USER MANUAL · FIRMWARE FOR M-VAVE FM-1



DARK FUNK DURCAL SYNT

ACID · BREAKS · RITUALS · MELODIES WITHOUT THEORY

Version 1.8.2-dfd9

ENGLISH EDITION

Created at **POLARIS SOUND LAB**

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Before you start

WHAT IS DARK FUNK DURCAL?

Dark Funk Durcal is a music project. You won't find a "user" on social media: you find it where it lives, **in the music**.

Its music is available on every digital platform

SPOTIFY · YOUTUBE · APPLE MUSIC · DEEZER · TIDAL · AMAZON MUSIC · AND EVERY AUDIO PLATFORM

Search on Spotify › **Search on YouTube ›**

Type **Dark Funk Durcal** into the search box of your favourite platform.

CREATED AT
POLARIS SOUND LAB
MÉRIDA, YUCATÁN, MÉXICO

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What you need

Installing takes about 2 minutes. Get everything ready first and there will be no surprises.

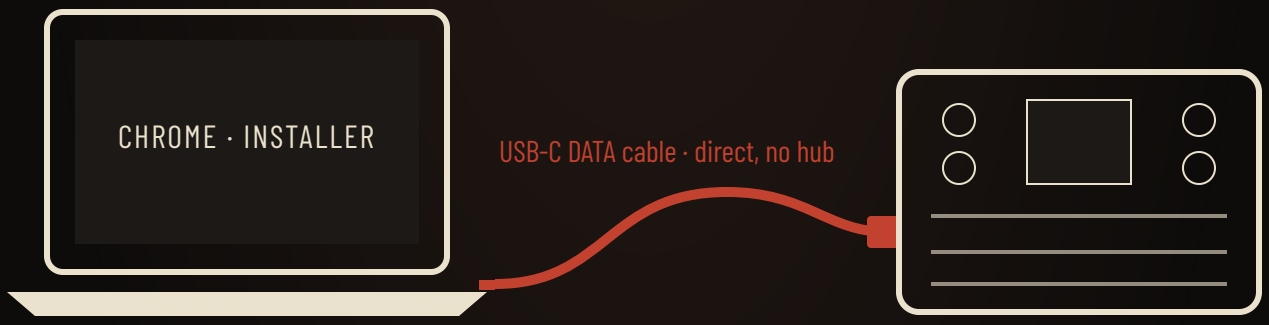


ILLUSTRATION · the right connection

Checklist

- A **MacBook** with **Google Chrome** or **Microsoft Edge** (Safari and Firefox won't work: they have no Web MIDI with SysEx).
- A **USB-C data cable**. Many "charge only" cables carry no data: if the Mac doesn't see the FM-1, change the cable.
- The **FM-1 with a charged battery** or plugged into power.
- The file **DarkFunkDurcal-Installer.html** (in your Downloads folder). The firmware is already inside it.
- Optional but recommended: the **official FM-1.fwsc V16** from M-VAVE, kept as a backup.

Golden rules

- Connect **directly** to the Mac's port. No hubs, docks or multi-port adapters.
- **Quit** everything that uses MIDI: Ableton, Logic, GarageBand, the M-VAVE app, other browser tabs.
- Plug the Mac into power so it **doesn't go to sleep**.
- While it says **Writing**: don't unplug the cable, don't close the page, don't switch off the FM-1.

Step-by-step install

1

Back up your music

If you have saved patterns or sounds you care about, note them down or export them. The Felucca installer saves a complete backup before going back to the official firmware, but it never hurts.

2

Connect the FM-1

Switch the FM-1 on and connect it with the data cable directly to a USB-C port on the MacBook.

3

Check that the Mac sees it

Open **Applications › Utilities › Audio MIDI Setup**. From the menu choose **Window › Show MIDI Studio** (⌘2). The **FM-1** icon must appear. If it's grey or missing: change the cable or the port. Quit this app when done.

4

Quit MIDI apps

Quit (⌘Q) any DAW or app that uses MIDI and close other tabs that use MIDI. If another app holds the port, the installer will say *FM-1 not found*.

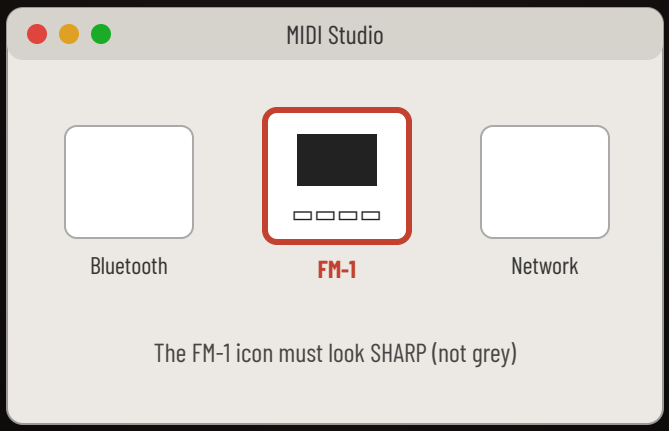


ILLUSTRATION · Audio MIDI Setup › MIDI Studio

STEP-BY-STEP INSTALL

5 **OPEN THE INSTALLER IN CHROME**
In Downloads, right-click **DARKFUNKDURCAL-INSTALLER.HTML › OPEN WITH › GOOGLE CHROME**. (Or drag it onto a Chrome window.)

6 **ALLOW MIDI**
When you press Install, Chrome asks for permission to **CONTROL AND REPROGRAM MIDI DEVICES**. Press **ALLOW**. Without it, it can't write.

7 **PRESS INSTALL**
The white **INSTALL** button. You'll see the stages: *Starting › Verifying › Switching to update mode › Writing › Restarting › Done*. The FM-1 screen may stay black while writing: that's normal.

8 **DON'T TOUCH ANYTHING**
During **WRITING** (1-2 min) don't unplug, don't close the tab and don't let the Mac sleep.

9 **DONE**
The FM-1 restarts by itself and the Dark Funk Durcal eye animation appears. Ready! You can unplug now.

