

KAOSS PAD

KP2

OWNER'S MANUAL

KORG

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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
- Close to magnetic fields

Power supply

Please connect the designated AC adapter 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

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 adapter 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).

IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty.

Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

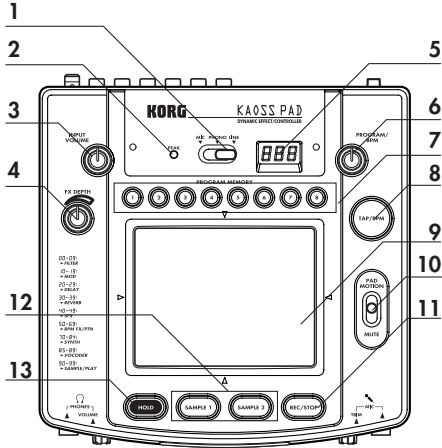
Introduction

Thank you for purchasing the KP2 KAOSS PAD dynamic effect/controller. For trouble-free enjoyment of the KP2's fullest potential, please read this manual carefully and use the product correctly.

Parts of the KP2 and their functions

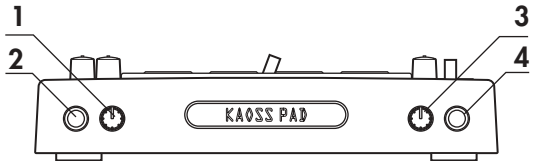
Top panel

1. [INPUT SELECT] switch
2. [PEAK] indicator
3. [INPUT VOLUME] knob
4. [FX DEPTH] knob
5. [PROGRAM/BPM] display
6. [PROGRAM/BPM] knob
7. [PROGRAM MEMORY 1-8] keys
8. [TAP/BPM] key
9. Touch pad
10. [PAD MOTION/MUTE] lever
11. [REC/STOP] key
12. [SAMPLE 1, 2] keys
13. [HOLD] key



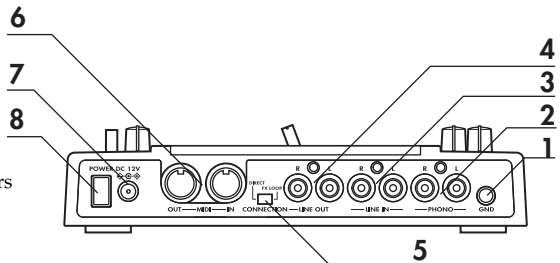
Front panel

1. [PHONES VOLUME] knob
2. [PHONES] output jack
3. [MIC TRIM] knob
4. [MIC] input jack



Rear panel

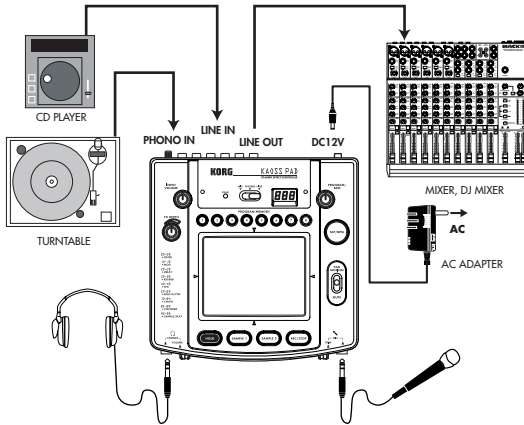
1. [GROUND] connector
2. [PHONO IN] jacks
3. [LINE IN] jacks
4. [LINE OUT] jacks
5. [CONNECTION] switch
6. [MIDI IN], [MIDI OUT] connectors
7. DC 12V jack
8. [POWER] switch



Connections

Basic connections

Use these connections when you want to apply effects to the sound from a device connected to the KP2's input jacks, and output the processed sound from the Line Out jacks. The KP2 has three types of input jacks. Use the jacks that are appropriate for your situation.



Care of the touch pad

Never press the touch pad with excessive force, or place heavy objects on it. It may crack or break if handled roughly. Press the touch pad only with your finger, since rubbing or pressing the touch pad with a sharp object will scratch it. To clean the touch pad, wipe it lightly with a soft dry cloth. Do not use solvents such as thinner, since this may cause deformation.

