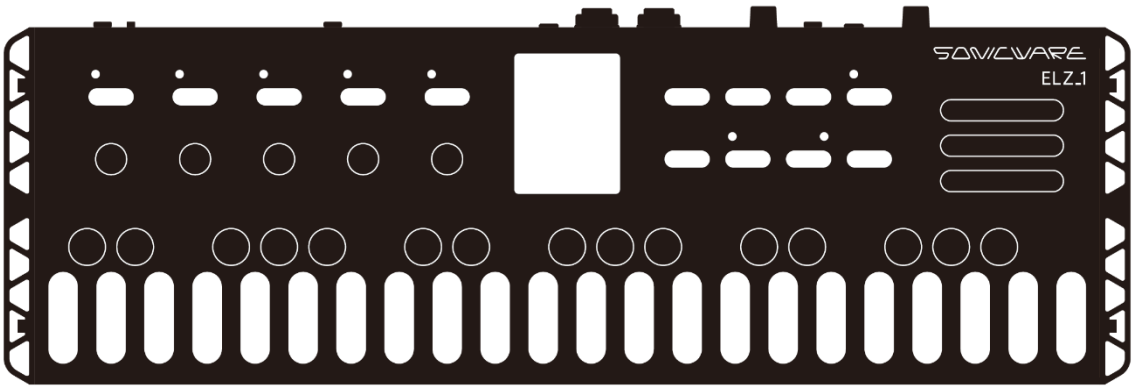
SONICWARE

ELZ_1 Version 2 Manual Supplement

Rev. 1.0



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1 About this manual

This manual explains features added in the Version 2 SYSTEM firmware.

2 Step sequencer

A 64-step/6-voice step sequencer has been added in Version 2.
Up to 128 patterns can be created in the step sequencer.
In addition to step input recording, sequences can be built up through real-time performance using the real time recording function.

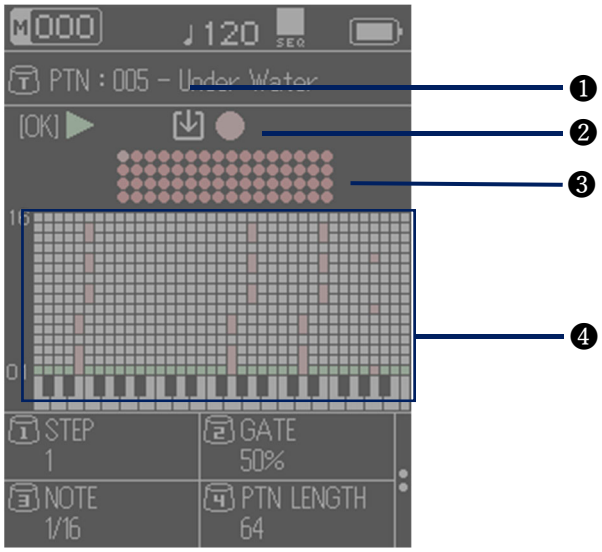
2.1 Enabling step sequence mode.

Open the arpeggiator screen, and press and hold the ARP/SEQ button to enable step sequencer mode.

HINT

- *The arpeggiator and the sequencer cannot both be used at the same time.*
- *When the sequencer is in use, the arpeggiator settings saved in the MEMORY are ignored.*

2.2 Screen



❶ Pattern number/save destination Pattern number
❷ Operation guide
❸ STEP location
❹ Piano roll

2.3 Main operations in step sequencer mode

Button	Function
OK button	Start/stop sequence playback
SAVE button	Start/stop sequence recording
MENU button	Stop recording (when recording)
ARP/SEQ + EFFECTS buttons simultaneously	Clear all notes in the pattern (when recording)

2.4 Step recording

In this mode, notes can be input step-by-step at any pace.

