)

“.SNG Allocation”: **Append**



- note** When you check “Load C_BANK.SNG too” for EXB-PCM03 and 04, the RPPR settings and patterns will be loaded into Multi mode. If you set “.SNG Allocation” to **Append** for EXB-PCM04, the C_BANK.SNG (multi data) that had been loaded for EXB-PCM03 will be retained when the (additional) data is loaded.

- ③ Press the [F8] (“OK”) key to execute the Load operation.

▲ If you execute with “.PCG Contents” to set to **All**, the programs and combinations of banks I-A, I-B, I-C (or I-D), all drum kits, all user arpeggio patterns, and the global settings will be overwritten.

▲ If you wish to keep the data currently in the internal memory area, use “Save All” or “Save PCG” to save it beforehand.

Saving data

For the procedure of saving data to a floppy disk or to external SCSI media, refer to “Saving on external media” (⇨p.40).

Types of data that can be saved

The following types of data can be saved on external media (floppy disk etc.). If the separately sold EXB-SCSI option is installed, data can also be saved on high-capacity media such as a hard disk.

- **.PCG files**
Programs, combinations, global settings, drum kits, user arpeggio patterns (the data specified by the “S.Item” (Select Save Items) check boxes when saving will be saved).
- **.SNG files**
Multis
- **.KSC files**
Script file (KSC files) listing the multisamples and samples created in Sampling mode, with multisamples (KMP files) and samples (KSF files)
- **Standard MIDI files (SMF)**
A single pattern of Multi mode can be saved as SMF data (.MID file).
- **System exclusive data**
System exclusive data received by the TRITON-Rack from an external MIDI device (the TRITON-Rack can be used as a data filer).

- **.WAVE files, .AIFF files**

Samples you created in Sampling mode can be exported and saved as .WAVE files or .AIFF files.

note For details on each type of file and the icon associated with it, refer to the lower diagram on page p.80.

Formatting media

The TRITON-Rack can format a floppy disk or external SCSI media.

Newly purchased media or media that has been used by another device cannot be used as it is. Such media must be formatted before using it on the TRITON-Rack for the first time.

For the formatting procedure, refer to "Format" (⇒PG p.137).

In the case of a floppy disk, the formatting operation can be performed on a MS-DOS compatible computer. In the case of SCSI media, you must use the TRITON-Rack to format the media.

 The TRITON-Rack cannot format media with a format of other than 512 bytes/block (such as 640 MB, 1.3 GB MO disks etc.).

Cautions when handling floppy disks

When handling floppy disks, please observe the following points. Data loss may occur if a floppy disk is handled improperly.

Floppy disk type and format

The TRITON-Rack can use 2HD or 2DD 3.5 inch floppy disks.

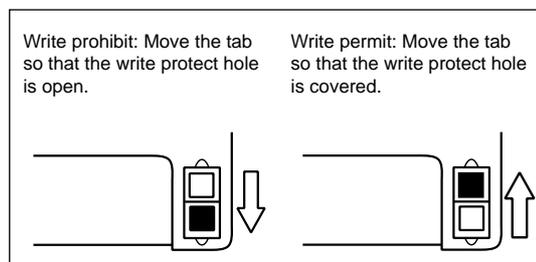
Floppy disk handling

- Do not open the shutter of a floppy disk or touch the magnetic surface inside the disk. If the magnetic disk becomes soiled or scratched, it will no longer be possible to read data format.
- Never transport the TRITON-Rack with a floppy disk in the disk drive. Vibration may cause the disk drive heads to scratch the floppy disk, making it unusable.
- Do not allow a floppy disk to be placed near a device that emits a magnetic field, such as a television, computer, computer display, speaker, or power supply transformer. This can erase data on the disk.
- Do not use or store floppy disks in locations of excessive temperature or humidity, in direct sunlight, or in dusty or dirty locations.
- Do not place objects on top of a floppy disk.
- While the disk drive is operating, do not attempt to remove the floppy disk, and do not subject the TRITON-Rack to physical shock.

Floppy disk write protect

Floppy disks have a small write protect hole that can be used to prevent data from being erased or rewritten accidentally.

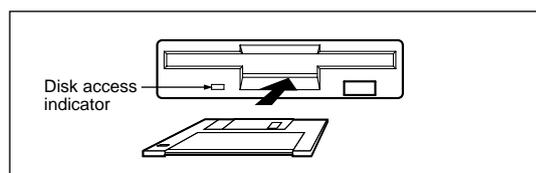
After saving data to disk, move the write protect tab so that the hole is uncovered. This will prohibit writing to the disk, and will prevent the data from being destroyed accidentally.



Inserting a floppy disk

With the label of the floppy disk facing upward, insert it into the disk drive. Press the disk inward until it clicks into place.

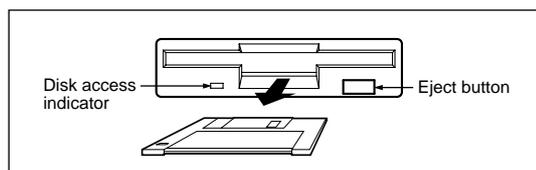
Malfunctions will occur if you use excessive force to insert the disk. Disks must be inserted gently, and straight in.



Removing a floppy disk

To remove a floppy disk, first make sure that the disk access indicator is dark. Then press the eject button and remove the disk.

If the disk does not come out when you press this button, do not attempt to remove the disk by force. Please contact your dealer.



Head cleaning

If the heads of the disk drive are become soiled, errors may occur during saving, loading or formatting. It is important to clean the heads regularly using a commercially available wet-type 3.5 inch double-sided head cleaning disk. For the cleaning procedure, refer to the owner's manual for the cleaning disk.

Arpeggiator settings

This chapter describes the procedure for making arpeggiator settings in each mode. For details on the arpeggiator function, refer to “4. Using the arpeggiator while you play” (p.21).

Arpeggiator settings for a program

Arpeggiator on/off

Each time you press the [ARP ON/OFF] key, the arpeggiator will be switched on or off. When on, the LED will light. When you play the keyboard of a connected MIDI instrument, an arpeggio will play according to the selected arpeggio pattern.

note The on/off setting is stored when the program is written.

Arpeggiator settings

- 1 Select the PROG 6.1: Ed-Arp., Arpeg. Setup page.



- 2 Use “J (Tempo)” to set the tempo.

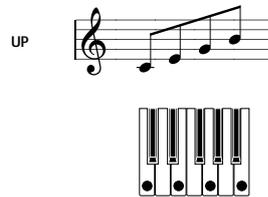
You can adjust the tempo by rotating REALTIME CONTROLS C-mode [TEMPO] knob. The [SELECT] key LED will blink at the specified tempo.

- 3 In “Pattern,” select the arpeggio pattern.

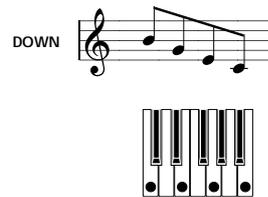
You can select from preset arpeggio patterns **P000–P004** and user arpeggio patterns **U000 (I–A/B)–327 (E–H)**.

The way in which the pattern is played will depend on settings such as “Octave” and “Sort.” **P000–P004** in the following diagrams show how the arpeggio will be played when “Octave” is set to 1, and “Sort” is checked. **P004: RANDOM** is one possibility.

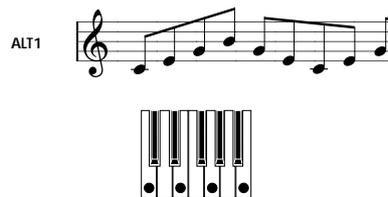
P000: UP



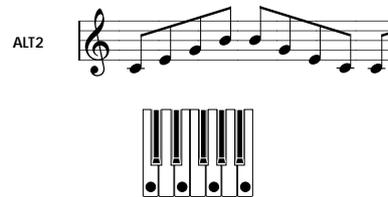
P001: DOWN



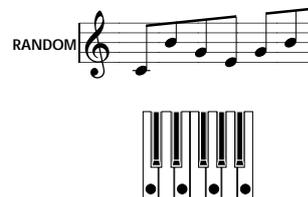
P002: ALT1



P003: ALT2



P004: RANDOM



U000(I–A/B)–U199 (I–A/B)

With the factory settings, various arpeggio patterns are preloaded. These include a variety of patterns such as drum or bass phrases, or guitar or keyboard backing riffs (p.21).

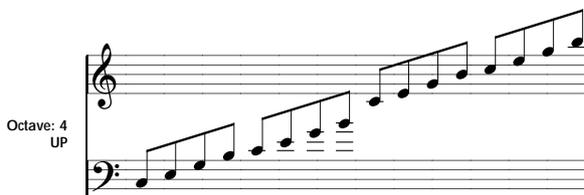
U200 (E-A) – U327 (E-H)

With the factory settings, these do not contain patterns.

If certain separately sold EXB-PCM series option boards are installed and the included disk is loaded, other arpeggio patterns will be added.

④ Make settings for the various parameters.

“**Octave**”: Select the octave range in which the arpeggio will be played.



⚠ If a user arpeggio pattern is selected, the “Octave Motion” setting (GLOBAL 6.1: Arp.Pattern, Setup page) will affect the way in which the arpeggio is played.

“**Reso**”: Specifies the spacing of the arpeggio notes over a range of $\frac{1}{3}$ - $\frac{1}{2}$.

“**Gate**”: Specifies the length (gate time) of each note in the arpeggio. If a user arpeggio pattern is selected, you can set this to **Step**. In this case, the value of the “Gt” setting for each step (GLOBAL 6.1: Arp.Pattern, Edit page) will be used.

⚠ This value will be in effect when the REALTIME CONTROLS C-mode [ARP-GATE] knob is in the center position (12 o’clock). Be sure that the knob is in the center position when you make this setting.

“**Velocity**”: Specifies the velocity of the notes in the arpeggio. If this is set to **Key**, the velocity with which you actually played the note on the connected MIDI instrument will be used. If a user arpeggio pattern is selected, you can set this to **Step**. In this case, the value of the “Vel” setting for each step (GLOBAL 6.1: Arp.Pattern, Edit page) will be used.

⚠ This value will be in effect when the REALTIME CONTROLS C-mode [ARP-VELOCITY] knob is in the center position (12 o’clock). Be sure that the knob is in the center position when you make this setting.

note When a preload user arpeggio pattern is selected, setting the “Gate” or “Velocity” to **Step** will add a sense of groove to the arpeggio pattern.

“**Swing**”: This adjusts the timing of the even-numbered notes in the arpeggio (counting from the first note), to give the pattern a sense of “swing.”

“**Sort**”: If this is **checked**, the arpeggio will be sounded in order of pitch, regardless of the order in which notes were played on the connected MIDI instrument (On).

