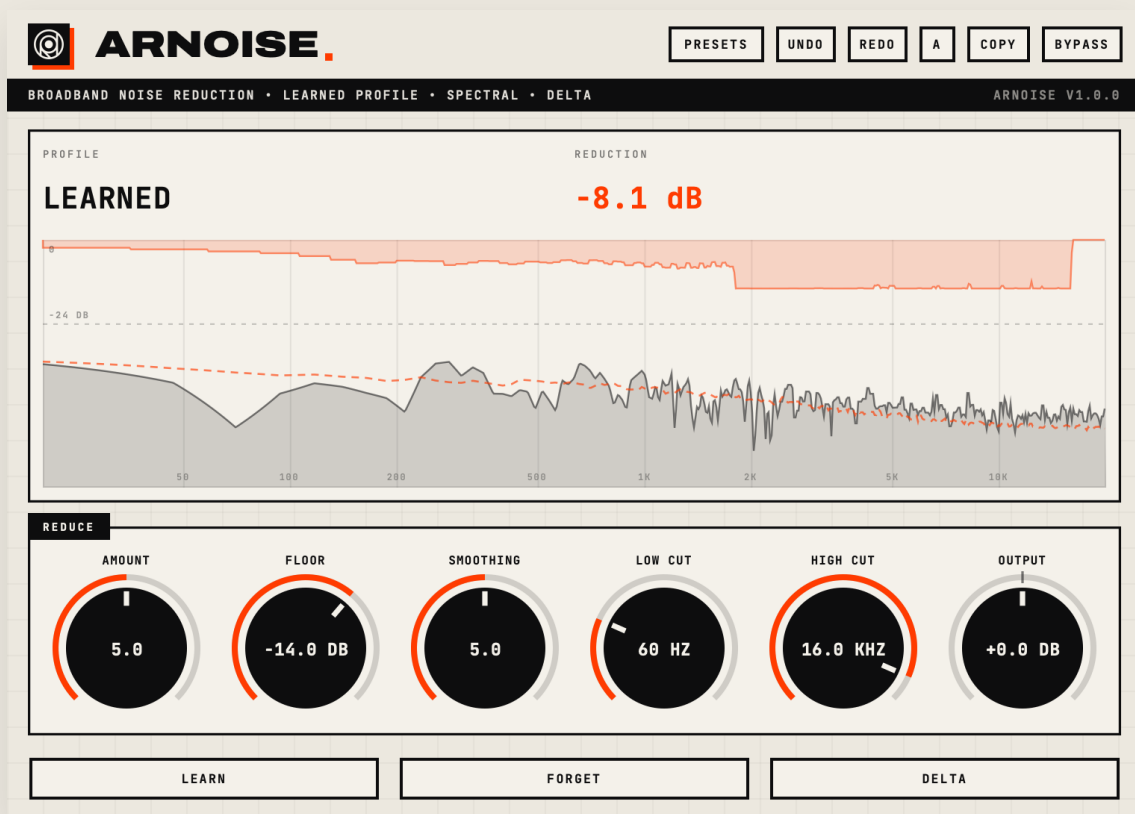


ARNOISE

NOISE REDUCTION



VERSION

1.0.0

FORMATS

AU • VST3

PLATFORMS

macOS • WINDOWS

DOCUMENT

USER GUIDE

01 WHAT IT DOES

ARNOISE removes steady background noise – tape hiss, preamp hiss, air conditioning, a computer fan, the sound of a room – from a recording, while leaving what you are actually listening to in place.

It works from a **learned profile**. You play it a second of the noise on its own and press LEARN; it measures how loud that noise is at every frequency and remembers the shape. From then on it compares what arrives against that shape, band by band, and takes out only as much as the profile says is noise.

Nothing happens until it has been taught. With no profile, the signal comes through **140 dB below** where any change would be audible – the analysis and resynthesis alone leave nothing behind.

ARNOISE reports **2048 samples** of latency, which your DAW compensates automatically.

02 INSTALLING

macOS

Run **ARNOISE 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 **ARNOISE 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. ARNOISE appears under **Ajanss Records** › **ARNOISE**.