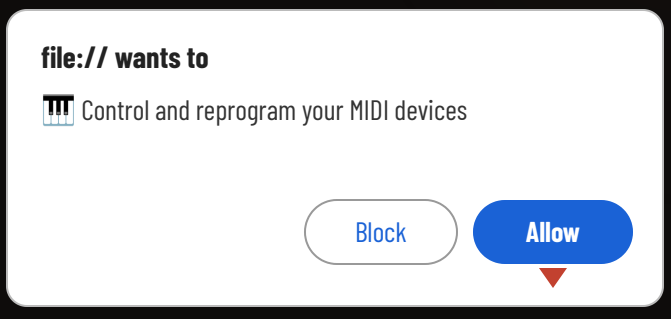
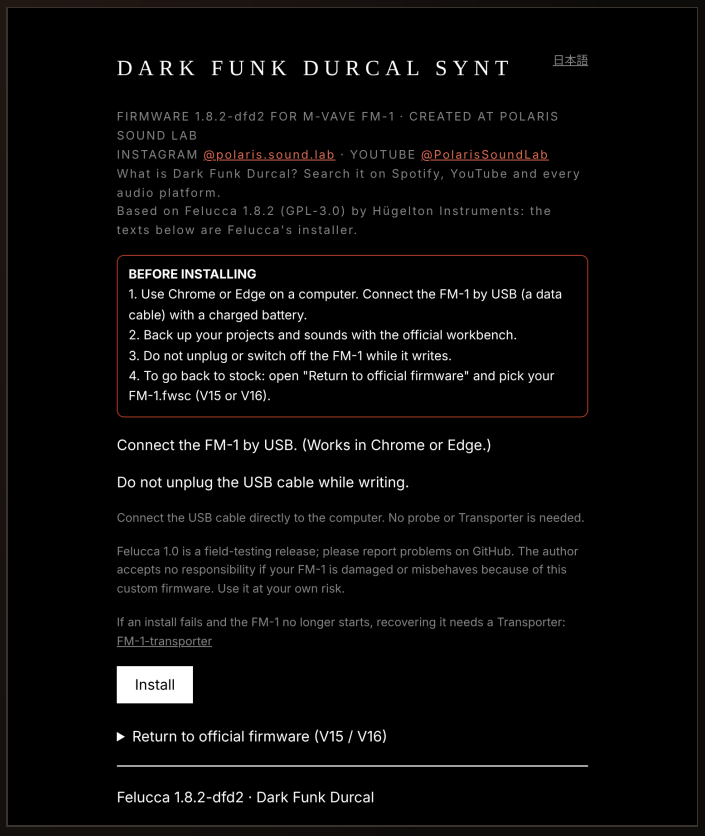


ILLUSTRATION · Chrome's MIDI permission



REAL SCREENSHOT · the installer. **Install** button in the middle; below it, **Return to official firmware**.

The boot screen

Every time you switch the FM-1 on you'll see this ~4-second ritual.



1 · The eye awakens

The rays open, the triangle is drawn and the eye slowly opens.

2 · What is Dark Funk Durcal?

"Search it on Spotify, YouTube and every audio platform": an invitation to listen to the project's music.

3 · Polaris Sound Lab

"Created at Polaris Sound Lab · Mérida, Yucatán, México" with its Instagram **@polaris.sound.lab** and YouTube **@PolarisSoundLab**.

> If one day you'd rather boot faster, set the **ANIM** option in the menu (hold HOME) to OFF. If the FM-1 restarted because of an error, it is also skipped automatically for safety.

If something fails

"This browser cannot do it"	You're in Safari or Firefox. Open the file in Chrome or Edge.
"MIDI (SysEx) access was not allowed"	You pressed "Block". Click the lock/icon left of the address bar › MIDI › Allow. Reload and press Install.
"FM-1 not found"	Charge-only cable, a hub, or an app is holding MIDI. Change cable/port, quit MIDI apps, press Install.
"Stopped. Replug the USB cable…"	Unplug and replug the cable and press Install again. It's safe to repeat.
"The FM-1 in update mode was not found"	It stays in update mode until it's finished. Replug the cable and press Install again.
"The FM-1 did not come back"	Switch it off and on (power-cycle).
"The file to install is damaged"	Reload the page. If it persists, download the installer again.
I don't see the eye on the pages	Install 1.8.2-dfd9 (the eye shows with MENU › LARGE ON too). On older versions: hold HOME › LARGE › OFF.

Going back to official firmware

1. Download **FM-1 V16** (or V15) from the M-VAVE website and unzip it: you get **FM-1.fwsc**.
2. In the installer open **Return to official firmware (V15 / V16)**.
3. In **Official FM-1.fwsc** choose that file. Chrome verifies it locally (it isn't uploaded to any server).
4. Press **Back up and return to official firmware**. It first saves a complete backup of your music to the Mac.

The extreme case

If an install is interrupted very badly and the FM-1 no longer starts, recovering it requires a tool called **FM-1-transporter** (linked in the installer itself). Following the golden rules in section 01 this is very unlikely: the part that starts the device is not modified.

The FM-1 panel



1 Knobs
MASTER volume · SELECT tempo · PRESETS picks a sound · ALGORITHM picks track T1–T4 · KNOB 1–4 control the 4 columns on screen.

2 Page buttons
FX · SCL · ENV · LFO · EDIT · GLO · HOME · SAVE · ARP · SEQ. Each press opens its page; pressing again goes to the next page of the same group.

3 Keyboard
Plays notes (always inside the track's scale). In the sequencer it also writes steps.

4 PLAY / REC
PLAY starts and stops. REC records what you play into the pattern.

5 OCT- / OCT+
Change octave. On the Dark Funk Durcal pages: OCT+ = ACTION (SUMMON, MAKE, ALL, APPLY) and OCT- = BACK.

Gestures you should know

HOME	hold	Menu (color, style, animation, LEDs...)
SAVE	hold	**UNDO**: undoes the last SUMMON / MAKE / die
SEQ	hold	Song mode
GLO+PLAY	together	Restart from the beginning
ALGORITHM	turn	Change track: what you edit belongs to the chosen track

> The red number at the top left of the screen is the active track (1–4).

How to reach each screen

The 4 new pages live in the **HOME** cycle. Press HOME several times and you come back to the start.



