PRIME ENTITY

KICK DISTORTION CHAIN

DISTKING

USER MANUAL

A whole distortion chain in one insert: EQs between the distortions that know they sit between distortions, all of it oversampled as one path.

VST3 · AUDIO UNIT · STANDALONE · MACOS

WWW.PRIME-ENTITY.NL

WHY IT EXISTS

A hardstyle kick is not one distortion. It is an EQ, a distortion, another EQ, another distortion, a shaper and a tidy-up at the end — seven plug-ins in a row, each of which knows nothing about the others.

ONE PATH

Every stage runs inside the same oversampled block. The second distortion works on the first one's harmonics rather than on its aliasing, and the EQ between them shapes what the second one is handed rather than cleaning up after it.

A CHAIN YOU CAN REWRITE

The eight stages it starts with are a starting point, not a rule. Swap any of them for another kind, drop a new one in between two others, drag them into a different order, or take them out — the order is the instrument, so the order is yours.

FOUR THINGS WORTH KNOWING

Seven knobs in Easy view write into the chain's own controls, so switching to Advanced shows exactly where a macro went. **Seven kinds of stage**: EQ, distortion, clip distortion, wave shaper, reverb, phaser and flanger. **A display that follows the stage**: an EQ curve over the live spectrum, a transfer curve, the clip circuit, the tail or the sweep. **A ceiling** at the end, because this chain can make a kick far louder than full scale.

> **WHERE TO START**
>
> Eighty-one factory presets behind the arrows in the top bar, from polite to well past it. **Init** is the empty chain at its default settings.

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INSTALL AND ACTIVATE

INSTALLING

01 **Open the installer.** It places the VST3, the Audio Unit and the standalone application, along with the factory presets.

02 **Rescan in your DAW** if it does not pick the plug-in up straight away.

03 **Put it on the kick channel.** Distking is an insert: the whole chain lives inside it, so nothing needs routing.

UNIDENTIFIED DEVELOPER

The installer is not yet signed with an Apple Developer ID, so macOS calls it an unidentified developer the first time. Right-click the installer and choose Open rather than double-clicking it, then confirm. Once is enough.

If you copy the plug-ins in by hand instead, clear the quarantine flag macOS puts on downloads with `xattr -cr` on the copied bundles.

ACTIVATING

01 **Buy a licence.** You get an email to choose a password.

02 **Open Distking and sign in** with that email address and password.

03 **Done.** The plug-in stores a signed licence and never contacts the server again.

WITHOUT A LICENCE

Every stage, every parameter and every preset is unlocked. The only difference is that the audio mutes for five seconds once every twenty, with a short fade so it does not read as a crash. There is no time limit.

MOVING TO ANOTHER COMPUTER

The licence is active on one computer at a time. Open your account, release the machine you are leaving, then sign in on the next one. That also covers a laptop that was stolen, wiped or died: you release it from the website, not from the machine.

A SEPARATE PRODUCT

A ReFOLVK, FOLVKano or FOLVKlip licence does not cover Distking, and a Distking licence leaves those exactly as they are.

THE WINDOW

Advanced view, top to bottom: the chain, a display that shows whichever stage is selected, and underneath it that stage's controls beside the output section. Clicking a stage in the chain is how you move around; nothing is behind a tab.



ADVANCED VIEW — CHAIN, DISPLAY, STAGE, OUTPUT

TURNING A KNOB

Drag up or down. Double-click to put it back to its default, or click the number and type a value in the unit it shows.

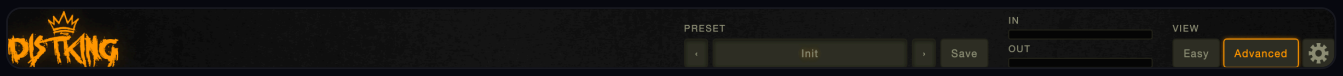
TWO VIEWS

Easy is seven knobs. **Advanced** is everything. Easy writes into the same controls Advanced shows, so nothing is lost switching back and forth.