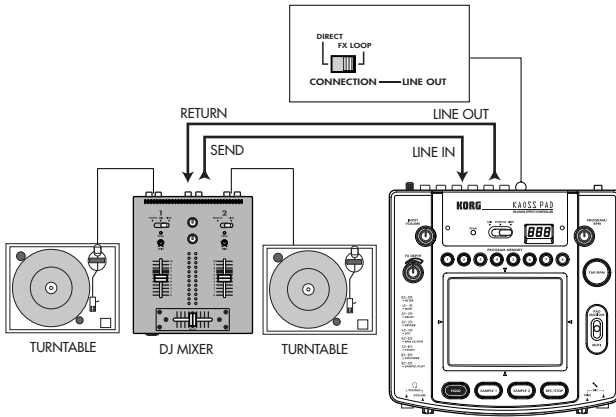
DJ mixer connections

To use the KP2 as an external effect processor, connect the effect send jack of your DJ mixer etc. to the Line In jacks of the KP2, and connect the Line Out jacks of the KP2 to the effect return jacks of your mixer.

When using a connection via the effect send/return jacks

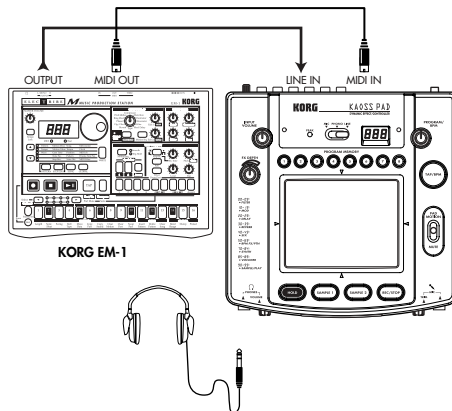
Set the KP2's Connection switch to **FX LOOP**. With this setting, the output signal from the KP2's Line Out jacks will consist only of the sound processed by the KP2, and will not include the original sound that is being input to the KP2.

If you want to use the KP2's FX/Depth knob to adjust the effect depth during use, set this switch to the **DIRECT** position.



MIDI connections

Use these connections when you want to connect MIDI devices to the KP2 and use it along with sequence data.



Operation

1. Turning on the power

(1) Connect the KP2 to your other equipment as shown in the diagram, and connect the AC adapter to an electrical outlet.

(2) Press the Power switch to turn it on. The Program/BPM display will light.

To turn off the power, press the Power switch once again to turn it off.

2. Inputting audio

(1) Use the Input Select switch to select the input jacks of the connected device to which you want to apply an effect.



MIC: The effect will be applied to the mic input.

PHONO: The effect will be applied to the phono inputs.

LINE: The effect will be applied to the line inputs.

3. Adjusting the volume

(1) Adjust the input level.

While outputting audio from the connected device, use the Input Volume knob to adjust the input level so that the peak indicator does not light red.

If you are using the mic jack, adjust the MIC Trim knob as appropriate for the sensitivity of the mic, so that the sound is not distorted.

(2) **If you are using headphones,** use the Phones Volume knob to adjust the level.

4. Selecting a program

(1) The Program/BPM display will indicate the number of the currently selected program.

Use the Program/BPM knob to select a program (00–99).

(2) Use the FX/Depth knob to adjust the depth of the effect.

No effect will be applied if the knob is

turned to the far left, and the maximum effect will be applied if the knob is turned to the far right.

About the Program/BPM display

This display shows the number of the currently selected program, the specified BPM, and the point (position) at which you are touching the touch pad.

While you are operating the touch pad: The display will indicate the position at which you are touching the pad (1.1–9.9; 5.5 is the center).



Vertical position (1–9)
Horizontal position (1–9)

When selecting programs: The display will show the program number (00–99).

When setting the BPM: When you are pressing the Tap/BPM key to set the BPM, the display will indicate the BPM value. In Auto BPM mode, three dots will light.