HOME



MIXER

1× HOME



CLOCK

2× HOME



RITUAL

3× HOME



MELODY

4× HOME



DICE

5× HOME



STRETCH

6× HOME

HOME

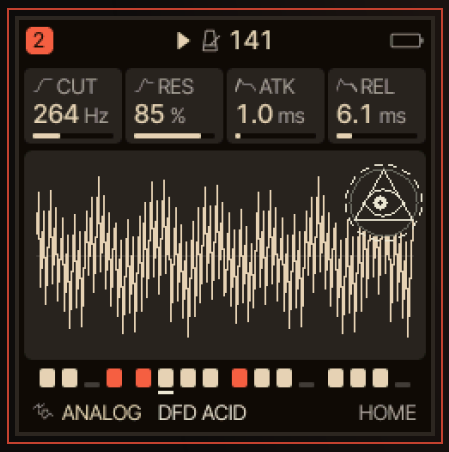
again

What each button opens (repeated presses = next page)

HOME	HOME › MIXER › CLOCK › **RITUAL › MELODY › DICE › STRETCH**
SEQ	STEP (write steps) › DETAIL (probability, ratchet, velocity) › AUTOMATION
EDIT	Engine parameters: FILTER (acid), LANES (drums), SLICES (break), OPERATOR / PATCH (FM6), VOICE
SAVE	USER (your presets) › PRESETS (browser) › PHRASES › PROJECT › TOOLS
FX	FX (dist, chorus, delay, reverb) › SLICER › INSERT › INSERT 2 › DLY › **TAPE ECHO** › REVERB › CHORUS
SCL	SCL (key, scale) › CHORD
ENV	ENV › ENV DEST
LFO	LFO › LFO 2 › LFO DEST › MOD
ARP	ARP › ARP 2
GLO	SONG

> At the top right of every screen you see the page and its position, e.g. **RITUAL 3/6**. If you get lost, press HOME until you see the big eye.

HOME · MIXER · CLOCK



HOME

HOME

The main screen of the active track: the 4 most important parameters of its sound (on the acid: **CUT, RES, ATK, REL**), the live waveform and **the eye**, which looks around, blinks and trembles with what you do. At the bottom: the pattern's 16 steps, the engine and the preset.

What for: playing and "tweaking" the sound live.

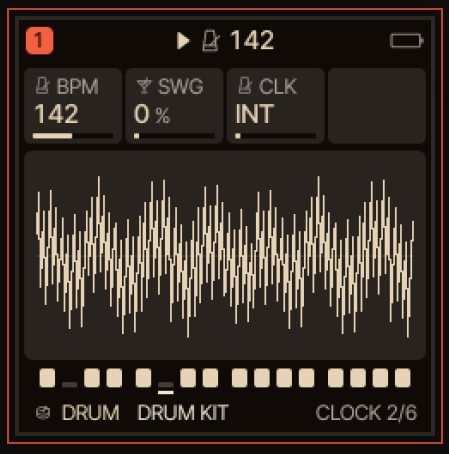


MIXER · 1×HOME

MIXER

All 4 tracks at once: **LEVEL, PAN, REV, MUTE** of the track chosen with ALGORITHM. Each channel shows name, level and reverb send.

Combine: mute the kick (MUTE) for a break and bring it back on bar 1.



CLOCK · 2×HOME

CLOCK

BPM tempo · **SWG** swing (funk and jungle sound good at 8–25 %) · **CLK** clock INT (internal) or external via MIDI/USB to sync with your DAW.

RITUAL



RITUAL · 3×HOME

A whole track with one button. Pick two styles, blend them and press **SUMMON**: the FM-1 fills the 4 tracks with sounds, patterns, key and tempo that go together. Always in key.

K1	**STYLE A**	Main style (11 styles, see next page)
K2	**STYLE B**	The style that crosses with A
K3	**FUSION**	0 % = all A · 50 % = half and half · 100 % = all B
K4	**CHAOS**	How much madness: fills, ratchets, ghost notes, break cuts
OCT+	**SUMMON**	Summon: generates the 4 tracks
OCT–	**BACK**	Back to HOME

T1

Drums: a drum-machine grid or a **chopped break** (amen-style).

T2

The 303-style **acid** line, with accents and slides.

T3

The **bass** (sub, reese, FM) or a second acid.

T4

The **melody** or the chords.

HOW TO GET HERE

HOME › HOME › HOME › RITUAL

From the HOME screen (the one with the big eye) press **HOME** 3 times. Turn **ALGORITHM** to choose the track T1–T4 it works on. RITUAL works on all 4 tracks at once.

> Didn't like it? Hold **SAVE** to undo, or press SUMMON again: every summoning is different.

The 11 styles

On screen	Style	BPM	Feel	T1 drums	T2 acid	T3 bass	T4 melody
ACID	**ACID**	124–134	ACID	DRUM KIT	DFD ACID	SUB BASS	DARK BELL (FM)
DRILL	**DRILL N BASS**	165–180	MELAN	BREAK	SQUELCH	SLAP BASS (FM)	PREP PIANO (FM)
JUNGLE	**JUNGLE**	160–172	DARK	BREAK	RUBBER ACID	SUB BASS	VOICE · chords
DNB	**ROLLING DNB**	170–176	DARK	BREAK	ACID 2	REESE	FOG PAD (FM) · chords
BRKCOR	**BREAKCORE**	180–200	ALIEN	BREAK chop	ACID LASER	ACID 2	LOFI
BIGBT	**BIG BEAT**	128–138	RAVE	BREAK	BLACK ACID	BLACK ACID	RAVE
RAVE	**RAVE HARDCORE**	138–150	RAVE	BREAK	BLACK ACID	SQR BASS	RAVE · stabs
BRAIN	**BRAINDANCE**	110–140	DREAMY	PERC KIT	RUBBER ACID	ACID FM (FM)	PHYS (physical)
ELECTR	**DARK ELECTRO**	126–136	DARK	TIGHT KIT	SERPENT	808 FM BAS (FM)	WITCH LEAD (FM)
AMBIEN	**AMBIENT IDM**	86–104	DREAMY	DEEP KIT	SERPENT	SUB BASS	DETUNE PAD · chords
FUNK	**BROKEN FUNK**	98–116	FUNKY	DEEP KIT	RUBBER ACID	SLAP BASS (FM)	DURCAL EP (FM) · chords

Blends that work

- **ACID × JUNGLE**, fusion 40 %: club acid over sped-up breaks.
- **BRAIN × DRILL**, chaos 70 %: nervous drums with a toy melody.
- **AMBIEN × DNB**, fusion 60 %: soft pads over a rolling reese.
- **BIGBT × RAVE**: fat breaks, stabs and black acid.
- **FUNK × ELECTR**: FM slap bass with dry electro hats.

Feels (scales)

DARK	Phrygian: tense, dark
ACID	Minor pentatonic: never fails
FUNKY	Dorian: groove with colour
MELAN	Natural minor: melancholic
DREAMY	Lydian: floating, bright
ALIEN	Whole tone: strange
RAVE	Minor: epic
HYPNO	Pentatonic: hypnotic, repetitive

MELODY



MELODY · 4×HOME

Melodies without knowing theory. Pick a feel, a key and a shape: every note lands in the scale, so it **always sounds right**.