SWITCHING A STAGE OFF

The switch on each block in the chain bypasses that stage and keeps its settings. Taking it out of the chain is a different thing, covered on the chain page.

TOP BAR, PRESETS AND SETTINGS



PRESETS, METERS, VIEW AND SETTINGS

CONTROL	WHAT IT DOES
‹ ›	Step to the previous or next preset.
Preset name	Opens the list: the factory presets, and whatever you have saved.
Save	Stores everything under a name of your own — every control, and the chain itself: which stages, in which order.
In / Out	Level going into the plug-in and coming out of it.
Easy / Advanced	Seven knobs, or the whole chain.
Gear	Settings: zoom, update notifications, and the licence.

PRESETS

Eighty-one of them, in no particular order and not sorted into genres — a list arranged by style only tells you what somebody else thought a style was. Most are well past polite; that is what the plug-in is for.

A preset is a whole chain, not just settings for the eight default stages. Loading one can bring stages in, take them out and change the order.

Your own are kept in `Documents/Prime Entity/Distking/Presets`.

SETTINGS

Zoom sets the window from 70 to 120 per cent in steps of ten.

Update notifications: on, and the plug-in tells you when there is a new version. Off, and it never contacts the internet on its own.

Licence: who it is licensed to, and a button to release this computer so the licence can move to another one.

EASY VIEW



SEVEN KNOBS, IN THREE GROUPS

The four knobs on the right are not a second engine. Each one writes into the chain's own controls, so switching to Advanced shows exactly where a macro went and leaves it editable from there. They move amounts — drive, gain, mix — and never which distortion curve you chose.

KNOB	DEFAULT	WHAT IT MOVES
Freq / Q / Gain	250 Hz	Bands two and three of the first EQ, together: the tone of the kick before anything distorts it.
Crunch	35%	How hard both distortions and the shaper are driven. The second distortion stays behind the first on purpose — two stages driven equally hard is the second one working on a signal with nothing left to shape.
Body	50%	The weight under the kick: a low bell at 58 Hz in the first EQ, and a low shelf at 110 Hz in the second so the weight survives the distortion in between.
Punch	50%	The click: a bell at 3.2 kHz in the third EQ, the shaper's harmonics, and the tone of both distortions tilted towards the top.
Space	0%	The first reverb's mix, up to 40%, and its decay with it. At zero the reverb is switched off, not left running silent.

> **WHAT THAT MEANS IN PRACTICE**
>
> Turning Crunch after you have set Dist 1's drive by hand moves Dist 1's drive. That is the point — the two views never disagree — but it does mean Easy is the place to start a sound and Advanced the place to finish it.

THE CHAIN

The signal runs left to right through whatever is in this row. A fresh instance starts with EQ, distortion, EQ, distortion, EQ, shaper, EQ, and a reverb on the end that is switched off until you ask for it.



THE DEFAULT CHAIN

GESTURE	WHAT IT DOES
Click a block	Shows its controls and its display. What you do all day.
Its switch	Bypasses the stage and keeps its settings.
Click the name	Swap it for another kind, in the same place.
The chevron	The same swap, from the small mark in the corner.
The cross	Takes the stage out of the chain altogether.
A gap	Puts a new stage in between the two either side.
+	Adds one at the end.
Drag a block	Moves it to a new place in the order.



THE PICKER OFFERS KINDS, NOT NUMBERED STAGES

HOW MANY OF EACH

Up to eight EQs and eight distortions, four clip distortions, four wave shapers, and two each of reverb, phaser and flanger. When every one of a kind is in the chain the picker greys it out and says why.

> **THE FIRST EQ STAYS FIRST**
>
> It cannot be removed, swapped or moved, and nothing can go in front of it. Easy view's Freq, Q and Gain drive two of its bands, and a chain that could lose it would leave the front page driving something that is no longer at the front.

OUTPUT



AROUND THE WHOLE CHAIN

The controls that sit around the chain rather than in it. Always on screen in Advanced view, whichever stage is selected.

