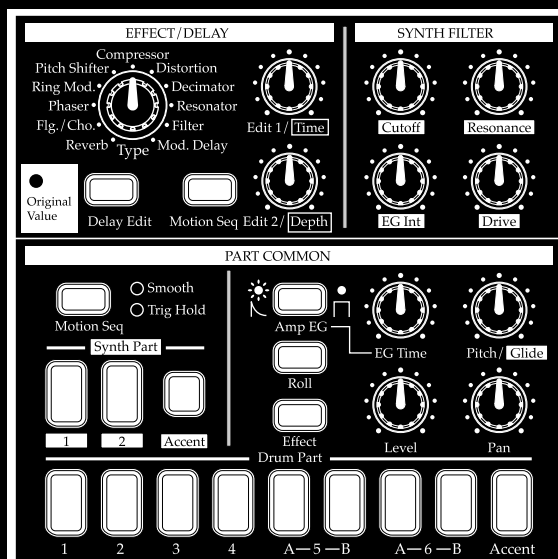


ELECTRIBE



MUSIC PRODUCTION STATION

EM-1 Owner's Manual



Thank you purchasing the Korg ELECTRIBE-M EM-1. In order to enjoy long and trouble-free use, please read this manual carefully and use the instrument correctly.

KORG

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 where excessive vibration exists

Power supply ⓈⓈⓈ

Please connect the designated AC adaptor 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 cause 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, 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 adaptor 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).

Concerning data

In rare cases, incorrect operation may cause the contents of memory to be lost. Please save important data on a system that can record System Exclusive data, like a sequencer or a data filer (storage device). Korg Corporation can accept no responsibility for any damages resulting from loss of data.

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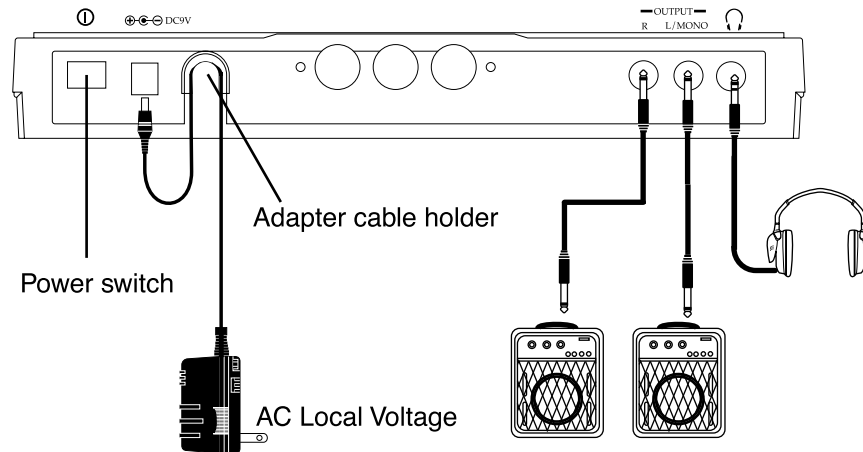
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Make connections and play!

Example connections



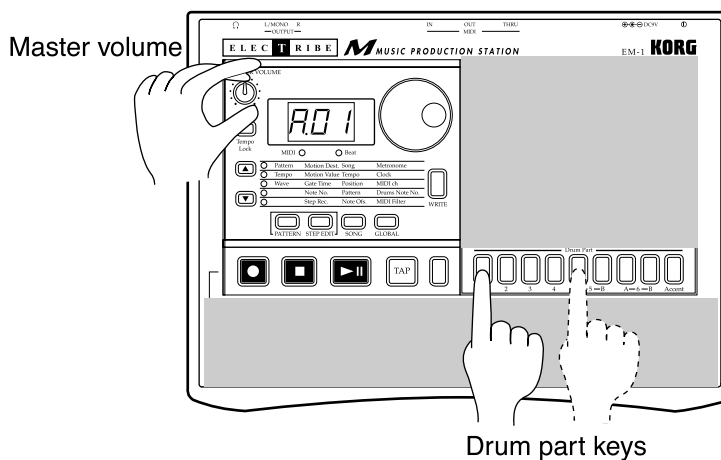
Preparing to play

⚠ Be sure to turn off the power before making connections. Careless operation may damage your speaker system or cause malfunctions.

⚠ As shown in the above diagram, hook the AC adapter cable around the adapter cable holder. When removing the cable from the holder, do not use excessive force.

1. Connect the included AC adapter to the DC 9V jack, and plug the adapter into an AC outlet.
2. Connect one end of your audio cables to the line out jacks of the EM-1 (L/MONO, R), and connect the other end to your mixer or powered monitor speakers (amplified speakers) etc. If you will be listening in mono, use the L/MONO jack. To take full advantage of the EM-1's sound quality, we recommend that you listen in stereo.
3. If you will be using headphones, connect them to the headphone jack.

⚠ The output from the line out jacks will not be switched off even if headphones are plugged in.



4. When you have finished making connections, turn on the power. Slightly raise the master volume of the EM-1, and strike the Drum part keys (1...6B) to check whether connections have been made correctly. Use the master volume of the EM-1 and the gain and fader controls of your mixer or powered monitor system to adjust the volume to an appropriate level.

Effect/Delay section

1. Type

Selects the effect type.

2. Original Value (LED)

This will light when the knob etc. that you are currently moving arrives at the same position as originally programmed in the pattern.

3. Delay Edit key

Each time you press this key, Delay Edit will be turned **on** (lit) or **off** (dark). When this is on, you can use the Edit 1 and 2 knobs to control the delay. When you use the Type knob to switch effects, this will be forced off.

4. Motion Seq (motion sequence) key

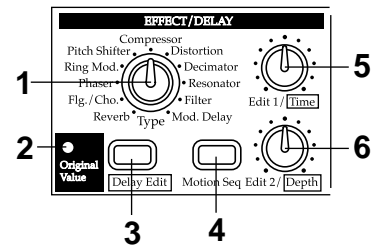
Each time you press this key, it will be turned **on** (lit) or **off** (dark). When this is on, movements of the Edit 1 and 2 knobs will be recorded and played back. When Delay Edit is on, Delay motion sequence will be selected. When Delay Edit is off, the motion sequence of the effect selected by Type will be selected.

5. Edit 1/Time

This knob adjusts the character of the effect. The result will differ according to the effect type. When the Delay Edit key is on, this knob adjusts the length of the delay time.

6. Edit2/Depth

This knob adjusts the character of the effect. The result will differ according to the effect type. When the Delay Edit key is on, this knob adjusts the depth of the delay.





Part common section

1. Motion Seq (motion sequence)

This key lets you record and play back knob movements for each part. Each time you press this key, the setting will alternate between **on** (Smooth lit), **on** (Trig Hold lit), and **off** (dark)

2. Amp EG

Select the amp envelope for each part. Each time you press this key, the envelope will switch between a decaying envelope “” (key lit) and a sustaining envelope “” (key dark).

3. Roll

For each part, this key switches the roll effect (successive strikes) **on** (lit) or **off** (dark).

4. Effect

For each part, this key switches the effect send **on** (lit) or **off** (dark).

5. EG Time

This knob adjusts the envelope time (the time until the sound disappears) for each part.

6. Pitch/Glide

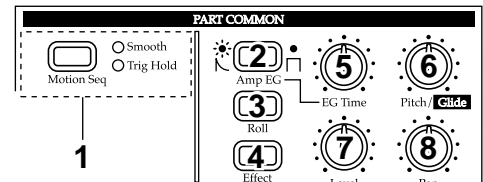
This knob sets the pitch of the drum part. For a synth part, it sets the time over which the pitch will change smoothly between two notes.

7. Level

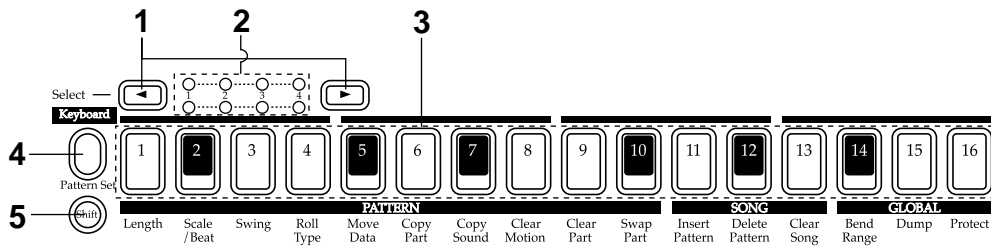
This knob adjusts the level. For the Accent part, it adjusts the accent level.

8. Pan (panpot)

This knob sets the stereo location of the sound.



Step Key section



1. Select keys

By pressing these keys to turn the Select LEDs on or off, you can use the sixteen step keys below as up to 64 step keys.

When the Keyboard function is on, these keys are used to switch the octave.

In Song mode, these keys function as rewind and fast-forward keys. When the Pattern Set function is on, they are used to switch Pattern Set groups.

2. Select LEDs

The upper row of LEDs (green) indicates the location (length 1...4) within the pattern of the currently-playing pattern.

The lower row of LEDs (red) indicates the location (length 1...4) of the pattern indicated by the step keys. When the Pattern Set function is on, these LEDs indicate the pattern set group. When the Keyboard function is on, these LEDs indicate the octave position.

3. Step keys 1...16

Use these keys to modify and audition the rhythm or phrase pattern of each part.

When the Keyboard function key is on, these keys function as a keyboard, allowing you to play sounds. When the Pattern Set function is on, use these keys to select patterns that you have assigned.

4. Keyboard, Pattern Set key

This makes the sixteen step keys function as a keyboard. Each time you press this key, the setting will alternate on/off. By holding down this key and pressing one of the step keys, you can switch to the pattern that you assigned to that key (Pattern Set function).

5. Shift key

This key is used in conjunction with other keys. When held down, it gives an additional function to another key.

Shift + Play/Pause key: Playback from the beginning of the pattern.

Shift + Rec key: During playback, erase triggers from the pattern.

Shift + Step keys: Execute the function shown below each step key.

