cheat codes

> docs [v2.0]

cheat codes

> **loops**   filters   euclid

levels   delays   arp

pans   timing   rnd

loops

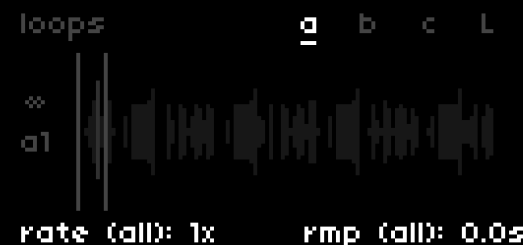## only the freshest ingredients

good to know:
- there are three banks (a, b, c) of 16 pads (a1-a16, etc)
- you can record Live audio or load pre-recorded Clips
- there are three Live segments and three Clip segments
- each pad in each bank can be set to any segment

what the [loops] menu controls:
- loop points + looping   - semitone shifting
- syncing BPM to loop points   - loading samples
- speed, direction, rate slewing - recording live input

general navigation:

K3: switch between global + local layers

global layer: controls all pads   local layer: controls displayed pad

loops   a   b   c   L   loops   s: 0s | e: 0.5s

- K1: alt encoder controls   - K1: zoom waveform
- K2: alt K3 action   - K2: alt encoder controls
- E1: navigate across   - E's: various functions

rate (all): 1x   rmp (all): 0.0s   E1: window   E2: start   E3: end

loops

LIVE: up to 32 seconds of live input recording

global layer controls:

use E1 to navigate to 'L'

loops   a   b   c   [L]

L1

feed: 25%   rnd prob: 0%

K2 hold + K3: toggle recording

loops   a   b   c   **L**

L1

[K3: toggle recording]

loops   a   b   c   **L**

L1

feed: 25%   rnd prob: 0%

K1 hold + E1: switch encoder params

loops   a   b   c   **L**

[E1: change control sets]

E2: feedback   E3: rnd rec

> E2: mode   E3: duration

loops   a   b   c   **L**

L1
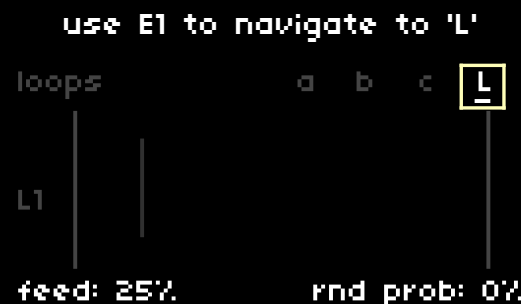
[mode: loop   total: 8s]

encoder parameters:
- feedback: presence of previous material
- random: random recording probability
- mode: loop or 1-shot
- total duration: 8, 16, or 32 seconds

local layer controls:

use encoders to adjust loop points

loops   s: 1.3s | e: 3.8s

L1

E2: start   E3: end

(K2 hold + K3: toggle recording)

K1 hold: zoom waveform

loops   s: 2.45s | e: 3.55s

L1

K2: erase

+ E2 / E3: fine-tune adjust
+ E1: switch buffer
+ K2: erase section

loops

CLIP: up to 30 seconds of sample import

load the same sample for an entire bank:

use E1 to select a bank

loops   [a]   b   c   L

a1

Live (all): 1   shft (all): 0.00 st

use E2 to set bank to a Clip segment

loops   a   b   c   L

a1

[Clip (all): 1]   shft (all): 0.00 st

hold K1 + press K3 to load sample

loops   a   b   c   L

E1: controls
> E2: buff sel   E3: s/t offset
E2: rate   E3: rate slew
[(K3: load sample)]
Clip (all): 1   shft (all): 0.00 st

alright/   ../
andrew/   ->   aalto2.wav   0:00:18
and zach/   aalto.wav   0:00:08
arcologies/   Anaphora gitar.wav 0:00:19
                 AT_LOOP_Space baby_... 0:00:33

loops   a   b   c   L

-> a1

Clip (all): 1   shft (all): 0.00 st

load samples independent of bank:

navigate to PARAMS

cheat codes params
collections >
loops + buffers >
patterns + arps >
manual control >
delays >

load sample into desired segment

clips
clip 1 sample   -
clip 2 sample   -
clip 3 sample   -
save live buffer 1 [K3]
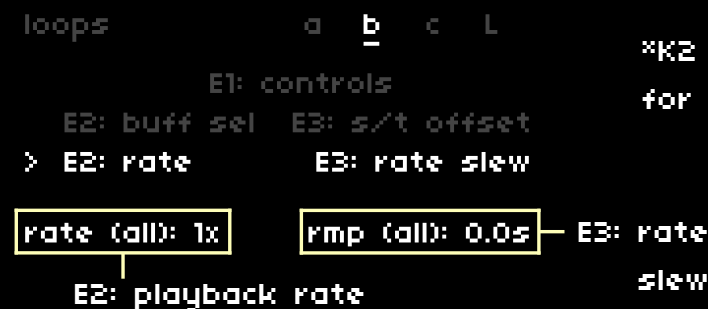save live buffer 2 [K3]

loops [bank + pad controls]

global layer controls:

E2 + E3 control bottom parameters
for the entire bank
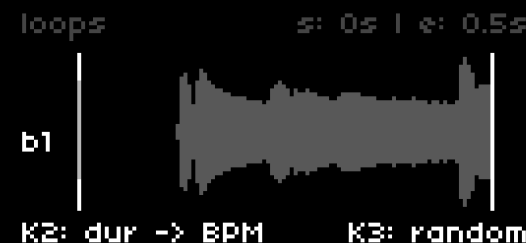
K1 hold + E1: switch encoder params

```
loops              a  b  c  L
```



```
b1
```

```
Clip (all): 2    shft (all): 0.00 st  — E3: semitone
```

E2: buffer + segment   shift

```
loops              a  b  c  L
            E1: controls
        E2: buff sel    E3: s/t offset
    >   E2: rate        E3: rate slew
```

```
rate (all): 1x     rmp (all): 0.0s  — E3: rate
```

E2: playback rate   slew

K2 hold + K3: toggle looping
for all pads in the bank

local layer controls:

all three encoders affect
specified pad

```
loops           s: 0s | e: 0.5s
```



```
b1
```

```
E1: window   E2: start   E3: end
```

K1 hold unlocks special controls:

```
loops           s: 0s | e: 0.5s
```



```
b1
```

```
K2: dur -> BPM        K3: random
```

K1 hold: zooms into waveform
+ E2: fine-tune start point
+ E3: fine-tune end point
+ E1: change pad
+ K2: set global BPM from pad's loop duration
+ K3: randomize loop location (retains duration)

K2 hold reveals encoder
params for specified pad

```
loops        s: 12.86s | e: 13.36s
        E1: controls / K3: loop pad
        E2: buff sel   E3: s/t offset
    >   E2: rate       E3: rate slew
```

```
rate: 1x              rmp: 0.0s
```