OVERSAMPLING

The whole chain runs at two, four or eight times the session rate, as one block. Four is the default: two is audibly not enough once a fold or a hard clip is in the chain, and eight costs more than most people need while they are still choosing a sound. Every stage is inside that block, the reverbs included.

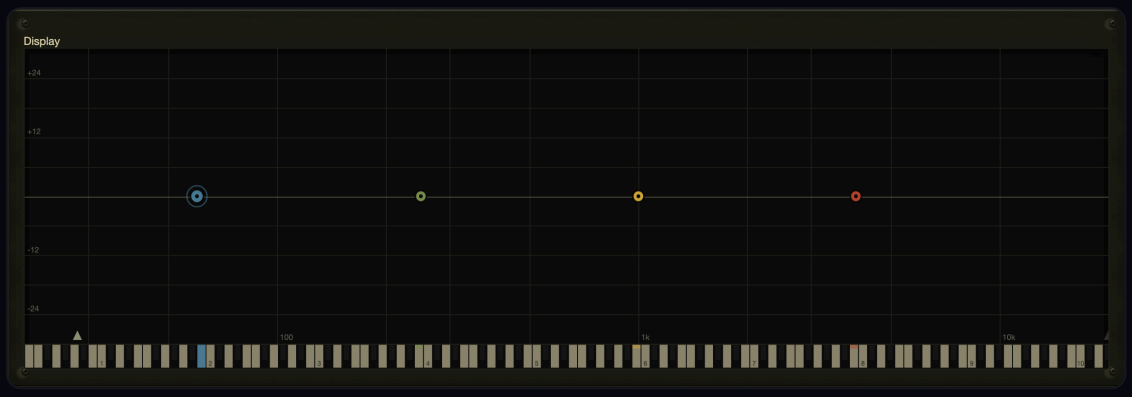
AUTO GAIN

Holds the level steady as the drive goes up, so comparing two settings compares two sounds rather than two volumes.

CONTROL	RANGE	DEFAULT	WHAT IT DOES
Input	−24 – +24 dB	**0 dB**	Level into the chain. A hotter input drives every stage harder.
Mix	0 – 100%	**100%**	The whole chain against the dry signal. Below 100% the entire distorted kick sits in parallel with the clean one.
Output	−24 – +24 dB	**0 dB**	Level after the chain, before the ceiling.
Ceiling	−12 – 0 dB	**−0.3 dB**	Nothing leaves above this.
Oversampling	Off / 2× / 4× / 8×	**4×**	Higher is cleaner and costs more CPU. Changing it changes the plug-in's latency.
Auto Gain	On / off	**On**	Level compensation for the drive.

> **A CEILING, NOT A LIMITER**
>
> This chain can produce a kick well over full scale, and the honest thing is to stop it at the edge rather than squash it and call that a feature. If the ceiling is working hard, turn the Output down rather than trusting it to make the sound.

EQ



THE CURVE OVER THE LIVE SPECTRUM, WITH A KEYBOARD UNDERNEATH



HIGH-PASS, LOW-PASS, RESONANCE, AND SIX BANDS

WORKING THE CURVE

Click a dot	Edit that band below.
Drag a dot	Frequency and gain.
Scroll over it	Q.
Double-click it	Take the band out.
Click the curve	Put a new band there.
Click a key	Tune the selected band to that note.

FOUR EQS, FOUR JOBS

They start differently because they sit in different places. The first keeps sub out of the first distortion; the second and third take the top down between the distortions, so the next one works on the kick rather than on the last one's fizz; the fourth is a gentle tidy-up.

Four bands are there from the start, flat. Two more are spares, placed by clicking the curve.