K1	**FEEL**	The feel (DARK, ACID, FUNKY, MELAN, DREAMY, ALIEN, RAVE, HYPNO)
K2	**KEY**	The key (C to B). Use the same as RITUAL so everything fits
K3	**SHAPE**	The melody's shape (below)
K4	**NOTES**	Density: few long notes or many short ones
OCT+	**MAKE**	Writes the melody into the chosen track (if you're on T1, it goes to T4)
OCT-	**BACK**	Back to HOME

WAVE rises and falls like a wave	**RISE** climbs: tension, build-up	**FALL** falls: closure, melancholy	**Q&A** question and answer
ARP chord arpeggio	**HOOK** short catchy phrase	**FEW** few notes, lots of air	**BUSY** many notes, nervous

HOW TO GET HERE

HOME › HOME › HOME › HOME › MELODY

From the HOME screen (the one with the big eye) press **HOME** 4 times. Turn **ALGORITHM** to choose the track T1–T4 it works on. MAKE writes into the chosen track.

Tip: MAKE on T4 with HOOK, then on T2 with ARP in the same KEY: two voices answering each other.

DICE



DICE · 5×HOME

Dice for when you don't know what to do. Turn a knob to the right: it rolls that part's die and changes **one thing**, without destroying the rest. The screen tells you what came up.

K1	**DRUMS**	GROOVE · BREAK CHOP · ROLLS · GHOSTS · HATS
K2	**ACID**	NEW LINE · NOTES · ACCENTS · SLIDES · OCTAVES
K3	**MELODY**	NEW SHAPE · NOTES · RHYTHM · ENDING · CHORDS
K4	**SOUND**	DRUM KIT · ACID SOUND · BASS SOUND · LEAD SOUND · ALL SOUNDS
OCT+	**ALL**	Rolls all the dice at once
OCT–	**BACK**	Back to HOME

Living drums

Roll K1 until **ROLLS** or **GHOSTS** comes up: drill'n'bass-style rolls and ghost notes, without programming step by step.

Acid that breathes

Keep the line and roll only **ACCENTS** and **SLIDES**: same melody, another groove. Then move CUT and RES on HOME.

Went too far?

Hold **SAVE** to undo the last die. Roll without fear.

How to get here

HOME › HOME › HOME › HOME › HOME › DICE

From the HOME screen (the one with the big eye) press **HOME** 5 times. Turn **ALGORITHM** to choose the track T1–T4 it works on. The dice work on the whole track.

STRETCH



STRETCH · 6×HOME

Easy time-stretch: the chosen track becomes a granular stretch of a sample, **locked to the tempo.** Change the tempo and the sample follows; change the pitch and the speed stays.

K1	**SOURCE**	The sample: the firmware's own (breaks, voices, textures) or USR1–USR3, your own samples
K2	**TIME**	FREEZE (freezes a moment) · 1/2 · 1 · 2 · 4 bars for the scan
K3	**PITCH**	±12 semitones, without changing the timing
K4	**GRAIN**	Grain size: small = metallic, glitchy · large = smooth
OCT+	**APPLY**	Turns the chosen track into the stretch
OCT–	**BACK**	Back to HOME

Frozen voice

SOURCE a voice, TIME **FREEZE**, GRAIN 70 %: a ghostly sustained choir. Play it from the keyboard.

Elastic break

SOURCE a break, TIME **1 BAR**: the break follows your tempo even if you push it to 175.

Glitch

Low GRAIN (10–20 %) and PITCH –12: metallic textures, IDM-style stutters.

HOW TO GET HERE

HOME › HOME › HOME › HOME › HOME › HOME › STRETCH

From the HOME screen (the one with the big eye) press **HOME** 6 times. Turn **ALGORITHM** to choose the track T1–T4 it works on. APPLY converts the chosen track.

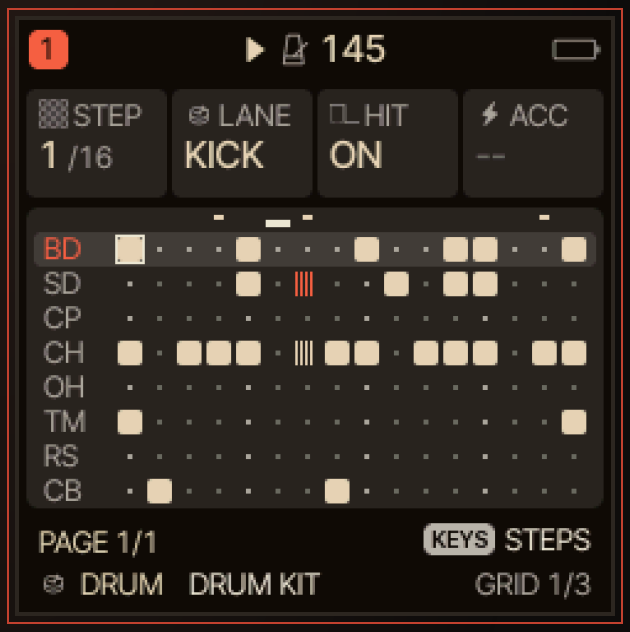
APPLY replaces the sound and pattern of the chosen track: do it on a track you don't need, or hold SAVE to undo.

The sequencer



SEQ · STEP ON THE ACID TRACK

K1	**STEP**	Choose step 1–16
K2	**NOTE**	The note (always in scale)
K3	**LEN**	Length: note, tie (TIE) or rest
K4	**FLAG**	**ACC** accent · **SLD** slide: the soul of acid



SEQ · GRID ON THE DRUMS

K1	**STEP**	The step
K2	**LANE**	The instrument: BD SD CP CH OH TM RS CB
K3	**HIT**	Hit ON / OFF
K4	**ACC**	Accent of the hit

Writing with the keyboard

On **SEQ** press **REC**, PLAY, and play: the notes are recorded into the pattern. A second press of SEQ opens **DETAIL**: probability (CHANCE), ratchet (rolls inside the step), nudge and velocity.

What's generated is editable

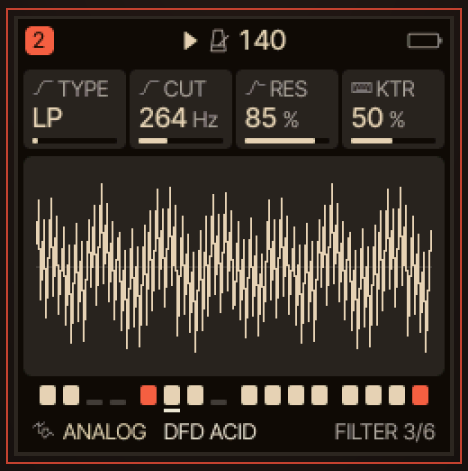
Everything SUMMON, MAKE and the dice do is written here as normal steps. Generate first, then fix by hand only what you want.