+ E1: switch between encoder parameters
+ K3: toggle looping on specified pad only
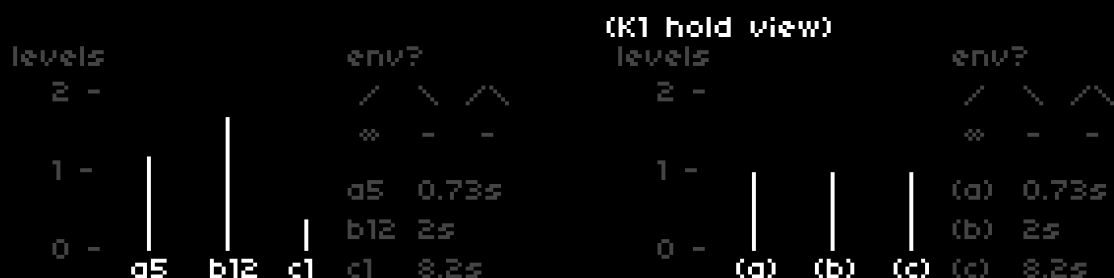+ K1 (when buffer is Clip): load sample into segment

cheat codes

loops   filters   euclid

> **levels**   delays   arp

pans   timing   rnd

levels

louder, softer, fade it in, fade it out, do it again

K3: switch between highlighted sections
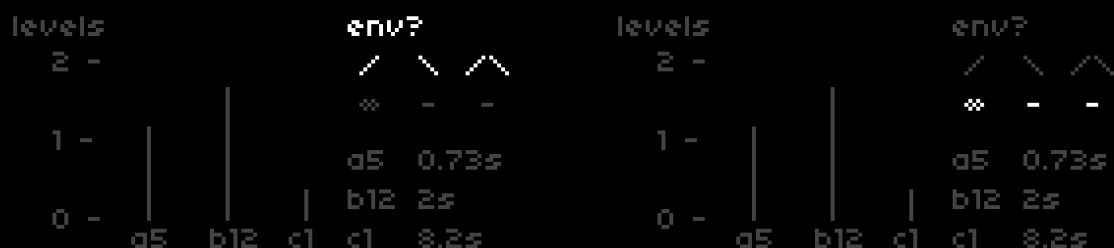encoders: 1=a, 2=b, 3=c (one per bank)

(K1 hold view)

overall level = pad level multiplied by the bank level
----
encoders: change displayed pad's level
K1 hold + encoders: change bank's level
  ⨯ useful for fading in a bank without
    changing pad levels

three envelope shapes: falling, rising, rise/fall
optional cycling mode available
----
encoders: adjust envelope for displayed pad
K1 hold + encoders: adjust envelope for
                    all pads in the bank

adjust duration of specified envelope
for rise/fall, specifies total duration (vs. single stage)
----
encoders: adjust envelope duration for displayed pad
K1 hold + encoders: adjust envelope duration for
                    all pads in the bank

cheat codes

loops	filters	euclid
levels	delays	arp
> pans	timing	rnd

pans

location, location, location

pans

L   C   R   encoders:

    a14   change displayed pad's
                                      b3   panning position
                          c9

(K1 hold view)

pans

L   C   R   K1 hold + encoders:

    (a)   change corresponding
                                    (b)   bank's panning position
                          (c)

note: bank-wide changes are applied additively,
      where "two to the right" is uniformly added
      to every pad's current position.

cheat codes

loops   > filters   euclid

levels   delays   arp

pans   timing   rnd

filters
sonic sculpting

K3: switch between parameters
encoders: 1=a, 2=b, 3=c (one per bank)
default controls change entire bank (vs. current pad)

filters			
(a)	(b)	(c)
.....II....	.....IIIII.	...III.....
1.49s	0.78s	0.50s
50.01%	92.01%	99.61%
cont	cont	jumpy

encoders: filter cutoff

IIIIII..... : LP

.....I..... : neutral

.....IIIIII : HP

filters			
(a)	(b)	(c)
.....II....	.....IIIII.	...III.....
1.49s	0.78s	0.50s
50.01%	92.01%	99.61%
cont	cont	jumpy

encoders: slew duration
(time it takes to go from
one cutoff value
to another)

filters			
(a)	(b)	(c)
.....II....	.....IIIII.	...III.....
1.49s	0.78s	0.50s
50.01%	92.01%	99.61%
cont	cont	jumpy

encoders: q
(controls peak resonance,
higher is more resonant)

filters			
(a)	(b)	(c)
.....II....	.....IIIII.	...III.....
1.49s	0.78s	0.50s
50.01%	92.01%	99.61%
cont	cont	jumpy

encoders: slew behavior
cont: slew to new cutoff
jump: snap to new cutoff

(K1 hold view)

filters			
a10	b6	c1
.....II....	.....IIIII.	...III.....
1.49s	0.78s	0.50s
50.01%	92.01%	99.61%
cont	cont	jumpy

K1 hold:
toggle controls between
entire bank and current pad

cheat codes

loops   filters   euclid

levels   > delays   arp

pans   timing   rnd

delays

where the sauce meets the cheese

E1: switch between L and R

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

delays

R

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

K3: switch between menu layers

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

E2: navigate selected menu layer

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

delays

L

ctl   **flt**   mix
12000.0 Hz   q: 1.0
LP: 1.0   HP: 0.0
BP: 0.0   dry: 0.0

delays

L

ctl   flt   **mix**
a1   in: 0.0   thru: false
b1   in: 0.0   thru: false
c1   in: 0.0   thru: false
main output level: 0.00

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

delays

L

ctl   flt   mix
clocked   **x1**
fade: 0.2   rate: 1
feedback: 50%

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   **rate: 1**
feedback: 50%

delays

L

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 1
feedback: 50%

E3: adjust selected parameter

delays

R

ctl   flt   mix
clocked   x1
fade: 0.2   **rate: 7**
feedback: 50%

delays

TIMEBASE

clocked mode: delay length is equal to x number of beats at current bpm

```
delays
        ctl        flt        mix
R       clocked    x1
        fade: 0.2    rate: 1
        feedback: 50%
```

```
delays                      delays                      delays                      delays
        ctl    flt    mix            ctl    flt    mix            ctl    flt    mix            ctl    flt    mix
R       clocked  x1         R       clocked  x16        R       clocked  /4         R       clocked  x3 3/4
        fade: 0.2  rate: 1          fade: 0.2  rate: 1          fade: 0.2  rate: 1          fade: 0.2  rate: 1
        feedback: 50%               feedback: 50%               feedback: 50%               feedback: 50%
```

delay length can range from 16 beats to 1/4 beat (with 98 steps between)

free mode: delay length is freely definable with 1/1000 resolution

```
delays
        ctl        flt        mix
L       free        1 sec
        fade: 0.2    rate: 1
        feedback: 50%
```