If this is **unchecked**, the arpeggio will be sounded in the order in which the notes were played on the connected MIDI instrument (Off).



“**Latch**”: If this is **checked**, the arpeggio will continue playing even after you take your hand off the keyboard of the connected MIDI instrument. If this is **unchecked**, the arpeggio will stop playing when you take your hand off the keyboard of the connected MIDI instrument.

“**Key Sync.**”: If this is **checked**, the arpeggio pattern will start from the beginning when you play a note after having released all notes. This setting is suitable when you are playing in realtime, and want the arpeggio to start at the beginning of the measure. If this is **unchecked**, the arpeggio pattern will always be synchronized to the tempo of the MIDI clock. For details on synchronization, refer to “About arpeggiator synchronization” (p.93).

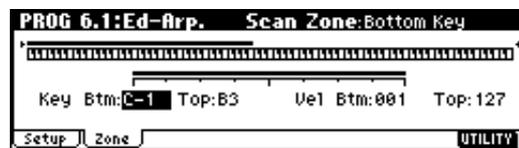
“**Keyboard**”: If this is **checked**, the notes you play on the keyboard will be heard as well as the arpeggiated notes.

If this is **unchecked**, only the arpeggiated notes will be heard.

The same setting can be made by editing the parameter of the same name (or abbreviation) in the PROG 1.1: Play, Arp.Play page.

note You can use the Utility “Copy Arpeggiator” to copy arpeggiator settings from another program or combination (p.25).

⑤ In the Scan Zone page, specify the range in which the arpeggiator will operate.



“**Key Btm**,” “**Key Top**”: The arpeggiator will operate when you play keys within the specified range. Keys outside of this range can be played in the normal manner, and will not be affected by the arpeggiator on/off.

note For example if you set “Pattern” to **P000: UP**, check “Latch,” set “Key Top” to **B3**, and “Key Btm” to **C-1**, playing a note **B3** or lower will trigger the arpeggiator. Since “Latch” is **on**, the arpeggio will continue even after you release the keys. You can use the **C4** and higher keys to play conventionally along with the arpeggio sounded by the **B3** and lower keys. To change the arpeggio, play keys in the range of **B3** and below.

“Vel Btm,” “Vel Top”: The arpeggiator will operate when you play notes with a velocity (playing strength) that is within the specified range. Notes played with a velocity outside this range will be sounded normally, without regard to the arpeggiator on/off.

- ⑥ If you wish to save the edited program settings to internal memory, turn off memory protect in Global mode (⇨p.37), and write the program (⇨p.38).

Linking the arpeggiator to a program

If you want the arpeggiator settings written in a program to be selected when that program is selected, check **Program** for “Auto Arp.” (GLOBAL 1.1: System, Basic page).

Arpeggiator settings in Combination and Multi modes

In Combination and Multi modes, the TRITON-Rack provides **dual arpeggiator** functionality that lets you use two arpeggio patterns simultaneously. The settings in each of these modes are made in the similar way. As an example, the following explanation shows how to make settings in Combination mode. For a detailed explanation and example settings (⇨PG p.43, 67).

The dual arpeggiator functionality lets you do the following things.

- Assign an arpeggiator for each timbre. Choose from **Off**, (arpeggiator) **A**, or (arpeggiator) **B**. ⇨step⑤
- Independently specify whether **A** and **B** will operate. ⇨step⑥
- Select an arpeggio pattern and set parameters independently for **A** and **B**. ⇨step⑦
- Make Scan Zone page settings so that you can use keyboard range or playing velocity to switch between normal playing and arpeggiated playing, or to switch between arpeggiators **A** and **B**. ⇨step⑧
- Make settings for timbres that will be silent when the arpeggiator is **Off**, and will sound only when the arpeggiator is **On**. ⇨step⑩

Arpeggiator on/off

Each time you press the [ARP ON/OFF] key, the arpeggiator will be switched on or off. When on, the LED will light. The selected arpeggio pattern will begin when you play the keyboard on the connected MIDI instrument. The on/off setting is saved when the combination is written into memory.

- ⚠ If “Assign” is **Off** or “Arpeggiator Run” is not **checked**, the arpeggiator will not operate even if this key is on.

Arpeggiator settings

- ① **Select COMBI 2.1: Ed-Prog/Mix, Prog page.**
Select programs for the timbres that you wish to use. For this example, select any desired program for timbres 1–4.

- ② **Select COMBI 3.1: Ed-Paraml. MIDI page.**
For the timbres that you will be using, set “Status” to **INT**, and set “MIDI Channel” to **Gch** or to the global MIDI channel (set in GLOBAL 2.1: MIDI “MIDI Channel”).

For this example, set timbres 1–4 to a “Status” of **INT**, and timbres 5–8 to a “Status” of **Off**. Set the “MIDI Channel” of timbres 1–4 to **Gch**.

1	2	3	4	5	6	7	8
Keyb	Organ	Bell	Strin	Strin	Strin	Keyb	Drum
INT	INT	INT	INT	Off	Off	Off	Off
Gch	Gch	Gch	Gch	05	06	07	08
T01: I-A033:Romance Piano				Ch:Gch			
MIDI	OSC	Pitch	UTILITY				

- ③ **Select COMBI 6.1: Ed-Arp., Setup page.**

Arpeggiator Run:		A		B		Tempo	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	♩=112
Keyb	Organ	Bell	Strin	Strin	Strin	Keyb	Drum
A	A	B	Off	Off	Off	B	B
T04: I-A003:Legato Strings				Ch:Gch			
Setup	Arp. A	Arp. B	Zone	UTILITY			

- ④ **Set “♩ (Temp)” to specify the tempo.**
This is the same as for a program (⇨p.85). However, the tempo is shared by both arpeggiators A and B.

- ⑤ **Make “Assign” settings.**
Assign arpeggiator A or B to the desired timbres. Each timbre will be played by the arpeggiator that has been assigned to it.

- ⑥ **Make “Arpeggiator Run” settings.**
Check the arpeggiator(s) that you want to operate. The arpeggiator(s) checked here will run when the [ARP ON/OFF] key is turned on.

With the settings shown in the LCD screen for steps ② and ③, turning the [ARP ON/OFF] key on will cause arpeggiator A to operate for timbres 1 and 2, and arpeggiator B to operate for timbre 3. When the [ARP ON/OFF] key is turned off, timbres 1–4 will sound as a layer.

If all timbres “Assign” are **Off**, or if neither “Arpeggiator Run” A or B is **checked**, the arpeggiator will not function.

- ⑦ **In the Arp. A and Arp. B pages, set the parameters for arpeggiators A and B.**

The parameters for A and B are the same as for a program (⇨p.85).

- ⑧ **In the Scan Zone page, specify the range in which arpeggiators A and B will operate.**

The parameters for A and B are the same as for a program (⇨p.86).

You can use keyboard ranges or playing velocity to operate the arpeggiator, or to switch between arpeggiators A and B. By setting the COMBI 3.3: Ed-Key Zone, Key page and COMBI 3.4: Ed-Vel Zone, Vel page to set keyboard ranges and velocity ranges in conjunction with each other, you can create even more variations.

- ⑨ If you wish to save the edited combination settings in internal memory, turn off memory protect in Global mode (p.37), and write the combination. (p.38).
- ⑩ The “Status,” “MIDI Channel” and “Assign” settings shown in the LCD screen of steps ② and ③ can be made so that certain timbres will sound only when the arpeggiator is On, and will be silent when the arpeggiator is not Off.

Although this is a somewhat sophisticated editing technique, we will describe the settings of one of the preset combinations as an example.

Combination I-A003: Drum’n’Bass Set

Select combination I-A003: Drum’n’Bass Set, and play it.

Before you play, make sure that the global MIDI channel (GLOBAL 2.1: MIDI “MIDI Channel”) is set to 01.

- Arpeggiator A is assigned to T (timbre) 7 and 8. When you play the keyboard, the arpeggio pattern U158 (I-A/B): Drum’n’Bass 6 will sound only the T8 program I-B068: Drum’n’Bass Kit.
- The arpeggio pattern uses the Fixed Note setting, which is appropriate when playing a drum arpeggio. (“Fixed Note” is checked in, GLOBAL 6.1: Arp.Pattern, Setup page.) With this setting, the arpeggio pattern will always play the specified pitches regardless of the note numbers received from the keyboard. (PG p.121)
- The A “Key Btm” and “Key Top” (COMBI 6.1: Ed-Arp. Scan Zone page) are set so that arpeggiator A will operate only for notes B3 and lower.
- Arpeggiator A is also assigned to T7, but this is so that the T8 program I-B068: Drum’n’Bass Kit will sound only when the arpeggiator is on.

Notice the timbre settings for T7 and T8

	Status	MIDI Channel	Assign
T7	Off	Gch	A
T8	INT	02	A

- If the arpeggiator is off, playing the keyboard will sound the timbre(s) that are set to Gch or to the global MIDI channel (in this case, 01). Since the “MIDI Channel” of T8 is set to 02, it will not sound. T7 is set to Gch, but since “Status” is Off it will not sound.
- Any MIDI channel that is assigned to a timbre will trigger the arpeggiator. In this case, these will be “MIDI Channel” 02 and Gch (global MIDI channel). When the arpeggiator is on, playing the keyboard will trigger arpeggiator A which is assigned to T7 (Gch). T8 will be sounded by

arpeggiator A. Since the “Status” of T7 is Off, it will not sound.

- Since the “Status” of T7 is Off, it will not sound, regardless of whether the arpeggiator is on or off. It is a dummy timbre that causes T8 to sound only when the arpeggiator is on.

Combination I-B086: [<Moon Jam>]

Select and play combination I-B086: [<Moon Jam>].

Before you play, make sure that the global MIDI channel (GLOBAL 2.1: MIDI “MIDI Channel”) is set to 01.

- Arpeggiator A is assigned to T3, and arpeggiator B is assigned to T6 and 7. When you play the keyboard, the T3 program I-A012: Smooth Sine Lead will be sounded by the arpeggio pattern P000: UP. The T6 program I-A020: House Kit will be sounded by the arpeggio pattern U161 (I-A/B): House 1 BD&SD.
- The A and B “Key Btm” and “Key Top” (COMBI 6.1: Ed-Arp., Scan Zone page) are set so that arpeggiators A and B will operate only for the C4 note and above.
- Arpeggiator B is assigned to T7 as well, but this setting is so that the T6 program I-A020: House Kit will sound only when the arpeggiator is on. Refer to the preceding section “Select and play Combination I-A003: Drum’n Bass Set.”

Linking the arpeggiator to the combination

If you want the arpeggiator settings of a combination to become active when that combination is selected, check “Combi” for “Auto Arp” (GLOBAL 1.1: System, Basic page).