MIDI Edit mode: The display will show the MIDI channel or control number, etc.

5. Operating the touch pad

(1) Control the sound by rubbing your finger across the touch pad or tapping it.

note Use the included protective sheet.

(2) If you turn on the Hold key while operating the touch pad, the KP2 will hold the effect sound as it was the moment before you took your finger away from the pad.

6. The Mute function

If you move the Pad Motion/Mute lever to MUTE (toward yourself), the input signal, sample sound, or synth/drum sound will be silenced. When using delay or reverb, this lets you output only the effect sound (i.e., the delayed sound or reverberation).

transformer

By using the Pad Motion/Mute lever to rapidly switch MUTE on/off, you can create rhythms using a sustained input sound. This is a DJ technique known as “transformer.”

7. Pad motion

The KP2 lets you record your touch pad operations, and move the the Pad Motion/Mute lever to the PAD MOTION position to play back these operations.

Recording

Recording will begin when you hold the the Pad Motion/Mute lever in the PAD MOTION position and touch the touch pad.

Even when you take your finger away from the touch pad, this state will continue to be recorded as part of your operation. This means that you can also record operations that include tapping on the touch pad. Recording will end when you move the the Pad Motion/Mute lever back to its original position. Recording will also end when you reach the maximum recording time (approximately 3.2 seconds).

Playback

If you have recorded a pad motion, move the the Pad Motion/Mute lever to the PAD MOTION position, and the recorded motion will play back. As long as you leave the the Pad Motion/Mute lever in the PAD MOTION position, the same motion will be played back repeatedly as long as you do not touch the touch pad.

note *If you touch the touch pad during playback, recording will begin. Recording will be reset if you change programs.*

note *The Hold key on/off state is not recorded as part of the pad motion. Also, if you turn on the Hold key and play back a pad motion, the motion will be held at the point where you stopped playback.*

8. Specifying the BPM

If you specify the BPM, you will be able to apply effects in synchronization to the BPM when an effect program from the “BPM FX/PTN” group is selected. For details on the effect parameter to which this effect will be applied, refer to the effect program list (separate sheet).

What is BPM?

BPM (Beats Per Minute) is the tempo of the song expressed as the number of beats (quarter notes) that occur in one minute. A higher BPM value means a faster tempo.

To set the BPM

If you know the BPM, press the Tap/BPM key and use the Program/BPM knob to set the value. The normal display will reappear if ten seconds pass without any operation being performed.

Tap Tempo function

If you do not know the BPM, press the Tap/BPM key twice or more in rhythm with the beat of the song. The beat will be detected, and the BPM will appear in the Program/BPM display.

Auto BPM function

If you press and hold down the Tap/BPM key for an extended time, three dots will appear in the Program/BPM display, and the beat of the audio input will be detected automatically. (Auto BPM mode)

While the Program/BPM display is blinking, the BPM is being detected. Press the Tap/BPM key once again to end automatic detection.

note *You can set the BPM in a range of 80–160.*

MIDI Sync function

The BPM of the KP2 can be specified by MIDI Timing Clock messages from an external MIDI device. Connect the [MIDI IN] connector of the KP2 to the [MIDI OUT] connector of the external MIDI device (such as a sequencer) that is transmitting the timing clock messages.

note *This function does not synchronize sequence data with the KP2's rhythm pattern programs. If you want to synchronize to sequence data, you will either have to insert a Touch Pad On message into the beginning of each measure of your sequence data, or touch the touch pad at the beginning of each KP2 phrase to start the pattern.*

note *If you want the KP2 to receive Timing Clock and Touch Pad On messages, go to MIDI*

Edit mode (⇨ p.8), and make “MIDI message transmission/reception settings” (⇨ p.8) so that these messages will be received.

note You can not use the Tap Tempo or Auto BPM functions while the KP2 is receiving Timing Clock from an external MIDI device

9. Storing settings in the Program Memory key

The current state of the KAOSS PAD can be stored in one of the Program Memory 1–8 keys, so that it can be instantly recalled whenever you want.