CONTROL	RANGE	DEFAULT	
HP / LP	20 Hz – 2 kHz / 200 Hz – 20 kHz	**per EQ**	The cuts at either end, each with its own switch.
Slope	6 / 12 / 24 / 48 dB/oct	**per EQ**	For each cut separately.
Resonance	0 – 100%	**0%**	A peak at both corners. Turned up on the first EQ it is a filter you sweep.
Band type	Bell, shelves, notch, band pass	**Bell**	
Freq / Gain / Q	20 Hz – 20 kHz / ±30 dB / 0.1 – 18	**— / 0 dB / 1**	Per band.
Stage Out	−24 – +24 dB	**0 dB**	Level into whatever comes next — which is how hard the next distortion is hit.

DISTORTION

The display turns into the transfer curve: what goes in along the bottom, what comes out up the side. A straight diagonal is no distortion at all; the further it bends away from that line, the harder this stage is working — and it redraws as you turn Drive, Bias or Tone.



SHAPE, DRIVE, BIAS, TONE, MIX, OUT

TONE COMES FIRST

A tilt in front of the curve, not after it. Which band is loudest going in decides which band distorts; filtering afterwards only changes what you hear of the result. Negative leans on the body, positive on the click.

BIAS

Pushes the signal off centre before the curve, which is what puts even harmonics in. Symmetric clipping alone gives odd harmonics and a kick that stays hollow.

TEN SHAPES

Soft Clip / Hard Clip	A rounded or a square top.
Tube / Tanh	Two saturations, the first warmer.
Diode	Bite, and uneven halves.
Fold / Sine	The wave turns back on itself.
Rectify	Flips the lower half up: an octave appears.
Tape	Soft, dense and compressed.
Bit Crush	Resolution rather than drive — the knob reads Crush.

CONTROL	RANGE	DEFAULT	
Drive	0 – 100%	**38 / 22%**	Dist 1 starts on Tube at 38%, Dist 2 on Soft Clip at 22%; any you add start gentler still.
Bias / Tone	−100 – +100%	**0%**	
Mix	0 – 100%	**100%**	Against this stage's own dry.
Out	−24 – +24 dB	**0 dB**	Into the next stage.

CLIP DISTORTION



THE THREE CONTROLS THAT SIT ON THE CIRCUIT, DRAWN WHERE THEY ACT



INTO THE CIRCUIT, THE CLIP CIRCUIT, ON THE WAY OUT

A chain of filters with a clipper in the middle, and the order is the effect: input gain, drive, a high-pass, the clipping, a low-pass, the mix, a high shelf, a second low-pass, output gain.

Not a ninth distortion with filters bolted on: moving a filter here changes what the clipping works on, not just what you hear of it.

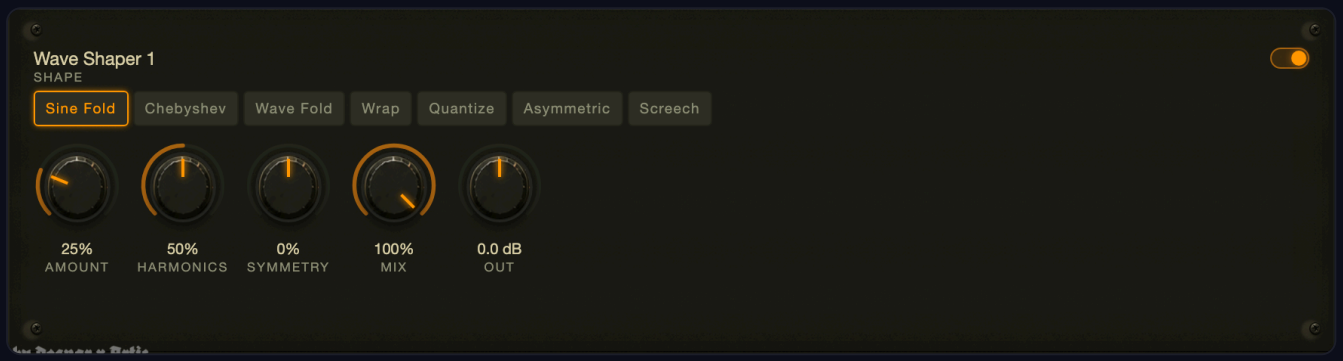
THE TWO FILTERS THAT MAKE IT

Tone is a high-pass in front of the clipping. Wind it up and the sub is left out of the decision: the top clips on its own while the bottom stays loud and loose. **Clip Filter** is a gentle low-pass behind it that takes the fizz off *before* the mix — the part people miss when they build this out of separate plug-ins.