Sounds



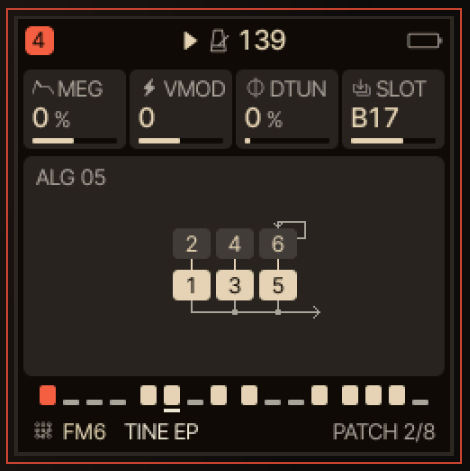
SAVE ×2 · PRESETS

Turn **PRESETS** (or K1) to browse the track's sounds. The Dark Funk Durcal acids in the ANALOG engine: **DFD ACID, SQUELCH, BLACK ACID, RUBBER ACID, SERPENT, ACID LASER, ACID 2, REESE, DETUNE PAD, BRAIN LEAD**.



EDIT · FILTER (ACID)

The acid's "steering wheel": **TYPE** LP/BP/HP · **CUT** cutoff · **RES** resonance (the squeal) · **KTR** keyboard tracking. More distortion in **FX › DIST**.



EDIT · PATCH (FM6)

In the FM6 engine, **SLOT** picks a voice: factory F1–F8 or **B1–B32**, the Dark Funk Durcal bank.

Dark Funk Durcal FM bank (slot B1–B32)

B1	ACID FM	B2	RUBBER BAS	B3	HIDDEN SUB	B4	SLAP BASS
B5	CLOCK BASS	B6	WOBBLE FM	B7	LEATHER BS	B8	808 FM BAS
B9	SAW FM	B10	DARK BELL	B11	CRYSTAL	B12	WITCH LEAD
B13	SOUL FLUTE	B14	SQUARE EYE	B15	GLITCH LD	B16	RITUAL HRP
B17	PREP PIANO	B18	DURCAL EP	B19	MARIMBA	B20	EYE PLUCK
B21	FUNK CLAVI	B22	BLACK KOTO	B23	FOG PAD	B24	EMPTY CHOR
B25	MUTE ORGAN	B26	GLASS PAD	B27	FM KICK	B28	FM SNARE
B29	FM HAT	B30	RITUAL TOM	B31	ZAP LASER	B32	MUTANT BEL

Recipes and combinations

Everything combines: RITUAL makes the base, DICE varies it, MELODY and STRETCH give it soul, and the sequencer lets you fix it by hand.

RITUAL › DICE › MELODY › STRETCH › SEQ › SAVE

01 Acid in 60 seconds

HOME ×3 › RITUAL: A=ACID, B=ACID, FUSION 0 › OCT+ SUMMON › PLAY. ALGORITHM to T2 and on HOME turn CUT and RES while it plays.

02 Nervous drill'n'bass

RITUAL: A=DRILL, B=BRAIN, CHAOS 75 % › SUMMON. On DICE roll K1 until ROLLS. On DETAIL raise CHANCE on the hats.

03 Jungle with a ghost voice

RITUAL: A=JUNGLE › SUMMON. ALGORITHM to T4 › STRETCH: SOURCE a voice, TIME FREEZE, GRAIN 70 % › APPLY. Play chords on the keyboard.

04 90s rave

RITUAL: A=RAVE, B=BIGBT, FUSION 50 % › SUMMON. CLOCK: BPM 145. FX: high DIST on T2.

05 A melody that answers

MELODY: FEEL MELAN, SHAPE HOOK › MAKE on T4. Switch to T3, SHAPE ARP, same KEY › MAKE.

06 Breathing ambient

RITUAL: A=AMBIEN, B=BRAIN, FUSION 30 % › SUMMON. MIXER: high REV on T4, MUTE T1 for the first bars.

07 Elastic break

STRETCH on T3: SOURCE a break, TIME 1 BAR › APPLY. Move SELECT (tempo) up and down: the break follows without changing pitch.

08 Happy accident

DICE: OCT+ ALL until you like something. Hold SAVE if you went too far. Save in SAVE › PROJECT.

The living eye

The eye no longer just looks: **it feels the music**. The more intense, the more disturbed it gets; in ambient it relaxes. It works on HOME and on RITUAL, MELODY, DICE and STRETCH (with LARGE on too).



CALM

Ambient, slow, stopped: heavy half-closed lids, a gaze that drifts slowly, a big dreamy pupil, slow blinks.



AWAKE

Normal groove: eye open, looking around, the pupil pulses with the volume; veins start to show.



FURIOUS

Breakcore, jungle, saturated acid: frowning brow, narrowed eye, pinned pupil, red iris, veins, spikes on the ring and trembling.



HOME · FURIOUS

What makes it angry?

TEMPO	More BPM, more tension (from ~95 to 180)
VOLUME	How loud the tracks play
DENSITY	How many steps hold notes across the 4 tracks
DIST	The highest distortion (FX › DST) of the tracks
RES	The acid resonance of the chosen track

With PLAY stopped, the eye rests. Live trick: push DST and RES on the drop and watch it rage.

TAPE ECHO



FX · TAPE ECHO 6/8

A three-head tape echo, like the 70s tape echo chambers of dub and rave: repeats that get dirty, wobble and darken as they fade.

K1	**HEADS**	OFF (normal delay) · H1 · H2 · H3 · H1+2 · H2+3 · H1+3 · ALL
K2	**WOW**	Tape wobble (wow and flutter) and saturation
K3	**FDBK**	How many repeats (the same as DLY's)
K4	**MIX**	Echo volume (the same as DLY's)

How it works

The heads sound at **TIME ×1, ×2 and ×3** (TIME is set on the DLY page, e.g. 1/8). The repeats pass through a filter (COLOR), lose low end like tape and saturate softly: even with FDBK at max it never runs away.

Note: each track feeds the echo with its **DLY** knob on the **FX** page (1/8). No send, no echo.