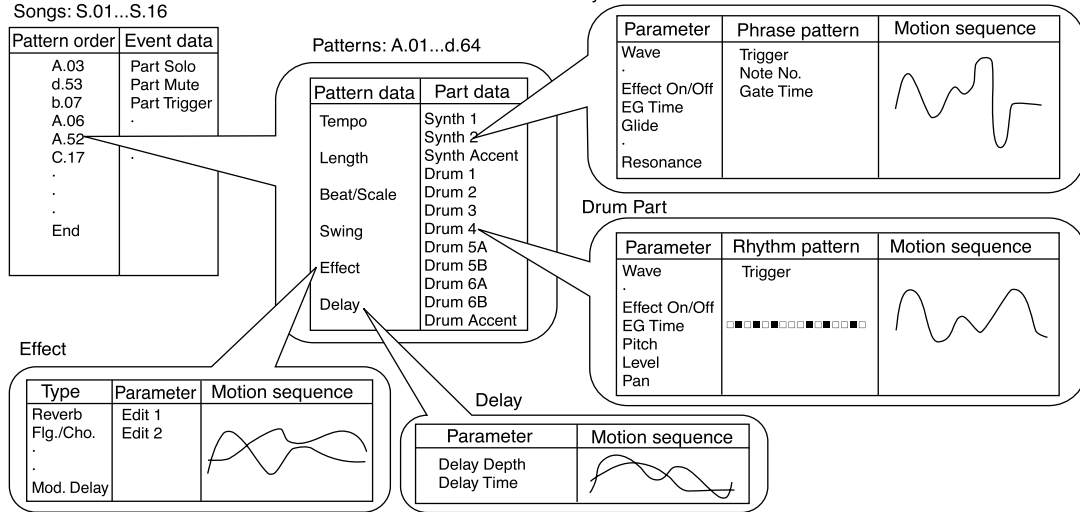
For other Shift key combinations, refer to the explanation of each parameter.

3. Basic operation (Quick Start)

Conceptual diagram of the EM-1

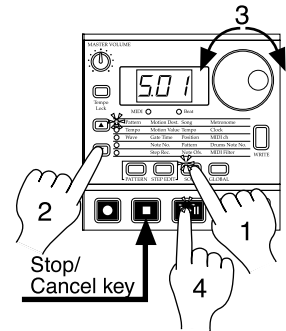
On the EM-1, a song contains both Patterns (which consist of Parts, and effect and delay settings) and event data (refer to p.45 "Recording knob movements or your performance in a song (Event Recording)").

Structure of Song



Listening to a Song

1. Press the Song Mode key to enter Song mode (the key will light).
 2. Use the cursor [▲][▼] keys to select **Song** (the top LED will light).
 3. Rotate the dial to select the desired song (S.01...S.16).
 4. Press the Play/Pause key to playback the song (the key will light). When the song ends, playback will stop automatically (the key will go dark).
- To pause during playback, press the Play/Pause key (the key will blink). To resume playback, press the Play/Pause key once again (the key will light). To stop playback, press the Stop/Cancel key.

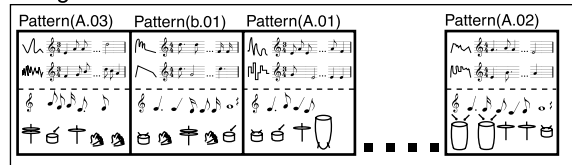


It is not possible to change songs during playback.

What is a Song?



On the EM-1, a song is musical data consisting of Patterns arranged in the desired playback order. The EM-1 lets you create and store up to sixteen songs. In each song you can arrange up to 256 patterns, and rhythm, phrase and knob movements can also be recorded in addition to the playback. (Refer to p.42 "Song mode.")

Song



Pressing keys to play the sound of a Part

When you strike the drum part keys, or select a synth part, turn on the keyboard function and press the step keys, the sound of the corresponding part will be heard. The sound of a part will differ depending on the pattern. Turn the dial to select various parts, and listen to the wide variety of sounds.

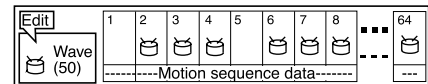
-  When you press a drum part key, the keyboard function of the step keys will be cancelled, but when you select a synth part once again, the keyboard function will automatically return to the previous setting.
-  Parts for which Wave (see p.16 “What is a wave?”) is turned “oFF” cannot produce sound.

What is a Part?

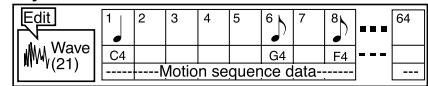
A part is the smallest unit of which a pattern is made, and consists of a sound and rhythm or phrase, effect on/off settings, and motion sequences etc. Parts can be one of the following types, and there are a total of 12 parts. (See p.25 “Pattern mode”)

- **Drum parts (1—4, 5A-B, 6A-B)**
A drum sound and rhythm pattern (timing of sounds), effect on/off, motion sequence etc.
- **Synth parts (1, 2)**
A synth sound and phrase pattern (trigger, note number, gate time), effect on/off, motion sequence etc.
- **Accent part (drum, synth)**
Points at which to emphasize the volume of the pattern (i.e., accent), motion sequence.

Drum Part




Synth Part



The sound can also be edited for each part, and you can also store the rhythm, phrase pattern, effect on/off, and motion sequence etc. for each part. (See p.27 “Editing the sound of a part”)

Playing the sound of a drum part

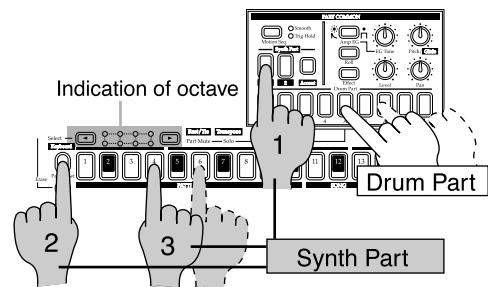
When you press drum part keys 1 through 6B, the sound assigned to each key will be heard. (For each pattern, a different drum sound is assigned to each key.)

-  Pressing the drum accent part key will not produce sound. It is not possible to simultaneously play drum parts 5A and 5B or 6A and 6B - these parts are intended for sounds which you want to cut each other off, like open and closed hi-hat etc..




Playing the sound of a synth part (the Keyboard function)

1. Turn on either synth part key 1 or 2 (the key will light).
2. Press the Keyboard key to turn on the Keyboard function (the key will light).
3. The step keys will function as a keyboard, and can be played.

To change the octave, use the Select keys. The select LEDs (lower row, red) will light to indicate the octave as follows.

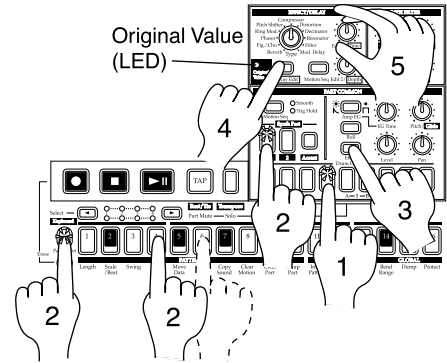


LED(s) lit						
Pitch range	A0...C2	A1...C3	A2...C4	A3...C5	A4...C6	A5...C7




-  Pressing the synth accent part key will not produce sound.
-  The Keyboard function cannot be turned on/off unless either synth part key 1 or 2 is selected.
-  Each synth part is a monophonic synthesizer, and cannot play multiple notes simultaneously; i.e., it is not polyphonic.

Editing the effect or delay

1. Press a drum part key to select a part for which it will be easy to hear the changes you make to the effect.
2. To use a synth part while editing the effect, turn on the Keyboard key, and press the step keys to play the sound.
3. To edit the effect, turn on the Effect key in the Part Common section (the key will light).
4. To edit the global delay, turn on the Delay Edit key in the Effect/Delay section.
5. Operate the knobs and keys of the Effect/Delay section to modify the effect or delay. When a knob position or key setting is the same as the original effect or delay setting, the **Original Value LED** will light to indicate this.





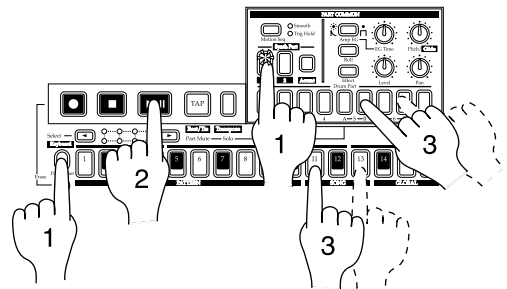
The pattern that you edit in this way can be saved by the Write operation (see p.21 “Saving a pattern that you create”).

-  When you press a drum part key, the keyboard function of the step keys will be defeated, but will return to the previous setting when you once again select a synth part.
-  The delay is a global effect, so it will always be on, regardless of the on/off status of the Effect key.
-  The function of the knobs will differ depending on the type of effect. (See p.29 “EFFECT.”)
If a motion sequence is operating for a knob and you have difficulty editing the sound as you wish, turn off the motion sequence before editing the sound. (See p.34 “Motion sequence.”)

Playing the sound of a part along with a song or pattern

1. Select the synth part (1 or 2) that you wish to play, and turn on the keyboard function.
2. In Song mode or Pattern mode, press the Play/Pause key to begin playback.
3. Press the drum part keys or the step keys to play along with the song or pattern.


-  When you press a drum part key, the keyboard function of the step keys will be defeated, but will return to the previous setting when you once again select a synth part.
-  The synth parts are monophonic synthesizers. One part cannot sound multiple notes simultaneously.



Realtime recording

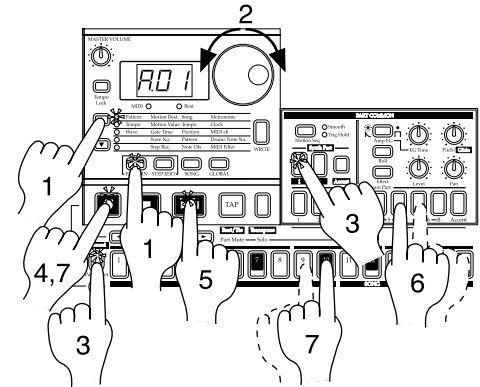
This method allows you to record while listening to the performance.

To record a rhythm pattern, press the rhythm part keys at the desired timing. To record a phrase pattern, use the keyboard function and press the step keys at the desired timing.

 **When you press a drum part key, the keyboard function of the step keys will be defeated, but will return to the previous setting when you once again select a synth part.**

If you wish to listen to the metronome as you record, refer to p.46 "Metronome settings."

1. Press the Pattern mode key (the key will light). Use the cursor [▲][▼] keys to select **Pattern** (the corresponding LED will light).
2. Turn the dial to select the pattern that you wish to record.
3. To record a synth part, select either synth part 1 or 2, and turn the Keyboard key on (the key will light).
4. Press the Rec key to enter record-ready mode. (The Rec key will light, and the Play/Pause key will blink.)
5. Press the Play/Pause key to start the pattern. (The Play/Pause key will light.)
6. To record a drum part, press the drum part key at the timing at which you want it to sound.
7. To record a synth part, press the step key for the desired pitch at the timing at which you want it to sound.
8. The pattern will playback repeatedly, and you can continue recording additional notes as long as the Rec key is lit.



Press the Stop/Cancel key to stop recorded. (The Rec key and the Play/Pause key will go dark.) Alternatively, you can press the Rec key (instead of pressing the Stop/Cancel key) to stop recording but continue playback. (The Rec key will go dark, and the Play/Pause key will light.)

If you wish to save the completed pattern, press the Write key. (Refer to p.21 "Saving a pattern that you create.")