Creating an user arpeggio pattern

About user arpeggio patterns

The patterns that can be selected on the TRITON-Rack's arpeggiator are called "arpeggio patterns." There are two types of arpeggio patterns: preset arpeggio patterns and user arpeggio patterns.

Preset arpeggio patterns: There are five patterns; UP, DOWN, ALT1, ALT2, and RANDOM. The operation of these patterns is fixed, and cannot be edited.

User arpeggio patterns: There are 328 patterns U000(I-A/B)-U327(E-H)

Which can develop chords or phrases in a wide variety of ways, based on the pitches that you play on the keyboard connected MIDI instrument or the timing at which you play them.

In GLOBAL 6.1: Arp.Pattern you can modify these user arpeggio patterns, or create a new user arpeggio pattern from an initialized condition. Edited user arpeggio patterns can be written to internal memory areas U000(I-A/B)-U327(E-H). In Disk mode, they can also be saved on external media such as a floppy disk. (⇒p.40)

Editing a user arpeggio pattern

When you wish to edit a user arpeggio pattern, first turn off memory protect by **unchecking** the Memory Protect "Arp. UsrPat" check box in the Preference page of GLOBAL 1.1: System.

If you move here from Program mode, your editing will apply to the arpeggio pattern specified for the selected program.

- 1 In Program mode, select a program for which the arpeggio pattern you wish to edit is selected, or a program that you wish to use as a basis for editing the arpeggio pattern.
- 2 Press the [ARP ON/OFF] key to turn on the arpeggiator (the LED will light).
Even if you moved to Global mode from a program in which the arpeggiator was turned off, you can use the [ARP ON/OFF] key to turn it on.
- 3 Select the GLOBAL 6.1: Arp.Pattern, Setup page.



- 4 In "Pattern," select the arpeggio pattern that you wish to edit.

For this example, select an empty user arpeggio pattern.

If a blank pattern is selected, playing the keyboard will not start an arpeggio. Although preset arpeggio patterns P000-P004 can be selected, they cannot be edited.

When you edit a user arpeggio pattern, the changes will have an effect anytime that this pattern is used in Program, Combination, or Multi.

- 5 In "Lgth (Length)," specify the length of the pattern.

After the pattern has played for the length specified here at the note interval specified by "Reso," it will return to the beginning. This setting can also be changed during or after editing. For this example, set it to 8.

note For the preload arpeggio patterns U000(I-A/B)-U199(I-A/B), simply changing the "Lgth" can significantly change the character of the pattern. Try changing the length and listening to the result.

- 6 Make settings for the "J (Tempo)," "Reso (Resolution)," "Oct (Octave)," "Sort," "Latch," "K.Sync (Key Sync.)," and "Kbd (Keyboard)" parameters.

These are program parameters, but can be set from here as well.

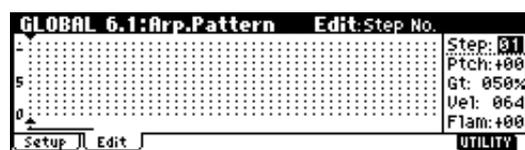
If after moving here from Program mode, you modify these parameters and wish to keep your changes, return to Program mode and write the program. These parameters are not saved by "Write Arpeggio Pattern."

For this example, make the settings shown in the illustration 3.

- 7 The "Type (Arpeggio Type)," "Octave Motion," and "Fixed Note" parameters specify how the arpeggio will be developed.

These settings can be changed during or after editing (⇒PG p.120).

- 8 Select the Edit page.



A pattern consists of Steps and Tones.

- **Step:** A user arpeggio pattern can have a maximum of 48 steps. The arpeggiator will play from the first step, at intervals of the note value specified by "Reso (Resolution)." The vertical lines of the grid shown in the center of the LCD screen indicate the steps.
Use "Step (Step No.," to select the step. For each step, specify "Ptch (Pitch Offset)," "Gt (Gate)," "Vel (Velocity)" and "Flam."

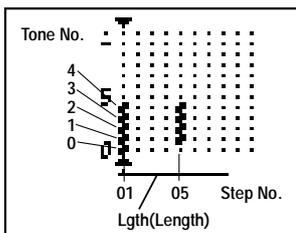
To change Step, you can either use the [<], [>] keys or select "Step (Step No.," and use the [VALUE] dial or the [INC], [DEC] keys.

- **Tone:** At each step, a chord consisting of up to 12 tones (Tone No. 00–11) can be sounded. To input tones, select “Step (Step No.)” and then use numeric keys [0]–[9], [-], and [./HOLD] to input tones. The “Tone No.” corresponds to the [0]–[9], [-], and [./HOLD] keys as shown below. Each time you press a [0]–[9], [-], or [./HOLD] key, the corresponding tone will be turned on/off. The horizontal lines of the grid shown in the center of the LCD screen indicate the tones.

Tone00–09: [0]–[9] keys

Tone10: [-] key

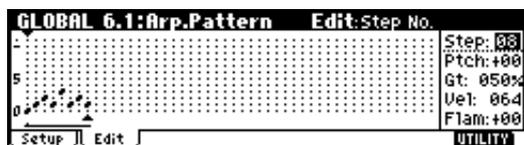
Tone11: [./HOLD] key



Creating an example pattern



- ① Set “Step (Step No.)” to 01, and press the [0] key.
- ② Set “Step (Step No.)” to 02, and press the [1] key.
- ③ Set “Step (Step No.)” to 03, and press the [2] key.
- ④ Set “Step (Step No.)” to 04, and press the [1] key.
- ⑤ Set “Step (Step No.)” to 05, and press the [3] key.
- ⑥ Set “Step (Step No.)” to 06, and press the [1] key.
- ⑦ Set “Step (Step No.)” to 07, and press the [2] key.
- ⑧ Set “Step (Step No.)” to 08, and press the [1] key.



- ⑨ When you play the keyboard as shown in the illustration, the arpeggiator will begin playing.

Tone 0 corresponds to the pitch of the lowest key of chord you play on the keyboard. (If “Sort” is unchecked, it will correspond to the pitch of the first note you play.)

- ⑩ For steps 01–08, make settings for “Ptch (Pitch Offset),” “Gt (Gate),” “Vel (Velocity),” and “Flam.”

“Ptch (Pitch Offset):” This offsets the pitch of the arpeggio note in semitones up or down. You can input the same tone for each step, and change the “Ptch (Pitch Offset)” value for each to create a melody using a single tone. (See “Melody pattern”)

“Gt (Gate):” Specify the length of the arpeggio note for each step. With a setting of LGT, the note will continue sounding either until the next note of the same tone or until the end of the pattern. With a setting of Off, the note will not sound.

“Vel (Velocity):” Specify the strength of the note. With a setting of Key, the note will sound at the strength with which it was actually played.

- ▲ The “Gt (Gate)” and “Vel (Velocity)” settings you make here will be valid if the “Gt (Gate)” and “Vel (Velocity)” parameters (PROG 6.1: Ed-Arp., Arpeg. Setup page) of the program selected in Program mode are set to Step. If these parameters have a setting other than Step, the “Gt (Gate)” and “Vel (Velocity)” that were specified for each individual step will be ignored, and all notes of the arpeggio will sound according to the settings in PROG 6.1: Ed-Arp. Be sure to verify the settings of the program.

- ▲ Before you set “Gt (Gate),” move the REALTIME CONTROLS C-mode [ARP-GATE] knob to the center position (12 o’clock).

- ▲ Before you set “Vel (Velocity),” move the REALTIME CONTROLS C-mode [ARP-VELOCITY] knob to the center position (12 o’clock).



- ⑪ To change the user arpeggio pattern name, use the Utility “Rename Arpeggio Pattern” (see p.38).

- ⑫ If you wish to save the edited user arpeggio pattern to internal memory, be sure to Write the user arpeggio pattern (see p.39).

If you turn off the power without writing, the edited contents will be lost.

- ⑬ If you wish to save the state of the program at the same time, return to Program mode and write the program (see p.37).

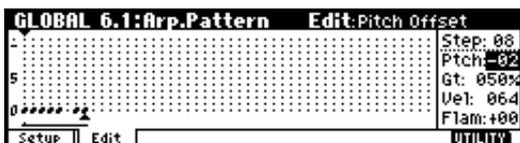
Other examples of creating a user arpeggio pattern

Melody pattern



- ① Set “Step (Step No.)” to 01, and press the [0] key. Set “Ptch (Pitch Offset)” to +00.
- ② Set “Step (Step No.)” to 02, and press the [0] key. Set “Ptch (Pitch Offset)” to +10.

- ③ Set "Step (Step No.)" to 03, and press the [0] key. Set "Ptch (Pitch Offset)" to +00.
- ④ Set "Step (Step No.)" to 04, and press the [0] key. Set "Ptch (Pitch Offset)" to +00.
- ⑤ Set "Step (Step No.)" to 05, and press the [0] key. Set "Ptch (Pitch Offset)" to +12.
- ⑥ For "Step (Step No.)" 06, do not enter a tone.
- ⑦ Set "Step (Step No.)" to 07, and press the [0] key. Set "Ptch (Pitch Offset)" to +00.
- ⑧ Set "Step (Step No.)" to 08, and press the [0] key. Set "Ptch (Pitch Offset)" to -02.



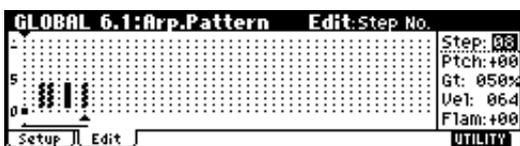
Chordal pattern



- ① Set "Step (Step No.)" to 01, and press the [0] key. Set "Gt (Gate)" to LGT.
- ② For "Step (Step No.)" 02, do not enter a tone.
- ③ Set "Step (Step No.)" to 03, and press the [1], [2], [3], [4] keys.
- ④ Set "Step (Step No.)" to 04, and press the [1], [2], [3], [4] keys.
- ⑤ For "Step (Step No.)" 05, do not enter a tone.
- ⑥ Set "Step (Step No.)" to 06, and press the [1], [2], [3], [4] keys. Set "Gt (Gate)" to LGT.
- ⑦ For "Step (Step No.)" 07, do not enter a tone.
- ⑧ Set "Step (Step No.)" to 08, and press the [1], [2], [3], [4] keys.

note To simulate the timing nuances of a strummed guitar chord, select "Flam." In Program mode, select an acoustic guitar program, and choose the user arpeggio pattern that you created here. In the Setup page of PROG 6.1: Ed-Arpeg., set "Gate" to **Step**.

Then return to the GLOBAL 6.1: Arp.Pattern, Edit page. For odd-numbered steps, set "Flam" to a positive (+) value. For even-numbered steps, set "Flam" to a negative (-) value.