Recipes

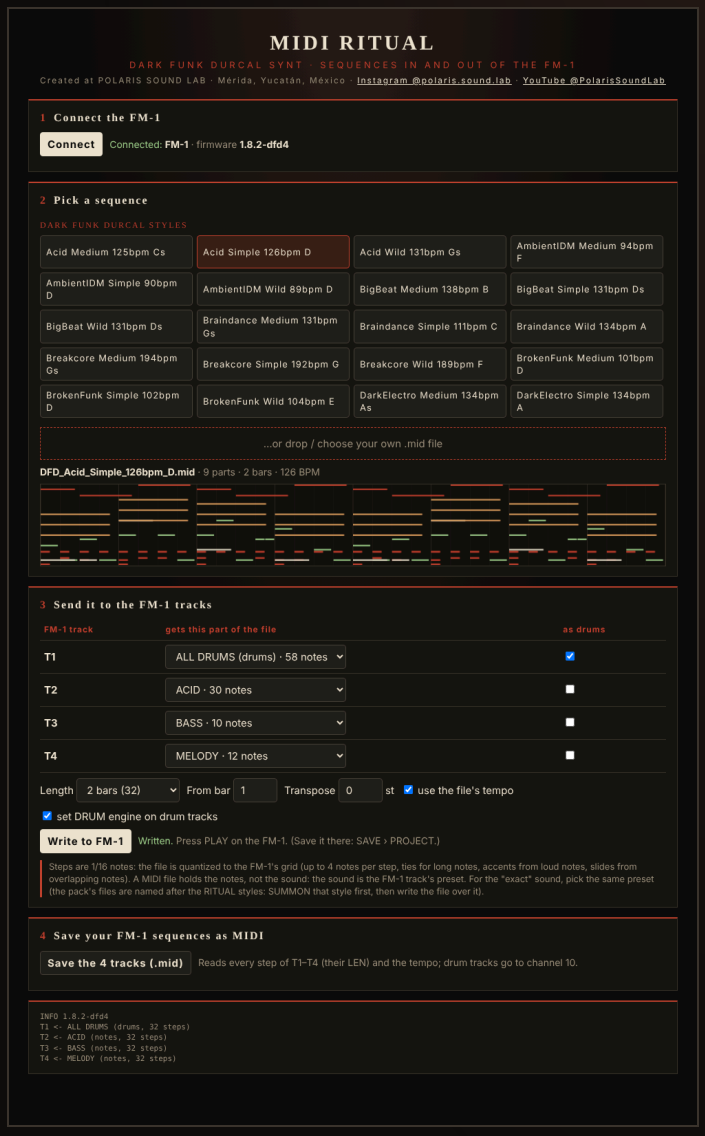
- **Dub:** HEADS H1+3, WOW 60 %, FDBK 70 %, high DLY on a single snare hit.
- **Rave:** HEADS ALL, TIME 1/8, WOW 20 %: stabs bouncing in three times.
- **Ambient:** HEADS H2+3, WOW 90 %, FDBK 85 %: clouds falling apart.
- **Live:** hold FX for ECHO THROW: more repeats while you hold it.

How to get here

FX › FX › FX › FX › FX › TAPE ECHO

Press **FX** 6 times (FX › SLICER › INSERT › INSERT 2 › DLY › TAPE ECHO). It is global: it affects all 4 tracks. It is saved with the project.

MIDI Ritual



REAL SCREENSHOT · **DarkFunkDurcal-MIDI-Ritual.html** (Chrome or Edge)

1. **Connect**
   Open DarkFunkDurcal-MIDI-Ritual.html in Chrome with the FM-1 on USB and press CONNECT (allow MIDI).

2. **Pick**
   A sequence from the pack (50: Dark Funk Durcal styles, classics and breaks) or drop YOUR OWN .MID.

3. **Assign**
   Choose which part of the file goes to T1–T4. Drums are split out by themselves (channel 10) and can get the DRUM engine.

4. **Write**
   Length (1–4 bars), from which bar and transpose; press WRITE TO FM-1. Then PLAY, and save in SAVE › PROJECT.

5. **Save as MIDI**
   SAVE THE 4 TRACKS reads your 4 FM-1 tracks and downloads a .mid for your DAW or to load again.

Why no famous modern songs?

Melodies of copyrighted songs can't be copied into the pack. So it brings **public-domain classics** (Bach, Beethoven, Mozart, Grieg, Chopin, Pachelbel, Dies Irae, Greensleeves) and **classic break rhythms programmed from scratch** (Amen, Funky Drummer, Think, Apache, Impeach, two-step styles). Any .mid you own you can load yourself.

To sound "exact"

A MIDI file stores **notes**, not sound. The sound is each track's preset: **SUMMON** the file's style (its name says it) and then write the MIDI over it; or pick the preset and the TAPE ECHO by hand.

Version 2 and downloads

Version 2 brings a **live mode** (mutes, fill, stutter, build/drop, scenes at the end of the bar), **NEXT PHRASE** (3 continuations of your melody that always fit), new **warped funk and IDM** sounds (a talking voice, a velvet EP, a music box, a rubber wah bass, slap) and the **SMEAR eye**: pixel drips and glitches, in its usual colours, that grow with the music. And for the first time, **a plugin for Ableton**.

WEB	**Groovebox in the browser** (Chrome or Edge, computer or phone). Nothing to install. https://drophlex.github.io/dark-funk-durcal-synt-fm1/ File: **web/DarkFunkDurcalSynt.html** (it also works downloaded, offline).
FM-1	**Firmware 1.8.2-dfd9** for the M-VAVE FM-1 (web installer + .fwsc file). https://github.com/drophlex/dark-funk-durcal-synt-fm1/releases Folder: install/ · **DarkFunkDurcal-Installer.html**
VST	**Dark Funk Durcal Synt v2 plugin** for Mac and Windows: AU + VST3 + standalone app + automatic KeyLab link in Ableton. **Free and open source (AGPL-3.0).** https://drophlex.github.io/dark-funk-durcal-synt-fm1/plugin.html Source: github.com/drophlex/dfd-synth-plugin · It comes in English: the **ES** button switches it to Spanish.

What people asked for (and what we did)

- ◬ **"Generators sound generic"** → styles with their own identity and 3 suggestions that follow YOUR phrase, not a random one.
- ◬ **"Useless for playing live"** → 8 performance pads and scenes that switch at the end of the bar, with no gaps.
- ◬ **"The MIDI doesn't get into the DAW"** → drag the plugin's MIDI straight into an Ableton clip.
- ◬ **"Controllers that do nothing"** → the KeyLab Essential works as native: screen, knobs, faders, pads and transport.

About the "reference" sounds

The timbres are **inspired** by 90s IDM, drill'n'bass and warped funk (formant talking voice, rubber basses, prepared pianos, chopped breaks). **There are no artist names and no melodies of copyrighted songs:** all sounds and sequences are original, so you can release your music without problems.

