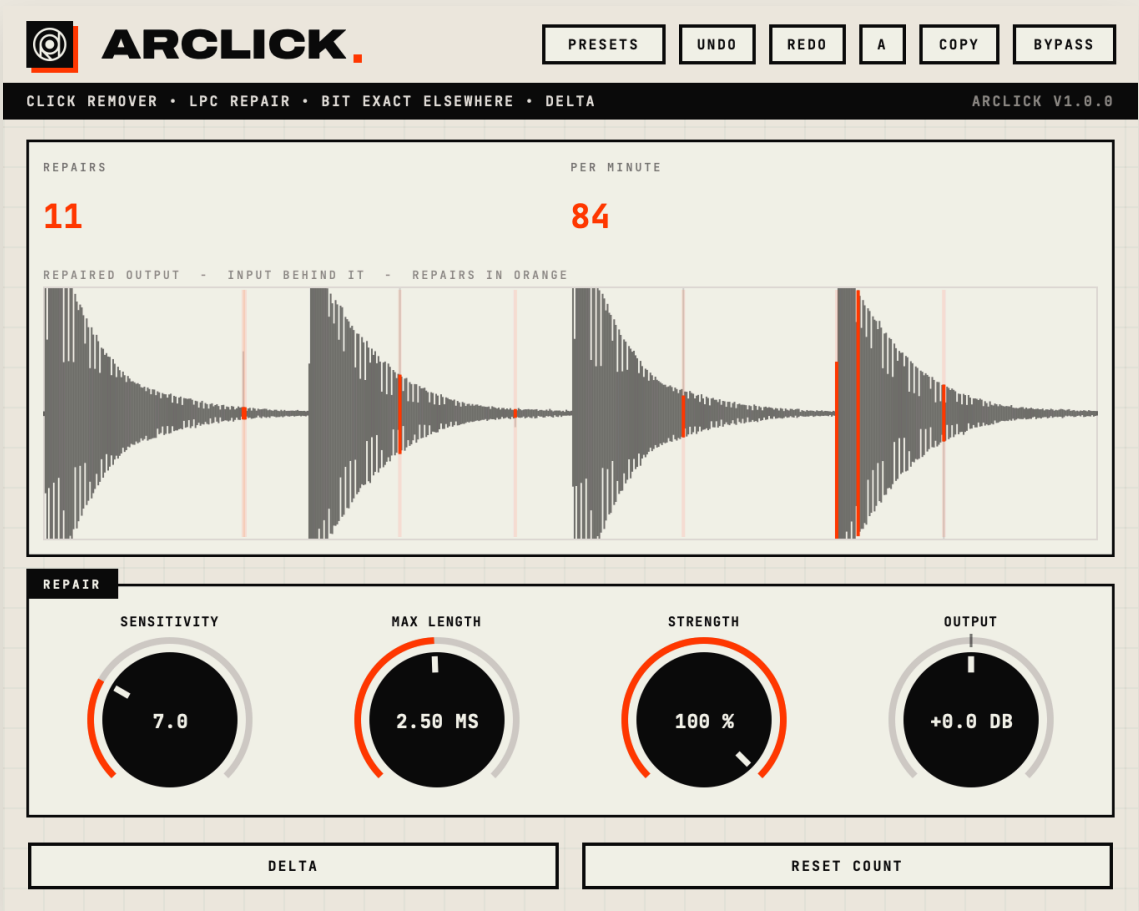


ARCLICK

CLICK REMOVER



VERSION

1.0.0

FORMATS

AU • VST3

PLATFORMS

macOS • WINDOWS

DOCUMENT

USER GUIDE

01 WHAT IT DOES

ARCLICK finds clicks, crackle, ticks and short dropouts in a recording and replaces them – not with silence, and not with a filter, but with the sound that should have been there.

For every moment it keeps a model of what the recording has been doing: it fits a short predictor to the last few hundred samples and asks what the next sample should be. When the real sample is far outside what the model expects, that sample is not music. ARCLICK marks the whole burst, then rebuilds it by running the model forwards from before the damage and backwards from after it, and crossfading the two.

The rest of the recording is not touched at all. On material with no clicks in it, the output is **bit for bit identical** to the input – not close, identical. On a recording with forty clicks, **0.26 %** of the samples were changed and every other sample came through unaltered.

ARCLICK looks **256 samples ahead** so that it can see the end of a burst before it has to repair the beginning of it. That delay is reported to your DAW and compensated automatically.

02 INSTALLING

macOS

Run **ARCLICK Installer.pkg** and follow the steps. You can choose which formats to install, and whether to install for every user or only for yourself. The package is signed and notarised by Apple, so it opens normally.