Drum pattern

You can use the arpeggiator to play a rhythm pattern by using "Fixed Note" with a drum program.

- ① Select a drum kit program.

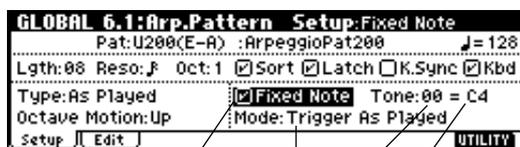
For this example, select preset program I-A036: Standard Kit.

- ② Select the GLOBAL 6.1: Arp.Pattern, Setup page, and set the parameters.

Check "Fixed Note." If this is checked, tones will always sound at the specified pitch.

If you set "Mode (Fixed Note Mode)" to **Trigger All Tones**, playing a single note will cause all Tones to sound.

If you set "Mode (Fixed Note Mode)" to **Trigger As Played**, the notes you play will determine how Tones are sounded.



Fixed Note | Tone No. | Fixed Note No.
Mode(Fixed Note Mode)

If "Fixed Note" is checked, you will be able to set "Tone No." and "Fixed Note No." Select "Tone No.," and then set "Fixed Note No." to specify the note number that the tone will sound. Here, set "Tone No." and "Fixed Note No." as follows.

Tone No.	Fixed Note No.
00	C2 (kick)
01	F2 (snare)
02	F#3 (closed hi-hat)
03	A#3 (open hi-hat)

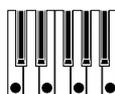
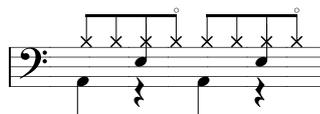
The drumsamples that correspond to each note number will differ depending on the drum kit. You will find it convenient to audition the drum sounds from the keyboard of a connected MIDI instrument, and then input the "Fixed Note No." by holding down the [ENTER] key and playing the desired note.

- ③ Select the Edit page.

Each **Tone** in the display will be shown as a small circle.

For each horizontal line (**Tone**) in the display, you will specify a drumsample (note number) of the drum kit.

Next we will input a rhythm pattern.



About arpeggiator synchronization

The note timing of the arpeggiator will depend on the setting of its “Key Sync.” check box.

If this is **checked**, the arpeggiator will begin operating at the moment that you play the first note-on after having released all notes on the connected MIDI instrument.

If this is **unchecked**, the arpeggiator will synchronize to the timing of the internal/external MIDI clock.

The following paragraphs explain how synchronization occurs when the “Key Sync.” check box is unchecked. (Synchronization for Pattern Start and MIDI realtime command “Start” is an exception to this.)

Synchronizing arpeggiators A and B

In Combination, or Multi modes, the two arpeggiators can be operated simultaneously.

At this time if one arpeggiator is running and the other arpeggiator (whose “Key Sync.” is not checked) is started, the second arpeggiator will synchronize to the “♩ (Tempo)” based on the timing of the first arpeggiator.

note If “Key Sync.” is checked, arpeggiators A and B will operate with independent timing.

Synchronization with pattern playback in Multi mode, synchronization with RPPR pattern playback in Multi mode

Synchronization with pattern playback

- If you start pattern playback while the arpeggiator is running, the arpeggiator will be reset to the beginning of the arpeggio pattern. (This is not affected by the “Key Sync.” setting.)
- If “Key Sync.” is not checked for pattern recording, you can turn on the [ARP ON/OFF] key and play the keyboard of a connected MIDI instrument during the recording pre-count so that the arpeggio pattern will start from the beginning at the instant that recording begins, and will be recorded.

Synchronization with RPPR pattern playback

- If you trigger the arpeggiator while a pattern is playing, the arpeggiator will synchronize to the beat of the pattern playback.
- If you want pattern playback to synchronize to the already-running arpeggiator, set “Sync” (MULTI 5.1: RPPR, RPPR Setup page) to **ARP (SEQ)**. Pattern playback will synchronize to the “♩ (Tempo)” timing of the arpeggiator.

Synchronization with an external sequencer in Program, Combination, or Multi mode

When “♩ (Tempo)” is set to **EXT** (GLOBAL 2.1: MIDI, “MIDI Clock”), the arpeggiator will synchronize to MIDI Clock or Start messages etc. received from an external MIDI sequencer etc. connected via a MIDI cable.

Synchronization with external MIDI clock

- The arpeggiator will synchronize to the “♩ (Tempo)” based on the timing of the external MIDI clock.

Synchronization to the MIDI realtime command “Start”

- If the MIDI realtime command “Start” is received while the arpeggiator is running, the arpeggiator will be reset to the beginning of the arpeggio pattern. (This is not affected by the “Key Sync.” setting.)

Effects settings

The effect section of the TRITON-Rack provides five **insert effects**, two **master effects**, one **master EQ** (stereo 3-band EQ), and a **mixer** that controls the routing of these components.

You can choose from 102 types of full-digital effects for each insert effect, and from 89 types for each master effect. The effects are categorized as follows.

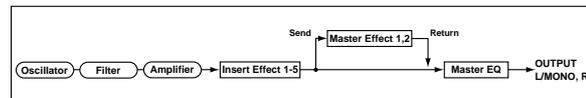
Categories of the 102 effect types

001–015	Filter and dynamics effects, such as EQ and compressor
016–031	Pitch and phase modulation effects, such as chorus and phaser
032–040	Other modulation and pitch-shift effects such as rotary speaker and pitch shifter
041–051	Early reflection and delay effects
052–057	Reverb effects
058–089	Mono and mono-chain effects in which two mono effects are connected in series
090–102	Double-size effects

⚠ Effects **000–089** can be selected for IFX1, 2, 3, 4, 5, or MFX 1 or 2. Effects **090–102** are double-size effects, and will use twice the processing area of other effects. They can be selected for IFX2, IFX3 or IFX4.

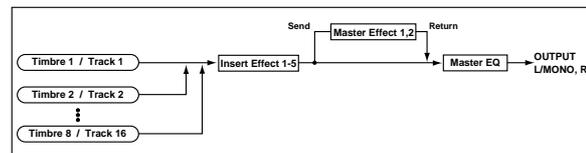
Effects in each mode

In **Program mode**, **insert effects** can be used as part of the sound-creating process, in the same way that the output sound of the oscillator (OSC) is processed by the filter and amp to create the final sound. Then the **master effects** can be used to apply spatial-type effects such as reverb. The stereo 3-band **master EQ** located immediately before the OUTPUT (MAIN) L/MONO and R outputs is used to make final adjustments in tone. These settings can be made independently for each program.

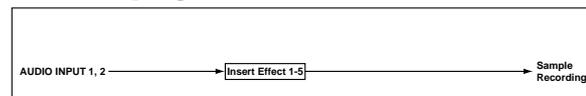


In **Combination mode**, and **Multi mode**, **insert effects** can be used to help create the sound of each timbre/track. The **master effects** are used to apply overall spatial processing, and the **master EQ** is used to make overall adjustments in tone.

These settings are made in Combination mode independently for each combination, and in Multi mode for each multi the entire mode.

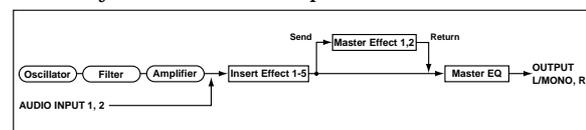


In **Sampling mode**, the sound of an external source that is input from AUDIO INPUT 1 and 2 can be processed by the **insert effects** as the sound is sampled. Sampling mode settings are made by the “Input 1” and “Input 2” parameters of the SMPL 1.1: Recording, Input/Pref page. The settings here are valid only within Sampling mode.



The external input from **AUDIO INPUT 1** and **2** can be used outside of Sampling mode. In Program, Combination, and Multi modes, the external input sound can be processed by the **insert effects**, **master effects**, and **master EQ**.

This means that you can use the TRITON-Rack as a 2-in/6-out effect processor. When **093: Vocoder** is selected, the TRITON-Rack can be used as a vocoder effect processor in which its internal sounds are controlled by an external mic input.



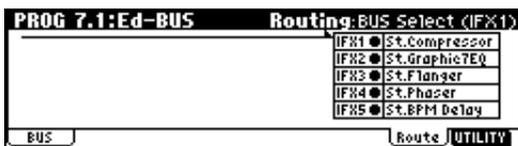
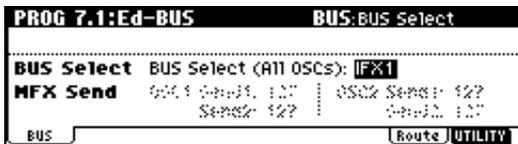
Routing settings and effect settings

The insert effects, master effects, and master EQ have the same structure in all modes, but the routing settings will determine how the oscillators of a program or the timbres of a combination or track of a song will be sent to each insert effect or master effect. In the pages that follow, we will explain how you can make routing settings and effect settings in each mode.

Effect settings for a program

Routing

- ① Select the PROG 7.1: Ed-BUS, BUS page.



- ② Use “BUS Select (All OSCs)” to specify the bus (insertion effect) to which the output of the oscillator will be sent.

L/R: The output will not be sent to the insert effects. After passing through the master EQ, the sound will be sent to AUDIO OUTPUT (MAIN) L/MONO and R.

IFX1–5: The output will be sent to insert effect IFX 1, 2, 3, 4, or 5.

1, 2, 3, 4, 1/2, 3/4: The output will be sent to AUDIO OUTPUT (INDIVIDUAL) 1, 2, 3, or 4. It will not be sent to the insert effects, the master effects, or the master EQ.

Off: The output will not be sent to AUDIO OUTPUT (MAIN) L/MONO, R, or to (INDIVIDUAL) 1, 2, 3, 4. (After passing through the master effects, it will be output from AUDIO OUTPUT (MAIN).) Select this when you wish to connect the output to the master effects in a series connection at the send levels specified by “MFX Send.”

note The Routing page displays the state of the routing, insert effect, and chain settings. In this page you can also set “BUS Select.” Use the [INC]/[DEC] keys to select the send destination to the insert effects.

- ③ “MFX Send” specifies the send level from each oscillator to the master effects.

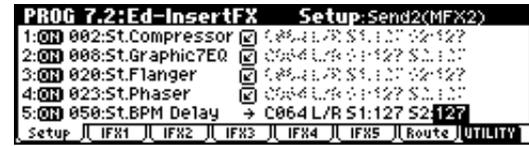
This is valid only if “BUS Select (All OSCs)” is set to L/R or Off.

If IFX1–5 is selected for “BUS Select (All OSCs),” the send level to the master effects is adjusted by the “Send 1 (MFX1)” and “Send 2 (MFX2)” parameters

(PROG 7.2: Ed-Insert FX, Setup page) after the signal has passed through the insert effects.