FM-1: LIVE AND NEXT



HOME › LIVE 7/8

LIVE: PLAYING LIVE

K1	**MUTES**	ALL · NO DRUMS · NO ACID · NO BASS · NO LEAD · DRUMS ONLY · DRUM+BASS · LEAD ONLY (smooth, never saved)
K2	**REPEAT**	OFF · 1/8 · 1/16 · 1/32: a stutter that starts on the next 1/16
K3	**BUILD**	The master high-pass filter rises: the tension before the drop
K4	**THROW**	OFF · ECHO · VERB · BOTH: everything into the echo or the reverb
OCT+	**DROP**	Everything back at once: mutes, repeat, build and throw off

> Drop recipe: K1 DRUMS ONLY → K3 BUILD up to 80 % → K2 REPEAT 1/16 → **OCT+ DROP**. For a drum FILL use the usual FILL (GLO + E4).



HOME › NEXT 8/8

NEXT: THE NEXT PHRASE

K1	**PHRASE**	ORIG · ANSWR (answers you, comes home) · VARI (a variation) · TENSE (climbs, stays open). Heard at once
K2	**TRACK**	T2 · T3 · T4: the track it starts from
K3	**LANG**	EN · ES: the whole FM-1 screen in English or Spanish (remembered when you turn it off)
K4	**NEW**	Turn it: three other ideas
OCT+	**KEEP**	The one playing stays; the next turn starts from it

> Everything stays in the track's KEY. Don't like it? K1 back to ORIG, or hold SAVE (undo).

HOW TO GET HERE

HOME › **MIXER** › **CLOCK** › **RITUAL** › **MELODY** › **DICE** › **STRETCH** › **LIVE** › **NEXT**

From HOME press **HOME** 7 times for LIVE and 8 for NEXT (or turn SELECT). New RITUAL styles: **WARPED FUNK** (talking voice + rubber bass, 100–108 BPM, swung), **SLAP DNB**, **MUSIC BOX IDM** and **SPECTRAL STEP**.

Web v2



The web's ◉ **LIVE** tab, with the SMEAR eye.

Pads (keys 1–8 or MIDI pads)

- **1-4** mute drums, acid, bass or melody (lit = muted).
- **5 FILL** while held: snare rolls; at the end of the bar, a roll.
- **6 STUTTER** repeats the piece playing while held.
- **7 BUILD / DROP** hold: the filter rises and the snare speeds up; let go: a hit and the drop.
- **8 NEXT PHRASE** makes 3 continuations of the melody.

Scenes and keys

A–H = the 8 patterns: a click comes in at the end of the bar. **1 ANSWER · 2 VARIATION · 3 TENSION** try the phrases, **KEEP** keeps it, **BACK** goes back. With the LIVE tab open, the keys **A S D F G H J K** (and Q–I one octave up) play the melody sound, always in key.

New sounds

Melody: **VOX FORMANT**, **VELVET EP**, **MUSIC BOX**. Bass: **RUBBER WAH**, **SLAP**. Styles: Warped Funk, Slap DnB, Music Box IDM, Spectral Step, and 5 new example songs in STYLES.

Plugin: install (Mac and Windows)

Download it free at **drophlex.github.io/dark-funk-durcal-synt-fm1/plugin.html**. Mac (**macOS 10.15+**, Apple Silicon or Intel): **AU and VST3**. 64-bit Windows 10/11: **VST3**. On both, a **standalone app**. It works in any DAW: Ableton, Logic, FL Studio, Bitwig, Reaper, Cubase, Studio One. **Free and open source.**

1. ### Unzip
   Double-click DarkFunkDurcalSynt-v2-macOS.zip. You get the folder Dark Funk Durcal Synt v2 (macOS).

2. ### Open the installer
   Right-click (or Control-click) Install.command › Open › Open. The first time macOS asks because it is not from the App Store.

3. ### Let it copy
   It copies the AU to *~/Library/Audio/Plug-Ins/Components*, the VST3 to *~/Library/Audio/Plug-Ins/VST3*, the app to *~/Applications* and the KeyLab script to Ableton's *User Library*. It removes the "quarantine" and restarts the AU registry.

4. ### Type your password if asked
   Only if your user cannot write to those folders. At the end it says DONE: close the window.

5. ### Open Ableton
   If Ableton was open, quit it and open it again.

Windows: just as easy

- Download **DarkFunkDurcalSynt-v2-Windows.zip**, right-click › **Extract All**.
- Double-click **Install.bat** and accept the administrator prompt (**Yes**). If "Windows protected your PC" shows: **More info** › **Run anyway**.
- It copies the VST3 to *C:\Program Files\Common Files\VST3* and the KeyLab script to your Ableton User Library.

If something fails

- **"Damaged" or "can't be opened":** That's Gatekeeper. Run Install.command again, or the xattr command above. Then System Settings › Privacy & Security › **Open Anyway**.
- **Not in Ableton:** Settings › Plug-Ins: turn on **Use Audio Units v2** and/or **Use VST3 Plug-In System Folders**, press **Rescan**.
- **Logic doesn't see it:** Logic Pro › Settings › Plug-In Manager › **Reset & Rescan Selection**.

Ableton + KeyLab Essential

In Ableton Live

1. **Load the plugin**
   Browser › Plug-Ins › Audio Units (or VST3) › Polaris Sound Lab › Dark Funk Durcal Synt. Drag it onto a MIDI track.

2. **Press Play in Live**
   The plugin follows Ableton's tempo and bar. Its scenes switch at the end of Live's bar.

3. **Take the MIDI out**
   Drag the DRAG MIDI button onto a clip slot: 4 tracks (drums, acid, bass, lead) ready to edit.

4. **Automate**
   The 64 knobs are normal parameters: Configure on the device, or draw automation.

KeyLab Essential 49 (mk1 / mk2)

5. **Already installed**
   The installer (Mac or Windows) copied the DFD_KeyLab_Essential script to your Ableton User Library. Nothing to set up.

6. **Plug it in and open Live**
   Ableton recognizes the KeyLab and links it by itself: the screen shows DARK FUNK DURCAL and the keyboard goes to DAW mode.

7. **Select the plugin**
   Knobs, faders, pads, keys and transport already control Dark Funk Durcal Synt. The screen shows what you move.

8. **Not linked?**
   Just once: Settings › Link, Tempo & MIDI › Control Surface DFD_KeyLab_Essential, Input/Output KeyLab Essential 49 (MIDI), Track and Remote ON.

What each control does

SCREEN	Name and value of the parameter you move (and the bank).
8 KNOBS	The chosen sound bank: PERFORM, ACID, DRUMS, BASS, LEAD, FX, GROOVE, MIX & PLAY.
PART ‹ ›	Change bank (8 banks × 8 knobs = 64).
FADERS 1–8	Drums, acid, bass and lead level · DJ filter · echo · reverb · drive. **Master fader** = master volume.
8 PADS	The LIVE pads: mute ×4, FILL, STUTTER, BUILD/DROP, NEXT PHRASE (they light up).
KEYS	Play the part chosen in KEYS PLAY, always in scale (SCALE LOCK), or transpose the song (KEYS TRANSPOSE).
MOD	The acid cutoff.
TRANSPORT	Play, stop, rec, loop, metronome, undo and track arrows: Ableton's.