Erase

If you input a note by mistake, hold down the Shift key while the pattern continues to play, and then hold down the Rec key. Note triggers will be erased from the selected part (whose key is lit) while you hold down these keys.

Playing with Pattern Set

What is Pattern Set?

Pattern Set is a function that lets you assign favorite patterns to the 16 step keys, and switch between them as desired. While playing, you can successively select favorite patterns, or play combinations of patterns as a loop (see p.40 "Chain playing pattern sets").

When you hold down the Keyboard key (the key will blink) and press one of the sixteen step keys, the pattern assigned to that key will be selected. At this time you can use the Select keys to change the pattern set group indicated by the red select LEDs (lower line) 1-4, to use 16 x 4 (total of 64) pattern sets.

If during playback you hold down the Keyboard key and press another step key, the pattern assigned to that key will begin playing when the currently-playing pattern finishes playing. (Refer to p.40 "Pattern Set.")


 **While the Keyboard key is blinking, it will control the Pattern Set function.**

If you hold down the Shift key and press the Keyboard key, the Pattern Set function will be held. (The Keyboard key will blink.)

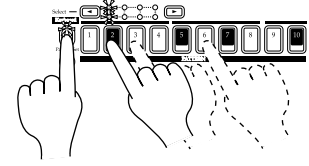
To defeat this "hold" condition, press the Keyboard key once again.

You can assign new pattern sets. (Refer to p.41, "Assigning a pattern to a Pattern Set.")

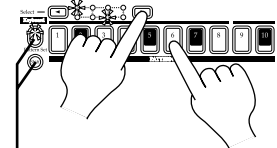
 **Pattern sets cannot be used in Song mode.**

 **If you switch patterns during playback, the change will occur when each pattern finishes playing. (Refer to p.25 "The timing at which patterns will change.")**

Pattern Set 1



Pattern Set 3



Hold down the Shift key and press the Keyboard function key to hold the Pattern Set function.

Using the EM-1 as a tone generator module

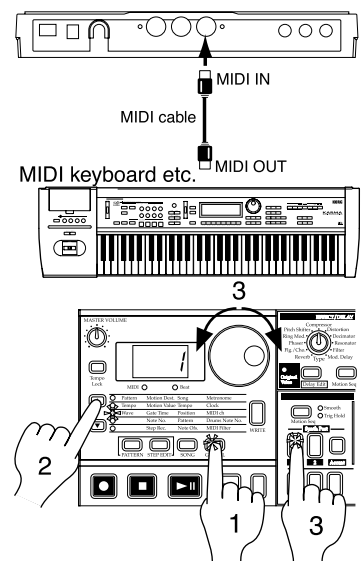
Read this section when you wish to use the EM-1 with other connected MIDI equipment. Use a MIDI cable to connect the MIDI OUT connector of your MIDI keyboard etc. to the MIDI IN connector of the EM-1.

1. Press the Global mode key to enter Global mode.
2. Use the cursor [▲][▼] keys to select MIDI ch (the corresponding LED will light).
3. Press the part key for synth part 1 of the EM-1, and then turn the dial to select the same channel as the connected MIDI keyboard (or other device) (see p.47 "Setting the MIDI channel of each part (MIDI ch)").
4. When you play the connected MIDI keyboard (or other device), you will hear the sound of synth part 1.

If you have connected a multi-track MIDI sequencer, set the MIDI channel of synth parts 1 and 2, and the drum part (see p.47 "Setting the MIDI channel of each part (MIDI ch)"). Set each part to the MIDI channel of the track that you want it to play, and start your external sequencer to play the parts.

 **For details on the EM-1's MIDI functionality, refer to p.49 "About MIDI."**

 **If you wish to save Global mode settings, you must perform the Write operation (Refer to p.48 "Saving your changes in Global mode (WRITE)").**



4. Pattern mode

In this mode you can play patterns, edit patterns, or create new patterns. To edit individual steps of a pattern, use the Pattern mode Step Edit function. Press the PATTERN mode key to enter Pattern mode. Although you can also enter Pattern mode by pressing the STEP EDIT key, you should press the PATTERN mode key if you wish to edit the **Pattern**, **Tempo**, and **Wave** parameters.

Pattern (A.01)		256 patterns A.01...d.64																																																															
Synth Parts		Phrase patterns (maximum 64 steps)																																																															
Synthesizer 1 (Wave, 11 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Synthesizer 2 (Wave, 11 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Synth Accent (Level, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum Parts		Rhythm patterns (maximum 64 steps)																																																															
Drum 1 (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 2 (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 3 (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 4 (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 5A (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 5B (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 6A (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum 6B (Wave, 7 Parameters, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Drum Accent (Level, Motion Sequence)	Step	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64

Selecting a pattern

Pattern A.01...d.64

Make sure that the Pattern mode key is lit. Use the cursor keys to select **Pattern** (the corresponding LED will light). Rotate the dial to select one of the 256 patterns: **A.01...A.64**, **b.01...b.64**, **C.01...C.64**, and **d.01...d.64**.

Setting the playback tempo


Tempo 20.0...300.0

• Using the dial to change the tempo

Make sure that the Pattern mode key is lit. Use the cursor keys to select **Tempo** (the corresponding LED will light). If you wish to change the tempo units to the right of the decimal place, hold down the Shift key and rotate the dial.

• Using the Tap Tempo key to change the tempo

While the pattern is playing, press the Tap key three times or more at the desired tempo. The EM-1 will calculate the interval at which you pressed the Tap key, and will change the tempo accordingly. You can change the tempo in the same way even when playback is stopped. When you use the cursor keys to LEDs indicate select **Tempo**, and the tempo you modified will appear in the display.

 If you switch to a different pattern without writing the pattern whose tempo you modified, the pattern tempo will return to the previous value. If you wish to keep the modified tempo, you must perform the Write operation (refer to p.41 "Saving a pattern (WRITE)").

Playing a pattern (Pattern Play)

Press the Play/Pause key to start pattern playback. When the pattern finishes playing, it will return to the beginning and continue playing.

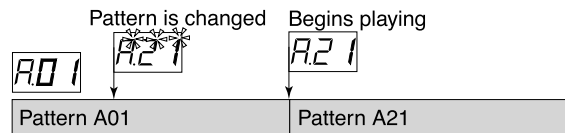
To check the pattern that is playing, make sure that the PATTERN mode key is lit, and use the cursor keys to select **Pattern** (the corresponding LED will light).


You can use the keyboard function to play on the step keys along with the pattern, press the drum part keys, or operate the knobs and keys to modify the sound.


By taking advantage of the various functions of Pattern mode as part of your performance technique, you can enjoy even wider possibilities.

The timing at which patterns will change

When you switch patterns during playback, the change will occur when the currently playing pattern finishes its last step. Until the pattern actually changes, the pattern number selected in the display will blink.




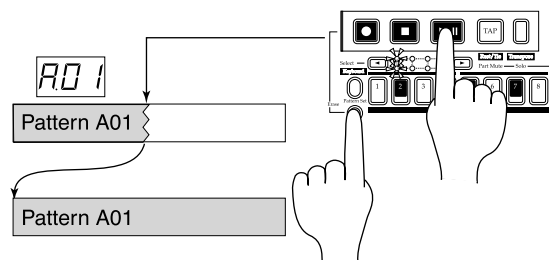
 If you change patterns during playback, some slight noise may be heard due to the change in delay time etc.

 If the same effect is used with different settings in the previous pattern and the newly-selected pattern, the sound you hear will be the same as if those knobs were turned.

Playing from the beginning of a pattern (Reset & Play)


If you hold down the Shift key when pressing the Play/Pause key, the playback will be forced to playback from the beginning. By using this function in conjunction with setting the tempo by the Tap key, you can synchronize the playback without using MIDI.

 In order to ensure that the phrase always matches, you will need to perform this adjustment each time.



Creating a pattern


There are two ways to create a pattern. You can start with a pattern that is similar to the desired result and then edit it, or you can create a sound and rhythm-, phrase pattern for each part from scratch. Either way, the **EM-1** makes it easy for you to create your own original patterns.

 If you wish to save a pattern you create, you must perform the Write operation before you select a different pattern or turn off the power.

Assigning a wave

Wave (Drum parts) off, 1...144
(Synth parts) off, 1...50

The **EM-1** has 194 waves (144 for drum, 50 for synth) that you can assign to each part.

 A wave cannot be specified for an accent part. (The display will indicate "- - -".)

Make sure that the **PATTERN** mode key is lit.

1. Use the cursor keys to select **Wave** (the corresponding LED will light).
2. Press the key of the drum or synth part to which you wish to assign a wave (the key will light). The number of the wave assigned to that key will appear in the display.
3. For a drum part, turn the dial and press the part key to hear the wave as you make your selection.
4. For a synth part, turn on the keyboard function, turn the dial, and press the step keys to hear the wave as you make your selection.

If you do not wish to specify a wave, select "**OFF**."

Chord splits

Several of the synth part waves sound as a chord. In some of these, different chords are arranged across the keyboard within the single wave. These are referred to as "chord splits." Synth part waves 43, 45, 46, and 47 are chord splits.

In some cases, the pitch may be discontinuous at the point where chords change within a chord split. Be aware that if you change the Transpose (p.35) or Song mode Note Ofs. (p.43) settings, the chord or octave may be different from when you created the pattern.

Editing the sound of a part

Select the pattern whose sound you wish to edit. While striking the part keys or pressing the step keys (with the Keyboard function turned on) to hear the sound, turn the knobs or switch the keys to edit the sound. At this time, the **Original Value LED** will light when the knob etc. that you are currently moving reaches the same value as the original sound of the pattern.

You can also edit while playing back a pattern. It is also possible to use an external MIDI device to control the value of each knob (refer to p.49 "About MIDI").

The parameters that are valid will depend on the type of part, as listed below.

Drum part


EG Time, Pitch, Level Pan, Effect, Roll, Amp EG


Synth part

EG Time, Glide, Level, Pan, Effect, Roll, Amp EG, Cutoff, Resonance, EG Int, Drive

Accent part

Level

 If the sound does not change when you rotate a knob or switch the setting of a key, either another knob or key has been set so that the parameter you are attempting to adjust has no effect, or the Motion Sequence function (p.34 "Motion sequence") is operating.

 Although drum parts 5A and 5B, and 6A and 6B can be edited independently, they cannot be played simultaneously. If triggers for both exist at the same step, the 5B or 6B part will sound.

Drum part

Part common section

EG Time 0...127


This sets the time over which the EG will decay. The way in which the volume decays will depend on the Amp EG setting.

Pitch -64...63

This specifies the playback pitch of the wave. Raising the pitch will speed up the playback, and lowering it will slow down the playback. The pitch can be adjusted over a range of +/-2 octaves, and will change in the following way.