Insert effects

- ④ Select the PROG 7.2: Ed-InsertFX, Setup page.



- ⑤ For “Insert Effect 1”–“Insert Effect 5,” select the effect type for each insert effect.

note The “Select by Category” utility lets you select effects from six categories.

! Double-size effects 090–102 can be used only for IFX 2, 3, or 4.

- ⑥ Use “On/Off” to switch each insert effect on/off.

A setting of Off will be the same state as when 000: No Effect is selected. The input sound will be output without change.

note The “Copy Insert Effect” utility lets you copy effect settings from another program etc. The “Swap Insert Effect” utility lets you exchange the settings of two insert effects, such as IFX1 and IFX5.

- ⑦ Specify the “Chain” setting.

If you set “Chain” to , insert effects will be connected in series. If you send the oscillator output to IFX1 as shown in the illustration for step ① and make settings as shown in illustration ④, the signal will be sent in series through the five insert effects IFX1→IFX2→IFX3→IFX4→IFX5, and will finally be output.

- ⑧ Make settings for “Pan(CC#8),” “BUS Select,” “S1 (Send1(MFX1)),” “S2 (Send2(MFX2))” for the sound after it has passed through the insert effects.

If the insertion effects are chained, these settings will apply after the last IFX.

“Pan(CC#8): Set the pan. This is valid only when “BUS Select” is L/R.

“BUS Select: Specify the output destination. Normally you will set this to L/R. If you wish to send the sound that has passed through the insert effects to AUDIO OUTPUT (INDIVIDUAL) 1–4, select 1–4, 1/2, or 3/4.

“S1 (Send1(MFX1)),” “S2 (Send2(MFX2)): Set the send levels to the master effects. For this example, set this to 127.

- ⑨ Select the IFX1–IFX5 pages, and set the parameters for each of the selected effects.

For details on the parameters of each effect (⇐PG p.151–).

Master effects

The input levels to the master effects are set by the “Send Level 1, 2” (step ③ or ⑧). If “Send Level 1, 2” are **zero**, the master effects will not apply. “Send Level 1” corresponds to MFX1, and “Send Level 2” corresponds to MFX2.

- ⑩ Select the PROG 7.3: Ed-MasterFX, Setup page.



- ⑪ In “Master Effect1” and “Master Effect2,” select the type of each master effect.

The procedure is the same as when selecting an insertion effect (step ⑤).

- ⚠ The master effects cannot use double-size effects.
 - ⚠ The master effects are mono-in/stereo-out. Even if a stereo-input effect is selected, it will function as mono input.
- ⑫ Use “On/Off” to specify the on/off status of each master effect.
- With a setting of Off, the output of the master effect will be muted.
- ⑬ Use “Rtn (Return1, 2)” to adjust the output levels of the master effects.
- ⚠ In the “W/D” (Wet/Dry) setting of each effect, the W setting is the effect output level. This value multiplied by the value of the return setting (i.e., x1.0 if “Rtn” = 127) to determine the actual master effect output level.

- ⑭ Select the MFX1 and MFX2 pages, and set the parameters for each selected effect.

For details on the parameters of each effect, refer to PG p.151.

Master EQ

- ⑮ Use the stereo 3-band master EQ to make final equalizing adjustments immediately before the sound is output from the AUDIO OUTPUT L/ MONO and R jacks.

Master EQ settings can be made in “Master EQ Gain [dB]” of the PROG 7.3: Ed-Master FX, Setup page, or in the Master EQ page.

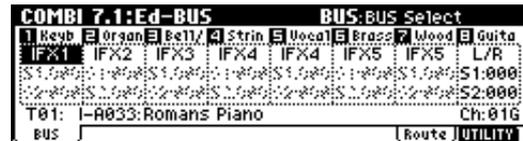
For details on master EQ parameters, refer to PG p.203.

Effect settings in Combination, and Multi modes

In Combination, and Multi modes, you can specify the routing of each timbre/track to the insert effects and master effects. These settings are made in the same way in each of these modes. We will be using the example of Combination mode in our explanation here.

Routing

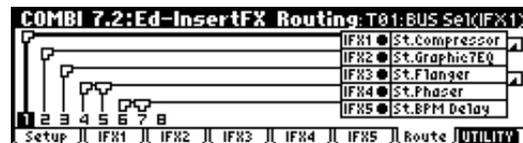
- ① Select the COMBI 7.1: Ed-BUS, BUS page.



- ② Select “BUS Select.” Here you can specify the bus (insert effect) to which the output of each timbre will be sent.

note The Routing page displays the status of the routing, insert effect, and chain settings. In this page you can also make “BUS Select” settings. Use the [◀], [▶] keys to select the timbre, and use the [INC], [DEC] keys to specify the send destination insert effect.

In this example, T01 (timbre 1) uses IFX1 and 2. T02 uses IFX2, T03 uses IFX3 and 4, T02 and T05 use IFX4, and T06 and T07 use IFX5. Selection of each effect type, the on/off setting, and chain settings are made in the COMBI 7.2: Ed-InsertFX, Setup page.



In COMBI 7.2: Ed-InsertFX, Routing page too, you can use the [◀], [▶] keys to select the timbre, and the [INC], [DEC] keys to specify the bus.

- ③ “S1 (Send1(MFX1)),” “S2 (Send2(MFX2))” specifies the send level from each timbre to the master effects.

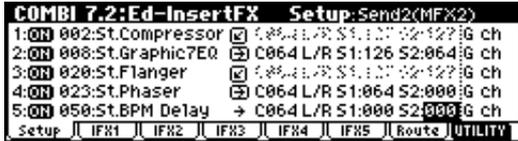
This can be set only if “BUS Select” is set to L/R or Off.

- ⚠ The actual send level will be the send level of each timbre multiplied by the send level of each oscillator of the program selected for the timbre. If the send level of a program is **0**, the actual level will be **zero** even if the send level setting is raised here.

If IFX1-IFX5 is selected for “BUS Select,” set the send levels to the master effects by adjusting the “S1 (Send1(MFX1))” and “S2 (Send2(MFX2))” parameters (COMBI 7.1: Ed-Insert FX, Setup page) located after the signal has passed through the insert effects.

Insert effects

Here you can select the effects for each IFX1–IFX5, adjust the “Pan (CC#8)” setting that follows each insert effect, and specify “BUS Select,” “S1 (Send1(MFX1)),” and “S2 (Send2(MFX2)).” If insert effects are connected in series, the setting after the last IFX will be valid. Use “S1 (Send1(MFX1))” and “S2 (Send2(MFX2))” to adjust the depth of the master effects after the signal has passed through the IFX. These settings are made in the same way as for programs (⇒p.95).



Master effects

Master EQ

These settings are made in the same way as for programs (⇒p.96).

Effect settings in Sampling mode

In Sampling mode, insert effects can be applied to an external audio source connected to the AUDIO INPUT 1 and 2 jacks, and sampled.

Routing

- 1 Select the SMPL 1.1: Recording, Input/Pref page.

The parameters in “Input1” and “Input2” specify the insert effect to which the external audio input from the AUDIO INPUT 1 and 2 jacks will be sent. For details on these settings, refer to “Sampling” (⇒p.68).

Insert effects

Select an effect for IFX1–IFX5, and set “Chain,” “Pan (CC#8)” for the signal that has passed through each insertion effect. If effects are chained, the settings after the last IFX in the chain will be used. These settings can be made in the same way as for a program (⇒p.95).

Master effects

Master EQ

The master effects and master EQ cannot be used in Sampling mode.

Effect settings for the AUDIO INPUT

Even in modes other than Sampling mode, the TRITON-Rack’s effects can be applied to the external audio source connected to the AUDIO INPUT 1 and 2 jacks. The effect section of the TRITON-Rack can be used as a 2-in 6-out effect processor. When **093: Vocoder** is selected, you can also use the TRITON-Rack as a vocoder that combines the internal sounds with the sound from an external microphone.

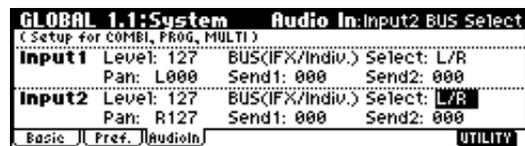
Routing

In modes other than Sampling mode (i.e., in Combination, Program, and Multi modes) the audio input routing from the AUDIO INPUT 1, 2 jacks is specified in the GLOBAL 1.1: System, Audio In page.

- 1 Enter Global mode from Program mode.

⚠ If you enter Global mode from Sampling mode, the “Input 1” and “Input 2” settings of Sampling mode will be maintained, and you will not be able to hear the settings made in Global mode. You must move here from a mode that inputs external audio signals (Combination, Program, or Multi). In Sampling mode, the settings you make here are ignored. AUDIO INPUT 1, 2 settings for Sampling mode are made by the “Input 1” and “Input 2” parameters in the In/Pref page of SMPL 1.1: Recording (⇒PG p.79).

- 2 Select the GLOBAL 1.1: System, Audio In page.



- 3 Set the parameters for “Input1” and “Input2.”

“Input1” corresponds to AUDIO INPUT 1 jack and “Input2” corresponds to AUDIO INPUT 2 jack.

“Level”: Set the signal level from AUDIO INPUT 1 and 2. Normally you will set this to **127**. If the sound is still distorted even when this level is lowered significantly, it is possible that the distortion is occurring before the AD converter. Adjust the [INPUT] knob or the output level of your external audio source.

“Pan”: Set the panning of the signal from AUDIO INPUT 1 and 2. When you are inputting a stereo audio source, you will normally set Input 1 to **L000**, and Input 2 to **R127** (or Input 1 to **R127**, and Input 2 to **L000**). When you are inputting a monaural audio source, you will normally set this to **C064**.

“BUS (IFX/Indiv.) Select”: In the same way as for the oscillator of a program, specify the bus to which the external audio source from AUDIO INPUT jacks 1 and 2 will be sent (⇒p.95).

“Send 1,” “Send 2”: Specify the send levels from the AUDIO INPUT 1, 2 (external input sound) to the master effects, in the same way as for the program oscillators. This setting can be made only if “BUS (IFX/Indiv.) Select” is L/R or Off (⇒p.95).

If “BUS (IFX/Indiv.) Select” is set to **IFX1–5**, this is set by “Send Level 1” and “Send Level 2” (Insert Fx tab) after the sound has passed through the insert effects.

