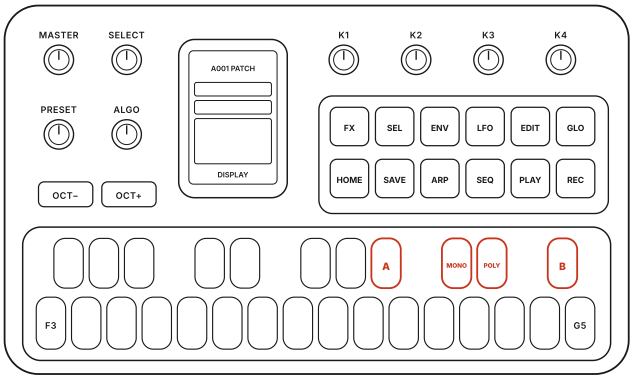
InfeKt-FM1 Firmware

Quickstart Guide · M-VAVE FM-1

FIRMWARE 1.19 · BY J0KERPACK · KO-FI.COM/J0KERPACK

Two parts · Bluetooth MIDI · USB audio · runs on both FM-1 hardware versions



SHIFT = OCT− held 0.5 s

- SHIFT + HOME UNDO
- PLAY held 0.5 s: PLAY mode on/off (7 assignable knobs; replaces HOME) · in it SHIFT + PLAY: ASSIGN editor
- SHIFT + SEQ stop sequencers
- SHIFT + C#5 MONO · D#5 POLY
- SHIFT + A#4 Part A · F#5 Part B
- SHIFT + ALGO part volume

PANIC = OCT− + OCT+ 0.3 s

Everything fades out: notes, HOLD, sequencers; reverb, delay and shimmer are cleared.

1 CONTROLS

ELEMENT	FUNCTION
MASTER	Volume
PRESET	Choose patch (HOME / PLAY mode only), within the bank · list open: OCT− / OCT+ = bank
SELECT	Step through blocks, lists, values
ALGO	Tempo (BPM), global: no patch changes it; SAVE in GLO keeps it
K1 – K4	the four parameters of the lit block
OCT− OCT+	Octave ±2 · SEQ pages: block of 16
PLAY	Sequencer start/stop (anywhere) · held 0.5 s: PLAY mode on/off · PLAY mode: red, running: green on the beat
SEQ	ARP SEQ → DRUM SEQ → ... (6)

BUTTON	FUNCTION
HOME	HOME screen (PLAY mode on: its page) · menus: back · tap on HOME: part A ↔ B
REC	**HOLD** (HOME and PLAY mode only; nothing in menus): notes sound until REC again, lit; per part, shared in LAYER; keeps sounding after a part switch · lists, EDIT/BACK, GLO, SAVE, questions: open/confirm · SEQ pages: record · held 1 s: BT on/off
SAVE	saves what the page is about (4) · lit while something is unsaved
Menu buttons	FX SEL ENV LFO EDIT ARP GLO

2 USING THE MENUS

1. Menu button: lit block on top = K1 – K4, next one dimmed below; title strip: block + position (*2/5*).

2. SELECT steps; at the end **EDIT** (REC: all other parameters in groups) and **BACK**.

3. List knobs (mode, wave, destination ...): first detent shows the list, further turning changes. -- = knob does nothing in this mode.

4. HOME / REC on BACK = back · SEL again: filters ↔ oscillators.

3 PLAYING & UNDO

- 27 keys F3–G5, velocity, send MIDI.
- **UNDO** patch: SHIFT + HOME, 5 steps · sequencers: 6.
- Patch edits stay in RAM, also across patch changes (dot in the list) – until SAVE/power-off.