(K1 hold = fine)

```
delays                      delays                      delays    fine-tune enabled
        ctl    flt    mix            ctl    flt    mix            ctl    flt    mix
L       free    1 sec       L       free    30 sec      L       free    0.004 sec
        fade: 0.2  rate: 1          fade: 0.2  rate: 1          fade: 0.2  rate: 1
        feedback: 50%               feedback: 50%               feedback: 50%
```

delay length can range from 0 seconds to 30 seconds

```
delays    fine-tune enabled
        ctl    flt    mix
L       free    0.004 sec
        fade: 0.001  rate: 1
        feedback: 50%
```

fade time needs to be less than free time!

hold K1 for fine-tune adjustments

RATE

(K1 hold = fine)

```
delays                      delays                      delays    fine-tune enabled
        ctl    flt    mix            ctl    flt    mix            ctl    flt    mix
L       free    0.004 sec   L       free    0.004 sec   L       free    0.004 sec
        fade: 0.001  rate: 1       fade: 0.001  rate: 24      fade: 0.001  rate: 0.25
        feedback: 50%               feedback: 50%               feedback: 50%
```

playback rate can range from 1/4x to 24x with 1/100 resolution

with short length + fade, rate affects aliasing depth

FEEDBACK

(K1 hold = jump)

```
delays                      delays                      delays    quick-jump!!
        ctl    flt    mix            ctl    flt    mix            ctl    flt    mix
L       free    0.004 sec   L       free    0.004 sec   L       free    0.004 sec
        fade: 0.001  rate: 0.25    fade: 0.001  rate: 0.25    fade: 0.001  rate: 0.25
        feedback: 50%               feedback: 100%              feedback: 0%
```

feedback amount can range from 0% to 100%.

hold K1 on feedback to jump (x>0 jumps to 0, x=0 jumps to 100)

delays

	ctl	flt	mix
	7462.0 Hz	q: 1.0	
	LP: 1.0	HP: 0.0	
	BP: 0.0	dry: 0.0	

each delay line has a set of 3 linked filters with a single cutoff frequency control

delays

	ctl	flt	mix
	7462.0 Hz	q: 0.18	
	LP: 1.0	HP: 0.0	
	BP: 0.0	dry: 0.0	

the q value determines the shape of the filter peak (0 = oscillating, 8 = gentle)

the presence of each filter in the mix can be adjusted to taste (0 = no presence, 1 = full presence)

delays

	ctl	flt	mix
	7462.0 Hz	q: 0.18	
	LP: 0.48	HP: 0.0	
	BP: 0.0	dry: 0.0	

delays

	ctl	flt	mix
	7462.0 Hz	q: 0.18	
	LP: 0.48	HP: 0.85	
	BP: 0.0	dry: 0.0	

delays

	ctl	flt	mix
	7462.0 Hz	q: 0.18	
	LP: 0.48	HP: 0.85	
	BP: 0.65	dry: 0.0	

the dry signal can also be re-introduced

delays

	ctl	flt	mix
	7462.0 Hz	q: 0.18	
	LP: 0.48	HP: 0.85	
	BP: 0.65	dry: 0.27	

every pad can have its own delay input level

```
delays
    ctl        flt        mix
L   a1   in: 0.5 thru: false
    b1   in: 0.0 thru: false
    c1   in: 0.0 thru: false
    main output level: 0.00
```

hold K1 to set the input level for all pads in the bank

```
delays   map changes to bank
    ctl        flt        mix
L   a1   in: 0.5 thru: false
    b1   in: 0.0 thru: false
    c1   in: 0.0 thru: false
    main output level: 0.00
```

if thru = false...

a pad's presence in the delay line =
input value multiplied by the pad level

if thru = true...

a pad's presence in the delay line =
input value only

× so a triggered pad can be sent to the delay line
without being heard in the main mix

```
delays
    ctl        flt        mix
L   a1   in: 0.5 thru: false
    b1   in: 0.0 thru: false
    c1   in: 0.0 thru: false
    main output level: 0.00
```

(hold K1 to set thru for all pads in the bank)

```
delays
    ctl        flt        mix
L   a1   in: 0.5 thru: false
    b1   in: 1.0 thru: true
    c1   in: 0.2 thru: true
    main output level: 0.61
```

each delay line has its own main output level

to control a parameter across both delay lines
at the same time, link them together

select a parameter

delays

ctl   flt   mix
clocked   x1
fade: 0.2   **rate: 1**
feedback: 50%

L

hold K1 and press K3

delays

ctl   flt   mix
clocked   x1
fade: 0.2   **rate: 1**
feedback: 50%

L

linked

changes to that parameter on either delay will map to the other

delays

ctl   flt   mix
clocked   x1
fade: 0.2   rate: 3
feedback: 50%

L

linked

delays

ctl   flt   mix
clocked   x1
fade: 0.2   **rate: 3**
feedback: 50%

R

linked

cheat codes

loops   filters   euclid

levels   delays   arp

pans   > timing   rnd

timing

peaceful co-habitation of order and chaos

E1: switch between each bank pattern, then between each arc pattern

timing	bpm: 92	3.2

P1	P2	P3 / A1	A2	A3

rec mode   **loose**
shuffle pat   (no pat!)
P1 sets bpm?   no
...

timing	bpm: 92	**4.1**

P1	P2	P3 / A1	A2	**A3**

loop(w): none   filter: none
level: none   pan: none
all: play   stop   clear

E2: scroll through the selected pattern's parameters

timing	bpm: 92	4.3

P1	P2	P3 / A1	A2	A3

rand pat [K3]   keep rates
pat start   (no pat!)
... pat end   (no pat!)
...

timing	bpm: 92	**1.1**

P1	P2	P3 / A1	A2	A3

... **crow pulse   pads**

(... means there's more to see!)

E3: adjust the selected parameter

timing	bpm: 92	**2.1**

P1	P2	P3 / A1	A2	A3

rec mode   loose
shuffle pat   (no pat!)
P1 sets bpm?   no
...

timing	bpm: 92	1.3

P1	P2	P3 / A1	A2	A3

rec mode   loose
shuffle pat   (no pat!)
P1 sets bpm?   yes
...

there are two different pad pattern recording modes:

timing	bpm: 92	3.2
P1 P2 P3 / A1 A2 A3		
rec mode	loose	
shuffle pat	(no pat!)	
P1 sets bpm?	no	
...		

loose:
- completely un-clocked
- starts when a pad is pressed

timing	bpm: 92	3.2
P1 P2 P3 / A1 A2 A3		
rec mode	distro 2	
shuffle pat	(no pat!)	
P1 sets bpm?	no	
...		

distro:
- pattern length is synced to clock
- starts on "1" beat

loose patterns can set the session bpm

timing	bpm: 92	1.3
P1 P2 P3 / A1 A2 A3		
rec mode	loose	
shuffle pat	(no pat!)	
P1 sets bpm?	**yes**	
...		

hold K1 and turn E2 on distro to adjust pattern length in bars

timing	bpm: 92	2.3
P1 P2 P3 / A1 A2 A3		
*rec mode	distro 16	
shuffle pat	(no pat!)	
P1 sets bpm?	no	
...		

timing	bpm: 92	4.3
P1 P2 P3 / A1 A2 A3		
*rec mode	distro 3.75	
shuffle pat	(no pat!)	
P1 sets bpm?	no	
...		

press K3 on 'rec mode' to start recording:

timing	bpm: 92	4.2
P1 P2 P3 / A1 A2 A3		
rec		
...		

timing	bpm: 92	2.4
P1 P2 P3 / A1 A2 A3		
-2.0		
...		