- ⚠ If “BUS (IFX/Indiv.) Select” is set to other than **Off** and “Level” is raised, the external audio source will be input to the TRITON-Rack. At this time, if audio cables are connected to the AUDIO INPUT 1, 2 jacks, any noise component will be input to the TRITON-Rack even if there is no actual audio input, and (depending on the settings) will be output from the AUDIO OUTPUT L/MONO, R, 1, 2, 3, 4 jacks. If you are not using an external audio source, and are playing only the internal programs, combinations, and multis, you should set “BUS (IFX/Indiv.) Select” to **Off**, or set “Level” to **0**.

If audio cables are not connected to the rear panel AUDIO INPUT 1, 2 jacks, the input to the TRITON-Rack will be **0**.

About dynamic modulation (Dmod)

Dynamic modulation (Dmod) is a function that lets you use MIDI messages or the TRITON-Rack’s controllers to control specific effect parameters in realtime. BPM/MIDI Sync is another function that controls effect parameters, and is used to synchronize the LFO speed of modulation-type effects or the delay time etc. of delay-type effects to the tempo of the arpeggiator or an external sequencer.

For details on each of these functions, refer to PG p.211.

Setting example:

We will show how you can use dynamic modulation to control an effect parameter in realtime.

- ① As described in the procedure for “Effect settings for a program” (p.95), set “IFX1” to **049: LCR BPM Delay**. Verify that a delay sound is being output.
- ② Select the **PROG 7.1: Ed-Insert FX, IFX1** page.

Using the Dmod function to vary the delay level by pushing the joystick of a connected TRITON or other MIDI device away from yourself

- ③ Set “InLvl Mod” to **+100**.
- ④ Set “Src” to **JS+Y#1**.

The joystick will control the input level to the effect. When you set “Src” to **JS+Y#1**, the delay sound will no longer be output; however it will gradually increase as you move the joystick away from yourself.

Using the Dmod function to vary the feedback level by operating “SW1” ([F6] key)

- ⑤ In the **PROG 2.2: Ed-Ctrl, Controls** page, set the function of “SW1” to **SW1 Mod. (CC#80), Toggle**.
- ⑥ Return to the **PROG 7.1: Ed-Insert FX, IFX1** page, and set the **C Fb (C Delay Feedback) “(Source)”** to **SW1 #80**.
- ⑦ Set “(Amount)” to **+30**.
- ⑧ Press the **[Exit]** key etc. to return to the **PROG 1.1: Play** page.

When you (move the joystick away from yourself and) press the [F6] (“SW1”) switch, the feedback level will increase, and the delay sound will continue repeating more times.

The “(Amount)” setting determines the feedback level when the [F6] (“SW1”) key is pressed. If you set “(Amount)” to **-10** and press the [F6] (“SW1”) key, the feedback level will be **0**.

Using the BPM/MIDI Sync. function to synchronize the delay time to arpeggiator tempo changes.

- ⑨ Set “BPM” to **MIDI**.
- ⑩ For **L, C, and R**, set “L/C/R Bs” and “Times” as desired.
- ⑪ Set the realtime controller function to **C-mode**, and rotate **REALTIME CONTROLS knob 1 (“TEMPO”)**.

For this example, set “L/C/R Bs” to  and “Times” to **1** so that the effect will be easily understandable. The delay time will repeat at an interval of a 8th note.

When you (move the joystick away from yourself and) rotate the knob, the delay time will change.

- ⑫ Turn on the **[ARP ON/OFF]** switch to start the arpeggiator.
- Move the joystick away from yourself and select the desired arpeggio pattern. When you rotate REALTIME CONTROLS knob 1, the delay time will change in synchronization to any changes you make in the arpeggiator tempo.

⚠ If you rotate the REALTIME CONTROLS knob to change the tempo while the delay is sounding, noise may occur in the delay sound. This is because the delay sound becomes discontinuous, and is not a malfunction.

note For some effects, you can synchronize the LFO frequency to the tempo. Set the effect parameters “BPM/MIDI Sync” to **On**, and “BPM” to **MIDI**. For details refer to PG p.156.

Other functions

Tuning to another instrument/ Transposing

When you play the TRITON-Rack together with other instruments, or along with music on a CD or tape, you may need to adjust the tuning so that the pitch matches. To adjust the tuning, use GLOBAL 1.1: System Basic page “Master Tune.” The tuning can be adjusted in a range of -50 – +50 cents (one semitone is 100 cents).

You can also transpose by changing the pitch in semitone steps. To transpose the pitch of the entire TRITON-Rack, use GLOBAL 1.1: System Basic page “Key Transpose.” The pitch can be transposed over a range of ± 1 octave.

Here we will explain how to adjust the tuning and transposition of the entire TRITON-Rack in Global mode.

- ① Press the [GLOBAL] key to enter Global mode.
- ② Press the [EXIT] key.
- ③ Press the [F1] (“Basic”) key.
- ④ To tune the TRITON-Rack, use [◀], [△], [▽], [▶] to select “Master Tune.” To transpose, select “Key Transpose.”
- ⑤ Use the VALUE controllers to adjust the setting.

You can use numeric keys [0]–[9] to enter a value and press the [ENTER] key. Alternatively, you can use the [VALUE] dial, or the [INC], [DEC] keys.

Bypassing the effects

Normally, effects are turned on/off within each program, combination, or multi, or in Sampling mode. However if you want the entire TRITON-Rack not to use its insert effects or master effects, you can bypass these effects.

- ① Press the [GLOBAL] key to enter Global mode.
- ② Press the [EXIT] key.
- ③ Press the [F1] (“Basic”) key.
- ④ To turn off insert effects 1–5, check the “IFX1-5 Off” check box.

To turn off master effect 1, check the “MFX1 Off” check box. To turn off master effect 2, check the “MFX2 Off” check box.

Adjusting the way in which velocity or after touch will affect the volume or tone

You can adjust the way in which changes in velocity or after touch will affect the volume or tone. For example, by adjusting the depth of the change that occurs for velocity, you can maintain a relatively consistent volume even if there are inconsistencies in your playing dynamics (velocity) on a connected MIDI keyboard. Each curve has its own character, so you can select the curve that is appropriate for your own playing dynamics, playing style, and the effect that you wish to obtain (⇒PG p.108).

- ① Press the [GLOBAL] key to enter Global mode.
- ② Press the [EXIT] key.
- ③ Press the [F1] (“Basic”) key.
- ④ To change the velocity curve, select “Velocity Curve” and specify the desired curve.

To change the after touch curve, select “AfterT Curve,” and specify the desired curve.

note This setting will affect the operation of the entire TRITON-Rack.

note Each program has parameters that allow you to adjust the effect of velocity (playing dynamics), and the change will depend on the settings of these parameters. These parameters can be individually set in detail in Program mode.

Creating original scales

You can create your own original scales. You can create sixteen different User Octave Scales in which the pitch of each note in the octave is repeated for all octaves, and one User All Note Scale in which the pitch of each of the 128 notes can be specified independently.

The user scales you create here can be used by specifying the scale for a program, for each timbre of a combination, or for each track of a multi. (⇒p.100)

Changing the scale

You can specify the scale for each program, for each timbre in a combination, or for each track of a multi.

These settings are made by “Type” in the following pages, and by “Use Prog’s Scale” for a combination or multi.

Program	2.1: Ed-Basic, Prog Basic
Combination	3.2: Ed-Param2, Other
Multi	3.2: Param2, Other (Othr..8/Othr..16)

Here we will show how to make settings in Multi mode.

- 1 Press the [MULTI] key to enter Multi mode.
- 2 Press the [MENU] key, and then press the [F3] key to select “Prm2.” Press the [F8] (“Open”) key.
- 3 Select the [F1] (“Othr..8”) key or the [F2] (“Othr..16”) key.
- 4 If you wish to use the scale that is specified for the program used by a track, check the “Use Prog’s Scale” check box for that track.

Tracks that are not checked will use the scale specified by Scale “Type.”

- 5 Set “Type” to select the scale for the entire currently selected multi.

Setting the function of “SW1” and “SW2”

You can specify the function of the “SW1” and “SW2” (⇨PG p.213).

The functions of the “SW1” and “SW2” are set independently for each program, combination, and multi. In Sampling mode, the functions of these keys are set for the entire mode.

You can specify the function that will be performed by the “SW1” and “SW2,” and can also select between **Toggle** (when the function will be switched on/off each time the [F6] (“SW1”) or [F7] (“SW2”) key is pressed) and **Momentary** (when the function will be on only while you continue holding the [F6] (“SW1”) or [F7] (“SW2”) key).

These settings are made by “SW1/2 Assign” in the following pages.

Program	2.2: Ed-Ctrl, Controls
Combination	2.2: Ed-Ctrl, Controls
Multi	2.2: Controller, Controls
Sampling mode	5.2: Controller, Controls

note When you write a program or combination, the on/off status of the “SW1” and “SW2” is memorized.

note You can use these keys as alternate modulation or effect dynamic modulation sources, and control program parameters or effect parameters.

In this case, you will normally select **SW1 Mod.(CC#80)** and **SW2 Mod.(CC#81)**.

For an example in which the “SW1” is specified as an effect dynamic modulation source for a program and used to control an effect, refer to ⇨p.98.

note The settings of Sampling mode cannot be saved.

Setting the B-mode functions of REALTIME CONTROLS [1]–[4]

You can specify the B-mode functions of REALTIME CONTROLS knobs [1]–[4] (⇨PG p.214).

The B-mode functions are set independently for each program, combination, or multi. The functions in Sampling mode are set for the entire mode.

These settings are made by “Knob B Assign” in the following pages.

Program	2.2: Ed-Ctrl, Controls
Combination	2.2: Ed-Ctrl, Controls
Multi	2.2: Controller, Controls
Sampling mode	5.2: Controller, Controls

note You can use these knobs as sources for alternate modulation or effect dynamic modulation, and control program parameters or effect parameters. In this case, you will normally select **Knob Mod.1(CC#17)**, **Knob Mod.2(CC#19)**, **Knob Mod.3(CC#20)**, and **Knob Mod.4(CC#21)**.

Here we will give an example of how knob [1] can be used to control the filter and amp EG attack of a program.

- 1 Press the [PROG] key to enter Program mode.
- 2 Press the [MENU] key, and then press the [F2] key to select “Ctrl.” Press the [F8] (“Open”) key. The 2.2: Ed-Ctrl, Controls page will appear.
- 3 Press the Knob B Assign “Knob 1-B” popup button, and select F/A Attack(CC#73).
- 4 Press the [SELECT] key to select B-mode, and turn knob [1] to control the EG attack of the filter and amp.

note The settings of Sampling mode cannot be saved.

Adjusting the contrast (brightness) of the LCD screen

Use the GLOBAL 1.1: System, Preference page “LCD Contrast” to make adjustments.