Pitch Offset Values

Value	Step	Value	Step	Value	Step
63	+12 (2 oct. up)	24	+3 1/2	-34	-5
61	+11 1/2	21	+3	-37	-5 1/2
59	+11	18	+2 1/2	-40	-6 (1 oct. down)
57	+10 1/2	15	+2	-42	-6 1/2
55	+10	12	+1 1/2	-44	-7
53	+9 1/2	09	+1	-46	-7 1/2
51	+9	06	+1/2	-48	-8
49	+8 1/2	00	actual pitch	-50	-8 1/2
47	+8	-07	-1/2	-52	-9
45	+7 1/2	-10	-1	-54	-9 1/2
43	+7	-13	-1 1/2	-56	-10
41	+6 1/2	-16	-2	-58	-10 1/2
39	+6 (1 oct. up)	-19	-2 1/2	-60	-11
36	+5 1/2	-22	-3	-62	-11 1/2
33	+5	-25	-3 1/2	-64	-12 (2 oct. down)
30	+4 1/2	-28	-4		
27	+4	-31	-4 1/2		

 Noise may occur when you raise the pitch.

Level 0...127

Adjusts the output level. Rotating the knob toward the right will increase the level.

Pan L64...r63

Adjusts the stereo position (panpot) of the sound. When the knob is located at the center, the sound is panned to the center. Rotating the knob toward the left will move the sound toward the left, and rotating it toward the right will move the sound toward the right.


Amp EG


This switches the operation of the Amp EG. Pressing the key will switch between an envelope that decays (⌞: key lit) and an envelope that does not decay (⌞: key dark).

Editing the effect or delay

EFFECT

On the EM-1, you can select and use one of eleven types of effect for each pattern. The effect can be turned on/off for each part by using the Effect key in the Part Edit section. Use the two knobs (**Edit 1**, **Edit 2**) to adjust the parameters, which will differ depending on the selected effect.


 Although the effect can be turned on/off independently for each part, the type and parameter values cannot be changed independently.

 Some time may be required for the effect to begin applying when you switch patterns.

Effect types and parameters

Motion Seq (motion sequence)

This is the motion sequence for the effect (see p.34 “Motion sequence”). Each time you press the key, this will alternate between **on** (lit) and **off** (dark).

 When Delay Editing is on, this will be the delay motion sequence key.

Reverb

This simulates the reverberation and acoustics of a plate reverb unit.

Edit 1 _ Time **0...127**

The reverb time will lengthen as the knob is rotated toward the right.

Edit 2 _ Level **0...127**

The level of the reverberation will increase as the knob is rotated toward the right.

Flg./Cho. (flanger/chorus)

Flanger and chorus are effects that modulate the pitch of a slightly time-delayed copy of the sound and add it to the original sound to create a sense of spaciousness, modulation, and vibrato.


Edit 1 _ LFO Rate **0...127**

Adjusts the LFO speed of the flanger/chorus.

The LFO speed will become faster as the knob is rotated toward the right.

Edit 2 _ Depth **0...127**

Adjusts the depth of the flanger/chorus effect. The effect will change from chorus to flanger as the knob is rotated toward the right.

 Raising the depth excessively may cause the sound to distort.

Phaser

This effect adds modulation to the sound by mixing a cyclically phase-shifted sound with the original sound.

Edit 1 _ LFO Rate **0...127**

Adjusts the LFO speed of the phaser. The LFO speed will become faster as the knob is rotated toward the right.

Edit 2 _ Depth **0...127**

Adjusts the depth of the phaser. The modulation will become greater as the knob is rotated toward the right.

Ring Mod. (ring modulation)

This effect applies modulation to the sound in order to create metallic resonances or unusual sound effects.

Edit 1 _ Frequency **0...127**

Specifies the frequency of the modulation that will be applied. The frequency will rise as the knob is rotated toward the right.

Edit 2 _ Balance **0...127**

Specifies the balance of the effect sound and direct sound. As the knob is rotated toward the right, the effect sound will increase and the direct sound will decrease.

Pitch Shifter

This effect shifts the pitch.

Edit 1 _ Pitch **0...127**

Specifies the amount of pitch shift. When the knob is in the center position, the output pitch will be the same as the input pitch. As the knob is rotated toward the left the pitch will become lower, and as the knob is rotated toward the right the pitch will become higher. The available range of pitch shift is +/-2 octaves, and will change as shown below.

Pitch Offset Values

Value	Step	Value	Step	Value	Step
127	+12 (2 oct. up)	88	+3 1/2	30	-5
125	+11 1/2	85	+3	27	-5 1/2
123	+11	82	+2 1/2	24	-6 (1 oct. down)
121	+10 1/2	79	+2	22	-6 1/2
119	+10	76	+1 1/2	20	-7
117	+9 1/2	73	+1	18	-7 1/2
115	+9	70	+1/2	16	-8
113	+8 1/2	64	actual pitch	14	-8 1/2
111	+8	57	-1/2	12	-9
109	+7 1/2	54	-1	10	-9 1/2
107	+7	51	-1 1/2	8	-10
105	+6 1/2	48	-2	6	-10 1/2
103	+6 (1 oct. up)	45	-2 1/2	4	-11
100	+5 1/2	42	-3	2	-11 1/2
97	+5	39	-3 1/2	0	-12 (2 oct. down)
94	+4 1/2	36	-4		
91	+4	33	-4 1/2		

Edit 2 _ Dry level **0...127**

This adds the original sound to the pitch-shifted sound. As the knob is rotated toward the right, increasing amounts of the original sound will be added to the effect sound.

Compressor

A compressor boosts low level sounds and reduces high level sounds in order to minimize differences in volume and make the sound more consistent.

Edit 1 _ Sensitivity **0...127**

Specifies the sensitivity of the compressor. When the knob is in the far left position, there will be no effect. As the knob is rotated toward the right, the effect will apply more strongly.

Edit 2 _ Attack **0...127**

Specifies the attack speed until the compressor begins to take effect. The attack will become slower as the knob is rotated toward the right.

Distortion

By boosting the volume appropriately, this effect causes the sound to distort and produces a rich overtone structure.

Edit 1 _ Gain **0...127**

Specifies the degree of distortion. The sound will be distorted more greatly as the knob is rotated toward the right.

Edit 2 _ Level **0...127**

Adjusts the output level. The output level will increase as the knob is rotated toward the right.

Length, Scale/Beat settings





You can set the length (the length of the entire pattern) and the basic beat (time signature).

The Length and Scale/Beat you specify here will affect the correspondence between step keys and note values, and the maximum number of steps as shown in the following diagram.

If Scale/Beat is set to “tri” (♩₃ × 12) or “tr2” (♩₃ × 12), step keys 13—16 will have no effect.

While the Shift key is held down, the upper line of select LEDs (green) will indicate the length of the current pattern, and the lower line of select LEDs (red) will indicate the beat.

Length		Maximum number of steps	
		16 (♩ ₃ × 16) or 32 (♩ ₃ × 16)	tri (♩ ₃ × 12) or tr2 (♩ ₃ × 12)
1	Select LED 1 (green) lit	16	12
2	Select LEDs 1, 2 (green) lit	32	24
3	Select LEDs 1 to 3 (green) lit	48	36
4	Select LEDs 1 to 4 (green) lit	64	48

Scale/Beat	Correspondence between step keys and note values
16 (♩ ₃ × 16) Select LED 1 (red) lit	
32 (♩ ₃ × 16) Select LED 2 (red) lit	
tri (♩ ₃ × 12) Select LED 3 (red) lit	
tr2 (♩ ₃ × 12) Select LED 4 (red) lit	



It is not possible to view or change the Length or Beat/Scale during playback or recording, or during Pattern Set Play.

Setting the Length

1, 2, 3, 4

1. If a pattern is playing, press the Stop/Cancel key to stop playback.
2. Use the dial to select the pattern whose length you wish to set.
3. Hold down the Shift key and press step key 1 (**Length**). (Key 1 will blink.)
4. The value will blink in the display. Use the dial to specify the length.
5. Press step key 1 once again to finalize the value. (Key 1 will go dark.)

If you wish to cancel without changing the setting, press the Stop/Cancel key.

Setting the Scale/Beat

16, 32, tri, tr2

1. If a pattern is playing, press the Stop/Cancel key to stop playback.
2. Use the dial to select the pattern whose scale/beat you wish to set.
3. Hold down the Shift key and press step key 2 (**Scale/Beat**). (Key 2 will blink.)
4. The value will blink in the display. Use the dial to specify the scale/beat.
5. Press step key 2 once again to finalize the value. (Key 2 will go dark.)

If you wish to cancel without changing the setting, press the Stop/Cancel key.

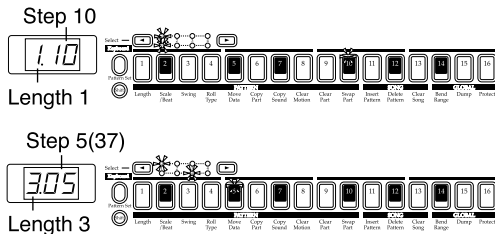
Selecting the step (Target Step)

Step Rec 1.01...4.16

When the Pattern mode STEP EDIT key is on (key lit) and the parameter select LEDs indicate **Step Rec**, the value shown in the display is called the “target step.” The value in the display indicates the location of the step within the phrase pattern. If the keyboard function is off, the step key for the target step will blink.

When the Keyboard key is on, the step keys will not indicate the target step.

Example display



To change the target step, you can use the dial or press one of the sixteen step keys. Alternatively, you can hold down the Shift key and use the Select keys to move forward or backward in single steps.

In the case of a pattern with a length of 2 measures or greater, you can use the Select keys to move the select LED in the lower line (red) in order to change the length that is shown by the step keys, and verify or modify the trigger locations.

Length	Select LED display	Area shown by the step keys	
		For 16, 32	For tr1, tr2
1		Steps 1...16	Steps 1...12
2		Steps 17...32	Steps 13...24
3		Steps 33...48	Steps 25...36
4		Steps 49...64	Steps 37...48

The maximum number of steps will depend on the length and scale/beat settings.

Changing the trigger settings

Make sure that the PATTERN mode key is lit.

1. Turn off the Keyboard key (the key will be dark).
2. Use the Synth part key to select the part that you wish to edit.
3. For a pattern with a pattern length of 2 measures or more, you can use the Select keys to move the red select LEDs to left or right to change the length location that you will edit.
4. The step keys will light to indicate the trigger locations of the pattern for that part. You can press each key to switch the trigger on/off for that step. Each time you press a step key, the trigger will alternate **on** (lit) and **off** (dark).