<--- since distro recording starts on "1" beat, a countdown is displayed

timing

hold K1 to pause a playing pattern, or play a paused pattern

timing	bpm: 92	1.1
> = playing	>P1 P2 P3 / A1 A2 A3	
	current step	4
	shuffle pat	[K3]
	P1 sets bpm?	no
	...	

timing	bpm: 92	4.1
x = paused	xP1 P2 P3 / A1 A2 A3	
	rec mode	distro 8
	shuffle pat	[K3]
	P1 sets bpm?	no
	...	

- hold K1 and press K3 to clear a pattern
- press K2 on a playing pattern to overdub

adjust pattern start and end points

timing	bpm: 92	3.1
>P1 P2 P3 / A1 A2 A3		
rand pat [K3]	keep rates	
pat start	1	
pat end	14	
...		

timing	bpm: 92	3.2
>P1 P2 P3 / A1 A2 A3		
rand pat [K3]	keep rates	
pat start	1	
pat end	10	
...		

note: if in distro mode, pattern will still reset to 'pat start' after 'distro x' bars

press K3 on 'shuffle pat' to jumble a recorded pattern

timing	bpm: 92	3.3
>P1 P2 P3 / A1 A2 A3		
current step	4	
shuffle pat	[K3]	
P1 sets bpm?	yes	
...		

pattern quantization:
- navigate to PARAMS > grid/arc pattern params
- here, you can set quantization state for each pattern
- you can also set 'pat launch quant' which determines whether a distro pattern will re-launch on the next bar or the next beat

timing   [random patterns]

press K3 on 'rand pat' to create a random pattern (best in distro mode)

```
timing        bpm: 92        2.2

P1   P2   P3 / A1   A2   A3
_____

rand pat [K3]     keep rates
pat start         (no pat!)
pat end           (no pat!)
...
```

note: if in distro mode, random patterns
are guaranteed to be at least 'distro x'
bars in length

use E3 CCW to select a random pitching mode

```
timing        bpm: 92        2.1

P1   P2   P3 / A1   A2   A3
_____

rand pat [K3]     mid rates
pat start         (no pat!)
pat end           (no pat!)
...
```

random pitching options:
- 'keep rates' (default): retains each pad's current rate
- 'full range': 0.125x -> 4x (with reverse)
- 'hi rates': 2x + 4x (with reverse)
- 'mid rates': 0.5x -> 2x (with reverse)
- 'lo rates': 0.125x -> 0.5x (with reverse)

change random pattern style and note lengths in PARAMS > grid/arc pattern params > random patterns

```
         random patterns
_____
rand pat 1 style            rand
rand pat 2 style         h.snake
rand pat 3 style        vertical
rand pat 1 note length      1/16
rand pat 2 note length      rand
```

style:
- 'rand': pads are selected at random
- all other options are various snake movements
  across the 16 pads
note length:
- rand: the interval between pad movements will be
  randomly generated (1/16,1/8,1/4,1/2,1)
- all other options are uniformly clocked

timing

note: if no arc is connected, this section will not render

E2: switch between parameters

timing	bpm: 130	3.4
P1 P2 P3 / **A1** A2 A3		
loop(w): none	filter: none	
level: none	pan: none	
all: play	stop	clear

timing	bpm: 130	**4.1**
P1 P2 P3 / **A1** A2 A3		
loop(s): none	filter: none	
level: none	pan: none	
all: play	stop	clear

timing	bpm: 130	4.3
P1 P2 P3 / **A1** A2 A3		
loop(e): none	filter: none	
level: none	pan: none	
all: play	stop	clear

E3 on loop: switch between window, start and end

K3: toggle record mode (K1 hold + K3: clear pattern)

timing	bpm: 130	**4.1**
P1 P2 P3 / **A1** A2 A3		
loop(w): none	**filter: rec**	
level: none	pan: none	
all: play	stop	clear

timing	bpm: 130	4.3
P1 P2 P3 / **A1** A2 A3		
loop(w): none	**filter: active**	
level: none	pan: none	
all: play	stop	clear

timing	bpm: 130	1.3
P1 P2 P3 / **A1** A2 A3		
loop(w): none	**filter: idle**	
level: none	pan: none	
all: play	stop	clear

use the 'all' section to manage the state of all recordings at once:

timing	bpm: 130	1.4
P1 P2 P3 / **A1** A2 A3		
loop(w): none	filter: active	
level: active	pan: active	
all: play	stop	clear

timing	bpm: 130	2.2
P1 P2 P3 / **A1** A2 A3		
loop(w): none	filter: idle	
level: idle	pan: idle	
all: play	**stop**	clear

timing	bpm: 130	**1.1**
P1 P2 P3 / **A1** A2 A3		
loop(w): none	filter: none	
level: none	pan: none	
all: play	stop	**clear**

cheat codes

loops   filters   > euclid

levels   delays   arp

pans   timing   rnd

euclid
quick + easy rhythm generation

E1: navigate vertically

E2 = number of pulses
E3 = time interval

euclid (k , n)			r	+/-
0	8	....	0	0
0	8	....	0	0
0	8	....	0	0

default is every
pulse will re-trigger
current pad

euclid (k , n)			r	+/-
0	8	....	0	0
4	11	|.|.|.|.|.	0	0
0	8	....	0	0

hold K1 to adjust
default values

euclid (k , n)		b mode: single		
		b rate: 1/8	r	+/-
0	8	....	0	0
4	11	|.|.|.|.|.	0	0
0	8	....	0	0

euclid (k , n)		b mode: span		
		b rate: 1/16	r	+/-
0	8	....	0	0
4	11	|.|.|.|.|.	0	0
0	8	....	0	0

E2 = mode
- 'single' re-triggers current
- 'span' travels across pads
E3 = rate
- sets speed (1/16 to 1 bar)

K3: jump columns

euclid (k , n)			r	+/-
0	8	....	0	0
4	11	.|.|.|.|.|	4	-2
0	8	....	0	0

E2 = rotate pattern
E3 = offset pad ID

hold K1 to add
auto advancement
E2 = auto-rotate
E3 = auto-offset

euclid (k , n)		b auto rot: 2		
		b auto off: -3	r	+/-
0	8	....	0	0
4	11	.|.|.|.|	10	-7
0	8	....	0	0

