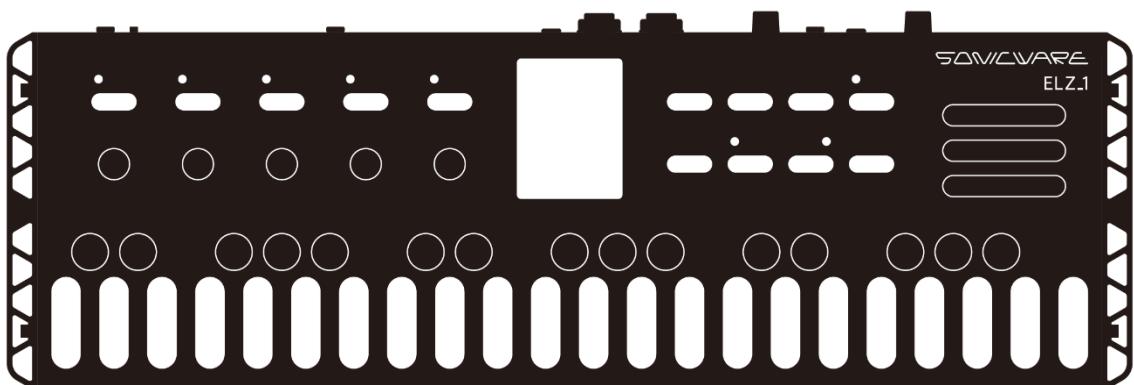


# SONICWARE

## ELZ\_1 Version 3 Manual Supplement

Rev. 1.0



## 1 About this manual

This manual explains features added in the Version 3 SYSTEM firmware.

## 2 New synth engine functions

### 2.1 Added 4-LFOs / 4-Envelops for all FM synth parameters

You can make more organic sounds by FM synth.

### 2.2 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
FM SYNTH	RATIO, LEVEL, FB, DETUNE
8BIT WAVMEM SYNTH (FM MODE)	FM RATIO, FM LEVEL

### 2.3 Added parameter page switching function with TYPE knob

The parameter page can be switched with the TYPE knob.

- ① Press the currently displayed mode key (such as the [OSC] key for 1 second.  
→Changes to parameter page switching mode by [TYPE] knob
- ② Turn the [TYPE] knob.

**【HINT】**

- *To return to the original mode, press the current mode key for 1 second.*

### 3 LFO parameter enhancement

Each synth engine has parameters for modulation using an LFO or envelope.

When the MOD TYPE parameter is set to LFO or Envelope, additional modulation parameters become available.

PRM1	MOD TYPE	OFF, LFO, Envelope: Modulation type selection
PRM2	ASSIGN	Select the modulated parameter. The parameters that can be chosen differ according to the synth engine.
The parameters after ASSIGN depend on whether the MOD TYPE is LFO or Envelope.		
When MOD TYPE is LFO		
PRM3	DELAY	0 – 2000ms (delay before modulation starts)
PRM4	WAVE	Sine, Square, Triangle, Sawtooth, Rev.Sawtooth, Random, Log, Rev.Log (waveform used to modulate target)
PRM5	RATE	1 – 100 (modulation speed)
PRM6	DEPTH	0 – 100 (modulation depth)
PRM7	COUNT*	Infinite, 1~50: Count of LFO
PRM8	WAVELEN*	1~1/8: Range used by LFO waveform
PRM9	PHASE*	0, 180: LFO waveform phase
PRM10	TAIL*	Hold: Holds the current value of the LFO after the specified number of times when COUNT is not Infinite Origin: the current value of LFO is reset to 0 after the specified number of times when COUNT is not Infinite
* Ver.3.0		

## 4 Applying DELAY and REVERB effects for AUX IN

Applying DELAY and REVERB effects for AUX IN.

- ① Press the MENU button.
- ② Use the DOWN and UP buttons to select AUX IN, and press the OK button.
- ③ Use the DOWN and UP buttons to select EFX INSERT, and press the OK button.
- ④ Use the DOWN and UP buttons or turn any knob to select the effects.

## 5 Adding effects / parameters

DRIVE/MOD module		
CHORUS		
PRM1	RATE	0 – 100
PRM2	DEPTH	0 – 100
PRM3	MIX	0 – 100
PRM4	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note
VIBRATO		
PRM1	RATE	0 – 100
PRM2	DEPTH	0 – 100
PRM3	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note
TREMLOLO		
PRM1	TYPE	Sine, Square, Triangle, Sawtooth, Rev.Sawtooth, Random,

		Log, Rev.Log
PRM2	RATE	0 – 100
PRM3	DEPTH	0 – 100
PRM4	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note

## MODULATION module

### STEREO CHORUS

PRM1	RATE	0 – 100
PRM2	DEPTH	0 – 100
PRM3	MIX	0 – 100
PRM4	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note

### VIBRATO

PRM1	RATE	0 – 100
PRM2	DEPTH	0 – 100
PRM3	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note

### TREMOLO

PRM1	TYPE	Sine, Square, Triangle, Sawtooth, Rev.Sawtooth, Random, Log, Rev.Log
PRM2	RATE	0 – 100
PRM3	DEPTH	0 – 100
PRM4	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note

		1/16. (dotted 16th note
<b>AUTO PAN</b>		
PRM1	MOD TYPE	Sine, Square, Triangle, Sawtooth, Rev.Sawtooth, Random, Log, Rev.Log
PRM2	RATE	0 – 100
PRM3	DEPTH	0 – 100
PRM4	BPM SYNC*	Off, 1/1(whole note , 1/2(half note , 1/4(quarter note , 1/8(8th note , 1/16(16th note , 1/32 (32nd note 1/4(3 (8th note triplet , 1/2(3 (quarter note triplet , 1/4. (dotted quarter note , 1/8. (dotted 8th note 1/16. (dotted 16th note

<b>DELAY module</b>		
<b>PINGPONG DELAY*</b>		
PRM1	TIME	1 – 2000ms (1 – 1000ms for REVERSE DELAY
PRM2	BPM SYNC	Off 1/1 (whole note 1/2 (half note 1/4 (quarter note 1/8 (8th note 1/16 (16th note 1/32 (32nd note 1/4(3 (8th note triplet 1/2(3 (quarter note triplet 1/4. (dotted quarter note 1/8. (dotted 8th note 1/16. (dotted 16th note
PRM3	FEEDBACK	0 – 100
PRM4	MIX	0 – 100

\* Ver.3.0

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