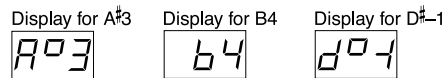
Changing the note number (pitch)

Note.No C1...G9

1. Press the STEP EDIT key.
2. Use the cursor keys to select **Note No.** (the corresponding LED will light).
3. Press the key of the synth part that you wish to edit (the key will light).
4. Turn off the keyboard function (the keyboard key will go dark).
5. The step keys will light to indicate the trigger locations of the pattern for that part. Press the step key for the step whose note number you wish to edit (the key will blink). By pressing a step key where a trigger exists, you can audition its pitch.
6. Rotate the dial to modify the note number of that step.

When the display is showing the Note. No, pressing a step key will not switch its trigger on/off. Changing the note number of a step whose trigger is off will have no effect. If you turn that trigger on, the specified pitch will be used. To transpose an individual part, refer to Shift Note in p.36 “Moving data within a part (Move Data).” To transpose the entire pattern, refer to p.35 “Transposing a pattern (Transpose).”

The pitch will be shown in the display as follows.



Changing the gate time

Gate Time 0.25...64.0

1. Press the STEP EDIT key.
2. Use the cursor keys to select **Gate Time** (the corresponding LED will light).
3. Press the key of the synth part that you wish to edit (the key will light).
4. Turn off the keyboard function (the keyboard key will go dark).
5. The step keys will light to indicate the trigger locations of the pattern for that part. Press the step key for the step whose gate time you wish to edit (the key will blink). By pressing a step key where a trigger exists, you can audition its pitch.
6. Rotate the dial to modify the gate time of that step.

The value shown in the display is the gate time length in units of a step. For example if the gate time is set to **1.0**, the gate time will be exactly as long as one step.


If the gate time length extends into the timing of the next note, the filter EG of the next note will not be retriggered.

When the display is showing the Gate Time, pressing a step key will not switch its trigger on/off. Changing the gate time of a step whose trigger is off will have no effect. If you turn that trigger on, the specified gate time will be used.


Recording a motion sequence

Knob and key movements (motion sequences) for each part, effect, and delay can be recorded.


To record a motion sequence for a part, select the part, and then turn on the Motion Sequence key of the Part Common section.

 When you newly record a motion sequence for a part, the motion sequence for the previous knob or key will be erased.

To record an effect motion sequence, turn on the Motion Sequence key of the Effect/Delay section (turn the Delay Edit key off).

 To enable the effect motion sequence, turn the effect on (lit) for each part to which you want the effect to apply.

To record a delay motion sequence, turn on both the Delay Edit key and the Motion Sequence key of the Effect/Delay section.


 The delay motion sequence will apply to the entire pattern. It cannot be set for individual parts.

For the recording procedure, refer to p.22 "Using a motion sequence" in section 3. Basic operation (Quick Start).


Checking motion sequence data

If motion sequence data has been recorded, you can hold down the Shift key and press the Motion Sequence key to view the status in the step keys.

- If motion sequence data for the knobs of the Part Common section is included
Step keys 1 and 2 will light
- If motion sequence data for the knobs of the Synth Filter section is included
Step key 3 will light
- If motion sequence data for the knobs of the Part Common section is included
Step key 4 will light
- If effect motion sequence (Edit 1 data) is included
Step keys 5 and 6 will light
- If effect motion sequence (Edit 2 data) is included
Step keys 7 and 8 will light
- If delay motion sequence (delay time data) is included
Step keys 9 and 10 will light
- If delay motion sequence (delay depth data) is included
Step keys 11 and 12 will light

 It is not possible to check motion sequence data during playback, or recording, nor during Pattern Set Play.

Convenient functions for editing patterns

 If you wish to save the pattern you edit using these functions, you must perform the Write operation before selecting a different pattern or turning off the power.

Transposing a phrase (Transpose)

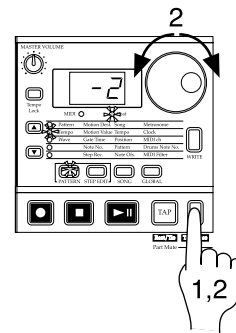
Transpose -24...24


This transposes the phrase of synth parts 1 and 2.


1. While you continue pressing the Transpose key, the display will indicate the current transposition status.
2. While holding down the Transpose key, rotate the dial to transpose the phrase in semitone steps. +/-1 transposes the pitch by a semitone, +/-2 by a whole tone, +/-7 by a fifth, and +/-12 by one octave.


While holding down the Transpose key you can also use the step keys or Select keys to transpose.


When you hold down the Transpose key and use the step keys to specify the transposition, step key 4 will correspond to the C pitch.



 To transpose an individual part, use the Shift note operation described below.

 If solo has been specified, the key will remain lit when you specify a transposition, and will not change to blinking. When you defeat the solo setting, the key will begin blinking.

 The Transpose value is not saved. The next time that the power is turned on, the value will be 0.



 If a chord split (see p.27) is selected as the wave for the synth part, the chord or octave may change when you specify a transposition.

Copying a part (Copy Part)

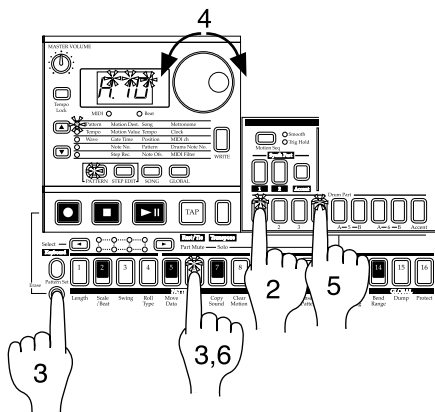
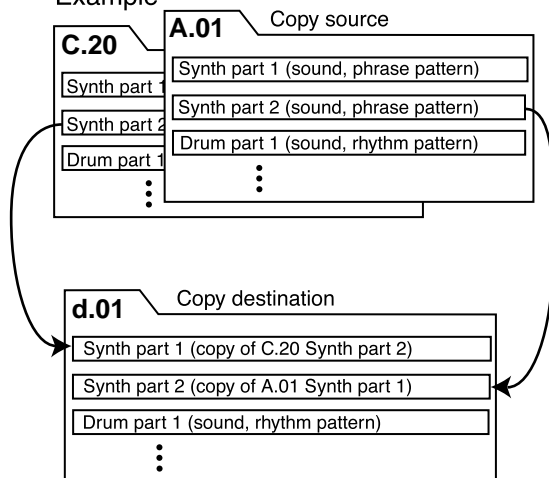
You can copy the sound settings and pattern data (including motion sequence) from a selected part to another part.

1. If the pattern is playing, press the Stop/Cancel key to stop playback.
2. Press the Part key to select the copy destination part (the LED will light).
3. Hold down the Shift key and press step key 6 (**Copy Part**). (Key 6 will blink.) The display will begin blinking.
4. Rotate the dial to select the copy source pattern number.
5. Press a part key to select the copy source part. (The copy source key will blink, and the copy destination key will be dark.) At this time, you will be able to audition the sound each time you press the copy source part key. (Synth parts will sound at C4.)
6. Press step key 6 once again to execute the Copy Part operation.

To cancel, press the Stop/Cancel key.

-  When copying between a synth part and a drum part, only the trigger data will be copied.
-  For details on data copy within the same part, refer to the following section "Data Copy within a part."

Example



Data Copy within a pattern


Phrase pattern data (including motion sequence data) that you create for a pattern of length 1 can be copied to the steps of lengths 2...4. This function is a convenient way to create a pattern that uses similar phrases repeatedly.

1. Create a pattern with a length of 1, and Write it into memory. (Refer to p.41 "Saving a pattern.")
2. At this point, the same data as in length 1 will automatically be copied to the steps of lengths 2...4.
3. Change the pattern length to the desired length. (Refer to p.31, "Length, Scale/Beat settings.")
4. The steps of lengths 2...4 will contain the same data as length 1. Now you can edit the data of lengths 2...4 to complete the pattern.

The data will be copied in a similar way when the pattern length is 2 or 3 (refer to the table below). If you shorten a pattern you create, the data will be copied according to the shortened length.

Copy Pattern data

Pattern length	Pattern data before writing	Pattern data after writing
1	A	A A A A
2	A B	A B A B
3	A B C	A B C C


-  The data that is copied automatically when you Write a pattern does not force the pattern length (1...4) to change. If the length is 4, data will not be copied within the pattern.

Copying the sound of a part (Copy Sound)

You can copy the sound of another part to the selected part. (Step data and motion sequence data will not be included.)

1. If the pattern is playing, press the Stop/Cancel key to stop playback.
2. Press a part key to select the copy destination part. (The key will light.)
3. Hold down the Shift key and press step key 7 (**Copy Sound**) (key 7 will light). The display will begin blinking.
4. Use the dial to select the copy source pattern number.
5. Press a part key to select the copy source part. (The copy source key will blink, and the copy destination key will be dark.) At this time, you can audition the sound by pressing the copy source key. (Synth parts will sound at C4.)
6. Press step key 7 once again to execute the Copy Sound operation.

To cancel, press the Stop/Cancel key.


-  It is not possible to copy sounds between a synth part and a drum part.

Exchanging data between parts (Swap Part)

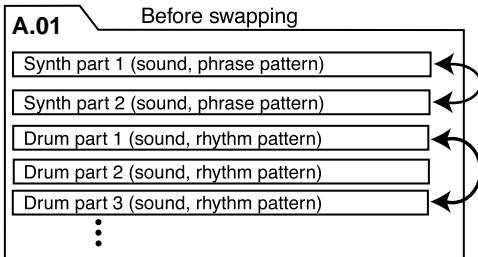
All data of the selected part can be exchanged with a part of same pattern.

1. If the pattern is playing, press the Stop/Cancel key to stop playback.
2. Press a part key to select the parts that you wish to swap (the key will light).
3. Hold down the Shift key and press step key 10 (Swap Part) (key 10 will blink).
4. If you selected a synth part in step 2, both keys will blink automatically. If you selected a drum part in step 2, select the other drum part that you wish to swap (both of the two keys being swapped will blink). At this time, you can audition the sound by pressing the respective part key. (Synth parts will sound at C4.)
5. Press step key 10 once again to execute the Swap Part operation.

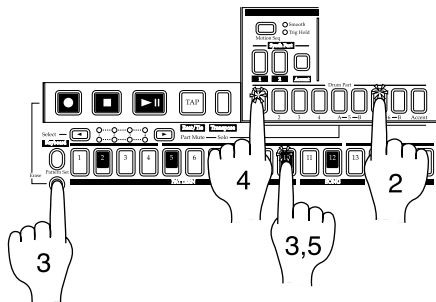
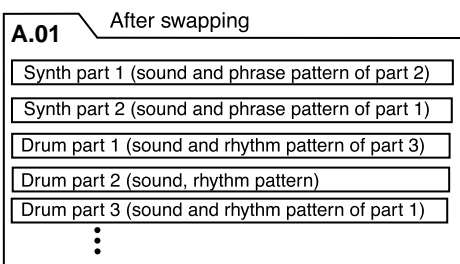
To cancel the operation, press the Stop/Cancel key.