03 TEACHING IT THE NOISE

Everything ARNOISE does rests on the profile. A good one takes about ten seconds to make and is worth more than any amount of adjusting afterwards.

Find a second of noise on its own

Somewhere in the recording there is a moment with only the background in it: before the first word, the count-in, the gap between takes, the run-out. Loop it, press **LEARN**, and let it play. The readout counts up while it learns and says **LEARNED** when it is done.

The one thing to avoid is learning a passage that has anything else in it. If a breath, a chair or a distant note is in there, ARNOISE will believe that sound is part of the background and will spend the rest of the session trying to remove it from the music.

The profile is saved with the session

What it learns is stored in the project. Close the session, open it a week later, and the profile comes back exactly as it was – every value identical, not merely close. It also survives a change of sample rate: a profile learned at 44.1 kHz and reopened at 48 kHz still lands on the same frequencies, within a few hertz.

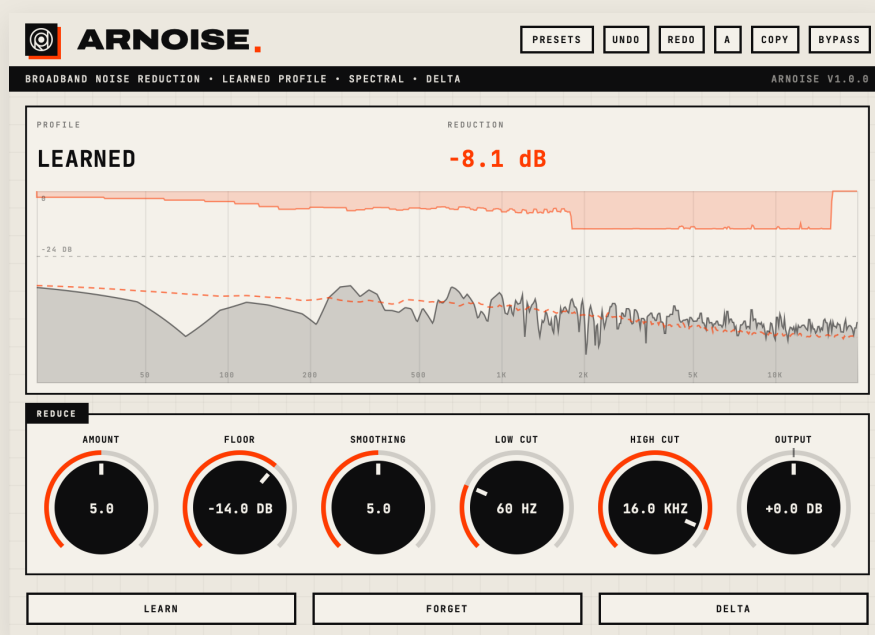
FORGET throws it away, and ARNOISE goes back to doing nothing.

Then set the amount

Raise **AMOUNT** until the noise goes, and stop there. On steady pink noise the default setting removed **9.2 dB**; at AMOUNT 8 with a deeper floor, **12.8 dB**. What matters more than the number is what it costs: with the noise 20 dB below it, a tone at 1 kHz lost **0.2 dB** in the same pass.

Use **DELTA** to hear what is leaving. It should sound like the room, and nothing else. The moment you can hear the performance in it, you have gone too far – come back down, or raise **FLOOR**.

04 THE INTERFACE



PROFILE

Whether anything has been learned yet, and how far a learn has got.

REDUCTION

How much is being taken out at this moment, averaged across the frequencies that carry signal.

THE FILLED CURVE

The spectrum of what is arriving.

THE DASHED CURVE

The learned profile. Where the filled curve sits on top of the dashed one, there is nothing there but noise; where it rises well clear of it, there is signal.

THE CURTAIN

Hanging from the top, how much is being removed at each frequency. Its scale is marked on the left, from 0 down to -24 dB. It stops at LOW CUT and HIGH CUT, so you can see the band you have chosen.

The most useful thing on this display is the gap between the two curves. Reading it tells you what ARNOISE is about to do before you hear it: a wide gap means the signal is well clear of the noise there and will survive; no gap means everything at that frequency is going.