Stored contents

- Effect program
- On/off state of the Hold key and the held position (coordinates)
- FX/Depth knob setting
- For the “BPM FX/PTN” group, the specified BPM value
- For the “SAMPLE/PLAY” group, the Sample 1, 2 key used

note Effect programs 60 and 90–99 do not store the state of the Hold key.

To store settings

(1) Press the Program Memory 1–8 key that you want to assign.

(2) Use the Program/BPM knob to select the effect program that you want to assign.

note If you want to store the setting of the Hold key, select the program and then turn on the Hold key and touch the touch pad to specify the position. If you want to store other settings, make them at this time.

(3) Press and hold down the Program Memory 1–8 key you selected in step (1) for approximately two seconds, and the settings will be stored.

When the settings have been stored, the Program/BPM display will stop blinking.

To recall settings

(1) Press a Program Memory 1–8 key, and the settings stored in that key will be recalled.

10. Sampling and playing back a phrase

A phrase from the audio input can be recorded into one of the Sample 1, 2 keys. Then when you have selected a program from the “SAMPLE/PLAY” group (programs 90–99), you can play back the sample while using the touch pad to control the playback speed or reverse-playback. If you have selected a program from other than the “SAMPLE/PLAY” group, pressing the Sample 1, 2 keys will play back the phrase that was recorded in that key.

You can record for approximately six seconds in each of the two keys.

note The recorded phrases will be lost when the power is turned off. It is not possible to save the recorded phrases.

Recording

(1) Press the Rec/Stop key, and the Rec/Stop key LED will blink to indicate that you are in record-ready mode.

(2) Press the Sample 1, 2 key into which you want to record. At this time, you will not hear the playback sound.

(3) When you press the Rec/Stop key, the Rec/Stop key LED will light, and recording will begin. Recording will stop when you press the Rec/Stop key once again.

note Recording will stop automatically when you reach the maximum recording time.

note For programs of other than the “SAMPLE/PLAY” group, you can operate the touch pad while you record, and the sound processed by the effect will be recorded.

Auto recording (AUTO REC)

You can cause recording to begin automatically when audio is input. This is convenient when recording voice from a mic.

(1) In step (2) of the Recording procedure, hold down the Sample 1, 2 key to which you want to record, and press the Rec/Stop key. The Rec/Stop key and Sample 1, 2 key LEDs will blink simultaneously, indicating that you are in record-ready mode.

(2) Recording will begin automatically

when audio is input. Recording will stop when you press the Rec/Stop key once again.

Playback

The playback method will differ depending on the effect program that you have selected.

For a program from the “SAMPLE/PLAY” group

(1) Select a program from the “SAMPLE/PLAY” group (90–99).

(2) Press the Sample 1, 2 key that you want to play. The playback will not yet be output at this time.

(3) When you touch the touch pad, the sound will play back according to the position that you touch.

The way in which the phrase plays will depend on the program. (☞ separate sheet: Effect program list)

(4) Use the FX Depth knob to adjust the playback volume.

When the FX Depth knob is positioned in the center, the playback sound and the input sound will be output in a 1:1 proportion. When the knob is at the maximum position, only the sample sound will be output during playback, and you will not hear the input sound.

For a program from other than the “SAMPLE/PLAY” group

(1) Select a program from other than the “SAMPLE/PLAY” group.

(2) Press a Sample 1, 2 key, and the recorded phrase will play at normal speed. If you continue pressing the key, the phrase will play back as a loop.

To adjust the volume, continue pressing the Sample 1, 2 key and use the FX Depth knob to make adjustments.

note You can apply effects to the playback by operating the touch pad while the sound plays back.

note If you press the Hold key while pressing the Sample 1, 2 key, the playback will be held. Hold will be cancelled when you press the Sample 1, 2 key once again.

MIDI functions

What is MIDI?

MIDI stands for Musical Instrument Digital Interface, and is a world-wide standard for exchanging a variety of performance-related information between electronic musical instruments and computers.