 It is not possible to swap between a synth part and a drum part.

Example



Swap drum part 1 and drum part 3, swap synth part 1 and synth part 2.



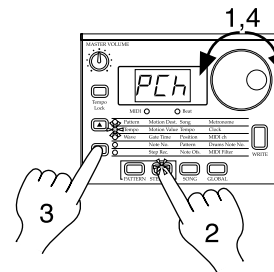
Editing motion sequence data

You can edit the motion sequence of each part or the effect and delay motion sequence. The data can be edited in units of individual steps.


Selecting a motion sequence

Motion Dest. EGt(EG Time)...tiN(Time)

1. Select the pattern that contains the motion sequence data you wish to edit.
2. Press the STEP EDIT key (the key will light).
3. Use the cursor keys [▲][▼] to select **Motion Dest** (the corresponding LED will light).
4. By turning the dial you can select parameters from the motion sequence which is currently recorded for that part.



If you wish to select a parameter for which no motion sequence is recorded for the part, hold down the Shift key while you turn the dial.

 For motion sequences which have been recorded using the EG Time, Pitch/Glide, Level, Pan, Cutoff, Resonance, EG Int, and Drive parameters, their values will be initialized to “diS” when you hold down the Shift key and select a parameter for which no motion sequence is recorded.

The parameters and valid number of parameters for each part are given below.

Only one of the following parameters is valid for each part: **EGt** (EG Time), **PCh/GLd** (Pitch/Glide), **LEU** (Level), **PAn** (Pan).

Only one of the following parameters is valid for each synth part: **Cut** (Cutoff), **rES** (Resonance), **EGi** (EG Int), **drU** (Drive).

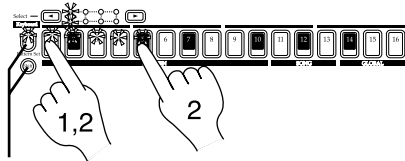
Only one of the following parameters is valid for each part: **ANP** (Amp EG), **roL** (Roll), **EFF** (Effect).

Ed1 (Edit 1) and **Ed2** (Edit 2) are valid for parts for which the effect is turned on.

tiN (Time) and **dPt** (Depth) are valid for the pattern (all parts).

1. Press the group 1 (select LED1 is lit) step key 1.
2. Continue holding down step key 1, and press step key 5.

The indicators from step key 1 through step key 5 (chosen for chain play) will light.




Hold down the Shift key and press the Pattern Set key to hold the function

You can also use the Select key to create chain play that extends across groups.

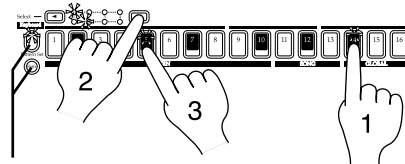
If you want chain playback to occur in the order of A.20, b.43, b.61, C.21, C.23, C.56, C.64, and C.28, perform the following operation. (A.20 is step key 14 of group 1, and A.28 is step key 5 of group 2.)

1. Press group 1 (select LED 1 lit) step key 14.
2. Continue holding down step key 14, and press the Select key to select group 2 (select LED 2 lit). At this time, the selection extends to group 2 step key 14.

 If you release step key 14 at this point, the selection will extend to group 2 step key 14.

3. Continue holding down step key 14, and press group 2 step key 5.

The step keys selected for chain play will light from 1 through 5 when select LED 2 is lit, and from 14 through 16 when select LED 1 is lit.



Hold down the Shift key and press the Pattern Set key to hold the function


While chain play is playing, you can hold down the Shift key and press the Play/Stop key to play back from the beginning of the currently-playing pattern.


To stop chain play, you can either select a different pattern set, or defeat the pattern select Hold function.

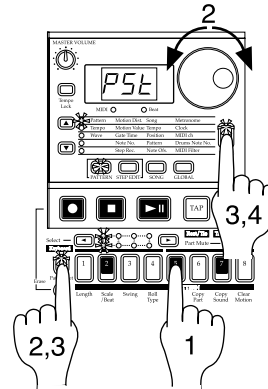
Assigning a pattern to a Pattern Set

1. With playback stopped, press and hold the Pattern Set key and press the step key for the location that you wish to assign a pattern.
2. While continuing to press the Pattern Set key (or while Hold is still in effect), rotate the dial to select the pattern number that you wish to assign. Release the Pattern Set key (or defeat Hold) to complete the assignment process.
3. To save the pattern set assignments, press the Stop/Cancel key to stop playback. Continue pressing the Pattern Set key, and press the Write key (the Write key will blink).
4. The display will blink "PSt." Press the Write key once again to save the data.

To cancel, press the Stop/Cancel key.

 If the Global mode Memory Protect setting is on, it will not be possible to write the data. In this case, turn off the Global mode Memory Protect setting before you execute the Write operation.

 Never turn the power off during the Write operation. This may damage the data.




Saving a pattern (WRITE)


If you wish to keep the pattern data that you create, you must perform this Write operation. When you perform the Write operation, "Data Copy within a pattern" (p.37) will occur automatically, depending on the pattern length.

If you intentionally want to discard your edits and revert to the original pattern data, simply select a different pattern without Writing.

1. If the pattern is playing, press the Stop/Cancel key to stop playback.
2. Press the Write key once (the key will blink). The pattern number will blink in the display.
3. Rotate the dial to select the writing destination pattern number.
4. Press the Write key once again to write the data.

To cancel, press the Stop/Cancel key.


 If the Global mode Memory Protect setting is on, it will not be possible to Write. In this case, you must turn off the Global mode Memory Protect setting before you execute the Write operation.

 Never turn off the power during the Write operation. This can damage the data.

Creating a song

Creating a song from scratch

Here's how to create a song by placing patterns in the desired order.

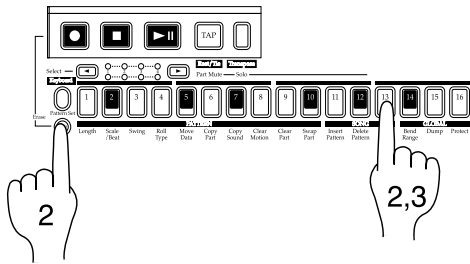
 If you switch to a different song while editing a song, your edited data will be lost. If you wish to keep the edited song, you must perform the Write operation to save the song data.

Erasing song data (Clear Song)

1. If a song is playing, press the Stop/Cancel key to stop playback. Then select the song that you wish to erase.
2. Hold down the Shift key and press step key 13 (Clear Song). (Key 13 will blink.)
3. Press step key 13 once again to erase the song data.

To cancel, press the Stop/Cancel key.

If you erase the song data by mistake, rotate the dial to re-select the song before you save it. This will restore the data to its original condition.



Specifying a pattern for each position

Position 001...256
Pattern A.01...d.64

Specify a pattern for each position. When doing this, please turn the Keyboard function key off (the key will go dark).

1. Use the cursor keys to make the parameter select LEDs indicate **Position**. Notice that the display indicates "001."
2. Use the cursor keys to make the parameter select LEDs indicate **Pattern**.
3. Rotate the dial to select the pattern that you wish to assign to position "001."
4. Press the select [▶] key to advance to the next position. The display will indicate "End."
5. Rotate the dial to select the pattern. The pattern you select here will be the pattern for position "002."
6. When you select a pattern for the "End" position, the "End" will move to the next position. Repeat steps 4 and 5 to assign as many patterns as you wish.

To play back the completed song from the beginning, press the Play/Pause key once, and then press the Stop/Cancel key. Alternatively, use the cursor keys to select **Position**, and rotate the dial or use the select keys to set the position to "001." Then press the Play/Pause key. If you wish to view the order of patterns in the song, or to re-select the pattern for a specific position, use the cursor keys to select **Pattern**. Each time you press a select key, you will move to the next or previous position. You can use the dial to change the pattern number that is displayed.

Use the select keys to move through the positions, and use the dial to select patterns

Pattern R01 · R13 · R22 · b01 · b30 · b60 · End

Alternatively, you can use the cursor keys to select **Position**, and use the dial or select key to select the position you wish to check. Then use the cursor keys to select **Pattern**, and view or change the **pattern**.


At the Position setting use the select keys or dial to move; then select Pattern and use the dial to select or view the pattern.

Position 001 · 002 · 003 · 004 · 005 · 006 · 007
 Pattern R01 R13 R22 b01 b30 b60 End

Specifying the Note of each pattern


Note Ofs. -24...24

This function offsets the Note of the pattern at the specified position within the song.

 Note Ofs. simply offsets the pitch within the song. It does not affect the pitch data of the pattern itself.

1. If the song is playing, press the Stop/Cancel key to stop playback.
2. Use the cursor keys to select **Position** (the corresponding LED will light).
3. Use the dial or Select keys to select the position whose pitch you wish to offset.
4. Use the cursor keys to make the parameter select LEDs indicate **Note Ofs.**
5. Use the dial to specify the desired pitch offset. +/-1 offsets the pitch by a semitone, +/-2 by a whole tone, +/-7 by a fifth, and +/-12 by one octave.

Even when the parameter select LEDs indicate **Note Ofs.**, you can use the Select keys to move the position forward or backward in single steps.

 If a chord split wave (see p.27) is selected for the part, changing the Note Offset may change the chord or octave.

Recording knob movements or your performance in a song (Event Recording)

In Song mode you can create a performance not only by combining patterns, but also recording a realtime performance that you play on the drum part keys and step keys (using the keyboard function), and by turning the knobs.

Recording such a performance in Song mode is referred to as “event recording.”

The following four types of performance data (event data) can be recorded by event recording.

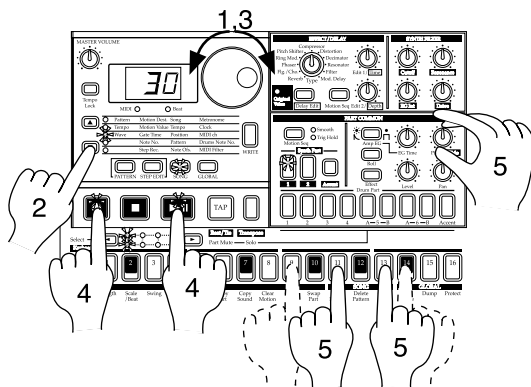
- Performances using the drum part keys
- Performances using the keyboard function
- Knob and key operations (only for the selected part)
- Tempo

Event recording allows you to record two or more types of events in the same area, as long as the events are played at the same time.

Event recording always rewrites the previous data (“replace recording”), and when you record your performance, any event recording data previously in that area will be erased. (It is not possible to layer event recording over the same area.)