05 CONTROLS

AMOUNT 0 - 10	How much of the learned profile is subtracted. Above the middle it removes more than it measured, which reaches further into the noise and further into the signal at the same time. Raise it until the background goes, then stop.
FLOOR -40 - 0 dB	The most that any frequency may be turned down. This is the control that keeps the result sounding like a room rather than like a machine: taking the noise all the way to nothing does not leave silence, it leaves a ringing texture in its place. Asked for 6 dB, the deepest measured reduction was 5.1 dB.
SMOOTHING 0 - 10	How much neighbouring frequencies are made to agree with each other. This is the other half of the same medicine. With SMOOTHING and FLOOR both at work, the unsteadiness that processing adds to the background was half of what it was with both turned off.
LOW CUT 20 Hz - 2 kHz	Nothing below this is touched. Raise it when the noise is hiss and the low end is music.
HIGH CUT 1 kHz - 20 kHz	Nothing above this is touched. Lower it when the noise is a rumble or a fan and the top is music.
OUTPUT -24 - +24 dB	Level after the processing.
LEARN	Measure the background from what is playing, for one second.
FORGET	Discard the profile.
DELTA	Listen to what is being removed instead of what is being kept.
BYPASS	Passes the signal through bit for bit.

06 PRESETS

Fifteen starting points. None of them can work until you have pressed LEARN – they set how hard to push and which band to push in, not what the noise is.

GENTLE	amount 3.0	DIALOGUE	60 Hz - 14 kHz
VOICEOVER (ROOM TONE)	50 Hz - 16 kHz	INTERVIEW (STREET)	80 Hz - 12 kHz
TAPE HISS	above 500 Hz	VINYL SURFACE	above 200 Hz
AIR CONDITIONING	below 800 Hz	COMPUTER FAN	below 2 kHz
PREAMP HISS	above 800 Hz	GUITAR AMP HISS	above 400 Hz
LIGHT (KEEP THE ROOM)	amount 2.5	STRONG	amount 8.0
MUSIC (SAFEST)	smoothing 8	HIGHS ONLY	above 3 kHz
LOWS ONLY (RUMBLE)	below 300 Hz		

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

An interview recorded in a noisy room

Load **INTERVIEW (STREET)**. Learn from the seconds before the first question. Raise **AMOUNT** until the street sits behind the voice rather than beside it, and stop there – taking a street away completely is what makes a recording sound like it was made in a box. **FLOOR** is doing most of the work of keeping it natural.

Tape hiss on a transfer

Load **TAPE HISS** and learn from the leader or the run-out. **LOW CUT** at 500 Hz keeps **ARNOISE** away from the body of the music entirely, since tape hiss is a high frequency problem. If the top of the record starts to sound dull, lower **AMOUNT** before doing anything else.

A hum or a fan under a voice

Load **AIR CONDITIONING** or **COMPUTER FAN**, whichever is closer, and learn from room tone. Both keep to the low end, where that kind of noise lives. If the noise is a mains hum with clear harmonics rather than a broad rumble, **ARHUM** is the better tool for it – it cancels those frequencies rather than turning them down.

Music you do not want to damage

Load **MUSIC (SAFEST)**. Low amount, shallow floor, heavy smoothing. This is the setting to use when the noise is mildly annoying rather than ruinous, and the recording matters more than the silence.

Checking your work

Press **DELTA** and listen to the whole passage; it should sound like the background and nothing else. Then use **BYPASS** and listen for what changed apart from the noise. If the record sounds smaller or further away, lower **AMOUNT** or raise **FLOOR**.

08 WHAT WE MEASURED

Reported latency	2048 samples
BYPASS	bit for bit
With no profile learned, change to the signal	-140 dB
Level deviation to 20 kHz, nothing learned	0.005 dB
Learned noise removed, default settings	-9.2 dB
... at AMOUNT 8 and FLOOR -24 dB	-12.8 dB
A 1 kHz tone 20 dB above the noise, same pass	-0.2 dB
Unsteadiness added, against SMOOTHING and FLOOR off	half
FLOOR asked for -6 dB	-5.1 dB reached
Profile after saving and reopening the session	bit for bit
A 44.1 kHz profile reopened at 48 kHz	within 8 Hz

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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