MIDI connections

Commercially available MIDI cables are used to transmit and receive MIDI messages. Connect these cables between the MIDI connectors of the KP2 and the MIDI connectors of the external MIDI device with which you want to transfer data.

MIDI IN connector: This connector receives MIDI messages from another MIDI device. Connect it to the MIDI OUT connector of the external device.

MIDI OUT connector: This connector transmits messages from the KP2. Connect it to the MIDI IN connector of the external device.

Using MIDI

In addition to using the KP2 as an effect processor, you can transmit MIDI messages from the KP2 to use it as a realtime controller for a synthesizer or other external MIDI device.

You can also connect the KP2 to a MIDI sequencer, and record the MIDI messages that are transmitted when you operate the touch pad. By playing back the recorded MIDI messages you can reproduce your touch pad operations.

About MIDI channels

In order to independently transmit information to multiple MIDI devices over a single MIDI cable, MIDI uses sixteen channels (1–16). If the transmitting device is set to MIDI channel “1,” the MIDI messages will not be received unless the receiving device is also set to MIDI channel “1.”

About the MIDI implementation chart

The owner's manual of each MIDI device includes a "MIDI implementation chart." This chart lets you check the types of MIDI message that can be transmitted or received. When you use two (or more) MIDI devices together, compare their MIDI implementation charts to see which types of MIDI message they are able to transmit and receive between themselves.

** Details on the MIDI functionality are provided in the separate MIDI implementation. To obtain the MIDI implementation, please contact Korg distributor.*

MIDI Edit mode

Hold down the Tap/BPM key and press the Rec/Stop key. After approximately one second, you will enter MIDI Edit mode, and the MIDI channel will be displayed blinking in the Program/BPM display.

Setting the MIDI channel

In MIDI Edit mode, the Program/BPM display will show the MIDI channel. At this time you can use the Program/BPM knob to change the MIDI channel.

MIDI message transmission/reception settings

Transmission and reception of each type of MIDI message can be turned on/off by pressing one of the keys listed below. Transmission and reception are enabled when the corresponding LED is lit. Transmission and reception are disabled when the LED is dark. (p.9: Messages that can be transmitted and received)

note *Some parameters can only be transmitted, and others can only be received.*

Changing the control number

By holding down one of the Program Memory 3–8 keys and turning the Program/BPM knob, you can change the control number setting. Although it is possible to select a control number that is already in use, it is not possible to simultaneously turn on transmission and reception for MIDI

messages of the same control number.

note *The MIDI messages transmitted and received by the KP2 can be changed in the range of CC#1–CC#31 and CC#64–CC#95.*

To store the settings you modified

In MIDI Edit mode, press and hold the Rec/Stop key for one second or longer, and the MIDI settings you modified will be stored. If you turn off the power without storing the modified settings, they will revert to their previous state.

To exit MIDI Edit mode

You will return to the normal state if you touch the touch pad or leave the KP2 for ten seconds without performing any operation.

Saving your settings

You can save the contents of program memory and the control number settings of MIDI edit mode by transmitting them as exclusive messages, and saving them on an external MIDI device.

For details on the exclusive messages that the KP2 can transmit and receive, refer to the separate MIDI implementation.

Messages that can be transmitted and received

With the factory settings, the following MIDI messages can be transmitted and received.

Data operations transmitted	MIDI messages transmitted	ON/OFF key settings transmitted
Touch pad X-axis	Effect control 1 (CC#12) *1, *2	Program Memory 4
Touch pad Y-axis	Modulation depth 1 (CC#1) Y=5-9	Program Memory 1
	Modulation depth 2 (CC#2) Y=5-1	Program Memory 2
	Effect control 2 (CC#13) *1, *2	Program Memory 5
Touch pad X+Y-axis	Effect depth 3 (CC#93) *1	Program Memory 3
Touch pad on/off	Effect depth 2 (CC#92) *1, *2	Program Memory 6
FX DEPTH	Effect depth 4 (CC# 94) *1, *2	Program Memory 7
MUTE	Effect depth 5 (CC# 95) *1, *2	Program Memory 8
Program change	Program change (00-99) *2	Hold