4 PATCHES & SAVING

- Banks **A–F**, 128 slots each, all yours. The web installer can put the factory banks into **A** and **B**.
- PRESET browses within the bank (turned fast: several patches a detent, stops at the bank's end, loads where it settles); below the first patch **INIT**, below it **RANDOMIZE**. Other bank: OCT− / OCT+.
- Patch edited → INIT asks **RESET PATCH ?**: REC loads INIT (UNDO brings it back), HOME cancels.
- **RANDOMIZE**: each REC a new variation of the patch (turning past it changes nothing); UNDO goes back.
- Below it the **favorites** 1–16 (load like patches; REC twice removes one), then **EDIT FAVORITES**: REC opens the grey editor – patches are auditioned, REC stars ★ / removes, K1 moves, HOME back (the sound stays as it was).
- **Patch:** SAVE → slot A001–F128 (SELECT; bank: K1, OCT− / OCT+) → REC → name (SELECT character, K1 cursor, K2 Aa) → REC (filled: REC again).
- SAVE on a SEQ page = patterns · DRUM KIT = kit · GLO = settings · HOME/menus = patch + everything pending.
- While PLAY runs: *SAVE PENDING*, written at the stop. GLO › AUTO SAVE OFF (default): only SAVE writes.

5 WHERE IS WHAT?

BUTTON	BLOCKS (K1–K4 EACH)	EDIT GROUPS
FX	**DLY/REV** (Mode, Send, Time/Pre-Delay, Colour), then by mode: Delay → **DELAY**, **DELAY MOD** · REVERB / REV+FB 1 / REV+FB 2 → **REVERB** (Decay, Pre-Delay, Room, FEEDBK), **SHIMMER**[1] (Amount, Layers, Mod Dpth, Tone) then **PHASER**, **CHORUS**, **DIST**, **LEVEL** (Dry, Send, Volume, Pan)	Delay/Reverb (delay clock also sets the reverb pre-delay/echo) · Phaser · Chorus · Dist/Boost · EQ · Input · Output · Shimmer (Tail, Swell, Grain, Width, W Glide)
SEL 1	**FILTER 1**, **FILTER 2** (Cutoff, Reso, Env Amt, Keyfollow) · **FLT MODES**	Saturation · Env polarity · Cutoff Link · Key Base · Velocity
SEL 2	**OSC 1**, **OSC 2**, **OSC 3** · **MIX** · **MIX 2** · **FM/SYNC**	Osc 2 More · Phase/Punch · Velocity · Unison · Voice
ENV · LFO	**AMP ENV**, **FILT ENV** · **LFO 1–3** (Rate, Shape, Amount, Dest)	Slopes · per LFO: mode, trigger, clock, fixed destinations
EDIT	**MATRIX**: SLOT 1–6 (2 and 3 with 2 / 3 destinations on one source) → source, destination, amount; light = slot in use. Destinations incl. effects, velocity amounts (V>SHP, V>PW, V>FM, V>FENV, V>RES, V>AMP, V>PAN); -- = no effect	
ARP	**ARP** (Mode, Pattern, Octaves, Clock) · **GROOVE** (Length, Swing, Hold, Tempo) · button blinks in time while the arp is on	
GLO	**TRANSPOSE** · **MULTI** · **MIDI** (Channel, Drum channel, In Ports, Out, Clock, Thru, CC 7, CC list, Panic) · **BLUETOOTH** · **AUDIO** (Latency, Synth Vol, Engine, Reverb Half32/Full16/Full32/Auto, UNI MAX SINGLE 4 · UNI MAX MULTI 2 · MONO UNI MAX 6) · **KEY LIGHTS** (ON / NIGHT = all lights dimmed / OFF) · **AUTO SAVE** · **SEQ** (pattern defaults: Patch Arp ON, Precount 2 bars; Base) · **DRUM KIT** · **ABOUT** (version, Ko-fi, diagnosis)	

[1] Particles Shimmer: only with Bluetooth off (GLO › BLUETOOTH OFF, SAVE, restart), else *SHIMMER: BT OFF*.

GLO › MULTI: MODE SINGLE / LAYER / SPLIT / CHANNELS · part B green · each part its own patch, HOLD (LAYER: shared) and ARP SEQ (SEQ A / SEQ B) · delay/reverb shared from part A: part B shows *CHANGE IN PART A*, REC jumps to part A.