Using the TRITON-Rack as a data filer

MIDI exclusive data transmitted from an external device can be received by the TRITON-Rack and saved on a floppy disk (the Data Filer function). This is done using the Disk mode Save page “Save Exclusive” (⇒PG p.135).

Shortcuts

[MENU] key + numeric keys [0]–[9] x2

- Access the various pages within each mode. Hold down the [MENU] key, and use numeric keys [0]–[9] to input a two-digit page number.

[MENU] key + [◀], [▶] keys

- Access the various pages within each mode. Hold down the [MENU] key, and use the [◀], [▶] keys to move.

[TIMBRE/TRACK] key + function keys [F1]–[F8]

- Access the parameters within each page. In pages of Combination mode or Multi mode that show timbres 1–8/tracks 1–8 or 9–16 (such as COMBI 1.1: Play, Prog), hold down the [TIMBRE/TRACK] key and press the [F1 1/9]–[F8 8/16] keys to move the cursor.

[ENTER] key + numeric keys [0]–[9]

- Access the utility menu commands of each page (up to ten items). Hold down the [ENTER] key and press a numeric key [0]–[9] to select from up to ten of the utility menu items.

[ENTER] key + MIDI-connected keyboard

Hold down the [ENTER] key and play a note on a MIDI-connected keyboard to perform the following types of input.

- Input note number values or velocity values
- Select “KEY” in GLOBAL 5.1: DKit, MULTI 5.1: RPPR, RPPR Setup page
- Select base key and index in Sampling mode



Appendices

Troubleshooting

If you experience problems, refer to the relevant item and take the appropriate measures.

Power does not turn on

- Is the AC/AC power supply connected to an outlet? (⇒p.12)
- Is the [POWER] switch turned on?
Turn on the front panel [POWER] switch. (⇒p.15)

Power is on, but nothing is displayed in the LCD screen

- Perform the following procedure. (⇒PG p.110)
 - ① Press the [EXIT] key three times, and press the [GLOBAL] key.
 - ② Hold down the [EXIT] key, and press the [WRITE] key.
 - ③ Rotate the [VALUE] dial to adjust the LCD screen.

No sound

- Are connections made correctly to your amp, mixer, or headphones? (⇒p.12)
- Is your amp or mixer turned on?
- The [OUTPUT] knob may have been turned all the way to the left. (⇒p.4)
- If a specific track/timbre does not sound in Combination or Multi modes, make sure that its “Status” is set to **INT** or **BTH**. (⇒PG p.36, 54)
- Are the Key Zone and Velocity Zone set so that sound will be produced? (⇒PG p.39, 40, 56, 57)
- If there is no sound from the AUDIO OUTPUT (INDIVIDUAL) 1–4 jacks, make sure that “BUS Select” or “Bus Select” following the insert effect is set to **1**, **2**, **3**, **4**, **1/2**, or **3/4**. (⇒p.95–)

Notes do not stop

- In PROG 2.1: Ed–Basic, select the Prog Basic page, make sure that the “Hold” check box is **unchecked**. (⇒PG p.5)

Cannot input sound

- Is your audio source connected to the AUDIO INPUT 1, 2 jacks? (⇒p.68)
- Is the [INPUT] knob raised? (⇒p.68)
- Is the [MIC/LINE] switch set appropriately? (⇒p.68)
- If there is no sound in Sampling mode, go to SMPL 1.1: Recording, select the Input/Pref page, and make sure that “Lvl” and “BUS” are set correctly. (⇒p.69)
- If there is no sound in Program, Combination, or Multi modes, go to GLOBAL 1.1: System, select the

Audio In page, and make sure that “Input1 Level,” “Input1 BUS Select,” “Input2 Level” and “Input2 BUS Select” are set correctly. (⇒p.97)

- If sound is still not input even after you have set “Input 1 Level,” “Input 2 BUS Select,” “Input 2 Level,” and “Input 2 BUS Select” in the GLOBAL 1.1: System, Audio In page, temporarily lower the “Input 1 Level” and “Input 2 Level,” and then move to Program, Combination, or Multi mode. Turn return to Global mode, and make the settings once again.

Noise or oscillation is heard

- When using an effect on the external audio source being input from AUDIO INPUT 1 and 2, oscillation may occur depending on the type of effect or on the parameter settings. Please adjust the input level, output level, and effect parameters. You need to be particularly careful when using a high-gain effect.
- After a sample edit has been executed, or after a stereo sample has been recorded, a small noise may be heard. This has no effect on the audio data that was edited or sampled.
- When using the BPM/MIDI Sync function to control the delay time of an effect, noise may occur in the delay sound. This noise is due to discontinuities in the delay sound, and is not a malfunction.

Effects are not applied

- Are the GLOBAL 1.1: System, Basic page “IFX1–5 Off,” “MFX1 Off,” or “MFX2 Off” settings **checked**? (⇒p.99)
- If you are in Combination, or Multi modes, and master effects are not applied when you raise the “S1 (Send1(MFX1))” or “S2 (Send2(MFX2))” of the timbre/track, does “Rtn (Return1)” or “Rtn (Return2)” from the master effect need to be raised? (⇒PG p.148)
Alternatively, has “Send1” or “Send2” for each oscillator of the program used by the timbre/track been lowered? (⇒PG p.26, 28)

note The actual send level is determined by multiplying the send setting of each oscillator in the program with the send setting of the timbre/track.

Cannot record a sample

- Are one or more SIMM modules installed? (⇒PG p.243)
- Is there free memory area (⇒PG p.103)
Select a different memory bank. (⇒PG p.77)
Delete unneeded samples. (⇒PG p.80)
Save important samples before deleting them. (⇒PG p.80, 134)

Combinations or multis do not sound correctly after data was loaded

- In the dialog box when saving the data, did you check the check boxes for each item that you wanted to save? (⇒p.40)
- Are the program numbers of the combination the same as they were when the combination was created?
- Are the program or combination banks/numbers the same as when you created the multi? (⇒PG p.109)
- Did you load the necessary multisamples and samples?

No sound when the [AUDITION] key is turned on

- If no sound is played when you turn on the [AUDITION] key in Program mode, make sure that the PROG 2.1: Ed-Basic, Audition page parameter "Audition Riff" has not been turned **Off**. (⇒PG p.9)
- If no sound is played when you turn on the [AUDITION] key in Sampling mode, check the following points.
Is a sample correctly assigned to the currently selected "Index"?
Are the "S (Start)," "LpS (Loop Start)," and "E (End)" address settings correct? (⇒PG p.92)
If you are in the SMPL 2.1: Sample Edit, Edit2 page, are the "S (Edit Range Start)" and "E (Edit Range End)" settings correct? (⇒PG p.84)

Arpeggiator does not start

- Is the [ARP ON/OFF] key turned on (lit)?
- If the arpeggiator does not start for a combination or multi, make sure that "Arpeggiator Run" is checked, and that an arpeggiator is selected for "Assign." (⇒p.43, PG p.43, 67)
- Is the GLOBAL 2.1: MIDI "MIDI Clock" parameter set to **Internal**? (⇒PG p.112)
- If the [ARP ON/OFF] key does not respond in GLOBAL 6.1: Arp.Pattern, you may have moved here from Sampling mode or Disk mode.

RPPR does not start

- Are "Assign," "Pattern Select," and "Track" set correctly? (⇒p.63)
- Are you controlling RPPR on the MIDI channel of the track selected as the "Control Track"? (⇒p.63)
- Is the MULTI 1.1: Play "RPPR On/Off" setting checked? (⇒p.63)
- If the GLOBAL 2.1: MIDI "MIDI Clock" parameter is set to **Internal**? (⇒PG p.112)

Can't record a pattern in Multi mode

- In the GLOBAL 1.1: System, Preference page, is the "Multi" check box unchecked for "Memory Protect"? (⇒PG p.110)
- Make sure that the GLOBAL 2.1: MIDI "MIDI Clock" parameter is set to **Internal**. (⇒PG p.112)

Can't input values or move between pages

- In MULTI 5.1: RPPR, the "REC" or "START/STOP" button may have been pressed, so that the

TRITON-Rack is in pattern recording/play or recording-standby mode.

- SMPL 1.1: Recording, the "REC" or "START/STOP" button may have been pressed, so that the TRITON-Rack is in sampling-standby or sampling mode.

In Multi mode, a GM-compatible SMF is not played correctly

- Execute "GM Initialize" to initialize the settings. (⇒PG p.51)
- Is GLOBAL 1.1: System, Preference page "Bank Map" set to **GM(2)**? (⇒PG p.109)
- Is MULTI 3.1: Param1, MIDI page "Status" set to **INT** or **BTH**? (⇒p.54)

Settings for oscillator 2 are not displayed

- Make sure that the PROG 2.1: Ed-Basic, Prog Basic page "Mode (Oscillator Mode)" parameter is set to **Double**. (⇒p.45, PG p.5)

MIDI data is not transmitted by the TRITON-Rack's controllers, arpeggiator, or RPPR

- Is Local Control turned On?
You must **check** the GLOBAL 2.1: MIDI "Local Control On" check box. (⇒PG p.111)

The TRITON-Rack does not respond to incoming MIDI data

- Are all MIDI cables connected correctly? (⇒p.13)
Verify that the [MIDI] indicator lights when data is received.
- Is the MIDI data being received on the channel on which it is being transmitted? (⇒PG p.36, 54, 111, 221)

The TRITON-Rack does not respond correctly to incoming MIDI data

- Are the GLOBAL 2.1: MIDI settings "Enable Program Change," "Bank," "Ctrl Change," and "AfterT" each **checked**? (⇒PG p.112)
- If you wish to receive MIDI exclusive messages, is the GLOBAL 2.1: MIDI "Exclusive" item checked? (⇒PG p.112)
- Does the TRITON-Rack support the types of messages that are being sent to it? (⇒p.107, PG p.221)

Can't format a floppy disk

- Are you using a 3.5 inch 2HD or 2DD floppy disk?
- Is the floppy disk inserted correctly?
- Cover the write protect hole of the floppy disk, so that it is in the "write permit" position.
Correctly insert a 3.5 inch 2HD or 2DD floppy disk (with its write protect hole covered) into the disk drive, and format it once again.

Can't load data from a floppy disk

- Is the floppy disk inserted correctly?
- Is the floppy disk formatted correctly?

Can't save data to a floppy disk

- Is the floppy disk inserted correctly?
- Is the floppy disk formatted?
- Is the write protect hole of the floppy disk covered, so that it is in the "write permit" position?

Correctly insert a 3.5 inch 2HD or 2DD floppy disk (with its write protect hole covered) into the disk drive, and perform the save operation once again.

The TRITON-Rack does not recognize when MO media has been exchanged, and does not correctly display the media information after the exchange.