K1 hold + K2: reset all lanes
K1 hold + K3: reset selected

cheat codes

loops   filters   euclid

levels   delays   > arp

pans   timing   rnd

arp
in-the-moment sequencing with grid + MIDI

E1: change banks / E2: navigate vertically / E3: adjust selected parameter / K3: hold/release current arp

arp	a	b	c
	1/16		
	fwd		
	s: 1		
...	e: 1		
	retrig: y		

arp	a	b	c
	1/16		
	fwd		
10	s: 1		
	e: 4		
	retrig: y		

arp	a	b	c
	1/16		
	fwd		
12	s: 1		
	e: 4		
hold	retrig: y		

(MIDI: when a note is received on a different channel, view will automatically switch to the corresponding bank)

clock division: rate of arpeggiation   direction: fwd/bkwd/pend/rnd   s + e: start + end points

arp	a	b	c
	1/4t		
	fwd		
5	s: 1		
	e: 4		
hold	retrig: y		

arp	a	b	c
	1/4t		
	pend		
13	s: 1		
	e: 4		
hold	retrig: y		

arp	a	b	c
	1/4t		
	pend		
5	s: 2		
	e: 7		
hold	retrig: y		

(K1 hold: set rate for current pad)

see PARAMS > patterns + arps > arps (grid only):

- we can adjust the 'hold style' of each arp

- 'last pressed' is default behavior

- 'additive' adds each pressed pad to the arp,
  similar to a sequencer

retrig: when an arp is 'additive', this
parameter determines whether sequential
repeated grid entries re-trigger or hold the step

arp	a	b	c
	1/4t		
	pend		
13	s: 2		
	e: 7		
hold	retrig: y		

cheat codes

loops   filters   euclid

levels   delays   arp

pans   timing   > rnd

rnd

the melt stage: random value generators for creative chaos

E1: change banks

K3: switch between generators and parameters

```
rnd                    a  b  c          rnd                    a  b  c
E2: sel / K3: edit / K1+K3: run         E2: nav / E3: mod / K3: <-
1      param: pan                       1      param: pan
       mode: non-destructive                   mode: non-destructive
       clock: 1/1                              clock: 1/1
       min: L 100  max: R 100                  min: L 100  max: R 100
```

E2: select generator or navigate parameters

```
rnd                    a  b  c          rnd                    a  b  c
E2: sel / K3: edit / K1+K3: run         E2: nav / E3: mod / K3: <-
7      param: filter tilt               7      param: filter tilt
       mode: non-destructive                   mode: non-destructive
       clock: 1/1                              clock: 1/1
       min: -1.00  max: 1.00                   min: -1.00  max: 1.00
```

E3: modify selected parameter

mode: destructive overwrites pad values,
      non-destructive adjusts until pad
      is re-triggered

clock: re-spawn after x beats
       (whole or fraction)

min/max: lower and upper bounds

K1 hold + K3: start/stop generator

```
rnd                    a  b  c          rnd                    a  b  c          rnd                    a  b  c
E2: nav / E3: mod / K3: <-              E2: nav / E3: mod / K3: <-              K1+K3: kill / K3: edit / E2: sel
7      param: filter tilt               7      param: filter tilt               7      param: filter tilt
       mode: non-destructive                   mode: non-destructive                   mode: non-destructive
       clock: 6/1                              clock: 6/1                              clock: 6/1
       min: -1.00  max: 1.00                   min: 0.43  max: 0.72             active min: 0.43  max: 0.72
```

current library: pan, rate, rate slew, delay send, loop, semitone offset, filter tilt

nb. destructive filter tilt can cause zippering if changing pads rapidly (best as non-destructive)

cheat codes

> collections

collections

save, load, overwrite, delete

to manage your cheat codes sessions, use PARAMS > collections

PARAMETERS / collections

saved audio at audio >cc2_live-audio

GRID >
    cheat codes params

collections >
loops + buffers >
patterns + arps >
manual control >

load/save

load collection
collect Live buffers?   no
save new collection

danger zone!

overwrite loaded collection
delete collection

< = > ? @ A B C D E F G H I J K

DEL   OK

enter a unique name using encoders

saving collection

3

K3 to cancel

deleting collection

3

K3 to cancel

00.cc2
201029A.cc2
201029B.cc2
201029C.cc2

files located at dust > data > cheat_codes_2

you have 3 seconds to
back out of destructive actions

nb. since cheat codes generates so much data, the standard PSETs system will not save / restore effectively.
    please *only* use collections.

cheat codes

> grid

basic bank legend:

pads
16 unique slices
of audio content

zilchmo
multi-finger
performance
gestures

L / C
assign Live or Clip
buffer to selected
pad
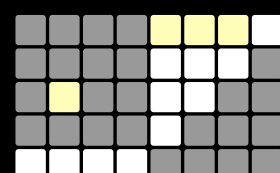
1 / 2 / 3
switch between
segments of
specified buffer

l (bright) / 1 (dim)
set selected pad
to play as a loop
or 1-shot
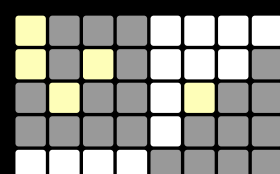
arp
arpeggiate
between held
pads
(while arpeggiating, press
arp again to hold/pause)

M legend:

ALT
hold to unlock × functions, apply pad mods to bank

rec L1 / L2 / L3
enables / disables recording into Live segments

arc P1 / P2 / P3
enables / disables recording arc gestures

->
changes grid pages

nb. see PARAMS > GRID to change brightness (default: 16-step varibright)

Grid labels (left column banks): A, B, C, M

Pad labels repeated in banks A/B/C:
1 2 3 ×f
L C ×r P
l/1 arp
×1x
arc arc arc alt

Bottom row M: ALT, rec L1, rec L2, rec L3, arc P1, arc P2, arc P3, ->

grid
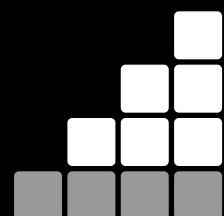
zilchmo row 4

loop point controls:

- set pad's start point to min
- auto-chop start/end point
- 1/16th length pads (bpm-synced)
- set pad's end point to max
- random start point
- random end point
- random window (keeps distance)
- double loop length
- halve loop length

rate controls:

- double current rate (4x max)
- halve current rate (0.125x min)
- reverse rate
- raise rate by a fifth (1.5x)
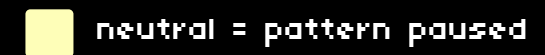- add 0.1s rate slew time
- remove all rate slew

grid

zilchmo row 3

zilchmo row 2

zilchmo row 1

panning controls:

hard left

center

hard right

nudge left

nudge right

reverse pan

random pan

level controls:

nudge lower

nudge higher

mute / pause

pattern controls:

no pattern

blinking = pattern rec

brighter = pattern playing

brightest = pattern overdubbing

neutral = pattern paused
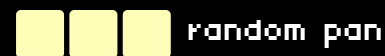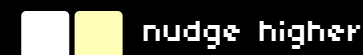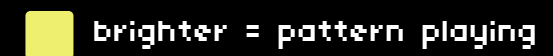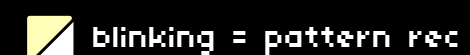
grid