> With the plugin not selected, the faders are Live's track volumes. Another controller: pads on notes 36–43 (channel 10 or 11).

Plugin: playing it



Music in 30 seconds

- Pick a preset at the top (43 in 10 categories) or two styles in **RITUAL**, blend with FUSION and CHAOS and press **SUMMON**.
- Re-roll just one part: **DRUMS · ACID · MELODY · SOUND**, or **ALL**.
- Went too far? **UNDO / REDO** (16 levels).
- Click the grid to write or erase steps by hand.

Live

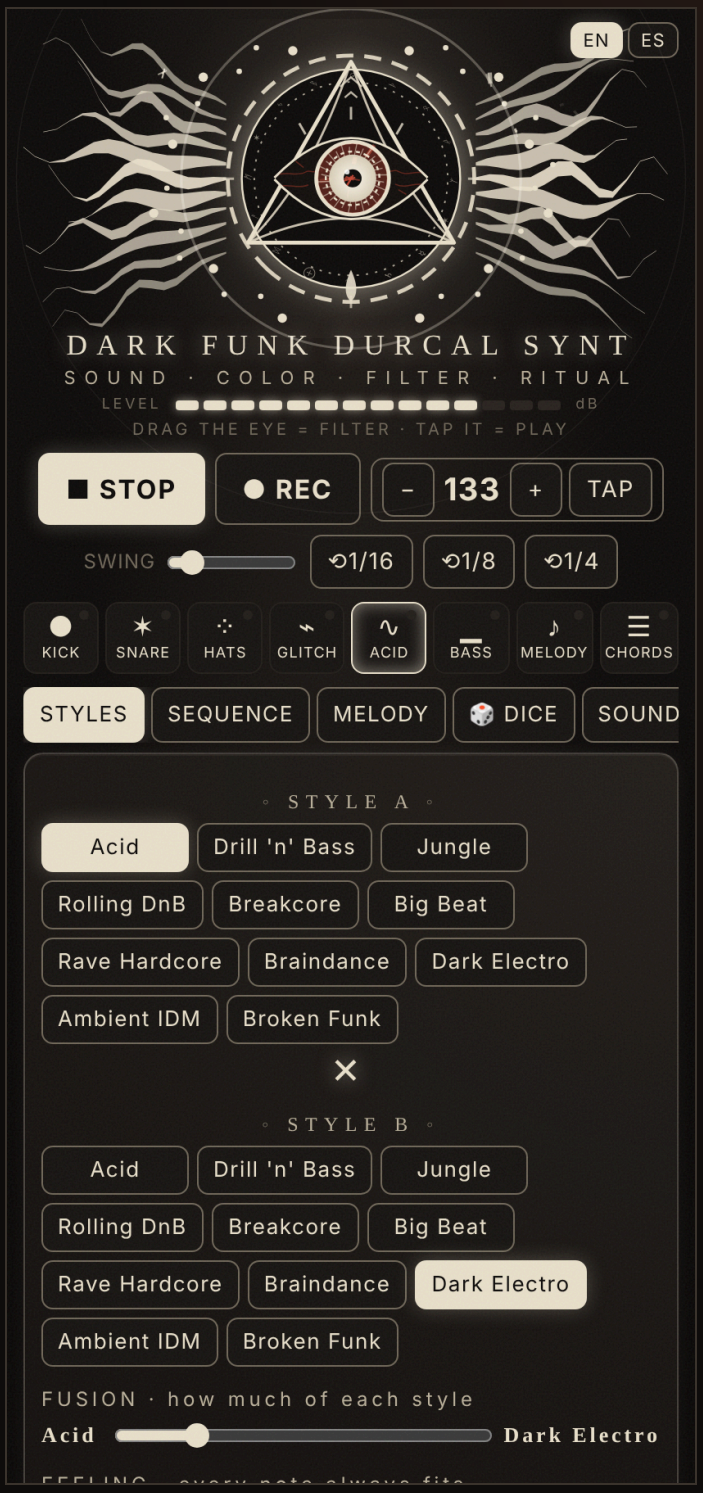
- **Scenes A–H**: click = comes in at the end of the bar. **Shift + click** stores what's playing there.
- **3 NEXT** → try 1, 2, 3 → **KEEP**.
- For a "drop": hold BUILD/DROP 2–4 bars and let go on the one.
- The SMEAR eye lights up and drips more with volume, stutter and build.

Free, open and in your language

The plugin is complete and free, with no trial and no codes; the source is on GitHub (AGPL-3.0). It comes in English: press **ES** in the bottom-right corner for Spanish. The **?** button opens the quick guide.

♥ If you like it, buy me a coffee · PayPal drophlex@gmail.com

Web, MIDI and DX7 bank



The web groovebox **DarkFunkDurcalSynt.html**: 8 channels,

Web ↔ FM-1 over MIDI

- Connect the FM-1 by USB and open the web app in Chrome; allow MIDI.
- Channels: **drums = channel 10**, tracks **T1–T4 = channels 1–4**.
- MIDI clock: the web app can send or receive tempo (CLOCK › CLK on the FM-1).
- Export your patterns as a **.mid** file for your DAW.

MIDI Pack (50 .mid files)

33 sequences by style, 10 public-domain classics and 7 classic break rhythms. Load them straight into the FM-1 tracks with **MIDI Ritual** (section 16), or into your DAW on the channels above.

DX7 bank (.syx)

DarkFunkDurcal_DX7.syx: the bank's 32 voices in DX7 format, for any compatible synth. On the FM-1 they're already inside the firmware (SLOT B1–B32).

Credits



WHAT IS DARK FUNK DURCAL?

Search it on Spotify, YouTube and every audio platform. Its music is available on every digital platform.

CREATED AT
POLARIS SOUND LAB
MÉRIDA, YUCATÁN, MÉXICO

IG **Instagram**
instagram.com/polaris.sound.lab

YouTube
youtube.com/@PolarisSoundLab

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Dark Funk Durcal Synt 1.8.2-dfd9 is based on **Felucca 1.8.2** by Hügelton Instruments, free software under the GPL-3.0 licence, with no warranty. M-VAVE and FM-1 are trademarks of their respective owners; this firmware is not an official M-VAVE product. Install it at your own risk following this manual.