sinfonion

_travelers guide
_for piloting your starship

5 sections | **8** pitch outs | **98** voicings

`[ inv ]` press `[ inv ]` hold › then noon = 12 o'clock cw / ccw = clockwise / counter

harmonic cv processor · three quantizers, chords, arpeggiator and a chord progression sequencer · one key for all

acl sinfonion · manual fw 1.0

pink = hold

01 five sections

sf_01 · one key for all

channels 1–3	quantizers: IN › nearest allowed note › OUT
chords	four voices on OUT 1–4
arpeggio	one voice, a new note on every CLK

03 the knobs

sf_03

`[ root ]` `[ degree ]`	the key · the chord / scale in the mode
`[ trans ]`	±12 semitones on every output
`[ slew ]` `[ preset ]`	glide time (ch 1 + chords buttons) · 16 presets, or the song with SEQ

02 note buttons

sf_02 · fig.01

`[ root ]` `[ 3rd ]` `[ 5th ]` `[ 7th ]`	scale notes 1 · 3 · 5 · 7
`[ 9th ]` `[ 11th ]` `[ 13th ]`	scale notes 2 · 4 · 6
`[ fill ]`	the notes outside the scale · ch 2 has FILL 1–5 · all lit = chromatic

07 modes

sf_07 · `[ mode ]`

chords	lyd · maj · 7 · sus · alt · hm5 · dor · min · hm · phr · dim · aug
chords2	7#11 · 7♭13 · sus4♭9 · 7#9 · -△7 · △7#5#11 · -7♭5
slashch.	a triad over a bass note · the bass stays lowest
cadences	major · minor · mel. / har. minor · har. / dbl. har. major: DEGREE walks the key

05 chords

sf_05 · out 1–4

voicing	first four lit buttons › OUT 1–4 · fewer = doubled
`[ pitch ]` `[ spread ]`	lowest note · how far apart the four sit
`[ inv ]`	off = nearest the input · else steps the inversions
`[ inv ]` + note	ROOT / 5TH / 9TH / 13TH = 3rd / 2nd / 1st / root position

08 sequencer

sf_08 · fig.02

`[ seq ]`	on: PRESET picks the song · `[ ▶/❚❚ ]` play / pause
a step	a chord, its beats, all 52 buttons + octaves
`[ add ]` `[ del ]`	copy · delete · `[ ← ]` `[ → ]` move · `[ − ]` `[ + ]` beats
`[ clk ]`	a beat per trigger, ÷1–64 per part
2× tap `[ ▶/❚❚ ]`	**freeze**: set up the next chord silently

10 oct page

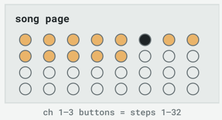
sf_10 · `[ oct ]`

octave	ROOT up · 5TH down, ±3, in every section
bypass	ch 1–3 13TH · dim = through + transpose · off = true
in follows root	FILL · FILL 1 · EQ-DIST · INV · PATTERN
1/2/3/5 V oct	SLEW · FILL 5 · 11TH · chords SLEW · BEGIN
glide detect	ch 1 B ROOT · ch 2 FILL 2 · ch 3 3RD
`[ gate 2 ]`	**matrix page**: top 4×4 mixes INs into ch 1–3 + arp, next 4×4 routes their OUTs · `[ gate 1 ]` back

__fig.02 : a song

`[ seq ]` `[ song ]`





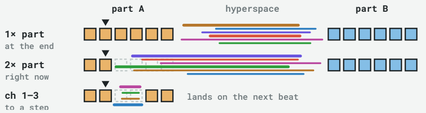
display ○●○○ beats □□■□□□ steps · filled = now

each step remembers its chord, length, all 52 buttons and the octave switches · edits save at once

09 song page

sf_09 · `[ song ]` · jump to hyperspace

ch 1–3	the 32 steps · press = jump, on the beat
chords	ROOT 3RD 5TH 7TH = parts A–D · 1× next · 2× now
arp sync	**live mode**: buttons stop saving to steps



11 cv 1–4 · pots

sf_11 · menu

global	transpose · note shuffle · detune · harmonic shift (5 V = root only) · preset · slew · voltmeter
sections	pre-transpose · pitch bend · spread · voicing · arp clock / random
sequencer	song · part (1 V each) · song + part · step
`[ pot 1 ]` `[ pot 2 ]`	any cv function · on a cv's function = its attenuator

12 in · out 1/2

sf_12 · menu

`[ in 1/2 ]`	slew · quantize now · chords shuffle · arp reset · song / part reset · step / part ± · sync slave
`[ out 1/2 ]`	autogates ch 1–3 · arp beat · seq clock / beat / step / reset · tuning · ch 2 key gate · sync master

