



















Bank I-a

I-a Precision Adder  Has knob recorder Parameters 0: Z smooth or integers	I-b Four Quadrant Multiplier  Has knob recorder Parameters 0: Z smooth or integers	I-c Full-wave Rectifier 	I-d Minimum Maximum 
Z Offset	Z Scale	Z Mode 	Z Gate
X Input	X Input	X Input	X Input
Y Input	Y Input	Y Input	Y Input
A $X + Y + Z$	A $X * Y * Z$	A $\begin{matrix} \text{abs}(X + Y) \\ \text{abs}(X) \end{matrix}$	A $\min(X, Y)$
B $X - Y - Z$	B $-X * Y * Z$	B $\begin{matrix} \text{abs}(X - Y) \\ \text{abs}(Y) \end{matrix}$	B $\max(X, Y)$
2-a Linear/Exponential Converter 	2-b Quantizer 	2-c Comparator 	2-d Dual Waveshaper  Has knob recorder
Z Tune	Z Scale & Mode 	Z Hysteresis	Z Gain
X Exp In	X Input	X Input	X Input
Y Linear In	Y Transpose Trigger In	Y Input	Y Input
A Linear Out	A Quantized	A $X > Y$	A Folded X
B Exp Out	B Trigger	B $X < Y$	B Shaped Y









Bank I-a

3-a Sample and Hold  Press Z to trigger	3-b Slew Rate Limiter 	3-c Pitch & Envelope Tracker 	3-d Clockable Delay/Echo  Has tap tempo
Z Slew rate	Z Slew rate	Z Slew rate	Z Feedback
X Input	X Input } summed	X Audio In	X Audio In
Y Trigger	Y Input	Y Offset A	Y Clock
A Sampled X	A Linear slew	A V/Octave	A Dry+delay
B Noise	B Log slew	B Envelope	B Delay only
4-a LFO  0: Attenuation A 1: Attenuation B 2: Offset A 3: Offset B	4-b Clockable LFO  Has tap tempo Parameters 0: Attenuation A & B	4-c VCO with Linear FM  Parameters 0: Octave shift 1: Attenuation A 2: Attenuation B	4-d VCO with waveshaping  Parameters 0: Octave shift 1: Attenuation A 2: Attenuation B
Z Tune	Z Multiplier	Z Tune	Z Tune
X Hz/V In	X Clock	X V/Octave	X V/Octave
Y Waveshape	Y Waveshape	Y Linear FM	Y Waveshape
A Saw/Sin/Tri	A Saw/Sin/Tri	A Sine	A Saw/Tri/Saw
B Square	B Square	B Saw	B Square

Bank I-b

<p>I-a Voltage </p> <p>Controlled </p> <p>Delay Line </p> <p>Parameters 0: Y offset</p> <p>Z Feedback</p> <p>X Audio In</p> <p>Y Delay Time</p> <p>A Delay only</p> <p>B Dry+delay</p>	<p>I-b </p>	<p>I-c </p>	<p>I-d </p>
<p>2-a Resonator </p> <p>Push Z for 'strike'</p> <p>Z Gain</p> <p>X Audio In</p> <p>Y V/Octave</p> <p>A Audio Out</p> <p>B Envelope</p>	<p>2-b </p>	<p>2-c Phaser </p> <p>Parameters 0: Y offset 1: Number of stages</p> <p>Z Feedback</p> <p>X Audio In</p> <p>Y Sweep</p> <p>A Dry+phase</p> <p>B Phase only</p>	<p>2-d </p>

Bank I-b

<p>3-a</p> 	<p>3-b Tape Delay</p>  <p>Parameters 0: Tape length</p> <p>Z Feedback</p> <p>X Audio In</p> <p>Y Tape speed</p> <p>A Dry+delay</p> <p>B Delay only</p>	<p>3-c</p> 	<p>3-d State Variable Filter</p>  <p>Parameters 0: Filter resonance</p> <p>Z Filter Type</p> <p>X Audio In</p> <p>Y V/Octave</p> <p>A LP/BP/HP</p> <p>B HP/BP/LP</p>
<p>4-a LP/HP Filter</p> 	<p>4-b LP/BP Filter</p> 	<p>4-c BP/HP Filter</p> 	<p>4-d BP/Notch Filter</p> 
Z Resonance	Z Resonance	Z Resonance	Z Resonance
X Audio In	X Audio In	X Audio In	X Audio In
Y V/Octave	Y V/Octave	Y V/Octave	Y V/Octave
A Low pass	A Low pass	A Band pass	A Band pass
B High pass	B Band pass	B High pass	B Notch

Expert Sleepers disting mk3 Quick Reference Guide

For firmware v3.1

X, **Y** and **Z** are **Inputs**.

A and **B** are **Outputs**.

Changing Algorithm

Either:

- Push 'S' and hold in while turning, or
- Use the menu:
 - Press 'S' twice
 - Turn to select algorithm
 - Press to accept

Changing Bank

- Press 'S' (to enter the menu)
- Turn to select '2' (change bank)
- Press to accept
- Turn to select bank
- Press to accept

Parameters

Turn 'S' to modify the currently selected parameter.

Press 'Z' to cycle between parameters (if the current algorithm has more than one parameter).

Tap Tempo

If available – press 'Z'. The time between two presses defines the delay/LFO/etc. time.

Knob Recorder

If available – push 'Z' and hold in while turning. Release to begin playback. Turn 'Z' to stop playback and regain manual control.

Menus

Press 'Z' to cancel menu mode.