① When stopped, press the SAVE button to start recording.
② Use the STEP parameter to select the desired step.
③ Press notes on the keyboard to input them.
④ Repeat steps ② and ③ to create the pattern.
⑤ When done inputting notes, press the SAVE button to stop recording.

HINTS

- *To remove a note that was mistakenly input, press the same note on the keyboard again.*
- *Multiple steps can be input quickly by changing the STEP while holding down a key or keys.*
- *Press the MENU button to cancel recording and return the sequencer to the state before recording started.*
- *Starting playback during step recording will switch the mode to real-time recording.*

2.5 Parameters when stopped/step recording

Parameters when stopped/step recording			
TYPE knob	Stopped: PTN Step recording: SAVE TO	000 – 127	Stopped: Select pattern Step recording: Select where to save
PRM1	STEP	1 – 64	Current step number
PRM2	GATE	10 – 90%	
PRM3	NOTE	1/1 (whole note) 1/2 (half note) 1/4. (dotted quarter note) 1/4 (quarter note) 1/8. (dotted 8th note) 1/2(3) (quarter note triplet) 1/8 (8th note) 1/16. (dotted 16th note) 1/4(3) (8th note triplet) 1/16 (16th note) 1/32 (32nd note)	Length of one step
PRM4	PTN LENGTH	Number of steps in the current song	
PRM5	PTN CHAIN	Off, On	Sets whether multiple designated songs are played back in a chain
PRM6	START PTN	000 – 127	First pattern played when PTN CHAIN is On
PRM7	END PTN	000 – 127	Last pattern played when PTN CHAIN is On
PRM8	AUTO STEP	Off, On	When On, the STEP number will automatically move one after a note has been input using the keyboard.

2.6 Real-time recording

In this mode, notes are input in real time.

① During playback, press the SAVE button to start recording in real time.
② Play the keyboard with the desired timing
③ When done playing notes in real time, press the SAVE button to stop recording.

HINT

- *Press the MENU button to cancel recording and return the sequencer to the state before recording started.*
- *Stopping playback during real-time recording will switch the mode to step recording.*

2.7 Parameters when playing back/real-time recording

Parameters when playing back/real-time recording			
TYPE knob	Playing: PTN Recording: SAVE TO	000 – 127	Playing: Select pattern Recording: Select where to save
PRM1	REC MODE	ADD, OVERWRITE, ADD(1), OVERWRITE(1), ERASE	This sets how recording occurs. ADD: Notes are added to steps while keyboard keys are being pressed. OVER WRITE: New notes replace old notes at the current step while keyboard keys are being pressed. ADD(1STEP): Notes are added only to the step active at the moment keyboard keys are pressed. OVER WRITE(1STEP): New notes replace old notes only at the step active at the moment keyboard keys are pressed. ERASE: While keyboard keys are being pressed, their notes are erased at the current step.
PRM2	GATE	10 – 90%	
PRM3	METRONOME	Off, 1 – 15	Metronome volume
PRM4	BPM	40 – 250	
PRM5	PTN CHAIN	Off, On	Sets whether multiple designated patterns are played back in a chain
PRM6	START PTN	000 – 127	First song played when PTN CHAIN is On
PRM7	END PTN	000 – 127	Last song played when PTN CHAIN is On
PRM8			

3 New MIDI message support

In step sequencer mode, patterns can be selected using MIDI SONG SELECT messages.
The new pattern will be selected after playback of the current song.

4 Pattern management

Use the PATTERN menu to manage pattern settings in the ELZ_1.

① Press the MENU button.
② Use the DOWN and UP buttons to select PATTERN.
③ Press the OK button to open the PATTERN menu.

4.1 Changing Pattern names

Pattern names can be changed.

① Use the DOWN and UP buttons to select the pattern to use.
② Press the OK button.
③ Use the DOWN and UP buttons to select Rename.
④ Press the OK button.
⑤ Use the TYPE and 1 – 4 knobs to edit the name.
TYPE knob: Move cursor left and right
Knob 1: Change character
Knob 2: Change the character type (uppercase letters → lowercase letters → numbers → symbols)
⑥ Press the OK button to and editing.