Data operations received	MIDI messages received	ON/OFF key settings received
Touch pad X-axis	Effect control 1 (CC#12) *1, *2	Program Memory 4
Touch pad Y-axis	Effect control 2 (CC#13) *1, *2	Program Memory 5
Touch pad on/off	Effect depth 2 (CC#92) *1, *2	Program Memory 6
FX DEPTH	Effect depth 4 (CC# 94) *1, *2	Program Memory 7
MUTE	Effect depth 5 (CC# 95) *1, *2	Program Memory 8
Program change	Program change (00-99) *2	Hold
BPM	Timing clock	Sample 1

*1: The MIDI messages transmitted and received can be changed in a range of CC#1-CC#31, CC#64-CC#95, and PITCH BEND. () is the factory setting.

*2: Ena/Dis and CC# settings are the same for both transmission and reception.

note The control changes for touch pad Y-axis Y-5-9 and Y-5-1, and for touch pad X+Y axis can be transmitted but not received. For this reason when you record control changes into a sequencer, use MIDI Edit mode to turn PROGRAM MEMORY 1-3 off, so that unnecessary MIDI messages are not transmitted.

⚠ Previously-specified control numbers cannot be specified again elsewhere.

Specifications

Number of programs: 100

Input: Mic input jack / monaural phone jack, Phono input jacks / RCA phono jacks, Line input jacks / RCA phono jacks

Output: Line output jacks / RCA phono jacks, Headphone jack / stereo phone jack

MIDI: IN, OUT

Power supply: DC 12V, 700 mA

Included items: AC adapter, touch pad protection sheet

Weight: 1.1kg

Dimensions: 204(W) X 207(D) X 48(H)mm

— Appearance and specifications are subject to change without notice for improvement.

Function	Transmitted	Recognized	Remarks
Basic Channel: Default Changed	1-16 1-16	1-16 1-16	Memorized
Mode: Default Messages Altered	× *****	3 × ×	
Note Number: True Voice	× ×	× ×	
Velocity: Note On Note Off	× ×	× ×	
Aftertouch: Key's Channel	× ×	× ×	
Pitch Bend	○	○	As control source *C
Control Change: 1-31, 64-95 121	○ ×	○ ○	As control source Reset All Controllers *C
Program Change: Variable Range	○ 0-99 *****	○ 0-99 0-99	*P
System Exclusive	○	○	
System Common: Song Position Song Select Tune Request	× × ×	× × ×	
System Real Time: Clock Commands	× ×	○ ×	*T
Aux Messages: Local On/Off All Notes Off Active Sensing System Reset	× × × ×	× × × ×	
Remarks	*C Transmitted/received when control numbers or pitch bend are selected, and are enabled. *P Transmitted/received when program changes are enabled. *T Received when timing clock is enabled.		

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.

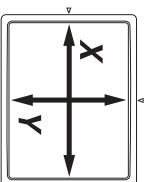
Veuillez vous adresser à votre revendeur Korg pour une copie de l'équipement MIDI.

Weitere Informationen über die MIDI IMPLEMENTATION erhalten Sie bei Ihrem Korg-Vertrieb.