Windows

Run **ARCLICK Installer.exe** and follow the steps. The plugin is placed in the shared VST3 folder. The installer is not code-signed, so SmartScreen may warn you: click **More info**, then **Run anyway**. This is only needed once.

After installing

Rescan the plugin list in your DAW. ARCLICK appears under **Ajanss Records > ARCLICK**.

03 WHAT COUNTS AS A CLICK

A drum hit is also a sample the model did not expect. The whole difficulty of this kind of repair is telling the two apart, and ARCLICK uses three tests before it touches anything.

It has to be short

A click is over in a fraction of a millisecond; a snare hit is not. If the burst has not ended within **MAX LENGTH**, ARCLICK leaves it alone and moves past it. This one test took the number of false repairs on six seconds of drums from 930 down to 44.

What follows has to be calm again

After a real click the recording goes back to behaving as it did before. After a drum hit it does not – the whole character of the signal has changed. ARCLICK looks at the window just past the burst, far enough ahead that the model has forgotten the burst itself, and refuses the repair if the signal there is still wild. That took 44 false repairs down to **3**.

It has to be far enough outside

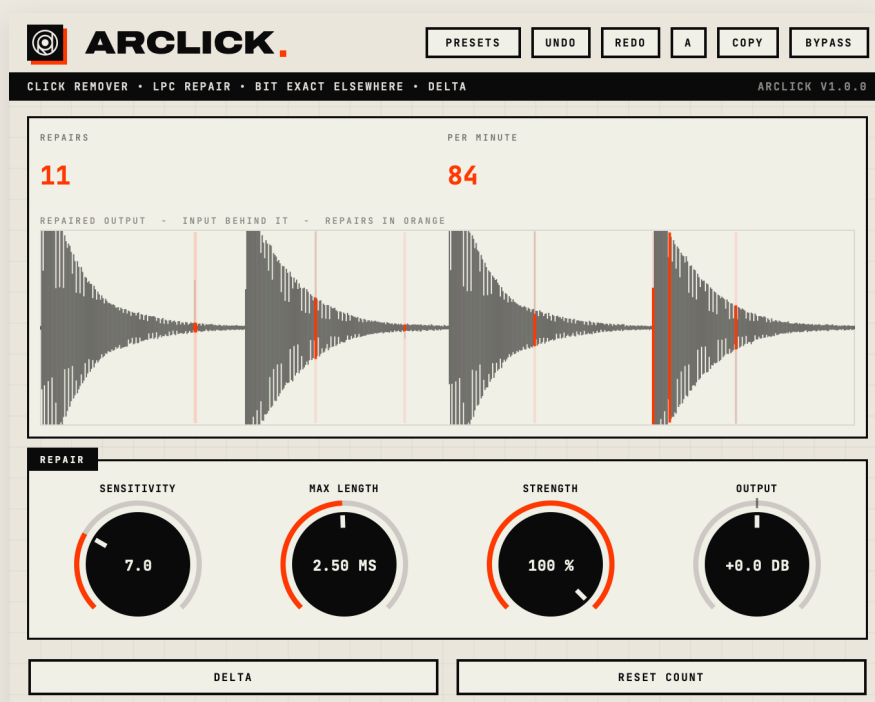
SENSITIVITY is how many times the ordinary prediction error a sample must exceed before it counts. That ordinary error is measured from the recording itself, continuously, so the threshold follows the material instead of being a fixed level.

The count in the top left is the honest measure of whether the settings are right. If it climbs steadily through a passage with no audible clicks, **SENSITIVITY** is too low and ARCLICK is repairing the music. If you can hear clicks and the count is not moving, it is too high.

DELTA is the check

DELTA plays only what was removed. On correct settings it is a sparse series of ticks and nothing else. If you can hear the tune in it, lower **SENSITIVITY**'s reach by raising its number, or shorten **MAX LENGTH**.

04 THE INTERFACE



REPAIRS

How many separate events have been repaired since the count was last reset.

PER MINUTE

The rate they are arriving at. This is the number to watch while you set SENSITIVITY, because it tells you whether the setting is finding clicks or finding music.

THE WAVEFORM

Six seconds of audio, scrolling. The solid trace is the repaired output, the pale one behind it is what arrived. The height follows the repaired material, so a click cannot stretch the scale.

THE ORANGE MARKS

Where a repair happened, drawn at the height of the music around it rather than the height of the click.

RESET COUNT

Sets the count and the rate back to zero. Use it when you change a setting, so the numbers describe the new one.

Six seconds is a deliberate choice: a repair is over in a fraction of a millisecond, and a strip that scrolls past in a moment cannot show you where they fall. Each column covers about nine milliseconds, so a mark is wider on screen than the repair was.