HINT

- *Changes can be canceled by pressing the MENU button.*
- *The following characters and symbols can be used.*
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789
!"#$%&'()+,-./:;<=>?@[＼]^_ `{|}~ (space)*

4.2 Initializing the settings of one Pattern

A pattern can be initialized to basic settings.

① Use the DOWN and UP buttons to select the desired pattern, and press the OK button.
② Use the DOWN and UP buttons to select Initialize, and press the OK button to open a confirmation screen.
③ Use the DOWN and UP buttons to select Yes, and press the OK button.

HINT

- *Use this operation with care because initialization of a pattern cannot be undone.*

4.3 Exporting Pattern settings

The selected Pattern can be exported.
The exported Pattern is saved in the ELZ_1 storage and can be accessed using a PC/Mac.

① Use the DOWN and UP buttons to select the desired PATTERN, and press the OK button.
② Use the DOWN and UP buttons to select Export, and press the OK button.
③ Use the TYPE and 1 – 4 knobs to edit the name of the exported file.
TYPE knob: Move cursor left and right
Knob 1: Change character
Knob 2: Change the character type (uppercase letters → lowercase letters → numbers → symbols)
④ Press the OK button to open a confirmation screen.
⑤ Use the DOWN and UP buttons to select Yes, and press the OK button.

HINT

- *Changes can be canceled by pressing the MENU button.*

- *It will be saved in the MEMORY folder in the unit storage.*
- *The following characters and symbols can be used.*
  ABCDEFGHIJKLMNOPQRSTUVWXYZ
  abcdefghijklmnopqrstuvwxyz
  0123456789
  !#$%&'()+,-.;=@[]^_ `{}~ (space)

4.4 Importing Pattern settings

A pattern file saved in the ELZ_1 storage can be imported to the selected Pattern slot.

① Use the DOWN and UP buttons to select the desired Pattern slot, and press the OK button.
② Use the DOWN and UP buttons to select Import, and press the OK button to open a list of files in the PATTERN folder in the ELZ_1 storage.
③ Use the DOWN and UP buttons to select the file to import, and press the OK button to open a confirmation screen.
④ Use the DOWN and UP buttons to select Yes, and press the OK button.

HINT

- *Only Pattern files stored in the PATTERN folder in the ELZ_1 storage are shown in the list.*

5 Synchronizing the ELZ_1 with external clock (CLOCK menu)

The ELZ_1 arpeggiator and step sequencer can be synchronized with an external clock source.
Use the CLOCK menu to select the clock source.

① Press the MENU button.
② Use the DOWN and UP buttons to select SEQUENCER, and press the OK button.
③ Use the DOWN and UP buttons to choose CLOCK.
④ Press the OK button to open the CLOCK menu.
⑤ Select the clock source to use, and press the OK button.

Clock source	Explanation
Internal	ELZ_1 built-in clock
MIDI Clock	Clock from external MIDI device
Sync	External clock pulse input through AUX IN (See SYNC function for details.)
Sync (Thru)	External clock pulse input through AUX IN This clock pulse is also output from the headphone jack. (See SYNC function for details.)

6 SYNC function

Important
Proper connection with all SYNC devices is not guaranteed.
Never input voltage higher than 5V through the ELZ_1 AUX IN jack. Doing so could cause damage.

Clock pulses output from KORG volca series devices and Teenage Engineering Pocket Operators, for example, can be input through the ELZ_1 AUX IN jack to synchronize the tempo of its step sequencer and arpeggiator.
Moreover, by connecting a Pocket Operator with a stereo mini pin cable, a clock pulse and a mono audio signal can be simultaneously input through the AUX IN.

See Synchronizing the ELZ_1 with external clock (CLOCK menu) for how to select an external clock source.

