

DUB-1 PINGS

ARP: four loops of FM blips sliding against each other, as of 1.4.0 (build 671d9be). FM-1 firmware.



Pings 1/3: the four loops' lane, a row each; KNOB 3 and 4 empty.



Pings voice 2/3: their own ripples, in blue.



Pings FM 3/3 on Blip: 2-op, so Upper grey.

THE LOOPS, OVER EIGHT BARS



Bars 1-8; a tick: a loop starts again. All four meet again only after 147,407 corcheas: ten hours at 122.

1 • THE LOOPS

Four loops, 13, 17, 23 and 29 corcheas (8ths) long, each with a few notes of the chord. They slide against each other and line up again only after hours.

NOTES	Mostly the chord's (now and then an octave up); one in four a passing note, the scale's 2nd, 4th or 6th above the chord's degree.
EACH LOOP	Its own register, its own place in the stereo field, its own shade of tone and length.
A PASS	At each loop's end: notes added or taken to Density; with Vary, a note moved or changed, or the next pass sat out.
SENDS	Mostly into the echo; the dry against it each piece's own.

2 • THE PINGS PAGE ARP • its part

DENSITY KNOB 1	How many notes each loop holds; a few more as the sweep opens, fewer in the dark. Heard as each loop comes round. 0 none - 100 five a loop
VARY KNOB 2	The loops' changes, more or less than Form's Vary; centred, far left Hold (sheet 4's ring). Hold · 0 as Form's · +50
KNOB 3 · 4	Empty. The sends are the pings' strip (6); Cloud is on the Echo page (sheet 9).

3 • THE VOICES ALGORITHM, a pings page

Every ping voice is FM. Round, a click a voice; each piece keeps its own.

BLIP	The ping: its modulator's ratio set by the piece's Ping tone. 2-op.
MARIMBA	A wooden bar's fourth partial (4:1). 2-op.
GLASS	A long, bright ring (3.5:1), two pairs: algorithm 5.
WOOD	A knock (1.41:1), short. 2-op.
DROP	The pitch falling from an octave up. 2-op.

4 • THE PINGS VOICE PAGE ARP again

OCTAVE KNOB 1	The pings two octaves down to two up; heard at once. -2 · 0 · +2
TOPE KNOB 2	The ping, round to metallic: it moves the piece's Ping tone. -50 · 0 the piece's · +50
LENGTH KNOB 3	How long each ping rings, around the voice's. -50 · 0 · +50
BEND KNOB 4	The pitch falling at the strike: 0 the voice's own, more from there. 0 - 100

5 • THE PINGS FM PAGE ARP a third time

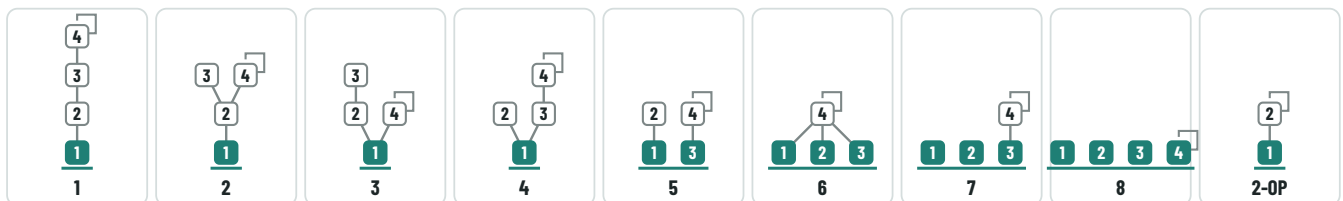
ALGO KNOB 1	Which operators modulate which (7). Voice: the voice's own (Glass 5, the others 2-op). Voice · 1 - 8 · 2-op
RATIO KNOB 2	The modulator's: harmonic to clangy (about ±0.8 octave of it). -50 · 0 the voice's · +50
FEEDBACK KNOB 3	Op 4 on itself (2-op: op 2), from the voice's own: pure to gritty. 0 - 100
UPPER KNOB 4	Operators 3 and 4's pitch (the other FM pages' Ratio); grey on 2-op. -50 half · 0 · +50 twice

6 • LEVEL, STRIP, ARP HELD

OCT- / OCT+	On a pings page: their level, 5 a press; both together, muted or back.
THE STRIP	SEL, white 2 (G3) held: Level, Echo, Plate, Filter. Black 2 (G#3): a tap solo, held a throw (sheet 2).
ARP HELD	0.5 s, a nudge : Tone, Ratio, Length, Bend (Upper, Feedback too); now and then a note of one loop. 1.5 s, a shake : another voice, every value a big step.

7 • THE ALGORITHMS Algo, on every FM page

The 4-operator synths' eight, and a ninth of two operators. Teal, on the line: the carriers, heard; above, each modulator over the one it modulates; the loop: op 4's feedback (Feedback). Here Ratio moves op 2 and Upper ops 3 and 4; on the chord's and the bass's FM pages Ratio is ops 3 and 4.



ARP, AGAIN AND AGAIN

Pings > Pings voice > Pings FM > Pings; ARP blinks past the first.

THE SCREEN

On the Pings and Pings voice pages, the pings alone: blue rings, and four dots circling, a loop each, lit when it plays.