05 CONTROLS

SENSITIVITY 2.0 - 20.0	How far outside the expected value a sample has to fall before it is treated as damage, measured in multiples of the recording's own ordinary prediction error. Low numbers find more; high numbers find only the obvious. Percussion needs high numbers, quiet dialogue needs low ones.
MAX LENGTH 0.10 - 10.00 ms	The longest burst that will be treated as a click. Anything longer is a transient, and it is left alone. This is the control that protects attacks, and it is the first one to reach for when a drum track starts collecting repairs.
STRENGTH 0 - 100 %	How much of the repair is applied. 100 % replaces the damaged samples completely. At 50 % the change is exactly half as large, which measures as 6.0 dB – useful when a repair is technically right but sounds too clean against the rest of the take.
OUTPUT -24 - +24 dB	Level after the processing.
DELTA	Listen to what is being removed instead of what is being kept.
RESET COUNT	Zero the repair count and the rate.
BYPASS	Passes the signal through bit for bit.

There is no threshold in decibels anywhere in this list, and that is deliberate. A click in a quiet passage is small in absolute terms and enormous relative to what is around it; a fixed level would miss it and then tear a loud passage apart. Everything here is relative to the recording.

06 PRESETS

Fifteen starting points. Each pairs a sensitivity with a length limit, because the two always have to be chosen together: how obvious the damage is, and how long it lasts.

GENTLE	12.0 · 2.00 ms	VINYL CLICKS	8.0 · 2.50 ms
VINYL CRACKLE	5.5 · 1.20 ms	DIGITAL DROPOUTS	10.0 · 5.00 ms
MOUTH NOISE	5.0 · 3.00 ms	LIP SMACK	4.5 · 4.00 ms
BREATH CRACKLE	4.0 · 2.00 ms	GUITAR FRET BUZZ	7.0 · 1.50 ms
DIALOGUE	6.0 · 3.00 ms	DRUMS (KEEP THE ATTACK)	14.0 · 0.60 ms
PERCUSSION (SAFE)	16.0 · 0.40 ms	HALF STRENGTH	50 % strength
AGGRESSIVE	3.5 · 6.00 ms	SURGICAL (SHORT ONLY)	6.0 · 0.80 ms
SAFE (LONG EVENTS PASS)	10.0 · 1.00 ms		

Your own presets are saved next to these, in the **USER** tab of the preset browser.

A

 keeps a second setting you can compare against, and

COPY

 copies the current one into it.

07 STARTING POINTS

A record transfer

Start with **VINYL CLICKS** and play a quiet passage. Watch **PER MINUTE**. Lower **SENSITIVITY** until the rate stops rising in step with it – the point where a further drop suddenly finds far more is the point where it has started finding music. If a fine continuous crackle remains under everything, switch to **VINYL CRACKLE**, which looks for smaller and shorter events.

A vocal with mouth noise

Load **MOUTH NOISE** and listen in **DELTA**. Clicks between words should be the only thing you hear. If consonants appear in it, raise **SENSITIVITY** a step at a time until they stop. Sibilance is not a click and **ARCLICK** is not the tool for it.

Drums that keep collecting repairs

Load **DRUMS (KEEP THE ATTACK)**. The important control here is **MAX LENGTH**, not **SENSITIVITY**: at 0.60 ms a snare hit is far too long to qualify, so it is never a candidate no matter how sharp it is. Six seconds of drums with no damage in them produced four repairs at these settings.

Digital dropouts and edit clicks

Load **DIGITAL DROPOUTS**. These are longer than a vinyl tick and often perfectly square, so **MAX LENGTH** is raised to 5 ms and **SENSITIVITY** is kept high – the events are unmistakable when they happen and rare enough that a strict threshold still finds them.

Checking your work

Press **DELTA** and listen to the whole pass. Then reset the count, play it again, and compare the number against how many clicks you can actually hear. Those two numbers agreeing is what a correct setting looks like.

08 WHAT WE MEASURED

Reported latency	256 samples
BYPASS	bit for bit
Material with no clicks: repairs made	0
... and the output against the input	bit for bit
Forty clicks in music: how many were found	all forty
Crackle energy removed	-14.1 dB
Median reduction per click	-20.5 dB
Clicks cleaned by more than 20 dB	57.5 %
Samples changed in the whole pass	0.19 %
Samples changed only slightly	none
Six seconds of drums, DRUMS preset	4 repairs
STRENGTH at 50 %	-6.0 dB of the repair

09 SUPPORT

For questions, bug reports and feature requests, please reach us on Instagram at [@ajanssrecords](#). Please include your operating system, your DAW and its version, the plugin format you are using, and the plugin version shown in the top right of the window.

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