KAOSS PAD



EFFECT PROGRAM LIST LISTE DES PROGRAMMES D' EFFETS



No.	EFFECT GROUP	TITLE	X AXIS ↔	Y AXIS ↑
00	FILTER	Low Pass Filter	Cutoff Frequency	Resonance
01		3 Band Isolator	Low-Mid-Hi	—
02		Fuzz Distortion	Low-Mid	Hi Level
03		High/Low Pass Filter + Pan	HPF-LPF, L-R Pan	Cutoff Frequency
04		Multisolator	Low-Hi	Mid Level
05		Distortion + Isolator	Low-Mid-Hi	Distortion
06		Manual Phaser	Frequency	Resonance
07		Radiation	Low-Mid	Overdrive
08		High Pass Filter + Distortion	Cutoff Frequency	Overdrive
09		Voice Filter	Vowel	Overdrive
10	MOD	Flanger	Delay Time	Resonance
11		Vibrato	Speed	Depth
12		Phaser	Speed	Frequency
13		Auto Pan	Speed	Depth
14		Pitch Shifter	Pitch	Reverb
15		Flanger + Filter	Speed	Cutoff Frequency
16		Slicer	Speed	Depth
17		Step Phaser	Mod Step	Resonance
18		LFO Wah	Speed	Depth
19		Harmonic Pitch Shifter	Root-min3rd-Maj3rd-4th-5th	Reverb
20	DELAY	Tap Echo	Delay Time	Delay Level, Feedback
21		Delay	Delay Time	Tone
22		Hi-Fi Delay	Delay Time	Feedback
23		Feedback Delay	Delay Time	Feedback, Input Attenuation
24		Multitap Delay	Tone	Feedback
25		Special Echo	Delay Time	Delay Level
26		Ping Pong Delay	Delay Time	Feedback
27		TalkMod + Delay	Vowel	Over Drive
28		Filter + Delay	Cutoff Frequency	Delay Level
29		Dub Echo	Delay Time	Tone
30	REVERB	Hall Reverb	Reverb Level	Reverb Level
31		Spring Reverb	Tone	Reverb Time
32		Room Reverb	Tone	Reverb Level
33		Gate Reverb	Tone	Reverb Level
34		3 Band Hall Reverb	Low-Mid-Hi	Reverb Time
35		3 Band Gate Reverb	Low-Mid-Hi	Reverb Level
36		Delay + Reverb	Delay Time	Reverb Level
37		TalkMod + Reverb	Vowel	Over Drive
38		Filter + Reverb	Cutoff Frequency	Reverb Level
39		3D Pan	L-R Pan	Reverb Level
40	SFX	Reverse Delay	Delay Time	Feedback
41		Step Modulation	Mod Depth	FX Level
42		Ring Modulation + Filter	Ring Frequency	Cutoff Frequency
43		Dual Pitch Shift	L Ch Pitch	R Ch Pitch
44		Tempo + Delay	Delay Time, Speed	Tempo-Delay Balance
45		Reverse + Pitch Shifter	Pitch	Delay Time
46		Broken Modulation	Frequency	Depth
47		Ring + Delay	Delay Time	Ring-Delay Balance
48		High Speed Modulation	Frequency	Phaser-Tempo Balance
49		Aqua	Speed	FX Level
50	BPM FX	Tempo Delay	1/4Beat-1/2Beat-1/3Beat-3/4Beat	Feedback
51		3 Band Tempo Delay	Low-Mid-Hi	Feedback
52		Tempo Delay + Isolator	Low-Mid-Hi	Dry-Wet Balance
53		Feedback Tempo Delay	1/4Beat-1/2Beat-3/4Beat-1Beat	Feedback, Input Attenuation
54		Gate Reverb + Tempo Delay	Low-Mid-Hi	Feedback
55		BPM Filter	2Beat-1Beat-1/2Beat-1/4Beat	Resonance
56		BPM Phaser	2Beat-1Beat-1/2Beat-1/4Beat	Resonance
57		BPM Filter	8Beat-4Beat-2Beat-1Beat	Feedback
58		BPM Slicer	1Beat-1/2Beat-1/4Beat-1/8Beat	Depth
59		BPM Step Phaser	Frequency	Resonance
60		BPM Loop	1/4Beat-1/2Beat-1Beat-2Beat	Cutoff Frequency
61		BPM Rhythmgate	Pattern 1-2-3-4	Cutoff Frequency
62	BPM PTN	House	Pattern 1-2-3-4	Delay Level
63	(BPM PATTERN)	Beat Box	Pattern 1-2-3-4	Delay Level
64		Tri Ball	Decay Time	Mod Depth
65		Electro	Mod Depth	Delay Level, Decay Time
66		5th Dimensional Synth	Pitch	Cutoff Frequency
67		Hard Sync Synth	Pattern 1-2, Resonance	Cutoff Frequency
68		Beep Synth	Pitch	Modulator Pitch
69		Laser Sword	Pitch	Cutoff Frequency
70	SYNTH	Sci-Fi	Pitch	Modulation
71		Ambient	Pitch	OSC Level, Delay Level
72		Cosmic	Pitch	Cutoff Frequency
73		Drum	Speed	Pitch
74		Electric Bird	Pitch	Mod Depth
75		Space	Pitch	OSC Level, Reverb Level
76		Horror	Pitch	Echo Feedback
77		Twilight	Pitch	Modulation
78		Siren	Speed	Echo Level
79		Saw OSC	Pitch	Cutoff Frequency
80		Sine OSC	Pitch	OSC Level
81		Voice OSC	Pitch	Formant
82		Pad Drum 1	Pitch	Share-Ton Balance
83		Pad Drum 2	Pitch	Bass Drum-Share Balance
84		High Pitch	Pitch	2nd Voice Level
85	VOCODER	High Pitch	Pitch	2nd Voice Level
86		Auto Tuning 12	Transpose (-12 - +12)	—
87		Auto Tuning Pentatonic	Transpose (-12 - +12)	—
88		Root and 5th	Pitch	1st-2nd Voice Balance
89		Loop 1	Loop End Time	Playback Level
90	SAMPLE/PLAY	Forward Reverse	Reverse-Forward	Playback Level
91		Forward Reverse (High Speed)	Reverse-Forward	Playback Level
92		Scratch + Filter	Scratch	Cutoff Frequency
93		Loop 2	Loop Start Time	Playback Level
94		Forward Reverse + Delay	Reverse-Forward	Delay Level
95		Scratch + BPM Delay	Scratch	Delay Level
96		Loop + Pan	L-R Pan	Loop End Time
97		Forward Reverse + Pan	L-R Pan	Reverse-Forward
98		Time Stretch	Slow-Fast Tempo	Playback Level
99				