- If you are able to switch the mode setting of your MO drive between DOS/V(PC/AT) and Mac settings, please use DOS/V(PC/AT) mode. For details on changing the mode of your drive, refer to the owner's manual for your MO drive.
- Use the Disk mode Media Information page utility "Scan SCSI device" to remount the SCSI device.
- If your MO drive does not have a mode setting, or if the media exchange is not recognized even after you switch the mode, use the drive select button to select a different drive, and then re-select the MO drive.

"Word Clock Error" is displayed

- Is the GLOBAL 1.1: System, Preference page "System Clock" parameter set correctly? (⇒PG p.273)
If the separately sold EXB-DI option is installed in the TRITON-Rack, and you wish to synchronize the digital signals with an ADAT format external device as the master, set "System Clock" to **Word Clock**.
If "System Clock" is already set to **Word Clock**, make sure that the external device is correctly connected to the 48 kHz WORD CLOCK IN jack.

Specifications and options

.....

Specifications

System

HI (Hyper Integrated) synthesis system

Modes

Combination, Program, Multi, Sampling, Global, Disk, (Demo)

Tone generator

HI (Hyper Integrated) synthesis system
Polyphony: 60 voices (60 oscillators) in single mode
30 voices (60 oscillators) in double mode
Filters: 24 dB/oct LPF with resonance
12 dB/oct LPF + HPF
Alternate modulation function

Waveform memory

32 Mbyte PCM ROM
(425 multisamples, 413 drumsamples)
Expandable via PCM ROM option
(EXB-PCM series is supported)
16 Mbyte user sampling RAM (SIMM)
(expandable to a maximum of 96 Mbytes)

Sampling

48 kHz, 16 bit linear
Maximum sample data memory capacity 96 Mbyte
(with SIMM expansion)
4000 samples, 1000 multisamples
(128 indexes for each multisample)
Time Slice, Time Stretch, and various other editing functions
Able to load AIFF, WAVE, AKAI (S1000/3000), Korg format sample data can be loaded
Sample data can be exported in AIFF or WAVE formats

Effect section

5 insert effects (stereo in/stereo out),
2 master effects (mono in/stereo out),
1 master EQ (3-band stereo), all usable simultaneously
102 effect types (available for insert effects or master effects)
Effect dynamic modulation function

Combinations/Programs

1,664 user memory combinations (512 preloads)
1,664 user memory programs
(512 preloads, Audition function)
128 dedicated user memory programs for use with the EXB-MOSS option
256 + 9 drum ROM programs
(GM2 sound map compatible, Audition function)
382 audition riffs

Drum Kits

144 user drum kits (16 preloads)
9 ROM GM drum kits (GM2 sound map compatible)

Dual polyphonic arpeggiator

Use two arpeggiators simultaneously
(Combination, Multi modes)
5 preset arpeggio patterns
328 user arpeggio patterns (200 preloads)

Multi

16 multi timbres
200 multis
16 preset/16 user template, multi
Internal pattern sequencer
150 preset patterns, 100 user patterns (for each multi)
Maximum capacity: 140,000 notes
Resolution $\downarrow = 192$
RPPR (Realtime Pattern Play/Recording) function
(One set is available for each one multi)
Supports TRITON format and SMF (formats 0 and 1)

Disk mode

Load, save, utility
Data filter function (save/load MIDI exclusive data)
Loading from CD-ROM (ISO 9660 level1) is supported

Demo/Song

5 preloaded demo songs
Song data (.SNG) created on the TRITON/TRITON-pro/TRITONproX can be converted and loaded

Controllers

REALTIME CONTROLS knobs [1]...[4] and A/B/C-mode select key, A/B/C mode LED indicators, [ARP ON/OFF] key, "SW1"/"SW2" keys ([F6]/[F7] keys)

User interface

Graphical user interface
(240 × 64 pixel LCD display)
Mode keys:
[COMBI], [PROG], [MULTI], [SAMPLING], [GLOBAL], [DISK]
Value controllers:
[VALUE] dial, [INC]/[DEC] keys, cursor keys [◀], [△], [▽], [▶], [MENU/PAGE +/-] keys, [EXIT] key, [COMPARE] key, numeric key block ([0]...[9], [-], [./HOLD]), [WRITE], [ENTER], [F1]...[F8] (1/9...8/16) keys, [TIMBRE/TRACK] key
BANK keys:
[BANK] key, INT/EXB indicator LEDs, [A], [B], [C], [D], [E-SMPL/E], [F-MOSS/F], [G-GM/G], [-/H]
Other:
[AUDITION] key, [DEMO/SNG] key

Audio outputs

1/4" AUDIO OUTPUT (MAIN) L/MONO, R:
1/4" AUDIO OUTPUT (INDIVIDUAL) 1, 2, 3, 4:
Output impedance 1.1 [kΩ]
(L/MONO is 550 [Ω] for mono)
Maximum output level +13.5 [dBu]
Load impedance 100 [kΩ] or greater
1/4" AUDIO OUTPUT HEADPHONE
Output impedance 33 [Ω]
Maximum output level 25 [mW]
Load impedance 33 [Ω]

[OUTPUT] level knob (for AUDIO OUTPUT
(MAIN) L/MONO, R, HEADPHONE)

Audio inputs

AUDIO INPUT 1, 2
LEVEL [MIC/LINE] switch, [INPUT] knob
Input impedance 10 [k Ω]
Nominal level LINE +4 [dBu] @ [INPUT] knob= min.
-30 [dBu] @ [INPUT] knob= max.
MIC -17 [dBu] @ [INPUT] knob= min.
-52 [dBu] @ [INPUT] knob= max.
Maximum level LINE +14 [dBu] @ [INPUT] knob = min.
-20 [dBu] @ [INPUT] knob= max.
MIC -7 [dBu] @ [INPUT] knob= min.
-42 [dBu] @ [INPUT] knob= max.
Source impedance 600 [Ω]

Digital audio output

S/P DIF:
24 bit S/P DIF optical (IEC60958, EIAJ CP-1201)

Other

MIDI IN, OUT, THRU
MIDI LED
3.5 inch floppy disk drive
AC power inlet (-AC9V), POWER switch

Support for options

EXB-PCM series PCM expansion board
(16 Mbyte ROM) slots \times 8
72 pin SIMM memory slots \times 3
(for user sample memory)
EXB-MOSS
EXB-SCSI
EXB-DI
EXB-mLAN

Dimensions (W \times D \times H)

482.0 \times 344.3 \times 89.0 (mm)

Weight

4.8kg

Power consumption:

28 W (AC 9V 4.0A max.)

Included items:

AC/AC power supply
Preloaded program disks TNRFD-00P, TNRFD-01P

Options

Expansion boards

EXB-MOSS DSP Synthesizer Board
EXB-SCSI SCSI Interface Board
EXB-DI Digital Interface Board
EXB-mLAN mLAN Interface Board
EXB-PCM PCM Expansion Board
EXB-PCM01: Pianos/Classic Keyboards
EXB-PCM02: Studio Essentials
EXB-PCM03: Future Loop Construction
EXB-PCM04: Dance Extreme
EXB-PCM05: Vintage Archives (On sale from August 2000)

Other:

MIDI cable

* Appearance and specifications of this product are subject to change without notice. (July 2000)

TRITON-Rack MIDI Implementation Chart

Function	Transmitted	Recognized	Remarks
Basic Channel: Default Changed	1 - 16 1 - 16	1 - 16 1 - 16	Memorized
Mode: Memorized Messages Altered	x *****	3 x	
Note Number: True Voice	0 - 127 *****	0 - 127 0 - 127	Transmitted as arpeggiator or sequence (Pattern, Audition, Demo) data.
Velocity: Note On Note Off	9n, V=1 - 127 x	9n, V=1 - 127 x	Transmitted as arpeggiator or sequence (Pattern, Audition, Demo) data.
Aftertouch: Polyphonic (Key) Monophonic (Channel)			Transmitted as sequence (Pattern, Audition, Demo) data. *A *A
Pitch Bend			Transmitted as sequence (Pattern, Audition, Demo) data. *C
Control Change	0, 32 1, 2, 16, 18 4, 5, 7, 8, 10 11, 12, 13 64, 65, 66, 67 70 - 79 80, 81, 82, 83 93, 91, 92, 94, 95 6, 38 96, 97 98, 99 100, 101 0 - 95 0 - 101 120, 121	*5 x x x	Bank Select (MSB, LSB) *P Joystick (+Y, -Y), Ribbon, Slider *C Pedal, Portamento Time, Volume, IFX pan, Pan *C Expression, Effect Control 1/2 *C Damper, Portamento Sw., Sostenuto, Soft *C Sound (Realtime Controls 1-4A: 74, 71, 79, 72) *C Switch 1, 2, Foot Switch, Controller *C Send 1, 2, Effect ON/OFF (IFXs, MFX1, MFX2) *C Data Entry (MSB, LSB) *C Data Increment, Decrement *C NRPN (LSB, MSB) *C, *2 RPN (LSB, MSB) *C, *3 Realtime Controls knobs 1-4 B-assign *C Seq. Data (receive) *C All Sound Off, Reset All Controllers *C
Program Change: Variable Range	0 - 127 *****	0 - 127 0 - 127	*P
System Exclusive			*E, *4
System Common: Song Position Song Select Tune	x 0 - 127 x	0 - 127 x	Control the arpeggiator *1 Corresponds to multis 0-127 in Multi mode *1
System Real Time: Clock Command	(Continue x)		*1 Transmitted by patterns in Multi mode *1 Received to control the arpeggiator
Aux Messages: Local On/Off All Notes Off Active Sense Reset	x x x	123 - 127 x	
Notes *P, *A, *C, *E: Transmitted/received when the corresponding GLOBAL 2.1: MIDI Filter (Program Change, AfterT, Ctrl Change, Exclusive) is Enable. *1: Transmitted but not received when GLOBAL 2.1: MIDI Clock is set to Internal; the opposite when set to External. *2: LSB, MSB = 02,00: Arpeggiator ON/OFF; 0A,00: Arpeggiator Gate control; 0B,00: Arpeggiator Velocity control *3: LSB, MSB = 00, 00: Pitch Bend Range; 01,00: Fine tune; 02,00: Coarse Tune *4: In addition to Korg exclusive messages, GM System On, Master Volume, Master Balance, Master Fine Tune, and Master Coarse Tune are supported. *5: No corresponding controllers in the Remarks column; transmitted by Realtime Controls knobs 1-4 B-assign or by seq. (Pattern, Audition, Demo) data.			

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO ○ : Yes
 Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO × : No

Consult your local Korg distributor for more information on MIDI IMPLEMENTATION.

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NOTICE

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KORG KORG INC.

15 - 12, Shimotakaido 1 - chome, Suginami-ku, Tokyo, Japan.