CONTROL	RANGE	DEFAULT
Input Gain / Output Gain	−24 – +24 dB	**0 dB**
Drive	0 – 60 dB	**12 dB**
Tone	20 Hz – 20 kHz	**120 Hz**
Symmetry	−100 – +100%	**0%**
Clip Filter	20 Hz – 20 kHz	**8 kHz**
Mix	0 – 100%	**100%**
High Shelving / Gain	1 – 20 kHz / ±30 dB	**12 kHz / 0 dB**
LP Filter	200 Hz – 20 kHz	**20 kHz**

WAVE SHAPER

Like a distortion, the display shows its transfer curve while it is selected, redrawn live as the controls move. A shaper's curve is the busier of the two: folds, steps and wraps rather than a bend.



SHAPE, AMOUNT, HARMONICS, SYMMETRY, MIX, OUT

WHY IT SITS LATE

After three EQs and two distortions, the signal has a shape worth folding. A shaper first in the chain only folds whatever came out of the sampler.

AMOUNT AND HARMONICS ARE TWO KNOBS ON PURPOSE

How hard you push and how complicated the curve is are two different sounds. Harmonics is the order of the polynomial, or the number of folds; one knob for both would leave its middle unusable.

SEVEN SHAPES

Sine Fold / Wave Fold	Folding, smooth or sharp.
Chebyshev	Adds harmonics in order, one at a time.
Wrap	Past the edge, back in from the other side.
Quantize	Steps instead of a curve.
Asymmetric	Different on each half.
Screech	The one the name suggests.

CONTROL	RANGE	DEFAULT
Amount	0 – 100%	**25%**
Harmonics	0 – 100%	**50%**
Symmetry	−100 – +100%	**0%**
Mix / Out	0 – 100% / ±24 dB	**100% / 0 dB**

REVERB



THE TAIL, AT THE LENGTH AND DENSITY THE CONTROLS SET



SIZE, DECAY, DAMPING, DIFFUSION, PRE-DELAY, MODULATION, WIDTH, CUTS, MIX

Off when the plug-in loads. A kick channel is the last place somebody wants reverb they did not ask for. Easy view's **Space** switches the first one on and sets it; in Advanced you set it yourself.

It can sit anywhere in the chain, not just at the end, and it runs inside the oversampled block like everything else — so moving it does not change the plug-in's latency.

Diffusion is how the echoes arrive: at nothing, a handful of distinct repeats; wide open, a wash. **Mod Rate** and **Mod Depth** move the pre-delay so the tail wanders rather than sitting still — a few milliseconds is enough; more and it goes out of tune.

CONTROL	RANGE	DEFAULT	CONTROL	RANGE	DEFAULT
Size	0 – 100%	**35%**	**Mod Rate**	0.05 – 8 Hz	**0.5 Hz**
Decay	0.1 – 10 s	**1.0 s**	**Mod Depth**	0 – 100%	**0%**
Damping	0 – 100%	**60%**	**Width**	0 – 100%	**65%**
Diffusion	0 – 100%	**50%**	**Low / High Cut**	20 Hz–1 kHz / 1–20 kHz	**200 Hz / 6 kHz**
Pre-delay	0 – 200 ms	**6 ms**	**Mix**	0 – 100%	**12%**

PHASER AND FLANGER



TWO CYCLES OF THE SWEEP, AT THE RATE AND DEPTH THE KNOBS ARE SET TO



PHASER



FLANGER

PHASER

All-pass filters swept by an oscillator, mixed against the dry. On a kick this is not the swirl it is on a pad: two or four stages with a lot of feedback, swept slowly, is how a tail gets that hollow moving quality a static EQ cannot give it. That is why the stage count goes down to two.