ALT and alt function very similarly:
- they each unlock special functions
- they each apply pad changes to the entire bank,
  eg. hold ALT / alt and press C to assign all pads in
  that bank to use the Clip buffer, then press 3 to assign
  all pads in that bank to the third Clip

ALT / alt + *f enables pad focus mode:
- selecting a pad will not trigger sound
- you can modify the pad's parameters while
  another pad plays

ALT / alt + *r creates a random pad pattern:
- patterns are generated based on [timing] page settings

ALT / alt + *1x returns all pads to 1x rate

ALT / alt + arp clears a held arp pattern

ALT + P clears a stored pad pattern
alt + P toggles pad pattern overdub (when playing)

ALT / alt + rec L1 / L2 / L3 erases audio between
          the specified Live segment's loop points

ALT / alt + arc P1 / P2 / P3 erases a stored arc pattern

ALT + -> cycles to the previous page

note:
ALT + alt toggles a special alt-lock
mode, where zilchmo functions are
applied to all pads in the bank.

grid

P1	P2	P3	P4	P5	P6	P7	P8

—— Pattern: press + hold to store current pattern/arp

C1	C2	C3	C4	C5	C6	C7	C8

—— Clock: set speed of step counter

A

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

— sequencer: press + hold a step, press a Pattern to assign it to held step

d	d	d	d	d	d	d	d

—— duration: press + hold a sequencer step, press a duration to assign it to held step

B

C

toggles: press to turn sequencer off / on

loop mod: press + hold, press two sequencer steps to establish a loop

M

ALT	t1	t2	t3			l	->

—— ALT + Pattern: clears Pattern
　　　+ sequencer clears step
　　　+ toggle resets Pattern to step 1

grid

Left **Right**

length
base length multiplied by:
16, 8, 4, 2, x1, 0.5, 0.25, 0.125

rate +/-
base rate multiplied by:
16, 8, 4, 2, x1, 0.5, 0.25

rev
reverse at current rate

bmp
see PARAMS > delays > rate bump

save slots
- press + hold any
slot to store current
delay config
- press stored slot
to recall

feedback + level
top to bottom:
100%, 75%, 50%, 25%, 0%

send level (per pad)
top to bottom:
100%, 75%, 50%, 25%, 0%

pads, banks, zilchmo 4, arp + loop
after your pads are set up,
you can live on this page forever

ALT + send level: set level for entire bank
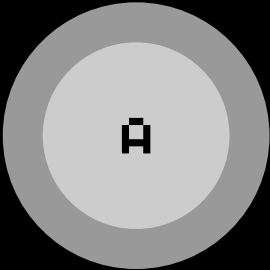**+ feedback jump:** clear delay buffer

jump buttons:
- performance key to quickly invert
a parameter
- if parameter == 0%, jumps to 100%
- if parameter > 0%, jumps to 0%

cheat codes

> arc
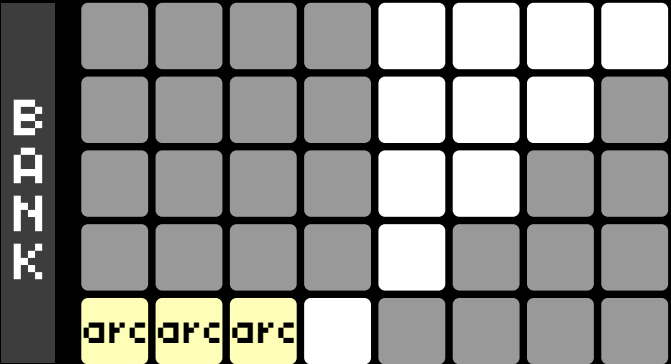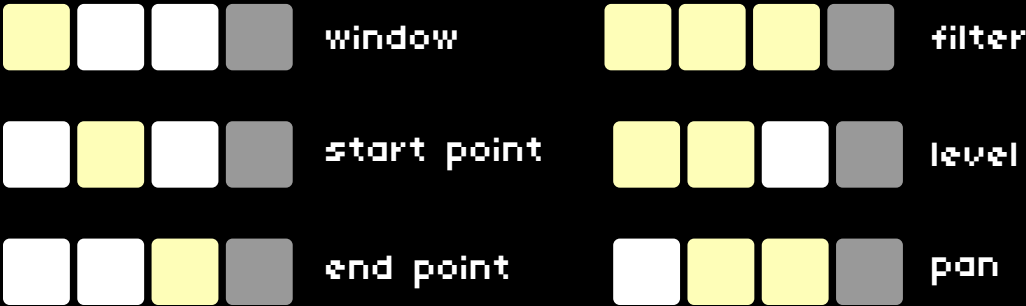
arc

BANK

multi-finger gestures
on arc pads focus bank
encoder on one parameter

window

start point

end point

filter

level

pan

filter
end
level
start
pan
window
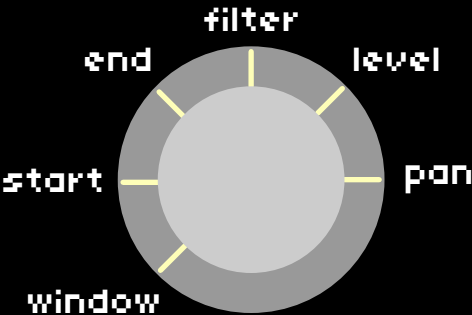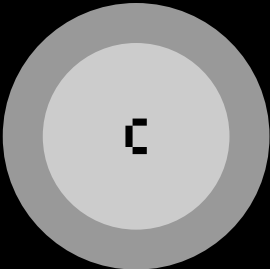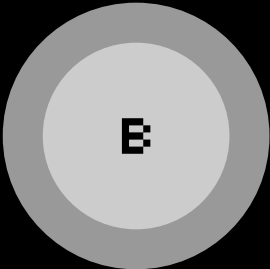
fourth encoder focuses
all encoders on one parameter

cheat codes

> midi + OP-z

midi + OP-2

all pads can be called via MIDI notes
from an attached keyboard, sequencer, or OP-2

navigate to PARAMS

delays >
OSC setup >
MIDI note/OP-2 setup >
MIDI encoder setup >

enable MIDI control

PARAMETERS / MIDI note/OP-2

enable MIDI control?   yes
MIDI control device   port 1
enable MIDI echo?   no
_____channel_____

specify port

(see PARAMS > DEVICES > MIDI)

enable MIDI control?   yes
MIDI control device   port 3
enable MIDI echo?   no
_____channel_____
bank (a) pad channel: 1

a successful connection:

cheat codes   [(AKM320)]

> **loops**   filters   euclid
   levels   delays   arp
   pans   timing   rnd

an unsuccessful connection:

cheat codes   [(no midi device!)]