1. Select the song on which you wish to record events.
2. Use the cursor keys to select **Position** (the corresponding LED will light).
3. Use the dial or the Select keys to move to the position at which you wish to begin recording.
4. Press the Rec key, and then press the Play/Pause key to begin event recording.
5. Use the part keys and/or the knobs to perform.
6. Press the Stop/Cancel key to stop event recording.

If the musical data of the song coincides with the event-recorded data, the event data will be given priority during playback.



Knob movements that are event-recorded in Song mode will always playback in a way that corresponds to the **Smooth** type motion sequence setting (and not the **Trig Hold** type).

- ⚠ If you wish to save the event recording, you must perform the Write operation. If you switch songs or turn off the power without performing the Write operation, the data that was recorded will be lost.

- ⚠ After rewinding a song, it may not be possible to playback exactly according to the event data.
- ⚠ If during playback you operate a knob that had been event-recorded, playback of the events of that knob will be cancelled until it reaches the next position.

Deleting event data from a song

To delete event data from a song, you can perform event recording over the area that you wish to delete (without operating any knobs or keys).

Checking for song event data

If event data is recorded in a song, step keys 13 through 16 will light if you hold down the Shift key and press the Motion Sequence key of the Part Common section.

- ⚠ It is not possible to check for event data during playback or recording.

Saving a song (WRITE)

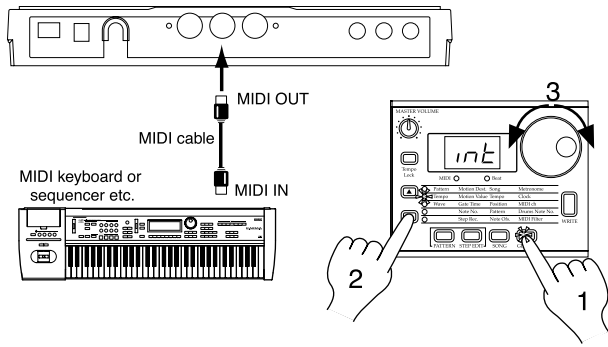
If you wish to save a song that you create, you must perform this Write operation.

If you decide not to save the song data you create, simply switch songs without performing the Write operation.

1. If the song is playing, press the Stop/Cancel key to stop playback. Use the cursor keys to select **Song** (the corresponding LED will light).
2. Press the Write key once (the key will blink). The song number will blink in the display.
3. Rotate the dial to select the desired destination song number.
4. Press the Write key once again to save the data. (The key will light, and then go dark.)

To cancel, press the Stop/Cancel key.

- ⚠ If the Global mode Memory Protect setting is on, it will not be possible to write the data. In this case, turn off the Global mode Memory Protect setting before you execute the Write operation.
- ⚠ Never turn the power off during the Write operation. This may damage the data.



The factory settings are as follows.

Part	Name	Note No.	Part	Name	Note No.
1	C2	36	5A	C4	60
2	D2	38	5B	C#4	61
3	E2	40	6A	F#2	42
4	F2	41	6B	A#2	46

The correspondence between note names and note numbers will differ by manufacturer. Please refer to the owner's manual for the device you have connected.

Setting the MIDI channel of each part (MIDI ch)

MIDI ch 1...16

You can set the MIDI channel of synth part 1, synth part 2, and the drum part. The same MIDI channel will be used for transmission and reception. The factory settings are listed below.

Part	Channel
Synth part 1 (global)	1
Synth part 2	2
Drum part (1-6B)	10

1. Use the cursor keys to select **MIDI ch** (the corresponding LED will light).
2. Press the part key for which you wish to change the MIDI channel (the key will light). For the drum part, press any one of the eight part keys (all of the drum part keys will light).
3. Turn the dial to select the channel.

Program changes and exclusive data will be transmitted and received on the MIDI channel you specify here for synth part 1 (i.e., this will be the global MIDI channel).

Setting the MIDI note number of a drum part

Drums Note No. C-1...G9

For each drum part, you can specify the MIDI note number as a note name.

If you specify the same note number for two or more parts, the sounds of those parts will be played simultaneously when that note is received from an external MIDI device.

1. Use the cursor keys to select **Drums Note No** (the corresponding LED will light).
2. Press the part key whose note number you wish to change (the key will light).
3. Rotate the dial to select the note number.

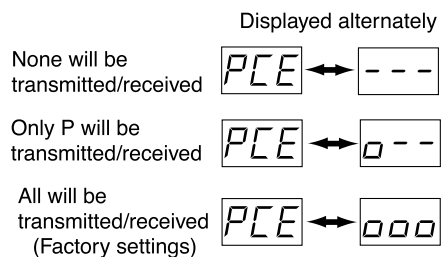
MIDI filter settings

Here you can select the types of MIDI message that will be transmitted and received.

For each character "PCE" in the display, select "O" if you want that type of message to be transmitted and received, or select "-" if you do not want that type of message to be transmitted or received.

1. Use the cursor keys to select **MIDI Filter** (the corresponding LED will light).
2. Rotate the dial to select the combination of message types that will be transmitted and received; "O" allows transmission and reception, and "-" disables it.

- P:** Transmission/reception of Program Change, Bank Select, and Song Select messages.
- C:** Transmission/reception of Control Change messages.
- E:** Transmit/receive exclusive data. However while you are operating the Dump settings, this data will be transmitted and received regardless of the setting here.



Adjusting the pitch bend range

Bend Range -12...12

You can adjust the range of the pitch bend that will occur when MIDI Pitch Bend messages are received.

1. Hold down the Shift key and press step key 14 (**Bend Range**) (key 14 will blink).
2. Turn the dial to select the pitch range. +/-1 is a semitone, +/-2 is a whole step, +/-7 is a fifth, and +/-12 is an octave.
3. Press step key 14 once again to finalize the pitch range (key 14 will go dark).

To cancel without making the setting, press the Stop/Cancel key.

For some sounds, the pitch may not rise all the way to the specified range.

7. Appendices

About MIDI

1. MIDI channels

Similarly to a television, data can be received when the channel of the receiving device matches the channel on which the data is being transmitted.

On the **EM-1**, the transmit/receive channels for synth part 1, synth part 2, and all drum parts are set by the **MIDI ch** parameter of Global mode.

2. Note-on/off

When you strike a drum part key, the note number assigned to that drum part key will be transmitted on the specified MIDI channel. When you play the step keys using the keyboard function, a note-on message [9n, kk, vv] (n: channel, kk: note number, vv: velocity) will be transmitted on the MIDI channel specified for the part, with the note number assigned to each step key, and a velocity corresponding to the force with which you pressed the step key.

On the **EM-1**, the vv: velocity value is determined by the Accent level. When you release a pad, a note-off message [8n, kk, vv] is transmitted. However, most devices do not transmit note-off velocity, and neither does the **EM-1**. When note-on/off messages for a note number assigned to a part are received, that part will sound.

3. Switching patterns

When you switch patterns, Program Change and Bank Select messages [Bn, 00, mm] (control change #00), [Bn, 20, bb] (control change #32) (mm: bank number upper byte, bb: bank number lower byte, together allowing 16,384 banks to be selected) will be transmitted.

If a Program Change is received on the MIDI channel of the **EM-1**, patterns will be switched within the same group (e.g., from A.01 to b.64). After a Bank Select has been received, the next-received Program Change will be able to switch to a pattern of a different group (e.g., from A.01 to C.01).

Transmission and reception of Program Change messages can be controlled by the Global mode MIDI Filter setting.

Bank Select		Program Change	Pattern number
MSB	LSB		
00	00	0...127	A.01...b.64
00	01	0...127	C.01...d.64

4 Applying pitch bend

The **EM-1** does not transmit pitch bend messages [En, vv, vv] (vv, vv: lower and upper places of the value, together expressing a range of 16384 steps where 8192 [vv, vv=00H, 40H] is the center value). However when the **EM-1** receives pitch bend messages, a pitch bend effect will be applied to the synth parts. The range of the pitch bend can be specified by editing the Global mode Pitch Bend Range parameter.

5. Using NRPN messages to edit

NRPN (Non-Registered Parameter Number) is a category of messages for which each manufacturer is free to assign a function to a parameter number and use it as desired. NRPN messages are assigned to each knob and key of the **EM-1**'s Effect/Delay section (except for Delay Edit). To edit, first use NRPN (LSB) [Bn, 62, rr] and NRPN (MSB) [Bn, 63, mm] (control change #98 and 99) (rr, mm: lower and upper bytes of the parameter no.) to select the parameter. Then transmit Data Entry (MSB) [Bn, 06, mm] and Data Entry (LSB) [Bn, 26, vv] (control change #06 and 38) (mm, vv: upper and lower bytes of the value, together expressing 16,384 steps) to set the value. The **EM-1** uses only the MSB value (128 steps) of the Data Entry message.

6. If "stuck notes" occur

If for some reason a note fails to stop sounding, you can usually switch modes to stop the sound. If a note played via MIDI fails to stop, you can simultaneously press the Shift key and the Stop/Cancel key to perform a MIDI Reset.

7. About synchronization

Two or more sequencers can be connected via MIDI and made to playback in synchronization. Messages used for synchronization (realtime messages) include Timing Clock [F8], Start [FA], Continue [FB], and Stop [FC]. In a synchronized system, one synthesizer (the master) will transmit these messages, and the other sequencer(s) (the slave(s)) will receive these messages. The slave devices will playback according to the tempo specified by the Timing Clock messages transmitted by the master. Twenty-four Timing Clock messages are transmitted for each quarter note. When the **EM-1**'s Global mode parameter Clock is set to INT, it will be the master device, and will transmit these realtime messages. When Clock is set to EXT, it will be the slave device, and will receive these realtime messages. However even when Clock is set to EXT, the **EM-1** will operate according to its own internal clock if no Timing Clock messages are being received. The Start message specifies when playback will begin. When the Start/Pause key is pressed on the master device, it will transmit a Start message. Slave devices that receive this Start message will synchronize to the Timing Clock messages subsequently received, and will begin playback from the beginning. If the Start/Pause key is pressed on the master devices when it is paused, the master will transmit a Continue message. When a slave device receives the Continue message, it will resume playback from the point where it is currently stopped. If the Stop key is pressed during playback, the master will transmit a Stop message. Slave devices will stop playback when they receive a Stop message.

8. Synchronization in Song mode

In Song mode, the **EM-1** can transmit and receive Song Select and Song Position Pointer messages. When you switch songs, a Song Select [F3 ss] message will be transmitted (ss: song number, where one of 128 songs can be selected. On the **EM-1** you can select 16 songs.) If the **EM-1** receives a Song Select message in Song mode, it will switch songs. Transmission and reception of Song Select messages can be restricted by the MIDI Filter settings of Global mode. If you change the current position on the master device (i.e., the device whose Clock is set to INT) when the song is stopped, a Song Position Pointer message [F2 pp pp] will be transmitted. (pp: the number of MIDI beats from the beginning of the song; i.e., the number of Timing Clocks divided by six.)