13 tune · intonation

sf_13

`[ tune ]`	every pitch out plays a C · `[ ← ]` `[ → ]` −2 to +8 V, about 1 mV true
intonation	equal · just, retuned to each root · quarter-comma meantone

14 sync · firmware

sf_14

link	master OUT 1 "sync master" › slave IN 1 "sync slave" · any number
slaves	follow key, scale, trans + clock · own knobs off · "Sync: dead" if it drops
update	sd dongle, aclsinf1.fw · blue ×3 = done
outs	8 pitch, −2 to +8 V, 16-bit · 4 gates

__fig.01 : scale = chord

why 9TH means the 2nd

C major as a seven-note chord: stack every second note

C	D	E	F	G	A	B	C	D	E	F	G	A
ROOT		3RD		5TH		7TH		9TH		11TH		13TH

so 9TH = 2nd note · 11TH = 4th · 13TH = 6th · each button means a scale step, not a fixed pitch

04 quantizers

sf_04 · ch 1–3

`[ trig ]`	patched = sample & hold on each rise
ch 1 a / b	B on odd beats, clocks or the A/B jack, e.g. root on 1 + 3
ch 2	FILL 1–5 = all 12 notes · single note mode = a keyboard
`[ eq-dist ]`	ch 3: each lit note gets an equal share of the input

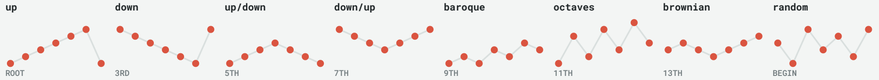
06 arpeggiator

sf_06 · fig.04

`[ clk ]`	a note per trigger · fed from the seq CLK
`[ pitch ]` `[ range ]`	lowest note · span, up to 5 octaves
`[ pattern ]`	8 patterns (fig.04)
`[ begin ]`	restart from that note on each chord change
arp clock	÷4 to ×4, 3/2 = triplets (menu)

__fig.04 : eight patterns

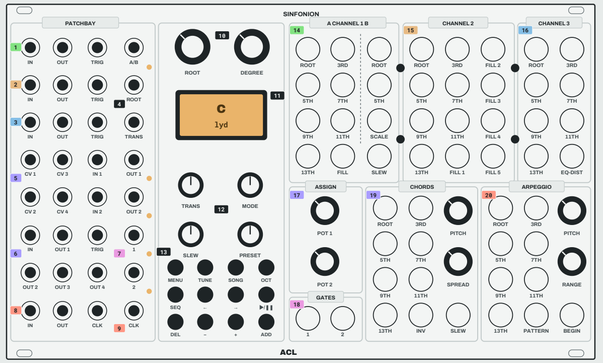
`[ pattern ]`



hold PATTERN + the button under a pattern to jump to it · octaves may pass RANGE · random never repeats a note

__fig.03 : front panel

20 areas · tags in section colours



1	**ch 1 jacks** · in · out · trig · a/b	11	**display** · chord · scale · beats
2	**ch 2 jacks** · in · out · trig	12	**trans** · **mode** · slew · preset
3	**ch 3 jacks** · in · out · trig	13	**transport** · menu · tune · song · oct · seq …
4	**root** · **trans** · key + transpose cv	14	**channel 1** · a + b sides
5	**assign** · cv 1–4 · in · out 1/2	15	**channel 2** · all 12 notes
6	**chords jacks** · in · trig · out 1–4	16	**channel 3** · eq-dist
7	**gate outs** · gates 1 + 2	17	**pot 1** · **2** · assignable
8	**arp jacks** · in · out · clk	18	**gates** · gate 1 + 2 on / off
9	**seq clk** · beats · normalled to arp	19	**chords** · voicing · inv · slew
10	**root** · **degree** · the key + chord	20	**arpeggio** · pattern · begin

_where things hide

almost nothing · sf_15

hold shortcuts

- **pattern + note** pick a pattern
- **begin + note** pick the start note
- **inv + note** pick an inversion
- **2× ▶/❚❚** freeze

guarded on purpose

- **tune + ← + ch 1 3rd** calibration · MENU leaves
- **ch 3 3rd 7th 11th eq-dist + arp begin** factory reset, no undo
- **menu › reset to defaults** + twice · keeps songs

button lights

note buttons	● sounding ● selected ○ off
chords	● past the first four
oct page	●● root / 5th = up ●● centre ●● down
song page	● a step ● now blink part queued