6 SEQUENCER

ARP SEQ: SEQ A / SEQ B

- White keys = steps (block of 16, OCT– / OCT+): tap on/off · **hold** (¼ s): the step sounds while held (chord: all notes), its sequence pauses · hold + turn: **EVENT** (**CHORD**, NOTE, FING 1–8, F POLY), LENGTH, ALIGN, VEL, OFFSET (SELECT, counter-clockwise raises it) – piano roll while LENGTH, ALIGN, VEL, OFFSET turn (CHORD: always).
- No step held: LENGTH 16/32/64 · DIV · **PATTERN** NONE, 1–32 (change while playing: at the bar line) · CLEAR · BASE.
- **CHORD**: hold step, EVENT → CHORD, release · tap notes on/off (max. 6, lit, bars in the piano roll) · OCT– / OCT+ octave · REC stores, HOME cancels (both lit) · while playing: chord heard live · edit: hold CHORD step, release.
- EDIT: SAVE PATTERN · DUPLICATE · COPY TO · UNDO · PATCH ARP · KEY LATCH · REC QUANT. PATCH ARP ON: F POLY/CHORD → patch arp; KEY LATCH holds whole chords.
- REC = record (metronome; count-in: GLO › SEQ › PRECOUNT, 2 bars); REC QUANT OFF keeps the timing (1/8 step) · within 50 ms = CHORD · MIDI notes in record too (as sent, no OCT/TRANSPOSE).

DRUM SEQ · DRUM KIT

- Black keys = instrument: BD SD LT MT HT RS CP CH OH CY CB · white = steps. REC = record; SHIFT+black key erases the instrument.
- MIDI: GLO › MIDI › DRUM CHANNEL (OFF/1–16, default 10) plays the drums (GM: 36 BD, 38 SD, 41/45/48 toms, 37 RS, 39 CP, 42/46 CH/OH, 49 CY, 56 CB; velocity → accent) and is recorded with REC.
- Kit (EDIT › DRUM KIT, GLO › DRUM KIT): SOUND, VOICE (MODEL 808/909; hi-hats SYN/SMP; a new kit: BD 909, hats SMP; Pan, Send), BUS (Level above 100: kick drive; Comp on the whole kit). Kit knobs do not strike – keys do.

UNDO & saving (shared edit journal)

- SHIFT+HOME / EDIT › UNDO: the pattern shown back to before its last CLEAR, RECORD pass or DUPLICATE (small edits have no undo); edits are never refused: SAVE when "EDITS NEARLY FULL" shows.
- Edits survive switching; only SAVE writes (while playing: *SAVE PENDING*).
- COPY TO: not while playing; asks before overwriting edits.

7 HOME & LATENCY

- Patch name on top (both parts); tiles CPU (*PK* peak, red after a dropout), VOICES, LATENCY, BPM, HOLD, OCTAVE, TRANSP, VOLUME; battery.
- SELECT on HOME: favourite blocks; EDIT = set the 8 slots.
- GLO › AUDIO › LATENCY: LOW 12 · MED +2.9 ms 14 · HIGH +5.8 ms 16 voices.
- GLO › AUDIO › FILT KNOBS: SMOOTH glides cutoff and resonance (knobs, MIDI CC, editor) instead of stepping; ORIGINAL steps as measured.

8 BLUETOOTH MIDI

- Find a device only via GLO › BLUETOOTH › SEARCH, device, REC ; then Auto Connect. Power the FM-1 first, then the device. FORGET clears pairings.
- BT off at power-on: full reverb + Particles Shimmer; BT back on after a restart.

9 WEB PAGE INFEKT-FM1.HTML

- **Installation:** unzip the folder · double-click *infekt-fm1.html* (Chrome/Edge, no server) · allow MIDI · FM-1 via USB data cable · back up your banks first · tab **Installation** › Install; do not pull the cable. Ticked options: the factory banks (into A and B) and Sete's nine wavetables (waves 2–10).
- Safe detection: only an FM-1 that answers is taken; other keyboards are only listed.
- **Wavetables**: own waves 2–63 from WAV · **Patches**: banks into A–F, preview; export: bank/slots, single files or whole bank, .syx/.mid, InfeKt format (with shimmer) or compatible · **Editor** (USB only): patch live, matrix LEDs live.
- Back to the stock firmware: bottom of the Installation tab.
- USB audio 44.1 kHz 16 bit; recording: MASTER well up · GLO › ABOUT on BACK: U/O/M/S (U = dropouts, should stay 0).