Error messages

- Er.1** Data could not be written.
- Er.2** When writing a song to a song of a different number, the maximum number of recordable events was exceeded. Please erase event data to free up memory (p.45).
- Er.9** Protect was turned "on" for the memory into which you attempted to write data. In Global mode, turn the Protect setting "oFF" (p.48).
- Full** When event-recording on a song, event data memory has filled up. If you attempt to record additional events, the "memory full" message will appear immediately. Please erase event data to free up memory (p.45).

Restoring the factory set data

The pattern and song data with which the **EM-1** is shipped from the factory is referred to as the "preloaded data," and you can restore this preloaded data back into the memory of the **EM-1**.

When you do this, the patterns you created and the songs which use these patterns will be erased, and replaced by the preloaded data. If you wish to keep the patterns and songs you created, you must save the data on a data filer etc. before you load the preloaded data.

1. While simultaneously pressing the **Transpose** key and the **Write** key, turn on the power.
2. The display will indicate "PLd," and the Play/Pause key will blink.
3. To load the factory preloaded data, press the blinking Play/Pause key.

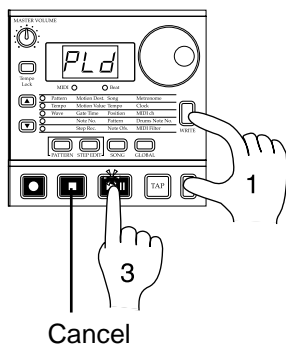
This will require approximately 30 seconds.

To cancel, press the Stop/Cancel key.

When loading is complete, the **EM-1** will return to its initial state. After several seconds the display will indicate pattern number "A.01," and the **EM-1** will be in Pattern mode.



Never turn off the power during the Load process. The data may be damaged.



Specifications

Number of parts:

- 12 parts
- Synth parts x 2
- Drum parts x 8
- Synth Accent part
- Drum Accent part

Memory capacity:

256 patterns, 16 songs

Master effects:

Tempo Delay,
Normal, Motion Sequence

Insert effects:

11 Type
Reverb, Flanger/Chorus, Phaser, Ring Modulator, Pitch Shifter, Compressor, Distortion, Decimator, Resonator, Filter, Modulation Delay

Sequencer:

Pattern
Maximum 64 steps for each part,
Motion sequence,
Synth part: 3 parameters,
Drum part: 2 parameters,
Accent part: 1 parameter,
64 events

Song

Maximum 256 patterns per song
Maximum approximately 35,700 events
for event recording

Connectors:

PHONES
Stereo phone plug
Nominal level: 35 mW
Load impedance: 33 ohms
OUTPUT (L/MONO, R)
Phone jacks: mono x 2
Nominal output level: -10 dBu
Output impedance: 1 k-ohms
MIDI (IN, OUT, THRU)

Power supply:

DC 9 V (AC adapter included)

Power consumption:

5 W

Dimensions:

300 (W) x 222.5 (D) x 55.4 (H) mm
(with rubber feet)

Weight:

1.25 kg

* Specifications and appearance are subject to change with out notice for improvement.

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Clear	38
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Part Mute Key	10
Part Select section	10
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Selecting	25
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Play	40
Register	41
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Pitch	9, 27, 33
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Play	
Motion sequence	34
Pattern	25
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Recording

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S

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Song	45
Scale	31
Section	
Common	8
Connector	12
Effect/Delay	9
Part common	9
Part Select	10
Sequence Control	10
Step Key	11
Synth filter	10

Select

Part	26
Select LED	11
Sequence Control section	10
Shift Data	36
Shift key	11
Shift Note	36
Smooth	34
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Creating	43
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Editing	44
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Listening	13
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Synth part	15, 26
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T

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W

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Global	48
Pattern	21, 41
Song	45
WRITE key	8

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	0- 127	0- 127 0- 127	
Velocity	Note ON Note OFF	○ 9n, v=30- 127 ×	○ 9n, v=1- 127 ×	
After Touch	Polyphonic Channel	× ×	× ×	
Pitch Bender		×	○	*C
Control Change	0,32 98, 99 8 121	○ ○ ○ ×	○ ○ ○ ○	Bank Select(MSB,LSB) *P NRPN(LSB,MSB) *C Data Entry(MSB) *C Reset All Controllers
Program Change :	True#	○ 0 - 127 *****	○ 0 - 127 0 - 127	Transmitted/received in Pattern mode *P
System Exclusive		○	○	Can always be transmitted/received in the MIDI Dump page *2 *E
System Common	: Song Pos : Song Sel : Tune	○ ○ 0 - 15 ×	○ ○ 0 - 15 ×	Transmitted/received in Song mode *1 *P
System Realtime	: Clock : Commands	○ ○	○ ○	*1 *1
Aux Messages	: Local ON/OFF : All Notes OFF : Active Sense : Reset	× × ○ ×	○ ○ ○ ×	
Notes	<p>*P, *C, *E: Sent and received when MIDI mode MIDI Filter (P, C, E) respectively are set to "O"</p> <p>*1: Sent but not received when Global mode Clock is "Int."When set to "Ext," received but not sent.</p> <p>*2: In addition to Korg exclusive messages, also responds to Inquiry messages.</p>			

Mode 1: OMNI ON, POLY
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○ : Yes
× : No

* Consult your local Korg distributor for more information on MIDI IMPLEMENTATION.

Wave Name List

Drum Wave Name

No.	Name
1	BD-Dark
2	BD-99 1
3	BD-99 2
4	BD-Analog
5	BD-ZAP
6	BD-99 Dist 1
7	BD-99 Dist 2
8	BD-99 Dist 3
9	BD-Squash
10	BD-88 1
11	BD-88 2
12	BD-Dry 1
13	BD-Dry 2
14	BD-Dry 3
15	BD-Dry 4
16	BD-Hip
17	BD-R&B
18	BD-Ambi
19	BD-Defness
20	BD-Defness/OHH
21	BD-Jungle
22	BD-Jungle/Crash
23	SD-99 1
24	SD-99 2
25	SD-88 1
26	SD-88 2
27	SD-Analog R&B
28	SD-77
29	SD-Disco
30	SD-Dry 1
31	SD-Dry 2
32	SD-Dry 3
33	SD-Dry 4
34	SD-Ambi 1
35	SD-Ambi 2
36	SD-Piccolo 1
37	SD-Piccolo 2
38	SD-Hip
39	SD-Brash Dist
40	SD-Crackle
41	SD-Jungle
42	SD-R&B 1
43	SD-R&B 2
44	SD-R&B 3
45	SD-R&B 4
46	SD-Rim 1
47	SD-Rim 2
48	SD-88 Rim
49	Clap-99
50	Clap-88

Drum Wave Name

No.	Name
51	Clap-Hardhouse
52	Clap-R&B
53	HH-99 Cl
54	HH-99 Op
55	HH-88 Cl
56	HH-88 Op
57	HH-R&B Cl
58	HH-R&B Op
59	HH-Std 1 Cl
60	HH-Std 1 Op
61	HH-Std 2 Cl
62	HH-Std 2 Op
63	HH-Crisp Cl
64	HH-Crisp Op
65	HH-Old Cl
66	HH-Old Op
67	HH-Big Chunk Cl
68	HH-Big Chunk Op
69	Ride-99
70	Ride-Edge 1
71	Ride-Edge 2
72	Crash-99
73	Crash-Normal
74	Tom-99
75	Tom-88
76	Tom-Std Hi
77	Tom-Std Lo
78	Tom-Std Floor
79	Tom-Jazz Hi Rim
80	Tom-Jazz Hi
81	Tom-Jazz Floor
82	Bongo-Hi Op
83	Bongo-Slap
84	Bongo-Lo 1
85	Bongo-Lo 2
86	Conga-Hi Slap 1
87	Conga-Hi Slap 2
88	Conga-Hi MtSlap
89	Conga-Lo Slap 1
90	Conga-Lo Slap 2
91	Conga-Lo MtSlap
92	Timbales-Hi Rim
93	Timbales-Hi Edge
94	Timbales-Lo Rim
95	Timbales-Lo Open
96	Timbales-Paila
97	Claves
98	Cowbell
99	Cha Cha Bell
100	Mambo BellDrum

Drum Wave Name

No.	Name
101	Agogo
102	Triangle
103	Tambourine-Acc
104	Sleigh Bell
105	Cabasa-Normal
106	Cabasa-Dist Up
107	Cabasa-Dist Down
108	Shaker
109	Guiro-Short
110	Guiro-Long
111	Samba Whistle
112	Tabla-Baya Ghe
113	Tabla-Baya Mute 1
114	Tabla-Baya Mute 2
115	Tabla-Na
116	Tabla-Tin
117	Tabla-Mute 1
118	Tabla-Mute 2
119	Djembe-Open
120	Djembe-Mute
121	Djembe-Slap
122	Udu
123	Taiko-Open
124	Taiko-Rim
125	Tsuzumi
126	Zap-ER
127	Zap-MG
128	Synth SE-MG
129	Synth SE-MS 1
130	Synth SE-MS 2
131	Filtered Perc
132	Synth Perc-ER 1
133	Synth Perc-ER 2
134	Synth Perc-MG 1
135	Synth Perc-MG 2
136	Synth Perc-MG 3
137	Filtered Noise
138	Reverse-BD
139	Reverse-SD 1
140	Reverse-SD 2
141	Reverse-Crash
142	Scratch-1
143	Scratch-2
144	Scratch-3

Synth Wave Name

No.	Name
1	Saw-ProSynth
2	Boost Saw
3	Pulse 15%-MG
4	Pulse 25%-MG
5	Square
6	Triangle-MG
7	Sine
8	Sine Kick Bass
9	Dark Bass
10	Xmod Bass
11	Additive Sine
12	DWGS Bell
13	DWGS FM Bass
14	HPF Saw-MS2k
15	SynthBass Oct
16	Square Oct Mix
17	Saw Oct Mix
18	DWGS Wire
19	DWGS Digital
20	5th Sine
21	5th Square
22	5th Saw
23	5th Stab Saw
24	Detuned Saw-A26k
25	Unison Saw-MS2k
26	Sync Triangle-MS2k
27	Sync Saw-MS2k
28	HPF Sweep-MS2k
29	Cyber Bass-Z1
30	Ring Bass-MS2k
31	Vibrato Sine
32	Reso Noise
33	NRG Hit
34	Ac.Bass
35	Finger Bass
36	Pick Bass-M1
37	Slap Bass Mix
38	Organ-M1
39	Combo Organ
40	DWGS Clav
41	Voice-VS
42	DWGS Voice
43	Synth Chord Set
44	Pad Chord
45	M1 Piano Chord Set
46	E.Piano Chord Set
47	Guitar Chord Set
48	Organ Chord
49	Vibe Chord
50	Noise

NOTICE

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

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