About the effect programs

- With programs 62-94, you can produce sound simply by operating the touch pad, even if no audio is being input from the input facts.
- The VOCODER of programs 85-89 is an effect that changes a human voice into a robot-like character. In general, we recommend that you use a mic to input a human voice when using these programs.
- **60 BPM LOOPER:** If the BPM is "59" or lower, 2BEAT location will change to 1BEAT.
- **88 Auto Tuning Pentatonic:** The effect at the position where you first pressed the touch pad will be maintained, and touch pad operations will not change the effect.

A propos des programmes d'effets

- Les programmes 62 à 84 permettent de produire des sons simplement en touchant le panneau sensible, même si aucune donnée audio n'est transmise par les bornes d'entrée.
- Le VOCODER des programmes 85 à 89 est un effet qui transforme une voix humaine en une voix semblable à celle d'un robot. En général, nous conseillons d'utiliser un micro pour entrer des données de voix humaine en utilisant ces programmes.
- **60 BPM LOOPER:** Si BPM est "59" ou inférieur, la position 2BEAT passera à 1BEAT.
- **88 Auto Tuning Pentatonic:** L'effet à la position où le panneau sensible a été touché à d'abord été pressé sera maintenu, et les opérations au panneau ne modifieront pas l'effet.

Informationen zu den Effektprogrammen

- Bei den Programmen 62-84 können Sie Klänge auch dann erzeugen, wenn kein Audiosignal an den Eingangsbuchsen anliegt, indem Sie einfach das Touch Pad bedienen.
- Der VOCODER der Programme 85-89 ist ein Effekt, der die menschliche Stimme in eine roboterartige Stimme verwandelt. Generell empfehlen wir, ein Mikrofon für die Eingabe einer Stimme zu verwenden, wenn Sie diese Programme benutzen.
- **60 BPM LOOPER:** Wenn BPM "59" oder weniger ist, ändert sich 2BEAT zu 1BEAT.
- **88 Auto Tuning Pentatonic:** Die Wirkung an der Position, an der Sie zuerst das Touch Pad berührt haben, wird beibehalten, und der Effekt wird durch Betätigung des Touch Pad nicht geändert.