> **loops**   filters   euclid
   levels   delays   arp
   pans   timing   rnd

defaults:
- bank (a): channel 1
- bank (b): channel 2
- bank (c): channel 3
- pads start at note 53 (chromatic)
   eg. F3 = pad 1, D4 = pad 11
- edit in PARARMS > MIDI note/OP-2 setup

if using an OP-2, you can control + display pad values via
the OP-2's on-board encoders:
- PARAMS > MIDI note/OP-2 setup > enable MIDI echo?: yes
- enc 1: start point
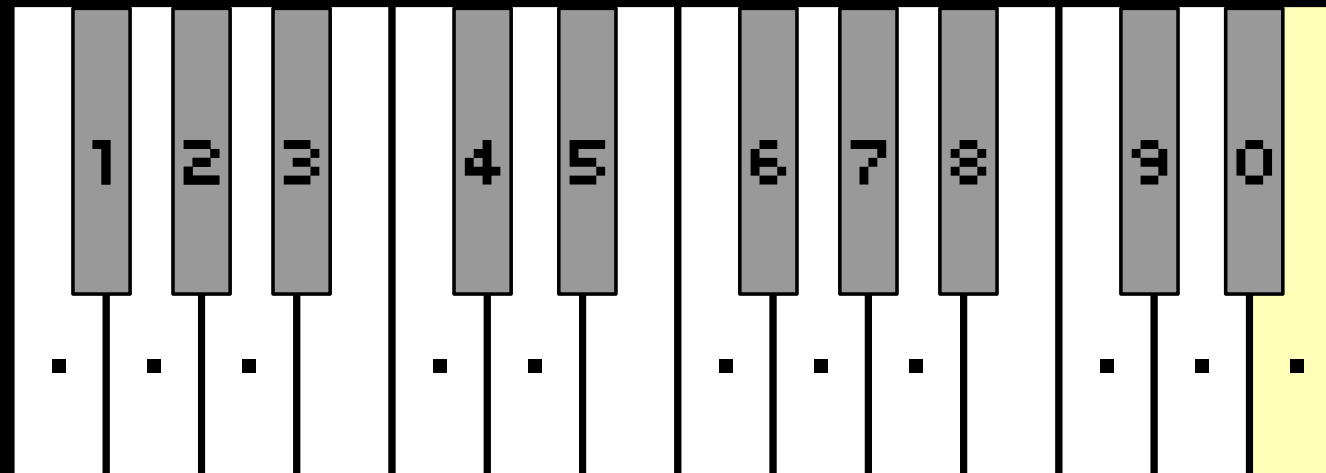- enc 2: end point
- enc 3: filter cutoff
- enc 4: level
nb. this will affect synth parameters on the OP-2

special mod key + MIDI note combos perform zilchmos, globally and locally

(numbers + dots reflect OP-Z layout)

[keyboard diagram with numbers 1 2 3 4 5 6 7 8 9 0 and dots below]

— mod key

+ number: perform zilchmo on bank

+ dot to left of a number:
   perform zilchmo on pad

1: halve playback rate
2: reverse playback rate
3: double playback rate

4: toggle pad looping on/off
5: toggle recording on/off (or trigger recording if in 1-shot mode)

6: random pad start point
7: random pad window (distance between start and end points remains constant)
8: random pad end point

9: auto-chop to 1/16th total buffer length
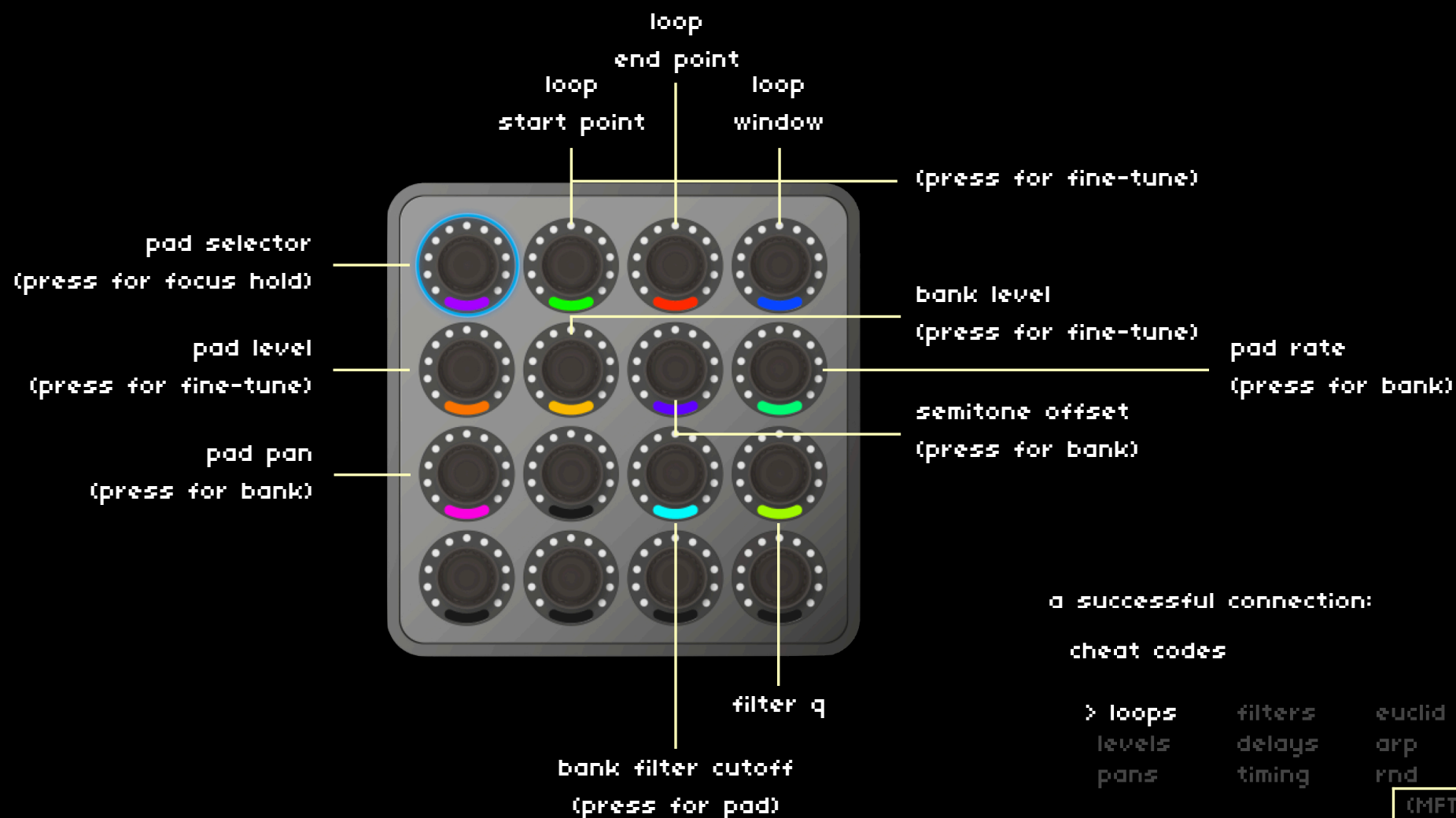0: clear the live audio between the recording buffer's start/end points