6.1 Connecting an external clock source to the ELZ_1 AUX IN jack

volca series	Use a **mono** mini pin cable to connect the volca series device SYNC OUT jack to the ELZ_1 AUX IN jack. If a stereo mini pin cable is used for connection, the clock pulse will be heard as sound in the right channel. When connecting with a stereo mini pin cable, set the AUX IN GAIN to 0 in the MENU.
PO series	Use a stereo mini pin cable to connect the Pocket Operator headphone jack to the ELZ_1 AUX IN jack. Set the Pocket Operator sync mode to SY1, SY3 or SY5. The volume of the Pocket Operator can be adjusted on the device itself or using the ELZ_1 AUX IN GAIN MENU item.
ELZ_1	Use a stereo mini pin cable to connect the headphone jack of the sending ELZ_1 to the AUX IN jack of the receiving ELZ_1. Set the clock source of the receiving ELZ_1 to Sync or Sync (Thru).

6.2 Adjusting the sync signal input gain

If the ELZ_1 sequencer or arpeggiator does not synchronize properly with the sync signal, try adjusting the input gain for the sync signal.

① Press the MENU button.
② Use the DOWN and UP buttons to select SEQUENCER, and press the OK button.
③ Use the DOWN and UP buttons to choose SYNC IN GAIN.
④ Press the OK button to open the SYNC IN GAIN menu.
⑤ Adjust the input gain, and press the OK button.

External clock source device	Recommended SYNC IN GAIN
volca series	-9dB
PO series	-9dB
ELZ_1	-9dB

6.3 Using the SYNC THRU function

When enabled, the sync signal input through the AUX IN will be output through the left channel of the headphone jack.

① Set the clock source to Sync (Thru). (See Synchronizing the ELZ_1 with external clock (CLOCK menu).)

② Connect the ELZ_1 headphone jack to the sync input connector of the other device.

volca series	Use a **mono** mini pin cable to connect to the volca series device SYNC IN connector.
PO series	Use a stereo mini pin cable to connect to the Pocket Operator and input both the audio and clock pulse from the ELZ_1. Set the Pocket Operator sync mode to SY4 or SY5. Use a mono mini pin cable to connect to the Pocket Operator and input only the clock pulse from the ELZ_1. Set the Pocket Operator sync mode to SY2 or SY3.
ELZ_1	Connect with a stereo mini pin cable. Set the clock source of the receiving ELZ_1 to Sync or Sync (Thru).

③ Turn the headphone volume up to its maximum level.

HINT

- *When set to Sync (Thru), the clock pulse is output from the left channel and mono audio is output from the right channel of the headphone jack.*
- *If the device receiving the SYNC THRU signal is not synchronizing properly, try adjusting the ELZ_1 headphone volume.*

7 New synth engine functions

7.1 Modulation added for additional parameters

The synth engines with added parameters that can be modulated are as follows.

Synthesizer engine	Parameters that can now be selected with ASSIGN
DNA EXPLORER	EXPLORE, DIG, HARMONY, GAIN
SiGRINDER	RESOLUTION, DIG, HARMONY, BIT CRUSH, START, END, TIME, GAIN
SAND FLUTE	PITCH

7.2 GLIDE parameter added to SAND FLUTE MONO and LEGATO modes

A GLIDE parameter has been added to the SAND FLUTE MONO and LEGATO mode, enabling control of the speed of pitch change.

8 Additional user data now backed up

8.1 User data backed up

The following data is backed up.

- MEMORY　0 – 127
- Bank01 – 50 and FM01 – 20 waveforms used by 8BIT WAVE MEMORY
- WAVEDATA1 – 3 waveforms used by DNA EXPLORER and SiGRINDER
- PTN 0 – 127 (added in Version 2)

8.2 Compatibility with files backed up in Version 1

Pattern data in the ELZ_1 will not be cleared if a backup file created in Version 1 is imported.

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ELZ_1_ADM_EN_A