FLANGER

A very short delay, swept, fed back into itself. Feedback goes both ways because the two are different sounds: positive lifts the peaks, negative deepens the notches — and on a kick the negative one hollows the body without adding a whistle on top.

PHASER	RANGE	DEFAULT
Rate	0.01 – 10 Hz	**0.4 Hz**
Depth	0 – 100%	**60%**
Feedback	±100%	**40%**
Stages	2/4/6/8/12	**2**
Centre	60 Hz – 8 kHz	**600 Hz**
Spread / Mix	0 – 100%	**50 / 70%**

FLANGER	RANGE	DEFAULT
Rate	0.01 – 10 Hz	**0.3 Hz**
Depth	0 – 100%	**60%**
Delay	0.1 – 24 ms	**3 ms**
Feedback	±100%	**50%**
Spread	0 – 100%	**50%**
Mix	0 – 100%	**50%**

SPECIFICATIONS

FORMATS

PLUG-IN	VST3, Audio Unit
APPLICATION	Standalone
SYSTEM	macOS 11 or later
PROCESSOR	Intel and Apple silicon
CHANNELS	Stereo in, stereo out

PROCESSING

OVERSAMPLING	Off, 2×, 4×, 8× — the whole chain
CEILING	−12 to 0 dB
AUTO GAIN	Level compensation for drive
LATENCY	Depends on the oversampling factor only

PRESETS

FACTORY	81, plus Init
YOUR OWN	Documents/Prime Entity/Distking/Presets
STORED	Every control, and the chain itself

THE CHAIN

DEFAULT	EQ, Dist, EQ, Dist, EQ, Shaper, EQ, Reverb
EQ	Up to 8 · HP, LP, 6 bands
DISTORTION	Up to 8 · 10 shapes
CLIP DISTORTION	Up to 4
WAVE SHAPER	Up to 4 · 7 shapes
REVERB	Up to 2
PHASER / FLANGER	Up to 2 each

VIEWS

EASY	Freq, Q, Gain, Crunch, Body, Punch, Space
ADVANCED	The whole chain
ZOOM	70 to 120%

LICENCE

One computer at a time, released and moved from your account on the website. The plug-in stores a signed licence after the first sign-in and never contacts the server again. No dongle, no subscription, and no check that can fail while you are working.

IF SOMETHING IS WRONG

WHAT YOU SEE	WHAT IT USUALLY IS
The audio stops for a few seconds, over and over	Demo mode: five seconds of silence in every twenty. Sign in and it stops.
Turning a knob in Easy undid something I set	The macros write into the chain's own controls. Crunch moves both distortions' drive and the shaper's amount; finish the sound in Advanced once Easy has got you close.
Space does nothing	It drives the first reverb. If that reverb has been swapped out or removed from the chain, there is nothing for it to turn up.
A kind is greyed out in the picker	Every one of that kind is already in the chain. Take one out, or swap one, to free it.
I cannot move or remove the first EQ	It is pinned. Easy view drives two of its bands, so it stays first.
The kick turns to rumble	Sub is reaching a distortion. Raise the high-pass on the EQ in front of it — the first EQ starts at 28 Hz for exactly this reason.
It sounds harsh and grainy at the top	Check Oversampling. Off lets the harmonics fold back down; four times is the default for a reason.
The output meter sits flat at the top	The ceiling is doing the work. Bring Output down until it only catches the peaks.
The latency changed	Oversampling was changed. Where stages sit in the chain does not affect it.
Sign-in says the licence is on another computer	It is active elsewhere. Open your account, release that machine, then sign in again.
I forgot my password	Use the forgot-password link on the sign-in page. The link works once and expires after a day.

THE ORDER IS THE INSTRUMENT.

Prime Entity is an audio production studio. Ghost production, mastering, sound design and recording, and tools built in-house for the same sessions.

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