cheat codes

> Midi Fighter Twister

midi fighter twister

a special template, just for MFT

loop
end point

loop
start point

loop
window

(press for fine-tune)

pad selector
(press for focus hold)

bank level
(press for fine-tune)

pad rate
(press for bank)

pad level
(press for fine-tune)

semitone offset
(press for bank)

pad pan
(press for bank)

filter q

bank filter cutoff
(press for pad)

a successful connection:

cheat codes

> loops   filters   euclid
  levels   delays   arp
  pans   timing   rnd

[MFT]

nb. if you aren't seeing MFT or
need to reset it, head to
PARAMS > MIDI encoder setup >
refresh for MFT (K3)

left side-buttons 1,2,3 correspond to banks a,b,c
purple: a, pink: b, blue: c

cheat codes

> osc

all pads can be called via OSC commands, in addition to meta controls:

control	command	arguments
select a pad in a bank	/pad_sel_X Y	X: bank, Y: pad
set rate of current pad	/pad_rate_X Y	X: bank, Y: rate
reverse current pad	/pad_rev_X	X: bank
set rate for entire bank	/bank_rate_X Y	X: bank, Y: rate
reverse entire bank	/bank_rev_X	X: bank
random rates for entire bank	/bank_rand_rate_X	X: bank
auto-chop bank (even slices)	/chop_X	X: bank
set length of all loops = 1/16	/sixteenths_X	X: bank
randomize all loop points	/rand_loop_points_X	X: bank
random parameters + pattern	/randomize_this_bank_X	X: bank

to connect norns to an OSC source,
enter the norns IP in your OSC client

a successful connection should
auto-fill PARAMS > OSC setup:

STATUS: activated
NETWORK: PSH 1
IP: 192.168.1.100
SIGNAL: -50dBm

PARAMETERS / OSC setup

source OSC IP   192.168.1.117
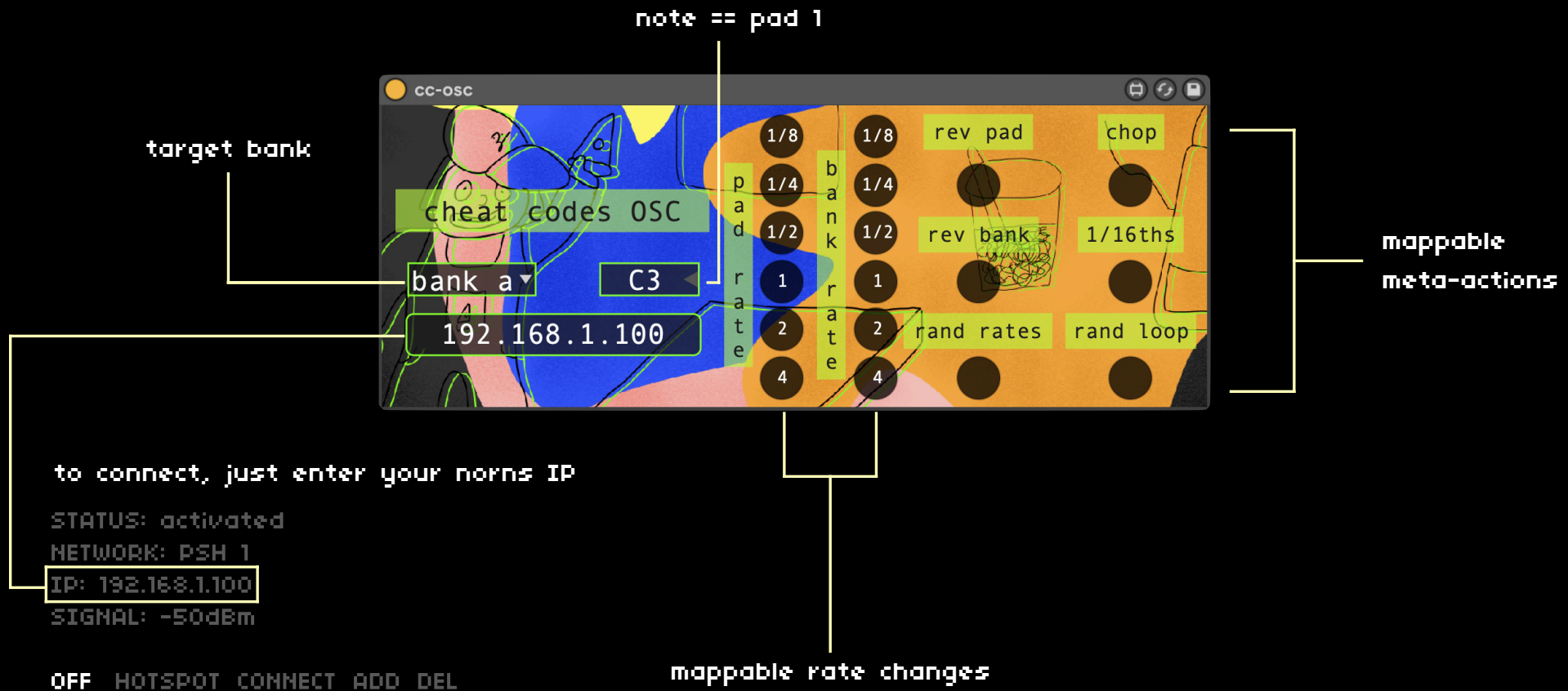OSC port   59171
refresh OSC [K3]

OFF HOTSPOT CONNECT ADD DEL

cheat codes

> m4l

max for live

cheat codes can be wirelessly controlled from Ableton Live
via a computer on the same network:

note == pad 1

target bank

mappable
meta-actions

cheat codes OSC

bank a ▾   C3 ◄

192.168.1.100

			rev pad	chop
1/8	1/8			
1/4	1/4			
1/2	1/2	rev bank	1/16ths
1	1		
2	2	rand rates	rand loop
4	4		

pad rate   bank rate

to connect, just enter your norns IP

STATUS: activated
NETWORK: PSH 1
IP: 192.168.1.100
SIGNAL: -50dBm

OFF HOTSPOT CONNECT ADD DEL

mappable rate changes

use multiples to control each bank from different MIDI tracks in Live!
very fun to use while clock source is set to Link, for total synced control!

cheat codes

> more: lllllll.co/cheat-codes-2